

LIBRARY OF PARLIAMENT

Canada. Parl. H. of C. *
Standing Comm. on Mines, J
Forests & Waters, 1958. 103
Minutes of H7
proceedings & evidence. 1958
M5

DATE	NAME - NOM
FEB 28 1958	C. Henault [initials]

Canada. Parl. H. of C. Standing
Comm. on Mines, Forests and
Waters, 1958.

*

J

103

H7

1958

M5

A1



HOUSE OF COMMONS

First Session—Twenty-fourth Parliament
1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 1

THURSDAY, JUNE 5, 1958

MONDAY, JUNE 9, 1958

TUESDAY, JUNE 10, 1958

Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister, and Mr. R. G. Robertson,
Deputy Minister, both of Northern Affairs
and National Resources.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958



STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baskin,
Bruchési,
Cadieu,
Coates,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Fréchette,
Garland,
Godin,

Granger,
Gundlock,
Korchinski,
Latour,
Leduc,
Legere,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,
Mitchell,

Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Robergè,
Richard (*St. Maurice-
Lafèche*),
Robichaud,
Simpson,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

Note: Mr. Hardie was substituted for Mr. Garland subsequent to the June 5th meeting but prior to the June 9th meeting.

ORDERS OF REFERENCE

HOUSE OF COMMONS,
TUESDAY, June 3, 1958.

Resolved,—That the following Members do compose the Standing Committee on Mines, Forests and Waters:

Messrs.

Aiken,	Gundlock,	Murphy,
Baskin,	Korchinski,	Nielsen,
Bruchési,	Latour,	Payne,
Cadieu,	Leduc,	Pugh,
Coates,	Legere,	Roberge,
Drouin,	MacRae,	Richard (<i>Saint-Maurice-</i>
Dumas,	Martel,	<i>Laflèche</i>),
Fleming (<i>Okanagan-</i>	Martin (<i>Timmins</i>),	Robichaud,
<i>Revelstoke</i>),	Martineau,	Simpson,
Fréchette,	McLennan,	Stearns,
Garland,	Mitchell,	Villeneuve,
Godin,	Muir (<i>Cape Breton</i>	Woolliams—35.
Granger,	<i>North and Victoria</i>),	
	(Quorum 10)	

Ordered,—That the Standing Committee on Mines, Forests and Waters be empowered to examine and inquire into all such matters and things as may be referred to it by the House; and to report from time to time its observations and opinions thereon, with power to send for persons, papers and records.

TUESDAY, June 3, 1958.

Ordered,—That items numbered 266 to 303, inclusive, and items numbered 506 to 508, inclusive, as listed in the Main Estimates 1958-59; and items numbered 580 to 588, inclusive, and item numbered 659, as listed in the Supplementary Estimates for the fiscal year ending March 31, 1959, relating to the Department of Northern Affairs and National Resources, be withdrawn from the Committee of Supply and referred to the said Committee, saving always the powers of the Committee of Supply in relation to the voting of public moneys.

FRIDAY, June 6, 1958.

Ordered,—That the name of Mr. Hardie be substituted for that of Mr. Garland on the said Committee.

MONDAY, June 9, 1958.

Ordered,—That the said Committee be empowered to print, from day to day, 750 copies in English and 250 copies in French of its Minutes of Proceedings and Evidence, and that Standing Order 66 be suspended in relation thereto; and that the said Committee be granted leave to sit while the House is sitting.

LEON J. RAYMOND,
Clerk of the House.

REPORT TO THE HOUSE

THURSDAY, June 5, 1958.

The Standing Committee on Mines, Forests and Waters has the honour to present its

FIRST REPORT

Your Committee recommends:

1. That it be empowered to print, from day to day, 750 copies in English and 250 copies in French of its Minutes of Proceedings and Evidence, and that Standing Order 66 be suspended in relation thereto.
2. That it be granted leave to sit while the House is sitting.

Respectfully submitted.

J. W. MURPHY,
Chairman.

MINUTES OF PROCEEDINGS

THURSDAY, June 5, 1958

(1)

The Standing Committee on Mines, Forests and Waters met at 11.00 o'clock a.m. this day.

Members present: Messrs. Aiken, Baskin, Bruchési, Cadieu, Coates, Dumas, Fleming (*Okanagan-Revelstoke*), Korchinski, Latour, Leduc, Légère, MacRae, Martel, Martin (*Timmins*), Martineau, McLennan, Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Pugh, Stearns, Villeneuve, and Woolliams. (25)

Mr. Nielsen moved, seconded by Mr. Pugh,

That Mr. F. W. Murphy be Chairman of the Committee.

There being no further nominations, Mr. Murphy was declared duly elected Chairman, and he took the Chair.

The Chairman thanked the Committee for the honour conferred on him and read the Committee's Orders of Reference.

On motion of Mr. Baskin, seconded by Mr. Coates,

Resolved,—That Mr. E. Nielsen be Vice-chairman of the Committee.

On motion of Mr. Leduc, seconded by Mr. Villeneuve,

Resolved,—That the Committee recommend to the House that it be empowered to print, from day to day, 750 copies in English and 250 copies in French of its Minutes of Proceedings and Evidence, and that Standing Order 66 be suspended in relation thereto.

On motion of Mr. Woolliams, seconded by Mr. Pugh,

Resolved,—That the Committee recommend to the House that it be granted leave to sit while the House is sitting.

On motion of Mr. Leduc, seconded by Mr. Aiken,

Resolved,—That a Subcommittee on Agenda and Procedure, comprising the Chairman and 6 members to be named by him, be appointed.

At 11.20 o'clock a.m. the Committee adjourned to the call of the Chair.

MONDAY, June 9, 1958

(2)

The Standing Committee on Mines, Forests and Waters met at 11.00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baskin, Cadieu, Coates, Fleming, (*Okanagan-Revelstoke*), Godin, Gundlock, Hardie, Korchinski, Leduc, Martel, Martin (*Timmins*), Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Pugh, Roberge, Robichaud, Villeneuve and Woolliams. (22)

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister; and Mr. E. A. Côté, Assistant Deputy Minister.

Pursuant to a resolution on June 5th, the Chairman named the following

as members of the Subcommittee on Agenda and Procedure, in addition to himself, namely, Messrs. Coates, Dumas, Martin (*Timmins*), Mitchell and Nielsen. He stated that he would name a further member at the next meeting.

The Chairman made a statement regarding the work which lay ahead of the Committee, in particular the consideration of the Estimates of the Department of Northern Affairs and National Resources.

Item No. 266 of the Main Estimates 1958-59—Departmental Administration, Department of Northern Affairs and National Resources—was called.

The Minister made a statement regarding the development program of the Government in northern Canada and the responsibilities of his department and of himself as Minister. He was questioned thereon.

On motion of Mr. Woolliams, seconded by Mr. Aiken,
Resolved,—That the Committee commence its sittings at 10.30 a.m.

At 1.05 o'clock p.m. the Committee adjourned to the call of the Chair.

TUESDAY, June 10, 1958

(3)

The Standing Committee on Mines, Forests and Waters met at 10.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baskin, Cadieu, Coates, Fleming (*Okanagan-Revelstoke*), Gundlock, Hardie, Korchinski, Latour, Leduc, Martel, Martin (*Timmins*), McLennan, Mitchell, Murphy, Nielsen, Payne, Pugh, Roberge, Richard (*St. Maurice*) and Robichaud. (21)

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister; Mr. E. A. Côté, Assistant Deputy Minister; and Mr. F. A. G. Carter, Chief Administrative Officer.

The Chairman named Mr. Latour as a member of the Subcommittee on Agenda and Procedure.

The Committee resumed its consideration of Item No. 266 of the Main Estimates 1958-59—Departmental Administration, Department of Northern Affairs and National Resources.

The questioning of the Minister on the statement which he had made on June 9th was continued.

Following its detailed consideration, Item No. 266 was approved.

Item No. 267 was considered and approved.

Item No. 268 was called and considered.

At 12.30 o'clock p.m. the Committee adjourned to the call of the Chair.

Eric H. Jones,
Clerk of the Committee.

EVIDENCE

MONDAY, June 9, 1958.

11 A.M.

The CHAIRMAN: Gentlemen, the committee has been changed slightly. I would like to welcome Mr. Hardie who replaces Mr. Garland. Welcome to the committee, Mr. Hardie, I know you will enjoy it.

Now, if it is satisfactory, I shall name the members of the steering committee as follows: myself, and Messrs. Nielsen, Dumas, Mitchell, Martin (*Timmins*), and Coates. That is, four Conservatives, two Liberals and one C.C.F.

Will some Conservative member from Quebec suggest one of their members? Otherwise we shall let it stand. Perhaps one of the members of the steering committee from Quebec will represent the Conservative party.

Now, gentlemen, this afternoon there is a motion on the order paper of the House relative to printing and to sitting while the house is in session. I would like to say to you, gentlemen, that I hope this motion is not opposed. It was agreed to the other day at our first meeting; but I am going to say this: that if any member of the committee desires to take part in discussions in the house when the house is in session and the committee is meeting when the house is in session, and he is interested in any particular item, we shall let that item stand to give the member an opportunity to go back and to continue his inquiry into that particular item. Is that satisfactory?

Agreed.

I have a memorandum, a statement, as a matter of fact, that I would like to put on the record and save reading it. It is my own statement relative to the aims and objectives of our committee. I have only a dozen copies and I think they will be here in a few minutes for your perusal.

It is a broad statement and there are two or three copies here. I would like it if you would go along with the chair and accept the statement as read and put it on the record. It is just a broad general statement of our objectives as a committee. Is that agreed?

Mr. ROBICHAUD: Mr. Chairman, could you give us just the details of the statement because we have not seen it? Could you give us just a brief outline?

The CHAIRMAN: Yes I could. I could do so by making a short statement. How would that be?

Mr. ROBICHAUD: I think that would be better.

The CHAIRMAN: Perhaps we may ask the minister or some of his officials to put on the record later some sections of the British North America Act which might concern us because there is an overlapping of provincial-dominion jurisdiction in natural resources. Is that satisfactory?

Agreed.

In examining the estimates and the policy of the government may I suggest at our first meeting just some of our objectives: this is partly covered in that memorandum, but I have shortened it here as follows:

1. Adequacy of our resources and requirements today and tomorrow. I realize that "tomorrow" is a very relative term and it may mean,

perhaps, generations to come. Coupled with that is the preservation of our natural resources for future use.

2. Amount of natural resources exported but unprocessed.
3. Scarcity of resources in some other countries.
4. What resources are replaced by synthetic products.
5. Extent of shortages.
6. Cooperation between the government and private enterprise and the provincial government and Yukon and the Northwest Territories.
7. Prices of these natural resources today and yesterday.
8. The extent of research and technology and the amount that is being spent not only today—but you would like no doubt to survey what has been spent in the past.
9. I think you would be concerned with the tax policy, the government tax policy.
10. Replacement policy of other countries where replacement is practised.
11. Power and its availability.
12. Geological and topographical mapping.

The next one is means of developing the tourist industry and the development of Canada by the processing of more of our natural resources. You may also want to discuss, gentlemen, national security within the limits of our committee problems.

Mr. ROBICHAUD: Before we pass on this statement, if this statement is not going to be read to the committee, I think that the members of the committee should be provided with a copy of the statement.

The CHAIRMAN: How about giving the six copies to the Liberal members? Those are all I have available.

Mr. PAYNE: Surely all the members should know about it.

The CHAIRMAN: Would you want me to read the statement?

Mr. PAYNE: I think it would be much happier.

The CHAIRMAN: All right.

Mr. HARDIE: Perhaps we might go on with the minister's statement and leave this until the members of the committee have had a chance to read it when we could decide after the minister's statement whether or not we should put it on the record. I think that some of these items go beyond the functions of the committee.

Mr. VILLENEUVE: I think every member of the committee should have a copy of it to acquaint himself with the facts. I have never set eyes on this committee before. It has been interesting to hear the chairman enumerate some of the duties we are going to have to perform.

The CHAIRMAN: Would you like to have more copies made? Perhaps we might get some.

Mr. AIKEN: The statement will appear in our committee proceedings, will it not?

The CHAIRMAN: Yes.

Mr. ROBICHAUD: It usually takes a few days before the proceedings are published. I think every member has the right to have a copy of the statement.

The CHAIRMAN: Very well. It will not take very long to read it now. It reads as follows:

The CHAIRMAN: It is a great pleasure for me, as chairman of the House of Commons Committee on Mines, Forests and Waters, to open this first session of what I think will prove to be a most interesting and valuable series of meetings.

If I may express a personal comment, I think it is a matter of regret that this standing committee has been inactive for so many years. As its name indicates, it is a committee whose terms of reference cover a very large portion of the entire resources field. Indeed, it is my understanding that it is not intended that the committee should even limit the matters under consideration to the items technically included with the terms "Mines, Forest and Waters". The committee will be giving consideration to questions that relate to the development of the vast northern regions of Canada and to the field of natural resources in general. Natural resources are the foundation of our economic wealth. The way in which we develop or fail to develop them, the way in which we use them with wisdom or with folly, will determine the character, the wealth and the strength of this country in years to come. It is thus no exaggeration to say that the subject matter of this committee is fundamentally the subject matter on which the basis of our national future depends.

As members of the committee are aware, the whole question of resource development is one that is commanding the steadily increasing attention of the Canadian people. We have in past years—since the last world war—gone through an era of tremendous growth and expansion. It has, however, been to some degree an era in which we grew without taking the time to consider the direction in which we were growing or whether the method of growth would, in the long term, serve the best interests of the country. The people of Canada have now become aware—perhaps more actively than ever before—of the importance of thinking about resources in a comprehensive long-term and coordinated fashion. They have become aware that it is not sufficient simply to exploit the resources and to take advantage of world demand or available markets in the present day without casting a look ahead to see what the results will be of particular lines of exploitation and whether we will be able—or indeed whether we should continue exploitation in the particular way that it has proceeded in the past. In particular, questions have been raised as to whether there should be an active policy that would encourage additional processing of our resources in this country before they are exported. This is of course, a most complex and far-reaching question—and undoubtedly one that does not permit of a categorical answer without considering each specific resource and the problems of a national and international character that apply to it. However, it is a question of great importance and one that has definite relationship to the resource field.

The work of the committee will first be directed to a consideration of the estimates of the Department of Northern Affairs and National Resources. As committee members are aware, the policy of the present government looking toward a dynamic development of the resources of Canada is one that is particularly related to this department. I think it would, therefore, be desirable if, at the outset, the committee were to have a statement from the Honourable Alvin Hamilton, who is the responsible minister, concerning the general character of this policy and concerning the particular applications that it will have in the immediate future and in years to come. I am sure that this will be a matter of broad and general interest and will lead to a discussion in which many members of the committee will wish to join. I think it would be time well spent if the committee were to devote at least one or two meetings to this general policy matter before coming to the departmental estimates themselves.

Following the discussion on broad policy in relation to resources and resource development, I think the committee will find that it would be best to deal with the Department of Northern Affairs and National Resources in terms of the branches into which its work falls. The department covers such a wide

range of activities in so many different fields that it is not really possible to deal with its work—as distinct from the basic policy to which I have referred—without subdividing it. The estimates are conveniently grouped according to branches and under those groupings I think it will be possible to have a well coordinated and satisfactory discussion. In relation, for example, to the national parks branch, the committee will wish to consider many questions relating to the preservation of those areas for the enjoyment of generations of Canadians yet to come. In human terms, they constitute a “resource” just as much as the things that are more normally thought of in that connection—and a most valuable resource as the population of this country grows.

In connection with the water resources branch, many very important questions arise particularly concerning optimum development of the great power potential that is available in the rivers of this country. There is in addition, however, the very important field of water conservation for, while many are not fully aware of it, our civilization is one that involves an enormous demand for water. Unless we are fully aware of this matter we can squander a resource that is as essential to us as the air we breathe.

The northern administration and lands branch involves in its work the entire development and administration of the vast northern area of Canada outside the provinces. This constitutes nearly 40 per cent of our national territory and we are becoming increasingly aware of the importance that it will have as the “third dimension” of our national development.

The work of the forestry branch relates to a resource that provides a very large proportion of our national wealth in one way or another—and a resource that calls for the greatest care in conservation and exploitation. Questions relating to reforestation, to better use of our forests, and to the uses to which wood and wood products can be turned are questions that can properly be examined under the votes of the forestry branch.

Also connected with the Department of Northern Affairs and National Resources are two organizations that will be of interest to the committee. The National Museum, which has two branches—the human history branch and the natural history branch—is an agency that can be of great value to inform and educate our people about their country. As the Massey Commission suggested some ten years ago, it is an organization to which perhaps more attention ought to be directed. The Canadian Government Travel Bureau is the other organization—and one whose work relates to the very important tourist industry in Canada.

The committee will also have before it the estimates of the Northern Canada Power Commission which involve both the work of that commission in the northern part of Canada and also the policy that has been adopted for the development of power in the maritime provinces. The questions related to this are of obvious importance and interest.

I think members of the committee will agree with me that the consideration of the estimates of the Department of Northern Affairs and National Resources will cover a very wide range of matters of fundamental importance and interest.

At a later date, following the completion of consideration of these estimates, the committee will probably consider the estimates of the Department of Mines and Technical Surveys. That is the department that provides the scientific knowledge, the technical assessment and mapping, and secures the basic information that underlies all resource development in this country—whether it is undertaken by the federal government, by provincial governments, or by private enterprise. It is not my purpose at this time to say a great deal about

the matters that will come up for consideration in relation to the estimates of this department, but it is quite apparent that the work fits in very closely with the resource field that we will be considering in the first stage.

The first item of the estimates of the Department of Northern Affairs and National Resources is No. 266.

266—Departmental Administration, \$731,410.

If it is agreeable to the members of the committee, I would suggest that I now call upon the Honourable Alvin Hamilton to give a general statement concerning the resource policy of the government. I would hope, gentlemen, that you will permit the minister to complete his statement before asking questions. Is that agreeable?

Agreed.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): Mr. Chairman and gentlemen of the committee, this is a statement which I think is well worth making at this stage because there has been a great deal of discussion in the news sources, among members, and across the country generally as to just what is the development program of the new government.

First of all, if I may, I am going to establish the general background of the philosophy which prevails in the thinking of the new government in relation to development.

In the first place we have to realize in Canada our whole history has been one of debating this question of how we would best conduct ourselves on the northern half of this continent, how to best preserve the national characteristics of our people and how to develop a country which we think we have an ultimate right to expect on this continent. In this generation the subject has come up again. A revival of interest has been evident, and we were faced, as a government, with the necessity of working out and putting into effect the details of this new development program.

Going back to the philosophy for a minute, although there are two philosophies on this North American continent we are in effect one economically; that fact cannot be escaped. However, there is the other characteristic of our problem: we are trying to preserve, on the northern half of this continent, a culture and a way of life which is distinctly Canadian. Also we have world wide responsibilities that are completely separate and yet at the same time tied up with our economic situation on this continent.

To be very blunt about it, if you go back to the experience of the Second World War you will find that the American government was very much concerned about the rapid depletion of their strategic resources and there was set up a presidential committee in that country to examine into this matter. This committee reported in 1952 and their report is known as the Paley report. The Paley report says in plain English that the resources of the United States of America are not unlimited and that, at the present time, they are in a deficit position so far as total resources are concerned to maintain their industrial economy. Naturally they have to seek out reserves both of energy and mineral resources in every land.

It is also estimated that by 1980, I believe it is, the United States will face a deficit of 20 per cent of their total resource requirements to maintain their industrial machine at the level that is expected at that time.

With these clear-cut indications to the government of the United States having regard to the national interests of the United States, which demands that they should seek out reserves, you can all understand why it was so necessary for us on the northern half of the continent to examine our position and see where we stood.

We do not blame the U.S.A., in fact, the contrary would be true—everyone would blame the American government and the American industrialist if they did not go into the areas of the northern half of this continent and seek out reserves.

We have this other feature to consider; we are the nation on the northern half of this continent and we want to make certain that the interests, not only of the present generation, are protected but that the interests of generations unborn will also be preserved.

I am speaking in terms now of the strategic policy and giving you the philosophy or the background of why we have inaugurated certain programs.

The second aspect of the program as far as the strategic concept is concerned is this: we talk vaguely of Canada being a nation of 50 millions by 2000 A.D., or of 75 millions or of 100 millions of people in the future. Yet, there is evidence on the record that there has been no thought given, in a cohesive fashion, to work out a plan of national interest for the most efficient exploration, development and use of all those resources in Canada.

The group of men responsible are those in government circles at provincial levels, sometimes at municipal levels and particularly at our federal level. A great deal of individual knowledge has been collected within certain frame-works of reference. You can go back through the files of my own department and other departments and find many suggestions which have been there for many years. I am not saying that this can be blamed on anybody. I am simply pointing out that in Canada we have not drawn together the thinking of all people, whether at the municipal level, the provincial level or the federal level, or at the private level of research in universities or private groups, so that we can work out an attack on this problem of building a nation of from 50 millions to 100 millions of people based on a concept which I think I would like to call the conservation concept.

If I might interrupt my thoughts for a moment to suggest that if the American people had to relive the nineteenth century over again knowing what they now know about their economic history, they would not have had to wait until the turn of the nineteenth century to start these great conservation methods that their nation has now embarked upon.

We in Canada, whether because an act of grace, or because of our geographical location, or simply as a result of inertia, have not had our resources depleted so widely as the American resources have been depleted, without plan. We may have, either by the grace of God, or by our own inertia, been saved from having misused our resources.

I would like to go back to our own country. I do think that if the people who now live in the central provinces, particularly in Ontario, had to relive the last 100 years, knowing now what they knew then, great changes would be made in the planning and use of resources. There is no question of attaching blame for this at all. It is simply that we have a determination to avoid these mistakes, if possible, in our country as far as the future development and efficient use of those resources.

Therefore, to recapitulate, Mr. Chairman, I have outlined a situation where the world, and particularly the United States, has an increasing demand for certain strategic commodities. Because we have great reserves of minerals of all kinds, Canada is a great centre of interest in an economico-political way. For that reason, some consideration and logic had to come in respect of exploitation of these resources.

The second reason that I have just been discussing is the fact that we are trying to develop the north half of this country with the idea that we are a nation, distinctively Canadian, with animosities toward none, but with a distinctive culture of our own, of which we are now very proud.

Having said those words, Mr. Chairman, I think it is now time to ask the committee to turn their thoughts to the Department of Northern Affairs and National Resources more specifically to see where this department fits into this over-all philosophy.

I am going to take the opportunity, which I think I must in order to fulfil my duties, of reading into the record something which I am certain, or almost certain, is not only not generally known, but was never applied. In other words, the Act in full was never enforced. This is the Act setting up the Department of Northern Affairs and National Resources in December, 1953. It is the Act that governs the conduct of my department. These are the duties, powers and functions.

As I read them you can visualize, I think, the over-all responsibilities under which I think that you, as a committee, have the right to examine the figures of our estimates to see if the money we are advocating is being well spent.

It is true in the committee that you have no jurisdiction, as I understand it, over deciding the rights or wrongs of the policy, but you have the right to see if the money that is being spent, or that we plan to spend, is being spent in a proper way. We hope that with your personal knowledge and practical knowledge at the local level you may be able to spot errors in our thinking which will help our department, and then, of course, eventually the taxpayer.

I think each one of you can get a copy of this act, and I do believe that it should be well known.

Duties, Powers and Functions.

5. The duties, powers and functions of the Minister extend to and include all matters over which the Parliament of Canada has jurisdiction, not by law assigned to any other department, branch or agency of the Government of Canada,—

So we have everything that is not definitely required to be done by somebody else.

relating to:

- (a) the Northwest Territories and the Yukon Territory;
- (b) Eskimo affairs;
- (c) the forest and water resources of Canada;
- (d) irrigation projects and water power developments;
- (e) the national parks;
- (f) historic places and monuments;
- (g) the archaeology, ethnology and fauna and flora of Canada; and
- (h) tourist information and services.

6. The Minister shall

- (a) co-ordinate the activities in the Northwest Territories and the Yukon Territory of the several departments, branches and agencies of the Government of Canada;

If I might use my own words, any activity by any department of the government of Canada shall be co-ordinated under the Department of Northern Affairs and National Resources.

- (b) undertake, promote or recommend measures for the further economic and political development of the Northwest-Territories and the Yukon Territory, and

- (c) foster, through scientific investigation and technology, knowledge of the Canadian north and of the means of dealing with conditions related to its further development.

If I may use my own words again; to foster knowledge of the Canadian north, even to the extent, Mr. Chairman, of taking the odd newsman along when I go up there.

The CHAIRMAN: Not members of this committee, however!

Mr. HAMILTON (*Qu'Appelle*):

I have had requests now from business people and from diplomats, so there would be quite a variety, but that is laid down in the act as one of our responsibilities.

This is the part of the Act I would like to emphasize, if I may.

7. (1) The minister may formulate plans for the conservation and development of the resources of Canada and for research with respect thereto, and, with the authority of the Governor in Council and in co-operation with other departments, branches and agencies of the government of Canada, provide for carrying out such plans.

That is the full meaning of the word "may formulate plans for the conservation and development of the resources of Canada".

(2) The minister may co-operate with the provinces and with municipalities in carrying out any conservation or development plans under subsection (1).

It is put on my shoulders, the duties of cooperation with provinces and municipalities in the carrying out of any of the plans which are adopted, with the approval of the governor general in council.

(3) In carrying out his duties and functions under this section the minister may consult with and inaugurate conferences of representatives of producers, industry, the universities, labour and provincial and municipal authorities.

8. The minister has the control and management of all lands belonging to Her Majesty in right of Canada except lands specially under the control and management of any other minister, department, branch or agency of the government of Canada.

9. The minister has the control, management and administration of the National Museum of Canada, and shall collect, classify and arrange for exhibition in the museum of such specimens as are necessary to afford complete and exact knowledge of the geology, mineralogy, palaeontology, archaeology, ethnology and fauna and flora of Canada.

10. The minister shall administer all acts, orders and regulations, not by law assigned to any other minister, relating to any of the matters mentioned in sections 5 to 9.

11. The minister shall, on or before the 31st day of January next following the end of each fiscal year, or if parliament is not then sitting, on any of the first five days next thereafter that parliament is sitting, submit to parliament a report showing the operations of the department during that fiscal year.

Now, gentlemen, those are the duties I have listed, and I hope that each of you go over them in your own time and realize the width, and at the same time, the depth of the responsibilities of this department. But if you want this aspect in one simple word: this is a planning department. We formulate plans and then of course have certain responsibilities for the administration of the scale.

I have taken this time deliberately because I wanted to put it in perspective of the latter part of the statement I am going to make.

What is the present status of the so-called national development program? If you recall, I introduced my remarks by stating the philosophy that we would have to know just where we stood in relation to this world demand, particularly American demand, for the resources of this country.

For your convenience, and use, I have brought a map from the department, which is neither official nor anything else. It is typically a planning map. It illustrates the type of thinking that goes on by those of us who are trying to put into effect general policy directives.

Now let us start with the basic assumption that you are going to build for a nation of fifty or more million people. What do you need to know? You need to know first of all your energy resources. Then, secondly, you need to know your mineral resources. I should not put it that way. I should say other resources to which the energy resources will be applied. Those are the two unknowns because today, referring to energy resources, we do have some knowledge of our coal resources. One province, the province of Alberta, has made a good effort to evaluate and to assess the extent of their petroleum resources, both oil and gas. We do have some knowledge of the energy associated with water-power.

Those are the areas we know but, generally speaking, outside of those energy sources we have almost no knowledge of our energy resources in Canada. Energy is the basic ingredient of a modern industrial state. As I said, outside the province of Alberta, British Columbia has made no estimate of its potential oil and gas resources. Saskatchewan has no such estimate, nor has Manitoba. Ontario in many areas has made no estimate of its potential along the St. Lawrence river lowlands.

Therefore, I can say with no strong possibility of contradiction that outside of the province of Alberta we have no estimates at all of our oil and gas resources.

In my own department, which is responsible for the territories, without implying criticism, I doubt if they could state, even within one hundred square miles, the amount of oil land, let alone the area of gas and oil reserves. It would be humanly impossible to do so. Therefore, in effect, we have in that part of the energy inventory no exact estimate at all. Going on farther with propane, buthane, methane, and all the other energy components, we have in effect no list of areas, no inventory, and are completely working in the dark as far as planning for a nation of fifty or more million people.

The second part of the scale, the natural resources, we do know, as a result of good work over the last ten or twelve years, something about our forest resources. But when it comes to minerals, any percentage you take within an area is as good as anybody else's percentage. I use the percentage that 50 to 70 per cent of the area of Canada is not only unexplored for development but is probably—outside a little bit of air transportation—inaccessible to exploration. It is with great deliberation that I use these figures because I do not want to get the reputation of being inaccurate. However, any figures that you take—and this is where this map comes in—if you are going to find out what your inventory is both energywise and resourcewise, you have to take, as I say, an inventory and maintain a rolling inventory or rolling audit.

With the question of energy we had to move rather quickly. It is government policy, not necessarily entirely that of the Department of Northern Affairs. In setting up an Energy Commission we wanted as quickly as possible to have available a National Energy Board and so the Royal Commission were given terms of reference which asked them to set up the framework under which a National Energy Board would operate. That was the fundamental purpose of that Royal Commission, to give us the framework, not only the terms of reference for that Board but what their duties would be in looking after this over-all national field, in so far as the whole energy picture was

concerned. It has been many years overdue. Several Canadians may rue the time already wasted on this matter,—and once again I say there is no one in particular to blame.

In regard to the northern resources of this country, I am going to talk in terms of minerals. This map shows a stage in our planning last fall. We took the upper half of these provinces and we coloured in as accurately as we could from the information that we had what were the general oil areas and the mineral areas. This map shows potential mineral areas in red. It is the Canadian shield, and up through the islands you will note these troughs here. That does not mean that areas which are not red are not mineralized. It simply means that these are the general areas based on the information of the Department of Mines and Technical Surveys, and our own.

With all these actual mines discoveries, geological surveys, magnetometer surveys and gravity meter surveys, we were able to say that we definitely know that this is a mineralized land. These darker areas, which are supposed to be blue, are oil areas. This extension goes right up to the tip of Ellesmere island. Having put those things on with a series of overlays you can see where a program can begin to develop. In this national program if you are going to produce enough information on which to plan, have nothing, in effect, except generalities about our country, we had to delineate broadly the resources of this country.

Now to delineate does not imply knowledge of every last cubic foot of gas, indeed very last possibility of mineralized areas. Mineral exploration, for example, is a question not only of area but of depth. But when I use that figure of 60 to 75 per cent of our country unexplored I mean it horizontally, and I do not mean it vertically as well. It will take us a very long time to even get an idea of the potential.

So this gives us the dimensions of our problem. If you are going to delineate and then to explore, you have to open up the country to get an idea of what you have got. Just as in Alberta where they have 8,000 oil wells they are able to work out a formula, which will give them a potential in oil and gas for 100 years, so, by opening up the country here and there we too can eventually work towards building an inventory which will give us a rough idea of our wealth, not only in the proven but in the potential stage.

In the delineation of these resources and opening up the country I went to the Department and asked what their plans were. They have been working on these plans, and some of their ideas, as a matter of fact, were put before the Gordon Commission in 1955, in the briefs on the Yukon and the Northwest Territories.

About the only thing that I did as a Minister was to bring these programs for 25 years down into a five-year program, that is as far as they affected the Territories. But, there is no use building—as the department officials had recommended—a network or a grid on the roads over the northern third of our country unless they were tied in to the settled areas to the south. We then worked out a concept of opening up the northern areas of the provinces to tie in with our grid system in the territories.

Now, these lines of projected roads here are not accurate. (Incidentally, I want to discuss them in more detail later on—they are just projected lines.) Well then, it was clear to us, there, that in the western Arctic we had to tie up our grid system in the Arctic or elsewhere with the settled areas to the south. This meant, in the case of British Columbia, the road down to Cassiar which was talked about and agreed upon a year or so ago. It meant running a road from Alberta. Here you have the Mackenzie highway in Alberta running north to the Great Slave lake. It meant rebuilding that. If the railway was built, it would have to go—very generally—parallel to this road. This does not mean that this is the exact route of the railroad, in case any of you are asking. There

is also projected routes tying these all in the area. In the fall of last year some of this was planned in this country and for any of you who are from Saskatchewan this does not mean the route of the road. The agreement called for is not completed and I must keep quiet and not say any more. This is merely the planning stage.

We are working with the provinces. Without divulging anything that is improper, you can see what the concept would be if we were to delineate our resources. By looking at this map the red colour shows the mineralized areas. As everyone knows, the Canadian shield runs through here.

In Quebec you can visualize too what I am thinking in opening up the country. In building a road from A to B over the provinces you have to take account of people living in between the roads A or B but the best would be, primarily, how many new areas do you open up.

Now, in the eastern Arctic—I am switching my subject now—the approach would be by sea as these lines on the map indicate. And once again, I think it is safe to say there is nothing secret in this. One of the tremendous reasons why we are taking so much interest in Baffin island is that this island has one of the most active staking programs in connection with iron ore. Iron ore, of course, lies along the Grenville trough here or the Alberta trough. Iron ore with nickel is across here on the map. Just on the basis of information of the last year or so, this whole area may very well turn out or prove to be richer by far in volume of iron ore than the Mesabi Range. It is important to remember that the American industrial complex has been built largely on the Mesabi. It looks, proportionately, that we will have more, but I am not going to say how much more. This underlines the importance of government action to see that these resources are made available for exploration and then of course, as some of you are thinking ahead of me, you will know what the next big decision has to be.

Now, I am going to go back just a step. To carry out this program of building for a population of 50 million or more people the first two parts of the program are: firstly, a grid system of roads to open up new areas in the Northwest Territories and secondly, a grid system in the northern part of the provinces right across Canada to open up their resources areas. Coming from the west we could use the grid system here on the map and in the eastern area use the method of sea approaches. We would use the sea navigation here and road navigation here. Some of you will ask why this planning road comes along the side of the Canadian shield to Coppermine. The Member for that area will know you are running along the toe of the Canadian shield. If you move over here you are running across the grain of the land. This would be very expensive and it would be very doubtful if any government would recommend it at this stage. But, if you know a little bit about the area running along the Mackenzie river basin here, your road goes down. You are running from Great Slave lake where there is known mining activity, up along to Great Bear lake where there is also known mining activity and up to Coppermine where there is potential mining activity. Coppermine is right on the Arctic, so this is one of the roads through to the Arctic to lead to a mineral resource when the economic demand for the product that can be produced is felt.

I am going slowly here because the test of the planning I think, is whether one is in the west; this one runs through the Yukon, and through here, on to the seaboard approaches. The road may end up at Fort McPherson or further north or further south according to the ways the surveys will indicate it should be.

This brings me to the crucial question which affects Members of Parliament who are responsible to the people in their constituencies for the spending of the taxpayers' money.

I shall quote the estimates slowly and carefully to indicate that we are spending this money wisely, and as an indication that it is tied in with the long range philosophy or policy of this government.

This road will run from 30 miles the other side of Dawson City, working its way up here through the oil expansion area, through the mountains, and on out to the coast. It is estimated that it will cost, over the next five years, between \$5 million and \$8 million. That is only an estimate. I say \$5 million to \$8 million with the hope that every Canadian—not to mention the Minister in these thoughts—that we can keep the cost down to that figure because if it is too high, then the whole program will collapse because of the cost of building the first stage in our program; \$5 million to \$8 million over a period of five years.

The reason I emphasize and repeat that estimate is that I have seen statements in the House and in the public press suggesting that we are spending tremendous sums—hundreds of millions in the north where nobody lives. This statement is not intended to precipitate a fight in the committee at all.

I ask you to examine the figures. The estimate is \$5 million to \$8 million over the next five years. But at this very moment private oil companies have taken out oil permits in this area roughly from there right through—and there are some down here—to a total of approximately 65 million acres.

If you would like to have a breakdown of the figures since September 23, 1957, when the first indication was given to the oil companies that the policy of the government was changing in so far as opening up the area for exploration was concerned—it was last September when individual oil companies were informed that we were changing the oil regulations—since that time 35 million acres have been taken up in this area affected by this road.

That means, in dollars and cents, that they have deposited in the hands of the government since September 23, the sum of \$1½ million as a guarantee that they will comply with the regulations under those permits and explore this area to put into round figures as another estimate, I would be very surprised if the companies, which have performed the minimum under this estimate, do not spend a sum approaching \$50 million. That is the minimum which they have to spend in order to hold these permits for exploration; it is around \$50 million.

Actually the amount spent in the period of holding these permits will probably be in the neighbourhood—as an estimate—of \$150 million to \$250 million.

As a Minister I cannot deal with precise figures in these matters because the information that you do have about individual companies and their plans is such that all you can do is make an estimate but my point is this: that you, on behalf of the taxpayers of Canada, will be asked to vote a small sum in the estimates, for instance, for certain work to be effected along that line this year. But it really means a commitment that you are agreeable to spending over \$5 million—from \$5 million to \$8 million—and already the oil companies through a total of 781 permits they have taken out, indicate a willingness to put in \$50 million cash, and this sum may go to the neighbourhood of \$150 million to \$250 million over the period.

Now, is it visionary in the sense that it is not tied down to hard-boiled economics?

Let me quote you another example: this so-called Pine Point railway—this line on the map is not an indication of where it will be—will cost in the neighbourhood of \$65 million. The government will have to put up a part of that \$65 million in the form of the traditional development subsidy.

But this is the point: that along with that railway there will follow—we have between \$200 million and \$300 million of investment of private capital not put up by the people of Canada, not put up by the railways, but put up by other investors.

I am going slowly here because the test of the planning I think, is whether a project is economic or not. I am going back.

What is the final location of this railway? Does it go up here following the Mackenzie highway or does it follow the eastern route? At the end is one of the richest deposits in North America of lead, zinc and copper.

At the present time lead and zinc prices are depressed, but I need not talk about that now; it is because of all the surplus supply.

But read the Gordon Commission Report and read the Paley Report and you will find that the long term interest is the prospect of 400 per cent more lead, 400 per cent more zinc, and 200 per cent more copper which will be required by 1980 to meet conservative estimates of the Gordon Commission for these products.

The time when a country should try wisely to use its resources—this is about these problems—is not when the demand comes either through the threat of war or war or through the shortage of supply: it is by looking ahead, many years ahead. And if we, in our planning can put certain facts and figures before the people of Canada either in the form of energy figures, the willingness to build roads, or railways, or sea routes, or water routes, or air routes, then we are providing for these capital goods within the function of government—power, communication and transportation—to allow private enterprise to go in and develop these resources.

As I see it, the function of government is to shift its attention one way or another to direct, in effect, the most efficient use of these resources into this or into that area.

As we see the picture developing and think not in terms of 1960 or 1961 but in terms of 1965 and 1970, then we are thinking ahead at all times.

I have just about completed my statement but I have only touched on two aspects of this development program which, in my mind, is a ten point program.

The first two aspects are the roads and the resources which relate specifically with them. That is my program.

I have not mentioned our plans for power which come under water resources; and I have not mentioned the question of resources in the Arctic which come under northern administration. I have not gone into the plans for Frobisher Bay because they will be dealt with in detail later, I trust; and I have not gone into the question of a second Trans-Canada Highway which is the responsibility of another department.

But I would like to conclude with the tenth point of the program. Incidentally, I am assuming that everybody has these ten points which were announced in Winnipeg on February 12.

The tenth point is that of conservation. There will be a conservation conference called to plan the most efficient and effective use of the resources of this country at national, provincial, municipal, private and research levels, because there is no use, gentlemen, in building roads and finding out the area of energy resources and finding out the area of mineral resources and in put-

ting them together in juxtaposition, planning for the processing here in Canada—there is no use in doing all this work if there is not some thought given to a long range conservation concept of the most efficient use of those resources.

Now, I shall be saying many more things during the course of the question period. I have not dealt with so many things I would like to deal with. Some of you have heard the adage that there is no use in trying to tell everything all at once.

All I have done is to give you just the faint lines of a blueprint. There is nothing about the type of transitional stages and nothing about the treatment of the people, and nothing about what was mentioned by the Chairman in his introductory remarks—about what your certain duties are. I have just tried to give you a broad, general picture. I may have missed out some of the finer, smaller details; but I want to make it clear that unless we formulate a plan for the use of our resources we may lose the long range strategic necessity of having control of those resources in our hands, either for world use, or for people over the world, or most effective use in the North America economic picture.

With those thoughts in your mind I hope that you will question me and members of the department on the individual Votes as they come up in the light of this over-all statement.

Thank you very much.

The CHAIRMAN: On behalf of the committee, Mr. Hamilton, I certainly extend our thanks.

I might just observe here, members of the committee, that you have an idea of the challenge which faces us as members of this committee. I hope you will agree that we may have the minister or his senior departmental officials make an introductory statement as each particular department is called.

Some of you might like to make some observations and ask questions of the minister.

The CHAIRMAN: I would like to say to the new members please do not hesitate to ask questions. You may be ruled out of order, but I would rather you ask a dozen questions and be wrong than not ask any.

Mr. AIKEN: I would like to ask the minister a question. In the development of our resources we will assume that mines, for instance, are developed by American capital or Canadian and, regardless of this, what comes back to the people of Canada in the way of taxes and so forth in actual financial terms?

Mr. HAMILTON (*Qu'Appelle*): I think there is a general explanation which would apply to all development. In the provinces natural resources belong to the provinces and in the Territories, at the moment, they belong to the federal government but are only held by us in trust for the people who will some day live there. Speaking of ourselves and the provinces, together the direct revenues are the money from permits, fishing licences and so on; but the federal government has a specific interest far above the ordinary revenues the provinces are limited to. The provinces have an interest in petroleum resources at 12½ per cent plus bonuses and so on and in minerals, in Ontario, on a sliding scale. In the Territories we have a different level of percentage based on the particular amount of production.

The federal government has one thing which has not been mentioned and it is much more important than all the royalties obtained: that is the corporation tax. If we are to open up a new "Porcupine" or "Beaverlodge" road and even one of these roads opens up a new "Porcupine" or a new "Beaverlodge",

the federal government will then receive, in corporation tax from the profits of those companies, many times more dollars than will ever be spent on building the roads.

Mr. ROBICHAUD: Mr. Chairman, I want to join with you in thanking the minister for the clear statement he has given this committee on the conditions and, more so, on the road construction program for the northern section of our country. When the minister spoke about northern development I think he said—and I believe I have his words—“This is why we have inaugurated certain programs.” Does he mean the government as a whole, or his department, or is it the continuation or implementation of a program which has been started and prepared in the past? Before asking a second question I would like the minister to be specific on this statement.

Mr. HAMILTON (*Qu'Appelle*): Yes; we are getting into details. The Department has planned a program according to the submission to the Royal Commission which they thought should be undertaken before 1980. As you know the submission received very short shrift from the Gordon Commission. They do not give very much emphasis to the northern development part of it. However, as the department over the years was able to obtain funds they were building a road here, a bridge there, and there was a program of capital expenditure going into the opening up of the northern areas; but I think, in all fairness to my department and myself, we moved in with this other concept of rapid delineation of resources to see what was there. The Department had to speed up our concepts of thinking in terms of providing a bridge here and a few miles of road there. The concept of speeding up was new and we first began to work on the beginning of that last September.

I will be glad to point out those parts of the programs which are planned, either in the form of estimates of the district or in the parks or anything else as we go through the estimates.

I am following, for instance, in respect of the National Parks, the road program in exactly the same formula as laid down five years ago by the Department, but we are attempting to squeeze it up a year or two. I will be glad to lay down what was planned prior to my coming into the department and what I have in mind in these estimates. Some of the items in the estimates are already started and some are being speeded up.

Mr. ROBICHAUD: I thank the minister for his explanation. I have another question at this moment which may give us some information for future meetings of the committee. Could the minister give us the details of the department's policy in respect of road construction? Is more emphasis being given to railroads or more emphasis being given to construction of ordinary roads in view of the difficult conditions of maintenance or construction in the areas concerned?

Mr. HAMILTON (*Qu'Appelle*): Well, quite frankly we have not looked on it on that basis at all. What we have looked at is the country as a whole. In some areas obviously the thing to do is to use air transport. In many areas of the Arctic where you have no roads, the most efficient way is to use air transport. Air transport is always the best way in certain areas. Certainly in certain parts of the Mackenzie river air transport is the obvious way. Along the Mackenzie river there is no doubt that water transport will be the best way, and in other areas the road method is probably the best.

We did not consider how many millions of dollars we are putting in railroads or in roads. In respect of the railroad, the fundamental economics of the problem at the end of the road entered into it. If it is not suitable for truck transport to bring out the ore, in that case the railroad is the only logical way.

I would think the answer to the question is, we have not put it down in division but rather simply what is the method of transport or communication best suited to the product being brought out of an area. Certainly there is nothing doctrinarian about the thing. In the northern area we cannot afford to have duplication of railroads and roads, or anything else.

Mr. PUGH: I notice under item 268 there was \$1 million last year, and \$1 million this year for picnic sites and camping ground areas—

The CHAIRMAN: That is item 268, perhaps you would discuss that item when we reach it.

Mr. HARDIE: Mr. Chairman, when listening to the minister make his statement, I see that he has, as did the last Minister of Northern Affairs and National Resources, a great enthusiasm in the development of northern Canada. He has mentioned the Paley report and these other reports and I thought that he had read the speeches made by the former minister and the deputy minister of his department over the past five years. In respect of the road program I think he mentioned the road to Coppermine will be a five-year program.

Mr. HAMILTON (*Qu'Appelle*): No; not to Coppermine. The timing of a road would depend on the use of the product at the end of it. I think I would have a right to be challenged by any member of this committee if I went ahead and built a road through for a commodity long before there was a market for the commodity. If you examine my remarks, I think you will find I said you would have a right to question my timing in relation to that. Then I referred to the Yukon road, and we know now that the money going in there is right in tune with the need.

Mr. HARDIE: In that case, I am just wondering particularly about this road from Flat creek to either McPherson or Tuck which is being built. Could the minister refer to the number of oil leases that have been taken out since last September 23, and the amount of money that has been spent, which was, I think, \$50 million? I wonder if the minister could tell us the number of oil leases taken out in the Field Plateau reservation prior to September 23, and could he also give us an idea of the results of the drilling by the oil companies in that area up until now?

Mr. HAMILTON (*Qu'Appelle*): I have a map right here with all the leases on it which is public knowledge. I was going to ask to leave it until that particular estimate item came up, but it is a matter of general interest.

Those of you who are at a distance will have to take my word for it, but this whole area here is roughly the area. This is the boundary here running up to here. This is the boundary of the Yukon Territory. Both the Yukon and the Mackenzie river basins are included.

Generally speaking this is the history: there were two large reservations taken out in 1953 by a Canadian company. One was taken out in the Eagle Plain reserve and the other was taken out in the Peel Plateau. That was in 1953. These are roughly three million acres each. They have made a tremendous contribution to this whole area by spending a large amount of money. To give you a rough figure, they have spent \$1,500,000, for instance, in drilling one hole here.

The interesting thing about these areas is that the sedimentary basins are 20,000 feet deep here in the Mackenzie river area. In the prairies the sedimentary basin runs to 3,000 feet, 5,000 feet, 6,000 feet and only occasionally as deep as 9,000, 10,000 or 11,000 feet. You are dealing here with an altogether different type of formation, and you encounter new problems.

Because these two companies were in there, there were some isolated permits taken out around them, with no activity in them until last summer. The rush started last summer when word got out of the fact that this company

was drilling. There was some staking last summer. Whether it started on June 1 or not is not the point. It was completely separate and apart from government policy.

Mr. HARDIE: Private enterprise moved in and others followed them?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. LEDUC: A private enterprise built a road.

Mr. HARDIE: A winter road, a tractor train road.

Mr. HAMILTON (*Qu'Appelle*): That was a tractor train used in the winter.

There was also some staking and permits taken out in what we call the upper Mackenzie which is an extension of the Peace river or upper Alberta staking activity. This spring, I would say, there was roughly 25 million acres that went out mostly in this area, and some around here. The six million acre area here was a big item. There has been a little bit taken out here, with no activity carried out. There was a great deal of activity in the form of permits taken out here, amounting to, I would say, 25 million acres or 30 million acres. If you wish I can get the amount taken out after June 10.

Mr. HARDIE: I do not want that information.

Mr. HAMILTON (*Qu'Appelle*): Out of the 65 million acres shown here, 35 million acres were taken out after September 23, 1957. I think there were about 10 million acres taken out during the summer, but that had nothing to do with us.

Most of the interest resulted from the announcement that we were changing these oil regulations and that we intended to do certain things to speed up exploration in these areas. This tremendous rush extended not only to the shores of the Arctic but out to some of the islands in the Arctic itself.

I do not know whether that is a full answer to your question or not.

Mr. HARDIE: Does the minister know, in respect of these leases that were granted, whether they have been worked and how many have been dropped?

Mr. HAMILTON (*Qu'Appelle*): I can get those figures for you but most of the dropping, as you know, has taken place in this area where the exploration problems were tremendous. The activity in this area was limited pretty well to these two reservations, and almost all to the Peel Plateau reservation.

Of course, in the last three months, of these 35 million acres that have been taken out, 29 million have been taken out since February 10. In other words, the big rush has been going on since February 10 when the announcement was made public. It first started following an indication that we were interested and that we wanted to speed up exploration, and following the announcement of intended changes in the oil regulations. The oil regulations have not been promulgated yet. We are still trying to make them better than we thought they were a month ago. The problems are great, and we wanted to maintain the public interest and to see the delineation of these resources.

At the same time that this road is serving the economic purposes of the oil interests it will open up one of the richest mineral areas in Canada and the Yukon.

Mr. HARDIE: Are surveys going on now?

Mr. HAMILTON (*Qu'Appelle*): On the road, you are speaking of?

Mr. HARDIE: Yes. You said there were possibly three different routes in respect of this road from Flat creek into this area. Has the surveying been completed in that area?

Mr. HAMILTON (*Qu'Appelle*): No. We have just moved the equipment in, and set up the materials. That was done in February when the winter road was frozen.

Mr. HARDIE: How do you estimate the cost of \$5 million to \$8 million to complete the whole road?

Mr. HAMILTON (*Qu'Appelle*): By talking to men who have built roads up there; by talking to the territorial engineers; by talking to people who built the Alaska highway; by going over roads that cost so many thousand dollars per mile; by looking at the roads and bridges myself, and then taking the uppermost figure arrived at as a result of that information.

Mr. HARDIE: Will this road then be of the standard of the Alaska highway?

Mr. HAMILTON (*Qu'Appelle*): No.

Mr. ROBICHAUD: What is the total mileage of this road?

Mr. HAMILTON (*Qu'Appelle*): We estimate about 450 miles. The standard of the road will be different than that of the Alaska highway. This will not be a highway for the general public. This is a road to enable the moving in of exploration equipment; loads of 60,000 pounds. The road may be built in some places to an 18-foot top only, and in other places to a 22-foot or 24-foot top. The main idea, depending on the geography, of course, was to get through and open up this area.

This particular road will be of such a nature that should it become necessary to change it in order to facilitate the transportation of goods in large quantities, that the cost of changing it from a development road carrying heavy trucks at speeds of 30 miles an hour, to a road carrying passengers and trucks at 60 miles an hour will be at a minimum. The reason so much time has been spent in picking a route in respect of the alignment of curves, and of grades is so that a change from a development road into a regular type of highway can be done at a minimum cost. It is not a road based on Alaska highway standards at all.

Mr. HARDIE: Of course, this road has really been designed for the purpose of giving the area 12 months' service as compared to a tractor train service, is it not?

Mr. HAMILTON (*Qu'Appelle*): That is correct with this one exception; in talking to all the oil company people who want this road we find that they will agree to a sensible limitation of traffic on the road during the break-up period, for obvious reasons. They do not want to ruin their road. Similarly, as on any other provincial road, there are limitations during the break-up period, and they are quite willing to enforce these limitations themselves. This is vital to the success of it.

Mr. HARDIE: Would this road be comparable to the Mackenzie highway?

Mr. HAMILTON (*Qu'Appelle*): The northern part of the Mackenzie highway is a pretty doubtful thing in spots. I would answer your question by saying no, not to the standards of the rebuilt Mackenzie highway.

Mr. NIELSEN: Is it not the intention, however, that the government will maintain this road as an all-weather road? Is that what Mr. Hardie had in mind?

Mr. HAMILTON (*Qu'Appelle*): If I understood your question correctly, Mr. Hardie, I can answer in this way; the Mackenzie river highway, as you know, is maintained in the territories by the federal government.

Mr. HARDIE: That is right.

Mr. HAMILTON (*Qu'Appelle*): I was referring to the part below the boundary, which is not too good.

Mr. HARDIE: That is the terrible part, yes.

Mr. HAMILTON (*Qu'Appelle*): We are now going in there to help the province of Alberta rebuild that highway in order to strengthen our com-

munications with the Mackenzie river area. However, the standards are quite different. One road handles passenger vehicles and truck traffic at speeds of 45 miles an hour to 60 miles an hour, whereas the type of road we are thinking of is purely a development road. The Mackenzie river highway has to be a passenger road as well as a truck road. It is a fairly heavily travelled road.

In respect of the question of maintenance, in answer to Mr. Nielsen, it has been the custom of the federal government in the past to build these roads and throw the maintenance back to the territorial government. I might say that this is not entirely going to be the policy in respect of this type of road. Once we get into the hinterland where there are no people using the road except exploration companies we will probably take over the responsibility of maintaining that road, but the minute a company begins to use that road it will have to share the responsibility of maintaining it with the territorial government in proportion to the responsibility of the local people using it. This determination has not been made yet in respect of when or how it will be arrived at.

That is our thinking on the point.

Mr. WOOLLIAMS: Could I ask a supplementary question arising out of some of these last questions? I refer to these leases, and I am merely seeking information on this. How far will this be from the areas in which Royalite and several other companies are spending millions of dollars?

Mr. HAMILTON (*Qu'Appelle*): I would say a long way.

Mr. HARDIE: A thousand miles away.

Mr. HAMILTON (*Qu'Appelle*): The area we are talking about is up here.

Mr. WOOLLIAMS: Yes.

Mr. HAMILTON (*Qu'Appelle*): This road we are building, section by section, is between Great Slave and Great Bear lakes. But your tar sand area is in this area in here, roughly. It is northeastern Alberta, and we are up here, 1500 miles away.

Mr. WOOLLIAMS: That is what I wanted to drive at.

Mr. HARDIE: In regard to this road, of course it is going to take a definite route.

Mr. HAMILTON (*Qu'Appelle*): Which road are you talking about?

Mr. HARDIE: The road we are speaking of from Flat creek, north. Now there are leases on either side of the road. Will the government build roads from this road to areas where work is being done by other companies on leases?

Mr. HAMILTON (*Qu'Appelle*): I am hesitating here just a bit because, thinking as I do,—and this is what you have to take as policy for the moment,—I find that you cannot put hard and fast rules down. However, the general idea is this, that we will build a road, and no company that owns a permit will influence us in the choice of the route of that road, because the very fact the road is going through is such a wonderful blessing to them that they have no right to quibble as to whether it goes around this creek or that. It is true that we are contemplating a spur into the centre of the Eagle Plain area.

Mr. HARDIE: Which will be an access road to connect with this development road, if you like to look at it this way.

Mr. HAMILTON (*Qu'Appelle*): In relation to this portion of the general routes, these two roads through to the Arctic, we also had the section draft the policy that if potential development is promising and, provided companies want to build from their property to this main artery, we label that road as an access road; and then we begin to talk in terms of company participation and government participation. I would suggest that in some parts of the territories it would be a fifty-fifty proposition between the federal government and the company.

Mr. HARDIE: As it is now in the case of access roads?

Mr. HAMILTON (*Qu'Appelle*): Yes; but in the case of developed areas we apply the same rules as in the provinces, one-third by the province, one-third by the federal government and one-third by the company. That is the thinking at the moment, and I see no reason for changing it. There is a clear distinction between the old and the new policy. The old policy, as I understood it, from the documents, was to build into known resource areas and pay part of the cost or all the cost as the case may be.

Mr. HARDIE: In the case of Ray Rock Mines, a road was built to it.

Mr. HAMILTON (*Qu'Appelle*): Yes, to known resources. The difference is that you are going through completely virgin areas with no proven resources, but great potential resources. That is the difference; but it is true that we head for some place like Pine Point or Coppermine where we know there are proven resources at the end. There is a value at the end.

Mr. HARDIE: But the potential of this particular road was brought about through the interest of these oil companies in the two concession areas at Eagle Plain and the Peel Plateau. They did the exploratory work, and it is from the results of their work and investigations that this has been classed as a potential area. Up until that time there was no potential area, and if it had not been for the work done by these people there would not be a road going in at the present time.

Mr. NIELSEN: With regard to that, before the particular companies to whom reference has been made went into the area, investigations were seriously conducted and world renowned oil geologists came up with the statement that this field was second only to Saudi Arabia. That was before the private companies came in. There was a terrific amount of interest displayed and it was a known oil-bearing area.

Mr. HAMILTON (*Qu'Appelle*): You hit on a very vital feature of this whole road program. I want to talk to the whole committee about this. This is a general statement. As I said when I came into the Department, I asked them for plans for opening up the Territories, and they produced the plan that they had submitted to the Gordon Royal Commission in 1955. This plan of the Gordon Royal Commission did have this route on it, but it also had a whole plan to open up great areas which have nothing to do with the oil. I did not mention this plan which you see here in detail, the rehabilitating of the Canol road as far as the Ross river and they are using that as a focus point to step right back to Carmacks, down to Watson lake and across the Rocher mountains to find some contact with the Mackenzie river basin, purely on a basis of opening up the mineral area because this is the most promising mineral area in the world. This has nothing to do with the oil but it is one factor which I wanted you to question me on, that I give first priority where I can see a dollar being made for the federal government, or something economical being done. If something economical is done and profit made we are going to get some corporation taxes, and if we are going to reduce taxes, it would have to be done on an economical basis. This is the whole philosophy of the thing. This planning was there and there is no quarrel over what the experts tell us, where we should put the road. All we have done in essence is bring this concept from a twenty-five year to a five-year concept. That does not mean that we are going to hit Coppermine in five years. The probable target date would be 7, 8 or 10 years. To arrive at the timing for each specific project you have to consider the market situation, and when there would be a demand for the product of the project, and try to get transportation to the project by that time, or a year or so ahead.

Mr. HARDIE: As far as these copper concessions are concerned, if there was to be copper found in the Dismal Lake area seventy miles south of Coppermine, the natural way to get the ore out of there would be to build a road from the deposit, not to Coppermine because there is no harbour there, but to Tree river or some place along the coast where there was a natural harbour and take it out by water down the Mackenzie river system. Why terminate a road at Coppermine. I do not think the mining companies themselves would go for a road if they had to pay the costs of taking freight in and out of the Dismal Lake area by a road all the way down to Edmonton. I think myself they would much rather put it over a road sixty or seventy miles to the Arctic coast.

Mr. HAMILTON (*Qu'Appelle*): I take it that the member for Mackenzie will support me when I come around to that. Meanwhile, we will not waste money until we have had an economic look at it. Everybody in the committee should look at it. Is there a better way of spending the money? You have raised a good question.

If you talk to such companies as International Nickel who have rights to these resources, you find they have only partial economic surveys made; and I think that there is a certain function of government here, that we do not do precise economics, but if we did rough economics of the various possibilities we would be serving the interests not only of private enterprise but making the most effective use of our resources,—because you always take from where you get the most economical source of supply.

Mr. PAYNE: I think in the first instance I should round up my question like this. We have been dealing with a very broad picture which is highly commendable. In bringing our consideration of the estimates down to something firm and practical—and perhaps I am just a little at sea as to what and where we spend our money this year according to the estimates—but is there any way of giving us a clear and concise picture of that which is anticipated for services or construction this year.

Mr. HAMILTON (*Qu'Appelle*): You are Mr. Payne from Coast-Capilano?

Mr. PAYNE: Yes.

Mr. HAMILTON (*Qu'Appelle*): That is what we are doing here. The chairman announced this morning that this period and maybe one more would be devoted to the minister making a statement of general philosophy and general ideas and allowing general questions to be thrown into the discussion.

When we get the general discussion over there will be consideration of the initial vote. It will be called by the chairman and you can ask questions on a breakdown of all that sum of money. We will have to be prepared to give it and you should make your inquiry on that vote. I would like to put the votes agreed upon at the beginning before the committee, and suggest the votes be dealt with in groups, rather than in individual votes. That is, on the first vote of a group that you let the discussion cover, say, three votes. You can see the purpose of that. For instance in respect of water resources, there are three votes. Instead of having a discussion on each vote, let us make an opportunity on the first item of each group to have a general statement and a general discussion, and go to the individual votes, rather than try to discuss everything of general implication in this first vote. I thought it would be more beneficial to have a general statement today, by way of questions and discussions in this committee. As each new set of votes comes in, we will agree ahead of time what the groupings are. When a section is announced, the discussion will be first on the general aspects, say the first five votes; and after the general discussion is over we can go back to the individual votes. Would that be satisfactory?

Mr. KORCHINSKI: Mr. Chairman, I see a nice network of roads and railways planned. Is it the intention then to build these roads simultaneously, or is it the intention to start the construction of one road and complete it before you start the other road; and the other question is this: is it the intention to give priority to oil field developments or is it the intention to build access roads into mining areas?

Mr. HAMILTON (*Qu'Appelle*): Well, that is another way of saying what I said in my original statement. The question that I asked the committee to apply your minds to was this, that every time an individual idea comes up you should immediately associate it to the over-all policy that we have announced and to see if it is in conformity with the policy. Or, put it this way, when we come to discussing,—and I do not want to mention the Pine Point railway because it does not come under this department, even though we planned the general operations of it—but take for instance the Pine Point railway. The questions you should ask me are, is it time to build the Pine Point railway; what are the economics of it, and so on?

It is a private enterprise proposition and we can only present the facts that we know and the railways would let us know. And likewise with what we have been discussing the Yukon road I have given that as an indication of the type of thinking in dollars and cents that is in our minds. Because industry was prepared to put millions of dollars into the exploration of that road. We gave it priority because we know many companies are prepared to put \$200 million into a development of this area. We have given priority to the Pine Point railway.

Now in these provincial roads I might say this in all fairness, Mr. Chairman, that we are now negotiating agreements with seven provinces out of the ten. The seven provinces are Nova Scotia, New Brunswick, Ontario and the four western provinces. These agreements get all ready to be signed and then a province asks for something slightly different. We look at it; we accept it; but the minute you accept from one province you have to go back to the other provinces,—because if you offer one thing to one province you have to consider the others as well. In other words, there are difficulties for the minister in trying to get an agreement between all provinces on a program of roads and resources. Everyone agrees with the philosophy, and they are all enthusiastic to get a precise agreement worked out.

So, what we have done in effect,—and in answer to Mr. Korchinski's question,—is to say to the province. "We have agreed on these things. Go ahead with them. We will be responsible for the payment from the start of the project." We cannot hold a program up for a year or so until we get agreement from every province. So far we have not found any concrete difficulty in dealing with the provinces. They have all been cooperative but you do not do these things in a matter of five minutes. Letters go back and forth and finally, if they are not satisfied with that, they will come back and discuss things with us. That is why in your province of Saskatchewan we are already working on two roads, even though one item of agreement is not yet settled. In Manitoba they are at work on at least one or two and probably we will get a survey done on a third. They have been at work for a full year on British Columbia even though no agreement is signed. I think that clears up that point. The priority is established pretty well in the case of the provinces at their request. It is not at ours. We simply ask ourselves, do they meet the criteria that we have set up for opening new resources?

Mr. HARDIE: That has raised an interesting point, Mr. Chairman. I understood the minister to say that agreements had been reached in the four western provinces.

Mr. HAMILTON (*Qu'Appelle*): In substance, yes.

Mr. HARDIE: Well, has the federal government any indication or has there been anything agreed to that this year the provinces of Manitoba, Saskatchewan, Alberta and British Columbia are going to go ahead with projects of which you will pay, I think, \$1,500,000?

Mr. HAMILTON (*Qu'Appelle*): Up to that amount, yes. I cannot be sure. I said British Columbia has been underway for a year and they are simply waiting to get the agreement with Alberta consummated. Saskatchewan and ourselves are also in complete agreement in substance. We think we are in agreement with Manitoba.

In Ontario the proposition has been put officially to us. We have applied our criteria and they have gone back in discussing an official level with their ministers. At New Brunswick and Nova Scotia—particularly New Brunswick—the discussions are at the official level ready to arrive at a program. So that once you agree in substance it comes to my level and we work out the agreement at that time. I do not know if I have answered your question. You asked if we agreed to pay 50 per cent, and the answer is yes.

Mr. HARDIE: Has there been any start this year or will there be any start this year on roads in Manitoba, Saskatchewan, Alberta and British Columbia?

Mr. HAMILTON (*Qu'Appelle*): I can only say for certain in British Columbia and Saskatchewan. I do not think that is quite true in the case of Alberta and Manitoba. They have not given us any indication. But I think Manitoba was talking about getting started on two similar projects.

Mr. HARDIE: And these similar projects are in line with this network of roads. We see there for instance the Manitoba road. It would be on this road that goes north—it connects up with Yellowknife anyway.

Mr. HAMILTON (*Qu'Appelle*): Yes, there is roughly speaking a plan for east-west going across here.

Mr. HARDIE: That is in connection with this road that the work is being done by Manitoba?

Mr. HAMILTON (*Qu'Appelle*): Yes, there are three roads proposed. Two of them are shorter ones down in the southern areas—I mean south of this railway and the others are lined with Moak lake coming in from the east. It is away up this way. I have details of that, but I have not brought them with me this morning, but one of the propositions we are insisting on, and we have argued hard on this, is that there should be one road to tie in each place.

Mr. HARDIE: As the minister stated some time ago the Coppermine area is a very costly road-building country. In Saskatchewan, where you notice the road hooks, it goes around the north shore of Lake Athabaska. It is also in the pre-Cambrian. \$1,500,000 a year to the Saskatchewan government on a 50 per cent deal on that road. In my estimation with that amount of money you could not build a road fit for a dog team. And I would suggest also in the case of Alberta and the Mackenzie highway you know the results of building cheap roads. The Mackenzie highway is a very good example of that.

Mr. HAMILTON (*Qu'Appelle*): The Mackenzie highway, in so far as the Territory is concerned, is a good road because we maintain it.

Mr. HARDIE: In the Territories yes.

Mr. HAMILTON (*Qu'Appelle*): After we put that into the province of Alberta they did not maintain it.

Mr. HARDIE: That is true, sir, but at the same time you have to consider the country that that road went through in the province of Alberta. There are stretches of that road where gravel has to be hauled possibly 40 miles in order to put gravel on it, and I would suggest to the government instead of limiting this to \$1,500,000, in the case of roads that connect from large centers of

population to places of economic possibility or development in the north, that good roads be put in. For instance, we are building a road now around to Yellowknife. That road is useless unless the Mackenzie highway is up to standard on the Alberta side, and I would say that we should enter into an agreement with the province of Alberta whereby we pay 50 per cent of the cost of a road following the Trans-Canada highway standard. We need a good road there. Why not consider even hard surfacing it? At the present time, no matter what they do with the Alberta section of that road if they rebuild it they are still going to run into the problem of maintenance. In many areas there is no gravel to put on that road for many miles. They have to haul this gravel many miles. I would say that surfacing is the only answer to the Mackenzie highway, and of course that costs money.

Mr. HAMILTON (*Qu'Appelle*): In answer to your statement, in our discussions with Alberta all these points are being considered, and we are in effect recognizing what you have just said. It is of no use putting in money and then forgetting about it. Our whole program in this Mackenzie river area is contingent on the province of Alberta. We come in again and have them rebuild that road, to a standard, and resurfacing should be considered to some degree. I say that because traffic is not as great in all areas and if we bring that road to standard it is going to cost a lot of money and it will have to be maintained by the province of Alberta.

Now, I think that the province of Alberta has made that point clear in the report published in March of this year. They had a royal commission dealing with resources and development in the northern part of their province and this report, in effect—you probably read those sections—says substantially the same thing. That is the reason why this is not under the type of road we want ordinarily built because it does not open up the resources that a road through this area should open up, or a road through this area would open up. We are surveying both grids cutting into the toe of the Canadian shield.

Now on this question of standards, these roads will be of good standard, completely satisfactory to the province of Saskatchewan and completely satisfactory to the federal government. This road will achieve this performance of being used almost 12 months of the year—well say, 11 months of the year—being used by trucks of up to 30 tons.

This also goes for the roads in Manitoba. The government of that province has seen what we are trying to do and they recognize the value of the opening up of these new areas. Therefore, on this question of standards, we have the Department of Public Works acting as agent and with this coordination we will see that those standards are maintained. But I do not like to say “up to the standards to the Trans-Canada”, because when you build a road through your Canadian shield it is purely of an exploratory nature.

Mr. HARDIE: The Mackenzie highway should be built up to Trans-Canada standards. That is my opinion.

Mr. HAMILTON (*Qu'Appelle*): On that question, until we see more evidence of the type of traffic that will be going on it, I doubt if economics would warrant Trans-Canada standards on that road. But in this business you never know from year to year what the standards are going to be.

The railroad, when it comes, will take over a good deal of the heavy traffic particularly from this area; but as you have said, your standards must be sufficient to meet the needs of the road you are trying to develop; and in this particular area, in the whole area of the eastern Mackenzie where we shall tie it up with the south, we have an overall responsibility for that road.

Mr. ROBICHAUD: I think we can judge from the minister's statement so far that a realistic study of the north potential is essential before the government proceeds with its large expenditures in the area.

In the east we have been saying for years that power was the key to development. But it appears that in the northwest area transportation is the key to development; and when we talk about transportation I want to return to the first question I asked the minister.

We have two main ways of transportation. Leaving aside aerial transportation and leaving aside sea transportation, we have ordinary roads and we have railroads. It also appears that road construction in the area is costly and so is the maintenance of those roads.

The minister has mentioned on different occasions—two or three times this morning—the Pine Point railroad which it is said would cost about \$60 million.

Has any decision been reached—this does not come under his department entirely as I understand, but it was given as an example by the minister—could he tell the committee if a decision has been reached by the government as to what part of the cost will be put up by the government and also if both the Canadian National Railways and the Canadian Pacific Railway will be involved?

Mr. HAMILTON (*Qu'Appelle*): I cannot give you an answer to that question because it is being dealt with between the Department of Transport, the Department of Finance and the railways. If the question is whether both railways will be involved, the answer is that they will be, and there is envisaged an extension of the Northern Alberta Railway by means of a projection either from Grimshaw in, or from Waterways in.

The Canadian Pacific Railway is a private firm and it looks at these things in the hard light of economics. It wants to be sure that the railroad will have a chance of liquidating itself; I suspect that it wants a chance to see that it liquidates itself almost immediately. Because of the pressure on the railways today, they cannot afford to build too many of what we might call speculative railways into development areas as was done in the opening up of the prairies.

The CHAIRMAN: Gentlemen, it is now one o'clock. I think we all agree that we have had an excellent meeting. Thank you, Mr. Minister, for coming.

Before we leave let me say that each member will receive a copy of the statement I made. We hope to get the printing of our proceedings before our next meeting.

On the next point, I would like to have your opinion. Would you like to have the meetings start at 10.30 and to finish at 12.30? If so, will someone move accordingly?

Mr. WOOLLIAMS: I so move.

The CHAIRMAN: All in favour?

Carried.

At the next meeting we hope again to have the minister, his deputy minister, Mr. Robertson, and the assistant deputy minister, Mr. Cote. And as I have said before, you will be at liberty to make observations and to ask questions—we intend to allow considerable latitude. No doubt after you have experienced the first meeting you will have many questions to ask the minister.

Would you like to have the next meeting, let us say, on Friday? Estimates committee meets tomorrow, and there may be caucuses on Wednesday, and Estimates committee meets again on Thursday. Would Friday morning be all right?

Mr. FLEMING (*Okanagan-Revelstoke*): I move that we sit on Friday morning, Mr. Chairman.

The CHAIRMAN: Oh, I remember that the house meets on Friday morning. But we shall try to work it out in some way. When do you expect that Mr. Dumas will be back?

Mr. HARDIE: He will be back on the 16th.

The CHAIRMAN: Very well. We will get together and arrange for the time of the next meeting.

TUESDAY, June 10, 1958.

10:30 a.m.

The CHAIRMAN: Gentlemen, I see a quorum. If it is agreeable to the committee, I am suggesting the name of Mr. Latour in addition to those announced yesterday on the steering committee. He will represent Quebec. Is that agreeable gentlemen?

Agreed.

We have available for you this morning copies of the act setting up the Department of Northern Affairs and National Resources. They are in English and in French, and the clerk will now distribute them.

Now, gentlemen, we will go on from where we left off yesterday. You heard the minister and we have had some questions from some of the members. Now you are all free to ask the minister for any explanations, and considerable latitude will be allowed.

Mr. ROBICHAUD: Before we adjourned yesterday noon, the minister answered a question which I had placed before the committee concerning the government share, or possible share, in the construction of the Pine Point railroad, and I have these words which I believe were those of the minister. He said: "I suspect"—and he was talking mainly about the Canadian Pacific Railway participation in the project—

I suspect that it wants a chance to see that it liquidates itself almost immediately. Because of the pressure on the railways today; they cannot afford to build too many of what we might call speculative railways into development areas as was done in the opening up of the prairies.

Could the minister elaborate a little more on this expression, "that it liquidates itself almost immediately"? The C.P.R., like any other company, must have a certain period of liquidation in mind.

Mr. HAMILTON (*Qu'Appelle*): Well, it is in a field for which I have no direct responsibility. The minister of Transport looks after the matter of the railways, but I think I can expand my remarks to this degree, that it was a subjective judgment on my part that a privately-owned railway such as the Canadian Pacific Railway would have to plan before entering into such a venture as the Pine Point railway to see that the returns that they get from that enterprise were sufficient to meet their operating charges and their amortization costs of the capital almost immediately if the railway was built. I said this to point out the difference in respect of what you might describe as a speculative development railway. Such a railway being built into an area in the expectation that because it is there traffic over the next 10, 15 or 20 years might be sufficient to pay these costs.

In connection with this railway, if we could demonstrate, to a private company like the C.P.R. or quasi-public company like the C.N.R., that there was enough traffic so that they could meet their operating costs almost immediately and have a reasonable chance of amortizing over a period of twenty years or so, we could have a lot better chance of persuading them to build a railway. I know it does not come under my direction but it was an explanation of my remarks that in the Department of Northern Affairs we feel some responsibility in bringing to the attention of private enterprise the location of energy and resources, so that they can properly develop them.

Mr. ROBICHAUD: I recall this information from the minister yesterday, that the government is going to have an inventory of the energy and resources of the northern area before proceeding with any expenditure, and yesterday on the map we were shown a large area where licences had been issued.

Could the minister give the committee any idea of the number of barrels of oil which were covered, or the potential of this area which he showed us yesterday?

Mr. HAMILTON (*Qu'Appelle*): The member for Gloucester (Mr. Robichaud) has pointed up, I think, the whole purpose of my remarks yesterday. It was to make very clear, the necessity for Canada to delineate the extent and location and kind of energy resources that we have. And I said very clearly that in my judgment outside of the province of Alberta there was no precise knowledge of the potential or probable energy resources in Canada. That does not mean that in Saskatchewan and parts of the Peace river, for instance, they have not an exact knowledge of a proven resource, but we have generally in Canada no idea of the energy sources whatsoever, beyond Alberta.

The purpose of this whole program was to open up the inaccessible country to some degree so that we could get an idea of the amount of resources that we had. I call it delineating resources. Therefore, to make a statement that I know the number of barrels that we have in that area, or to suggest that I know the number of barrels in the area, is completely opposite to the facts, because I have no idea. I said very clearly yesterday that my department could not tell me to the nearest one hundred square miles the acreage of oil and of gas lands. That is the purpose in these roads, to go in and delineate.

I did say yesterday, also that by looking at a map and looking at the mineral areas and oil areas, and drawing routes through them, it would help us a great deal if we knew if we were likely to go from a civilized or settled area in the south through a virgin area to the north and that it would help us in our planning if there was some valuable resources along the way or at the end which could direct our activities or the choice of route. I gave as an example of that, the Yukon road from Dawson City to the Arctic. We recall through that area that there was active exploration going on for miles and that already there was a very good mineral area in the southern 150 miles of that route and because we had there what we thought was fairly good evidence of valuable resource potential, we felt that it would be a good place to get a road through, to make these resources accessible.

The other example I gave was the Pine Point railway which, of course, is a perfect illustration of efficiency and good planning. At the end of the railway on the south shore of Great Slave lake is one of the most valuable lead, zinc and copper deposits in North America. Now, in getting that railway 400 miles to that point, the choice of the route, with the type of reasoning I have outlined to you, should be decided upon with a view to deciding which route would open up the most promising virgin area of natural resources.

I think we have a responsibility of making known to the railways all the representations of various groups; and also of making known the resource possibilities and making known all plans that other companies had of coming in and developing certain resources,—so that they could plan or estimate the kind of traffic that would be going in and out to see if the railway was economic. I think that is a repetition of what I said yesterday, but I hope I made it clear to the members that there is no confusion in what we are attempting to do.

Mr. AIKEN: I assume we are now covering the field of the general operations of the department. I would like to ask the minister if his depart-

ment has given any thought to physical occupation of the northernmost portions of Canada which, at the moment, are very sparsely occupied, and in places not at all.

Mr. HAMILTON (*Qu'Appelle*): I think the hon. member has struck on a point here that is of great historical interest.

Going back in our history, you will recall that the fundamental economic cause of the war of 1812-1814, in so far as it concerned Canada, was the American pressure to take over southwestern Ontario, Ontario's very valuable lands. That was an economic cause of the war of 1812-1814. In our history books we hear more of world politics as one of the causes; but essentially we know that the economic forces at work, which had to be resisted by Canadians, was to hold that southwestern part of the country for settlement and effective occupation by people who wanted to live as Canadians in this part of the continent.

The same situation applied in Washington and Oregon. This was British territory; it has two very valuable resource areas on the west coast of the United States. The Hudson Bay Company had posts there. The American settlers came across the mountains in a state of starvation and out of humanity, the residents looked after them. But eventually there were more settlers coming across the mountains than there were people of British origin; and eventually the area went to the United States. No one blames the Americans for taking that area.

The third case of historical interest is in the prairie provinces which were, almost completely empty, outside of the fur-trading country and a few bold spirits from Quebec, the old *coureur de bois* from Quebec. When the pressure came in from the United States to take this western area, it was only because of the setting up of the Northwest Mounted Police and the building of a railway close to the United States through the southern portion of Saskatchewan, Alberta and British Columbia that we brought in an effective occupation of settlers. Your question, as I understand it, pertains to the responsibility of holding up our end in the north by effective occupation and use of the territory, or by gradual loss of that territory through inattention.

Mr. AIKEN: I have always been under the impression that our claims to the northern section from Ellesmere island and thereabouts are rather vague, and occupation is an essential part of our ownership.

Mr. HAMILTON (*Qu'Appelle*): That area to the north of Canada, including the islands and the waters between the islands and areas beyond, are looked upon as our own, and there is no doubt in the minds of this government, nor do I think was there any in the minds of the former governments of Canada, that this is our natural terrain. It has been clearly established, I think, by the various steps we have taken in the past and certain activities now going on in the north, that this is our area. All we want to make sure is that, with the tremendous interest in the polar areas that is developing, we do not lessen our efforts. We should in fact increase them ten to twenty fold to make sure the world knows that this is part and parcel of our homeland and those islands of Ellesmere are as important to us as any other part of Canada, not only for the great wealth they contain, but also because of the fact they are jumping off places for northern exploration in the future.

You have heard discussions, I know, and mention of the fact that this part of the island is a great oil area. This does give us an opportunity of establishing over the years potential and probable oil reserves that we would naturally plan to prove up economically and make available for world markets.

Then, of course, as you have heard or read at the Geneva conference, regarding the law of the sea, one of the things which was agreed to by two-thirds of the nations there, was that the land underneath the sea would belong in effect to the littoral state for development or exploitation. We do not know

too much about the depths of the water off our islands in the north. We do have a suspicion that the water is very shallow in places between the islands. We would like to move off these islands into our sector and see if there are land masses there, to see if there is shallow land and this would give us an idea of the extent of the continental shelf.

I would think that this is more than just a talking policy of the government but one of most active pursuit. There is no doubt that we intend to occupy that area both for commercial and research activities, as well as maintaining our sovereignty.

Mr. COATES: Coming from the east, I am interested in the dealings of the department with Newfoundland and Labrador. I notice on the map that there is nothing covered in those areas. I was wondering what investigation had been made in that area and what your feeling would be toward the power potential and mineral resources of the area.

Mr. HAMILTON (*Qu'Appelle*): Well, as you know, the resources of each area belong to the province; but as I said yesterday, we do feel that we have a direct responsibility to formulate plans for the most effective use of resources in all parts of Canada, and in cooperation with the provinces and municipalities see what we can do to develop them within the framework of a conservation concept. Looking at this map, one begins to contemplate the possibilities of the resources of the eastern part of our country. We have this problem with the Atlantic provinces which, whether we like it or not, have fallen behind the general economic levels of the whole country. It is our feeling that it is in the interests of Canada to do those things which will help the people of any area, which is behind the national level, to help themselves, to lift themselves up to a point equal to or roughly equal to that of other portions of Canada. That is our philosophy.

One thing that your question infers is that with the great wealth of Labrador and Newfoundland there is a possibility of development in the eastern area, and quite frankly I share that feeling. Naturally enough in this program of developing plans, we look at the over-all picture and begin to think not in terms of day by day helping out of an industry. That is a responsibility of the government too; but it is a responsibility of my department to look beyond the day-to-day needs, and try to look ahead to see what we can do. In saying this I do not think that I speak only for persons who come from the Atlantic provinces, but as most Canadians feel.

When I look at the location of that area, I see great possibilities in relation to trade with the northeastern United States. If you allow your mind to follow the line of that map, you will see the tremendous mineral possibilities of Baffin island. At the moment it would seem sensible to suggest that there is very little possibility of processing at Baffin island the tremendous iron reserves of that area. We cannot help but speculate on the possibility of moving these iron reserves and processing them in the Atlantic community for the use of people all over the world. And, of course, you naturally look at this and see what you have got. This map indicates a green spot here which of course is the Hamilton river power possibility. This power does belong almost completely to the province of Newfoundland but should be looked at within a larger conservation concept. With this concept, you should look at the power first of all as belonging to the province of Newfoundland, which is one of the provinces of the Atlantic community. It is in an area we are trying to build up, and we like to look at the particular question of the wider use or wider search for energy in the form of coal, of large quantities of potential and probable coal reserves that could be used in the processing of such things as iron.

I think this thing has to be dealt with. I suggest it is a very touchy matter in the maritime provinces at the moment; but those of us who are Canadians, whether the matter is touchy or not, have to look at this with our eyes open. I would suggest very strongly that this area has great potential, but a great deal of work has to be done on long range thinking before you can resolve these immediate problems. I have not begun to suggest any possibility which may be entering your minds about this question of energy in the Atlantic provinces, but I am suggesting that any person with imagination by putting two and two together can start coming up with combinations that suggest possibilities for this area. Now, that does not mean because you can suggest possibilities that the possibilities will prove realities. You have to get down into hard-boiled economics of the cost, markets, and of the reserves. If we could do anything to help the Atlantic provinces' economic council get at this long-range planning we will have made some move in the right direction, in connection with cheaper power for industry in the Atlantic provinces. It is just the very beginning of what I think could be a very extensive program down there, to help them help themselves, and I hope the day comes soon when they do not have to ask us for help, when they can go on independently.

The point is that it is in the interests of Canada to get somebody studying a program of Atlantic development so that they can help themselves better in making effective use of the resources. I would suggest looking at it from a national viewpoint, that the Atlantic provinces should be looked at as an economic development area and not as individual provinces as far as resource development is concerned.

Mr. COATES: The thing that I see on this map is that we do not have the problem of railroads and roads being built into the area. We have the sea to take us to the resources. In the Labrador area we can see power. This is for heavy industry and we are looking toward the department regarding the possibility in the future of heavy industry being established in the eastern area of Canada and of processing the materials in Baffin Island with the power in the Labrador area.

Mr. HAMILTON (*Qu'Appelle*): It is also fair to state that there is a private company called Brinko that has been investigating the possibilities of power in this area. If you are thinking of power in this area, from Hamilton river, there is because of long distances a technical problem in the cost of establishing such power. There are rumours that I hear occasionally that there is a break-through coming in respect to the long-range transmission of power, but I can only sit and wait because I am not an engineer. And we cannot really do anything until these technical answers come in.

I am suggesting to the committee that as Canadians we should not limit our thinking to the electrical form of energy.

Do not forget about the coal industry in that area. At the present time their markets are limited to a very small area. If there were bigger reserves—large reserves—then you could go to a private company and say, "Look at these reserves; look at these resources; look at the position". Then we would be doing our duty in respect of the long-range planning that our department is supposed to do. But we cannot talk in terms of dreams; we have to have some definite figures before we put them forward to any group.

Mr. LEDUC: I do not want to speak as a Quebecker, but as a Canadian. I should like to know from the minister if he has worked in cooperation with the province of Quebec to try to get the province to co-operate more in the development of the national resources of that province. I know for a fact that money was voted last year for the access roads through the mining district, and I believe that the province of Quebec has not taken any advantage of this money. I know that for years the federal government has been giving money

to the provinces by way of grants for forests. The province of Quebec has not had the advantage of grants for the control of budworm, nor is not taking advantage of the grants for reforestation, and for forest protection against fires. We have in the province of Quebec very valuable forests. We are producing as you all know 50 per cent of all the newsprint sold in Canada and outside of Canada, and I believe that it would be very important if the minister and the government could give the province of Quebec more co-operation in the development and servicing of those natural resources.

The CHAIRMAN: May I suggest, Mr. Leduc, that most of your questions concern matters within provincial jurisdiction. However, I think the main point is the co-operation that you would like between the two governments.

Mr. HAMILTON (*Qu'Appelle*): I do not think I could add much more to what the chairman has just said. We have no right to interfere with the policies of any provincial government. All the act gives us is power to formulate plans, offer them to the provinces and municipalities and make information known to them. As Canadians we can only put forward suggestions which we think are in the best interests of the whole country, and then it is completely up to the province. I would be the last one to suggest that we have any right to interfere in these matters at all at a provincial level.

This country has 10 provinces and two territories. I feel in each case there is a slightly different attitude towards all these matters. All we can do is work out a policy and put it forward, and it is then up to the provinces to accept or reject. I am always very hopeful that in these things which I think are of interest to all Canadians we could work out a co-operative program. That is all I can say as far as the government is concerned.

The CHAIRMAN: The minister mentioned an important subject when he referred to Baffin Island, which is developing and processing to a considerable extent in the way of natural resources. I wonder if the minister would like to elaborate on that statement.

Mr. HAMILTON (*Qu'Appelle*): The processing of natural resources in Canada, I believe, is the ultimate aim behind all this work of delineating oil and gas areas, of delineating mineral areas and making them accessible to exploration and then for development. The whole purpose of this is to have your energy resources on the one hand and your other resources on the other hand so that you can bring them together into position and show to private enterprise that they can put them together into a processing unit here in Canada so as to produce these things cheaper. In that respect we will have completed our objective of building this country—to give the economic basis for a country of 50 or more millions of people.

Now this is the point that I made yesterday. I just repeat it again today. I suggest that it is the primary purpose or our primary technique to demonstrate that both energy and resources can be brought together and processed here in Canada, on a competitive basis. There is no use in trying to build up an artificial type of industry at this stage because these resources are in tremendous demand.

I pointed out yesterday that the country to the south of us and the whole world in general needs these resources very greatly. We have to make a choice as Canadians of sitting back here and letting our resources be parcelled up and used by the whole world, or whether we are to process them in Canada. We should be planning more rapidly to see what we can do to make information available so that investors all over the world and in Canada see where they can process these resources here in Canada cheaper than anywhere else in the world. This is not going to be done by any theory.

It is going to be done by the most hard-boiled program of opening up the country, making known what we have and trying to work out the economics to achieve these ends.

This processing in Canada has been achieved in the past by the techniques of the past. The modern approach or the new approach to bringing this desired effect into being is namely that of efficient processing here in Canada. In essence it is a question that because we have both power and mineral resources we have become aware of the fact in the last generation or so that if we bring these resources in juxtaposition we can make this processing possible.

Now this statement of mine regarding Baffin Island. The geological details of the iron have only become known in the last two years. But, when the quantities are known more accurately and the new techniques of processing which are coming along very rapidly are proven, the economic processing of low-grade ore to a higher-grade ore will be possible. Then we, as Canadians, must be on the bit, if I may use that expression, to bring this information quickly to focus and go to pools of capital in Canada and all over the world and point out the advantage of such a Canadian plant in Canada. That is one of the theories of the development plan.

Mr. FLEMING (*Okanagan-Revelstoke*): I wonder if you would clarify our negotiations with the United States on preparing the way for the development of the power resources of the Columbia river. I realize this is a matter that is under negotiation, but where do we stand at this moment?

Mr. HAMILTON (*Qu'Appelle*): I must give the same answer to the committee that I gave in the house. It is that until I have something definite to report, it is in the public interest that I make no statement, because in negotiations of this sort the greatest harm would come to the long range interest of the people of British Columbia who own that power and the interest of Canada generally if thoughts and opinions were made known which might affect our bargaining power.

Mr. FLEMING (*Okanagan-Revelstoke*): I am sorry, Mr. Minister. I did not intend that there would be any expression of opinion. But these negotiations, I take it, are going on continuously or more or less continuously? They are in progress at the present time and it is a continuing process at this moment?

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, I am very sorry, but I have to be vague in my answer. It is that every effort is being made to bring the matter to a conclusion. I prefer not to say any more than that.

Mr. HARDIE: Yesterday, Mr. Chairman, I think an impression was left that seven of the provinces in Canada had reached an agreement with the federal government in regard to the building of resource roads.

When I questioned the minister yesterday I could only find out where British Columbia had entered into an agreement, and with the possibility of one with Manitoba.

My question is this: I would like to know actually if the provinces and the federal government are going to reach any agreement on roads?

The first thing which the federal government would have to know if there is to be such an agreement would be what roads in those seven provinces are contemplated in those agreements, and what roads will be built.

Secondly, have surveys been completed on those roads or have surveys even been started, and if so, how are they progressing?

Just where does the federal government stand as of now on the subject of definite agreements with those seven provinces?

Mr. HAMILTON (*Qu'Appelle*): I would like to correct the hon. member by saying that I think I made it very clear yesterday that no agreement had been signed with any province of the seven, but that work was in operation at the present time to my knowledge in the provinces of British Columbia and Saskatchewan. I was a little bit in doubt about Manitoba because I think there was some thought of starting on two of them there very soon.

In the case of Alberta, Ontario, New Brunswick and Nova Scotia, they are in the negotiation stages.

The procedure is simple. The subject matter does not come to my attention until the officials have worked on the proposals which in turn have been worked on by their own Ministers in the provinces. That is the situation at the moment.

I have, naturally enough, the details of what is going on in each of those provinces. In fact I made a decision only yesterday that I could not possibly table those letters in the house until the agreements had been signed. I think it would be very harmful to both parties—to the province on the one hand and to the federal government on the other hand—if a discussion of routes of roads and the philosophy behind each road and so on were to be tabled at this time because it would expose the provincial government to tremendous pressures and, it would make it very difficult for me to deal with one province when another province was aware of what other provinces were proposing.

The only thing I said yesterday was that if we should decide to give an advantage to a single province—such as a certain term in the agreement, that certain terms in the agreement should be made known to the other provinces. Then it is to their advantage because they can ask for it to be put into their agreements as well.

The thing is difficult enough now, and if I should bring forward at this stage every bit of detail of the discussion it would, I think, do considerable harm to both parties and particularly to the province.

I say this because it is my intention—it is something I am very proud of, namely, the co-operation between the provinces—and it is my intention to bring all these things together; I would like very much to be able before an agreement is signed, to table this information in the house so that you can see the type of thing that is being done.

But as I said yesterday, we are in complete agreement in substance in Saskatchewan and British Columbia; and I do know, for certain, that I have written to Manitoba and they have permission to go ahead on one or two roads; they have permission to go ahead while we are still negotiating on a third route, and on standards and so on.

There is no quarrel to my knowledge between the federal government and the provincial governments on the general approach at all. In theory they come to me with their proposals and I get my people to apply our criteria in respect to the opening of new areas and the extent and value of these resources, and we talk about it on those terms. I think that is all I can say at this time.

Mr. HARDIE: Does the minister expect that before the end of this month he will be able to come to an agreement with Saskatchewan, Alberta and Manitoba? Because if no agreement is reached by the end of this month, it would make it very late in the year to start construction.

Mr. HAMILTON (*Qu'Appelle*): I cannot say yes or no to your question because I do not know the answer to it. All I can say is that when the provinces have established the general terms of the agreement—on the general

terms as to the routes and the resources within the province, that for the financial part we will be prepared to pay up to 50 per cent of \$3 million per province per year or \$1½ million for each province per year.

As you know, with roads to be constructed into areas where there is no actual development going on—such as mines and pulp and paper, it is a fifty-fifty deal.

But on an access road where a company wants to go in and operate from a main artery, or to extend a main artery, we will work on a one-third, one-third and one-third basis. The only plans being discussed between ourselves and the provinces on these projects are the standards, and the location of the roads in all stages of development in the particular provinces.

As a minister nothing would please me more than to get each of these agreements signed and tabled. But provinces do like to hold back to see if some other province might get a little better agreement on some point which they would also like to have as well.

At the present time in British Columbia they have been in full operation, and there is no disagreement on substance or detail with that province. And the same thing is true of Saskatchewan, except that there is one point still being taken up with the Saskatchewan government.

I was asked yesterday about this question of divulging letters or other documents which have passed between the governments while negotiations were still going on. But it struck me that if we were to publish these various discussions we would leave the provinces open to very heavy pressures which were far removed from the objectives that the two governments were trying to achieve.

Mr. HARDIE: How much of that \$9 million in the estimates does the minister think he will spend this year?

Mr. HAMILTON (*Qu'Appelle*): Of the \$9 million I would certainly say—let me do some arithmetic here—that in two provinces it will be all spent. That would leave \$3 million and I would certainly think that Alberta could get started. I think that Manitoba has started. I do know of certain roads we have agreed to with Ontario. But I cannot say what is the stage of events in New Brunswick and Nova Scotia. I have seen the correspondence up to a point and what they are discussing but I have not seen any letter yet telling them that they can go ahead. That would have to come from me.

As a rough guess I would estimate that we would have to spend at least \$6 million out of that \$9 million, but you never can be sure. You have to have the money there in case they make faster progress.

Mr. NIELSEN: Is it a fact that no formal agreement has been entered into between the federal government and the provincial governments implementing the commencement of these road projects?

Mr. HAMILTON (*Qu'Appelle*): What is that? Would you please repeat your question?

Mr. NIELSEN: Have any formal agreements been executed between the federal government and the governments at the provincial level implementing the commencement of this road program or are they still virtually free from other arrangements? Have you in the interval informed them that these projects may go ahead?

Mr. HAMILTON (*Qu'Appelle*): This is the answer. When we agree to a project for one of these roads to resources, I write a letter saying that on this road this letter is the permission to go ahead and that we will accept the cost on this road. We will accept a cost on this particular road, but in the case of other roads we will have to continue negotiating until agreement is reached.

So there is a written agreement in the form of letters from the federal government to the province that the project is acceptable to both of us.

I can state in fact the situation in Saskatchewan and British Columbia. Essentially and in substance what they are doing is this—there is complete agreement, the substance being that in the programs in both these provinces there is no question between the two member governments preventing them for working before they have a formal agreement to go ahead.

Mr. HARDIE: That applies to Saskatchewan and British Columbia?

Mr. HAMILTON (*Qu'Appelle*): In Saskatchewan and Manitoba we have given two letters on two roads but no formal agreement between the governments has yet been signed.

The CHAIRMAN: May I suggest that we do not ask the minister for details because we will have these items under discussion under 289, and we might very well leave them until that time.

Mr. PUGH: Actually, then, Mr. Chairman, there would be no hold-up at the present time of the road program going ahead just as if this agreement had been signed?

Mr. HAMILTON (*Qu'Appelle*): That is correct.

Mr. MARTIN (*Timmings*): As I understand it at the present time, as each class of master agreement is agreed upon, you can proceed with that particular province, that is, as each master agreement is signed and each clause is agreed upon between the two, it can be proceeded with?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. MITCHELL: I may be a little ahead of myself, but yesterday and again today a great deal has been said about exploration and development and so on of these resources which we have been considering. But not a great deal has been said about a program as far as conservation is concerned.

Having that in view, it has been indicated—and of course correctly—that each province is the lord of all it surveys as far as its own province is concerned; and we will admit that the resources such as oil, gas, minerals, coal, and so on are expendable.

Where does the minister's department stand as far as attempting to control conservation as far as any province is concerned, if they should exploit these resources beyond the conservation ideas that the department might have, and with going along with what the minister suggested yesterday about planning for a population of 50 million or more? How do you stand on this conservation program?

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, I am very glad to have that question asked today because if I did not emphasize it yesterday I want to do so today.

The fact is that in the opinion of my department, this conservation concept and the efficient use of all our resources supplementing each other is the most important policy that we have to embark upon. It is the tenth point of our government's ten point program.

As I mentioned yesterday, we have announced our intention of calling a conservation conference whereby the federal government, the provincial governments, the local governments, private bodies such as research groups, universities, and those who are interested in conservation could meet and lay down the principles, which is something which has never been done before on a national scale.

Those principles are:

(a) What jurisdiction is there? It must be remembered that these resources do belong to the province and to the territories and there is a jurisdictional responsibility, but of what kind?

(b) What program should we follow to bring these things into effect; the cost of a conservation program either in terms of roads leading to where the resources may be, and all those other matters as well as the minerals and energy resources.

This program is completely vital to the long range interests of the Canadian people, and it is a program which will be worked on for hundreds of years. There is no end to it, but certain things have to be accepted as priorities.

What control do we have, let us say, over a provincial government or over a local government which is abusing its resources? The answer is "none" as far as legal authority is concerned.

But one of the great lessons we have learned over the years in all countries is the value of education. And if people know the facts, and if they are put into worth while channels of control, then it is a matter to the great credit of all Canada that certain provinces and certain—for instance private groups—can do a masterly job of conservation. In this respect I would like to pay a tribute particularly to those private organizations which have fought almost alone, and to some in the universities in providing ideas, but generally speaking to private organizations having to do with wild life and the forests and so on, for the information that they have made available to the people of Canada and for the results that they have caused to be absorbed at government level.

As to our position in this whole matter, I do not know where we shall end up, but I think the primary responsibility is mostly in the form of research and in making information available and in trying to make the provinces look at their resources not purely as something are functions in themselves alone but rather as something that can be pooled on occasion for the greater advantage of each party.

We had an example just recently. I have a bill on the Order Paper known as the "Lake of the Woods Control Board" bill. The story behind that bill is that of two provinces, Manitoba and Ontario, getting together and by working out a program in relation to their water resources which are mostly in the northwestern part of Ontario, both provinces will get more power and cheaper power than if they had worked separately. That is the story behind the bill.

In order to give legal entity to the contribution of Manitoba and to the place of Manitoba in respect to these resources we have put—or are putting—one Manitoba member on the board in place of one of the federal members. The resources are almost entirely the property of Ontario, but because of the doctrine of "downstream benefits", they will be able to get more power and to share in the benefits.

That is the subject we might work upon by simply making available all the information that would give the province the opportunity to make the best use of their position and in the use of their resources. We have found a very friendly and cooperative attitude at government levels in dealing with this matter, and the people I have talked with are very pleased that we are taking the lead in calling a conservation conference.

I have found that the problem is an immense one. The amount of information before our department now—and which comes before me as minister—before we have even set up an agenda, is so complex and so great in volume that I just wonder how I am going to get around it, and how we are going to get things worked out in sufficiently concise form to make any tangible progress.

In other words, I think the conference should have the following objectives: first, to look over the things we can do. I came to the conclusion we would be fortunate if we could hold a preliminary conference even this winter. I do not think any other government or local body having information to report about these things would arrive at a solution except for the fact that we are asking our department to try to bring up something concise, something we can get out teeth into.

We have hundred of years of work to do in conservation. The mere fact that we are starting it is the significant thing.

I would like to say that we had hoped to call this conference in September, but with the commonwealth conference and the dominion-municipal conference and all these things coming along simultaneously you can only devote so much time to a program, and you have to do what you can.

But conservation is the objective we have clearly before us, and we have found that by pooling information in respect to a conservation program it will eventually achieve through the means of cooperation and education the objectives we expect of it.

Mr. ROBICHAUD: A few moments ago the minister when speaking of energy in the Atlantic provinces mentioned the interest of the government in providing cheaper power for that particular area and he also mentioned the provision of a greater amount of energy to be derived from coal.

Later on in the proceedings of this committee we will be asked to discuss under loans, investments and advances an item of \$11 million to provide for an advance in respect to an agreement to be entered into concerning the Atlantic Provinces Power Development Act. I do not want to discuss this item in detail now because we will have an opportunity when this item comes before the committee, but will the minister consider, or will he reconsider the decision which he made in the house two weeks ago not to table the power agreement signed with Nova Scotia and New Brunswick?

I asked this question because in my opinion it will be necessary for us when we come to discuss this item to have this agreement before us. So I ask the minister if he will now consider tabling this agreement either before the committee or before the house?

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, I think I can undertake that this item will not be discussed before the agreement is tabled in the house. I had hoped that it would have been tabled long before this. I refer to the agreement with the provinces of New Brunswick and Nova Scotia, because I think it is only fair that the committee should have that agreement before it when we come to discuss the item in question.

Mr. PUGH: I am interested in seeing the population moving towards the north. How far can agriculture, the farmers, move on that map and actually produce?

The CHAIRMAN: Perhaps you had better repeat that question.

Mr. PUGH: The question is in regard to the movement of people northwards. How far can the farmer move north and produce? What areas are open to him?

Mr. HAMILTON (*Qu'Appelle*): Well, at the present time there is nothing the matter with the climate in relation to production in the north country. That is within limits, of course. They have a shorter growing season, but we know some future land areas where the soil is suitable for agriculture. There may be pockets. There is one I think in the Yukon a little further north which has a little agricultural experimental farm. It has two pigs on it I know. But generally speaking, the estimate of the department is that there

are about two million acres suitable to agriculture, which is not a large acreage as you know compared to the great undeveloped areas of the Peace river and some areas in Manitoba and Saskatchewan and British Columbia which will be opened for development.

I have not the figures of undeveloped farmlands in the northern portions of the provinces of Ontario and Quebec, but generally speaking, one of the great deficiencies of our northland is the lack of agricultural land to make possible a large population in the north I have no way of foreseeing the future, though we can only speculate that it is more than likely that there will be some population around the industries. In some areas we have power in large surplus and you can see a relatively large population developing around the processing in certain industrial complexes. The weakness of that, of course, is that you are removed from the agricultural areas that which makes possible the most efficient industrial complex.

Mr. NIELSEN: If I may add, Mr. Minister, perhaps I have a more intimate interest in the possibility of agriculture in the Yukon. Agriculture, as with energy, is one of those natural resources which we feel should perhaps be subject to the same approach in taking inventory as any other natural resource. At the moment, there is estimated to be anywhere between 150,000 to 500,000 acres of arable land in the Yukon, and that which is arable is quite a fruitful source of agricultural product.

Mr. HAMILTON (*Qu'Appelle*): I thank the hon. member for the suggestion.

Mr. MARTEL: In the province of Quebec I am also interested in the situation concerning our northern development and I understood from the minister's remarks yesterday and today that no agreement has been made or signed with the province of Quebec although, of course, there have been some kind of agreements reached, but not signed, by his department with seven other provinces.

Can the minister tell us if inquiries have been made by the province of Quebec for the development of northern roads and, if not, would his department be ready to contribute a share with a group of mining companies that would like to open up a northern road development in a certain section to the extent mentioned, that is one-third by the federal government, one-third by the province and one-third by the companies interested.

Mr. ROBICHAUD: Duplessis will chase them out.

Mr. MARTEL: If it will help, I remember that some contribution in this respect was made before the war, between 1936 and 1939, in regard to the gold rush around the Val d'Or area. The roads that were built were on such a basis. After the war there were bush roads and it was made into one district north of my town of Amos, where the federal government contributed one-third. A winter road was built over to Bachelor lake. There was a short-lived gold boom there for four days and I think the federal government, then contributed with the province and companies interested on a one-third basis. Now, I understand there is a question of cooperation that was underlined by Dr. Leduc. There has been more cooperation. In this particular case would the government be interested if the companies asked?

The CHAIRMAN: A great many of your questions concern details. I hope you do not mind if the minister does not go into details.

Mr. HAMILTON (*Qu'Appelle*): I can only repeat that at the present time the federal government or my department at least has offered to the provinces four or five different types of agreements dealing with forests, that they can sign on a voluntary basis. In addition we have forest access roads, and the other dealing with camp ground and picnic sites. Then there is the type of proposal we have been discussing here, the roads resources program, which is offered to all provinces on a voluntary basis. The two qualifications are (a) if

the road is through a virgin area and if you are agreeable to opening up the country, we will pay half, with the province; and the second part of the offer is (b) if any area which has promise of actual development by a private company is proposed, if it is as an access road to other virgin resources or to any other well-known lines of communication, we will consider going in on a one-third, one-third basis. That offer is open and we would be happy if the provinces would come in with us on any of these propositions.

The CHAIRMAN: I hope you explore that question when we get to the item under consideration, as this applies to other members.

Mr. HARDIE: I think we could go on to the main item.

The CHAIRMAN: I wonder, if we could have available for the committee some statistics from your department on the scarcity of certain natural resources in other countries, resources that we have available, and probably some further information as to what natural resources are now being substituted by synthetic products. Probably it would not be necessary to give us full details—just the government policy. Perhaps you could elaborate a little bit more for the information of the members in respect of your research on technological programs.

Mr. NIELSEN: Before the minister answers that question, would it be possible for the members of the committee to obtain copies of the Paley report, or a copy?

Mr. HAMILTON (*Qu'Appelle*): I think what we might be able to do is find out from the library how many copies they have. Our department just has the one copy. It is being passed around like mad now. I would be reluctant to turn over that one copy. There are five volumes to it and it is an American report; but I would suggest that if any committee member wanted to look at it that volume 2, which gives this deficiency aspect of the strategic metals and the energy resources, would be the volume to look at.

The chairman made a proposition that our department might add to the information of the committee by compiling a list of strategic metals and minerals that shows at least the American position; in other words, making available some of the items of the Paley report. The only thing I am going to say as a demurrer here is that it takes a bit of time to collect this. I would have liked to have it in the form of charts so I could show you graphs of demand and supply. From this we could all speculate as to when the situation would come in Canada that there would be a shortage of these things, and before that time we could have everything ready to take advantage of that situation.

That was my first hope, and I asked for this from one of my own staff about a month ago. I spoke to him about a week ago and at that time it was not ready. It is quite a bit of research. We will make an effort to get the main points out. What we could do is take out the relevant portion of the Gordon commission, which deals with the same subject from the Canadian point of view, and put it in with the American and it would give you some information of this sort.

Now there are certain publications put out to which I would like to refer the committee. There was one put out by one of the banks last week. They put out a statement showing a circular graph of all the minerals in Canada—at least all the minerals that are needed in the world today—and what proportion was produced in each country. That would be the type of background information from which a serious-minded student in this whole problem of resources needs in the future, would gain some information.

I think I can say, Mr. Chairman, that we will try to get at least a summary of the information that you wanted, maybe do a mimeograph job on it and make it available to each member of the committee. Would that be satisfactory? It will not be until the end of the committee.

Mr. PAYNE: I have three administrative questions. With relation to your question on the bank circular, which bank is that?

Mr. HAMILTON (*Qu'Appelle*): I will have to get that information for you.

Mr. PAYNE: Could you advise us when we will have an opportunity to pick one up?

Is it possible to have a small map available for the members of the committee? It would be very handy for reference.

The third question is probably answered also. I was wondering if there was any liaison undertaken at this time to see that if possible our meetings should not converge with the other committee meetings. I am finding it difficult to attend two or three at the same hour. Is there any liaison between the different committees?

The CHAIRMAN: There will be. It is going to be difficult, I may say to the members of this committee, to avoid conflict. Most of us are on three or four committees and I find that I, as a chairman in this committee, will have to be relieved from one or two. But we will do the best we can. It may be that we will have to sit earlier in the morning.

Mr. PAYNE: Is it possible to sit on days other than Tuesdays and Thursdays?

The CHAIRMAN: Thursday might be considered. We thought to begin with if we had these two meetings, Monday and Tuesday of this week—Wednesday is caucus. Thursday is the junior meeting of the estimates committee and, of course, Friday we sit at eleven o'clock in the morning. As you know, the Prime Minister of the United Kingdom will be here that morning. We will do the best we can. However, I feel I must tell the members of this committee that there will have to be some overlapping. We cannot avoid it. That has been the practice since I have been in the house.

There is another statement you made yesterday, Mr. Minister, about which some of the members have asked me. You made a statement that there were some changes in oil regulations. Could you elaborate on that?

Mr. HAMILTON (*Qu'Appelle*): Before I answer that question, each member received a copy of the Department of Northern Affairs and National Resources report. It is this yellow book and at the back there is a very fine map of Canada. It should be in your estimates committee file. It does give you the centres of activity and it will be very useful in examining the estimates here. If some of you care to look into it, you will find there is very useful information in the report itself that would add considerably to your skill in questioning the minister and his officers. It would also give you possibly the answers to a lot of the questions ordinarily asked. I suggest that you look at this document and bring it along with you each time. The map is on the back, and if you had an hour to spend some evening you could go through the report. It can be gone through in an hour.

In answer to the chairman's suggestion about our regulations, if I elaborate on that a bit further I think that I had better approach it this way. When I came into the department one of the first things I looked at was the oil regulations dealing with the territories. I found out that there was a wider discrepancy in those regulations as compared to those which had evolved in the four western provinces in the last six or seven years. As members will agree the oil industry was brand new to Canada. A great deal of adjustment had to be made and is still being made by the provincial governments in each of these four western provinces to handle the oil and gas in their areas. So much for that point.

The second point was that if we are going to try to get oil companies interested in spending many millions of dollars in the more expensive de-

velopment in the north, then we have to make certain that the regulations are such that there is an incentive given to attract the pioneer discovery type of company, and at the same time to do something which the previous regulations did not do, and that is to guarantee that the people of Canada, acting in trust for the future provinces in the north should see that as much as possible of that oil and gas wealth gets into public hands.

And it was with those thoughts in mind that we started to amend the oil regulations. Last September 23 the oil companies were notified that any future permits granted in the territories would have to be subject to the new regulations, whenever they were promulgated. Now, we have been working on this all during the winter. We have consulted one government of western Canada through the official level for expert advice. We have checked the regulations of all the other provinces. We have looked at the recommended type of regulations suggested by the mines minister's conference on such oil regulations. We have had conferences with the Canadian Petroleum Association. We have asked all interested parties for any suggestions they may have. We have had groups of people down here making representations, and we have tried to produce a series of regulations which will achieve these two purposes, firstly of giving the incentive to explore in the north, and secondly to get the widest, the greatest possible, share within the limits of economics in this northern area. Quite frankly, the objective that I shot for in these regulations was to see that half of the oil and gas would remain in the hands of the public.

There has been no dissatisfaction suggested by the oil company, and the only question was how could we give extra incentive to the exploratory activities of the first company which establishes a field. Because once one company comes in and establishes a field, they have put all the money of exploration into the area. If you do not make it possible for them to get sufficient land in return for the amount of money they have spent for discovery, there is no incentive for them to be in first. The other fellows who crowd in afterwards sit and watch him spend his money and they benefit with little or no expense.

That is not an easy problem. I hope the hours that have been spent on this in the department will be well repaid in getting things going in the north. When we come to this item I would hope that somebody would ask questions about why, with the surplus of oil at the present time in North America, we should be interested in finding more reserves. That is a question I would like to handle in detail, and I was hoping to get these regulations out in the next couple of weeks. I thought we had them ready last week but there is a new proposal that looks interesting, and we are looking at that now. I would hope that within two or three weeks the regulations will be ready for the approval of the cabinet.

The CHAIRMAN: Before we proceed, if any of you happen to have mislaid this annual report for 1956-57 of the department, if you let me or the clerk know, we will see that you get an extra copy. Are there others available?

Mr. HAMILTON (*Qu'Appelle*): Yes, for fifty cents.

The CHAIRMAN: Are we prepared to proceed to the next item?

Mr. HARDIE: We are on the general item.

The CHAIRMAN: We are on item 266, Departmental administration.

Mr. HARDIE: The estimates have gone up somewhat. I see an increase of nine in the staff.

Mr. HAMILTON (*Qu'Appelle*): Which page are you on?

Mr. HARDIE: Page 402. I see an increase of nine in the staff. I wonder what they are.

Mr. HAMILTON (*Qu'Appelle*): I can give you a general answer, and a detailed answer in a minute. The increase in staff from 145 to 154 I think is evidence of the work load carried at the administration level in the department, and I would say frankly to the committee that if we are to carry out this accelerated development program which I have been talking about, that you would have to be prepared in the next year's estimates for more increases. I would quote you rough figures, if I may, speaking from memory, that in a three-month period roughly, April, May and June of last year, the number of letters handled by the administration section ran to roughly 76,000. I am using that three-month period as a criterion. In the next three months it jumped to 117,000, and I think we are setting a new record almost every day.

This only indicates, I think, the tremendous work load because of this tremendous interest that there is in this development program that has been thrown on the department. This increase of nine is not enough to do the job. It is not a question of a department making itself larger or growing at a faster rate than any other department; it is a question of this being a policy of the government; and in those branches of the government that are carrying out this policy research, we have to be prepared for staff increases.

Now, I think you will find the increases here generally are in the purchasing and administration sections. These are the increases that make up most of the nine.

Mr. HARDIE: I think you have answered my question, as far as that goes, but I was wondering in this section if there is no education department set up separately. Does this branch, the departmental administration, include anyone from the education branch?

Mr. HAMILTON (*Qu'Appelle*): No. This has been tabled in the house and does not go into personnel.

Mr. HARDIE: It is an increase of \$60,000.

Mr. HAMILTON (*Qu'Appelle*): Yes; personnel will have jumped up considerably in the supplementaries, and the process of expanding the administration to handle this program is not finished yet. I have not the supplementaries here, but there is an increase there.

Mr. HARDIE: Yes, I think it is for salary only in the administration branch. There is a salary increase of \$29,440. That is as a result of a further increase in staff in the administration branch.

Mr. HAMILTON (*Qu'Appelle*): Yes, in the supplementaries there is a substantial further increase in staff.

Mr. HARDIE: Over and above what was shown?

Mr. HAMILTON (*Qu'Appelle*): Yes, over and above what was shown. In answer to your question on the numbers, the supplementaries will show an increase of four in the administration, and the balance will be in northern administration.

Mr. HARDIE: That is a separate item.

Mr. HAMILTON (*Qu'Appelle*): Yes, that is a separate item, for a total of 37. That was the last figure. That is going up in the supplementaries.

Mr. ROBICHAUD: Could we have a clarification there? Are we on 266 or the first group for 1956, 1957 and 1958?

The CHAIRMAN: We are on item 266, Mr. Robichaud.

Mr. AIKEN: I have one question, Mr. Chairman. I see where one editorial information division has been discontinued in 1958. Is there a replacement on that one? Is there someone else taking those duties?

Mr. HAMILTON (*Qu'Appelle*): My deputy informs me that it is a question of reclassification. They have just moved up in their class.

Mr. AIKEN: The same person is in the same job?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. ROBICHAUD: On this agreed item, Mr. Chairman, there is \$5,000, which is the same amount as last year for professional and special services. Would the minister elaborate on these special services?

Mr. HAMILTON (*Qu'Appelle*): This is one of the more important questions of policy in handling staff. The \$5,000 is put in there so that you can go out as a minister or a deputy and hire people under contract to provide a specific professional service on which you would not wish to put a man on a full-time basis. I should like to use that item much more widely than it is presently used. That is where the discussion of policy comes in.

We also have items under several branches. We are trying to do this because it is obviously to our advantage, so that if we have a problem that the department cannot handle, instead of putting in a staff to handle that problem on a full-time basis, we may go out and hire an individual or a consulting firm to give you that information on a fee or contract basis.

The CHAIRMAN: Shall we proceed with item 267, gentlemen? Is it agreed that this item 266 is approved?

The CHAIRMAN: Item 266 is agreed to. We will pass on to item 267.

267. Northern Research Co-ordination Centre, including a Grant of \$10,000 to the Arctic Institute of North America; and an amount of \$10,000 for grants in aid of northern research subject to allocation by the Treasury Board, \$89,302.

Mr. ROBICHAUD: Now, Mr. Chairman, on item 267 could the minister give us some details of the operation of this Research Co-ordination Centre and also for how many years has it been in operation, and have any reports been made on the operation of this co-ordination centre?

Mr. HAMILTON (*Qu'Appelle*): This is vote dealing with the details of this co-ordination centre which I only get in the form of final reports. I cannot answer the question but, would it be all right, Mr. Chairman, if my deputy could answer for me?

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): In answer to Mr. Robichaud's question the first part of which was, I believe, how long this organization has been in existence. Well, it was first established in 1955, the first year being 1955-56. The reason for its establishment was that under the act which the minister read yesterday, the minister is responsible for consideration of various problems that may be of assistance in connection with difficult problems in the north, in northern development and so forth. There are many organizations that go in to operate the Defence Research Board. The National Research Council does control this division of building research, and there are other agencies. But it was found that there was a considerable area of activity in which there was no specific organization doing any particular work and there were often problems that had to be gone into in order to answer certain questions. So this organization was set up. As you will see from the size of the vote, it is very small. It is not primarily to do its own research so much as it is to find out what problems there are, or to deal with the problems that exist. If it can get other organizations to do this, that is what it does.

For instance, on a problem of building research we can turn to the division of building research of the National Research Council. In certain other cases it might turn to the wild life services and see that a certain matter is looked into. The kind of thing that it has done, for example, is to place a contract with a qualified person to investigate consequences of the employment at, say, Cambridge Bay in the Northwest Territories resulting from the DEW line going in there. It was primarily an Eskimo hunting community. In that area we found malnutrition, something which you would not expect.

But these women and children have not been able to accustom themselves to, or cope with our food. So this malnutrition problem has to be solved in some way.

We have also run into other problems. We have been confronted with violence in certain parts of the north and one of the questions is why? What is wrong? What is leading to this situation in certain parts of Keewatin. We have had a study made there which the Royal Canadian Mounted Police has found quite helpful. In that record certain other studies were made such as agricultural possibilities. In certain places there is a wide range of things that do not particularly fall into any research organization, other than this, and this is a sort of catapult to get things done and that are necessary to be done in northern administration.

Mr. ROBICHAUD: I notice there is only \$2,500 for travelling expenses. Is this centered in Ottawa or is it at different centers.

Mr. ROBERTSON: The center is in Ottawa, here. The staff is very small—about five people, I think.

Mr. ROBICHAUD: It says eleven here.

Mr. ROBERTSON: That includes the part-time positions. Several of these positions are part-time positions which are filled in the summer for particular projects. The permanent staff is a very small one. You mentioned the travelling expenses being \$2,500 but you will notice in the details there is an item for travelling expenses, field investigations, which is \$2,500 followed by an item for travelling expenses of \$2,000. Then under grant in aid there may be costs for travel in these grants so that travel may be quite a substantial part in one way or another.

Mr. HARDIE: I should like to ask Mr. Robertson if these reports of the investigations that are carried on by this branch, or are coordinated in this branch, are available to the public?

Mr. ROBERTSON: In most cases, Mr. Chairman, there is nothing secret about them. In most cases they are not printed because they are usually reports for a specific administrative purpose and the cost of printing is usually not gone into. But I cannot think of any place where there is one that is secret and should not be made available.

Mr. HARDIE: How many reports have been made by the departmental staff since the department started? I am not talking about these others.

Mr. ROBERTSON: I could not speak with certain knowledge but I would say it was somewhere between five and eight a year.

Mr. HARDIE: So, a member of the committee could, if he wished, go over to your office and a report could be made available to him.

Mr. ROBERTSON: We would have no objection at all, Mr. Chairman.

Mr. NIELSEN: Has this been active so far as Yukon affairs are concerned?

Mr. ROBERTSON: I am trying to think, Mr. Chairman, at the moment if there have been actual projects in the Yukon. I cannot think of any offhand. Most of them have arisen in connection with the Eskimo administration and they have been in the true Arctic. As Mr. Nielsen knows, there are only some 33 Eskimos in the Yukon. So this problem does not hit that area very much.

Mr. HARDIE: The amusing thing to me is that it costs \$52,000 in salaries, and a total of \$89,000 is spent; so, outside of salaries we have a figure of \$37,000 spent by the department, \$20,000 of which is just a matter of writing cheques in grants to northern research, any department of northern research, and the other to the Arctic Institute.

Mr. ROBERTSON: This is far more than writing cheques, if I may say so. When a grant in a department is given it is not simply a matter of saying, "You

look like a nice person, you might do a good job." As a check, it takes a good deal of work to outline what project is wanted. The grants in aid are frequently almost indistinguishable for having an employee on the staff. It is just a difference in method, but usually the same amount of work goes into it.

Mr. HARDIE: Are these people from outside the department, who do this work?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. HARDIE: For \$20,000?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. HARDIE: Which leaves the rest of the staff the \$52,000 for salaires. By their own efforts the department spends, let us say, \$17,000. That is all that is spent by this department, and it costs you \$52,000.

Mr. AIKEN: They are careful with their money.

Mr. ROBERTSON: There is another function that does not appear in the title to this. This title changes from time to time. This Northern Research Co-ordination Centre is also the secretariat for an inter-departmental committee which is the advisory committee on northern development. It is a committee that reports to the Minister of Northern Affairs and tries to bring about a coordination of questions that relate to the north and advise the minister on matters affecting the north in all departments. This committee meets once a month and is at the deputy minister level. The secretariat for that committee is part of this organization. A second part of this organization runs the entire northern library of the department and tries to be an information center on northern questions for government agencies generally. We do not have two northern libraries. We have one, and one northern information center, and that comes under this. So that these two functions are apart altogether from the research co-ordination that does not appear in the title, and research is a further function on top of it.

The CHAIRMAN: Are there any further questions, gentlemen?

Mr. HAMILTON (*Qu'Appelle*): I wonder if it would not be of some advantage to the committee if you just talked about the thing in general. In general, if you knew precisely what was going on and also the form of these professional contracts we have been signing. I think I can take one example. There is an expedition going up to Ellesmere Island in connection with the international geophysical year. The planes are moving in there. We seized the opportunity to send an anthropologist in there to do a job that should be done in the collecting of information about our country and we were able to get top-notch anthropologists to send in there, and to bring them back for a total of, I think, \$3,000.

Ordinarily, to send an expedition to find out this information from an area as far north as Ellesmere Island it would probably have cost between \$25,000 and \$40,000. So that by this technique of coordinating our efforts in this particular case with Mines and Technical Surveys, we are doing most of the work for the international geophysical year. We are getting the services of three departments for a total cost of \$3,000. This information is invaluable to us. It may very well be another generation before we get the opportunity of sending another man into this area.

Mr. HARDIE: Does this not come under the national museum?

Mr. HAMILTON (*Qu'Appelle*): It comes under two places. I was going to give you another example of that one. There is another one—I have just lost track of it—I see the submissions and forget the details. Let us take this

question of archaeology. It is always a matter of criticism by intellectual people who see great tragedies unfolded in Canada among all these areas, and they should be explored for archaeological information.

Mr. HARDIE: Is not that carried down under the national museum branch of your department?

Mr. HAMILTON (*Qu'Appelle*): Yes, but the northern end, if it is connected with northern research and any information on the Arctic, comes under the two items.

Mr. HARDIE: I see.

The CHAIRMAN: Is the item agreed to, gentlemen?

Item 267 agreed to.

The CHAIRMAN: We now come to item 268. I shall not need to read this item as you all have copies of the estimates.

268. To provide for contributions to the Provinces, pursuant to agreements entered into or to be entered into, with the approval of the Governor in Council, by Canada with the Provinces, of amounts equal to one-half of the amounts confirmed by the Provinces as having been spent by them for Campground and Picnic Area Developments, \$1,000,000.

Mr. ROBERGE: Is the minister able to get the breakdown of that \$1 million dollars to each of the provinces?

Mr. HAMILTON (*Qu'Appelle*): I made an announcement in the house last January regarding the campground and picnic area developments. We estimated at that time that it would cost us in the neighbourhood of \$1 million for this program; but this is divided into two fiscal years. One of the purposes of the program was to help relieve the unemployment. One of the conditions was that 50 per cent of the money spent would go into labour. Now, I have just been informed that \$491,000 was actually spent in the last fiscal year in the months of January, February, March and April, actually spent in six months. In the time that program has continued—and it ended on May 31, about two weeks ago—while I have not received all the bills, it is estimated the amount, including our half contribution, will be roughly \$600,000. This vote calls for \$1 million. At the time these estimates were prepared, of course, we had no information as to the amount spent.

Mr. HARDIE: This just includes the picnic grounds in the national parks.

Mr. HAMILTON (*Qu'Appelle*): This is a special program which was announced last January.

Mr. HARDIE: Has this something to do with the road clearing in the north too?

Mr. HAMILTON (*Qu'Appelle*): No, these are camp-ground picnic sites which we set along well-recognized highways. We built these sites in reasonable proximity to the highway and used 50 per cent labour during the months of January to the end of May. For the last fiscal year, for which we received amounts, we paid out \$491,000—that is the last fiscal year. But in these estimates which we are discussing under vote 268 it shows "To provide contributions to the provinces". We have no information as to what the provinces could do during this period. Up until the end of May we did not know what the cost would be because the bills would not come in until later on, so we put in a round figure of \$1 million. Now I believe that the estimated amount that we will be required to spend under this vote is \$600,000. Therefore there will be a total amount over the two fiscal years of approximately \$1.1 million.

Mr. HARDIE: Over the two fiscal years?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. ROBICHAUD: In line with the question asked by Mr. Roberge, what provinces are participating in this scheme and is provincial autonomy well preserved in respect of picnic sites?

Mr. HAMILTON (*Qu'Appelle*): We have absolutely nothing to do with the sites except insure that they simply come into close proximity to the highways, and that 50 per cent of the money for the sites be for labor costs. In some areas more work has been done in five minutes than has been done for the last 20 years in other areas. One province alone has put 60 to 70 miles of roads in connection with the program and I think you will find that, for the amount of money that the federal government has put out in this item, we have provided the people of Canada travelling our highways one of the great things for the greatest pleasures—to be able to stop and take some rest and enjoyment along these roads. My personal wish is that this program should continue; but it was announced only as an emergency and I think all the provinces in some way or other indicated a wish that we should continue the program. However, I want here at this time to consider what we are going to do in the future.

Mr. PAYNE: The amount already spent is off this, is it? There would be a balance in the estimates of some \$350,000.

Mr. HAMILTON (*Qu'Appelle*): There would be a lapsing balance in this item of \$400,000, unless of course it is decided as government policy to continue this program in this fiscal year up to the end of March 31.

The CHAIRMAN: I think the questions of the two members were not perhaps fully answered. I believe you wanted to know the amount of contributions to each province. Does the minister have that information?

Mr. HAMILTON (*Qu'Appelle*): Would the member be satisfied with the best estimate we can give, because the bills are not in.

Mr. ROBERGE: Oh yes.

Mr. HAMILTON (*Qu'Appelle*): It will be approximate.

Mr. ROBERGE: As long as we have the breakdown for each province, even though it is approximate.

Mr. HAMILTON (*Qu'Appelle*): We will bring it forward at the next meeting. It will have to be a rough estimate of the cost until the bills are finally submitted. We cannot give you the exact figures.

Mr. ROBERGE: I will bring this question forward at the next meeting.

Mr. MARTIN (*Timmins*): In regard to this matter, I recall that last year the deadline was March 31 for that particular proposal regarding projects which would give assistance, and that this particular program had to be started by March 31.

Mr. HAMILTON (*Qu'Appelle*): No, there is no connection with this, with March 31. It had nothing to do with the access road program, it was just a winter work's project which dealt with campground and picnic sites. We would pay up for any operations up to the end of May 31. If they had started with some project and had not completed it, then that would be their own responsibility.

Mr. MARTIN (*Timmins*): March 31 only comes into this because of the beginning of the fiscal year.

Mr. PUGH: Just on the point of view of publicity, we have a different type of government in British Columbia. I most definitely would like to have the figures respecting moneys which have been spent on these camps, and the contribution by the federal government.

The CHAIRMAN: You have the assurance that we will have this at the next meeting.

Mr. ROBICHAUD: I should like to verify again the question asked by a member previously that already over \$400,000 had been spent in this year's estimates.

The CHAIRMAN: That was last year's. That was a supplementary estimate.

Mr. ROBICHAUD: So there is still \$1 million for this year?

Mr. HAMILTON (*Qu'Appelle*): I will just go over that again. In announcing this program I used a rough estimate of \$1 million. We estimated that half of this would go into the stimulation of jobs. Roughly half a million had been spent up to the end of March and it looks as though there will be additional estimates for the months of April and May of \$600,000, which is a total for this program of approximately \$1.1 million. But there still remains in the vote \$400,000 in case the government decides to renew the policy in the next fiscal year. That is this fiscal year.

The CHAIRMAN: Are there any other questions?

Mr. PUGH: Would there be a measure of unemployment not picked up by other industry? Will we be going ahead with this roadside park plan?

Mr. HAMILTON (*Qu'Appelle*): The answer to that is something like this: That we did do a winter work project which ended on May 31. I have intimated that all the provinces would like to see it. Most of the provinces who have spoken to me would like to see it continued on some basis and this matter is now under consideration by the government. That is as far as I can go at this stage on policy because it is not in review here. A question was asked by someone here on employment.

Mr. HARDIE: I was wondering if the minister could tell us the number of people that were employed up to the end of March and, at the same time, is he satisfied that 50 per cent of the money that was spent went into labour?

The CHAIRMAN: The minister has given the committee the assurance that he will have more information in reply to questions asked by various members if that information is brought down to the next meeting.

Mr. HARDIE: We can leave this item until tomorrow, if you want, or the next meeting.

Mr. HAMILTON (*Qu'Appelle*): I think in answer to this labour thing, we assured ourselves by very complete examination that 50 per cent of the money went into labour. Now, as to the numbers that were employed, we can only estimate. I was speaking to one of the ministers of Ontario recently and he admitted on the combined access roads forest program, that in their province between 2,000 and 3,000 were employed and I have not any breakdown from him. My original estimate in the house was that the total of all these programs of work, the parks work, the camp grounds, picnic sites, and the forest access road program, would total some place between 5,000 and 8,000, and I still hold to that estimate.

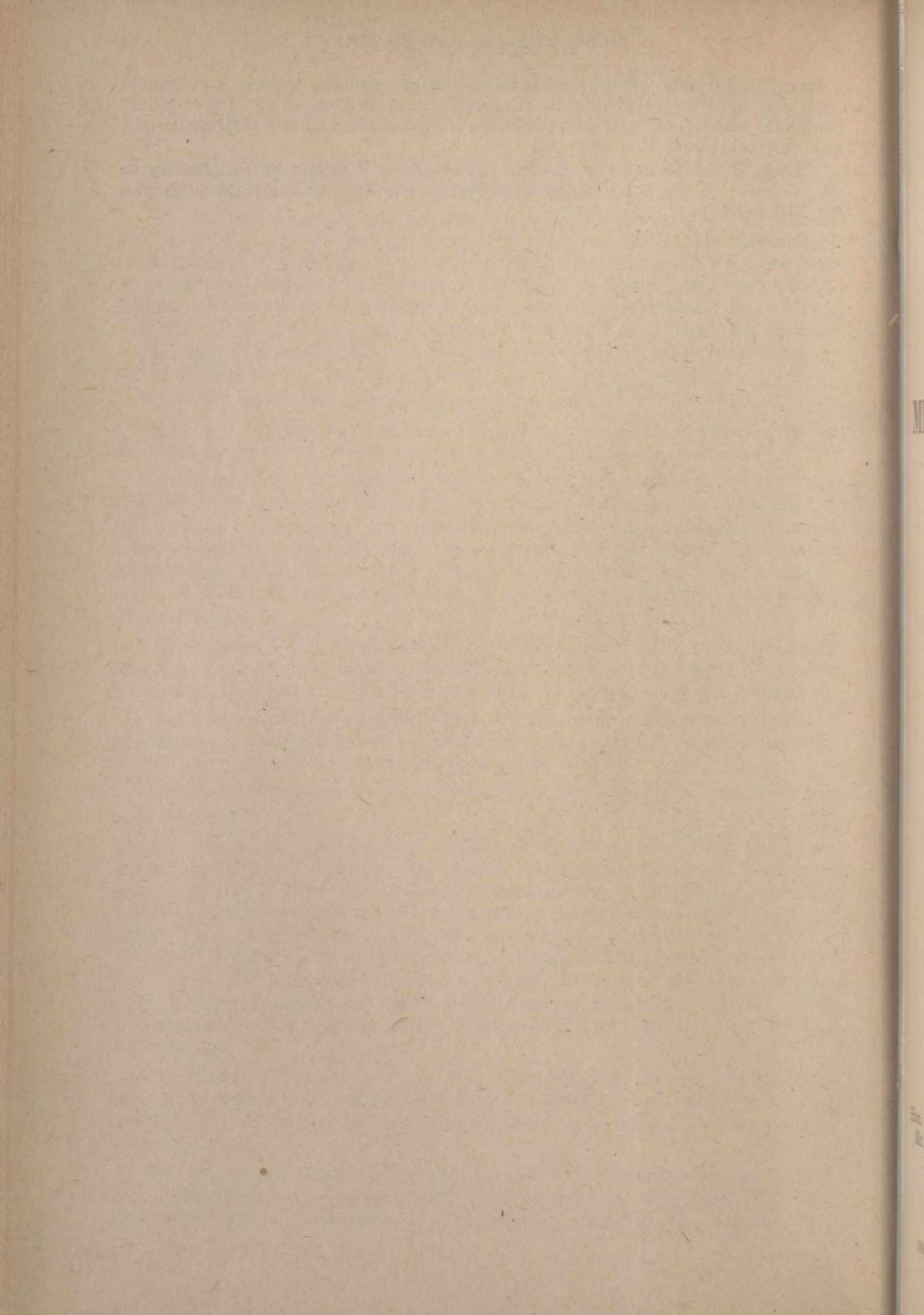
Mr. MARTIN (*Timmings*): I am as guilty as anyone else in neglecting to mention my name. I am Mr. Martin from Timmings. I was wondering for the benefit of the reporters if we could give our name more often. It would make it easier for them.

The CHAIRMAN: Before you came in yesterday we all agreed that that should be the practice. Thank you very much. Now, gentlemen, if you are all agreed, we will adjourn, and item 268, will be taken up again at our next meeting.

I expect that we can complete that item and then proceed to have a statement from the minister regarding the national parks branch. After the minister completes his statement, then we will ask for questions and any statements that any member would like to make.

I would like to ask the steering committee if it would be satisfactory to you to meet in my office today at four o'clock. Is that all right with you Mr. Mitchell?

Mr. MITCHELL: Yes.



HOUSE OF COMMONS

First Session—Twenty-fourth Parliament
1958

STANDING COMMITTEE
ON
MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE
No. 2

MONDAY, JUNE 16, 1958

Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister, Mr. R. G. Robertson, Deputy Minister,
Mr. J. R. B. Coleman, Director, National Parks Branch, G. L. Scott,
Chief, Engineering Service Division, National Parks Branch.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baskin,
Bruchési,
Cadiou,
Coates,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Fréchette,
Godin,
Granger,

Gundlock,
Hardie,
Korchinski,
Latour,
Leduc,
Legere,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,
Mitchell,

Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Laflèche*),
Robichaud,
Simpson,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

MONDAY, June 16, 1958

The Standing Committee on Mines, Forests and Waters met at 10.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Coates, Fleming (*Okanagan-Revelstoke*), Gundlock, Hardie, Korchinski, MacRae, Martel, Martin (*Timmins*), Martineau, McLennan, Muir, (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Pugh, Robichaud, Stearns and Woolliams—(18).

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; and Messrs. R. G. Robertson, Deputy Minister; F. A. G. Carter, Chief Administrative Officer; R. A. Faibish, Private Secretary to the Minister; J. R. B. Coleman, Director, National Parks Branch; B. I. M. Strong, Chief, National Parks Division; G. L. Scott, Chief, Engineering Services, National Parks Branch; A. J. H. Richardson, National Historic Sites Division; and K. M. Turner, Chief Accountant, National Parks Branch.

The Chairman presented the first report of the Subcommittee on Agenda and Procedure, as follows:

Your Subcommittee recommends that the Main Committee meet as follows:

On Mondays, June 16, 23 and 30 at 10.30 a.m., and on Tuesdays, June 17, 24 and July 1 at 9.00 a.m.;

On motion of Mr. Woolliams seconded by Mr. MacRae.

Resolved,—That the foregoing report of the Subcommittee be concurred in.

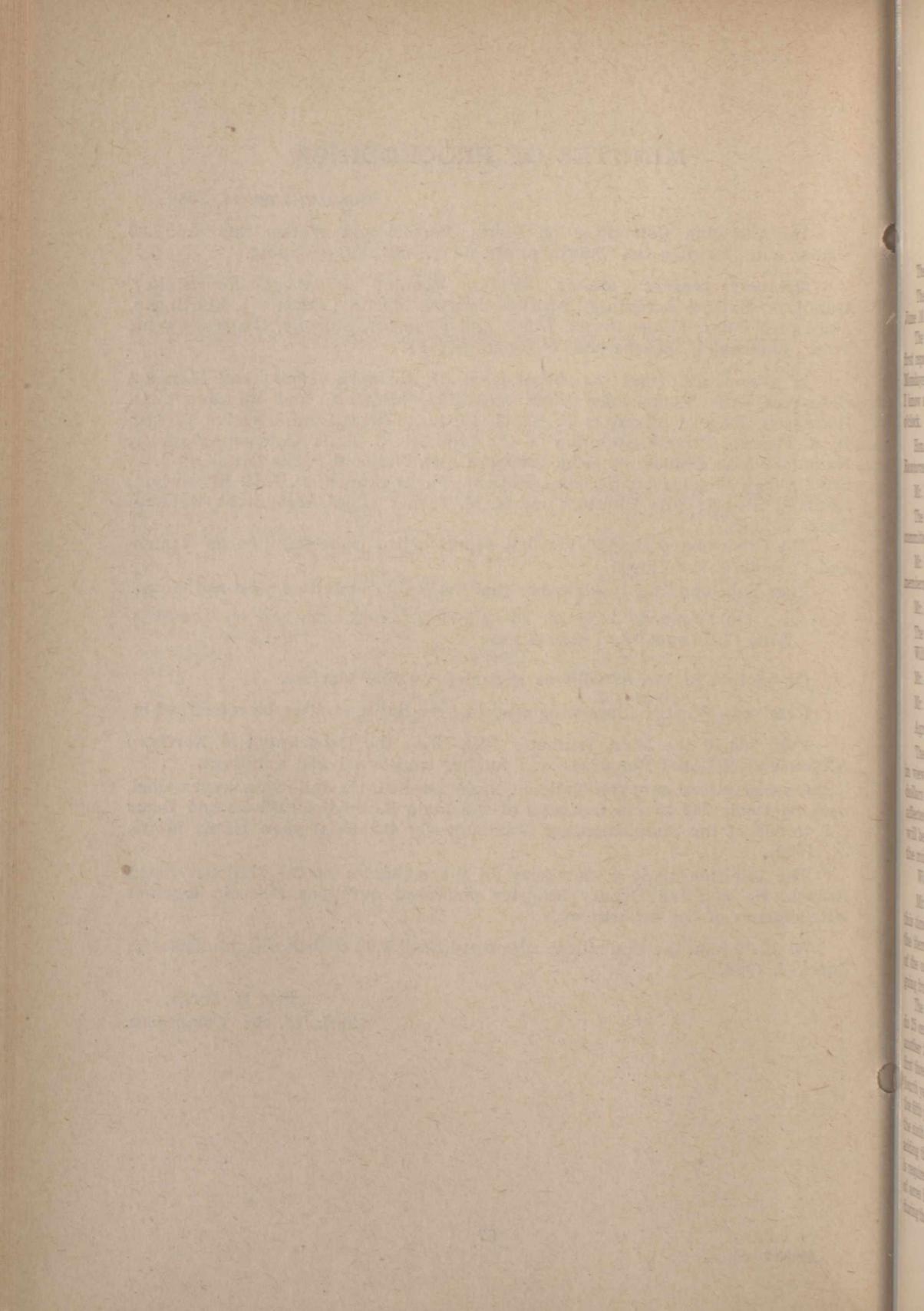
Item 268 of the Main Estimates 1958-59 of the Department of Northern Affairs and National Resources was further considered and approved.

On the estimates of the National Parks Branch, the following were called, namely, Items 269 to 275 inclusive of the Main Estimates 1958-59 and Items 580 to 583 of the Supplementary Estimates, for the fiscal year ending March 31, 1959.

The Minister made a statement on the estimates of the National Parks Branch. He and the Deputy Minister answered questions thereon, together with officials of the department.

At 12.30 p.m. the Committee adjourned until 9.00 o'clock a.m. on Tuesday, June 17, 1958.

Eric H. Jones,
Clerk of the Committee.



EVIDENCE

MONDAY, June 16, 1958.

10:30 a.m.

The CHAIRMAN: Gentlemen I see a quorum.

The sub-committee on agenda and procedure met at four o'clock on Tuesday, June 10. All members were present except Mr. Dumas who was out of town.

The sub-committee unanimously agreed to present the following as its first report: your committee recommends that the main committee meet on Mondays, June 16, June 23 and June 30 at 10:30 a.m. and on Tuesday—I know some of you will not like this—June 17, June 24 and July 1 at nine o'clock.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): Why must we meet at 9:00 a.m.?

Mr. PUGH: We are all here at nine o'clock anyway.

The CHAIRMAN: Several members would like to attend the Estimates committee at 10:30 a.m.

Mr. ROBICHAUD: Mr. Chairman, how many members of this committee are members of the Estimates committee?

Mr. NIELSEN: Seven.

The CHAIRMAN: There are seven.

Will someone move concurrence in that report?

Mr. WOOLLIAMS: I so move.

Mr. MACRAE: I second that.

Agreed to.

The CHAIRMAN: Gentlemen, I have just spoken to the minister, and I think in view of the statement he made the other day that so many millions of dollars had already been spent on exploration by certain companies in areas affected by this department, and that so many hundreds of millions of dollars will be spent later, that, when we come to that particular item in the estimates, the minister will deal with that in more detail.

Would you like to say something about that now Mr. Minister?

Mr. HAMILTON (*Qu'Appelle*): I was not prepared to answer specifically at this time. I would be prepared to give an official statement when we come to the item of northern administration. By memory, I can give you the terms of the oil regulations which deal with the exploratory part of the oil process going from permit to lease and so on.

The first term of a permit is for three years. The permittee is required to do 25 cents of work per acre during the first 18 months. He is required to do another 25 cents of work per acre in the next 18 months. That means in the first three years a permittee is required to do 50 cents of work per acre. The fourth year the permittee is required to do 30 cents of work per acre. During the fifth year the permittee is required to do 40 cents of work per acre. During the sixth year the permittee is required to do 50 cents of work per acre. By adding those amounts up you will find the amount of work that a permittee is required to do in a six-year period. If you multiply that figure by the number of acres held by a permittee it will give you the total he is required to spend during that six-year period.

As I understand the chairman's suggestion, it is his wish that I put on the record a statement showing how I arrived at that figure of \$25 million or more. To do that I would have to get the figures from the department and do the multiplication work in respect of each permit. Would that be satisfactory?

The CHAIRMAN: Would you also give us the names of the companies?

Mr. HAMILTON (*Qu'Appelle*): Yes, I could give you a mimeographed sheet with the names of the companies and the number of acres they have taken out. I could also include in that statement the amount of the deposits and the amount of the fees, if that would be satisfactory.

Mr. ROBICHAUD: That list has been made available to some members, has it?

Mr. HAMILTON (*Qu'Appelle*): It has been made available to the press off and on, since last fall. It may have been made available to members. I will make it available now. There is no secrecy about it.

Mr. KINDT: Does the statement cover all minerals?

Mr. HAMILTON (*Qu'Appelle*): No, it covers just oil and gas permits.

The CHAIRMAN: Gentlemen, we are on item 268.

Item 268. To provide for contributions to the provinces pursuant to agreements entered into, with the approval of the governor in council, by Canada with the provinces of amounts equal to one-half of the amounts confirmed by the provinces as having been spent by them for campground and picnic area developments \$1,000,000

The CHAIRMAN: You may deal with items 266, 267 and 268. You are invited to ask questions and make general observations in respect to those items.

Mr. ROBICHAUD: Mr. Chairman, before we adjourned at the last meeting the minister was asked to supply the total expenditures, by provinces, in respect of item 268 for the construction of roads to picnic sites. Are those figures available now?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. Chairman, I have just two copies here. I hope that one copy will be sufficient. I can read out the figures.

Mr. ROBICHAUD: Could I have a look at that statement? There may be some questions to be asked in respect of it.

The CHAIRMAN: Yes.

Mr. HAMILTON (*Qu'Appelle*): This is a statement in respect of the camp grounds and picnic areas program broken down by provinces from January 2 to May 31. This covers the end of one fiscal year and the beginning of another fiscal year.

The first column of figures which I will give you is the provincial claims paid in respect to provincial expenditures from January 2 to March 31; that is the end of the last fiscal year. I will read these figures slowly.

Newfoundland, nil; Nova Scotia, \$556.60; New Brunswick, \$3,233. Is it all right if I drop the cents from these figures?

Mr. ROBICHAUD: Yes.

Mr. HAMILTON (*Qu'Appelle*): Prince Edward Island, nil; Ontario, \$237,078; Manitoba, \$27,211.

Mr. PAYNE: What is that figure again please?

Mr. HAMILTON (*Qu'Appelle*): Manitoba, \$27,211; Saskatchewan \$16,312; Alberta, \$39,485; British Columbia, \$167,771, making a total of \$491,650.51.

Mr. MACRAE: Could we have that total again please?

Mr. HAMILTON (*Qu'Appelle*): The total again is \$491,650.51.

The next column contains the provincial estimates for the period April 1 to May 31. These are estimates made by the provinces for the beginning of this present fiscal year up to May 31.

Newfoundland, \$40,000; Nova Scotia, no estimate received yet, New Brunswick, \$25,000; Prince Edward Island, no estimate received yet; Ontario, \$253,000; Manitoba, \$63,000; Saskatchewan, \$24,950; Alberta, \$91,030; British Columbia, \$100,000 making a total of \$596,980.

I have another table here listing the probable total federal contribution to the provinces. This table is based on the acceptance of those figures, rounding them out. Some of these figures are higher than those I just gave. I will give you these figures if you wish as it will make sense in regard to the final table.

Newfoundland, \$40,000; Nova Scotia, a question mark. We have not been able to estimate that because we have not got their estimate in yet. New Brunswick, \$28,000; Ontario, \$490,000; Manitoba, \$90,000; Saskatchewan, \$41,000; Alberta, \$130,000; British Columbia, \$268,000, making a total of \$1,087,000. Obviously these are just the totals of the two first columns rounded out. The last column is the probable total of the provinces' expenditures. This means, in effect, our total and the provincial total added together; Newfoundland \$80,000, Nova Scotia, question mark, New Brunswick \$56,000, Ontario \$980,000, Manitoba \$180,000, Saskatchewan \$82,000, Alberta \$260,000, British Columbia \$536,000, or a grand total of \$2,174,000.

Mr. PUGH: Are there absolutely no strings attached to the province on that; that is, the provinces do the work and we pay half the shot.

Mr. HAMILTON (*Qu'Appelle*): The only limitations are, that fifty per cent of the money will go into labour and that they be within reasonable distance of a highway, or that the location be a logical place for a picnic ground. I think that there is another provision or two of a minor nature. As long as they make a statement from their own auditor that these are the expenditures, we accept them.

Mr. KORCHINSKI: Are these contracts given to individual contractors?

Mr. HAMILTON (*Qu'Appelle*): The matter is handled completely by the province and we accept their auditor's report.

Mr. PAYNE: Are there any specific requirements at all before these are established? An illustration is water. There are a number of roadside parks where water facilities are not provided.

Mr. HAMILTON (*Qu'Appelle*): I made it very clear last year that in our urgency in getting this program under way, because it had such a high labour content and could be done in the wintertime we did not specify any particular criteria, except those I have mentioned.

Mr. ROBICHAUD: Mr. Chairman, it appears from this report at least some of the Atlantic provinces took very little advantage of this agreement. I notice also the complete absence of the province of Quebec. Could the minister state whether or not there has been any correspondence with the province of Quebec in this respect, and has the province of Quebec any intention of cooperating, for a change?

Mr. HAMILTON (*Qu'Appelle*): The only correspondence is a letter I wrote to the premier of the province of Quebec which was put into the records of Hansard last session. I received no reply to that letter.

Mr. HARDIE: Mr. Benidickson asked in the house the other day if a road from Kenora to Minaki was included in the Ontario share. Could you tell me if this was included?

Mr. HAMILTON (*Qu'Appelle*): The question Mr. Benidickson asked me in the house referred to our "roads to resources" program, which is not the same as this camp and picnic site program.

Mr. HARDIE: I have a clipping here I just received from the office. It is a clipping from the Kenora paper and it says: "Work on Minaki and forest

access roads started." My understanding is that the work started on this road some time shortly after the first of February and, I think, the work stopped shortly after March 31.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, I will have to ask for your guidance. We have three types of cooperative arrangements with the provinces; one deals with camp ground picnic sites which we are now discussing, another deals with forest access roads, which could be part of what Mr. Benidickson is referring to, and the third deals with "roads to resources." My question is, shall we discuss this matter on this particular item or leave it until a separate item.

Mr. HARDIE: We can wait until the Northwest Territories item or the forestry item, if you like.

The CHAIRMAN: Yes.

Are there any other questions?

Item agreed to.

NATIONAL PARKS BRANCH

The CHAIRMAN: Now gentlemen we have before us the part of the main estimates which concerns items 269 to 275 and the supplementary estimates numbered 580 to 583.

I will ask the minister to make a statement which will involve this particular item and it will include several items in the estimates; there are seven items under the National Parks Branch in the main estimates, and three in the supplementary estimates. After the minister's statement, we will invite questions on any item.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman and gentlemen of the committee, first I would like to refer to the annual report of the Department of Northern Affairs and National Resources dated 1956-1957, which I hope you have in your files. On pages 11 to 22 of that report there is an article entitled, "Wisdom's Heritage—the National Parks of Canada." It says largely what I am going to say today, only in greater detail and probably more precisely. This particular article has been made into a separate booklet which is available for distribution from the parks information service. The reason I commend this to members is because, as I think you will find from my remarks, we all have a duty to the people of Canada, not only now but future generations, to understand the philosophy of park development.

First of all the background of the national parks of Canada is part of the warp and woof of our history. In the very early days of our country the pioneers and explorers of this great nation were struck with the superb beauty of some of the areas that they crossed in their explorations and travels. Several of them began to speak of the necessity of preserving examples of these beautiful spots for future generations. This resulted in the formation, or setting up, of the national parks system of Canada.

The primary purpose of these national parks is to preserve for generations in the future areas of superb national beauty which shall be ever inviolate to the citizens of this country for the purpose that this great beauty shall be kept for all generations.

With the setting aside of these areas of great superb beauty has come a second reason for the parks which many of us are tempted to think is the primary purpose, in that many people of Canada and visitors from outside use these areas for recreation. These parks are for recreation but they are not primarily for recreation. That is my message to you here.

You as members of this committee must share with me some responsibility for protecting and preserving these parks for their primary purpose which

is to preserve these areas in their pristine beauty. At the same time, we have to meet the needs of our citizens and visitors from outside our country for recreation and therefore, to sum it up, the minister in charge of this department and particularly his parks branch have the responsibility of reconciling the various clashes of interests that do occur.

I have mentioned to you the clashes of interests between the primary interests of the parks in their respective locations. We see it in many forms. Individuals like to have private ownership in the parks. They would like to own a little area where they could have a summer home and because it lies unused, they make their requests. In the past, requests have been granted. Of course it leads to additional claims for more private lots.

Then we come to the question of recreation, in its broader sense. Commercial interests see opportunities there which, if they could take advantage of them, would lead to considerable profit to themselves and their associates. They naturally ask us for concessions to take advantage of that opportunity. The result is that the department tends to be placed in a position where it is pushed, step by step, back onto the lines that it draws in trying to defend the natural beauty of these park sites.

I put this issue to you squarely that in this clash of interests that must go on this with regard to the parks in their original purpose as being of paramount interest to this nation, must stand with the minister and his department in helping us to defend them from this clash of interests.

On the other hand, we cannot, in the interests of practical reasoning, turn down every one of these requests. There are certain examples whereby private interests, by using certain facilities of the park, actually improve the park and these issues are always debatable. This is one type of example. The question of issuing hay leases on the edge of a park, such as the Riding Mountain national park. The question that has been reconciled in the department is to what extent is the grazing of domestic cattle a help or hindrance to the wild life in that park and to the beauty in the park; and I can say the same thing too about the cutting of matured timber.

In other words, in this clash of interests the parks branch must maintain at all times before it the clear purpose for which those parks were set up. At the same time it has to consider carefully the arguments for the multiple use of resources, if it can be proven that the multiple resources of those resources do not injure in any way the primary function of the park. Now this clash of interests may be added to by a list of other things that happen.

I have mentioned first recreation, secondly the use of natural resources in the park area and the third one I should like to mention is wild life. The parks are, of course, the natural habitat of many forms of wild life and the preservation of those natural forms of wild life is part and parcel of the national parks' purpose. But where this wild life expands in number and wanders beyond the borders of the park, a real problem is placed before the department and the clash of interests is between those farming in the nearby areas and the primary purpose of the park. Then a fourth clash of interest is town sites. In two of our parks we have town sites which were there before the parks were set up. These two town sites are Jasper and Banff. These people have a natural right to this property and this causes a grievous clash between the rights of the people who live in these town sites, trying to achieve some measure of responsibility for their own affairs and yet not acting in such a manner that the primary purpose—the park—is hurt. This is not a matter on which you can draw arbitrary lines. You are dealing with human beings and it is a problem which I do not think is going to be too easy. Anyway, it must be worked out on both sides with patience, tolerance and vision.

Now another type of clash of interest is that we are building highways. Our parks in western Canada and to a certain degree in eastern Canada lie athwart the great national roads to east and west in Canada and as we are going to have a trans-Canada highway for instance, parks have to be opened up off these highways and with that opening up of parks you bring, of course, the great commercial trucks, the tremendous traffic and this brings up certain problems to the park. There problems are, first of all, the question of population and visitor-rate growth. I am very perturbed over what I see in the figures. I have prepared for you—the department has prepared for you at my request—several charts. This is one with which we are all familiar. I have this chart on the easel, where you can all see it. It is a chart showing the rise of Canadian population from 1941 and projecting beyond the present, up to 1980. It is taken from the Bureau of Statistics figures and is used in the Gordon Commission Report. This is, in all fairness, a very conservative estimate of Canada's growth figures. I want you to note the rate of growth line to now and to 1970 and on. I mention that to you so that the significance of the next chart will become clear. This next chart, No. 2, is the attendance in national parks shown in millions of people and over the same period of time. Now these are the actual attendance figures for the years up to 1957, reaching a figure of 4.4 million.

If I project this line here on the line at the attendance of the parks, we get this increased curve for the park attendance. If we project the attendance in these parks, according to the American experience during the last 10 years, then the rate of increase would be as indicated by this green line. If we project the curve of attendance at the parks according to the population increase in Canada, this would be the curve of attendance in the parks—this red line.

Having shown you these figures put into chart form the parks department has to decide what they are going to do. At the present time we have a figure of 4.4 million people visiting our historic parks and our national parks. If the rate of attendance goes on as at the present time, we can expect by 1965, according to this chart, a figure of 7 million people who will be attending these parks. Some of us believe that with the opening up of these park areas into virgin areas of our country that the attendance figures at these parks will even increase beyond the projected line drawn from the previous experience of park attendance. This to us suggests the minimum for which we should prepare accommodation, services and amenities and it will not be very long in the future before we will have to have twice the facilities that we have at the present time.

I repeat again I personally believe this will exceed this amount because I know enough about the history of our historic parks to know that the minute you open up a virgin area with a good roads, the attendance increases by leaps and bounds into that area.

When we are discussing these votes which come in a group, I think it would be wise for you as members of this committee to ask my departmental officials for details of this road program.

You should ask them to go back to when it started and ask them to project it forward in order to see what they are planning in respect to the building of roads in the national parks of Canada, because if you see this plan it will give weight to my own opinion that there will be increased attendance beyond the factually projected curve as shown on the chart to my right.

Let me give you some more figures in conclusion. We have at the present time 17 national parks in Canada plus Wood Buffalo national park which is for the herding of buffalo.

We have at the present time 19 historic parks and 500 national historic sites.

Before I go on to discuss historic parks and historic sites I would like to say a word about the problem I have just mentioned to you, that of increased attendance and what we can do in the parks department if these highways do bring us even the increased attendance as projected by my department using the figures of the last ten years.

It is certainly obvious that if you spread your plant such as hotels, motels, and amusement grounds more and more into the park areas you are going to threaten their natural beauty.

What should we do? The first thing that we have done is to set up a planning team in the department which will be working this year and next year and the year after, because it is our estimation that it will take two or three years to get the basic planning on those projects we can undertake in the parks which will meet this growing demand for accommodation and still not destroy the scenic beauty of the parks.

I pose another question: that if the area of the present parks is not sufficient, should we obtain more park areas in Canada? Should we expand the areas of the present parks—at great expense in some cases? What is the answer?

These are things in which I think the department would be extremely aided if those of you who are here would give us your points of view, because it is going to be one of the big decisions of the future.

I think I can say at this time that the park department is planning to examine six potential areas for national parks in the Yukon area. Perhaps we should send the same team into the Northwest Territories as well where land is presently and cheaply available.

I pose this problem to you because it is essentially a decision of those of us at Ottawa that will be the decisive factor of whether we meet this tremendous attendance growth or not.

I would like to deal just a little with why this increase of population attendance in parks is growing. I think we all know of the increase in wealth per person. We all know the fact that highways are getting better and that more and more Canadians are getting automobiles, outboard motors, boats, and trailers, and that they are going on the road. We are far behind the percentage per population of the United States in this regard.

Here we have a peculiar anomaly: that Canada, with all its great natural resources and scenic areas has, percentagewise, less people on the road, less people using its scenic resources than the United States.

Therefore one would think that with the growth of per capita wealth in Canada and with the improved highways that—in my judgment—we are going to have a tremendously increased flood of Canadians as well as Americans visiting our national parks. That belief is not without some foundation.

In our planning we are studying such subjects as:

1. Highways and trails to open up more areas of the parks without destroying their scenic beauty.
2. Accommodation.
3. Township development.
4. Control of wild life.
5. Forestry.
6. Recreational facilities.
7. Campgrounds.
8. Picnicking areas.
9. Utility services.
10. Land use.
11. Zoning.
12. Acquisition of private land for parks.
13. Concessions.

14. Taxes and charges for facilities and facility-services.

15. The need for new parks and the criteria for new parks. Criteria simply means: what are the criteria that we must establish and on which we will draw the line beyond which requests may not pass.

What we would like is help on that.

I have spoken about this with some feeling and with some deliberation because this question of national parks is a very vital part of our long range planning for the best use of natural resources in Canada.

I am just going to say a word or two about historic parks and historic sites because these also are our responsibility in this field.

I think the best way I can do it is to quote a statement made by one of the fathers of confederation.

I have it here. It is a statement of Joseph Howe.

Mr. PUGH: Is it a radical statement?

Mr. HAMILTON (*Qu'Appelle*): Yes sir. I may add that I think it should be in all our minds and hearts.

As Joseph Howe's often quoted statement has it: 'A wise nation preserves its records—gathers up its monuments—decorates the tombs of its illustrious dead—repairs its great public structures and fosters national pride and love of country—by perpetual reference to the sacrifices and glories of the past...'

In our historic parks and historic sites we are trying to do just that.

My only complaint would be that the tendency is for people from various areas to approach the minister or to approach the government with suggestions for some worthwhile activities in their area—such as the preservation of some building of great architectural beauty, or of an historical site, or historical park, and that they deal with it on an ad hoc basis.

I think there should be instead of a defensive position on the part of the department trying to fend off all these requests—I think rather there should be an aggressive, positive position by the department wherein our historic sites and monuments board composed of people selected on a voluntary basis all across the country might advise the minister in this regard whenever they can, and come out in an aggressive positive manner and lay down a program which would seek out these items and bring them to the attention of the minister, and then the reports and requests from individual members might be forthcoming in respect to private parties and so they would be channeled and brought up for activity in the future.

The total vote in these estimates for historic sites will be found in the history of the parks services. It is sort of lost in there. But when you come to it think of the total for this vote, and think of how the money is going to be spent, I would certainly like to have the advice of the committee on what you think of the size of the vote for such a worthwhile project.

The CHAIRMAN: You have heard the statement of the minister. The items total under this section \$21,400,000. This is an increase of \$2,315,000, and at this time I invite your observations, suggestions and criticisms.

Mr. COATES: Could the minister break down the attendance in the different national parks across Canada; or is it in the report?

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): It is in the report.

Mr. HAMILTON (*Qu'Appelle*): My deputy minister has indicated that the answer to that question is in the report. I wonder if I could ask permission that on any questions of detail, the members of the committee would inquire direct to the officers of my department.

The CHAIRMAN: All right.

Mr. HAMILTON (*Qu'Appelle*): In this way you will get the answer faster and more accurately than I can give it. I have to leave now to attend a meeting of cabinet.

The CHAIRMAN: Would you like the deputy minister to put that information on the record?

Mr. COATES: If it is here.

The CHAIRMAN: All the public do not receive a copy of the report. Are you prepared to answer that?

Mr. ROBERTSON: Yes, Mr. Chairman, I could do it by referring to the table, appendix C, in the report at page 59, but I have the figures which are one year later, and perhaps they would be more suitable for the immediate purposes.

These 1957-58 figures are the latest we have. These are only one year later than the figures in the annual report.

Banff	790,910
Cape Breton Highlands	128,397
Elk Island	183,041
Fundy	143,662
Georgian Bay Islands	26,300
Glacier	222

Here, I might mention, Mr. Chairman, that Glacier has no road access at the present time.

Jasper	332,024
Kootenay	347,678
Mount Revelstoke	39,028
Point Pelee	591,235
Prince Albert	123,280
Prince Edward Island	200,748
Riding Mountain	630,189
St. Lawrence Islands	59,250
Watertown Lakes	302,872
Yoho	41,875

This makes a total of 3,940,711.

Mr. Chairman, do you wish me to go on with the historic parks? I can do that.

The CHAIRMAN: Would you like to have those figures?

Mr. COATES: We might as well have them.

Mr. ROBERTSON:

Alexander Graham Bell Museum	36,053
Fort Anne	24,052
Fort Battleford	15,214
Fort Beausejour	13,778
Fort Chambly	72,965
Fort Lennox	13,335
Fortress of Louisbourg	20,705
Fort Malden	21,197
Fort Wellington	17,426

Grand Pré may not be listed in the table because it was only acquired in the last year. The figure there is 31,362.

Halifax Citadel	134,866
Port Royal Habitation	23,441
Woodside	1,284

Mr. COATES: Apparently there are three new additions.

Mr. ROBERTSON: Grand Pré has just recently been taken over. I do not think that Woodside is listed in the table, but it is covered in the footnote at the bottom. I do not know what the third one is.

Mr. COATES: There is the Alexander Graham Bell museum.

Mr. ROBERTSON: That has been established in the last three years, but it has been established as an historic park fairly recently. There are some others that are just estimates because we have not the exact figures available. Batoche rectory may not be in the list. The old rectory at Batoche in Saskatchewan was recently acquired, and the figure there is 800; Lower Fort Garry, near Winnipeg, 21,300. Fort Langley, in British Columbia is not yet established. It is being established this year to coincide with the British Columbia centennial. The estimated figure for attendance there is 3,500. In the case for Fort Prince of Wales, there is an estimated attendance figure of 550; Sir Wilfrid Laurier's birth place at Quebec 4,650. Signal Hill in Newfoundland, which is not in the list, has just recently been established as a national park, and the figure there is 500. This makes a total for the historic parks of 456,978, and the combined total of the national parks and national historic parks is 4,397,689.

If I may, Mr. Chairman, I would like to say a word about the attendance figures. These attendance figures are accurate as an indication of the increased use of the parks, but they cannot be taken at their face value as a comparison of the relative use of one park as compared to another. For instance, a person going to Point Pelee, which is just a resort area, would normally stay a Sunday afternoon, or a day, but he would be counted as one. A person going to Prince Albert national park would be more likely to stay a week or two weeks, and he would be counted as one. We are trying to work out some means of reducing the attendance to a satisfactory unit, which we regard as a tourist day. You are unable to stop everybody going out and say, "How long have you been there?" or you will jam up your roads. You are unable to stop them every time they go out to a show. We are trying to devise a way of getting a tourist day figure.

The CHAIRMAN: Could you add to that the percentage of visitors from different provinces, and what percentage are foreign, or from the United States?

Mr. ROBERTSON: I am told there were roughly 700,000 United States visitors last year. This would be out of a total of just over 4 million.

The CHAIRMAN: Is that an increase?

Mr. ROBERTSON: I am unable to advise offhand whether or not it is an increase.

Mr. COATES: I would like to direct a supplementary question. In regard to the national historic parks in the eastern end of Canada, I notice that there has been quite an appreciable drop in attendance, although in looking at the national parks statistics, there has been a slight increase in the different areas. Is there any explanation for this?

Mr. ROBERTSON: Mr. Chairman, there are only two cases where there are declines in attendance. There is a decline at Fort Beausejour. I think the decline there is a result of the condition of the road. This is the main highway linking New Brunswick and Nova Scotia. That road was under construction last year. Road signs were down and it was a difficult road to travel. I am sure that affected the attendance there very considerably.

Port Royal Habitation has an attendance figure which is 375 less. I do not know why that attendance should be down.

Mr. MACRAE: The attendance is down in respect of Halifax Citadel.

Mr. ROBERTSON: The attendance at the Halifax Citadel is up.

Mr. MACRAE: The figure I have here is 134,000. It should be 234,000, should it?

Mr. ROBERTSON: The figure should be 234,000, I am sorry. This is a typographical error.

Mr. WOOLLIAMS: I would like to ask a supplementary question. Following up those attendance figures, I wonder if we could have a breakdown of the appropriations to the various parks in respect of attendance?

Mr. ROBERTSON: We could give that figure, Mr. Chairman. I can do that. There is one comment I would like to make in the nature of a caution in respect to this, and that is that these figures should not be related just to park attendances on the assumption that there is necessarily some relationship. The parks are in different stages of development. Some of them are in well developed states, others are simply reaching the point of development. For instance, the Fundy national park has only been in existence for 10 years. There is still a good deal of capital development needed there. The Terra Nova national park is not in existence at all. The Banff national park has been in existence for a long time. There are differences of this kind. With those qualifications as to the cause I could certainly give the figures.

Mr. WOOLLIAMS: I would like to have those figures if I may, sir.

The CHAIRMAN: Anything further on the same subject?

Mr. ROBICHAUD: I think it is most unfortunate at this time that the minister had to leave the committee after making an important statement in respect of national parks. It is only natural that we will have quite a few questions on policy of the department, and it would not be fair for us to ask those questions of the officials of the department.

The CHAIRMAN: Mr. Robichaud, the minister will be here tomorrow to answer questions respecting policy. However, if you would like to go into the details of the estimate now, that is quite all right.

Mr. PUGH: Mr. Chairman, in respect of the projected population going through these parks, do you take into account, for instance in respect of the Banff national park, the through traffic, including trucks? Are they considered in this graph? A good deal of the traffic would be going right through these parks. I know that area very well.

Mr. ROBERTSON: Yes. This is a very difficult problem, Mr. Chairman. We have this problem in Banff where there is through traffic. We have this problem in the Riding Mountain national park where No. 10 highway goes through. To some extent we have the problem in respect of the Prince Albert park where the highway to Lac La Ronge goes through. I suppose the Banff-Kootenay road is used for through traffic to some extent.

This problem does arise. It is a very difficult problem. We cannot stop every car to ask if the passengers are going to stop in the park, and to ask whether if so, they are attending the park or just spending a night en route. We have not been able to solve that problem. These figures do include figures for initial entrance if through traffic parties. If a person going through Riding Mountain got an initial ticket there I do not know whether it would be counted each time he went through the park or not. I am now informed that, he would be counted each time because there is no way of sorting out these people at the present time. We hope to get to the bottom of this problem by charging a tourist day attendance fee, which will show the attendance in a better manner.

Mr. PUGH: Just following that up, when the No. 1 trans-Canada highway is finished, will trucks going through these national parks have to pay an additional toll?

Mr. ROBERTSON: I wonder if Mr. Coleman, the director of the parks branch, might deal with this question?

The CHAIRMAN: Yes.

Mr. J. R. B. COLEMAN (*Director, National Parks Branch*): The situation now is such that we do charge a transient motor licence, and we do provide for trucking on a limited scale. Of course, when the trans-Canada highway is completed there will naturally be through traffic. We are presently working on a schedule of truck fees, so I am unable to give you the exact amounts. However, we anticipate, they will be available very shortly, because we hope that through trucking will be opened up by late this fall.

Mr. PAYNE: Mr. Chairman, while the minister was making his statement he asked us to express a few opinions. I am rather anxious to do so while we are considering the estimates. I feel there is a dreadful tendency, for various factors to pick out specific things and to saw one factor off against another.

I feel that this committee's role covers perhaps more than merely a review of the estimates. I am anxious to state that the only regret I have is, of course, that the money that is provided for national parks is not substantially greater. I feel very strongly that money has never been spent better in the Dominion of Canada than that money being spent on the development, creation and operation of national parks. All we must do today is seriously look at the various factors in our civilization which are creeping prevalently upon us in metropolitan areas—the incidence of mental illness, and the various projected results of pressures which are brought about by our civilization—to realize the need, not only for the maintenance and development of our current parks but for the wide necessity of creating and developing them.

In that connection, sir, by way of a question, is it in any way possible for the members of this committee to have an opportunity to see a wider field of parks development? I am very familiar with those in the west, but in respect to those on the east coast I know nothing. Would it be possible for this committee to visit these different areas?

Before I close there is one suggestion I would like to make. I feel, there is a great necessity, in the future not only to look far afield for future park developments, but to give serious thought to the locating of parks reasonably adjacent and accessible to populated areas. Those areas direly need now, and will increasingly need in the future, the relaxation that is provided only in Canada's great out-of-doors.

The CHAIRMAN: Mr. Payne, I think probably the question is directed to me.

Mr. PAYNE: Yes.

The CHAIRMAN: I may say that consideration is now being given to the idea that before too long an opportunity will be afforded for a trip in order to better acquaint members with the future problems of not only of this department but the Department of Mines and Technical Surveys. As soon as an announcement can be made I will be glad to communicate it to the committee.

Mr. PAYNE: Thank you, very much.

Mr. ROBICHAUD: Mr. Chairman, again I want to come back to the remark I made a moment ago. It is most unfortunate that the minister had to make a long statement to the committee, and then without warning and before any questions could be asked of him, he left this committee. I do not think that is fair.

An hon. MEMBER: He had to attend a cabinet meeting.

Mr. ROBICHAUD: That may be true, but a committee meeting was called for 10.30 this morning.

The CHAIRMAN: Mr. Robichaud, if I may just interrupt you here. I gave you the assurance a few moments ago that the minister would deal with matters of policy tomorrow. As a matter of fact, as you know, he said he was attending a cabinet meeting. As you know, having been a member of committees for

years, we appreciate the fact that there are times when ministers and important witnesses cannot be present. The item will be left over in order to satisfy you and other members of the committee in this respect.

Mr. ROBICHAUD: I appreciate that explanation, Mr. Chairman, but at the same time I think that the statement which has been made by the minister, should also have been delayed.

I have a question which has to do with the Canadian wild life services, which comes under the national parks department. Could the officials concerned give us any information as to the regulations concerning wild geese in the United States as compared with Canada? Wild geese are migratory birds and they go through this country in the spring and the fall. Could we find out when the hunting seasons in the United States occur, and what the bag limits there are as compared to Canada?

Mr. ROBERTSON: Mr. Chairman, I wonder if it would be possible to deal with that question later when we come to the wild life vote? We hoped this morning that perhaps we could deal with questions particularly in regard to the parks items. We did not ask our wild life officers to be here this morning. Could we have questions dealing with wild life deferred until we are considering that item, and deal this morning with questions relating to national parks estimates? I think that would enable us to have the appropriate officials here when we are dealing with the wild life vote.

The CHAIRMAN: I think that is quite all right.

Mr. PUGH: On the expenditures for roads, does the trans-Canada highway construction, for instance, come under the parks branch?

Mr. ROBERTSON: No.

Mr. PUGH: On page 59 of the annual report of the Department of Northern Affairs and National Resources there is a heading for maintenance of roads, and a good deal of it seems to concern trans-Canada highway construction?

Mr. ROBERTSON: Mr. Chairman, the arrangement is that the funds for the construction of the trans-Canada highways comes under the trans-Canada highway vote in the Department of Public Works. The maintenance of roads, once the roads are constructed in the parks, comes under the parks branch; but the parks construction program does not include construction for the trans-Canada highway.

Mr. PUGH: For instance, on page 59 it states that the Bow river bridge and C.P.R. overpass is 62 per cent complete. Would those not be major items?

Mr. ROBERTSON: I am sorry, Mr. Chairman, but this is simply a progress report. This does not mean there are funds in the votes.

Mr. PUGH: It has nothing to do with the estimates?

Mr. ROBERTSON: No. It simply reports progress items on the trans-Canada highway in that particular case.

Mr. Chairman, I wonder if I might deal with an earlier question asked by Mr. Woolliams about expenditures by parks? If the committee would refer to the estimates book at pages 409 and 410 those pages give a breakdown, by parks, of the two main votes. The first one on page 409 is the allocation of administrative and maintenance expenditures for each park, and on page 410 there is the allocation by parks of the construction and new equipment purchase expenditures by parks. I think the two together perhaps cover the point which Mr. Woolliams had in mind.

The CHAIRMAN: Mr. Woolliams, would you like to have those items incorporated in the minutes?

Mr. WOOLLIAMS: I think it would be a good idea.

Agreed.

	Amount																			
	1958-59	1957-58																		
	\$	\$																		
NORTHERN AFFAIRS AND NATIONAL RESOURCES																				
NATIONAL PARKS BRANCH																				
<i>Further Details for Administration, Operation and Maintenance of National Parks and Historic Sites Services</i>																				
Banff Park.....	1,460,738	1,365,669																		
Cape Breton Highlands Park.....	266,942	254,830																		
Elk Island Park.....	233,574	208,612																		
Fundy Park.....	184,270	190,376																		
Georgian Bay Islands Park.....	45,431	44,909																		
Glacier Park.....	69,799	48,443																		
Jasper Park.....	763,267	712,732																		
Kootenay Park.....	360,099	332,313																		
Mount Revelstoke Park.....	89,158	65,970																		
Point Pelee Park.....	68,399	65,525																		
Prince Albert Park.....	427,779	384,348																		
Prince Edward Island Park.....	122,072	117,007																		
Riding Mountain Park.....	352,813	341,034																		
St. Lawrence Islands Park.....	49,584	45,771																		
Terra Nova Park.....	39,802	10,000																		
Waterton Lakes Park.....	238,154	235,569																		
Yoho Park.....	294,337	274,498																		
Approximate Requirement for Increases in Rates of Pay.....		107,316																		
	6,065,610	5,646,039																		
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 25%; text-align: right;">Expenditure</th> <th style="width: 25%; text-align: right;">Revenue</th> </tr> </thead> <tbody> <tr> <td>Fiscal Year, 1956-57.....</td> <td style="text-align: right;">\$ 4,998,628</td> <td style="text-align: right;">\$1,485,844</td> </tr> <tr> <td>Fiscal Year, 1957-58:</td> <td></td> <td></td> </tr> <tr> <td> Actual to January 1, 1958.....</td> <td style="text-align: right;">\$ 4,210,853</td> <td style="text-align: right;">\$1,369,629</td> </tr> <tr> <td> Estimated for balance of year.....</td> <td style="text-align: right;">1,435,186</td> <td style="text-align: right;">199,540</td> </tr> <tr> <td> Estimated total for 1957-58.....</td> <td style="text-align: right;">\$ 5,646,039</td> <td style="text-align: right;">\$1,569,169</td> </tr> </tbody> </table>			Expenditure	Revenue	Fiscal Year, 1956-57.....	\$ 4,998,628	\$1,485,844	Fiscal Year, 1957-58:			Actual to January 1, 1958.....	\$ 4,210,853	\$1,369,629	Estimated for balance of year.....	1,435,186	199,540	Estimated total for 1957-58.....	\$ 5,646,039	\$1,569,169
	Expenditure	Revenue																		
Fiscal Year, 1956-57.....	\$ 4,998,628	\$1,485,844																		
Fiscal Year, 1957-58:																				
Actual to January 1, 1958.....	\$ 4,210,853	\$1,369,629																		
Estimated for balance of year.....	1,435,186	199,540																		
Estimated total for 1957-58.....	\$ 5,646,039	\$1,569,169																		
<i>National Parks and Historic Sites Services—Construction or Acquisition of Buildings, Works, Land and Equipment</i>																				
Construction of Buildings..... (13)	927,225	1,257,638																		
Construction of Trunk Highways including Bridges..... (13)	9,531,800	8,405,700																		
Construction of Other Roads, Bridges and Trails..... (13)	333,865	1,020,108																		
Other Construction Projects..... (13)	2,594,334	1,491,570																		
Acquisition of Cars and Trucks..... (16)	261,470	287,420																		
Acquisition of Tractors and Heavy Road Machinery..... (16)	477,704	10,000																		
Acquisition of Fire Fighting Equipment..... (16)	81,297	45,685																		
Acquisition of Other Equipment..... (16)	192,230	192,153																		
	14,399,925	12,710,274																		
Less—Estimated amount by which actual expenditure on all projects may fall short of the total of amounts that may be required for each..... (34)		210,000																		
	14,399,925	12,500,274																		

	Amount	
	1958-59	1957-58
	\$	\$
NORTHERN AFFAIRS AND NATIONAL RESOURCES—Concluded		
NATIONAL PARKS BRANCH—Concluded		
<i>Further Details for Construction or Acquisition of Buildings, Works, Land and Equipment—National Parks and Historic Sites Services</i>		
Head Office.....	300,000	
Historic Sites.....	633,070	639,315
Engineering Services.....	51,578	39,350
National Parks Trunk Highways.....	9,531,800	8,405,700
Banff Park.....	1,186,501	1,195,865
Cape Breton Highlands Park.....	84,125	175,739
Elk Island Park.....	112,077	60,387
Fundy Park.....	262,260	361,887
Georgian Bay Islands Park.....	31,015	24,480
Glacier Park.....	25,285	1,750
Jasper Park.....	258,976	442,599
Kootenay Park.....	173,498	209,805
Mount Revelstoke Park.....	28,670	61,127
Point Pelee Park.....	80,425	104,100
Prince Albert Park.....	177,450	181,620
Prince Edward Island Park.....	76,100	53,205
Riding Mountain Park.....	190,590	222,905
St. Lawrence Islands Park.....	24,575	24,410
Terra Nova Park.....	759,050	156,850
Waterton Lakes Park.....	125,279	138,890
Yoho Park.....	287,601	210,290
	14,399,925	12,710,274
Less—Estimated amount by which actual expenditure on all projects may fall short of the total of amounts that may be required for each.....		210,000
	14,399,925	12,500,274
	Expenditure	
Fiscal Year, 1956-57.....	\$ 10,284,401	
Fiscal Year, 1957-58:		
Actual to January 1, 1958.....	\$ 5,703,995	
Estimated for balance of year.....	6,796,279	
Estimated total for 1957-58.....	\$ 12,500,274	
<i>Grant to Jack Miner Migratory Bird Foundation</i>		
Grant..... (20)	5,000	5,000
<i>Grant in aid of the Development of the International Peace Garden in Manitoba</i>		
Grant..... (20)	10,000	10,000

Mr. ROBICHAUD: Under item 271 there is an amount of \$477,704 against \$10,000 last year for the acquisition of tractors and heavy road machines. Could Mr. Robertson explain why there is such a heavy purchase this year?

Mr. ROBERTSON: The difference is not as great as it looks. At the end of last year there were a number of cases where for various reasons there were unexpended items under some of the construction votes. These funds were used to purchase equipment which would be needed for the following year in order to have them available. The figure for last year was really artificially low. The purchases had been made at the end of the previous fiscal year. This present year's expenditure is more a normal expenditure.

Mr. ROBICHAUD: Could the deputy minister also advise the committee what percentage of this equipment was Canadian manufactured?

Mr. HARDIE: Before we go any further, I wonder if the officials could answer the questions from their chairs rather than jumping up and down like jacks-in-a-box.

The CHAIRMAN: Yes.

Gentlemen, I hope you have your supplementary estimates. Including item 580 on page 7, under Northern Affairs and National Resources, there are four items which you might wish to consider.

Mr. ROBERTSON: On Mr. Robichaud's question as to the proportion of capital equipment items made in Canada, we could only make a guess at this time. I am told by the officials that something in the vicinity of 70 per cent would probably be reasonable, but to find it out exactly we would have to make a breakdown. We do not have it totalled in that way. Tenders are always called for in Canada.

The CHAIRMAN: Mr. Robichaud, do you wish that question answered tomorrow?

Mr. ROBICHAUD: I think I will accept the deputy minister's figure of 70 per cent. Under item 271 there is also an amount of \$261,470 for acquisition of cars and trucks. Does the department supply the officials in the parks with cars, and what percentage of this amount is for cars and what percentage is for trucks?

Mr. ROBERTSON: In answer to the first question as to whether the department provides cars for officials in the parks, it depends on the duties of the official. The parks superintendent has to have a car on he could not carry on his function. The chief engineer of the parks clearly has to have a car or he could not carry on his function. The chief engineers in most cases have to have cars. It depends entirely on the work which the person has to carry out. In the case of our park wardens they normally have a light truck which they use to get around their district and to carry pieces of equipment that are needed.

Mr. Coleman will answer the question as to the breakdown.

Mr. COLEMAN: In the national parks we have forty-eight cars and 360 trucks, or a total of 408 vehicles.

Mr. ROBICHAUD: Would the officials be able to tell us what percentage are Canadian manufacture.

Mr. ROBERTSON: I think, Mr. Chairman, all the cars are Canadian made. They are all, I believe, in the low-priced three group. It is on a tender basis and I think they would all be Canadian made. In a few cases there might be some station wagons which are not made here, but apart from that they would all be Canadian made.

The CHAIRMAN: Are they purchased from the automobile manufacturers or from dealers?

Mr. ROBERTSON: From dealers. What is done is they call for tenders for the supply of whatever is required and the lowest tender of suitable equipment is taken.

Mr. NIELSEN: Is it correct that all people who tender bids on these cars would be Canadian dealers?

Mr. ROBERTSON: Definitely. That is correct.

Mr. KINDT: May I ask, Mr. Chairman, what steps are being taken by the department, in cooperation with the provinces, to improve the statistics on tourist travel? I have just a word to say on that. The question of the accuracy of statistics has been mentioned here once before, and I would like to add a footnote to what has been said; namely, it was my privilege to do some work on the Report of the Gordon Royal Commission for the province of Alberta and I found that the statistics which I had to work with in the province of Alberta on tourist travel, in respect of numbers, interprovincial travel and the amount of money spent, were in a very, very inaccurate and non-reliable state. I would like to ask what cooperation there is or what steps are being taken to set up for the dominion of Canada a system of recording facts of that kind so that we have something we can turn to and feel that it is reliable?

The CHAIRMAN: That is a specific question which should be dealt with under item 303, the Canadian Government Travel Bureau. Would you mind asking this question when we are considering that item?

Mr. NIELSEN: I am curious about something under item 269. There is a reference made to two stipendiary magistrates. Are they justices of the peace? Is it a misnomer? If so, would they not be more properly remunerated by the Department of Justice rather than by northern affairs?

Mr. COLEMAN: There are two stipendiary magistrates, one at Jasper and one at Waterton Lake. There is also a police magistrate at Banff. The rates which are paid to these persons I believe are set by the Department of Justice. I am sorry, but I cannot tell you why it has developed that they are carried under our vote. It may be something which has developed by virtue of many years of practice.

Mr. NIELSEN: I am wondering whether they are justices of the peace rather than stipendiary magistrates?

Mr. COLEMAN: No. They are stipendiary magistrates.

Mr. PUGH: I was at Radium Hot Springs in the Kootenay park this spring and enjoyed it very much. I understand there is a move afoot to enlarge parking facilities immediately below the swimming pool. The method which was suggested to me at that time was that they would fill in the valley or the canyon for some considerable distance. I was wondering whether or not that is in the estimates for this year and also whether or not the department has had a real look at it and considered it is a good idea.

Mr. COLEMAN: That is, of course, part of our highway program through the town site. The question of the fill in that ravine is a very difficult one because it would be so costly. You may recall that it would be a terrific fill and I do not think that the expense would be justified.

Mr. PUGH: I am very glad to hear that. It would certainly spoil the beauty of the place.

Mr. COLEMAN: One of the problems we had in getting the highway through the town site was to disfigure the landscape as little as possible, and that too is one reason why we are not very happy with the proposal of making the fill in the ravine.

Mr. ROBERTSON: Perhaps I might supplement, Mr. Chairman, by saying that the project referred to is one that was considered as a possibility but for a number of reasons was not considered the desirable course.

Mr. PUGH: I realize the difficulty in traffic. The people cannot approach the pool. Could a bus service be installed running from downtown in some manner to keep that traffic out of there? During the summer it is a big hazard and it is one of those clashes that the minister was talking about that will have to be got around in some manner or another.

Mr. ROBERTSON: Mr. Chairman, this is the sort of situation we have at Kootenay. There is a narrow ravine with little room and with a great deal of traffic. There is a great deal of activity around the pool and it is a serious problem. I do not know whether there is anything else Mr. Coleman can add to the method of coping with this problem.

Mr. COLEMAN: We are having a special study made this fall by two competent engineers on townsite structures as a whole. As Mr. Robertson has said, parking is a big problem in such a limited area.

Mr. PUGH: Is that townsite the one outside the canyon? That would be outside the park.

Mr. COLEMAN: You are speaking of the site downtown at the junction.

Mr. PUGH: I am suggesting that that is a proper place for a parking place rather than in the canyon itself.

Mr. ROBERTSON: That is outside the park. Unfortunately this is not within our jurisdiction or control.

Mr. COLEMAN: The park boundary is at the entrance gate.

Mr. FLEMING (*Okanagan-Revelstoke*): I notice in the vote for "national parks" this year, there is a considerable increase in the amount of money. Is that increase for the extension of trails or for a main campsite below Glacier park? Is that being developed further this year or is that for the extension of the trail through the park or for buildings? Just exactly what additional work is being undertaken at Glacier this year?

Mr. ROBERTSON: In Glacier park we are trying to begin the work that will be needed to put it in shape. It has no highway access as the hon. member knows and we have got to provide, or begin to provide, some of the facilities that will be needed when the Trans-Canada highway goes through there. Perhaps Mr. Coleman could deal with the particular item.

Mr. COLEMAN: The principal items are, the construction of a warden's patrol cabin at Flat Creek trail and Bostock Mountain Creek trail, \$9,000; continuation of construction of Mountain Creek trail, \$4,000; an extension of the Beaver river trail to the south boundary, \$4,000. The total expenditure is on trails.

Mr. ROBERTSON: There is not much reflected as yet in expenditures because it is still in the planning stage. The highway is not expected to be opened there until 1961 or 1962.

Mr. FLEMING (*Okanagan-Revelstoke*): I realize that problem. However, from my own experience I have been in the park three or four times and have been camping there for the last four years. The Nakimu caves which are going to be one of the principal attractions in the park are now very dangerous at the present time for visitors. It is impossible to keep visitors out of them. There is no one there to supervise them. And I am surprised that there has been no action taken possibly to start the development of these caves to make them safe for visitors. These caves are extremely dangerous, with the old passageways that the C.P.R. abandoned when they moved their facilities to Banff. They are gradually deteriorating and no steps are being taken to provide any new services there and yet people are going into the caves without guides and without proper facilities and they are likely to encounter serious difficulty.

Mr. ROBERTSON: Mr. Chairman, I am told that those caves are officially closed to the public.

Mr. FLEMING (*Okanagan-Revelstoke*): I realize that but there is nothing there to show it and people are going through.

Mr. ROBERTSON: If there is nothing there, we should endeavour to put a sign up.

Mr. FLEMING (*Okanagan-Revelstoke*): If people know that they are there, it is a difficult thing to close them off but unless something is done about those caves, there could be a tragedy in that park.

Mr. ROBERTSON: I am glad, Mr. Chairman, that the member has brought that up. We will look into that. For the future, the caves form part of the planning to development.

Mr. FLEMING (*Okanagan-Revelstoke*): I have one further question. Is the department planning to do something about restoring the caves? The C.P.R. had a chalet there, and Swiss guides as well as ladders and passageways, and all the stuff there is deteriorating. Some of it is very dangerous.

Mr. ROBERTSON: The answer is yes. Plans are being made. This is an interim situation we have to look at and I am glad the member brought that up.

Mr. FLEMING (*Okanagan-Revelstoke*): On the Mount Revelstoke park vote the estimate is down this year. Is there any consideration being given, as is being advocated by the city of Revelstoke, to the further development of the skiing facilities—the big ski jump where they held their international meet in the spring? Is there anything further considered to help them develop those skiing facilities, for instance in so far as down-hill and slalom runs are concerned? I believe the ski people in the town who have worked to develop this international meet have plans for down-hill runs, slalom runs and so on. Is there anything being considered now or will there be in the future for development of that type of thing?

Mr. ROBERTSON: One of the items for next year's expenditure, Mr. Chairman, is in a sense related to the skiing facilities. \$2,700 is in for the improvement of the access road to the ski area and the parking facilities at that point. I do not know that there is anything planned in connection with the slopes.

Mr. FLEMING (*Okanagan-Revelstoke*): There was something like 10,000 people in there this spring and I am glad to hear about that parking because it was an astonishing problem. They had a tremendous crowd. Although a lot of work has been done—and it was not bad—it is still not up to standard. If that meet continues to draw, more will have to be done.

Mr. COLEMAN: The ski hill is very close to the park boundary and I believe that there is only one way that it can be expanded and that is outside of the park and I believe that is under consideration by the local ski club.

Mr. FLEMING (*Okanagan-Revelstoke*): I understand that. I have one further question on Revelstoke; the road to the top is a pretty old road. This road was originally laid out in 1913 or 1916. With the increasing traffic going in there, particularly with the work going ahead on the trans-Canada highway to Revelstoke, the number of people going to the summit, I believe, is increasing every year. New automobiles are in quantity on that road and they are finding the present road a little narrow by modern standards. Is that road being gradually improved and brought up to standard?

Mr. COLEMAN: There is no immediate plan for doing so. As you may recall there are many places on the road where it is so confined that it would be almost impossible to widen it to any extent on the switch backs.

Mr. FLEMING (*Okanagan-Revelstoke*): It is not a bad road. Traffic today is very much more demanding. It is still a good road except that modern traffic

requires so much more, by way of roads and there are some areas where you could get into trouble quite easily, especially with the volume of traffic and if drivers are careless.

Mr. ROBERTSON: This, Mr. Chairman, is our general problem that we have with the parks. With the increased use and development of cars, roads that were adequate 10 years ago are almost generally inadequate today. We have had to set priorities in road construction, which we have done, and that road did not appear to us to be one that was near the top in priority. Maybe at some point certain improvements will be required but we do not think that had top priority yet.

Mr. FLEMING (*Okanagan-Revelstoke*): With the highway construction approaching Revelstoke through the mountain it may not be completed until 1961 or 1962. When those 30 miles of road west of Revelstoke is completed, I think you will find that the amount of traffic going in that far is going to increase, and they will be going in there primarily to go up Mount Revelstoke. What has been keeping the volume of visiting at Mount Revelstoke park down, has been the condition of the access road through from the west to Revelstoke. But within a year or two years that road is going to be completely payed from present appearances, which means a far greater increase of traffic to Mount Revelstoke park within the next two and a half years.

Mr. ROBERTSON: I am told, Mr. Chairman, that the planning is going ahead on this road and that the thinking of the parks division and the engineering division is that the right solution will be to take the road down the other side of the mountain and have a one-way road. Now this I can see may well be the best solution because it will be very difficult to widen that road.

Mr. FLEMING (*Okanagan-Revelstoke*): If you eliminated that considerable stream of traffic on that road, it would relieve it because the present road is very good in that respect.

Mr. HARDIE: I wonder if we could get a breakdown by parks of the item shown on page 409, item 271 under construction of trunk highways including bridges. I wonder if we could get a breakdown park by park.

Mr. ROBERTSON: These are the expenditures for the coming year which Mr. Hardie has in mind.

Banff-Jasper highway	\$4,000,000
----------------------------	-------------

Perhaps I had better give just the major ones.

Banff-Windermere highway	\$3,084,000
--------------------------------	-------------

This is not broken down by parks because the Banff-Windermere highway is partly in the park and partly in Banff.

Cabot Trail	\$1,350,000
-------------------	-------------

That is on Cape Breton Island.

Gulf Shore road, Prince Edward Island	\$800,000
---	-----------

In Jasper, of course, the Banff-Jasper highway is both for Banff and for Jasper, but we have put it under the Jasper main item to look after the surface of the road to the east getting to the park, and the amount is \$70,000.

The construction of the highway underpass on the railway line running there, \$128,000.

In Riding Mountain, the items add up to \$30,000.

In Fundy national park again the item again is small, \$12,000.

Prince Albert, \$12,000.

These are the main items for highway construction.

Mr. ROBICHAUD: How many roads does the department now maintain in the Fundy national park?

Mr. ROBERTSON: I cannot give the exact mileage, but I think it would be about 18 miles. I am now told that it is 19.9.

The CHAIRMAN: Are the contracts all let by tenders?

Mr. ROBERTSON: Yes, Mr. Chairman. Each year tenders are called for usually through the Department of Public Works, highway division, and the contract is awarded to the lowest tender.

Mr. HARDIE: I notice an item of \$1,370,000 for the Cabot Trail in the Cape Breton park. Will that complete the widening?

Mr. ROBERTSON: No.

Mr. ROBICHAUD: How many miles have been completed up to now in the widening of the Cabot Trail?

Mr. ROBERTSON: Mr. Scott of the engineering division will answer your question.

Mr. G. L. SCOTT (*Chief Engineer, Engineering Service, Department of Northern Affairs and National Resources*): This year there is an estimate for the paving of the first 15 miles north of Chaticamp, and we are also providing for the reconstruction from mile 15 past Pleasant bay to mile 21.6.

On the east side we have completed up to "Effie's" brook and up past Neil's harbour, with a hard surface.

Mr. McLENNAN: Have you any further plans in connection with Victoria county for this year?

Mr. SCOTT: On the west side?

Mr. McLENNAN: No. Beyond "Effie's" brook.

Mr. SCOTT: No. The provincial government goes in there.

Mr. McLENNAN: From the park headquarters in to Ingonish and towards Neil's harbour?

Mr. SCOTT: That is right.

Mr. McLENNAN: You almost have to be a snake to travel that road. You say it is the responsibility of the provincial parks branch?

Mr. SCOTT: Towards Neil's harbour it has been reconstructed and paved but not to the same standard, I must admit.

Mr. McLENNAN: Yes, I know. It is narrow.

Mr. ROBERTSON: I would not say it was a dangerous highway.

Mr. KORCHINSKI: On page 408 there is an item for unemployment insurance contribution and I notice there is a decrease. How do you account for a decrease in this item in view of the fact that there has been an increase in the staff.

Mr. ROBERTSON: Mr. Turner, our chief accountant will answer your question.

Mr. K. M. TURNER (*Chief Accountant, National Parks Branch, Department of Northern Affairs and National Resources*): It is because more full time men have been taken on. Once an employee has gone for two years continuous service, there is a drop in the contribution.

Mr. KORCHINSKI: I notice with reference to telephones and telegrams there is about a \$7,000 increase. What would warrant such an increase?

Mr. TURNER: An increase in expansion for additional road construction which would justify more telephones and telegrams; and winter work at another point increased these charges.

Mr. HARDIE: I notice there is a drop in the part time and seasonal positions by 113. What is the reason?

Mr. ROBERTSON: Most of that figure is made up by custodians of historic sites or part time caretakers of historic sites. Their duty is to keep these historic sites in proper shape. This involves only a very small amount of time and labour each year so it was thought to be inappropriate to have these handled on the basis of civil service positions. So what has been done is to drop these,

and we now have short term contracts; that is, an employee will look after a certain site simply under a short term contract.

Mr. KORCHINSKI: On the question of overtime, is that payable to the seasonable positions or the part time positions?

Mr. ROBERTSON: Both.

Mr. COLEMAN: Anyone who works overtime is entitled to be paid.

Mr. ROBICHAUD: Can you give us the details of construction to be undertaken this year for Fundy national park? I see there is an item for \$262,000.

Mr. COLEMAN: There is the completion of construction of a 350,000 gallon reservoir and water lines to service the park headquarters in the amount of \$165,000; there is the construction of a new trailer park at \$20,000; there is the construction of camp grounds at Point Wolfe for \$15,000; there is the rebuilding of the Point Wolfe dam, for \$6,000; there is manufacture of lumber and operations of our sawmills, \$4,500; and there is the completion and construction of the Goose river trail for \$4,000; the removing of the old wharves at Point Wolfe, \$3,000; and the replacement of the campsite and kitchen shelters for \$300.

Mr. ROBICHAUD: Have tenders been called already for any of these projects?

Mr. COLEMAN: There was another item for a major roadway, number 14, in the sum of \$12,000 and tenders have been called on that.

Mr. ROBICHAUD: Just on that last item?

Mr. COLEMAN: Yes.

Mr. ROBICHAUD: When are tenders expected to be called for the other items of expenditure?

Mr. COLEMAN: Virtually everything was for day labour projects under park affairs.

Mr. ROBERTSON: A good deal of the work in the parks may not be by contract at all. We have engineers on the staff, partly full time and partly seasonal taken on, and much of the work in the parks is done by the park staff. I take it you were looking at this last item where there would be a contract item. Part of that was a road construction item.

Mr. ROBICHAUD: That was the \$165,000 item?

Mr. COLEMAN: That is being done by day labour and directed by the park staff.

Mr. HARDIE: What about the road from "Exshaw" village to Banff on the trans-Canada highway—is it being kept open twelve months out of the year? What plan does the department have with respect to reconstruction of this road, possibly next year?

Mr. COLEMAN: I would not say "reconstruction". It would cost a tremendous sum to do that; but we are planning to improve the road. However it will not be open to public travel.

Mr. KINDT: May I ask what steps are being taken by the department to relieve the problem which exists between the dominion and the British Columbia government, to make it possible to go forward with the building of the "Kashinini" road west of the Waterton lakes?

Mr. ROBERTSON: This road is one that has been under consideration on a number of occasions. If it were built, it would provide, in a sense, a circle route between Glacier park in the United States and Waterton park in Canada.

The territory in Canada through which the road would have to be constructed is in the province of British Columbia and is outside of a national park. The department has made it clear on several occasions that if the

government of British Columbia wished or indicated that they would be interested in making a particular area available on behalf of a park, we would be glad to consider taking it over and building that road. But as it stands at the present time it is not in a park. It is in British Columbia.

Mr. KINDT: Has there been any attempt made to reconcile that difference under private ownership so the road might be built by the Department of Northern Affairs and National Resources?

Mr. ROBERTSON: As it stands, it would simply be a road in a corner of a province, and there is no federal road construction program under which it could come.

The federal government gives assistance and undertakes trans-Canada highway construction. It gives assistance to the roads resources program, and it constructs roads in the parks. But as that particular road stands, it does not come under either program.

There is no particular aspect of policy within which it falls. If this area would be made available by British Columbia to form part of the park—as I say, the government has indicated on more than one occasion it would give favourable consideration.

Mr. KINDT: Is there no way to solve this problem other than to have that corner of British Columbia put within the national park? My supplementary question is: Is there an answer to that problem?

Mr. PAYNE: I think my friend from Alberta overlooks the political factor that comes into play on this matter. There is not much use of his discussing it. At the moment, his answer would be no.

Mr. KINDT: I submit, sir, it is not entirely a political problem.

Mr. ROBERTSON: All I can really do at the present time is say that under the various policies the federal government has for road construction, they do not cover this, nor have we ever been approached by the province of British Columbia mentioning that they would like to have any action taken for the construction of this road in British Columbia.

Mr. KINDT: Are you waiting, sir, for the British Columbia government to make a move, or is the dominion government making any move?

Mr. ROBERTSON: We have felt that since this is in British Columbia, it really is a matter for British Columbia to decide whether they wish to suggest anything in connection with this at all. So far, they have not.

Mr. MUIR (*Cape Breton North and Victoria*): May I ask the deputy minister if any consideration is being given at the present time to expansion of the areas in any of our provinces, and if so, which ones?

Mr. ROBERTSON: Mr. Chairman, in the sense of general expansion, the answer is no. The general basis on which the parks have been established up to and including Terra Nova national park just established recently is that the province makes available land free of all encumbrances, and it is the federal government, through the parks branch, that develops it and takes care of it in perpetuity.

There are cases where there are certain private holdings within some parks that ante-dated the parks, and from time to time we have taken action to buy up certain of those areas. In that sense, we make sure they are available for park development. But as to expansion outside the present boundaries, the answer is no. On the other hand, as the minister indicated, this year we are having a party of park officers go to the Yukon to examine possible areas there that might be suitable to be reserved for parks. The same sort of thing will have to be done in connection with the Northwest Territories, so that in that sense there is expansion under consideration.

Mr. HARDIE: Referring back to the question of Sunshine Village, is there tourist accommodation set up at Sunshine Village at the present time?

Mr. COLEMAN: Yes, there is.

Mr. HARDIE: But the road will not be a public road.

Mr. COLEMAN: As it is constructed now, it is too dangerous to permit the public in. There are buses running up there from Banff.

Mr. HARDIE: Is there any thought in the minds of the branch to put in a public road to Sunshine Village?

Mr. COLEMAN: Not in the immediate future.

Mr. ROBERTSON: The situation is that anyone wishing to go in there can go in on the buses. It has not been felt safe to allow privately driven automobiles on that road.

Mr. ROBICHAUD: There is quite an increase in the item for the newly acquired Terra Nova park. The figure given for construction is \$750,000. Could we have in detail all the major projects which are to be included in this \$750,000?

Mr. COLEMAN: There is construction of nine departmental housing units at an estimated cost of \$185,000, the construction of an administration building at \$60,000, construction of a boat dock at \$15,000, construction of approximately eight miles of road and twenty miles of fire trail at \$124,500, construction of water, sewage disposal and telephone facilities \$63,100, construction of a powerhouse \$10,000, construction of two fire lookout stations at \$8,000, construction of a fire equipment building \$5,000, construction of a boat gear building \$2,000, construction of a warehouse and lumber shed \$31,900, and the operation of the work compound area and work camp \$65,500.

Mr. ROBERTSON: There are two other items which should be mentioned and which will be in the supplementary estimates. These have actually been undertaken already by the transfer of funds. There is the construction of a cabin development of ten double units and twelve to fifteen single units at \$14,000 and construction of an access road from Tray Town to the trans-Canada highway within the park. This figure is \$37,000.

Mr. ROBICHAUD: You mentioned eight miles of road in the Terra Nova park. Do I understand that they are roads within the park and are separate from this item of \$9,531,000 for trunk highways?

Mr. COLEMAN: That is correct.

Mr. ROBERTSON: We are distinguishing between trunk highways and other roads which are in the individual park budgets.

Mr. MARTEL: I notice from the explanations that there are very few areas in the province of Quebec which are set apart for national parks, with the exception of the Fort Chambly park, Laurier Place and the old battlefield in Quebec City, which come under your care.

Have you had any requests, or have you ever considered a certain area for a national park in the province of Quebec?

Mr. ROBERTSON: There has been no request, Mr. Chairman. Apparently there has been no approach from the provincial government on the question of the establishment of a park.

Mr. MARTEL: I suppose the usual procedure is for the request to come first from the provincial government.

Mr. ROBERTSON: Yes, that is correct.

Mr. MARTEL: And you have never been approached at all in regard to this in the past?

Mr. ROBERTSON: No.

Mr. MARTEL: When was the first national park established in Canada?

Mr. COLEMAN: In 1885 at Banff.

Mr. MARTEL: And since 1885 there have been no requests from Quebec?

Mr. ROBERTSON: That is a long time to cover with a definite negative answer.

Mr. MARTEL: In the past year, or in recent years,—say, the former government,—have they been approached by the province of Quebec?

Mr. ROBERTSON: Not that I am aware of, Mr. Chairman.

Mr. MUIR (*Cape Breton North and Victoria*): The appropriation for the Cape Breton Highlands park is about half what it was last year. Could we have an explanation on that.

Mr. ROBERTSON: That is the appropriation apart from trunk highways. There is \$1,350,000 for the Cabot Trail.

Mr. MARTINEAU: In regard to historical sites, what would be the procedure in the case of an organization that wanted to establish an historical site at some place that might be of interest? Would that have to originate from the province also?

Mr. ROBERTSON: Not exactly, Mr. Chairman. In the case of historical sites, there is an advisory board, the historic sites and monuments board, and sometimes various organizations or individuals write to the minister and suggest that such and such a place should be commemorated as an historical site or established as an historical park. In cases of this kind, the proposal is referred to the board for the board's advice. It has certain criteria it tries to apply. Usually a point of difficulty is that a thing that is historic in a local sense may not be historic in a national sense, and the board tries to limit its recommendations to matters and places that it thinks are historic in the national sense. In this way, it leaves the matters of local historic interest for local historic organizations to take care of.

Mr. MARTINEAU: In cases where the board does recommend the establishment of a site, does the department expropriate the site, or what kind of arrangement is concluded with the owners of that particular spot?

Mr. ROBERTSON: Normally, Mr. Chairman, there is no expropriation involved.

I might mention one case; at Baddeck a few years ago the Alexander Graham Bell museum was established to commemorate the work done by Alexander Graham Bell at that locality. In that case we entered into an arrangement with the province. The province made the arrangements in respect of the land. I think the province bought most of the land from the private owners. I do not think they expropriated any of it, however, I am not too sure. As far as the federal government was concerned the land was made available by the province. Sometimes a private owner offers to make land available. I do not think that under normal circumstances there is any expropriation.

Mr. MARTINEAU: Of whom exactly is the board composed?

Mr. ROBERTSON: The board is composed, Mr. Chairman, of representatives from each province; two from Quebec, two from Ontario and one from each of the other provinces. There are also a certain number of other appointees who we think are particularly suitable. For instance, the dominion archivist is a member of the board. There is one representative from the Department of Northern Affairs and National Resources on the board also. The members are selected usually as a result of their being interested in this type of thing, and because they have some knowledge to contribute.

Mr. NIELSEN: Can we call it twelve-thirty Mr. Chairman?

Mr. ROBICHAUD: One short question, Mr. Chairman, before we leave.

For the purpose of the record could Dr. Robertson supply this committee with the dates that each of the national parks was established or inaugurated?

Mr. ROBERTSON: Yes, Mr. Chairman, we will do that.

The CHAIRMAN: Just before you go gentlemen I think it would be in order that we have on the record a statement as to the revenue received from the parks. I also will ask Mr. Robertson to make that available for incorporation in the minutes.

I would suggest also that we have an explanation of supplementary estimate 580 at our next meeting.

Gentlemen, tomorrow morning the minister will be here to answer questions concerning policy. He will be available at nine o'clock. I am sorry the meeting has to be called at nine, but I hope we will have a good attendance. If by any chance we find that it is not going to be satisfactory we will simply have to change the time to meet the wishes of the members. I do hope that we can have a quorum at nine o'clock.

Mr. HARDIE: Is it the idea of the steering committee that we will meet every Monday and Tuesday?

The CHAIRMAN: Mr. Hardie, I read the report of the steering committee at the beginning of this meeting. Your party is represented on that steering committee.

Mr. HARDIE: I cannot agree with the suggestion that this committee meet on Mondays and Tuesdays. The estimates committee meets on Tuesdays and Thursdays and some of the members would like to attend those meetings as well.

The CHAIRMAN: On Tuesdays we are meeting at nine o'clock in the morning.

Mr. HARDIE: Why can we not meet on Fridays? Just because the "T and T boys" cannot be here on Friday there is no reason why we should not meet. Just because the people from Quebec and Ontario, from all parties, happen to be away on Fridays we cannot sit Fridays. I think that if they are interested enough in these committee meetings, regardless of what committee it is, they will be here. I can see no reason why we should not sit on Fridays.

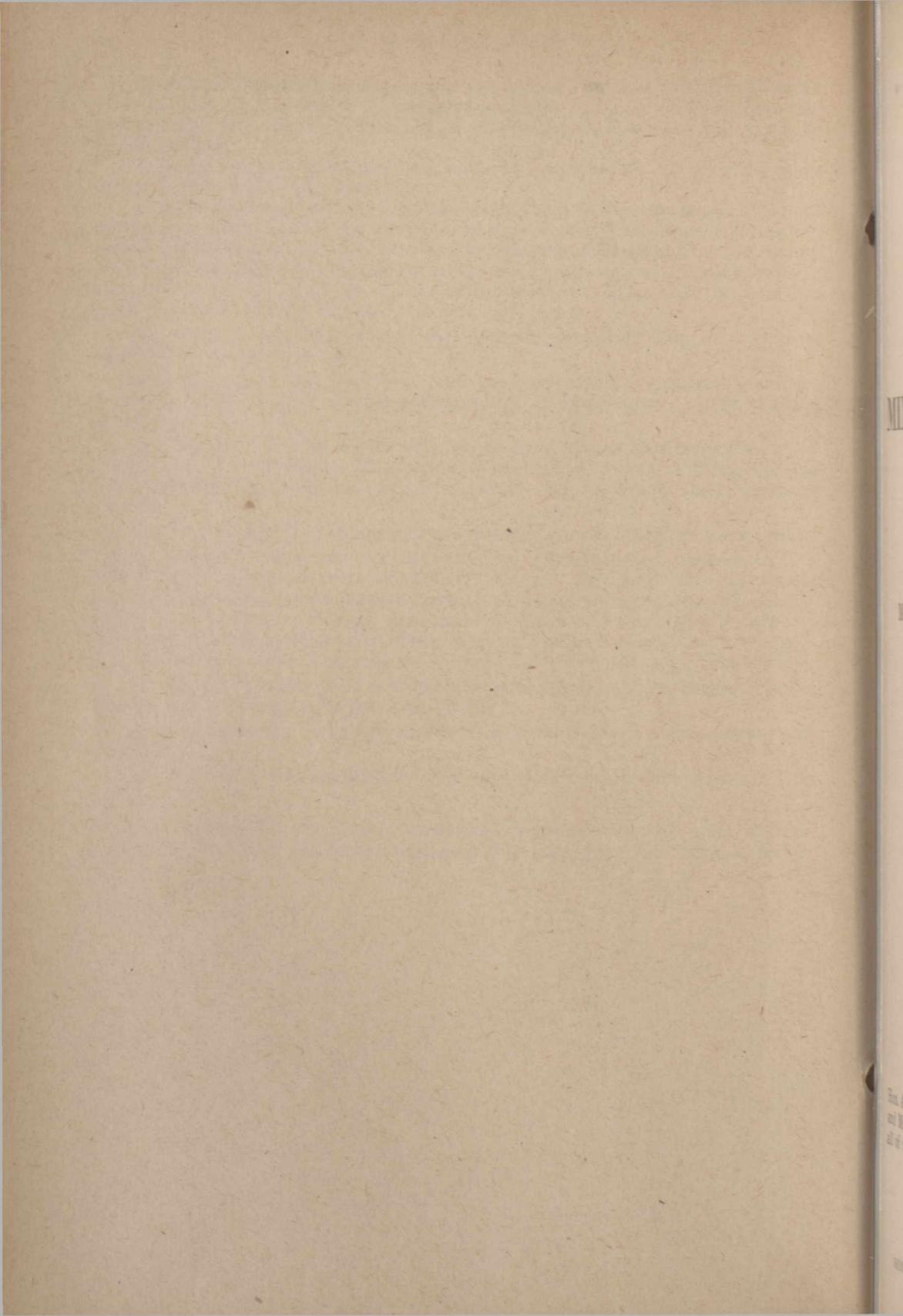
Mr. NIELSEN: It was your party's representative on that steering committee who steered us away from that suggestion.

An hon. MEMBER: I thought the steering committee's recommendation was accepted.

Mr. HARDIE: I was speaking of members from Ontario and Quebec, of all parties.

The CHAIRMAN: Gentlemen, tomorrow morning we will meet at nine o'clock. The steering committee will give this suggestion some consideration.

1870
1871
1872
1873
1874
1875
1876
1877
1878
1879
1880
1881
1882
1883
1884
1885
1886
1887
1888
1889
1890
1891
1892
1893
1894
1895
1896
1897
1898
1899
1900



HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 3

TUESDAY, JUNE 17, 1958

Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister;
and Mr. V. E. F. Solman, Assistant Chief, Canadian Wildlife Service;
all of the Department of Northern Affairs and National Resources.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baskin,
Bruchési,
Cadiou,
Coates,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Fréchette,
Godin,
Granger,

Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,
Mitchell,

Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Laflèche*),
Robichaud,
Simpson,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

ORDER OF REFERENCE

MONDAY, June 16, 1958

Ordered,—That the name of Mr. Kindt be substituted for that of Mr. Legere on the said Committee.

LEON J. RAYMOND,
Clerk of the House.

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

MONDAY, JUNE 15, 1931

REPORT OF THE PROGRESS OF THE RESEARCHES OF THE DEPARTMENT OF CHEMISTRY FOR THE YEAR 1930-1931

BY THE DEPARTMENT OF CHEMISTRY

Table of Contents
Page
Introduction
I. Physical Chemistry
II. Organic Chemistry
III. Inorganic Chemistry
IV. Analytical Chemistry
V. Applied Chemistry
VI. Miscellaneous
Index

MINUTES OF PROCEEDINGS

TUESDAY, June 17, 1958

(5)

The Standing Committee on Mines, Forests and Waters met at 9.00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Coates, Dumas, Fleming (*Okanagan-Revelstoke*), Fréchette, Granger, Gundlock, Hardie, Korchinski, Latour, Leduc, Martel, McLennan, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Pugh, Robichaud, Stearns, Villeneuve and Woolliams—22.

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. R. G. Robertson, Deputy Minister; F. A. G. Carter, Chief Administrative Officer; R. A. Faibish, Private Secretary to the Minister; J. R. B. Coleman, Director, National Parks Branch; B. I. M. Strong, Chief, National Parks Division; G. L. Scott, Chief, National Parks Engineering Services Division; A. J. H. Richardson, Chief, National Historic Sites Division; K. M. Turner, Chief Accountant, National Parks Branch; and V. E. F. Solman, Assistant Chief, Canadian Wildlife Service.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources. Items 269 to 275 inclusive of the Main Estimates and Items 580 to 583 inclusive of the Supplementary Estimates, all concerning the National Parks Branch, were further considered and were approved.

At 10.45 o'clock a.m. the Committee adjourned until 10.30 o'clock a.m. on Monday, June 23, 1958.

ERIC H. JONES,
Clerk of the Committee.

EVIDENCE

TUESDAY, June 17, 1958

9:00 a.m.

The CHAIRMAN: Gentlemen, we have a quorum and, it being 9:10, we will start.

Yesterday at the close of the meeting we asked the deputy minister if he would file a statement of the receipts for the different parks. If it is agreeable we can have that statement put on the record. There is about a page and a half. Would you like to have the items placed on the record so that you would have an opportunity to examine them for the next meeting? Is that satisfactory?

Agreed to.

Statement of Revenue Collected in the National Parks, April 1, 1937, to April 30, 1958

Year	Total Revenue
1937-38	\$ 323,984.25
1938-39	365,366.07
1939-40	390,505.36
1940-41	382,733.76
1941-42	464,214.00
1942-43	522,598.75*
1943-44	335,595.85
1944-45	288,494.18
1945-46	307,783.74
1946-47	423,449.41
1947-48	491,708.61
1948-49	630,162.08
1949-50	605,719.76
1950-51	708,681.52
1951-52	933,498.20
1952-53	984,530.26
1953-54	1,012,823.85
1954-55	1,076,166.29
1955-56	1,265,224.55
1956-57	1,485,843.67
1957-58 to April 30, 1958	1,496,722.92

* This amount includes the sum of \$247,849.57 received from the sale of the Department's Hydro-Electric Plant in Banff Park to the Calgary Power Company.

The CHAIRMAN: At the moment we will have the total revenues.

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): The total revenue figure for the national parks, from various sources, in 1955-56 was \$1,265,224, in 1956-57 \$1,485,843. This revenue comes from various types of licences, bath house receipts, telephone charges, timber permits, garbage collection, sewer and water funds, and all these various types of things which constitute charges in the national parks.

The CHAIRMAN: I asked also that we have an explanation of item 580 of the Supplementary Estimates. Before we have that, there may be some members, particularly Mr. Robichaud, who are anxious to make some inquiries of the minister regarding government policy. Will you take the floor, Mr. Robichaud?

Mr. ROBICHAUD: Mr. Chairman and Mr. Minister, in the elaborate statement given by the minister yesterday in introducing the national parks branch estimates, mention was made of commercial concessions. Would you explain to the committee how these concessions are awarded? You mentioned that it is a difficult problem for your department to look after the applications for commercial concessions. What policy is being followed by the department in awarding these concessions?

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): Mr. Chairman, I would like to have that question answered in two ways. I can state the general policy of it, but as to the actual details of the awarding of the concessions I will leave that to my deputy minister.

The general policy is to leave to private enterprise those activities of providing services and amenities that can best be provided by business people. The general procedure is to put a concession up for tender and the highest tender wins. The term of the lease is twenty-one years with a right to renewal for another twenty-one years and, to be completely accurate, there have been different leases but this is the general policy at the moment. The third criteria is they must maintain a satisfactory form of service suitable to park standards. The revenues obtained are more and more based on a percentage of their profits rather than on a fixed fee. I think those are the four main points I can give you about the general policy. I will ask the deputy minister for the details because that has been a changing policy in the last few years.

Mr. ROBERTSON: Mr. Chairman, the minister's statement has covered the general policy. As to the details, the arrangements depend on the type of operation involved. The most common and general kind of operation perhaps in the park is for accommodation for people visiting the parks, the cabin, hotel and motel accommodation.

In the case, for instance, of someone who is interested in establishing a cabin camp, he will approach us, or if we feel further accommodation is needed in a certain park we will make an approach, possibly, to interested parties, and then there is an advertisement requesting applications from people interested in establishing say, a motel or a cabin concession at a certain place in a certain park. Tenders are received. Included in the tender must be a complete plan of the operation including the size and the character, and a tender of return to the government. Then the whole thing is examined and the tender is awarded to the person who submits what is thought to be the best project for operation. It is not necessarily the one that will return the highest revenue to the government because that may not be the best type of operation. In some cases perhaps you do not want to emphasize the revenue as much as what the minister referred to yesterday as low cost accommodation. The whole thing is assessed.

In other instances where perhaps private enterprise is not interested in constructing accommodation, the department may do it. For instance, this year we have built two types of accommodation in Fundy park and we are contemplating doing the same thing in Terra Nova park. What will be done is to advertise for tenders to manage these. The applications will be assessed and the best applicant will be taken for management of those operations. Other types of concessions in the parks are, for instance, concessions covering a lunch counter say at the bath house at Kootenay park

or a concession to sell refreshments at a bath house in Prince Edward national park. What is done in those instances is that tenders are advertised for and in those cases the highest tender will be taken, usually in the form of a percentage of revenue paid to government. In the case of business in Banff or Jasper, there are business licences and a person who wishes to establish a business in one of those locations applies for a business licence and pays the licence fee.

Mr. ROBICHAUD: The minister mentioned that the revenue in many cases was based on the percentage of profits. Is there a fixed percentage and if so what system of inspection and auditing has the department to determine the amount of profit in a concession?

Mr. HAMILTON (*Qu'Appelle*): Simply because it is very difficult to arrive at profit figures we have normally based our return on gross revenues. This eliminates the auditing costs and expenses and so on and we have certified statements of gross revenue and the percentage is based on that.

Mr. ROBICHAUD: Mr. Minister, I noticed on item 270 that over 1,400 seasonal concessions are open in different national parks. What is the procedure being followed by the department for the selection of personnel for these seasonal positions?

Mr. HAMILTON (*Qu'Appelle*): The procedure is, first of all, that the superintendent makes known to us the number that he needs. Then there is the question of salary for each which has to be cleared through treasury board with the department, on the recommendation of the Department of Labour. Then we approve that right to hire at these salaries; and he then proceeds to hire them.

Mr. ROBICHAUD: Does he need outside recommendations before he hires his personnel?

Mr. HAMILTON (*Qu'Appelle*): From us, certainly not.

Mr. ROBICHAUD: Not from the department? Yesterday, I noticed that Mr. Robertson mentioned that most of the work in the different national parks was being done by day labour, other than highway construction. This would certainly involve a large number of employees. As was mentioned in the last annual report on national parks by the department, the parks belong to the people. What system is being followed in hiring labourers for these different projects?

Mr. HAMILTON (*Qu'Appelle*): Those are the seasonal employees.

Mr. ROBICHAUD: The number of seasonal employees must have grown. Millions and millions are being spent by the department for day labour.

Mr. HAMILTON (*Qu'Appelle*): Well, if you can include in that vote, construction, you must keep in mind that for instance, the biggest item that we have under the national parks is construction of highways. These people who are hired by the contractors are absolutely outside all our direction or control.

Mr. ROBICHAUD: Could Mr. Robertson tell us how many seasonal employees are employed in the Fundy national park? I understand that it is going to be an item of \$165,000 this year and we were told yesterday it would be done by the park employees.

Mr. ROBERTSON: Mr. Chairman, I will try to get those figures turned up, but while Mr. Coleman is turning up the figure, I might mention that there are two types of employees that are of a part-time character. There are the regular seasonal employees, who are taken on to help with the operation of the parks—for instance, gardeners, maintenance people and so on, for the regular work of running each park during the summer. Then, in addition to that, where there is a substantial operation, additional people may be taken on to work on, let us say this construction of the reservoir in Fundy park, which will be supervised by the added engineers, and the engineering staff of

the park. Additional people will be taken on as required for particular operations. The number I now have of seasonal employees for Fundy is 74. This would be a number taken on each year—or this year, in any event, for the regular seasonal work. In addition to that there might be other people taken on for particular types of construction work, under the supervision of the parks staff.

Mr. ROBICHAUD: Has not there been any direction issued by the department to the supervisor to have certain recommendations before those additional employees are hired?

Mr. HAMILTON (*Qu'Appelle*): I have no knowledge of any such recommendation. While I am on my feet, in regard to that, there was a question asked in the house last session as to how they were hired, and I said, "In the usual fashion, because I do not watch every particular park." Well, I examined that park in question, and there was no one of a political nature advising in that park, either at the Ottawa level or at the local level. We inquired into this one in connection with special employment during the winter. That matter was turned over to two ministers, one a minister of the Roman Catholic church and the other a minister of the Protestant church, to advise the superintendent. In parks such as Banff and Jasper, where we hire so many, the procedure was, for special work during the winter, that the superintendents hired men in the local area. When the requirements were greater than the local area could provide, they then went to the National Employment Offices in the nearest city—Calgary in the south and Edmonton in the north. They contacted the Department of Labour down here, who gave directions from which labour office they were employed.

I think, generally speaking, there is a very high level of behaviour governing the employment of these seasonal employees. This summer I have heard of one park, where, because of the extra labour demand, they have decided to take on the complement for three months intervals. This pretty well takes up the ones wanting work in the park. You will find in such cases almost everyone wanting work in that park has been supplied with work. I think, if it is done on that basis, it gets away from the criticism that has been directed at the handling of seasonal labour in parks.

The CHAIRMAN: Are there any other questions, gentlemen? Now then, may we have an explanation of item 580 of the Supplementary Estimates that we asked for yesterday?

National Parks Branch

Item 580. National Parks and Historic Sites Services—Construction or Acquisition of Buildings, Works, Land and Equipment—Further amount required \$500,000

Mr. HAMILTON (*Qu'Appelle*): The explanation of vote 580 in the supplements is of two types. First, during our winter works program, we transferred money by allotment from several of our votes for the parks to carry out this emergency work from January to the end of April. To correct this deficiency in the amounts we originally planned to spend for the road program particularly, we have put these supplementaries in. The second part of the explanation is that there are three or four projects not contemplated in the main estimates and have been added. My deputy has the list of projects here, if you wish the details.

Mr. ROBERTSON: Mr. Chairman, this particular item of transfer only relates actually to the expenditures between March 31 and April 30, just the expenditures in this fiscal year. That had to be covered in advance. What was done, as the minister says, was to find funds so that we could cover the special work projects that were undertaken in January, February and March, and then extended into this fiscal year, in April. Part of this is to make up for that.

Other items, are construction—incidentally the amount that covers that is \$318,335. In addition to that there is the construction of a warden's headquarters in Glacier national park, \$30,000; reconstruction of the main entrance road and engineering costs, Signal hill, St. Johns, \$75,000; reconstruction of a part of No. 10 highway in Riding Mountain national park \$39,628; and construction of an access road from Traytown to the trans-Canada highway in Terra Nova national park, \$37,037. These items plus the \$318,000, add up to the \$500,000 in the item.

The CHAIRMAN: Has it been the practice, Mr. Robertson, in the past to transfer funds from one item to another?

Mr. ROBERTSON: Yes, Mr. Chairman. The transfer of funds within a vote is quite permissible, subject to the approval at treasury board and the governor-general in council. These transfers of course had that approval.

The CHAIRMAN: Gentlemen, are there any more questions?

Mr. HARDIE: Mr. Chairman, I have a question in regard to these transfers in the other column, 1957-58.

The CHAIRMAN: For which vote?

Mr. HARDIE: For any vote. Speaking now of the transfers and this amount under 1957-58, is that sum the actual expenditure for the year or is it merely an estimate?

Mr. ROBERTSON: Those are the estimates. This is a comparison of last year's estimates with this year's estimates.

Mr. HARDIE: This item would include then the amounts that have been transferred, let us say, from construction on other projects to this program?

Mr. ROBERTSON: No. This is the figure for 1957-58. It would be the figure which appeared in last year's blue book; these were last year's estimates.

For example, it could have been found that the cost for the construction of a certain item exceeded the estimate, whereas the cost of another item fell short. Consequently there would be a transfer to cover the one from the deficiency in the other. The 1957-58 column is the estimate for 1957-58.

Mr. HARDIE: Might we have a breakdown of "other construction projects" on page 409, or did we get a breakdown of it yesterday? I want to know if this is for buildings in regard to the administration in national parks.

Mr. ROBICHAUD: You mean the \$2,595,000.

Mr. HAMILTON (*Qu'Appelle*): No, the other item, the \$303,000.

Mr. HARDIE: No, the \$2 million, which is right underneath that.

Mr. ROBERTSON: Would you be satisfied if I gave you the main item?

Mr. HARDIE: No. My question is this: are these items for building construction for the administration of national parks and required control, and so on, or do they include any roads?

Mr. ROBERTSON: Oh yes, they would include roads.

Mr. Chairman, the item to which Mr. Hardie refers is really a catch-all item. The total construction amount for 1958-59 is \$14 million odd, and of that item one category is building construction which is \$927,000; another category is for main or trunk highways in the amount of \$1½ million.

The next item; "other road projects" in the amount of \$333,000, and the "other construction projects" are sort of, shall we say, everything else. They may be comprised of all kinds of things. They may in some cases be repair items.

For instance at Fort Lennox in Quebec, the fabric of the building got into bad shape, so a lot of money will have to be spent to repair Fort Lennox.

Mr. HARDIE: How much of that item then would cover roads?

Mr. ROBERTSON: None of that item would cover roads.

Mr. HARDIE: So the only difference in the road program is approximately \$400,000 this year over last year?

Mr. HAMILTON (*Qu'Appelle*): That is right.

Mr. HARDIE: The big increase in parks, so far as construction cost is concerned, is for the purchasing of new equipment and the construction of administration buildings, fire wardens cabins and so on; the big increase in the department for construction projects has to do with the administration of the parks and not for roads then?

Mr. HAMILTON (*Qu'Appelle*): I would like to repeat what I said yesterday morning about roads because it has a bearing on your question, Mr. Hardie.

Three years ago the department set up a road program lasting over 10 years. I mentioned in my opening remarks a week ago that this was a program which I had picked up entirely and that I was carrying it out step by step as the schedule called for. We have the schedule here showing what is called for each year.

That is why the road program is following a pattern which I cannot alter very much.

The only difference will be that in the Yellowhead road we are stepping up the development by several years because it may become part of a second "trans-Canada".

Mr. HARDIE: You are not trying to take a 25-year program and put it into five years?

Mr. HAMILTON (*Qu'Appelle*): No, not in this case. I think you can see that a large part of the work problems facing the parks branch would mean an expenditure of \$8 or \$9 million each year on roads, and that limits the extent to which we can move in connection with the parks.

Mr. WOOLLIAMS: I would like to ask a question which may have been answered previously. In setting up the estimates, and in taking parks such as Banff where the trans-Canada highway goes through, and having reference to roads, does the estimate include money spent on that particular highway, where the highway goes through, or is it just for branch roads running off that trunk highway?

Mr. HAMILTON (*Qu'Appelle*): We have no responsibility in our vote for the trans-Canada highway, but we have for such roads as Banff to Jasper, the Banff-Jasper highway, and the Banff-Windermere highway. While they may be looked upon as a major branch of the trans-Canada highway, they may also be looked upon as an artery system coming into our parks.

Mr. WOOLLIAMS: The major part of the estimate then is not for the trans-Canada highway; it is simply for the parks?

Mr. HAMILTON (*Qu'Appelle*): That is correct.

Mr. HARDIE: On page 410 has there been a change in the bookkeeping? I see the first item is for head office, \$300,000 while for last year I see nothing was shown.

Mr. HAMILTON (*Qu'Appelle*): This refers to the vote which I mentioned in my introduction yesterday. It involves the park planning feature which has been added. That planning work is done here in Ottawa.

This \$300,000 is a new vote to allow for the cost of operations and planning in connection with meeting these problems that are facing the parks in the future.

The CHAIRMAN: Are there any other questions?

Mr. HARDIE: What about Elk island park? As the deputy minister knows—I think he was there a few years ago—there is a problem as far as water is

concerned. I mean the water in that park where people travel to enjoy, let us say, a Sunday afternoon. I refer just to Elk island park. I think the larger part of the traffic comes from Edmonton and the outlying area, and that traffic is not given proper accommodation, in my opinion.

In 1955 when we studied the estimates of this department, I suggested that an item might be put in the estimates to provide a proper pool at Elk island park.

Has the department considered this matter and if so what is their decision?

I brought this up in 1955 and I would like to know what the decision of the parks branch is now?

Mr. NIELSEN: What was the decision at that time?

Mr. HARDIE: They asked me to go and see Mr. Decore who was the member of parliament at that time.

Mr. ROBERTSON: Replying to Mr. Hardie's question, the answer is that it has not been found possible to put anything in for a pool, although this matter could be further considered and the minister might wish to give it further consideration.

The park at Elk island is primarily an animal park. It has several thousand head of buffalo and elk and in view of this, it has been regarded primarily as an animal park. It does have a small lake for swimming and I think there are a couple of minor cabin concessions. Primarily, it is an animal park and has an abattoir for slaughtering operations which is required to maintain the herd. The head of the park is a veterinarian.

Mr. HARDIE: Since the minister asked for suggestions yesterday from members in regard to additional recreational facilities for the people of Canada—and I speak only for the people of that area who use the park—I feel something should be done to provide a better type of recreational facility than is available presently at Elk island park.

Mr. HAMILTON (*Qu'Appelle*): I think this is a question for the minister, and I want to thank the honourable member for his suggestion.

I know it has been considered primarily as an animal park. I hope to be visiting these parks this summer, and Elk island, I know, is one that I will be visiting. I have only driven through this park on one occasion.

Mr. HARDIE: I hope you go for a swim.

Mr. HAMILTON (*Qu'Appelle*): Personally, I will look into the matter and will also request from my departmental officials more details as to the number of visitors who go there on a tourist day basis. Thank you for the suggestion.

Mr. KORCHINSKI: I see from last year's estimates, page 406, that there were ninety-nine caretakers, and this year there are only three. What has happened?

Mr. ROBERTSON: I referred to that yesterday and I mentioned that these caretakers (part-time) were people who looked after certain historic sites in historic parks. It is a question of keeping the grass mowed around a certain cairn, or something of that kind. Previously, these had been established as positions. This seemed to be unnecessary because in many cases it involved only a few hours work per year. It is now on a contractual basis.

Mr. KORCHINSKI: If they were taken under contract, what item in the estimates would that cover?

Mr. ROBERTSON: That would be under the professional services item at page 408. If you will look at "professional and special services", you will see the sum of \$60,959. It is up \$10,000 primarily because of that.

Mr. HAMILTON (*Qu'Appelle*): An average of \$100 each per year.

Mr. HARDIE: I wonder if the department could advise the Jack Miner Migratory Bird Foundation that when they close up this year they should take

down the signs in Windsor and along the road, so that people do not go down to the foundation to see all these wild geese and find the gates are locked. There they are confronted by a sign saying, "we are sorry, but we are putting up hay", or something, and the place will be open in November.

I drove 100 miles last year to see this place, and when I arrived I saw this little sign saying it would be open in November.

Mr. NIELSEN: It was a wild goose chase.

Mr. HAMILTON (*Qu'Appelle*): I have a suggestion for the honourable member, since he gave me one. The Jack Miner Foundation is a privately run organization and you have all received letters from Jack Miner. I would suggest that it would be a suitable suggestion to put into one of your replies.

Mr. HARDIE: Without a cheque?

Mr. HAMILTON (*Qu'Appelle*): Yes.

The CHAIRMAN: Are there any other questions? I have said we will allow latitude, so this is your opportunity.

Mr. PAYNE: Let us not have a longitude.

Mr. HARDIE: Are we also dealing with the question of Canadian Wildlife Service at this time?

The CHAIRMAN: Yes.

Mr. HARDIE: In regard to Canadian Wildlife Service, I notice there is very little increase in the estimates of that service. I do know that this branch of the department is doing a considerable amount of work in the Northwest Territories concerning the reasons for the depletion of caribou. They are studying the caribou problem, and I would imagine that there is considerable additional flying in regard to this caribou survey. This would involve a considerable amount of money I notice there has not been much of an increase in this branch.

Mr. HAMILTON (*Qu'Appelle*): I would like to say a word about this subject of wild life.

The first thing, I think, I should tell the committee is that I had the same feeling as the member for Mackenzie (Mr. Hardie) has expressed, and that is the tremendous need for more information on the handling of our wild life in Canada.

Last fall when the estimates were being discussed for this year, I raised this matter with the department and asked if there were things that could be done. The answer was, "yes", that there were many things that should be done, but at the present time they were labouring under considerable difficulty in obtaining the type of person to carry out this research work. The understanding we arrived at was that we would hold the vote constant for this year, in order that the department could look into the matter of extending the general surveys in regard to wild life; in other words, to come up with some plans in order that definite projects would be undertaken by the department.

The second point I would like to mention is with reference to the caribou. The caribou problem is desperately serious. Without mentioning precise figures, I think everyone recognizes that a few years ago there were 2 or 3 million of these animals in the north, covering both the territories and the northern parts of the provinces. These are now depleted to a figure between 200,000 and 300,000. We are carrying out this year a tremendously increased study on the question of the caribou. There have been three reports turned in so far, and even though I am not an expert in wild life research, or understand it fully, I have read these reports. All I can say is that we have a great deal to learn about what is causing the rapid demise and disappearance of these animals.

Another thing I would like to point out in connection with the caribou study, is that there have been conferences with the provinces, because this is a joint federal-provincial activity. There has been fine cooperation between the territorial governments, the provinces and the federal government. There have been certain suggested programs to cut down on the loss of these animals. I believe that certain programs are now in effect that will tend to reduce somewhat the take by those people who are not entirely dependent on the caribou.

There has been a great variety in the methods of treating the caribou herd. In some places conservation attitudes have been excellent. There have been areas, of course, where things have not been so good. We are trying to take some form of conservation action in respect of these abuses—the shooting of these animals for example.

There is a third thing I would like to deal with at this time in connection with wild life. Wild life is definitely one of our great resources in Canada. This is an item that will be on the agenda of the conservation conference which I would like to have held this fall, but which will more likely be held in a year or so.

Earlier this year I attended a wild life conference in this city. I believe it was the first occasion on which a minister spoke so frankly to wild life people about problems affecting this very important natural resource. I indicated to them—they were mostly from universities—that we needed their co-operation to help us meet this over-all difficulty that we were encountering, particularly in respect of the caribou, but generally in respect to all animals.

I will go back to the over-all conservation concept. I have asked private organizations, and people at universities as well as governments at all levels in Canada for advice and suggestions about the type of thing that should be put on the agenda of the conservation conference dealing with wild life. I think it is generally recognized that wild life conservation is no longer an isolated matter affecting individual provinces within their own boundaries. Wild life move from one area to another, and what is done in one area has a vital impact on another area.

What we will try to suggest at our conservation conference is, the general principles to be followed by the federal government, the provincial governments, the territorial governments, private organizations and research organizations which should be laid down so that each part of the over-all machinery of administration will be able to tackle the over-all problem within fairly well defined limits.

The federal government has no direct responsibility for the maintenance of wild life within the provinces. We do, and must expect, a wide responsibility in joining with the provinces to collect research information and work out general programs.

I hope, Mr. Chairman, that this general statement on the policy in respect of wild life will give a background to the vote that you see before you. The total amount of this vote is roughly the same as it was last year. I would like to point out that if you study the details you will see that the amount for rental of equipment, which is part of the breakdown of the total item, has jumped this year. No, I'm incorrect. It has gone down this year from \$101,000 to \$82,000.

The main portion of the increase last year was due to the fact that this was the fiscal year during which we spent the money for the flying services. I think the amount was roughly double. We spent \$59,000 the year previous. Last year the amount jumped to \$101,000, so it is not quite doubled.

The flying operation for which the money was spent during the last fiscal year was needed in order to keep track of these herds and know where they are, enabling us to notify the people who are dependent on them.

Mr. HARDIE: You mean this covers the charter of aircraft?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. HARDIE: It is not covered in the travelling expenses and field investigations item?

Mr. HAMILTON (*Qu'Appelle*): No.

In summary, in the year 1956-57 we spent \$59,000 for rental of equipment. Last year with this accelerated program it jumped to \$101,000. This year it is estimated at \$82,000. That just covers rental of equipment. In addition to that we have individuals in the field following these caribou herds.

Mr. HARDIE: Was this big increase a year ago mainly necessary in order to deal with the extra flying expense for the caribou survey?

Mr. HAMILTON (*Qu'Appelle*): Mainly that, yes. We are continuing this year, of course, to keep up this rental of equipment, which is represented by the \$82,000, being \$23,000 above what it was two years ago.

I should also point out that we have members of the wild life staff in constant contact with the caribou herds. It is on the basis of their information that these reports are sent in. I can be quite frank with you and say that these reports do not indicate to a layman like myself that any optimistic conclusions can be made.

Mr. HARDIE: You did mention that steps were being taken to limit the number of caribou taken by man and these reports indicated that this was the main reason for the decline in the caribou herds?

Mr. HAMILTON (*Qu'Appelle*): No, they do not. There is no doubt about it that the take by man is one of the large factors in their decline. The rifle has made a difference as you know. However, I should make clear that steps that are being taken—using private conservation tactics in handling the caribou—under provincial and territorial laws.

Mr. HARDIE: With recommendations from this department.

Mr. HAMILTON (*Qu'Appelle*): No, I would not put it that way at all.

Mr. HARDIE: Oh, yes.

Mr. HAMILTON (*Qu'Appelle*): The steps were based on the minutes of the convention. I have read the minutes in detail and, as I said at the time, there was wide acceptance and support for these techniques.

Mr. HARDIE: I do not argue that point. I say the recommendations to the territorial people still come from this department.

Mr. NIELSEN: That is incorrect. The Yukon does not—

Mr. HARDIE: The Yukon is an altogether different thing from the Northwest Territories.

Mr. NIELSEN: The game regulations of the Yukon are within the jurisdiction of the territorial governments.

Mr. HARDIE: There is no similarity between them at all.

Mr. HAMILTON (*Qu'Appelle*): I think I should clear up the feeling here which may have been created by the hon. member's statement.

As I have said before, I have read the minutes of the conference between the three provinces, the two territorial governments and the federal government. The federal government was just one of six governments represented there. I do not think we took the strongest stand at all. The strongest stand, I believe, was taken by the province of Saskatchewan in respect to that conservation program.

Mr. HARDIE: Well the—

Mr. HAMILTON (*Qu'Appelle*): Let me finish this.

The recommendations that were put forward by the federal government were agreed to at the conference. We did not make them as such to the territorial governments.

Mr. AIKEN: I wonder if I might ask the minister a question? I would like to clear up one matter for my own satisfaction with respect to the justification for spending federal funds within the provinces.

Is my understanding correct that the provinces have jurisdiction over wild life?

Mr. HAMILTON (*Qu'Appelle*): The territories also have jurisdiction.

Mr. AIKEN: Is it correct that the federal expenditures are justified as a conservation measure more because of a moral responsibility to co-ordinate than as a legal responsibility?

Mr. HAMILTON (*Qu'Appelle*): We are off the subject just a bit.

I think in answer to your question Mr. Aiken, I can say we have a moral responsibility to handle the question of research and bring together common principles of conservation practice. However, we also have a legal responsibility under the Migratory Birds Convention Act and because it is an international convention act. We do have a legal responsibility in that regard.

I will go back and say a little more about this caribou program.

At the present time in the field, working right with the caribou herds as a result of this co-operative program, there are three full time men from our staff here at Ottawa, two full time men from the National Research Council here at Ottawa, two full time men provided by the province and four contract men all on our payroll. That is a total of 11 men who work full time in the field on this caribou program. There are also discussions going on between these governments and the wild life department.

Mr. NIELSEN: Are these men all biologists or mammalogists?

Mr. HAMILTON (*Qu'Appelle*): I am not an authority on all these terms you mention, but I understand all but two are what you say, mammalogists and biologists.

Mr. HARDIE: I do not want the minister to misunderstand me. Three or four years ago I pointed out to the government of that day the necessity of doing something about the depletion of caribou. My point is, there were reports by people in the field since this survey started a few years ago, and do those reports indicate that the biggest part of the loss of caribou could be laid to man taking caribou?

Mr. HAMILTON (*Qu'Appelle*): As I remember it one of the reports dealt with that very matter. It laid down that roughly 20 per cent were taken by man.

Mr. HARDIE: Is this a recent report?

Mr. HAMILTON (*Qu'Appelle*): There were several reports. I think 20 per cent was the figure for man, although my officials now tell me they think it is higher. The wolves took a certain percentage, man took a certain percentage, disease took a certain percentage, and a certain percentage was through loss in calving. Recently there has been a very disastrous decline in the birth rate. Instead of around 22 per cent in calves each year, it is down to around 7 or 9 per cent. It is that combination of a lower birth rate plus the usual take by wolves, disease and man, that caused this decline. These are simply figures which indicate what percentage is taken by each. The only controllable factor we can immediately control is the take by man.

Therefore our purpose, I think, should be as far as possible to preserve the caribou for the people who depend on them. That was the reason behind this four or five point program inaugurated in co-operation with the territorial governments and the three provincial governments.

I also should mention that there has been a considerable effort to get at the predator control problem by poisoning wolves. You have probably heard of the program. This has had variable results; very good in some areas and not so good in others, depending upon where they are working. If you have a concentration of wolves in an area you may have good results. In a wide area like the territories it would be difficult to say you have conquered the predator problem.

My deputy informs me that this year one of our predator people had a count of 500 wolves which is pretty good.

Mr. GRANGER: There is an aspect of the serious problem of the depletion of caribou in Labrador. There are many reports—so many that they must have some basis—of a slaughter of caribou by American servicemen based at Goose Bay using helicopters.

Mr. HAMILTON (*Qu'Appelle*): I think it should be pointed out if those reports are true that it is a matter for the provincial government and should be brought to the attention of the provincial government. Goose Bay, as you know, is in the province of Newfoundland.

I realize that I forgot one thing I should have mentioned in respect of this wild life conference. Plans are going forward. I was looking around for my head of the wild life division and I find that he is presently attending a wild life conference which is taking place in St. John's, Newfoundland. That is evidence of the fact that this question of wild life conservation is actively being engaged in by the governments of all the provinces and territories as well as the federal government.

Mr. HARDIE: Will the reports made be published, and prior to their publication are they available?

Mr. HAMILTON (*Qu'Appelle*): There is nothing secret in them; they are available, but it is not the type of thing suitable for wide distribution. I think they can be made available to any member of this committee. They mostly deal with the intimate life of the caribou. I do not want to go into a description of that here.

Mr. NIELSEN: Mr. Chairman, might I make a suggestion to the department, through the minister, in connection with the conservation program which is being undertaken by the department. The territorial council in the Yukon has recently passed a revised game ordinance which contains certain restrictions and it was subject to further recommendations by the fish and game association of the Yukon as to the restriction on the number of caribou taken by man, which last year was 1,662, I notice in your report. This is a step in the right direction. In respect of predator control, eight years ago, in 1949 I believe, the wolf bounty was dropped in so far as the Yukon was concerned. I believe, perhaps it was felt that having a bounty on wolves resulted not only in boot-legging of cubs but even in breeding of wolves in captivity in order to obtain the bounty. There was some doubt and some discussion by the mammalogists as to the efficacy of controlling the wolves in this fashion. Might I suggest that the department's thinking might be broadened along the lines that a reimplementation of the wolf bounty might not only serve in assisting in the control of wolves but also serve to supplement the income of the people in the Yukon, and I presume in the Northwest Territories, who are in dire need of economic assistance. I am speaking of the Indian people who lack basic industries in which they can make their own way. If a discussion were had between the Department of Northern Affairs and National Resources and the Indian affairs

branch of the Department of Citizenship and Immigration I think some program could be worked out whereby on a cost sharing basis this additional aspect of the wolf bounty could be considered.

Mr. HAMILTON (*Qu'Appelle*): I can deal with one part of your suggestion. As far as the question of the bounty is concerned, I think that is a matter for the territorial governments. I understand from what I have read that the wild life people doubt the efficacy of the bounty. There is too much of this situation of husky pup ears coming in instead of wolf ears. I think your suggestion should be taken and some consideration given to it. Are you speaking of the Yukon?

Mr. NIELSEN: Yes. I only mentioned it. Any funds that are required would, of course, have to come from the federal treasury in the long run through the territorial government.

Mr. HAMILTON (*Qu'Appelle*): It is not my understanding that we would have to provide funds for that. I thought they were running their own show on that score.

There is the question which you brought up of the detail with which I believe Mr. Robertson is more familiar than I.

Mr. ROBERTSON: On the question of the possibility of some arrangement that would not put money from a bounty into the hands of the wrong people, concerning the wolf problem, this is a matter that has engaged some attention. I cannot speak of the Yukon because I am not thoroughly familiar with their end of it. However, in the Northwest Territories there has been worked out in conjunction with the department of Indian affairs, since you are dealing with Indian people, an arrangement under which there are organized wolf hunts. The warden or the Indian agent in a certain locality can organize a wolf hunt which is usually what is called a denning to get wolf pups. That has been done in three or four locations. A party goes out into an area that is thought to be reasonably good for denning, a bag is collected, and the pelts or the ears are brought in and the money on that goes to the people involved. There is not, in the Northwest Territories, an over-all bounty arrangement because of the problem to which Mr. Nielsen referred. But this organized hunt scheme is a means of putting income into the hands of the local people without getting involved in the bounty problem. That has been done in northern Manitoba around Brochet.

Mr. NIELSEN: That has not been done in the Yukon and I would ask that some similar arrangements could be made for hunts in the Yukon.

I have one further suggestion for the department, through the minister, and that is that the application of the same type of thing in respect of these denning hunts be tied in with the poisoning program. There has been an opinion advanced by big game hunters, and others associated closely with the game problem and predator control in the Yukon at least, that the procedure of dropping poisoned bait from aircraft, which is adopted in some of the more remote areas, is of doubtful efficacy and not only has it that disadvantage, but there is also the opinion advanced in some quarters that this uncontrolled dropping of poison in these areas affects not only the wolf population but the other game population as well, and thereby affects the fur-bearing population in the game field. So that in addition to denning hunts which are organized, as indicated by the deputy minister, I wonder if I might suggest that more control be placed over this poisoning program so that perhaps it can be organized in the same fashion, so that hunters who know these areas, and who know where these wolves are, might be engaged, with the local Indian population, to go into these areas and place the bait, instead of this what I might call for lack of a better term, indiscriminate dropping of bait.

Mr. HARDIE: Follow the practice of the Northwest Territories.

Mr. ROBERTSON: Perhaps I might deal with some aspects of this matter of poisoning. The predator control program has been particularly directed toward the Northwest Territories because the caribou herds west of the Mackenzie river do not appear to be in any serious difficulty. They do not appear to be declining to the same extent as they are east of the Mackenzie river. Maybe they are not as plentiful as they once were, but there does not appear to be the catastrophic decline that there is east of the Mackenzie river. The poisoning and the predator control program is, I think, pretty well organized east of the Mackenzie river. I have referred to the denning program and the organized hunt. In addition to that there is the poisoning program which is carried on in two ways. In certain areas we charter aircraft which are used to take out baits which are placed usually in the center of a lake, because it is found that wolves will cross a wide-open area, whereas most other animals will not cross a wide-open area of that kind.

The baits are usually frozen down. Cyanide poison pellets are placed in the frozen meat by boring in and placing the pellet in the meat. Then the men return at periodical intervals—I think about every month or so—to check on the bait to see whether it is still there, or what the results have been, and so forth.

The other way in which poisoning is done is through the hiring—exactly as Mr. Nielsen has said—of hunters who know the areas. The Northwest Territories administration has on its staff at the present time, I think, six or eight. Mr. Hardie could correct me if I am wrong. These persons are authorized to use poison. Poison is not permitted for general use and these hunters are paid so much per month and are also paid on the basis of being allowed to retain the receipts from the sale of the pelts. Wolf pelts are worth a certain amount of money—I have forgotten what the amount is at the moment. This program has gone very well.

The minister mentioned one man, who according to our last report, had secured over 500 wolves. It depends a lot, of course, on where the person is. In a location where the caribou come, the wolves come. But if the person is in a location where the caribou do not come, they do not get as many. One of our men got only 18 wolves. It is just simply the accident of location and geography.

The results so far indicate that the poisoning program has not hit many other fur bearers. As a matter of fact, complete statistics, I believe, are kept, and can be provided, if Mr. Nielsen wants them. Apart from wolves, only wolverines have been poisoned. There have been very few foxes and very few other fur-bearers.

Mr. HAMILTON (*Qu'Appelle*): Mr. Nielsen's suggestion will be taken up for the Yukon.

Mr. NIELSEN: I repeat that it is a territorial government responsibility. I am sure they would welcome most heartily the advice which your department has given through your research branch. The suggestions coming from your department as to organized hunts, and poisoning programs, I am sure, would be of great assistance to their efforts toward predator control.

Mr. HARDIE: In regard to Mr. Nielsen's question, he mentioned that wolf baits were dropped. Were they dropped from aircraft or were they placed on the ground by hunters?

Mr. NIELSEN: It is done both ways, in the Yukon.

Mr. HARDIE: Is this true, because the wildlife people are in the Yukon and they must have something to do with this?

Mr. NIELSEN: Only recently, Mr. Hardie, have we obtained the services of a mammalogist. Prior to a year and a half or two years ago, we did not have one. As I say again, it is not for the department to organize these programs; it is up to the territorial government.

Mr. HARDIE: This is an interesting point and I should like to know if wolf baits are dropped.

Mr. ROBERTSON: I have just checked with Mr. Solman assistant chief of the Canadian Wildlife Service. As far as the service is concerned, there is no dropping of baits. There used to be some dropping of baits there, but whether it is done in other areas or not, I do not know. However, we are not aware of any dropping. In the Northwest Territories, the practice is to place it specifically, and usually to freeze the bait in, so that it is kept in a certain position.

Mr. HARDIE: And also where you can mark it.

Mr. NIELSEN: I am not certain at the practice in the Yukon now, it used to be dropped a few years ago.

Mr. MARTEL: I heard the minister say that caribou had declined east of the Mackenzie river and I should like to know about the Ungava area in northern Quebec. Is the decline there so pronounced?

Mr. ROBERTSON: In Ungava the decline has been much worse. It took place many years ago and no one knows why it took place because it occurred before there was such a thing as a wildlife service or any research of this kind. At the present time in the vast area of Ungava it is not thought that there are more than one or two thousand caribou.

Mr. MARTEL: I know they thought that; I know that they forbid caribou hunting.

Mr. HARDIE: I would suggest that in the Northwest Territories concerning the wolf poisoning program, I would think that they should extend their program, not only in the Caribou area but, in the Nahanni mountain area where there has been a serious decline in mountain sheep, and in the Liard area where they have at the present time a large population of moose, and also in the Richardson mountain area where caribou at the present time are plentiful.

Mr. HAMILTON (*Qu'Appelle*): I think, Mr. Chairman, the answer would be that we have no information on that and I should be glad to have the department look into it.

Mr. HARDIE: On the Mackenzie river side, the only one who knows the situation is "Gus" Krause, and he says that for the past five years there has been a serious decline in mountain sheep and other animals.

Mr. NIELSEN: Because thousands of people, literally, in the north depend upon the natural population in caribou herds and other game, and because it is so important to these people, I was wondering if this would be a proper place to suggest that consideration be given to increasing the estimates, where the department finds it necessary, to expand this predator control problem.

The CHAIRMAN: You are invited by the minister to offer suggestions.

Mr. NIELSEN: I should like to offer that as a suggestion.

Mr. HARDIE: I think they are part of the territorial estimates.

Mr. NIELSEN: Again, Mr. Chairman, I might say that while the Yukon is in a period of transition it certainly is not economically self-sufficient. Any expansion of their predator control program has to be made by funds from outside the territorial treasury. In that regard, present fiscal arrangements between the Yukon and the Federal Government, I am sure, will not cope with any increased problem they might contemplate undertaking.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, we will keep that under consideration.

The CHAIRMAN: Shall we approve the items under the national parks branch, Nos. 269 to 275 inclusive and the supplementary estimates 580, 581, 582 and 583?

Mr. ROBICHAUD: I have a few questions. On the wildlife service, dealing with migratory birds, may we have a few details as to the application of this act. This is a federal responsibility rather than that of the different provinces. I did ask this question at the last meeting but I was told to wait until this item was before the committee. Could we also have some details as to the differences in bag limits in the United States? As the minister stated some time ago, this applies to birds moving from one area to another. What I have in mind particularly are wild geese which go south in the winter and come north in the summer. We have a certain feeling that we are protecting these birds for American hunters. I would like to have a few details about it.

Mr. HAMILTON (*Qu'Appelle*): I suggest that Mr. Solman who is the assistant chief of this division answer your question, Mr. Robichaud, because I think it would be better under the circumstances to have the man who is the expert on it speak instead of myself.

Mr. V. E. F. SOLMAN (*Assistant Chief, Canadian Wildlife Service, Department of Northern Affairs and National Resources*): Mr. Chairman, I have with me the regulations governing the hunting of migratory birds in the United States. I can turn up the details on this if you wish.

Briefly I might say that hunting restrictions in the United States are in general somewhat more restricted than they are in Canada.

Geese were mentioned during the past hunting season of 1957. The open season for the hunting of geese varied throughout the different provinces and throughout the different states.

The maximum length of season at any point in the United States was 95 days, while the maximum length of season at any point in Canada was 96 days. It would appear that the opportunities were very similar.

The daily bag limit however permitted to individual hunters differs. The maximum daily bag limit in the United States at any one point, was six geese per day, while in Canada it was 15.

Mr. ROBICHAUD: Does that apply to all areas of the United States?

Mr. SOLMAN: No, it is different in different states; but these were the maximum season lengths and the bag limits.

Mr. ROBICHAUD: What is the highest bag limit in any of the states?

Mr. SOLMAN: Six.

Mr. ROBICHAUD: Is that the same for all over?

Mr. SOLMAN: No, in some places it is lower; two is the limit in certain places, while six is the highest. In Canada it varies from three to fifteen.

Mr. ROBICHAUD: Do they have a spring season in the States?

Mr. SOLMAN: No. There is no season before October 1st.

Mr. ROBICHAUD: You say there is no season before October 1st even in the United States?

Mr. SOLMAN: No.

Mr. STEARNS: How does the total kill in the United States compare with the total kill in Canada? Have you got those figures?

Mr. SOLMAN: There are no complete figures for either country. There are estimates however which suggest that the total kill in the United States for all migratory game birds—you must bear in mind that geese are only a small part of them—runs towards 15 to 20 million.

I say this is an estimate but it is probably a good one.

Unfortunately at the moment game statistics in Canada are not sufficiently far advanced for us to have a comparable estimate for this country. We have estimates from some provinces but I would rather not mention individual provinces. We are working towards an estimate for the whole country but it will take us a year or two to perfect a method of collecting the information.

There is a complication involved in that we do not even know how many hunters there are officially in Canada because not in all provinces is it necessary for a water fowl hunter to have a licence. However in the United States they are licensed so far in all the states, and in addition there is a further federal licence required in respect to migratory birds or perhaps I should say in respect to water fowl hunters.

We know that in the United States the total number of water fowl hunters—the figure I have is for 1955—there were actually about 1,660,000. At least that many people bought the federal hunting licences in addition to state licences.

Mr. ROBICHAUD: What policy is followed in respect to the establishment of bird sanctuaries? Can you tell the committee at this time how many bird sanctuaries we have in New Brunswick and where they are located?

Mr. SOLMAN: I do not have the information with me which would give the location or the number that are in New Brunswick, but it could be secured in a short time.

The policy is under review continuously. Sanctuaries are established at points where they would be beneficial to the birds which come under that protection. They may be established in nesting grounds or they may be established in areas used by birds on their migration, in roosting and feeding areas.

Mr. ROBICHAUD: How many bird sanctuaries are there altogether in Canada? Have you got the figures?

Mr. SOLMAN: The figures have now been placed before me.

When these figures were compiled there were 95 bird sanctuaries in the entire country. Of them, six are located in New Brunswick.

Since this figure was compiled sanctuaries have been created from time to time and there have probably been another half dozen or so created.

Mr. ROBICHAUD: From whom should requests come to have a new bird sanctuary created? Is it determined by the department or by officials of the department?

Mr. SOLMAN: It is done in both ways. Sometimes requests come officially from property owners or associations, and sometimes they come from provincial governments. Sometimes officials of the department suggest the creation of a bird sanctuary in a certain area.

In any case the matter is taken up between the federal department and the appropriate provincial department to make sure that there is concurrence of views regarding the location and the desirability of the sanctuary.

Another point of course is that the land owners—if private land is involved—must be in favour of the creation of the sanctuary.

Mr. KORCHINSKI: Could we have the figures for all Canada in this respect giving the total number of bird sanctuaries?

Mr. SOLMAN: Newfoundland has one; Prince Edward Island has two; Nova Scotia has five; New Brunswick has six; Quebec has 40; Ontario has nine; Saskatchewan has 15; Alberta has seven; British Columbia has five; Northwest Territories have three; and then there are two which overlap boundaries, one jointly between Quebec and the Northwest Territories. This is in the James Bay area; and a similar one overlapping the Ontario-Northwest Territories boundary and adjacent area.

In many cases there are both provincial—and in some cases private sanctuaries in addition to those created under federal legislation.

Mr. ROBICHAUD: Is the act administered by the provinces or does it come under provincial jurisdiction with respect to open seasons, bag limits, licences and so on?

Mr. SOLMAN: The regulations under the act which regulate the hunting and harvesting of birds are made by the federal department in cooperation with the provinces concerned.

Mr. ROBICHAUD: Are they put in force by the provinces?

Mr. SOLMAN: In some cases; enforcement is done primarily by the R.C.M.P. because the legislation is federal. But in other cases provincial officials are given ex officio status and they are given the power of enforcement under the federal legislation.

Mr. KORCHINSKI: Is the operation of these bird sanctuaries entirely a matter for the federal government or is it carried on jointly with the provincial governments?

Mr. SOLMAN: These sanctuaries are entirely under federal supervision. On the other hand the provincial sanctuaries come under provincial supervision.

Mr. KORCHINSKI: Is it possible for us to be given a map showing the specific areas? I am thinking particularly of Saskatchewan at the moment.

The CHAIRMAN: Since the minister has to leave to attend a cabinet meeting, are there any questions on policy which you would like to ask him before he goes? If not, thank you very much for coming, Mr. Minister.

Mr. SOLMAN: We could provide you with a map showing the locations in Saskatchewan if you wish it.

Mr. HARDIE: Before the witness leaves would he tell us if there has been any change in the opinion of experts in regard to the theory of the "balance of nature"? This is an important question.

For instance, some years ago we were told by experts in the Northwest Territories that you could not disturb this "balance of nature" for example by killing wolves with poisoned bait because if you took the wolves the caribou would die, because the wolves in turn only took the weak and the young.

Has there been any change in the opinion of the experts since then?

Mr. SOLMAN: The situation varies greatly from time to time, I do not think there has been any change in the basic ideas, but the matter of wolves in regard to caribou is now that the reduced numbers of caribou are greater than they used to be. I do not want to get into a long discussion on this, but you will realize that economic consideration also comes in here.

Maybe I should simply put it that wolves and caribou live together, presumably for a very long time. At the moment, there is a shortage of caribou. We feel it is desirable to remove some of the wolves which would normally feed upon caribou in order to safeguard the remaining caribou. This costs money, as was mentioned in the estimates. Wolf removal is expensive. If there were enough caribou available for all needs, it is doubtful if the expenditure for wolf removal would be economical.

Mr. HARDIE: Recent reports of field investigations have indicated that wolves have caused depletion of caribou in the Northwest Territories. Are they a major part of this decrease in the number of caribou?

Mr. SOLMAN: I do not think I would say that no.

The CHAIRMAN: Are there any other questions, gentlemen?

Mr. GUNDLOCK: Mr. Chairman, I would like to discuss for a moment the fact that with the surplus of elk in southern Alberta they have been responsible for the past number of years for damaging the ranchers' and farmers' haystacks. I wonder if the parks branch could give us their thinking on that?

Mr. ROBERTSON: I am not sure whether the member is referring to a surplus in southern Alberta generally.

Mr. GUNDLOCK: Well, generally speaking, I would not want to say but, in particular, adjoining Waterton and Banff parks—Waterton more than Banff. I might say it is quite a serious problem in the area adjoining Waterton park, because it is a small area and the elk seem to know where the line is.

Mr. ROBERTSON: In so far as the province as a whole is concerned, we have no particular information. The wild life service may have something on this, but it is a provincial matter. In connection with the area immediately adjoining Waterton park, there have, from time to time, been some complaints. I think perhaps that what you have in mind is the damage occasioned by elk which they say have come from the park and have foraged on haystacks and that sort of thing.

There have been suggestions that a fence could be erected around Waterton park sufficient to keep the elk in. This was looked into. Such a fence would cost something in the neighbourhood of a million dollars. It takes quite a fence to keep them in. In addition to that, the federal government has not been satisfied that it could or should assume responsibility for what might happen when animals get outside the park. They do wander from time to time. There is always the possibility that farmers or ranchers could try to put a fence around the haystack. This might be cheaper than putting it around the park. It is a recurring problem. It is the kind of thing that happens. It may be bears in Cape Breton Island or elk at Waterton, but it is one of the things that is bound to happen.

Mr. HARDIE: Has there been any consideration given to taking the elk from the provinces into Wood Buffalo park?

Mr. ROBERTSON: Not that I am aware of.

Mr. NIELSEN: We have conducted an experiment through the Yukon fish and game association whereby we have imported elk into the Yukon, and they are surviving very well there.

Mr. ROBERTSON: I do not know that this has been looked into, but it could be.

Mr. NIELSEN: If there is any surplus down there, we can certainly use it.

Mr. KORCHINSKI: I would like to ask one question with reference to sanctuaries. I am looking at this list here and I notice that there are no sanctuaries in Manitoba. Were there any requests received from Manitoba?

Mr. SOLMAN: I am not sure of the details, but I would assume that must be so.

The CHAIRMAN: Any other questions?

Mr. GUNDLOCK: I might ask one more question. I would like to have the answer on the record. There has been nothing done about that elk situation.

Mr. ROBERTSON: I am told, Mr. Chairman, that the province grants out-of-season shooting licences in the area around the park. The park program also includes a control by which a number of elk are taken and are killed by the park wardens every year, in order to keep the number down, in the hope of reducing the tendency of elk to wander outside the boundaries of the park. In general, this is fairly effective. Those are the measures it has been thought possible to take. There are no other measures to take that appear reasonably possible, unless one were to reduce the elk population much more sharply within the parks. I am told weather is an influencing factor, as it would be in this mountain area. In addition, there is the fact that Waterton park is adjacent to Glacier park in the United States. Glacier park is a much larger

park and the elk do not know anything about boundaries. The population of elk wander back and forth. Control is very difficult.

Mr. GUNDLOCK: I do not think it is an international situation in this case.

Mr. ROBERTSON: What I mean to say is that you can reduce the population in Waterton, as is done. This does not necessarily mean that you will solve the problem, because you may have a flow from other parts of this area, say, from the United States, up into this area. Measures are taken every year to keep the elk population down to what is thought to be the reasonable carrying capacity of the park.

Mr. GUNDLOCK: On the south side of the line there is a large Indian reservation and they are able to hunt there all the time. The elk do not go through there.

Mr. SOLMAN: With regard to the actual migration of the elk, they spend a large part of their time in an inaccessible part of Glacier park. In their movement from Glacier down the Pelly river through Waterton, a lot of them are not available to the Indians on the Indian reserves on the other side of the international boundary. They move through Waterton park and out into the prairie areas. For seven or eight months of the year they are in Glacier park in a rather inaccessible portion of that park.

Mr. HARDIE: I feel that a great deal of thanks should go to the officials of the national parks branch who have appeared before the committee. I feel that this branch of the government has done a fine job in the past and I am sure they will do a terrific job in the future in looking after the recreation facilities in Canada, which are provided through the national parks branch.

I would also like to congratulate the person or persons who wrote the article, "Wisdom's Heritage", which you will find in the annual report of the Department of Northern Affairs and National Resources for the year ending March 31, 1957. I think it is inspiring to read an article such as this every now and again. It sort of puts this problem in the proper perspective.

As the article points out, we as Canadians and members of this committee must look forward to preserving possibly greater areas for the enjoyment of the people of Canada. Although this branch has probably not had much guidance from the committee as to what the committee feels should be done in the future, I do feel that the responsibilities occur at the municipal, provincial and federal levels.

The municipalities in particular should give some thought to extending their municipalities, and the provinces should also give thought in regard to the expansion of industry.

I do feel, as I said before, the members of this branch are doing a terrific job with the amount of money that parliament is granting.

Again I want to thank the officials of the department for appearing before the committee.

The CHAIRMAN: Thank you very much Mr. Hardie. I am sure the minister, the deputy minister and others welcome such a statement made on behalf of every member of this committee.

Main Estimates items 269 to 275 inclusive agreed to.

Supplementary Estimates items 580 and 583 agreed to.

The CHAIRMAN: Gentlemen, we have a new member on the committee. Mr. Kindt is replacing Mr. Legere. We welcome Mr. Kindt to our committee.

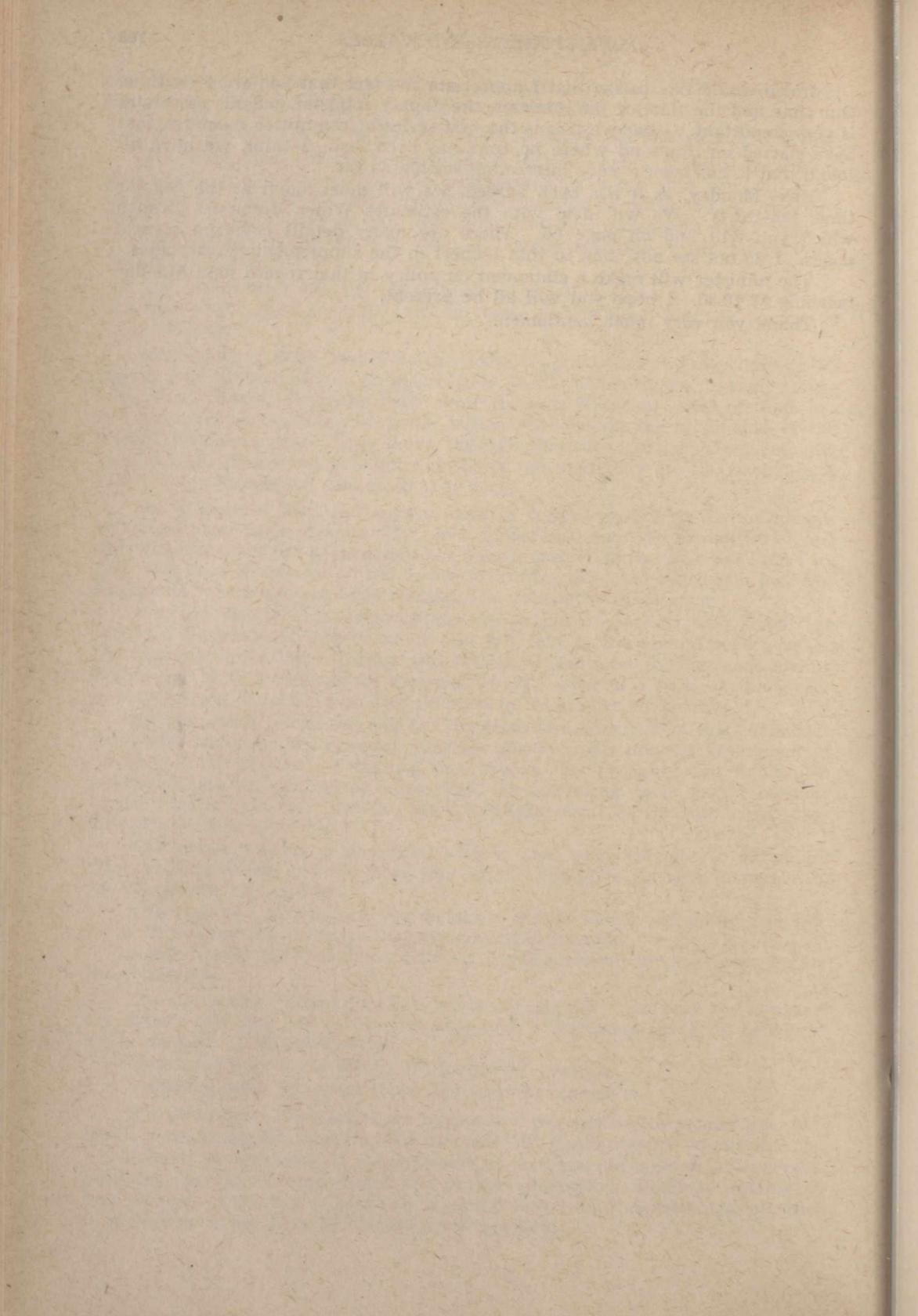
I must, as chairman of your committee, express the opinion of everyone that this has been a marvellous and rather exceptional meeting, starting at nine o'clock. I think it is probably a record for committee meetings, particularly because some 23 or 24 members were present.

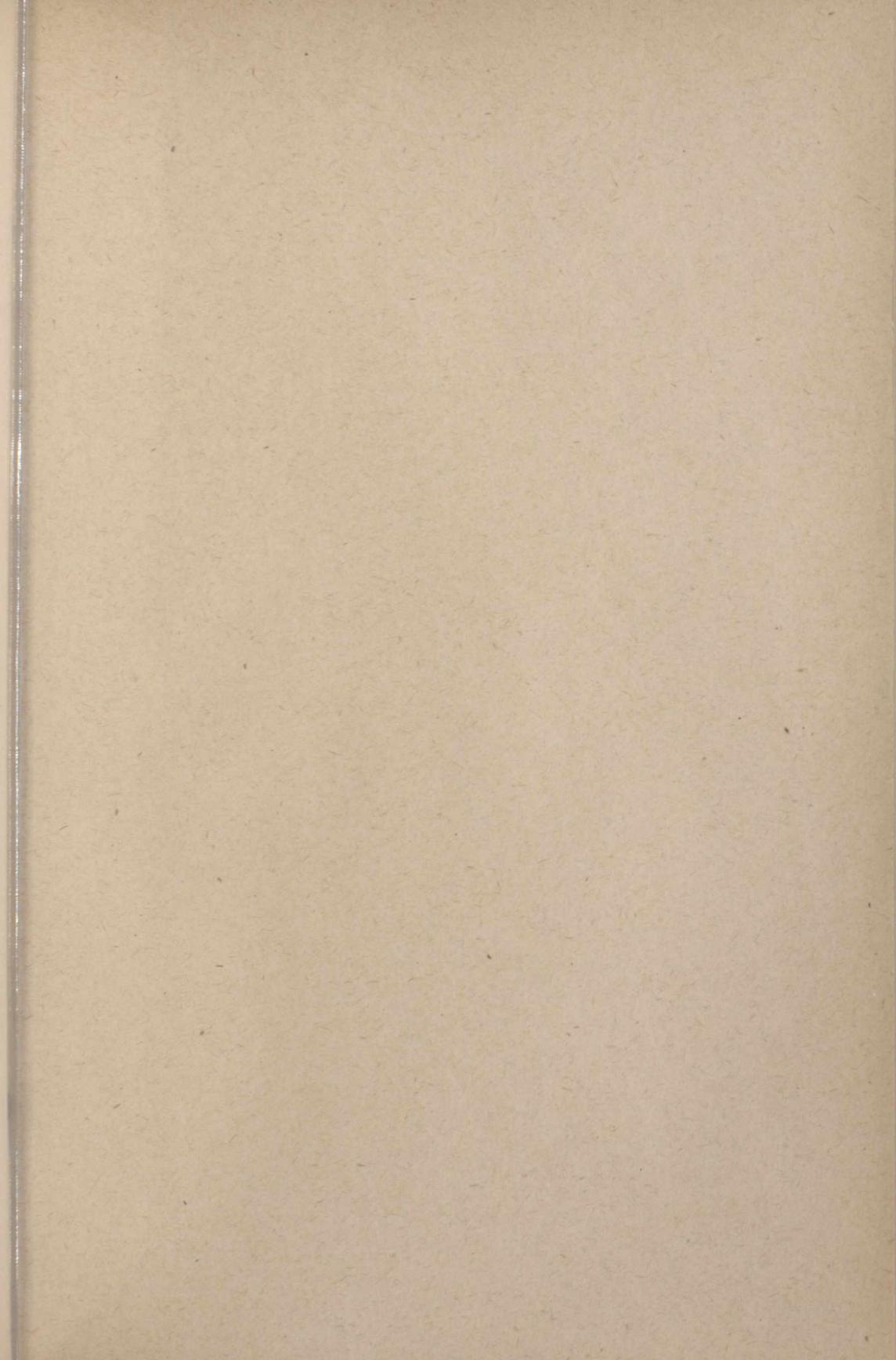
I also would like to say that I appreciate the fact that you were on time. Our time and the time of the minister, the deputy minister and his associates is very important. I believe this is the first series of committee meetings that have started on time and where no time has been lost. I think we have all found that it has been a very interesting session so far.

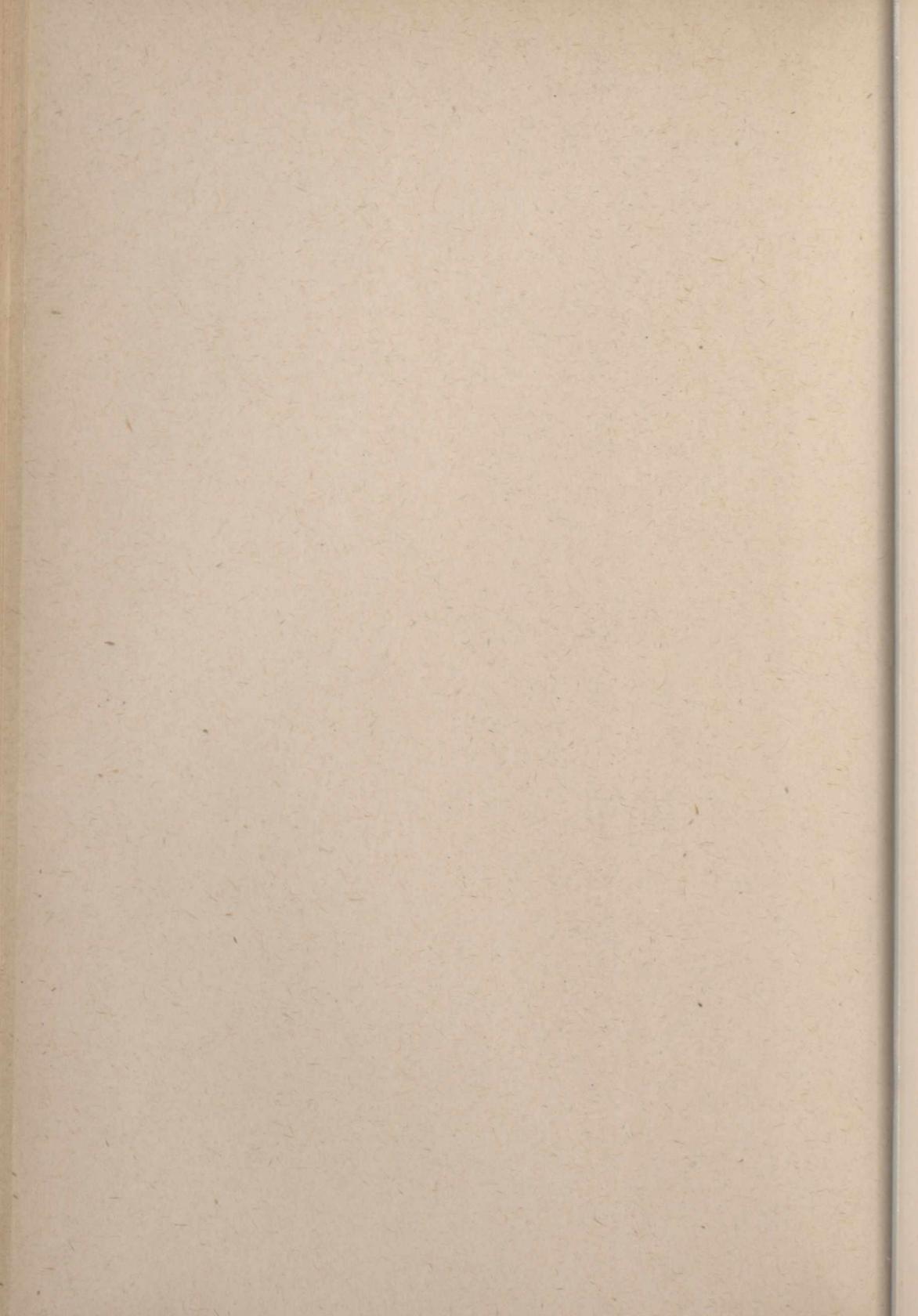
Next Monday, as it has been agreed, we will meet again at the regular time, ten-thirty. We will deal with the estimates Water Resources Branch which you will find on page 55. There are many details covering several pages. I do not see any item in that respect in the supplementary estimates.

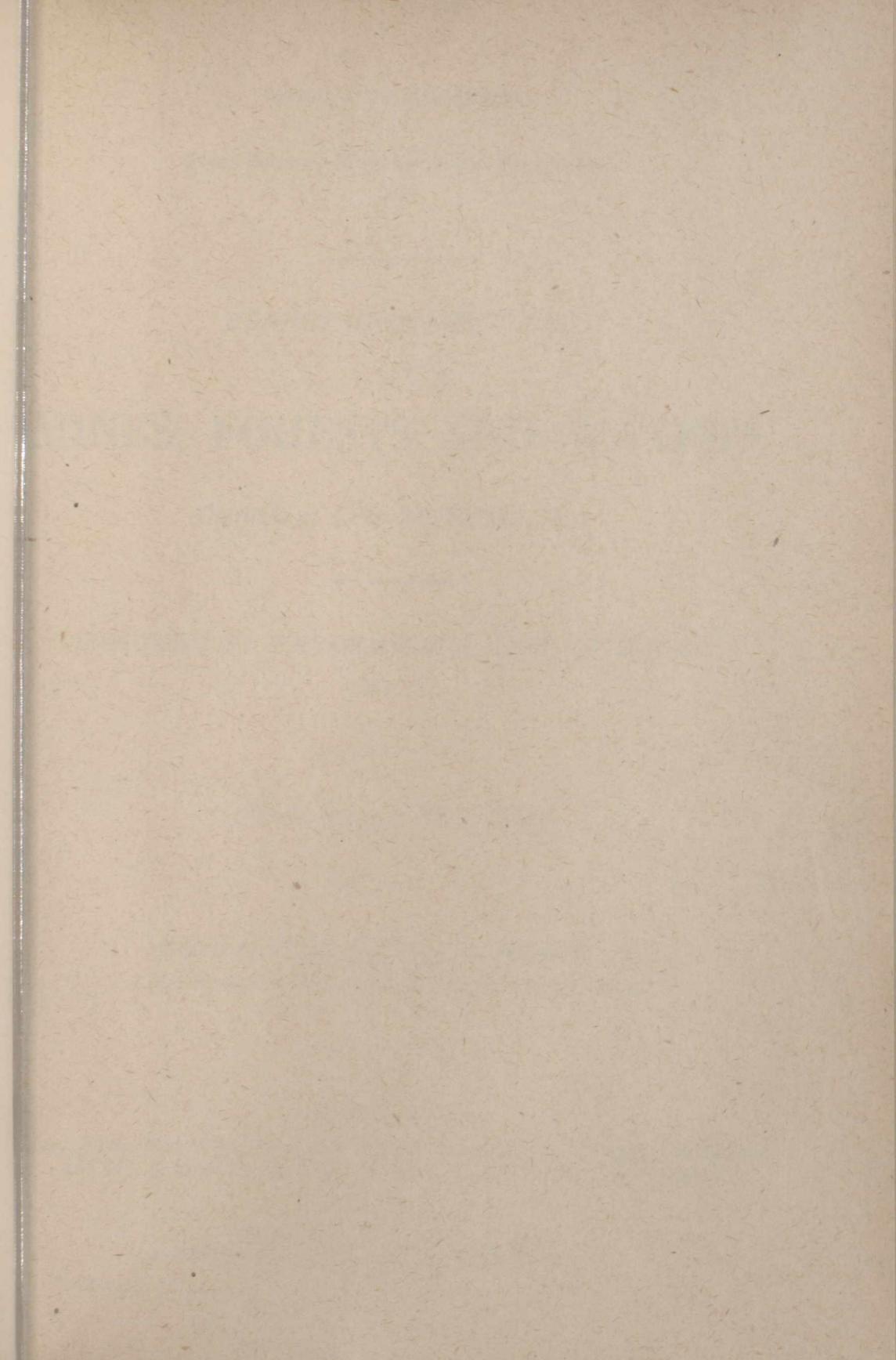
The minister will make a statement on policy in that regard next Monday morning at 10.30. I hope you will all be present.

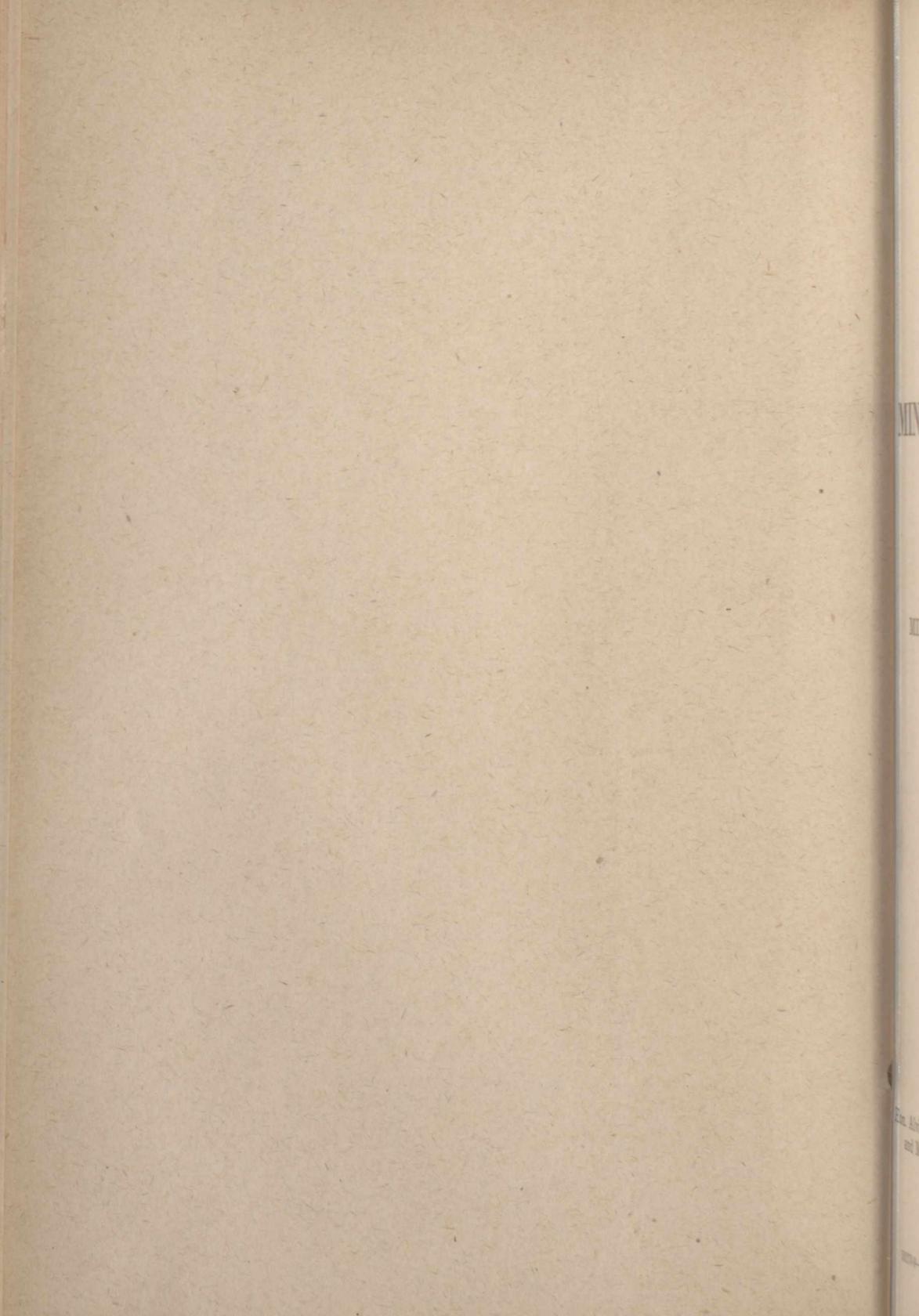
Thank you very much gentlemen.











HOUSE OF COMMONS

First Session—Twenty-fourth Parliament
1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 4

MONDAY, JUNE 23, 1958



Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister;
and Mr. J. D. McLeod, Chief Engineer, Water Resources Branch.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baskin,
Bruchési,
Cadieu,
Coates,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Fréchette,
Godin,
Granger,
Gundlock,

Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,
Mitchell,
Muir (*Cape Breton North
and Victoria*),

Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafleche*),
Robichaud,
Simpson,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

MONDAY, June 23, 1958
(6)

The Standing Committee on Mines, Forests and Waters met at 10.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baskin, Coates, Dumas, Fleming (*Okanagan-Revelstoke*), Godin, Granger, Gundlock, Hardie, Kindt, Korchinski, Leduc, MacRae, Martin (*Timmins*), McLennan, Murphy, Nielsen, Pugh, Roberge, Robichaud, Simpson, Stearns and Villeneuve—23.

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. R. G. Robertson, Deputy Minister; E. A. Côté, Assistant Deputy Minister; F. A. G. Carter, Chief Administrative Officer; R. A. Faibish, Private Secretary to the Minister; and J. D. McLeod, Chief Engineer; R. H. Clark, Chief Hydraulic Engineer; and A. F. C. Sincennes, Administrative Officer; of the Water Resources Branch.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

Items 276 to 281 inclusive of the Main Estimates, concerning the Water Resources Branch, and Items 506 and 507 of the Main Estimates and Item 659 of the Supplementary Estimates, concerning Loans, Investments and Advances, were called and considered.

The Committee agreed that, in addition to sitting on Monday and Tuesday mornings, it would sit at 9.30 o'clock a.m. on Fridays.

At 12.30 o'clock p.m. the Committee adjourned until 9.00 o'clock a.m. on Tuesday, June 24, 1958.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

1881

The meeting of the Board of Directors of the
Company was held on the 1st day of January
1881 at the office of the Company in
the City of New York. The meeting was
called to order by the President, Mr. J. M.
Smith, at ten o'clock in the forenoon.
The minutes of the last meeting were
read and approved. The following
resolutions were adopted:
Resolved, That the Board of Directors
do hereby authorize the President to
execute all the business of the Company
which may come before him during the
absence of the Board.

Attest:
J. M. Smith,
President

EVIDENCE

MONDAY, June 23, 1958

10:30 a.m.

The CHAIRMAN: Gentlemen, we have a quorum. Thank you for being here on time.

At the last meeting we had expressions very kindly made regarding articles appearing in the report of the department. I think it was Mr. Hardie who commented on the article on the parks. He expressed the hope that we might have more copies for distribution among members of the committee. You might wish to send them to fish and game clubs, conservation authorities or high schools, collegiates and so on. Would any member of the committee like to express an opinion?

Mr. FLEMING (*Okanagan-Revelstoke*): Mr. Chairman, I think just for that purpose that you have mentioned, if they could be made available, they could be usefully distributed without waste in the ridings. For my own part, I feel I could probably, with some degree of value, distribute about 250 copies in my own riding, if they were available.

The CHAIRMAN: Is it agreeable to the committee to leave it to the discretion of the chairman as to the number to be ordered? If any members of the committee would like to give me an indication of how many they require, that will be taken into consideration.

The minister is not here yet. He was in Saskatoon over the week-end and was supposed to have been here this morning. The deputy minister is now ready to file the information which we requested. One was the revenue for parks, and the gas and oil permits that we requested at the second last meeting.

If it is satisfactory to the committee, I will ask Mr. Robertson, the deputy minister, to present this for the official report.

I might say we have with us this morning Mr. Robertson, the deputy minister, Mr. Côté, the assistant deputy minister, Mr. Carter, chief administrative officer, Mr. McLeod, chief engineer, water resources branch, Mr. Clark, chief hydraulic engineer, water resources branch, and Mr. Sincennes, administrative officer, water resources branch.

We are about to discuss items 276 to 281 of the water resources branch. We will first have the other information.

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): I might say, Mr. Chairman, by way of information, after the last meeting the department filed the annual report of the parks as a whole. However, I think there was a request for a breakdown by parks, and this breakdown shows the revenue of each park over the fiscal year 1957-58.

STATEMENT OF REVENUE BY PARKS FOR THE
FISCAL YEAR 1957-58

Head Office	\$	83.66
Historic Parks and Sites		4,015.74
Banff Park		600,815.52
Cape Breton Highlands Park		19,836.93
Elk Island Park		31,672.33
Fundy Park		40,772.60
Georgian Bay Islands Park		2,004.32
Glacier Park		3,808.48
Jasper Park		223,639.77
Kootenay Park		147,332.37
Mount Revelstoke Park		449.90
Point Pelee Park		25,979.58
Prince Albert Park		102,673.03
Prince Edward Island Park		21,885.99
Riding Mountain Park		158,401.66
St. Lawrence Islands Park		946.08
Terra Nova Park		16.50
Waterton Lakes Park		78,193.68
Yoho Park		34,357.23
		<hr/>
		\$1,496,885.37

The other item is one that the minister promised, and is a statement of reservations, permits and applications for permits for oil and gas exploration in the Yukon and Northwest Territories as of June 17, 1958. It shows the company, the number of acres taken out in each case, and the amount on deposit. It also shows the amount expended against deposits to date and the additional amount that will be required to be expended.

STATEMENT OF RESERVATIONS, PERMITS AND APPLICATIONS FOR PERMITS FOR OIL AND GAS
EXPLORATION IN THE YUKON AND NORTHWEST TERRITORIES AS OF JUNE 17, 1958.

1. RESERVATIONS				
Name	Acres	Amount on Deposit	Amount Expended Against Deposits To Date	Additional Amount to be Expended to end of Permit Period
		\$	\$	\$
Peel Plateau Exploration Ltd.....	6,133,760		1,076,628.94	
NOTE: Granted through public competition authorized by Orders in Council P.C. 2804, 14th of May, 1952; P.C. 1955-603, 27th of April, 1955; and P.C. 1955-1720, 16th of November, 1955.				
2. PERMITS				
Atlas Investments Ltd.....	51,966		2,598.30	75,350.70
D. Todd Briggs.....	3,742,046	667,180.29	131,264.03	2,224,886.10
W. L. Brintnell.....	17,920		6,639.49	
			(over exp.)	
British American Oil.....	76,110	68,499.00		
British American Oil & Texaco.....	246,612	12,330.60		357,587.40
California Standard.....	2,233,339	111,248.40		3,238,341.55
Canada Southern Petroleum.....	1,163,554	56,089.90	85,743.50	1,671,229.55
Canadian Husky Oil.....	1,913,035	95,651.75		2,773,900.75
Canadian Husky Oil & New Superior Oils.....	2,847,266	142,363.30		4,128,535.70
Canso Oil Producers.....	299,178	14,958.90		433,808.10
Charter Oil Company.....	148,046		7,500.00	214,666.70
Central Patricia Gold Mines.....	340,510		17,025.50	493,739.50
Consolidated Mic-Mac.....	96,748	5,000.00		140,284.60
Conwest Exploration.....	790,836		108,935.00	1,047,470.70
Fron Lake Mining Company.....	364,442		145,776.80	182,221.00
Glacier Explorers Ltd.....	2,973,870	7,940.10	135,100.00	4,312,111.50
Gas Bay Petroleum.....	24,316		1,215.80	35,258.20
Gorda Investments.....	62,890	3,144.50		91,190.50
John Graham.....	74,150		3,707.50	107,517.50
Guaranty Trust of Canada.....	219,102		11,100.00	317,697.90
Honolulu Oil Corp.....	314,301	44,515.05		362,936.45
Island Prince Copper.....	48,546		2,427.30	70,391.70
Imperial Oil Limited.....	22,683	1,134.15		32,890.35
Jamaica International Expl.....	338,289	47,775.92		405,946.80
Frank Leska.....	24,316		1,215.80	35,258.20
David McNair.....	48,976		2,448.80	71,015.20
Merrill Petroleum.....	45,720	21,047.79		
Midland Petroleum.....	332,151	3,973.65	12,770.00	481,618.95
Mobil Oil of Canada.....	841,728	172,769.85		983,159.60
Murphy-Canada Oil.....	311,544	90,732.00		373,852.80
Murphy Corporation.....	445,376			645,795.20
Pan American Petroleum Corp.....	584,750	36,139.12	47,616.05	800,348.25
			(excess)	
Joseph Paradis.....	151,454		7,572.70	219,607.60
Paradise Exploration Ltd.....	25,983		1,299.15	37,675.35
Peel Plateau Explorations.....	400,386		100,096.50	480,463.20
Peel River Oil & Gas Co.....	48,804		2,440.20	70,765.80
Pontiac Petroleum Ltd.....	127,193	6,400.00		184,429.85
Rainbow Oils Ltd.....	297,028	14,850.00		430,690.60
Redden, John.....	24,316	1,250.00		35,258.20
Scurry Rainbow Oil.....	898,554	44,950.00		1,301,903.30
Shell Oil Co. of Canada Ltd.....	6,573,450	172,218.04	145,666.34	8,194,756.55
Isaac Shulman.....	227,464	3,900.00	7,538.10	329,782.80
W.E. Simpson.....	24,144		1,207.20	35,008.80
Spes Exploration.....	148,728	2,500.00	4,906.20	215,555.60
Sun Oil.....	375,730	70,100.00	42,683.00	450,876.00
Texaco Exploration.....	277,144	7,479.85		369,972.05
N.W. Tracy.....	132,455	7,000.00		192,059.75
Rock River Gas.....	101,534			147,224.30
Triad Oil.....	759,324		43,234.56	1,101,019.80
Union Oil of Calif.....	136,220	6,811.00		197,519.00
Western Interprov.....	496,802	24,850.00		720,362.90
TOTAL.....	32,271,029	\$1,964,803.16	\$1,079,727.82	\$40,823,942.90

NOTE: Where no amount is shown on deposit it is covered by overexpenditures submitted and approved.

STATEMENT OF RESERVATIONS, PERMITS AND APPLICATIONS FOR PERMITS FOR OIL AND GAS
EXPLORATION IN THE YUKON AND NORTHWEST TERRITORIES AS OF JUNE 17, 1958.

3. APPLICATIONS FOR OIL AND GAS PERMITS

Name	Acres	Amount	Amount	Additional
		on Deposit	Expended Against Deposits To Date	Amount to be Expended to end of Permit Period
		\$	\$	\$
Glacier Explorations Limited.....	617,472	30,873.60		1,821,542.40
Shell Oil Company of Canada, Limited.....	8,199,873	409,993.65		24,189,625.35
J.J. Rankin.....	463,610	23,180.50		1,367,649.50
Pan American Petroleum Corporation.....	2,099,993	104,999.65		6,194,979.35
Mrs. P. Curran.....	31,485	1,574.25		92,880.75
The California Standard Company.....	1,731,630	86,581.50		5,108,308.50
Texaco Exploration Company.....	4,198,306	209,915.53		12,385,002.70
J.V. Lyons.....	25,003	1,250.15		73,758.85
Scurry-Rainbow Oil Ltd.....	1,773,086	88,654.30		5,250,603.70
Galkeno Mines Ltd.....	420,550	21,027.50		1,240,622.50
Murphy Corporation.....	62,244	3,112.20		183,619.80
The B.A. Oil Company Limited.....	2,788,006	139,400.30		8,224,617.70
Charter Oil Company Limited.....	374,125	18,706.25		1,103,668.75
Hunt & Placid Oil Companies.....	3,909,447	195,472.35		11,532,868.65
Ohio Oil Company.....	975,899	48,794.95		2,878,902.05
Mobil Oil of Canada Ltd.....	235,484	11,774.20		694,677.80
J. Cormie.....	204,124	10,206.20		602,165.80
Paul Penna & Frank Nasso.....	266,788	13,339.40		787,024.60
New Superior Oil of Canada Ltd.....	63,212	3,160.60		186,475.40
Union Oil Company of California.....	905,960	45,298.00		2,672,582.00
H. Brodie Hicks.....	49,578	2,478.90		146,255.10
Ranworth Explorations.....	356,622	17,831.10		1,052,034.90
Imperial Oil Limited.....	2,995,333	149,766.65		8,836,232.35
Donald C. Sim.....	476,292	23,814.60		1,405,061.40
James C. Scott.....	81,115	4,055.75		239,289.25
Paul P. Hewitt.....	151,812	7,590.60		447,845.40
Swift Oil Company.....	1,730,045	86,502.25		5,103,632.75
Champlain Oil.....	336,902	16,845.10		993,860.90
TOTAL.....	35,466,966	\$1,773,349.80		\$105,512,638.20

I might say the total amount that would be required under permits already out is \$40,823,000. The amount that would be required, including the applications for permits, is \$105,512,000.

The CHAIRMAN: Any member or members who would like to make some observations about those statements that have just been entered in the proceedings, will be able to do so either today or at a later meeting.

Now, gentlemen, in the absence of the minister I think it is quite satisfactory that while we will not have a government policy statement at the beginning of this meeting, I expect we will before it is finished. If it is agreeable to the members of the committee, we will proceed with item 276. When you are on this water resources branch you will be free to discuss any item called, including your observations. You can discuss matters from 276 to 281.

WATER RESOURCES BRANCH

Main Estimates

Item 276. Administration, Operation and Maintenance, including Grant of \$350 to the International Executive Council, World Power Conference and a Grant of \$35,000 to the Canadian National Committee of the World Power Conference to assist in defraying the costs of the Conference's Sectional Meeting to be held in Canada in 1958.....	\$ 1,257,459
Item 277. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 123,500
Item 278. To provide for studies and surveys of the Columbia River Watershed in Canada	\$ 227,780
Item 279. Fraser River—Federal expenditures in connection with investigations to be carried out by Fraser River Board	\$ 95,000
Item 280. To provide for a contribution to the cost of constructing a dam on the Conestogo River near Glen Allan, Ontario, for the purposes of flood control and water conservation, in accordance with the terms of an agreement entered into between Canada and the Province of Ontario	\$ 500,000
Item 281. To provide for federal expenditures in connection with investigations to be carried out by the Lakes Winnipeg and Manitoba Board.....	\$ 40,000
	<hr/>
	\$ 2,243,739

LOANS, INVESTMENTS AND ADVANCES

Main Estimates

Item 506. To authorize advances to the Northern Canada Power Commission for the purpose of capital expenditures in accordance with subsection (1) of section 15 of the Northern Canada Power Commission Act	\$ 7,910,000
Item 507. To provide for advances in accordance with agreements entered into or to be entered into pursuant to the Atlantic Provinces Power Development Act	\$11,329,000
Supplementary Estimates	
Item 659. To provide for advances in accordance with agreements entered into pursuant to the Atlantic Provinces Power Development Act—Further amount required	\$ 2,290,000

The CHAIRMAN: We have the minister with us now, and I will ask him to make a statement respecting the Water Resources Branch. He will outline the government's policy in regard to this branch.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): Mr. Chairman, as I have done before, I would like to make a statement at the beginning of each series of votes, in order to explain to the members in a general way the principles on which we are operating, and also the problems we are facing.

The water resources branch consists of five votes and this branch of our department has as its major task, at the present time, to provide information for the provinces on their water resources, and to co-operate with the provinces in working out plans for the use of those water resources.

One of the major parts of our program is called the hydrometric survey program, in which we do all the work and the province contribute in varying amounts to the cost. This program consists of measuring the flows of water in various parts of Canada. This gives information of the water-power and other potential in the various areas.

At the present time in Canada our water resources are known in general, but we have many areas in Canada where the exact potential is not clearly established. I will give you an example of this. The department has been working very diligently on the question of the Columbia river and all its ramifications. The part of the work in our department concerning the collecting of data is nearly finished, and so we are moving our crews into the Yukon-Taku area to try to establish more definitely the water-power potential of this area. There are other areas in Canada too that need the same concentration of effort.

Also, moving from the water-power potential, as one of our jobs, to another one of our jobs, and that is the sedimentation survey. This has been

lagging as far as the department is concerned. This year we have embarked upon trying to establish causes and locations of sedimentation accruing in certain places, and then attempting, from that information, to see if we cannot provide some of the answers to the problem of sedimentation in our rivers. This program just planned for the next fiscal year, and it will take us many years before anything definite comes out of our studies. I thought you would be interested in this.

Another problem which I think is just getting started in a major way is the ground water surveys. Now these have been carried out in various locations, but we have found that there is quite a gap in our information as to the water resources of this country beneath the ground. It has been done at certain locations but, generally speaking, on this particular aspect there is a considerable gap.

There is a long list of general things that we are doing. We are cooperating with the various other departments of government. One is the meteorological field and the other is in the flood warning service field.

Now I can give you some examples of cooperation with the provinces. We have the Fraser river board, which was established in 1948 to look into the water-power potential of the Fraser river. We have the lakes Winnipeg and Manitoba board. There is a bill before the house at the present time to amend the Lake of the Woods Control Board. We have the Prairie Provinces Water Board. As you know, we do a great deal of work with a function that comes under External Affairs, that is the International Joint Commission. We provide the information as far as the water is concerned. Now, there are a good many rivers that come under this, the Columbia, the Kootenay, Waterton-Belly, the St. Mary and Milk rivers, the Souris, Red, the Niagara, St. Lawrence, St. Croix, Saint John and others.

We also co-operate with the Department of Fisheries, because every time a dam is built the interests of the fishing industry are affected.

There is a group of miscellaneous responsibilities, such as our participation in power conferences at the international level. I know there is one coming up in September of this year. We have co-operated these last two years in the problems pertaining to geophysical research and energy. We are very much interested in the terms of reference and the final decisions of the Borden Commission which is inquiring into water-power resources.

I think I have now covered the general duties of the department. I would like to say a few words to sum it up and give you some of the problems that we are facing. If any person sits back and thinks about our natural resources in Canada it becomes very clear that the use of water, as well as land use, are the most vital problems affecting our national resources. We see it at first hand in our eastern cities. There is a great shortage of domestic water and increasing shortage of industrial water, and this has caused a tremendous strain on the ability of certain communities to expand. Now, I used the words "land use" a minute ago because the thinking that has to be done at the present time is along the concept of "multiple uses" of our resources; and land and water go very close together. Now, this problem is not new. It has been realized, I would say, for a good many decades in Canada. An effort was made to solve this problem four or five years ago in the passing of the Canada Water Conservation Assistance Act. This is an act which sets up permissive powers for the federal government to co-operate financially with the provinces in conserving water. The act has been in existence over four years now and comes under these votes. Not one project so far has been acceptable under the terms of the act. Before the act went into force, there were three or four projects embarked upon, and we are still paying for them under these votes. But under the present act, there has been a cost benefit ratio, which means you have to demonstrate

to the federal government that the benefits of the undertaking that you are proposing as opposed to the cost, give you a ratio of one or better. At the present time with the present methods of calculating benefits, it has proved almost impossible for any project in Canada to come under the Canada Water Conservation Act. There are some very fine projects that have been proposed, and one of the objections is that we have no precise method of measuring the benefits that result from an increase in land values. We have no precise means of measurement of acceptable means to determine the benefits that come from flood damage. We take a round figure, but there is no precise formula governing it. I can give you examples of that. There is no precise formula for working out the recreational benefits of a water conservation scheme. I would point out now that this may be one of the largest benefits. The information we are getting from the statistical surveys carried out in the United States, is that more people today are visiting reclamation projects for recreational purposes in the United States than visit their national parks. They tell us one of the reasons is that these national parks are in remote areas of any country whereas the reclamation projects are in dry areas where any major collection of water is desperately needed for reclamation purposes.

I point out to you that if you are going to do anything effective on our Canada Water Conservation Act, you are going to have to find better formulae that can predict for any government the extent of these benefits.

There is one more thing on this subject. It is connected with land use. We have in the federal government an act known as the Prairie Farm Rehabilitation Act and one known as the Maritime Marshland Reclamation Act. One of these acts deals with certain areas of the Peace river and the three prairie provinces. The other one deals with the Bay of Fundy and areas around it. There has been some thought given on this type of conservation of our water and tying it into land use, which is the primary purpose of the P.F.R.A. Thought should be given to using these acts and seeing if we could not bring them into a general conservation act for the whole of Canada. I am simply posing it to the committee as a problem of water and land use in Canada. At the present time we have not come up with sufficient answers to propose an overhauling of these three acts to serve the common purpose. Now, we might decide that it is not in our national interest to combine these three acts. It does strike us that we might consider the use of our water resources all across Canada and make more effective use of these resources.

I think that I have outlined the various duties and responsibilities of the department. I have also outlined several problems and I think, Mr. Chairman, the understanding is that they can now question me. I was attempting at the very beginning to outline some of the projects we started this year, like the sedimentation of the rivers. That has just got to the planning stage. I am unable to give you any details on what is going on, because the program is just being worked out. I do not think there is anything more on which I can report more definitely. However, if you wish to question me—

The CHAIRMAN: Could you elaborate on the power potential of the different rivers, the international waters?

Mr. HAMILTON (*Qu'Appelle*): I am going to ask Mr. McLeod, who is in the water resources branch, to answer that question. You asked for the water-power potential of international rivers?

The CHAIRMAN: The rivers you mentioned, yes.

Mr. J. D. McLEOD (*Chief Engineer, Water Resources Branch, Department of Northern Affairs and National Resources*): Mr. Chairman and gentlemen, beginning with the Yukon, we have been able to establish that the water-power potential of the Yukon river within the Yukon territory is of the order of 4 million to 5 million horsepower, and located at some eight or nine sites.

Additional services are going on this year on the principal tributaries including the Pelly, Teslin, and Stewart which we expect will result in a rise in that figure of a total potential for the Yukon river waters, but the results will not be available, of course, for these tributaries until probably late this winter or early next spring.

With regard to the Fraser river in British Columbia, the power potential of such a river can be measured in several ways, depending on the way in which the water may be used, whether it is for one purpose or several. But the order of magnitude figures would be of the order of three to $3\frac{1}{2}$ million horsepower for development on the Fraser river system itself.

On the Columbia river in Canada the total power which might be developed in Canada would be on the order of 7 million horsepower.

The investigations which were made on the Waterton and Pelly rivers were not for power. They were for irrigation. I think we can say that the power possibilities on the Watertown-Pelly rivers are minute. We have no definite figures.

The same applies essentially to the Red river and the Souris river. The point in connection with the Souris river is supply, and with the Red river, again it is supply and flood control.

On the Winnipeg river there is some 800,000 or 900,000 horsepower all of which is now developed or will be developed by the end of this year. That is on the main stem of the Winnipeg.

Then we have the Nelson river which of course includes the Saskatchewan system. The estimates again vary according to the purpose and use to which the water may be put. It is believed that with the Saskatchewan itself here is from $\frac{3}{4}$ of a million to possibly 1 million horsepower physically possible of development. On the Nelson river there is upward of 2 million to 3 million on the Nelson itself which is the river draining Lake Winnipeg to Hudson Bay, which of course includes all the flow from the Saskatchewan, the Red, the Winnipeg and other prairie tributaries.

The major river system of course in the Ontario-Quebec area is the Great Lakes-St. Lawrence. At Niagara, Canada has more than 2 million horsepower development. Between Sir Adam Beck Number 1 and Sir Adam Beck Number 2 plants, and two or three smaller plants, such as Toronto Power and Ontario Power. Approximately a similar quantity is available of course to the United States since Canada has roughly half the river there by treaty.

On the St. Lawrence, at the international rapids, they are just completing the initial installation which will total 1,100,000 horsepower for Canada and a similar amount for the United States.

Farther down the river there are excellent possibilities for development at Lachine—almost within the city of Montreal. Various schemes there place the possibilities at about a million.

The last river here of any consequence powerwise is the Saint John which forms the boundary between Quebec and Maine and New Brunswick and Maine and finally in the lower reaches enters the Bay of Fundy. The Saint John river possesses several good power sites from the physical standpoint. One of the best is just upstream from the Canadian or international section of the river. It is in Maine, or in the vicinity of Rankin Rapids. I mention it because it would provide a good deal of control to any Canadian plant built downstream.

The one which has been most prominently in the news is the development at the Beechwood site by the New Brunswick Electric Power Commission. The official opening is within a week, I believe. The New Brunswick Electric Power Commission also has other sites in mind for development on the same river.

I think, Mr. Chairman, that that completes, in a thumb-nail sketch, power potential on the international rivers.

Mr. HAMILTON (*Qu'Appelle*): Would you give details regarding the Yukon, as an international rivers.

Mr. McLEOD: Approximately the upper third of the Yukon is in Canada; the lower two-thirds is in the United States. The Yukon is rather interesting too because it is both provincial, territorial and international.

The CHAIRMAN: These are interesting figures, gentlemen, I think you would be pleased to have them on the record.

Mr. DUMAS: I wonder if Mr. McLeod would answer one or two questions before he leaves that map of the Yukon territory. Mr. McLeod, you mentioned a potential of four to five million horsepower. Is that in regard to international waters only or is it the potential of the whole of the territory?

Mr. McLEOD: No, that is the power potential as energy, and as our figures give it at the present time of the Yukon river, in its natural course within the Yukon territory only. The upper limit of 5 million would include some development of tributaries such as the Pelly-Teslin-Stewart, but all within the Yukon territory. That figure does not envisage any diversion of water nor is there any consideration given to international aspects. That is just the existing river and what might be developed within the Yukon territory.

Mr. DUMAS: On the Fraser river, Mr. McLeod, you mentioned 3.5 million horsepower. Is this the full amount?

Mr. McLEOD: No, that is essentially the main stem. However, on the Fraser the question of sites is still in doubt. There are optional sites which would possibly lead to a somewhat greater figure or possibly a little less and it would depend on the final developments that may be selected and on the size of projects at some of the proposed sites.

Mr. DUMAS: I suppose the same takes place on the Columbia river.

Mr. McLEOD: Essentially the same, yes.

Mr. DUMAS: And at Niagara would you say that we are using one million?

Mr. McLEOD: At Niagara, no,—we are using more than 2 million.

Mr. DUMAS: Is that the full potential of Niagara?

Mr. McLEOD: It is pretty well the full potential of the Canadian part of the Niagara development.

Mr. DUMAS: And at the international rapids you mentioned 1 million.

Mr. McLEOD: One million one hundred thousand is the full potential of our share.

Mr. DUMAS: At the international rapids would that be the full potential?

Mr. McLEOD: One half.

Mr. DUMAS: I mean the Canadian part of it.

Mr. McLEOD: One million one hundred thousand horsepower is the full share.

Mr. DUMAS: And at Lachine one million would be our share?

Mr. McLEOD: Yes, that is our Canadian share.

Mr. DUMAS: At Lachine it would be our share?

Mr. McLEOD: At Lachine, yes, because the St. Lawrence is back into Canada.

Mr. DUMAS: What were the figures for the Saint John river—the international part of the Saint John river.

Mr. McLEOD: Well, on the Saint John river, I did not give individual figures but roughly speaking, the Rankin rapids project would be close to 300,000 horsepower. That would be in United States, but would provide a lot of storage for control at the river downstream. In Canada there is already the Grand

Falls plant which is of the order of 80,000 horsepower. Then downstream is Beechwood which has about 90,000 horsepower, with another 45,000 to go in as a third unit.

There are possibilities at Merrill just above of the order of 90,000 to 100,000 horsepower, and possibilities at Hawkshaw down from Beechwood of approximately the same size. Those are all on the main stem of Saint John. There are some minor developments on some of the tributaries but most of the tributaries of the Saint John are relatively small. They are small size units.

Mr. ROBICHAUD: All those additional power possibilities on the Saint John river would definitely require storage.

Mr. McLEOD: They would be much better with storage.

Mr. ROBICHAUD: Would they be possible without storage? Would they be economical?

Mr. McLEOD: I do not feel qualified to answer that. I think you can say that they would be physically possible. Whether they would be practical from an economic standpoint is really beyond my ken.

Mr. NIELSEN: You say that consideration as to power potential on the Yukon river takes into account only the Yukon river within the Yukon. The minister made mention of survey crews being in the Yukon-Taku area. How many are there in this area, by the way?

Mr. McLEOD: We have one party out this year.

Mr. NIELSEN: And where have they been instructed to conduct their survey operations this year?

Mr. McLEOD: Well, Mr. Nielsen, this is the third year we have had parties in the Yukon. In 1956 we had two parties working on the main stem right from Marsh lake through to the international boundary. They located some nine sites which appeared to be physically possible of development. These are all on the main stem and the total power from those would be something over 3 million horsepower.

Last year we finished up some of the work on those nine sites and investigated some possibilities on the Teslin river and one possibility on the Stewart river. We also had our parties look at the White-Donjek rivers which do not look too hopeful from a construction point of view.

This year the party is starting on the upper Pelly river. Our purpose is to look for sites on these tributary rivers which of course would add to the total available in the Yukon but might also provide information on some of the smaller units that could be of use to perhaps local mining developments.

Mr. NIELSEN: Have the crews, to your knowledge, visited the plant at North Fork belonging to the Yukon Consolidated Gold Corporation?

Mr. McLEOD: These crews did not visit there, but I know that our officers have been there in the past.

Mr. NIELSEN: Has any assessment been made as to the additional, if any, power potential available to this source from which the present power is generated?

Mr. McLEOD: Not in the Klondike as yet. You understand sir, that those rivers are pretty big and our resources, personnel and money are not too extensive. We are covering now one tributary at a time.

Mr. NIELSEN: Is it the thought to investigate the possibility of power development on the Yukon river at Dawson in view of the recent mineral findings in the area?

Mr. McLEOD: We have already got preliminary figures on sites above and below Dawson. There would be no sites at Dawson city. But toward the boundary one site down and one site upstream from Dawson are included in the nine sites of which I spoke earlier.

Mr. FLEMING (*Okanagan-Revelstoke*): How many sites would be required to develop seven million horsepower on the Columbia?

Mr. McLEOD: On the main stem there would be three power and storage sites plus three run-of-river sites, plus development on two of the tributaries, particularly the Kootenay.

Mr. FLEMING (*Okanagan-Revelstoke*): Mica creek is the largest development of that group, is it?

Mr. McLEOD: Yes, it is the largest. Mica creek itself has been considered in varying sizes too, and that is one reason why I mentioned that these figures would not be too precise, because it depends on which scheme of development one is talking about.

Mr. KORCHINSKI: How many ideal points would there be for power development on the Saskatchewan?

Mr. McLEOD: "Ideal"?

Mr. KORCHINSKI: No, "possible".

Mr. McLEOD: There is the possibility of a development on the South Saskatchewan river project at Outlook; at Fort a la Corne and I believe there is one more on the Saskatchewan. I believe it is those three that constitute the major possibilities on the Saskatchewan itself.

Mr. NIELSEN: Assuming the possibility of obtaining industrial sites on the panhandle, for example at Skagway in the Dyca valley, has your department come up with any estimated potential—not only the Yukon river system, but including the lakes system of the Yukon and British Columbia—of contemplated diversion?

Mr. McLEOD: Well of course we have Frobisher,—Northwest Power Industries, a subsidiary of Frobisher Ventures. It is their plan to consider diversion through Atlin and into Sloko lakes and finally into the Taku river system. Development of the power would be on the Taku.

Mr. NIELSEN: I am talking of the diversion further north. I gave you an example.

Mr. McLEOD: There were investigations in that area. There were the possibilities of diversion of the Yukon to the Tayia, which is essentially the same type of scheme as the Yukon-Taku. It is a matter of whether you take it out southwest, due south or southeast.

Mr. NIELSEN: Has your department, Mr. McLeod, any idea of the potential development through such a scheme as the Tayia scheme?

Mr. McLEOD: This is from memory, but eight years ago around 3 million horsepower was the guess at that time.

Mr. NIELSEN: So would it be correct to say that the power potential as contemplated by the department in the over-all development of hydro resources of the Yukon would develop more power than the scheme of which you are speaking—eight years ago?

Mr. McLEOD: I think that would require a detailed comparison. But you could say this, Mr. Nielsen, that they would be of the same order and size—that is the whole scheme of development, via the Tayia or Taku or on the Yukon itself, would be of the same general order of magnitude. I do not think you can say that any one would be the same size, or larger, or smaller than another; because each of them consists of a series of developments and a series of steps. At those various steps one might be smaller or larger than another.

Mr. FLEMING (*Okanagan-Revelstoke*): Is it correct that the surveys on the Columbia river will be completed this year?

Mr. McLEOD: I do not know.

Mr. NIELSEN: When will the department have completed its survey in respect of the power potential in the Yukon?

Mr. McLEOD: It will take several more years. There are a lot of tributaries and the limited amount of information which we have on some of those indicates it will take some looking into and it would be a matter of several years.

Mr. SIMPSON: Going back to the Saskatchewan river, what are the findings, if any, on the potential at Grand Rapids on the Saskatchewan river.

Mr. McLEOD: I understand physically it is a fairly good site. How it fits into the prospective plans for development, I think, is a manner for provincial decision. I can only say that physically it appears to be a favourable site.

Mr. KORCHINSKI: Have there been any studies carried on as to the potentiality of the Churchill river?

Mr. McLEOD: There have been studies made by the government of Manitoba as to the potential of the Churchill. I do not have the exact figures here. We could provide them for you if you would be interested in having them. We have some in our office.

Mr. COATES: Have any studies been carried out in respect of the Hamilton river in the Labrador area.

Mr. McLEOD: It is, of course, not an international river. However, it has a total potential of approximately four million horsepower. Two principal sites are at Grand Falls and Muskrat Falls. Grand Falls is much the larger, and the figure of four million envisages some diversion in the upper Hamilton from the Ashuanipi river and from Freemont Lake. That would be practically all the potential on the Hamilton, because it takes in the vast majority of the total power on the river.

Mr. KINDT: May I ask the minister a question? Have there been any studies made in respect of the construction of dams in the head-waters of the Old Man river which would control the flow of water for Lethbridge in Alberta?

Mr. HAMILTON (*Qu'Appelle*): I think Mr. McLeod can answer this question.

Mr. McLEOD: I cannot answer it in detail. It is my understanding that there have been some studies made on the Old Man river. What the studies have covered exactly and for what purposes I am not clear.

Mr. KINDT: Does it come under this act where it is necessary to develop a cost benefit ratio of better than one to one?

Mr. HAMILTON (*Qu'Appelle*): The answer to that is no. I wonder if I could make a slight explanation here. Some of these questions have been dealing with provincial rivers on which we have no responsibility in getting precise information. We get general information about flows and sites in the course of our examination of flows and the terrain. Where we have some responsibility is on these international rivers and we obtain information on any river crossing the border. The Old Man river would be international because it flows into the Milk river.

Mr. KINDT: No; the South Saskatchewan.

Mr. HAMILTON (*Qu'Appelle*): But it does eventually cross the border. However, generally speaking our responsibility in this department is the obtaining of information on those rivers which eventually cross the international border. Some of the questions asked did deal with rivers systems right across the provinces, and the Saskatchewan and Nelson rivers are a case in point. We do have information of a general type. I wanted to make it very clear that,

in respect of the provinces or the regions, we just have a general knowledge and it is limited. All the information comes from a private firm called Pringle and we just keep track of it in our over-all statistics.

Mr. KINDT: Since this Old Man river is a part of the South Saskatchewan watershed basin which cuts across three provinces it brings the federal department into the picture when one comes to the question of the development of the resources on that river. Is that right?

Mr. HAMILTON (*Qu'Appelle*): There is a Prairie Provinces Water Board which has some jurisdiction on these rivers. Mr. McLeod has pointed out to me that the Old Man river flows into that system. It is all in Canada, and it is really more a question for all three provinces rather than the governments of the United States and Canada.

Mr. KINDT: It concerns three provinces and the dominion. In respect of the question of the cost benefit ratio under the act, where you are trying to figure the benefits such as wildlife, water run-off, development of soil conservation, increase of vegetation, and all these other considerations, I would like to ask in that connection what interest rate do you use in determining whether or not a project should go forward or be cancelled? That is right at the nub of things.

Mr. HAMILTON (*Qu'Appelle*): The answer to that question, I think, is this: in connection with any joint proposition under the Canada Water Conservation Assistance Act there are three points; first of all, the local municipal group or the regional conservation group, the provincial government and the federal government. The procedure is that the provincial government must make a proposal to us, and when they bring in the total proposal we look over the whole scheme to determine whether or not it meets the so-called cost benefit ratio and if it is a ratio of one or greater, then we can embark on the scheme. At the present time we do not have any proposal in respect of the Old Man river from the Alberta government and therefore we have not even begun to consider any such proposition.

One other thing I was going to mention is that our formulae for establishing benefits, such as those you listed, fall short of being accurate. They are more or less estimates and there is a great need for a new formula to be devised in this connection.

Mr. KINDT: We are interested in increasing the flow of the Old Man river at Lethbridge in order to get the proper development geared to that river in the months of January and February. We would like to have consideration given to the development of the headwaters of that river to give continuity to the flow.

Mr. HAMILTON (*Qu'Appelle*): We have had no application from the province and until we do we cannot make any proposal. I think the proper procedure is to take the necessary local action and approach the provincial government.

If they can bring forward a scheme that shows a favourable cost benefit ratio, then the present Canada Water Conservation Assistance Act comes into play and we will judge it on the basis of that act.

In my introductory remarks this morning I pointed out that we need a great deal of help in estimating more realistically the value of these multiple uses, rather than limited uses.

Mr. FLEMING (*Okanagan-Revelstoke*): Is the matter of river-bank erosion a wholly provincial responsibility or is there no fixed policy? There is a serious problem which arises because of the three levels of cooperation, federal, provincial and municipal. Do they tend to deal with specific problems or is there an area of responsibility allotted to each; or is there no fixed responsibility for the handling of serious river-bank erosion.

Mr. HAMILTON (*Qu'Appelle*): The responsibility at the present time is clear cut. On navigable waters the federal government has responsibility for navigation use of the water. That is carried out under the Department of Public Works. In respect of the question of erosion on purely provincial rivers, the main part we would play in that would be the provision of hydrometric information as to the flows and so on. It might become part of our work under a sedimentation survey program.

Mr. FLEMING (*Okanagan-Revelstoke*): There is no direct federal responsibility or control on provincial rivers in respect of erosion?

Mr. HAMILTON (*Qu'Appelle*): No.

Mr. DUMAS: I would like to ask a question with regard to the hydrometric survey program of your department. How many gauging stations were maintained in 1957?

Mr. HAMILTON (*Qu'Appelle*): My deputy informs me there were about 1,219.

Mr. DUMAS: How are they distributed as far as provinces are concerned?

Mr. HAMILTON (*Qu'Appelle*): Mr. McLeod will answer that.

Mr. McLEOD: The 1,219 stations are distributed approximately as follows: there are 320 in British Columbia, 215 in Alberta, about 80 in Saskatchewan, about 90 in Manitoba, 160 in Ontario, and there are 180 approximately in Quebec; in the Maritimes area there are about 40 stations roughly equally divided between New Brunswick and Nova Scotia; there are some 15 on the island of Newfoundland, plus 4 in the Labrador section of Newfoundland; and there are about 25 in the Yukon Territory plus a scattering in the Northwest Territories. I might add apologetically that I would have made a better guess at the members by districts. We operate by districts which are not completely provincial and I was endeavouring to make a quick split of the figures into provincial coverage.

Mr. DUMAS: I understand that. It is very interesting. In the Labrador section of Newfoundland you said there are four stations.

Mr. McLEOD: Yes.

Mr. DUMAS: Are they on the Hamilton river?

Mr. McLEOD: Yes; tributary drainage.

Mr. DUMAS: Without going into too much detail, are the 180 stations in the province of Quebec mostly in the southern part of the province or are they scattered throughout the province?

Mr. McLEOD: They are scattered through the whole province, but naturally the establishment of the stations has in general followed settlement. They should precede settlement, but it has happened that they have followed settlement. Therefore the bulk of our coverage is in the southern part of the province although we are extending northwards as rapidly as possible and have several stations operating in cooperation with the Quebec department of hydrometric resources in the northern Ungava section. There are plans under way this year for investigation of several of these rivers which enter Hudson's Bay from the Quebec section, such as the Great Whale, Little Whale, and one or two others.

Mr. DUMAS: Are any of these stations on the Big river emptying into James Bay?

Mr. McLEOD: I am not certain. I would have to check on that.

Mr. KORCHINSKI: I notice in the estimates for last year you had 500 gauge readers part time and this year there are none. What happened to them?

Mr. HAMILTON (*Qu'Appelle*): I think this question was asked in the first week of our hearings. Instead of classifying these people as being on establish-

ment we are taking them on by contract. They work only a few hours and it is a better arrangement to do it that way than by classifying them as being on staff.

Mr. NIELSEN: Are there any surveys, similar to those carried out in the Yukon, being carried out in the Northwest Territories?

Mr. MCLEOD: At the present time there are not. We hope to extend into the Northwest Territories in the very near future if conditions permit.

Mr. STEARNS: I wonder if the minister could tell us in summary exactly what the agreement is between the federal government and the province of Ontario in respect of a dam for flood control on the Conestoga river.

Mr. HAMILTON (*Qu'Appelle*): I have the information here if you would like to have it on the record.

Mr. STEARNS: Does it not more or less fit in with what was being said a few moments ago. I just wondered, in summary, what kind of agreement you would be making with a provincial government. Would you exact rentals as to the use of the water and so forth?

Mr. HAMILTON (*Qu'Appelle*): This Conestoga dam agreement, to which you referred, was entered into before the act came into effect, but is on the same basis. In this particular case the federal government under the act, even though it was done before the act was in effect, contributed 37½ per cent of the cost of \$5,400,000. The provincial government and the local conservation authority, I think, contributed the other 62½ per cent. Under the agreement the province makes arrangements with the local authority, the conservation commission in this instance, to underwrite a portion of the cost of the construction. The Grand River Conservation Commission assumed 25 per cent of the cost in this particular agreement. There were four such dams built before the act was set up. Since the act has come into effect no scheme has been put forward with an established cost benefit ratio of one or better. I raised the question as to whether there was not something the matter with our formula for estimating the flood damage, recreational benefits, increase of land value, and many other things which are classified as being intangible benefits.

Mr. KINDT: Is the standard relationship between the costs borne by the different levels of government, that is the province 37½ per cent, the dominion 37½ per cent and the local 37½ per cent, tied in with the benefit rate; that is you must also have the one to one in order to get a project started.

Mr. HAMILTON (*Qu'Appelle*): The act limits the proportion the federal government will pay to 37½ per cent. I will read the terms of the contributions under section 5 of the act:

5. (1) The minister may, in accordance with an agreement with a province and subject to this act, pay contributions to the province out of money appropriated by parliament for the purposes of this act.

(2) The contributions paid by Canada in respect of an agreement with a province shall not exceed the amount paid by the province in respect of the project referred to in the agreement, and in no case shall the contributions paid by Canada exceed thirty-seven and one-half per cent of the cost of the project, as determined by the governor in council.

(3) No contributions shall be paid in respect of an agreement with a province unless all other agreements under this act with that province are being carried out in a manner acceptable to the minister.

Mr. KINDT: It is pretty clear, with an act like that on the statute books, that it explains very vividly why we cannot get any development in my province of Alberta.

Mr. HAMILTON (*Qu'Appelle*): As far as I know on our files there is not one application from the province of Alberta under this act.

Mr. KINDT: Knowing the act, as provincial people do, they know what they are up against and it would logically follow that the provinces have not made any overtures. I have been in discussions with them and I know their thinking. They are running up against a stone wall.

Mr. HAMILTON (*Qu'Appelle*): The stone wall would only be apparent if they had brought forward a proposal. I am suggesting to you since the act is not being used there may be bugs in it. There may be some feeling that it is not meeting the need. I do not think the matter which needs altering is the percentage but rather these questions of trying to list the uses of those waters and projecting it into the future. It is on this point, I think, that the work which has been done in Ontario is probably the most advanced on the total conservation concept principle. They have divided their province into twenty-one districts. It was their proposition coming before the federal government,—it being an action by the federal government,—which I presume made the federal government think they should put an act on the books to make it applicable to the whole country because Ontario was getting these projects agreed upon by the federal government. To give the same opportunity to the whole country, the act was put on the books.

Mr. KINDT: Under this act whether it comes out at a one to one cost benefit ratio depends upon the interest rate used in computing those costs. What is the interest rate?

Mr. HAMILTON (*Qu'Appelle*): We do not get any return back.

Mr. KINDT: That is not what I mean. When you are computing the benefits of a multiple purpose project you have to assume an interest rate in order to arrive at the one to one ratio. That in turn decides whether or not the dominion government will go ahead with the project.

Mr. HAMILTON (*Qu'Appelle*): The only thing I can say in answer to that is that the interest rate is the federal interest rate because we borrow the money and put it in the hands of the province.

Mr. KINDT: You would not use a high interest rate like that for the figuring of benefits on a long term multiple project.

Mr. HAMILTON (*Qu'Appelle*): There is only one rate and that is the rate at which we borrow the money at the time. The cost benefit ratio assumes interest, I suppose, only to the extent that the federal government rate is considered for their part, the provincial government rate for their part, and the municipal or local conservation board for their part of it. You are right that the interest rate is considered at each of those levels but, as I would think, the interest rate would not be the major factor in establishing—

Mr. KINDT: Absolutely, it is.

Mr. DUMAS: I wonder if I could ask another question of the minister? The minister has mentioned a new service, that of the sedimentation surveys of rivers.

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. DUMAS: Of course, this is a new service, but I wonder if the minister could tell us whether experiments will be conducted this summer?

Mr. HAMILTON (*Qu'Appelle*): I may have been too optimistic in my statement, because there is no vote here for sedimentation surveys. We are just deciding to go ahead with it. The first vote will appear in the main estimates and it will be brought before the house next year. We are getting ready with our plans for next year in regard to that. One of the two types we are working on is ground water surveys and the other is sedimentation surveys. These are two additional things in our programming. I am unable

to tell you where they are going to go, but we are getting it started and we will be working on it. If we are going to vote the money, we will have to plan where we are going to use it. I could question my staff for a moment to see where they think the need is most urgent.

Mr. NIELSEN: This department has the responsibility for the functioning of the Northern Canada Power Commission, has it?

Mr. HAMILTON (*Qu'Appelle*): The Northern Canada Power Commission is a crown corporation. It reports to me direct, as the minister. All that enters into the bookkeeping of it is the amounts of loans or advances to that crown corporation. I will find the page in your main estimates book.

Mr. NIELSEN: I was wondering where it was. That was the real purpose of my question.

Mr. HAMILTON (*Qu'Appelle*): It is at page 90 of your estimates, and the votes are 506 and 507 under the major heading of "loans investments and advances". I wonder, Mr. Chairman, because these are so closely associated with the topics that we are voting, if we could not discuss that now?

Mr. NIELSEN: Perhaps we should discuss these votes as well. I wonder, Mr. Chairman, if I might be allowed to put this question to the deputy minister, who, I understand, is the chairman of the Northern Canada Power Commission? What projects are now actively under way by the Northern Canada Power Commission?

Mr. HAMILTON (*Qu'Appelle*): I wonder if I could let Mr. Robertson answer that question?

Mr. NIELSEN: I suggested that.

Mr. ROBERTSON: Mr. Chairman, to some extent I will have to speak from memory, because we did not bring that information along with us this morning. The Northern Canada Power Commission really has two aspects of activity under its jurisdiction. One is to the provision of power in the northern part of Canada. The other aspect is a new one which came in just recently, and that is assistance with regard to the provision of power for the Atlantic provinces. I take it that it is the first aspect in which you are interested, the power produced in the north?

At the present time in the north the commission has one plant actually in operation in the Yukon territory. It is situated at Mayo, and it has recently installed a second unit there which has doubled the capacity of that plant. It is in the process of constructing a large plant on the Yukon river immediately above Whitehorse. This will initially have two units of 7,500 horsepower each, producing 15,000 horsepower in total, but with the capacity for a third unit with 7,500 horsepower, making a total of 22,500. That plant should be ready on November 1 this year, and my revised information is that the work on it is going along on schedule.

Moving into the Northern Territories, the commission has a plant at Fort Smith which is a diesel electric plant. That plant is being enlarged very considerably with the installation of new units to take into account the developments going on at Fort Smith. One of the questions in the near future will be to decide whether to go on with increases in the size of these diesel plants, or to move into something larger if developments there seem to make it worthwhile consider hydroelectric development or thermal development.

The commission also has a plant on the Snare river, north and west of Yellowknife, which provides the power for the mining developments at Yellowknife and at Rae Rock where a uranium mine has come into operation. The Snare river plant produces approximately 8,000 horsepower and the government has, within the last three weeks, authorized the commission to proceed

with the installation of a new unit which will add, I think, another 6,000 horsepower to the Snare river plant. That work will begin this year and we hope to have it completed by 1960.

Within the last two years, the commission has established a small plant at Fort Simpson on the Mackenzie river. Beginning this year, it will take over a small plant at Fort McPherson on the Peel river. It is under construction at the present time. There is a combined plant at the new site of Aklavik which will produce thermal power. It uses the exhaust heat to assist with central heating for the whole community. It will also operate the sewer and water services, because sewage and water have to be heated in the Aklavik area in order to keep them in a fluid condition, owing to the climatic conditions there. As Mr. Nielsen knows, you cannot put pipes underground in these areas because of perma-frost conditions.

I think that covers the situation at the present time. However, I should mention that the commission has under study at the present time a new plant at Frobisher Bay where developments are going forward for a combined community there, and that will probably have a combined service, power, central heating, perhaps sewer and water, along the lines of the new Aklavik operation.

Mr. HAMILTON (*Qu'Appelle*): There is one thing I would like to add. I think it should be made very clear to the members of the committee that all these loans and investments made in the crown corporation are completely self-liquidating. That is, the policy is that we charge for the power in exact proportion to what the costs are. If the volume of power consumed goes up and the costs per unit decline, we immediately bring in a new power rate. I believe there have been reductions of power rates in the last several years. This policy will be continued. I point this out for an important reason, that this is not a service provided at cost to the taxpayers of Canada. The people of the north, both industrial and domestic, are paying entirely for their own power requirements.

Mr. NIELSEN: I wonder if I might follow up that aspect of it? Over what period of time does the usual installation amortize itself within government regulations?

Mr. ROBERTSON: That varies with the type of plant. I am very glad to say that recently there has been a relaxation in the government policy in this regard.

Mr. NIELSEN: When did that relaxation come about?

Mr. ROBERTSON: The first one that was a genuine change in this regard was in the last three or four weeks in the Snare river development that I spoke of. The Snare river plant had been on a twenty-year amortization basis. In order to permit an expansion of the size of the plant without an increase in rates, the government agreed to a re-financing of the whole plant. It was placed on a thirty-year basis and this does permit the installation to go forward with no increase in rates, and with the knowledge that the rates, as they are now, plus further reductions, which we think will be made, will be able to liquidate the whole investment.

In the case of the hydroelectric plant at Whitehorse, the rate there was fixed at a thirty-year level when that was approved. In the case of the Mayo plant, which was under the former policy, it was on a twenty-year basis. It depends on the plant. Naturally, diesel plants have to be amortized on a shorter term than hydroelectric plants.

Mr. NIELSEN: When was the Whitehorse period fixed? Have you any idea?

Mr. ROBERTSON: It would be started when the project was approved. Offhand, Mr. Chairman, I cannot recall that date.

Mr. NIELSEN: Well, it gives me a rough idea.

Mr. ROBERTSON: I am sorry, but I cannot recall with certainty.

Mr. DUMAS: There are two other activities being conducted by the department and I wonder if the minister could give us those?

The CHAIRMAN: While we are on this same subject, would you like to consider item 507 of the Supplementary Estimates which is related to item 506?

Mr. DUMAS: This is in the supplementary.

Mr. ROBICHAUD: I have another question which relates to what has been said. It appears that most of the north is amortized on a period of thirty years. What was the policy behind the Beechwood project, which was an eight-year repayment period?

Mr. HAMILTON (*Qu'Appelle*): There is no connection as far as the financing is concerned between the two projects. In the case of Beechwood, it was the request of the provincial government that we give them financing for a period of eight years, until they could get all their bonds sold at lower rates of interest than they were presently having to pay. With hydro power, as you know, the interest rate is a large factor in the cost. In these cases of the thermal plants dealt with under vote 507, the plants themselves will be amortized over a period of thirty years and the transmission lines over a forty years, because this was a joint operation undertaken between the province of Nova Scotia and the province of New Brunswick on the one hand and the federal government on the other. So it was strictly based on the engineering estimates of the life of those plants, thirty years for the plants themselves and forty years for the transmission lines.

The CHAIRMAN: Would you like to make a statement on item 507.

Mr. HAMILTON (*Qu'Appelle*): That is what I was dealing with.

The CHAIRMAN: Are there any questions.

Mr. HAMILTON (*Qu'Appelle*): The only thing I can say on vote 507, if you look at the amounts you will see that the amount estimated to be spent for the fiscal year 1957-58 was \$3.4 million. The amount estimated to be spent for the coming fiscal year is \$11.3 million. I would imagine that this expense would continue pretty well at that rate for some time to come.

Mr. ROBICHAUD: I would like to ask another question on number 507. Would the minister state whether definite agreements had been signed by the province of New Brunswick for the Saint John East plant? I understand there was an item last year in the estimates and there is a larger amount this year for the continuation of the project.

Mr. HAMILTON (*Qu'Appelle*): I think the answer to that question is as follows: We have signed the over-all agreements with the two provinces and they are now tabled in the house. The planning is going forward on the other stages of the development for the coming year, and that includes the Saint John East plant. No specific agreement has been made on the Saint John East plant at the present time.

Mr. ROBICHAUD: Is there anything in those agreements that specify that coal must be used for the operation of these thermal plants?

Mr. HAMILTON (*Qu'Appelle*): In the general agreement which we have signed with the province of New Brunswick, there is no such clause. It is true that the federal government has asked the government of New Brunswick to use coal exclusively in this plant of Saint John East because of the prevailing surplus of coal. However, that is not a part of the general agreement.

Mr. ROBICHAUD: Do I understand the minister to say that the province of New Brunswick has asked to use coal for the plant?

Mr. HAMILTON (*Qu'Appelle*): No, the reverse is the case. The federal government has asked the province of New Brunswick to use coal in the Saint John East plant. In the original discussions the question of the use of coal and oil in the Saint John East plant was brought up. The request was made by the province of New Brunswick to have optional use of oil. The argument was made that in certain seasons and times of the year there was an end product to an oil refinery which would give them cheaper costs for oil, and by using these cheaper products on certain occasions, they could reduce the cost of power. That was the general understanding that we had between the two parties, on the one hand the province of Nova Scotia and the province of New Brunswick, and on the other hand, the federal government.

Since the time of the general agreement, the federal government has asked the province of New Brunswick, even if they do have dual facilities in the plant, to help the economy of the coal industry by the exclusive use of coal.

There is one thing I would like to point out in this regard. Nearly all thermal plants which use oil as the basic fuel do have stand-by oil equipment. Even at the Dominion Steel plant, which is a producer of coal, they have stand-by oil equipment. The reason for that is twofold. The first reason is that it is better for starting up their furnaces. The second reason is in cases of breakdown of their crushing machines on the coal, the whole plant does not shut down, because very quickly they can bring the oil unit into operation.

Mr. NIELSEN: May I ask if it is within the terms of reference of the Northern Canada Power Commission to acquire—

Mr. ROBICHAUD: I had other questions to ask.

Mr. HAMILTON (*Qu'Appelle*): Quite frankly, I would like to put on the record some more information on these loans to the Atlantic provinces, and I wondered if we should list the projects of our plan for this year's expenditure, because it is perfectly within the right and the duty of this committee to know how these loans are broken down. It is a sizable loan. If you want to copy them down, the figures are as follows: In the case of the East Saint John thermal plant it is estimated that the amount to be spent this year in the form of an advance will be \$2.75 million. There is a group of five transmission lines, Saint John to Fredericton, at \$1.6 million.

Will you be satisfied with the nearest decimal?

An hon. MEMBER: Yes.

Mr. HAMILTON (*Qu'Appelle*): Grand Lake to Newcastle line \$.6 million; the Newcastle to Bathurst line \$.6 million; Moncton to the Nova Scotia border \$.7 million. The Beechwood to Woodstock line has been deleted. It was planned.

The third heading is terminal stations. These are the stations at the end of a transmission line. Saint John terminal station \$.3 million;—it is actually \$280,000. Fredericton terminal station \$128,000—for a total of something less than \$7 million.

Now, in Nova Scotia, you have a thermal plant at Trenton and \$2 million is the round estimate. Transmission lines, first, Truro to Maccan, and it has a very nominal figure of \$6,000; Maccan to the New Brunswick border, \$250,000; Trenton to Antigonish, \$600,000; Antigonish to West Bay, \$250,000. The next is an interconnection with the Nova Scotia Light and Power Company, \$20,000. Then Sissiboo, 130 KV grid, \$170,000. Then there are three terminal stations in Nova Scotia: Trenton, \$275,000; Truro, \$325,000 and Maccan, \$255,000, for a total in Nova Scotia of \$4.1 million, and a grand total

for the two provinces of \$10.9 million. Now, this will show a slight discrepancy with the figure in the estimates, because one of the transmission lines in New Brunswick has been deleted.

Mr. ROBICHAUD: I do not have before me a copy of the power agreement which was tabled the other day by the minister, but if my memory serves me right, there was in those estimates \$300,000 supposed to have been accounted in last year's estimates, and over \$2 million, I think \$2½ million, for the Saint John East plant. Now, we are actually in the month of June and I wonder if the minister could advise the committee when a start is expected to be made at the Saint John East plant?

Mr. HAMILTON (*Qu'Appelle*): Well, I do hear the odd bit of information on this, but this is entirely in the hands of the provincial power commission. I understand that the work did not proceed as fast as they had expected.

Mr. ROBICHAUD: Was the work started before the agreement was signed? I do not mean the main agreement, but the specific agreement for the Saint John East plant?

Mr. HAMILTON (*Qu'Appelle*): I am informed that the planning and placing of contracts are at present being undertaken. We have agreed in a general overall agreement over a 10 year period and the east Saint John thermal plant is one of the points of the agreement. But it is up to them to do the planning and the letting of contracts. We have a joint consulting firm to supervise the work for both the provincial and federal governments.

Mr. ROBICHAUD: Did I understand the minister to say that the New Brunswick hydro electric commission did call for contracts and look after construction of the plant, or is it not the Northern Power Development who are responsible for the work and then turn it over to the province?

Mr. HAMILTON (*Qu'Appelle*): Well it is something along the line I suggested a minute ago. We have a joint arrangement between the power commission in New Brunswick and the Northern (Canada) Power Commission in Ottawa and they have to approve jointly of the letting of these contracts. I believe in each case they come to my attention as minister. My deputy informs me that all the major contracts have to come to my attention.

Mr. ROBICHAUD: Who calls for the contracts. After they have been approved and examined jointly by the Northern Power Commission and the New Brunswick Hydro Commission, one of the agencies, either federal or provincial, must call for tenders. Then who looks after the construction? Is it the provincial organization or the federal agency?

Mr. HAMILTON (*Qu'Appelle*): We have agreed with the province that there will be a joint consulting agency in whom we have agreed. This firm will let the contracts and supervise the work. They actually carry out the machinery. The only thing that comes to me for approval is to approve all these major works, designs and things like that, which are brought before me by the Northern (Canada) Power Commission. But the machinery of handling it all is now in the hands of this consulting agency or firm that we have jointly agreed is to be our agent.

Mr. ROBICHAUD: In this connection who would be the agency for the federal government or for both the provincial and federal governments on the east Saint John plant?

Mr. HAMILTON (*Qu'Appelle*): The company that does the consulting work for both the province of New Brunswick and the federal government on the building of plants—in particular the east Saint John plant—is H. G. Acres Company. Then there is another consulting firm that does the work for the

province of Nova Scotia. Then there is another consulting firm which does the work of transmission lines between the two provinces. So there is a three party agreement. We agree on one consultant.

Mr. ROBICHAUD: I would like to have this straightened out. I do not have the agreement in front of me, but am I correct in understanding that this joint consulting agency calls for tenders? I may be wrong but it seems to me that the main agreement with New Brunswick and Nova Scotia specifies that the Northern Power Commission will look after the construction of these thermal plants and when completed turn them over to the provincial power commission.

Mr. HAMILTON (*Qu'Appelle*): That is exactly correct. The only point is that we have not got the manpower to handle all this machinery of calling for tenders and letting them out, so we delegate this work to a consulting firm which has the confidence of both the government of New Brunswick and the Northern (Canada) Power Commission.

Mr. ROBICHAUD: In other words, Mr. Chairman, the responsibility for the construction of the plant is the responsibility of the Northern Power Commission, which is a little different from last year when the province of New Brunswick was asking the government to complete the construction of the thermal plants.

Mr. HAMILTON (*Qu'Appelle*): I think to a point the hon. member is correct. There was a slight difference in what the New Brunswick government asked, but in practice it is simply working out as a completely cooperative arrangement whereby we have confidence in the same agent, and that same agent or consulting firm does these things for us. We have control of the building and construction and in essence we will be responsible for all this work up to the point it is completed and turned over to the provincial government. But in practice, since the provincial power commission is going to operate this, after it is finished, it is only sensible to bring them into the planning and designing and the letting of contracts. But it is true that we still maintain the control up to that point where they are turned back to the province. It seemed to me to be a more practical way of handling it.

Mr. KINDT: What steps have been taken to extend to the west the benefits under the Atlantic Provinces Power Development Act, particularly to the Crowsnest Pass area where we are grappling with the problem of thermal power taking the place of markets for coal. The people there are tremendously interested in receiving consideration under this act, the same as the Atlantic provinces receive.

Mr. HAMILTON (*Qu'Appelle*): Well the explanation of that is a policy one. I will give it to you, because it is established at the moment. The first consideration in the mind of the government a year ago was the fact that we had pledged to help those areas which had fallen behind the general level of economic income in Canada.

The first and foremost of these areas was the Atlantic provinces. The second part of that program was that much preliminary work had been done in the Atlantic provinces and in the Saskatchewan river development, which was the other low area, so that we could move forward on those. So in one sense the Atlantic Provinces Development Act and the Saskatchewan river development program are part of this over-all policy to help those areas which have fallen behind.

One of the criteria we looked for was the cost of power. The cost of power in the Atlantic provinces was much higher than the national average and was holding up their opportunities to bring industry into that area. It was worked out, as I repeated on many occasions on the discussion of this bill in the house, to use every device we could think of to reduce that cost of power to an esti-

mated figure of seven mills or less which, in the estimation of New Brunswick and to a lesser degree Nova Scotia, would be sufficient to bring in industry which would consume the production of these plants and therefore give to this area an economic base.

In addition, instead of calling it an act for the two provinces, which had applications before us, we widened it out to call it the Atlantic Provinces Power Development Act, because in my opinion it seemed that the provinces of Newfoundland and Prince Edward Island might want to take advantage of that act because they are in a power deficit area too. When I use the words "power deficit", it does not mean they have not worked to meet their needs, but a power deficit area to meet the needs of industry.

In the case of the Saskatchewan river, that project too had been before governments for a long time, and because that too was a relatively high cost power area for industry, we decided to help on that. That has been our policy for some time and it was brought into effect.

The third point of the power program concerns the rivers in British Columbia. This is not a high cost power area; but we had responsibility under an act, known as the International Rivers Improvement Act, to guarantee that the national interest was not harmed by the actions of any province, which owns the power resources, in the sale of that power to countries outside of Canada. That is the reason we have stepped into that. But at the present time there is no such thing in Canada as a national power program.

The only program that we have now established in policy is one of helping those areas which have fallen behind, or, in other words, whose power costs are so high that industry is not coming in. The diversification of industry in those areas is part of the government policy.

I am not going to say anything about the obvious question of a national power policy. You can do your own thinking. I want to emphasize this one point, in conclusion, that the first thing that would be looked at in the criteria at the present time in trying to work out a national policy is the cost of power in each of these areas, because the cost of power in Alberta, particularly in the Calgary area, is away down the list as far as the other areas are concerned. As such we do not pay much attention to that area at this time.

There will be nothing to stop us when we come eventually to the stage of examining this whole idea of hydro power in Canada, and examining all the other forms of energy available such as coal, gas, propane and butane—when this information becomes available and when we have a little more definite inventory than we have now, I think then that any government would be neglecting its duty if it did not come up with a national power policy. At the present time that is the situation. I have been completely candid on it and that is how we have been looking at it to this moment.

Mr. KINDT: Then, Mr. Minister, we may expect, when the Borden commission brings down the report and we get into this energy question that we will also extend the benefits under an act of power development to all areas in Canada to give economic advantage to the areas now devoid of that advantage. Your present outlook or present position of reviewing it is those distressed areas. Well we have distressed areas in the Crownest pass, where they are closing down these coal mines and we are looking for industry, and trying to get other industries started. The only way to get industry started is to keep the costs low.

The CHAIRMAN: I think the minister answered your question in his statement previous to your question.

Mr. KINDT: Yes.

Mr. HAMILTON (*Qu'Appelle*): I would like to add one more thought. Until we have more information on energy we cannot come up with an effective

national power policy. My own personal opinion, which I have expressed several times, is that we are about 10 years behind in having this information and that is one reason why I was very pleased to see the government undertake as one of the first things it did the setting up of the Borden energy commission.

The CHAIRMAN: I may remind you, Mr. Kindt, that at the first meeting the minister made a general statement of policy covering the idea you are inquiring about.

Mr. HARDIE: Mr. Chairman, I take it from what the minister has just said in regard to the South Saskatchewan power development—I am not speaking about irrigation because we are concerned with power—may I take it from what the minister says that the \$20 million loan the Saskatchewan government has been asking for recently,—or do I take it that the federal government is going to supply the Saskatchewan government with the \$20 million loan?

Mr. HAMILTON (*Qu'Appelle*): There is nothing in my remarks that indicate any such thing. It does not come under this vote.

The CHAIRMAN: I do not think that is a question, Mr. Hardie, that comes under the estimates. I hope you will agree with me.

Mr. HARDIE: The minister brought Saskatchewan into this. He did say that the second stage of the policy of the government was to the South Saskatchewan. He said preliminary work had gone on and that the policy of the government was to relieve the distressed areas and he did admit that Saskatchewan was one of these areas. My question was put to him because of the things he had just got through saying in regard to the South Saskatchewan.

Mr. HAMILTON (*Qu'Appelle*): I think that there is a right in this committee to deal with this statement that I have just made to this extent, that the federal government has announced and told the province of Saskatchewan what it is prepared to do to help that province.

I do not suppose that there is one person in this room who does not know what the extent of that offer is. It has been discussed widely; but so far no official statement has been made and I am not intending to make one here. But we have made to the province of Saskatchewan a very generous offer of financial assistance to this whole project.

Mr. HARDIE: Is the power included?

Mr. HAMILTON (*Qu'Appelle*): You cannot have the power unless you build the dam. Now the Saskatchewan government has been negotiating with the federal government on this question of power, but not on the basis of power but purely on the basis of financing. It is purely a financial matter and as such it does not come under my jurisdiction. I do have some opinions to express on the question of power and the use of the water resources of that province in providing information so that the federal government will be informed of all the aspects that deal with water resources and power. But, I do not want to make, at this time, a statement of government policy on this because it is a matter at the present time of finance between the government of Canada and the government of Saskatchewan.

Mr. ROBICHAUD: Could you come back to this power agreement with the provinces of New Brunswick and Nova Scotia? Again I regret that I do not have a copy with me because I did not expect this item to come up today; but if I can correctly recall, there is a subsidy of 7.43 cents per million b.t.u.'s being granted for the use of coal in those thermal plants. What formula has been used to arrive at this figure—if my figure is correct?

Mr. HAMILTON (*Qu'Appelle*): We went through a long, involved study last fall through the Dominion Coal Board, representing the Dominion government, to establish the cost of coal at several thermal plants in central Canada and in the Maritimes. Then we took these as a basis, to find a figure

based on the b.t.u. content of coal. This figure of 7.4 cents, which the hon. member mentioned, represents the amount which would reduce the price of coal to thermal plants in the two provinces of Nova Scotia and New Brunswick to equal the price paid for the same number of b.t.u.'s in thermal plants in central Canada.

Mr. ROBICHAUD: Could the minister tell us if a similar formula is used for the thermal plants in central Canada? Would it not have the effect today of taking more of the 1,400,000 tons of coal stockpiled in Cape Breton today, instead of buying American coal?

Mr. HAMILTON (*Qu'Appelle*): You are into a field in which I am not an authority because it does not come into this department, though I do not want to imply that I am an authority on everything in this department. But in answer to your question, the government has granted them an increased subsidy for the movement of coal from the maritime provinces to central Canada in trying to give them a wider market. I only know what I read and hear on this subject and I understand there is an increased market as a result of that subsidy, but it is not under this department.

Mr. ROBICHAUD: Is this the additional subsidy of 55 cents a ton—which was granted about two weeks ago—on the freight transportation cost of coal?

Mr. HAMILTON (*Qu'Appelle*): I know there was a subsidy but I do not know the exact amount. I would say it was a sizable increase. The subsidy was given on freight just recently. In effect this increased the economics of moving the maritime coal into the central Canadian market. It is not in relation to this department, and I am no authority on it.

Mr. COATES: I notice we have discussed the proposed power plant at Saint John and also at Trenton. Is the department contemplating the construction of any other power plants in the near future?

Mr. HAMILTON (*Qu'Appelle*): Yes. The over-all plan can be traced out in general in that report given us by the consulting agents last fall. The idea, as I understand it, is that we will move forward on these two major plants at this stage and when they go into production and demand has risen new plants will be built to meet this expected demand. The power commissions of the respective provinces do have charts that indicate the amount of capacity they will have to provide to meet the demands in future years and it is up to them to decide which of those plants go in and in what order.

The CHAIRMAN: Gentlemen, is it agreed that we approve of items 276 to 281?

Mr. DUMAS: There was one question which I wanted to ask the minister. In his statement he mentioned that his department is interested in ground water resources. Is the department conducting any survey of ground water?

Mr. HAMILTON (*Qu'Appelle*): Would you repeat the last part of your question, please.

Mr. DUMAS: Is the department conducting any survey as regards ground water?

Mr. HAMILTON (*Qu'Appelle*): At the present time, no. It had been a gap in our federal program. Mines and Technical Surveys now have a program of this sort. This program about which I have been talking will be done actually through the geological survey of Canada—that is through the Department of Mines and Technical Surveys.

Mr. DUMAS: Yes I understand that the Department of Mines and Technical Surveys has been conducting water resources surveys for a long, long time and I was wondering if this would be conducted by your department in the future.

Mr. HAMILTON (*Qu'Appelle*): No, we are not going to do it in our department.

Mr. DUMAS: Will you be working in cooperation with them?

Mr. HAMILTON (*Qu'Appelle*): In going into this question of water resources I discovered there was a considerable gap of information about ground water resources, so it has been decided that this program will be carried on with the people already doing the work, in certain parts of Canada.

Mr. NIELSEN: Before we adjourn, has the Northern Canadian Power Commission power to acquire existing plants and equipment?

Mr. ROBERTSON: The answer, Mr. Chairman, is yes, it has.

Mr. HARDIE: I do not think we are going to finish with this item today. Has the government granted a private company an amount of money to investigate the possibility of power along the Fraser river?

Mr. HAMILTON (*Qu'Appelle*): The answer to that question, Mr. Chairman, is that we have not given a grant to any private company. There is a Fraser river board which is conducting or has conducted a survey of the Fraser river, but there has been no grant to any private company of which we are aware.

The CHAIRMAN: It is just about 12:30, and as Mr. Hardie says we probably should continue tomorrow on this. Gentlemen, we will let these items stand until tomorrow. The next meeting is at 9 o'clock tomorrow. I think we will have to consider having an extra meeting this week.

If there are no objections, the committee accepts the suggestion that we sit on Friday? Is that agreeable?

Mr. HARDIE: If we do sit tomorrow, sit at 9 o'clock.

The CHAIRMAN: Yes. You were here the last time at 9 o'clock and you may do the same thing again.

An hon. MEMBER: Would it be agreeable to have it at 10:30 on Friday?

The CHAIRMAN: The house sits on Friday morning. Could we sit at 9 o'clock then?

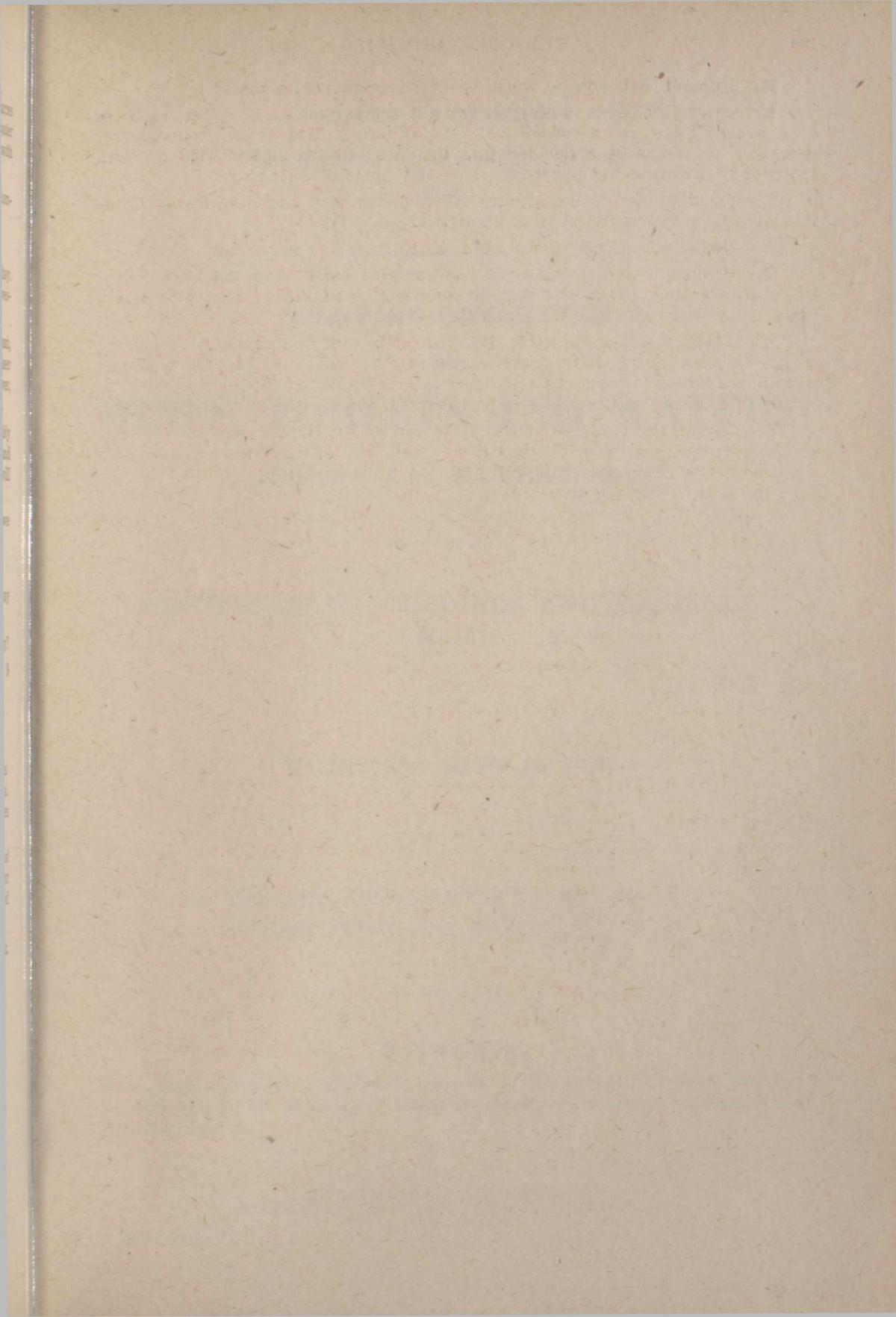
Mr. DUMAS: I suggest Friday at 9:30.

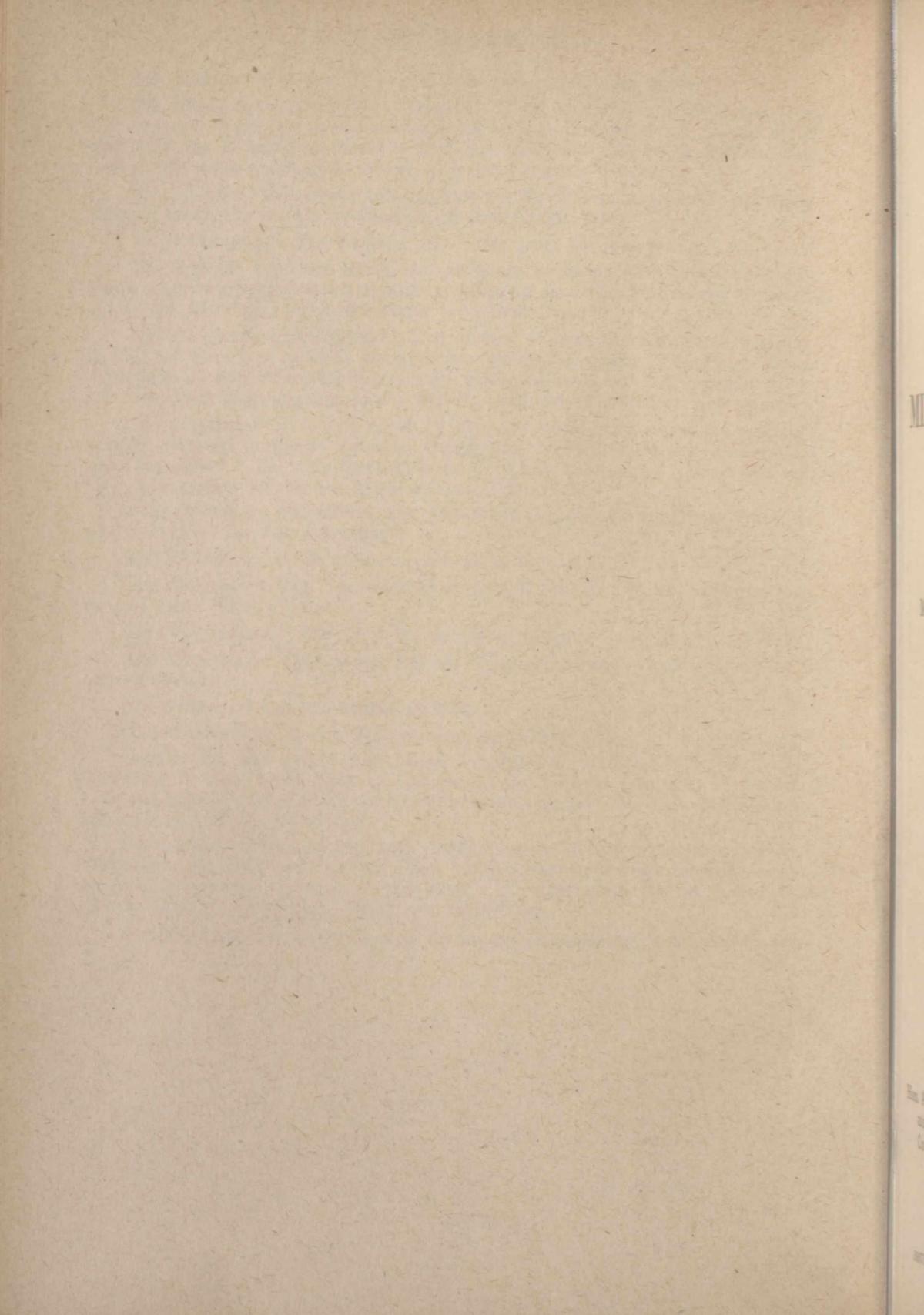
The CHAIRMAN: That gives you one-and-a-half hours.

Gentlemen, just before you leave, I think the minister referred to this statement by the Royal Bank of Canada on the natural resources of Canada. It is one well worth reading. It is really a masterpiece. We have some copies here which will be distributed.

Furthermore, those of you who require copies of this excellent reprint of "Wisdom's Heritage", can obtain them by advising your requirements to our clerk of committee. I want to say that I do appreciate the attendance of twenty-three this morning. I think it is marvellous.

I hope we shall be able to commence tomorrow morning sharp at 9 o'clock.





HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 5

TUESDAY, JUNE 24, 1958

Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister;
and Mr. E. W. Humphrys, General Manager, Northern Canada Power
Commission.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baskin,
Bruchési,
Cadieu,
Coates,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Fréchette,
Godin,
Granger,

Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRea,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,
Mitchell,

Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafèche*),
Robichaud,
Simpson,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

TUESDAY, June 24, 1958.

(7)

The Standing Committee on Mines, Forests and Waters met at 9.00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baskin, Cadieu, Drouin, Dumas, Fleming (*Okanagan-Revelstoke*), Gundlock, Hardie, Kindt, Korchinski, Latour, MacRae, Martel, McLennan, Mitchell, Murphy, Nielsen, Pugh, Roberge, Robichaud, Simpson and Stearns. (22)

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. R. G. Robertson, Deputy Minister; E. A. Côté and F. J. G. Cunningham, Assistant Deputy Ministers; F. A. G. Carter, Chief Administrative Officer; G. M. Carty, Executive Officer; J. D. McLeod, Chief Engineer; R. H. Clark, Chief Hydraulic Engineer; and A. F. C. Sincennes, Administrative Officer; of the Water Resources Branch: B. G. Sivertz, Director; R. A. J. Phillips, Chief, Arctic Division; W. G. Brown, Chief, Territorial Division; A. B. Connelly, Chief, Mining and Lands Division; J. V. Jacobson, Chief, Education Division; F. C. Bradley, Chief, and J. I. Nicol, Assistant Chief, Works, Research and Planning Division; J. F. Doyle, Administrative Officer; and G. H. Montsion, Accountant; of the Northern Administration and Lands Branch: *from Northern Canada Power Commission* Mr. E. W. Humphrys, General Manager.

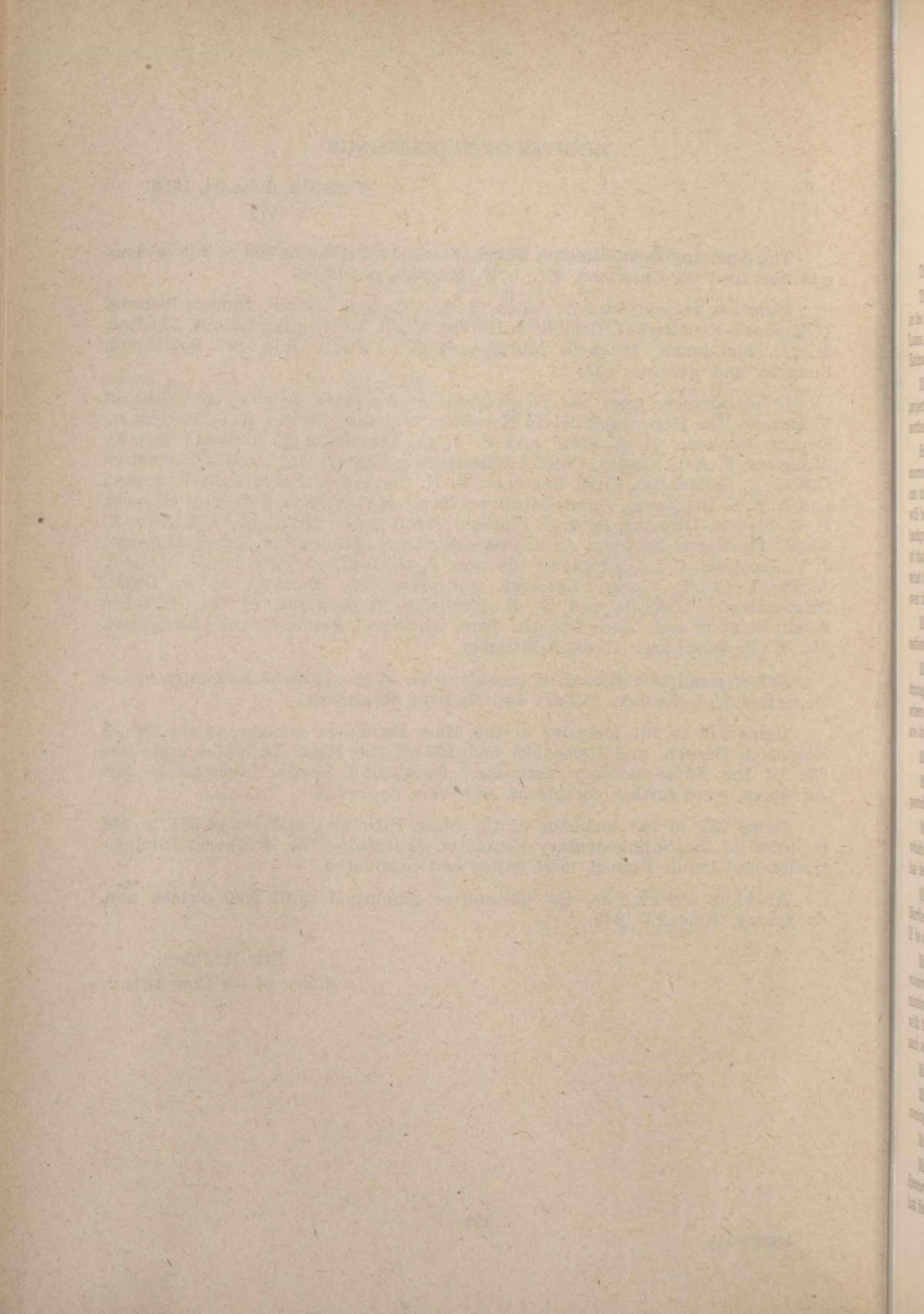
The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

Items 276 to 281 inclusive of the Main Estimates, concerning the Water Resources Branch, and Items 506 and 507 of the Main Estimates and Item 659 of the Supplementary Estimates, concerning Loans, Investments and Advances, were further considered and were approved.

Items 282 to 289 inclusive of the Main Estimates and Items 584 to 586 inclusive of the Supplementary Estimates, concerning the Northern Administration and Lands Branch, were called and considered.

At 11.05 o'clock a.m. the Committee adjourned until 9.30 o'clock a.m. on Friday, June 27, 1958.

Eric H. Jones,
Clerk of the Committee.



EVIDENCE

TUESDAY, June 24, 1958

9:00 a.m.

The CHAIRMAN: I see a quorum, gentlemen. We will start.

The items under consideration are the ones we were discussing yesterday, in the Main Estimates under Water Resources Branch, Items 276 to 281; under Loans, Investments and Advances, Items 506 and 507, and in the Supplementary Estimates, Item 659. Are there any questions, gentlemen?

Mr. DUMAS: I wonder if the minister can tell us what happened with the project of Frobisher Limited who intended to make an intensive survey in northern British Columbia and the Yukon regarding water power.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): You are asking a question concerning a private corporation. All I can inform the committee is that one of the leading men of that organization will be coming to see me shortly. At that time he will be giving me the background of what they are doing. As far as I know the engineering plans of that group are still going forward. We have no more information beyond what has appeared in the press and that seems mostly negative, as you know, over the last few months.

Mr. DUMAS: I was under the impression that those waters were international provincial waters and as such your department came into the picture.

Mr. HAMILTON (*Qu'Appelle*): Yes. These waters, as you know, flow through the Yukon and they have a permit from the department. That is where our interest comes into it. We have a certain right to know what they are doing.

Mr. DUMAS: Do they file a report with your department?

Mr. HAMILTON (*Qu'Appelle*): My deputy informs me that they file them periodically.

Mr. ROBICHAUD: Could the minister tell us what part of the \$537,000, which were in the estimates for 1957-58 for the east Saint John thermal plant, has been spent?

Mr. HAMILTON (*Qu'Appelle*): We have the general manager of the Northern Canada Power Commission with us. He is handling all the details. If he could answer directly it would save time.

Mr. E. W. HUMPHRYS (*General Manager Northern Canada Power Commission*): We have no report from the New Brunswick Electric Power Commission on the amount actually spent, but the work done to date has had to do with the preliminary designs and progress payments on the major equipment such as turbines.

Mr. ROBICHAUD: Was that total of \$537,000 spent last year?

Mr. HUMPHRYS: No, it was an estimate on the funds required for the coming year.

Mr. ROBICHAUD: What proportion has been spent already?

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): Mr. Chairman, no money was spent out of that amount during the last fiscal year. This was an estimate of the amount that would be required.

As it turned out, the work that was undertaken in designing and in consultation did not produce any requirement for progress payments before March 31 and, no amount was spent out of that.

Mr. ROBICHAUD: Were any amounts spent last year?

Mr. ROBERTSON: No.

Mr. ROBICHAUD: Can any of that money be spent before an agreement is signed with the province?

Mr. ROBERTSON: The amount for the last fiscal year lapsed on March 31 so it is really an amount in the new fiscal year that we have to look at.

Mr. ROBICHAUD: So that no money in this present fiscal year has been spent either.

Mr. HUMPHRYS: No progress payments have been made by Canada to the province of New Brunswick. The province of New Brunswick may have made some payments but we have no figures on that. There have been no sums paid over from Canada to the province of New Brunswick.

Mr. ROBICHAUD: Can New Brunswick or the federal government make any payment before an agreement is signed?

Mr. HUMPHRYS: No. The province of New Brunswick could, but Canada could not make payments.

Mr. ROBERTSON: The situation is, Mr. Robichaud, that the plans are proceeding for the plant. These have not been held up at all. The province of New Brunswick may have made certain payments themselves to the consulting engineers knowing that these will be covered when the agreement is signed. The agreement has been under discussion and is in draft and I think it is virtually ready for signature.

Mr. HUMPHRYS: Yes, it has been accepted by the New Brunswick Electric Power Commission. There are two agreements, one between the government of Canada and the province of New Brunswick, which has been signed, and one in respect of the east Saint John thermal plant which is in the stage of negotiation and which has been accepted by the maritimes.

Mr. ROBICHAUD: Has any order been placed for equipment?

Mr. HUMPHRYS: The order for the turbine and generator was placed a year ago by the New Brunswick Electric Power Commission.

The CHAIRMAN: Are there any other questions, gentlemen?

Mr. HARDIE: Yes. I asked the minister if the government had granted a private company any moneys to carry on surveys on the Fraser river. The minister yesterday said, no. I think if he goes back to 1955 he will see that the British Columbia Electric received a sum somewhere in the vicinity of \$250,000 to do a survey on the Fraser in regard to power. I am wondering if the minister will table the reports of the British Columbia Electric?

Mr. HAMILTON (*Qu'Appelle*): In the first place, Mr. Chairman, I said yesterday that no money had been given to a private company. We did retain British Columbia engineering to do a study on the Fraser but we have not paid any money to a private firm. What you asked for were reports from the Fraser river board. Those reports—

Mr. HARDIE: Have they been tabled?

Mr. HAMILTON (*Qu'Appelle*): I think they are departmental. We have been discussing this, Mr. Chairman, and the report of the British Columbia engineering covers the whole basin of the Columbia and the Fraser and the diversion from the Columbia into the Fraser. This same question came up in the house during the last parliament when I said that in the public interest

it would not be proper for me to divulge the information we have at this stage of the proceedings. I was a little uncertain, if I may say so, as to the point of your questions about the money spent.

Mr. HARDIE: I felt that if the Canadian taxpayer was paying for engineering surveys to be carried on by British Columbia engineering, the results of that survey should be tabled.

Mr. HAMILTON (*Qu'Appelle*): Yes. There is every intention of tabling a report when information has been used and it is no longer in the public interest to keep it to ourselves. I think I made it very clear to the house last parliament that the information on the whole question of the Columbia and Fraser was very important and that one false move would be very serious to the interests of this country. For that reason it would clearly not be in the public interest to make that information general knowledge at this time.

Mr. HARDIE: I would like to ask Mr. Humphrys what amount of power, or additional power, will be generated with the proposed extension to the Snare river plant of the Northern Canada Power Commission.

Mr. HUMPHRYS: That is under study now. We will have 6,500 horsepower more. The total capacity of that site is 13,000.

The CHAIRMAN: Any other questions, gentlemen?

Do we approve the items under the Water Resources Branch, 276 to 281 inclusive, items 506 and 507 under the Loans, Investment and Advances and the Supplementary Estimate item 659?

Mr. DUMAS: Mr. Chairman, I thought you mentioned that there were no supplementary estimates.

The CHAIRMAN: The supplementary estimate is 659, Mr. Dumas. Have you got your supplementary estimates before you?

Mr. DUMAS: Yes.

I have no questions in that regard, Mr. Chairman. I just thought that you mentioned there were no supplementary estimates. However, I see that there is an estimated \$2,290,000 added to the amount estimated for item 507.

Mr. ROBICHAUD: Mr. Chairman, before the items are approved could we have an explanation in regard to this additional amount? I understood yesterday that even the amounts of the main estimates were a little high. The provinces have made no plans which would require the full amount. Could we have an explanation of that?

Mr. HAMILTON (*Qu'Appelle*): Perhaps while the gentlemen are looking through their notes I should make it clear that in the main estimates there was an item of \$11 million plus, was there not? The estimate totals \$11 million plus, for advances. Since the time those estimates were prepared one of the items has been deleted. The remaining total advances under this item is less than \$11 million. Since that time there have been additional items brought in for which we have the supplementary item.

Mr. ROBERTSON: Mr. Chairman, I think I can deal with Mr. Robichaud's point.

This supplementary estimate item really arises out of the fact that the payments that had been expected in the last fiscal year were not made because of various delays in securing the submissions from the provinces, and other things of that nature.

Yesterday the minister gave the figure of \$10,859,000 for projects for the fiscal year 1958-59. Those estimates were put together last November, I think, at a time when it was expected that the amounts would be spent during the last fiscal year as we had budgeted for at that time. In actual fact those amounts were not spent in the last fiscal year, so what has to be done now is to provide for the kind of think we thought could be covered in the last fiscal

year but which was not covered during that period. This supplementary estimate is really to cover the kind of things we thought could be paid for prior to March 31, but it was not paid for prior to March 31. Therefore it has to be paid for in this fiscal year, adjusted to the extent of a few hundred thousand dollars as a result of subsequent knowledge.

Mr. ROBICHAUD: In other words, Mr. Chairman, again this year we are bound to have substantial amounts beyond the estimates which will not be used. From what Dr. Robertson has just said I would take it that there are substantial amounts from last year which were not used. At this time it is close to the end of June, yet the largest item there is the East Saint John thermal plant. Even at this stage no agreement has been signed. That means the work cannot start before March 31 next. There are likely to be substantial amounts of the money provided in these estimates that will not be used.

I have heard many times in the house during previous years the former administration being blamed for including in estimates amounts that they knew could not be used before the end of the fiscal year.

The CHAIRMAN: I thought it was made plain, Mr. Robichaud, that the work had started. Am I right in that?

Mr. ROBERTSON: That is correct, Mr. Chairman.

In regard to Mr. Robichaud's point, I think it should be recognized that this is a completely new project which had not been undertaken in any way, shape or form before. All that could be done for the last fiscal year was to sit down with the provinces and try to get estimates of the things that could be done before March 31. Those were the amounts that went into the 1957-58 estimates, because our estimates have to be made up in November for the fiscal year that follows. What had to be done was to make an assessment of the amounts that could be spent in 1958 and 1959. Both the provinces and the Northern Canada Power Commission were, to some extent, feeling their way in advance because it was a new program. One cannot be absolutely sure, as one can with a continuing program, of what is in fact going to get under way in the time schedule that is set.

As it turned out, the estimates of the provinces and our estimates were optimistic as to what could be done up to March 31. We have no reason thus far to think that the estimates are necessarily optimistic for 1958-59. It could turn out that things do not go as fast as we hope, but there is no reason to think so at this time. The East Saint John work is going ahead. As the minister has mentioned, the contract has been placed for the turbine and generating equipment. The fact that the agreement has not been signed has not held up the design or other work.

Mr. ROBICHAUD: Mr. Chairman, in this sessional paper that was tabled on June 16 in the house, I notice that as at June 16 no estimated cost had been received from the province of New Brunswick and no information is available at the present time.

This must mean that at this late date no information has been received from the province. Has there been information received since?

Mr. ROBERTSON: I am sorry; I am not sure I understand what document you are referring to, Mr. Robichaud.

Mr. ROBICHAUD: I am speaking of the agreement between the provinces of New Brunswick and Nova Scotia which was tabled in the house on June 16. This mentions that no estimated final cost had been received from the province of New Brunswick for the project to take place in New Brunswick this year. In fact, there is a note which says that at present no information is available.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, while we are discussing this in detail, I think I should say that what that implies is, that they had a project such as the East Saint John thermal plant in the estimates for 1957-58 and they could spend \$500,000. That was not all spent and it lapsed.

For the fiscal year 1958-59 the estimate is \$2.7 millions. They have arrived at a cost based on the engineering report of the Montreal engineering firm. In regard to the transmission lines, all that has been done in these two years is to estimate the amount they thought could be spent in those two years. There is no estimate of the final actual cost. The vote refers to the situation as it was at that time.

At the date that this question was asked in the house and the return was made there was no estimate. There may have been one since.

Mr. ROBERTSON: Mr. Chairman, on Mr. Robichaud's question, I understand that no estimated final cost is shown in respect of certain transmission lines and terminal stations in New Brunswick and, incidentally, that does not apply in Nova Scotia nor to the East Saint John plant. Certainly on these particular items the designs undertaken by the Saint John Hydro Electric Power Commission are not completed. That does not hold up the work of erecting towers and that kind of thing which can and is going ahead. It is the completeness of the final design details which are held up.

Mr. ROBICHAUD: Are tenders being called for work on the transmission lines?

Mr. HUMPHRYS: In the case of the Saint John-Fredericton transmission line they have called for tenders. On some of the other lines the intention is to do the work themselves and call for tenders for materials and to use their own labour force for the construction. That will have to be agreed upon with the New Brunswick Hydro Electric Power Commission.

Mr. ROBICHAUD: Will tenders be called for by the New Brunswick Hydro Electric Power Commission?

Mr. HUMPHRYS: Yes, in the case, subject to our approval.

Mr. HARDIE: Is there an item in the estimates of this branch covering the survey of which Mr. Humphrys spoke in regard to the extension of the Snare river plant?

Mr. HUMPHRYS: No. It is purely a power commission matter and is handled by the power commission votes.

Mr. HARDIE: There was a recent announcement that the power commission was going to extend this plant. In the announcement it said that the amortization period for this new plant would be on a thirty-year basis. How about the old plant; is it on a thirty-year basis now?

Mr. ROBERTSON: Yes. The whole thing has been refinanced. The un-amortized portion of the old plant has been lumped in with the new plant and the entire amount will be amortized on a new thirty-year basis. A good deal of the engineering work was done last year by the Northern Canada Power Commission, and in the capital budget for the coming year we have an amount of \$500,000 to cover expenses which will be incurred in the coming fiscal year, and most of the expenses will be in the fiscal year following.

Main Estimates Items 506 and 507 agreed to.

Main Estimates 506 and 507 agreed to.

Supplementary Item 659 agreed to.

The CHAIRMAN: I might mention that we have not yet dealt with supplementary item 508 and, with your permission, we will bring up that item when we have the National Parks officials here again.

We will now consider Northern Administration and Lands Branch, items 282 to 289 inclusive of the Main Estimates and supplementary items 584 to 586 inclusive.

NORTHERN ADMINISTRATION AND LANDS BRANCH

Main Estimates	
Item 282. Branch Administration	\$ 1,209,353
Yukon Territory—	
Item 283. Operation and Maintenance, including \$1,000 or grants to Museums in the Yukon Territory	\$ 820,897
Item 284. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 3,251,084
Item 285. To authorize payments to be made, in respect of each of the fiscal years in the period commencing on the 1st day of April, 1957, and ending on the 31st day of March, 1962, to the Government of the Yukon Territory, in accordance with an agreement to be entered into by the Minister of Finance, with the approval of the Governor in Council, on behalf of the Government of Canada, and the Commissioner of the Yukon Territory, on behalf of the Government of the Yukon Territory, such agreements to provide, on such terms and conditions as may be agreed upon, that the Government of the Yukon Territory will not impose, levy or collect individual income taxes, corporation income taxes, corporation taxes or succession duties, as defined in the agreement, for the five-year period specified therein; the payment of the total of amounts under the agreement to be calculated on the following bases:	
(a) an annual subsidy to the Government of the Yukon Territory of eighty cents per head in respect of a population of twelve thousand one hundred and ninety (12,190) persons, being the population of the Territory for the year 1956 as determined by the census taken in that year, \$9,752.00;	
(b) a grant in aid of the Government and Council of the Territory, \$30,000.00; and	
(c) for the fiscal year ending in 1958, the sum of four hundred and nineteen thousand dollars (\$419,000) and for each of the four immediately following fiscal years the greater of	
(A) the quotient obtained by dividing	
1. four hundred and nineteen thousand dollars (\$419,000) multiplied by the value of the gross national product per capita for the calendar year immediately preceding the calendar year in which the fiscal year for which the payment is made commenced,	
by	
2. the value of the gross national product per capita for the calendar year 1956, or	
(B) ninety-five per cent of the sum paid under this subparagraph in the immediately preceding fiscal year;	
the estimated total amount required for the fiscal year 1958-59 being	\$ 478,752
Northwest Territories and Other Field Services—	
Item 286. Operation and Maintenance, including \$1,000 for grants to Museums in the Northwest Territories	\$ 6,263,941
Item 287. Construction or Acquisition of Buildings, Works, Land and Equipment, including costs arising out of the relocation of the town of Aklavik and payment of such compensation as the Governor in Council prescribes to persons affected by such relocation	\$15,053,450

Item 288. To authorize payments to be made, in respect of each of the fiscal years in the period commencing on the 1st day of April, 1957, and ending on the 31st day of March, 1962, to the Northwest Territories Revenue Account, in accordance with an agreement to be entered into by the Minister of Finance, with the approval of the Governor in Council, on behalf of the Government of Canada, and the Commissioner of the Northwest Territories, with the approval of the Council of the Northwest Territories, on behalf of the Government of the Northwest Territories, such agreement to provide, on such terms and conditions as may be agreed upon, that the Government of the Northwest Territories will not impose, levy or collect individual income taxes, corporation income taxes, corporation taxes or succession duties as defined in the agreement, for the five-year period specified therein; the payment of the total of amounts under the agreement to be calculated on the following bases:

- (a) an annual subsidy to the Government of the Northwest Territories of eighty cents per head in respect of a population of nineteen thousand three hundred and thirteen (19,313) persons; being the population of the Territories for the year 1956 as determined by the census taken in that year, \$15,450.40;

- (b) a grant in aid of the Government and Council of the Territories, \$30,000; and
- (c) for the fiscal year ending in 1958, the sum of five hundred and twenty thousand dollars (\$520,000) and for each of the four immediately following fiscal year the greater of

(A) the quotient obtained by dividing

1. five hundred and twenty thousand dollars (\$520,000) multiplied by the value of the gross national product per capita for the calendar year immediately preceding the calendar year in which the fiscal year for which the payment is made commenced,

by

2. the value of the gross national product per capita for the calendar year 1956, or

(B) ninety-five per cent of the sum paid under this subparagraph in the immediately preceding fiscal year;

the estimated total amount required for the fiscal year 1958-59 being \$ 585,451

Item 289. To provide for contributions to the Provinces to assist in the development of roads leading to resources in accordance with agreements that have been or may be entered into by Canada and the Provinces. \$ 9,000,000

\$36,662,928

Supplementary Estimates

Item 584. Branch Administration—Further amount required \$ 59,440
Northwest Territories and Other Field Services—

Item 585. Operation and Maintenance—Further amount required \$ 69,604

Item 586. Construction or Acquisition of Buildings, Works, Land and Equipment—Further amount required \$ 3,500,000

\$ 3,629,044

The CHAIRMAN: I think the committee would like to hear a statement from the minister. Before the minister makes his statement I would like, on behalf of the members of the committee, to welcome Mr. Drouin to the committee with the hope that his health permits him to attend from now on.

Mr. Minister.

Mr. HAMILTON (*Qu'Appelle*): I have asked two of the officials to go to my office and bring down the map which I had here when we opened these hearings.

Mr. Chairman, these items under review now are very large. You will notice a tremendous increase and it may well be that next year and the year following will show considerable new increases in this vote for northern administration and lands.

What I am going to say now is more in the way of discussion in detail as to the background of our thinking in respect of the development of northern Canada, bringing in those aspects of the problems in the north which I did not discuss in my opening statement to the committee. You will recall that in my opening statement I tried to make clear the philosophy behind the development of northern Canada at this time. I referred specifically to the growing realization in North America that the supply of certain strategic raw materials was growing scarce in the United States of America and that our supply of these natural resources gave us a peculiar advantage which required the utmost urgency in our planning of the proper use of these resources.

In my opening statement I showed you a map which is now before you. On this map was outlined in general the main petroleum areas and the main hard-rock mineralized areas. The program of opening up the north was to delineate these resources so that we would know more accurately something of the potential and probable resources of an area of Canada comprising by far the greatest proportion; I have used the figure of 75 per cent of our area being presently almost completely inaccessible both to development and exploration.

In my opening remarks, using this map as a guide, I outlined our general plans, or strategy, for going through the main areas to open up these resources

for private enterprise to take a look at. On this particular series of votes I would like to go into the detail on some of the matters I did not mention in my opening remarks. I think that on these votes we get down to the fundamentals of the rightness or wrongness of this program.

Previously I spoke of the great wealth in minerals, oil, gas, waterpower, timber, fishing and fur to a lesser degree—in this great northern area. I emphasized, I believe, the need to start now to find out what we have. I also made it very clear that the timing of the development in this area would depend on economics; or, to put it another way, if we open up a new area—I am thinking particularly of minerals at the moment—it is not necessarily correct that it be brought into production immediately.

I tried to make the point that it was in the national interest to find out what we can do or what we can plan. The production that will come from this work, I would suggest, will come if I read the economic facts of North America correctly during the next ten or twenty years. The point to remember is that now is the time to find out what we have got and to make our plans how best we are going to use these resources.

I can even put it in a third way. If we are eventually going to have a nation of 50 million, 75 million or 100 million people, we have to base the economy of that nation on a large processing industry, both primary and secondary. Before we can decide we have to make known the facts and to provide private enterprise with the knowledge that it is advantageous to process these things in Canada. We have to show that the costs will be lower here than in any other part of the world. In other words, pools of capital will be thrown into these northern areas not only to collect the basic raw materials and collect the basic energy sources, but to put them together and use them here in Canada in a processing complex.

Having repeated these things in general, I would like to go on now to a new aspect of the problem. No person can plan such an industry, as I have demonstrated on this map for you, without some awareness of the difficulties which have to be met. For instance, it has been suggested in this committee that a highway going into the Mackenzie river area would have to be of a very high standard or it would not be worth building. I take the opposite point of view. If we had to build highways comparable to high-speed highways in the settled portions of North America, with our present financial means the opening up of the north would be indefinitely delayed.

On the same line of thinking, when we come to this vote on roads to resources, I think the committee has a right to examine the officials here and myself on the question of standards of roads. I do not know the final answer, but I am prepared to put before you our thinking on this question of standards. The standards include the weight carrying capacity of the road, the alignment, the curvature and the grades and all the other points of road standards that make up the cost. That is a detail which I think we can discuss under the vote.

These general considerations that I have been mentioning are not confined only to the conditions of the terrain. In the Yukon area to the west you have a peculiar characteristic. Not only have you the high mountains, but you have level valley floors between these mountains. These valley floors are usually accompanied by gravel in ridges alongside the river. So it is our hope, and that is what this summer's survey is trying to demonstrate, to prove one way or the other that there is no necessity to move gravel for the building of a road through the Yukon.

Our great concern in the Yukon is the matter of perma-frost on the north side of the hills. A survey route is to determine where that road can go, so that the high construction costs of getting over a perma-frost area can be

reduced. To put this into figures, 90 per cent of the road can be built with gravel, free of perma-frost. This is the estimate on which we have roughly made our original estimates for this road plan over the next five or six years.

In the Mackenzie river area, which I am going to point out on this map, it is an entirely different situation. A road is now being constructed around the west side of Great Slave lake and reaching up towards Fort Rae and back to Yellowknife. Eventually, we will have to start on this road from Fort Rae up to the east end of Great Bear lake and then on to Coppermine. This road is designed in general to go over the edge of the Canadian shield, which is illustrated by this pink colouring. The idea of going along the shield is obvious. We reduce the construction costs and yet we leave this main exploration artery close enough to the Canadian shield so that exploration parties can move in and from which we can eventually build, if necessary, roads into the area about which we wish to find out more. In other words, these two northern roads are the base arteries north and south leading to the Arctic, from which we can base our activities for building a grid system in the future.

Another part of the work in the north concerns the human side, and this I have not mentioned before. One of the great questions in the minds of the government and I think, the minds of all other people, is how far we can go in expanding operations in the north with the limits of weather. There are lags or shortages to consider.

It is on this question that our department is very seriously concerned. The human problem is manifold. Our first consideration, I think, must be for the Indian and the Eskimo people who live in the area and what results the activities of construction crews will have on them. Then we must consider permanent white residents moving into the area.

I hope that when the votes come up on this matter, you will take the opportunity of questioning some of our officials here who have spent a good deal of their lives working on these problems. I hope you will get their opinions as to what the future holds for these northern people.

The second part of the problem is people and economics. By that I mean, that if anyone were to move into the north country, what are the conditions that could be provided that would tend to keep them there and still have a cost factor low enough to make the operation economical. It is on that question that the success or failure of our northern development work will depend.

To put it very simply, if you go to the public accounts committee and examine very carefully the cost of building a home for an ordinary family in the north, you will find that with the cost of heating that home, the cost of providing water services and sewer services and any other amenity that is necessary in modern living, the costs are astronomical.

Therefore, the task of our department will be to use all our initiative and all our ingenuity in trying to collect all the research material that we can collect, and all the information from experience that we can gather in order to see if we cannot bring those costs down to a level where living not only becomes possible but also reasonably acceptable, so that people will want to stay there.

Now, there is no use mentioning that there is tremendous romance in any pioneer area and that it attracts and holds the very best people.

People who have lived in the north and who have met its conditions and conquered them have a feeling of pride in themselves and one of great devotion to their part of Canada.

They instinctively express it and they sincerely believe that their country holds the future of our dominion.

All I can say in regard to this feeling is that it is all very fine up to a point; but someone has to get down to the hard headed study of economics to make it possible for thousands of people to live there. I cannot see into the future any further than anybody else, but I do not see a thinly scattered population in the north in the sense that we have it, let us say, in the great plains area. I rather see it as a collection of sizeable towns around some economic activity, particularly mining. As I see it our main task in the north will be to provide living conditions in those towns which is something akin to our colder settled areas in Canada.

I am reluctant at a public meeting like this to make mention of colder areas. I suggest that my own home city of Saskatoon, or Winnipeg, or Edmonton are communities that could be described as colder areas of Canada, and I will distinguish those cities from those in southern areas such as Windsor, or in the Niagara area of Canada. But if we can learn to live in a place like Saskatoon—which is one of the finest cities in Canada and a place where people like to live—

Mr. PUGH: The election is over now!

Mr. HAMILTON (*Qu'Appelle*): I think we can learn to live in the great proportion of areas in the north.

In the first place, in the cities of the Yukon, the average temperature is warmer than it is in Saskatoon. In the second place, they have less wind. Therefore the heat loss for a day of winter for an average householder to contend with is less than it is in Saskatoon.

At the present time in Whitehorse, for example, fuel costs are higher than they are in Saskatoon. Therefore if we can bring those fuel costs down to what heating technicians might describe as a point of efficiency—having regard to some of the newer ideas in heating—costs become, roughly, parallel to those in other places, I think we might argue that if people are able to live in Saskatoon—beautiful as it is—they should be able to live in northern areas of the Yukon and in parts of the Mackenzie river area where the climate is not quite so cold per day.

There is no use trying to evade the fact that in the northern areas it is not so much the cold that counts; it is the fact that winters are so long, and that it does depress people to have those long winters and to have to live indoors so much of the year.

I have tried to put the issue rather baldly. I hope that some of my remarks have been provocative enough to make you want to ask questions about our program for education, not only of the Indian people and the Eskimo people who are there, but also of the people who are neither Eskimo nor Indian, namely, all the people who will be coming up there.

I hope, too, that you will question us on some of our plans for housing, and the provision of services for towns—and I hope some day for cities.

You have heard mention made in the press of the fact that we are trying to put some of these things to work in the town of Frobisher which is over here on Baffin island where there are no trees. In addition, we have had one experience in building a new town in the western Arctic, at Aklavik East Three. I think the two are a sort of test. East Three Aklavik was started some three years ago. We are just starting on Frobisher Bay now. And I think the success or failure of the department's experiment will rest on our ability to keep the costs down at a place like Frobisher Bay.

I do not know how far we can go at Frobisher Bay, but I think I can speak for the department when I say that we will give you all the information we can that is definite. However, some of our long range plans will have to be held in abeyance until we can find out something more about them.

Now I want to proceed to one or two points more and then get back to the questions. I think it should be made known to the new members of the committee that the administrative area of the Northwest Territories, in so far as the Mackenzie is concerned, is at Fort Smith, where my pointer is now located.

This Fort Smith area is being built up as the administrative centre of the Mackenzie river district, and it is in this area, or west of this area—that you have the place called Pine Point about which there has been so much interest shown. We do have a very definite interest in the prospective mining community of Pine Point.

I think it should be allowable for certain types of questions to be asked here even though this matter really comes under the Department of Transport.

I am not going to mention all the areas along the Mackenzie river and why each of them is there; but I think you may be interested in asking questions later on.

In the eastern Arctic, Frobisher will be the administrative centre. At this stage I think it would be wise for me to mention what our reasons were for picking Frobisher. The first reason is that there is a large runway there. This happens to be an economically sound place at the moment for us to centre our activities.

The airport activity will be largely paid for (a) by commercial airlines using that base, and (b) by the military's share which is put up by the military forces who need the airstrip as well.

So we have the economics of the transportation industry and also we see a financial return for our commitment in that area.

The second reason for coming into this area and making it an administrative centre is that it is more than extremely probable, I think, that the whole of the Baffin island area will become a centre of mining activity of some extent in the not too distant future. I believe that even the news that you read in the paper about mining activity in Ungava and the Hudson Bay area will be combined with news shortly of activities in the Baffin Island area.

I cannot say that a mining activity will develop at any specific point in this map, but I do know that you have to have some sort of center close by where you can look after the business of running the Arctic community, closer than Ottawa. However, we cannot afford to wait until the mining develops and put it in the administrative center where the mining develops.

At the present time we do not know where it is going to be, but we do have to have some sort of center. It may be something like the oil industry. Even though oil was found in 1946, 1947 and 1948 around the city of Edmonton, you cannot get away from the fact that all the head offices of the oil companies are in Calgary, primarily because long ago they settled there at the time of the Turner valley and continued to collect around the same center. That gives you the reasons for moving into Frobisher; first of all for commercial transport, second for activities being carried on there and third, for the mining activities that we expect will develop in that area. All the other activities of the Department of Northern Affairs, such as the handling of education of the Eskimo in the area and other administrative duties, will be handled out of Frobisher.

I do not think, Mr. Chairman, that I am going to say any more. I think the figures in the estimates are sufficient to indicate the increased expenditures in the capital account this year. I have figures here on the numbers of staff and so on and they will probably come out in questioning.

I could mention the educational system and the system of government in the north, but I am going to let those details come out in questioning. I want to conclude my remarks with a simple statement of faith in the future of this country and the full acceptance of the responsibility that no matter how much

we think in terms of opening up this country from a material point of view, we do have a wider responsibility for looking after the people who live in those areas. This responsibility not only relates to looking after the Eskimo and Indian people but the people who are there and will come there, who are not Eskimo or Indian. The question of government in the transitional stage must take over an increasing amount of our thought.

We have to consider the question of developing our provincial governments there and of providing a financial base, for they must look after the question of education in all its transitional stages and the question of municipal government in all its transitional stages. We have the responsibilities of a provincial government on social welfare, and also the responsibility of a municipal government on things such as social welfare. On this aspect of it, we do not act as a federal department at all. We are in effect the provincial government, in some measure, in so far as requirements are not met by the territorial government, and we also have responsibilities equivalent to municipalities.

If an Eskimo is in trouble in any part of the territory, no matter how remote, this is our responsibility right here in Ottawa. We have to act and take the same responsibilities as the smallest village would take in any province of Canada. So the duties of this branch of our department are tremendously varied. It is also very much a human problem, and at the same time gives so much scope for the planning of the future of our country.

I hope, Mr. Chairman, that these remarks will give the Committee some sort of general background on northern administration.

Mr. NIELSEN: Before you sit down, could you just explain briefly the difference between the governments of the Northwest Territories and the Yukon territory for the benefit of the members of the Committee.

Mr. HAMILTON (*Qu'Appelle*): I wonder, Mr. Chairman, if you would consider letting an expert do this, because Mr. Robertson is the Commissioner of the Northwest Territories and, as you know, we have Mr. Collins, Commissioner of the Yukon. We are trying to bring the governments forward in creating as many similar conditions as we can. Was your question as to the financial phase of the matter or was it one respecting administrative procedure?

Mr. NIELSEN: I simply wanted all members of the committee to have a good idea of the inherent powers in each jurisdiction of the territorial council, and what the territorial council can do in one case and cannot do in another. Perhaps there could even be a comparison with the provincial governments.

Mr. HAMILTON (*Qu'Appelle*): This will be very useful educationally.

Mr. ROBERTSON: Mr. Chairman, in reply to Mr. Nielsen's question; to start with, the two territories are administered as far as the territorial government is concerned, under the Yukon Act in the one case and the Northwest Territories Act in the other. In each territory there is a council which is roughly analogous to a provincial legislature, and for each territory there is a territorial administration. I will deal with the differences in the way the administration councils are made up in a moment. The powers of the territorial legislatures or councils and the territorial administrations have roughly the same scope as the powers of the provinces, except for the fact that the federal government retains two important subject matters within its jurisdiction that are within provincial jurisdiction in the provinces.

The most important of these is jurisdiction over resources, and the ownership of resources. The resources in each territory, instead of being vested in the territorial administration, as the minister has pointed out in connection with the plans that are under way, are vested in the federal government and are handled by the federal government. There is a good reason for this.

When resources are in the development stage, they require a very extensive investment of capital in order to bring them into use, and it is only the federal government that has the capital that is necessary to invest to bring the resources into this use. That is the first range of subject matter which is not vested in the territorial administration.

The second range of subject matter is the administration of justice generally. This is handled by the federal government through the Department of Justice. Apart from those two major subject matters, the territorial administrations and the territorial councils deal with all the subject matters that provincial governments and provincial legislatures deal with. In other words, they deal with education, municipal regulations, with workmen's compensation, sewer and water services and with all those things that are provincial or municipal in the provinces.

In the case of the Yukon, there is a commissioner who is resident in Whitehorse. He is the head of a territorial administration for the Yukon. There is a council which consists of five elected members, all of whom are elected from constituencies in the Yukon. The council is elected for periods of three years and there is to be an election this summer for a new council. The council passes all the ordinances which are the provincial laws of the Yukon. It also has control of the expenditures and territorial tax levy. The position generally is that an expenditure must be recommended by the commissioner which is roughly the same as the situation in the federal or provincial government, where an expenditure must be recommended by the government. But it cannot be made unless it is approved by the territorial council. Of course the revenues to pay expenses have to be provided either by territorial taxes or revenues secured under the financial agreement with the federal government, just as a province has a financial agreement with the federal government.

So that in a sense one can say that the administration and legislature for the Yukon are entirely within the Yukon territory. They are at Whitehorse and, to that extent, the administration is completely self-contained. There is also a small administrative staff to carry out the territorial functions which are at Whitehorse or at places within the Yukon.

In the case of the Northwest Territories, the powers and subject matters are the same, but there is a difference as to method and operation.

The commissioner of the Northwest Territories is myself, resident in Ottawa. In part this is historical in the sense that the development of the Northwest Territories did not go on as fast or at as early a stage as in the Yukon. There is also the question of geography. The Yukon is an area that can be administered and dealt with from one location in the Yukon. The Northwest Territories are so vast and the lines of communication so difficult that communication from Fort Smith to Frobisher Bay is more difficult than from Ottawa to Frobisher. But the logical place for the commissioner has been, up until now, and still is, in a practical sense, here in Ottawa.

The center of administration for the Northwest Territories, as the minister has said, in so far as the Mackenzie valley is concerned, is in Fort Smith and the administration is carried out by other officers in other posts throughout the territory.

The council of the Northwest Territories is partly elected and partly appointed. Up until 1951 there were no elected members on the council at all. It was entirely made up of people appointed by the governor in council. In 1951 the act was changed and provision was made for three elected members. In 1955, I think it was, a further amendment was made to provide for four elected members; so that now the council is made up of five appointed and four elected members.

The council meets twice a year. I should also have mentioned that the Yukon council also meets twice a year. The council passes the ordinances, which are the legislation of the Northwest Territories, just as the Yukon council does. It has the same control over revenues and taxation that I mentioned in connection with the council of the Yukon.

One thing I might perhaps mention in passing is that many people might be misled to think that there would be a cleavage of opinion between appointed members and elected members on the council. Just as a matter of interest we have done some research and there has never been a single case in which the appointed members as a group have gone against the elected members. It has always been a matter of independent judgment on the issues before the council and divisions that have taken place have always crossed these elected-appointed lines.

I think that pretty well covers the set-up. I might mention that the Northwest Territories has not, like the Yukon, any nucleus of administration. The administration is provided entirely by the Department of Northern Affairs. The minister mentioned that the plan is to move administration more and more into the field and this will create the situation where some years hence it will be possible to have the administration a territorial one, rather than having federal appointees out in the field. I think in general that covers the system of government Mr. Nielsen had in mind.

Mr. KINDT: Does each particular piece of legislation passed by the territorial council have to be assented to by someone who represents the government, such as a lieutenant governor?

Mr. ROBERTSON: Mr. Chairman, the position of the commissioner, as I should have mentioned earlier, is a little bit different in the two councils. The commissioner in the Yukon does not actually sit with the council. He is available for consultation. The commissioner of the Northwest Territories does sit with the council, but he does not have a vote unless there is a tie, in which case he has a casting vote. It is pro forma. The commissioner in each case assents to legislation in the same way that a lieutenant governor or the governor general assents to legislation. There is a further requirement that legislation passed by the two councils has to be transmitted to the minister and by the minister to the governor in council and it also has to be tabled in parliament. There is a power of disallowance which can be exercised within two years by the governor in council. This is largely theoretical. Such a power of disallowance exists, as hon. members know, in connection with the provinces. I think the difference is that there could be situations in which this power of disallowance might be exercised in the case of the Territories, whereas it is rather difficult to contemplate it in the case of a province.

The CHAIRMAN: You are free to consider all these items under this particular branch and you are not restricted to any particular one in your discussions. Some of you might like to ask the minister questions regarding the statement he has just made.

Mr. AIKEN: I would like to ask the minister what we can expect out of the north country other than mining and military activity such as is now there? What products beyond those, if any, are we likely to expect?

Mr. HAMILTON (*Qu'Appelle*): You are asking a lot. I do not think any part of the world can have everything; but this northern area, with almost every type of mineral available, would seem to be a treasure house. We have enough without asking for too much more. It is true that forests do not exist in the eastern Arctic. It seems hardly possible that there will be a large fisheries industry other than in the lakes in the Mackenzie river basin. It is conceivable that there will be a sizeable tourist industry in the north.

So far the number of letters that we have received indicate that there is an interest in it but I am not so sure that the people who write fully understand the conditions under which they would have to operate in the north. So, all there would be in the early years is a small recreational industry. I think that is sufficient to answer your question.

Mr. NIELSEN: And what about power?

Mr. HAMILTON (*Qu'Appelle*): I should have included power in my remarks earlier. In the Yukon, of course, we have tremendous resources of power. This was made clear in the discussion of the vote under water resources.

Mr. AIKEN: Mining will be the center of activity.

Mr. HAMILTON (*Qu'Appelle*): I think that is right. At the present time we have mining, including petroleum, as well as hard-rock mining.

Mr. NIELSEN: I wonder if I might preface my questions by a few comments on the minister's statement.

First, by way of explanation, I might say that the Comstock lode, which was responsible largely for the development of California, including San Francisco and Los Angeles, has been exceeded by the oil reserves that are being taken from one single claim at the moment in the Yukon territory.

If such development in the United States, or California, could be responsible for the advancement of that area, it is quite conceivable, that, given the proper atmosphere within which to develop, the Yukon and the Northwest Territories would follow the same course.

I might also mention that in 1901 the city of Dawson in the Yukon was the fourth ranking municipality west of Ontario.

The minister has said that the development of the north is going to advance and is depending upon the human element to a large extent. I should like first to endorse that observation and to add that of course no development is possible without settlement, and no settlement is possible without the availability of those facilities which are present in the more southerly points of Canada, such as housing, education, health and welfare.

The primary responsibility, in my opinion, for the creation in the first instance of these facilities lies with the administration at the federal level, because with the sparse population both in the Northwest Territories and the Yukon, it is impossible to expect the taxpayers there to withstand the full impact of providing the full measure of these services themselves. I am thinking particularly of health, education and welfare services.

The government in the past has recognized the fact that it costs more to live in these northern areas. They have recognized this fact in the creation of such assistance measures as northern allowances for federal civil servants and for members of the armed forces. I might just observe in passing at this point that these same advantages—if you want to call them that—do not accrue to the pioneers, for the want of a better word, who go out there to develop these northern areas on behalf of the country and on behalf of themselves. For instance, people who have spent their whole lives in the Yukon and Northwest Territories and who are now old age pensioners still obtain the same measure of assistance as that provided in Edmonton, Vancouver or Toronto. Because of the increased costs of supplying themselves with the necessities of life, the pension in the Yukon and Northwest Territories is only worth two-thirds of what it would be in most southern areas of Canada. I might suggest that perhaps it would be worth while for the federal government, in cooperation with the territorial councils, in the case of the Yukon—to consider some measure of relief along these lines. The same, of course, can be said for other welfare measures.

The minister mentioned something about the cost factor. The cost of construction in the Yukon is roughly 40 per cent higher than it is in Vancouver

or Edmonton. The cost of heating for mining enterprises and others is about 50 per cent higher than in Flin Flon. The economy of the Yukon undoubtedly is dependent on mining. In my opinion, the atmosphere must be created by the federal government to develop economically the whole of northern Canada.

The Yukon in itself is a geographical entity and perhaps this fact, together with the gold rush in 1898, was responsible for its being created as a political entity. The initial impetus for development of the Yukon, as I have said, must come from the federal government. On the one hand it would be my suggestion that the department consider the creating of an atmosphere which will attract industry into the area. When I say this I have in mind such possible legislative action as the increasing of tax exempt periods for mining operating in the area from the present provision of three years to six or ten years, because it simply costs more for mining companies to operate there. Such legislation would mean that more marginal mines could come into production.

Impetus has to be given by the federal government to help withstand the shock of initially developing the housing, education, health and welfare facilities for the people who go there and who are attracted by the creation of such an atmosphere to settle in the north. I am thinking of low-cost and low-rental housing developments and the supplying of educational facilities. On more remote highway points it is now almost impossible for parents to send their children to school without paying \$50 to \$75 a month to keep them in the more settled areas, apart altogether from the fact that they are separated from their families. I am thinking also of the application of the national hospital insurance plan to the people of the Yukon territory. I am thinking also of greater assistance by way of educational grants.

At the moment the per capita cost of education for pupils in the Yukon is \$375 per annum. The federal government, in the case of non-Indian pupils who are children of federal civil servants, contributes a grant of \$250.

I am not aware of the size of the subsidy, if any, which the federal government contributes in respect of the children of non-federal civil servants and non-Indian residents in the territory. Perhaps one of the minister's officials could clear that up for me.

At the moment the revenues of the territory fall far below that which is necessary to maintain a standard of education. This is one of the main reasons why people do not settle permanently in the Yukon.

Another reason that gives rise to a good deal of dissatisfaction among Yukon parents, and in many cases is the cause of their departure from the Yukon, is the fact that insufficient interest is shown in the ability and calibre of school boards which could take a more active part in the administration of education in the Yukon. Such school boards do not and, to my knowledge, perhaps have not been encouraged to exist.

I understand that there is a school board in Yellowknife with some sort of restricted powers regarding the expenditure of funds for education in that area.

I mention in passing too that the federal government contributes the full cost of education for the children of Indian parents in the Yukon. Perhaps the minister would also clear up for me the question of whether the Indian people of Old Crow have as yet passed within the jurisdiction of northern affairs?

Municipal assistance is also greatly needed for Yukon municipalities. At the moment there are two municipalities in the Yukon with full-fledged councils. There is one at Whitehorse and one at Dawson. Both these places are cities—one of them going back as far as the days of the gold rush. The funds derived from municipal sources of taxation in the Yukon are simply not enough to provide the municipal services which are necessary for an active and healthy way of life for citizens in those municipalities.

The federal government did take a step in the right direction in assisting with the installation of a water and sewer system at Whitehorse; but now there are additional needs which exist and which have existed for a good many years, such as the paving of streets. In the matter of providing these municipal services, I might mention again that the territorial revenues—even if the council were agreeable to supplying the funds to these municipalities—simply will not bear the shock of the improvements which are necessary. So in the end the funds must come from the federal treasury.

I might also ask the minister if he could advise the committee whether or not any money have been set aside to be directed into the territorial treasury by way of a grant, loan or otherwise, to the city of Whitehorse in connection with advancing the program of paving which that city is earnestly pursuing at the moment.

I might also ask the minister at this time, through his officials, to give the committee a brief outline of the intended operation and the cost, including such things as the cost per bed and the over-all cost of operation, of the new hospital at Whitehorse which will be opening this fall. Perhaps I also should ask that the minister inform the committee of the total cost of that unit. There is as well the question of supplying nursing and other medical services all up and down the Alaska highway. This is a matter of serious concern to Yukoners in the outlying communities such as Watson lake, which is 285 miles removed from Whitehorse, the closest hospital. There is a feeling that the need is growing, as rapidly as the community is growing, for a two or four-bed hospital where they might have a permanent resident nurse whose duties could very well be integrated with the over-all function of the northern health services in the administration of health services along the highway from Watson lake.

In closing these remarks, Mr. Chairman, I would like to direct a personal observation to the minister. In my opinion the present tax sharing arrangements between the Yukon territory and the federal government are far from adequate, mainly because the population in the Yukon simply is not sufficient to permit a formula which may be workable between the federal government and the provinces to operate with any efficiency in the Yukon territory. The people of the Yukon just cannot be faced with any per capita tax with any reality.

I have directed a number of questions to the minister and I would like to obtain answers to those and perhaps have an acknowledgment of the suggestions I have made to him concerning the long-range outlook toward development, more the development of the human resources in the Yukon than the natural resources. We all know the natural resources are there and are there in vast quantities. The road program which has been instituted is of course going to provide the key in that respect; but until now there has been perhaps a lack of attention paid to the advancing hand in hand of the human resources with the development of the natural resources which exist in the Yukon.

Thank you, Mr. Chairman.

Mr. HAMILTON (*Qu'Appelle*): I do not intend to answer all the questions in one mouthful.

I would like to start at the end of your remarks by pointing out to the committee that as far as the grants from the federal government are concerned the following is the situation. We have just completed last fall a five-year arrangement with the two territorial governments, extending over the same period as the five-year agreements with the provinces under which grants are made to the provinces on a formula which I am not going into here. The formula that we used for the Northwest Territories and the Yukon territory was based on fiscal need. It was a decision freely arrived at between the councils of the two territorial governments and the federal government and the amount is

considerably larger than it had been previously. Furthermore, it will grow as the growth of the territories increases. All I can say in defense of the federal position is that the agreement was a voluntary one and was supported by the two territorial governments.

The hon. member from the Yukon has pointed out additional needs which he believes we should meet, and with some of them I think every one of us here has some sympathy. I do not intend here to answer specifically the question of the hospital, although if I recall it correctly the general arrangement was mostly done through the Department of National Health and Welfare and there was a split between the different departments concerned. The figures, roughly, for the total cost of the hospital were \$4.3 million; the territorial government provided \$750,000 of that, the federal government through the Department of National Defence put up \$1 million, and the northern health services put up \$2.5 million, or a total of \$3.5 million. So, looked at from the point of view of general proportions, it would seem on the surface that we have been fairly generous on the question of hospitalization facilities in White Horse.

There is the related matter of health services along the highway and for isolated communities of the territory. I think that these questions are of interest to the committee but could be more properly brought up under the national health and welfare estimates because we do not put up the moneys for these, although we are naturally interested in them. They are partly territorial and I do not mind questions being asked here, but I do not know too much about the actual amounts or what has been done on the program because it comes under another department.

I come now to a matter of policy. I think that the responsibility of the federal government in opening up a new country like this is to accept almost all the cost of building new development, roads for example we intend not only to pay 100 per cent of the cost of construction but also to pay the maintenance costs. It is true that as settlement increases we intend to back out of the maintenance costs in proportion to the extent that the road is used by local people as opposed to the development aspects of it. As to the question of development, I think we have taken on our full responsibility in so far as roads are concerned. As to the question of power we put up the money for hydro development and charge the local mining interests and the local people in order to pay for that, so there is no cost in that to the federal taxpayer. There is an argument, I suppose, that we should accept some loss on this; but I think, if it is looked at on the basis that a hydro development should be tied very closely with the economic development, the question of self-liquidation is the sound answer.

I do not want to seem to be turning down the hon. member's suggestions, but I would like to point out very clearly that I doubt the over-all wisdom of a federal government or a territorial government accepting responsibility for a group of people who move into an area of their own volition because of opportunity they see there for themselves. When the rest of Canada, through its own municipal taxes pays for its own services, for schools and social welfare services with some grants from their senior governments, I do not feel that the federal government should be required to move in and pay all of the additional expenditures in the territories.

I grant, if we are going to open up the north country, that we do have to provide some encouragement to people to go up there. In the case of a civil servant who is limited to just the salary he gets, one can understand why we have to pay a northern allowance. However, I believe the person who goes up there for his own advantage takes certain risks which he has to meet. I do not think that the pioneers of any new area in Canada ever expected to have their standard of living, the minute they moved into a new

area, maintained by the federal taxpayers at the same level as in the district from which they came where from their own efforts the people of that area provided certain standards.

I think we have to be very clear in our thinking as to just where this starts and stops. I do not believe we have to underwrite, as federal taxpayers, every person in the north in order that he may have a standard of living comparable to that across the country. I think, if I am going to a new area to seek opportunity for myself and my family, I am undertaking some of the hardships in that area and accepting a lot lower standard of living in the hope that some day I will establish a better living for myself and my family. I do know that, if in the national interest we seek people to go into an area and live in an area to do a certain job, we have to provide certain standards in order to attract them there; but I think it would be wrong in starting a northern development program to accept the responsibility of giving living standards to everyone in that area equal to the living standards in other established areas.

This may sound like poor philosophy from a political point of view but it is not in the long run because it is the only sound application of the well-known principles of keeping costs down as low as possible in the opening-up period. We say to the contractors who are interested in going into the north that it is in their interests to keep the cost down to a very minimum as well as it is in our interests because the costs of opening up roads or anything else are so great that we can see a return to a time when the whole question of northern development becomes very doubtful.

However, in the case of a matter of national interest, where, for example, in the interest of national defence an area is to be developed, we have in effect to subsidize people to go into these areas. I think that philosophy is one which could be generally supported; but I would be very reluctant to subscribe to a point of view that accepts the principle that we have to provide all these services. No person is more sympathetic to the needs of a northern community than am I. I have in my mind, particularly, the situation when in the national interest a military installation goes into a community and a whole community grows around that military installation and lives off it. If in the interests of the nation, we withdraw that military installation and leave a whole community stranded in a country where there is no economic base for them, then I do accept on behalf of the people in that community a responsibility.

The second situation that would cause great concern would be, if private enterprise were to start a large mining project and due to world economics had to close down, then we would find ourselves in a special situation for which we would have some responsibility. The third situation for which we have to accept responsibility relates to the native people. If for any reason, whether due to a situation caused by us, or by nature, the economic livelihood of a segment of their economy is suddenly withdrawn through no fault of their own—and I am thinking of the caribou and walrus herds which have been disappearing—I think we have a responsibility to spend the taxpayers money to save those people from starvation and bring them to a point where they can make a living in some other fashion.

It is in these three areas that I think we should accept a full measure of responsibility.

However if I detect a suggestion in your remarks that we should go to private individuals all along the line and say you live in an area where costs are higher and therefore we will subsidize you to a greater extent than in another area, I think, beyond a certain point, that could be very dangerous thinking for us. I know this sounds like a harsh statement of philosophy, but it is an honest statement of opinion on my part.

If you want to get the details on any of these questions which you have asked I think the officials here would be glad to give them. I have actually forgotten all the questions. I remember the one about the Old Crow.

Mr. NIELSEN: I want to make it quite clear to the minister, and to members of the committee, that not for a moment did I wish my remarks to be taken as suggesting complete subsidization for those of us who go into the north to settle there. I am merely pointing out that, because of the lack of territorial revenues to accomplish the purposes, the federal government must provide the initial impetus for these things. I am sure the people of the Yukon—and no doubt this also applies to the Northern Territories—will not shirk their responsibilities in paying their own way.

The question concerning the Old Crow was first of all whether the village of Old Crow and the Indian people there had come within the jurisdiction of the Department of Northern Affairs and National Resources? Then I have a supplementary question: are any plans under way for the construction of a school there or for the expansion of the existing facilities for education there.

Mr. ROBERTSON: Mr. Chairman, as to general jurisdiction, the Indians at Old Crow, and the Indians north of sixty degrees in general, come under the Indian Affairs Branch of the Department of Citizenship and Immigration; but there is a special arrangement in the Northwest Territories with regard to education under which the education of Indians in the Northwest Territories is provided by the Department of Northern Affairs and National Resources. This arrangement has been established in the Old Crow area because, for purposes of convenience, it really is easier to link in with this kind of arrangement than to handle it under the Department of Citizenship and Immigration. This arrangement became effective as of April 1 of this year, and a new two-room school is going to be provided for in the estimates for the fiscal year of 1959-60.

I could also mention that there is a hostel being built at the present time which will open in September at Fort McPherson. It is intended to serve not only the Indians of the lower Mackenzie area, but also the Indians in the general area of Old Crow who are not perhaps in a position to attend the day school being built at Old Crow.

Mr. NIELSEN: Is there any study at present under way, Mr. Chairman, along the lines of granting to mining companies engaged in active mining operations in the Yukon, or who wish to become engaged in those operations, an increase in the present tax exempt period of three years? Perhaps this is an improper question to ask here.

Mr. HAMILTON (*Qu'Appelle*): It is a general question which deals with taxation, but I think I can say a word on it. Requests have been made to the government to extend different types of tax exemptions to mining operations in the north. As you know there have been suggestions made before the Gordon Commission and to the government on this at various times. One of the suggestions is that above a certain parallel we give a longer period of tax exemption to mining companies. Another suggestion is that we draw a line which distinguishes between the places to which access is more difficult and give a different rate of exemption. There has been a proposal that we have a staggered scale going north with different rates of exemption. Those ideas have been discussed by the government. They are more particularly the responsibility of the Department of National Revenue and the Department of Finance. At the present time there has been no policy decision on those requests.

Mr. HARDIE: The minister stated a few minutes ago that he accepted the responsibility, for instance, in a case where the Department of National Defence may move people into an area and then for some reason or other withdraw

from that area. He stated that he accepted the responsibility for people who remained in that area. I wonder if that responsibility would go as far as to provide employment for the people who would be out of work; for instance in the case of Whitehorse if the National Defence Department were to pull out of there what would be the minister's responsibility in that case?

Mr. HAMILTON (*Qu'Appelle*): The answer to the question of the hon. member is that this department, under the terms of the statute which sets it up, has responsibility for seeing that there is coordination between all departments in northern work. As I said in my opening remarks when this committee first met this responsibility had not been met in the past and under new management the department was actively and aggressively following its responsibility in this respect. When the question of removal of defence forces of all sorts in the north was considered by the government, this department made its opinions known very strongly. In particular, we took a very keen interest in the economic result of any such operation in the Whitehorse area because the policy decision to switch over to a commercial airport in the Whitehorse area was carefully worked out in such a manner that the adjustment of the city of Whitehorse would be as painless as possible. The number of people employed in the military installation was balanced off with the number of people on the one hand being moved out and the number of transport people being moved in, and the results I think were almost identical. It was a good example, I think, where the department of northern affairs by watching carefully saw to it that the economic interests of a community did not suffer.

If you are raising the hypothetical question of a community in an isolated area being suddenly abandoned by the military, then the responsibility of providing work I think should be faced, and frankly our responsibility I believe would be for the livelihood of those people. If we could provide opportunity for them in other places I think they would have to accept that opportunity. So far this situation has not hit us point blank in any case, but I think it is a matter of considering just what we would do if such a thing happened. I do not believe any person here would argue that we should establish artificial types of work for people in a community if there is no economic base for them there.

This might be one of the most difficult problems we will have to face. At the moment it is hypothetical with the exception of Whitehorse which has been already faced.

Mr. HARDIE: This is the point where I intended to ask my question about Whitehorse and the minister has stated that this has been looked after and that there will be as many transport people hired and put into Whitehorse as there are air force personnel. Just as many as are taken out and are put in.

Mr. NIELSEN: Perhaps I misunderstood the minister. As I understand it, the decision is still in the study stage and studies are being made but no decision has been made in respect to any switch-over at Whitehorse.

Mr. HAMILTON (*Qu'Appelle*): There has been a policy statement made that the government is considering the switch-over from a Department of National Defence installation at Whitehorse to a civilian-run airport; but it was also stated as part of that announcement that in the transfer the economic base of Whitehorse would be protected. If I remember the figures accurately the number of personnel that were there under the defence installation and the numbers that would be there under the Department of Transport would be almost the same. There is a discrepancy, I think, of thirty-seven or something like that. In other words it takes approximately just as many people to run an airport for the military as for the Department of Transport. The advantage to the country, of course, is that the military does not have as a

primary consideration just staying in a place to provide a living for the people there, whereas an air base on a civilian status is based on an economic factor and as the mining activities grow we can see an expanding need for the civilian airport.

Mr. NIELSEN: Also while the Air Force personnel are moving to other positions in the air force additional jobs will be made available for the local workers.

Mr. HAMILTON (*Qu'Appelle*): Yes. In that particular case it is fortunately true that the local labour will get a lift. We looked into this in Whitehorse last fall and I think that the information we received was that the community level of employment had never been better.

Mr. HARDIE: One minute there is no decision, and then the member from the Yukon a moment ago questioned the minister's statement with regard to the removal of the Air Force from Whitehorse and said no decision had been made.

Mr. NIELSEN: I said my understanding is that it is still in the study stage.

Mr. KINDT: In a free economy such as ours the flow of capital tends to be diverted in accordance with economic and social advantages. That pretty well summarizes a lot of the things about which we have been speaking in respect of the north. That brings to mind the question of keeping the money which is spent in the north, and development of industries in so far as possible, in the north and have them ploughed back into the development of the country. I know that cannot be done, but it would be the ideal situation. When anyone goes up there and puts in capital he treats that investment pretty much like a milk cow; the milk flows down like water over the side of a hill into pools below like Edmonton, Saskatoon and other centres. Therefore I put forward that argument in justification for the rest of society in Canada reaching into their pockets and making a substantial contribution to the development of the north.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, I do not think there is any question that, in the pioneer stages of any new country, the people who go into the pioneer areas always feel a tremendous sense of frustration since it seems that in the first years of their development period all the wealth they produce appears to flow back into the centre of the country. For every dollar spent in the west or in the north on any of these projects the benefits seem always to be greater in the established centres than in the west or the north.

In all fairness I think the pioneer frustration lasts for a certain period and then there is a certain amount of that milk which you described that begins to stop in the localities where it is produced. If you want an historical parallel, one hundred and twenty years ago the area west of Toronto was known as western Canada. In that area they felt a tremendous frustration because the people east of Toronto were collecting all the cream from the rear end of the animal and the fellow at the front end was doing all the feeding. That situation has altered and this very part of Ontario which was up in arms in 1837 as a result of that frustration is now probably one of the wealthiest parts of Canada. As these areas of expansion develop there are new areas of wealth. You have seen it happen in the United States. As we see frontiers moving beyond us we visualize some of this cream coming down to our level and giving us a higher standard of living but what is left in the area will raise the standard there too. I draw the line on the suggestion that the taxpayers in Montreal would be glad to subsidize the people who live in the north. It is contrary to the philosophy which opened up our country. I have tried to lay down the lines of responsibility between the federal government and the taxpayers and the people moving into the area.

I think the discussion at this time has hit the centre of the problem and that we have to except in the northern areas a period of frustration and complete annoyance with those of us who live in the more settled areas. That is why I said that in this problem of opening up the north, it could never be considered purely of material advantage to the whole of Canada. It is true that is our primary thinking, but we have a tremendous responsibility to reduce the frictions and frustrations of these people who go into the north. However we do not want to see a repetition of what happened or to the same degree as it happened during the development of western Canada when western Canada was west of Toronto.

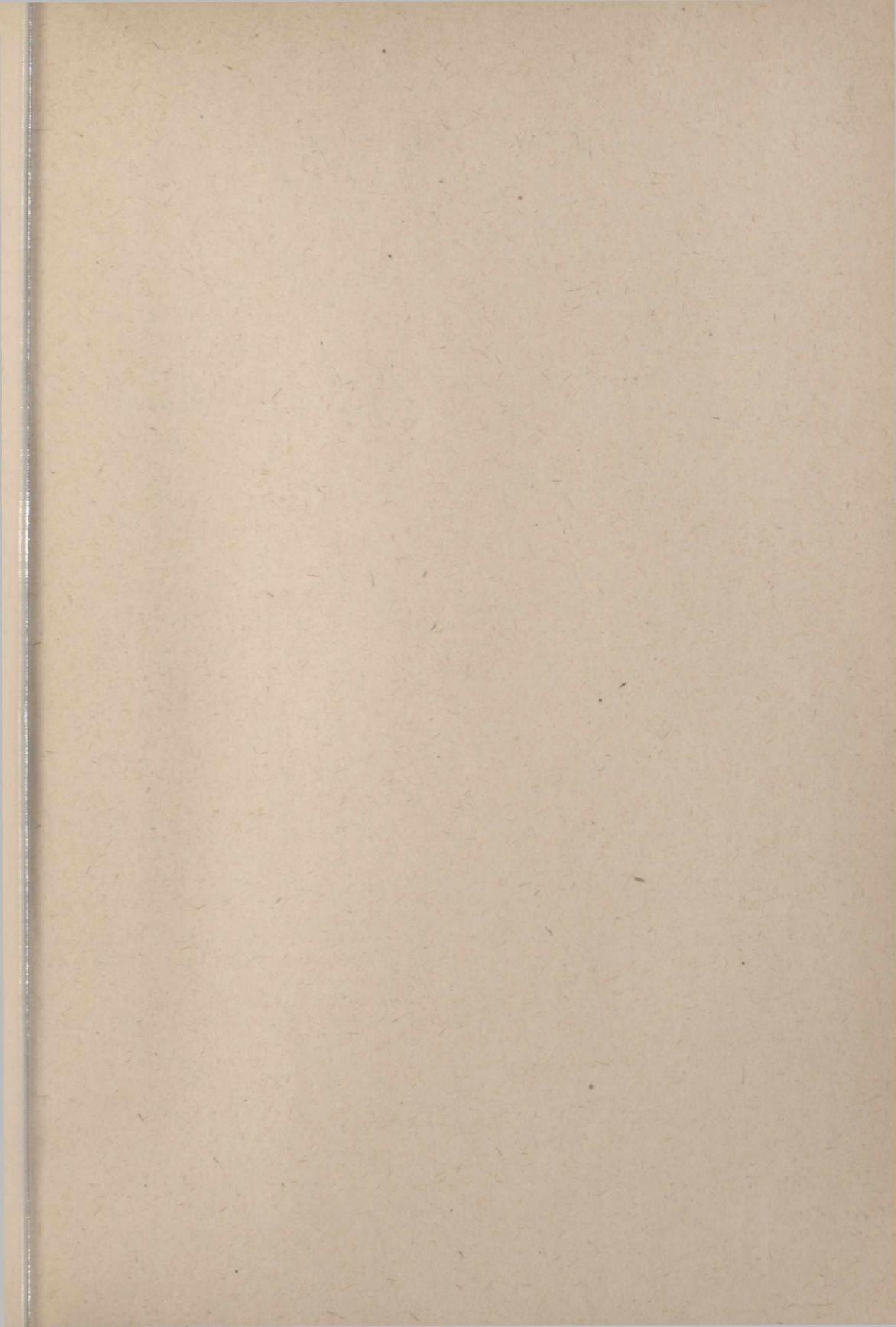
The American people had the same troubles. They had their frontier troubles, and we undoubtedly will have our troubles with the north; but surely the experience of one hundred and twenty years of pioneering in this country has taught us some of the ways in which we can reduce those frictions. The matter of government and local control and responsibility is something which we have to watch very carefully.

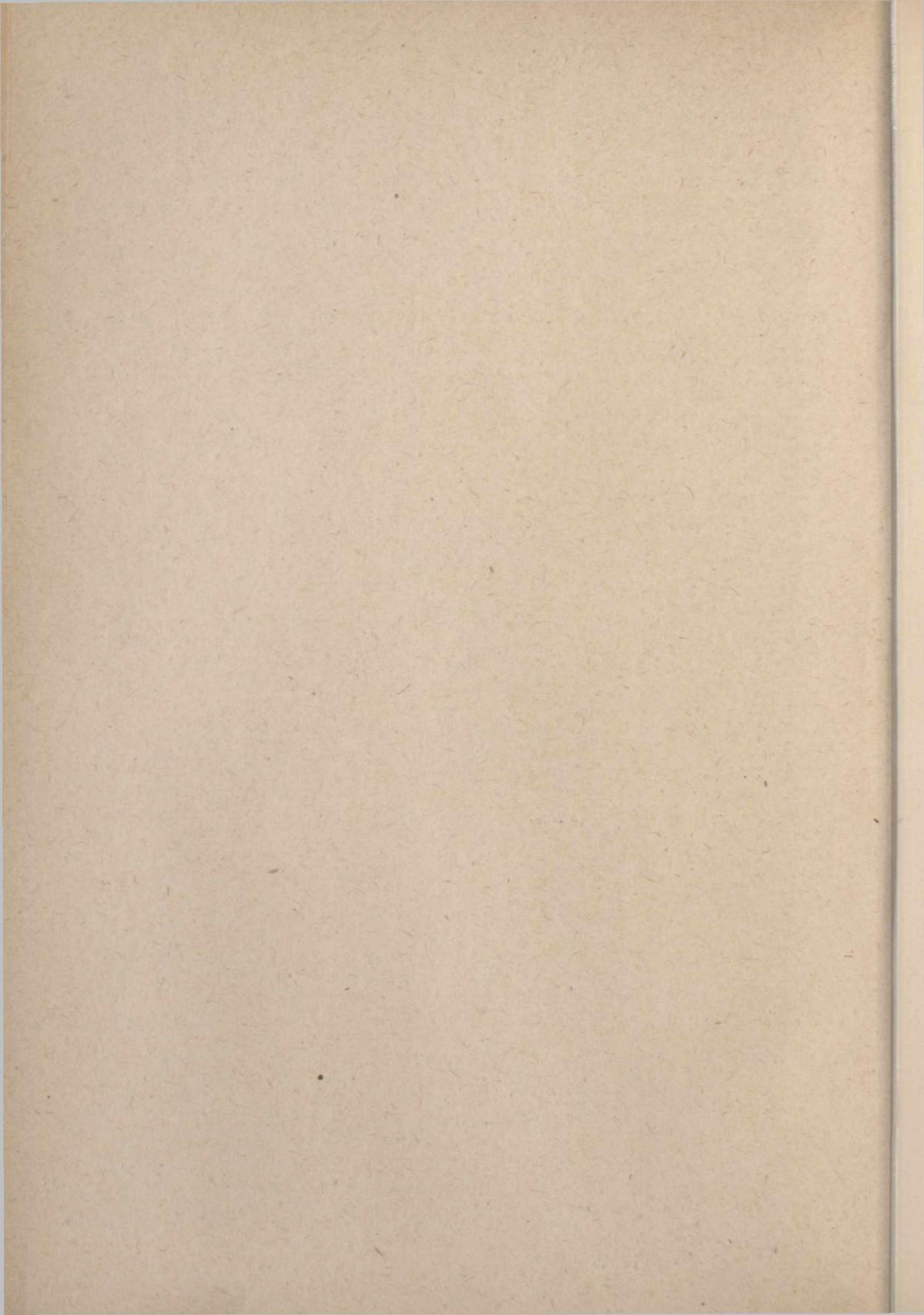
We have set up in the department the beginnings of a study based not only on the experiences of Canada and the United States but also the experiences all over the world where people have had to be lifted from almost no control of their own affairs to final control.

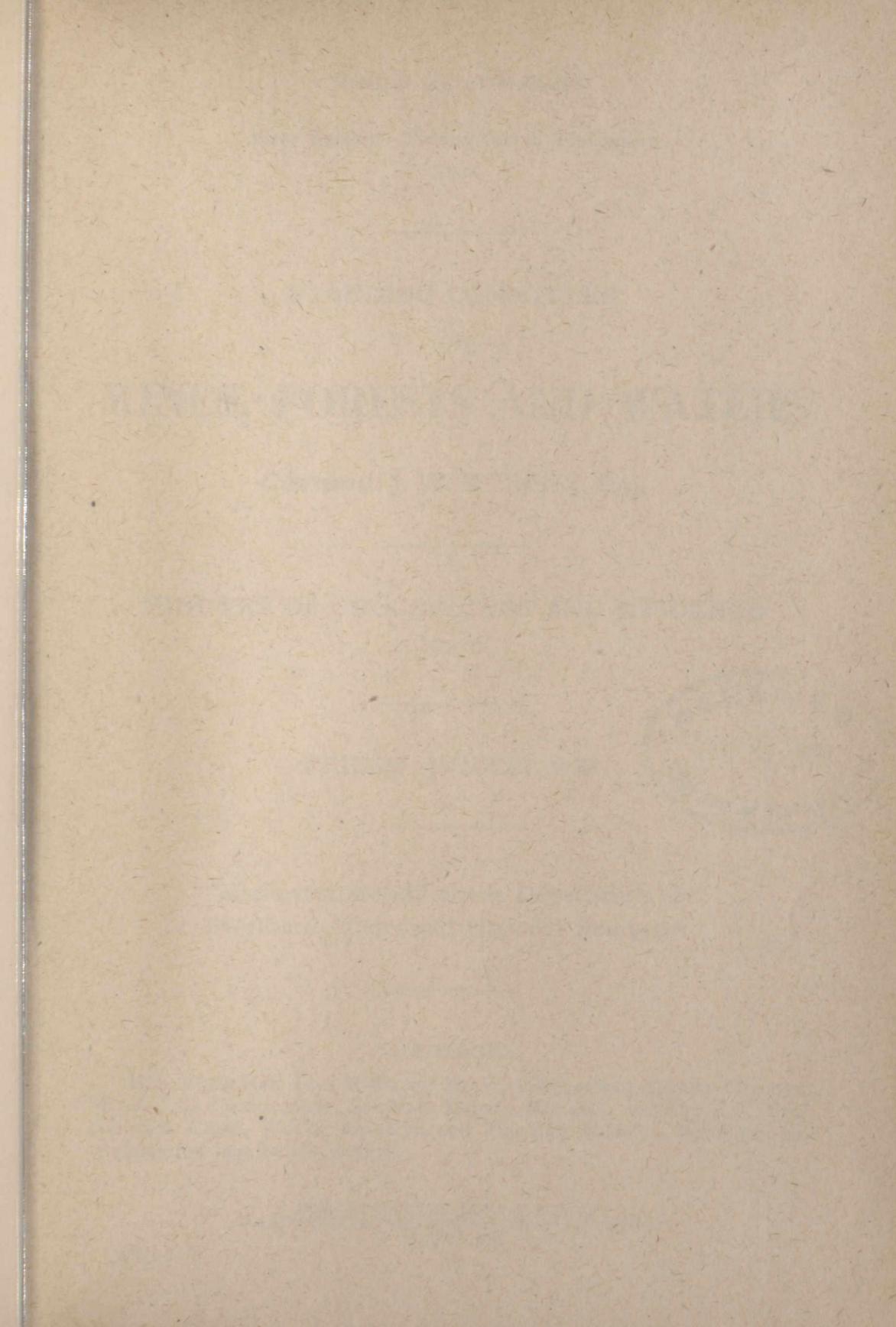
I believe I used the words earlier that we look upon our operation in the north as an act of trust for the people who will be there. This applies not only in respect of legal and land title matters but also in relation to the fundamental aspect and philosophy of living, and the responsibility to the people who are Eskimo and Indian by birth—something which must be carefully balanced off with our national aspirations. We do not know whether or not we can make the adjustment as smoothly as we would like but at least our thoughts are on the problem and we will try to draft for ourselves a blueprint for this transitional stage which will reduce these frictions. To be fair I do think there is a period when there will be frustration and annoyance with the central government.

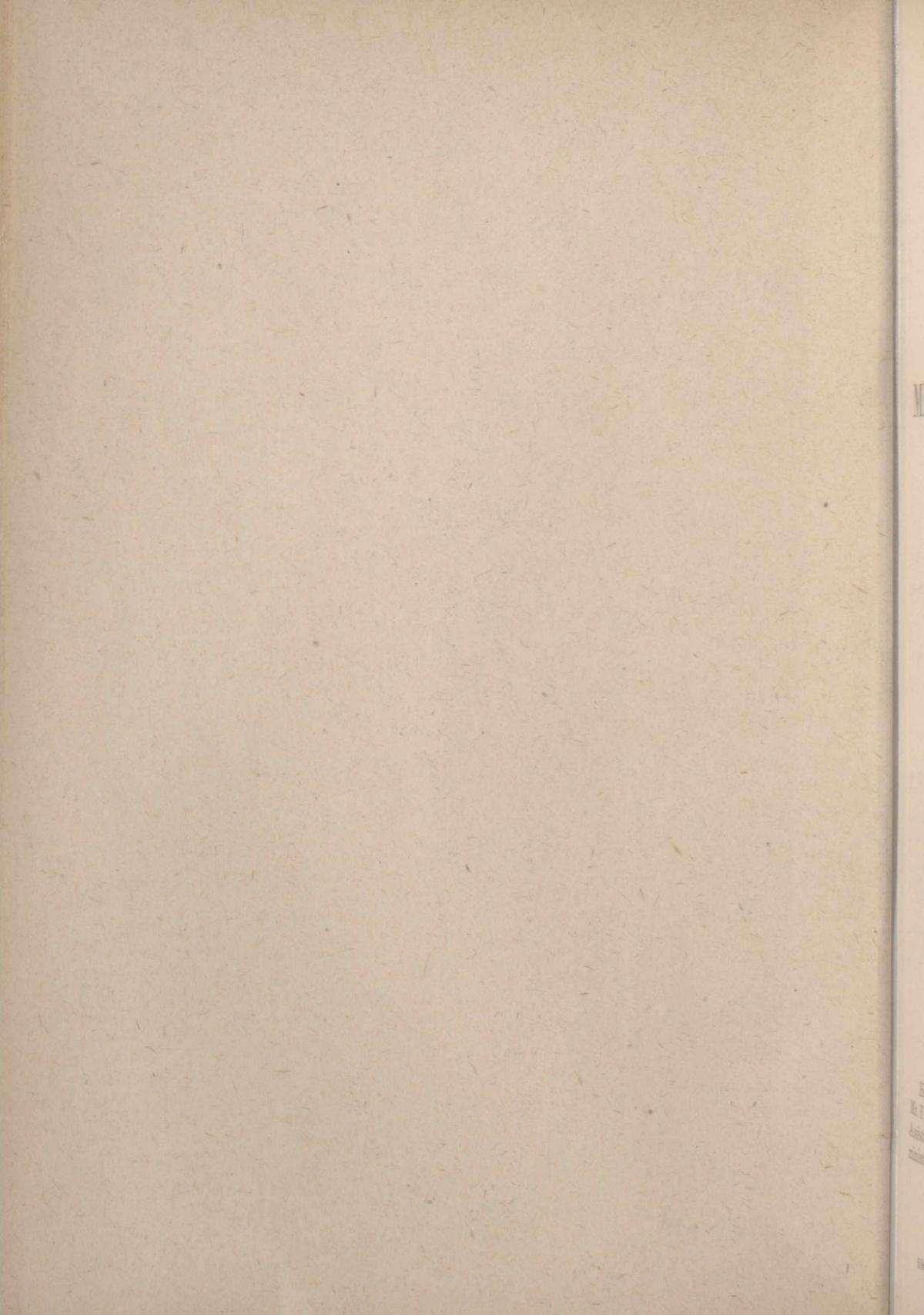
The CHAIRMAN: We will adjourn now. I expect that the members will wish to examine these items further at our next meeting and accordingly we will let them stand. We will meet again at 9:30 on Friday morning next.

Faint, illegible text, likely bleed-through from the reverse side of the page. The text is mirrored and difficult to decipher.









HOUSE OF COMMONS

First Session—Twenty-fourth Parliament
1958

STANDING COMMITTEE
ON
MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE
No. 6

FRIDAY, JUNE 27, 1958



Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister;
Mr. F. J. G. Cunningham, Assistant Deputy Minister; and Mr. J. I. Nicol,
Assistant Chief, Works, Research and Planning Division, Northern Ad-
ministration and Lands Branch.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baskin,
Bruchési,
Cadieu,
Coates,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Fréchette,
Godin,
Granger,

Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,
Mitchell,

Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafèche*),
Robichaud,
Simpson,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee

CORRIGENDA (*English Edition only*)

Minutes of Proceedings and Evidence, No. 5, June 24, 1958

Page 155, line 17: for "oil" substitute "ore".

Page 156, line 11: for "operating" substitute "operations".

lines 36 to 41: delete the paragraph and substitute:

"Another reason that gives rise to a good deal of dissatisfaction among Yukon parents, and in many cases is the cause of their departure from the Yukon, is the fact that insufficient interest is shown in the creation of school boards which could take a more active part in the administration of education in the Yukon. There are people of the ability and calibre to form those school boards. Such school boards do not and, to my knowledge, perhaps have not been encouraged to exist."

Page 157, line 10: for "have" substitute "has".

MINUTES OF PROCEEDINGS

FRIDAY, June 27, 1958

(8)

The Standing Committee on Mines, Forests and Waters met at 9.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Baskin, Cadieu, Coates, Drouin, Dumas, Godin, Hardie, Korchinski, Leduc, Martel, Martin (*Timmins*), Martineau, McLennan, Murphy, Nielsen, Roberge, Robichaud, Stearns and Villeneuve. (19)

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. R. G. Robertson, Deputy Minister; F. J. G. Cunningham, Assistant Deputy Minister; F. A. G. Carter, Chief Administrative Officer; G. M. Carty, Executive Officer; and of the Northern Administration and Lands Branch, Messrs. B. G. Sivertz, Director; R. A. J. Phillips, Chief, Arctic Division; W. G. Brown, Chief, Territorial Division; J. V. Jacobson, Chief, Education Division; F. C. Bradley, Chief, and J. I. Nicol, Assistant Chief, Works, Research and Planning Division; K. J. Christie, Head, Mineral Resources Section, Mining and Lands Division; T. D. Skelly, Head, Lands and Timber Section, Mining and Lands Division; and J. F. Doyle, Administrative Officer.

On motion of Mr. Dumas, seconded by Mr. Coates,

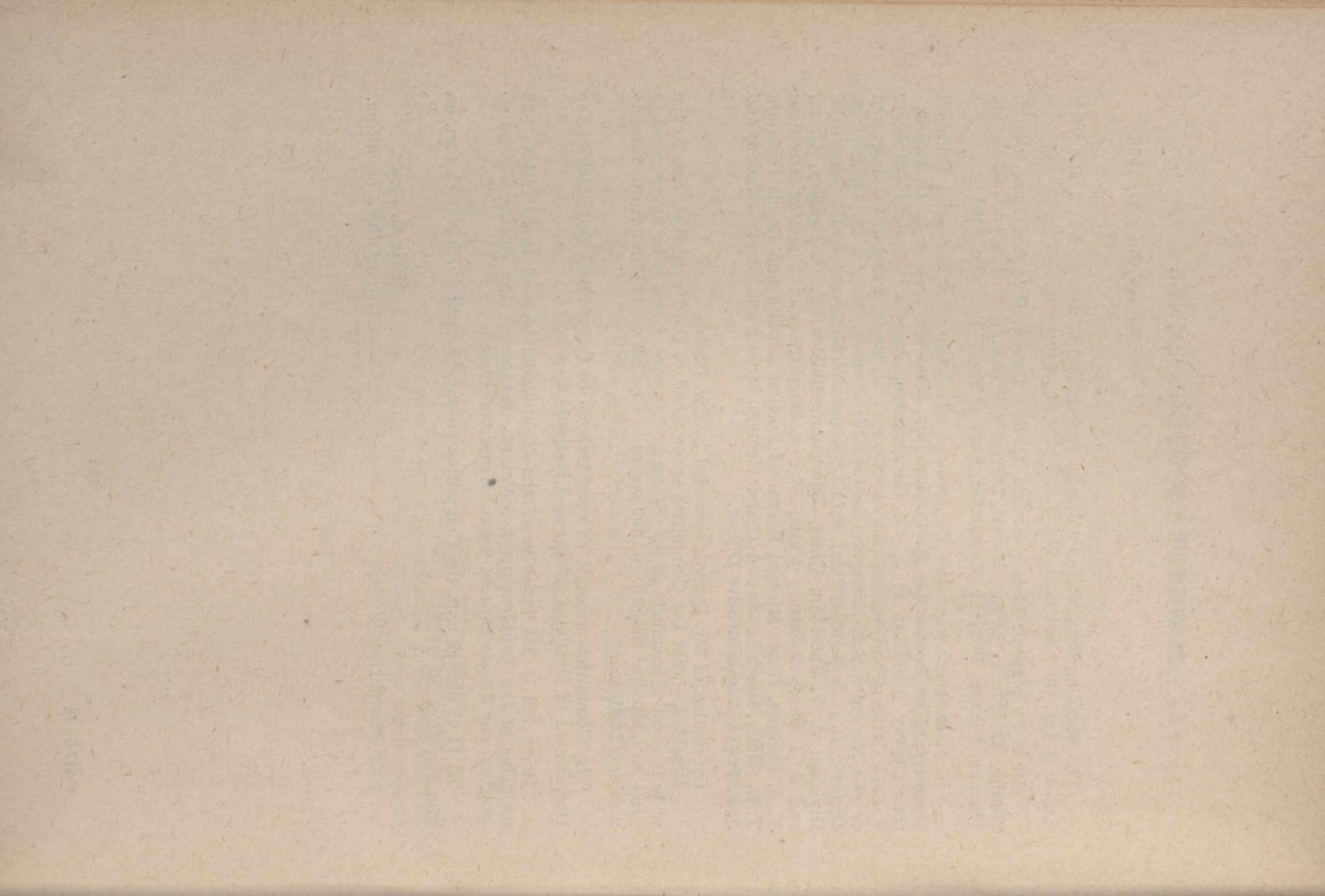
Resolved,—That the Committee recommend to the House that, due to the wide interest of members of the House in its proceedings, it be empowered to print an additional quantity of 500 copies in English of its Minutes of Proceedings and Evidence.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

Items 282 to 289 inclusive of the Main Estimates and Items 584 to 586 inclusive of the Supplementary Estimates, concerning the Northern Administration and Lands Branch, were further considered.

At 11.00 o'clock a.m. the Committee adjourned until 10.30 o'clock a.m. on Monday, June 30, 1958.

Eric H. Jones,
Clerk of the Committee.



EVIDENCE

FRIDAY, June 27, 1958.

9:30 a.m.

The CHAIRMAN: Gentlemen, we have a quorum.

I expect that on next Monday evening we shall have referred to the committee the estimates of the Department of Mines and Technical Surveys. As soon as we have finished the estimates of the Department of Northern Affairs and National Resources, we shall proceed with the estimates of the Department of Mines and Technical Surveys. I hope you will enjoy that as much as you enjoy this.

There is another matter; there has been a demand among private members for copies of the minutes of proceedings and evidence of this committee, a demand, particularly on the part of members other than those who are on this committee, for the purpose of sending copies out to conservation and game clubs. In this connection I hope it is agreeable to the committee that we ask for permission to have some additional copies printed. We have, as a matter of fact, only thirty copies left of the minutes of proceedings and evidence of the first regular sitting. It is really interesting, and I think it is somewhat of a precedent that a committee asks for authority to print additional copies. Yesterday, as a matter of fact, I had three members who are not on our committee ask if they could obtain eight or ten copies each. I think you will be glad to know that. If it is agreeable, would someone move and second the motion that we ask for an additional printing of 500 copies in English?

So moved by Mr. Dumas, seconded by Mr. Coates. Agreed.

Mr. MARTIN (*Timmings*): Would there be a general distribution of these or would it be only on request?

The CHAIRMAN: The members who asked me for copies wanted them for the purpose of sending them out to conservation and game clubs. I am sure, if the conservation or game clubs wanted copies, the department would be only too glad to furnish them.

Mr. NIELSEN: Before we proceed this morning, may I make a few corrections in the minutes of proceedings and evidence No. 5 of June 24. On page 155 the paragraph beginning at line 15 should read as follows:

First, by way of explanation, I might say that the Comstock lode, which was responsible largely for the development of California, including San Francisco and Los Angeles, has been exceeded by the *ore reserves* that are being taken from one single claim at the moment in the Yukon territory.

The change there is that it should read "*ore reserves*" rather than "*oil reserves*".

On page 156 at line 11 the word "*operating*" should read "*operations*".

Still on page 156 in the paragraph beginning at line 36, the words "*ability and calibre*" in line 38, do not belong there and should be deleted and the word "*creation*" substituted therefor. Also I added in line 40, a sentence that apparently was not heard:

"There are people of the ability and calibre to form those school boards."

On page 157 in the tenth line, it should read "not any money has been set aside". Thank you, Mr. Chairman.

Mr. HARDIE: To go back to Mr. Neilsen's statement, I was wondering what the minister thought of this idea of low rental housing in the north?

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): I think the answer of the minister can be deduced from the fact that the government did agree to a low rental project in Whitehorse.

Mr. HARDIE: Where will I find that in the estimates?

Mr. HAMILTON (*Qu'Appelle*): The territorial council turned down the proposal.

The CHAIRMAN: We are continuing our consideration of the Main Estimates, items 282 to 289 inclusive and the Supplementary Estimates items 584 to 586 inclusive concerning the Northern Administration and Lands Branch.

Mr. HARDIE: Is the seed grain branch included under the heading branch administration?

Mr. HAMILTON (*Qu'Appelle*): The seed grain branch properly comes under the lands branch of the northern administration.

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): I think the answer is yes. It comes largely under this. There would be parts under the Northwest Territories administration.

Mr. HARDIE: How many persons are employed under the seed grain branch?

Mr. ROBERTSON: I am told the answer is three.

Mr. HARDIE: Does that include inspectors or is it just the branch administration?

Mr. ROBERTSON: Perhaps I might ask Mr. Cunningham to answer the question.

Mr. F. J. G. CUNNINGHAM (*Assistant Deputy Minister, Department of Northern Affairs and National Resources*): There are three clerks in Ottawa maintaining records and taking care of residual correspondence. There are no inspectors in the field. There are seed grain inspecting boards, but as far as the federal government is concerned their members are performing other duties and we are not paying directly for this work.

Mr. HARDIE: How does the account stand now as to principal and interest?

Mr. CUNNINGHAM: I will have to get the figures, Mr. Chairman, for Mr. Hardie.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, while the discussion has been going on I have been doing some thinking about the policy adjustment on seed advances. Most members of the committee may not know that these seed grain advances date back to the last century. The work that Mr. Hardie has been referring to is the adjustment of these advances and the interest that has accrued on them as at the present time.

The policy is to write them off as fast as these three clerks can get facts in respect of them so we can get rid of these items from the books.

The big reason for reconsideration of policy on this matter is that the amount of money we are collecting from the amounts owed to us is so much less than the cost of administration, that the practical validity of maintaining a debt of such ancient vintage on the books of the government is not very great.

I would like at this time to say that we have under active consideration, at my level at least, the idea of bringing to a conclusion all these debts that go back, as I say, into the last century; to the days of the territories, before the first world war and after the war.

I have a statement that I think I could read into the record.

During the fiscal year 1957-58 the Seed Grain Advisory Board made recommendations relating to 1,670 accounts for advances of seed grain, fodder and relief made to homesteaders and settlers in western Canada. As a result of these recommendations, \$18,908.18 was collected, \$487,582.11 in principal and interest was written off and 3,339 liens were discharged. As at the end of March 1958, there were 589 federal and 637 joint federal-provincial accounts still outstanding, which are well secured and should be collectable through negotiation.

That I think indicates to you in figures what I have just said in general. If out of a total of \$500,000 you have been able to collect \$19,000 and your cost of collecting it and the cost of administration, is equal to or greater than the amount you have collected there comes a point in good business practice when you must eliminate the whole item from the books.

The amount outstanding on March 5, 1958 was; principal \$288,000 and interest \$566,000, or a total of \$854,000.

It is my hope, Mr. Chairman, that during this year this item will be completely finished. I cannot give complete assurance of that because, naturally, we are going to try and collect, wherever we have some security. However, generally speaking, it is the intention of the department to try and wind up this whole operation.

Mr. HARDIE: That was my point in raising the question. I was going to suggest that you do that.

Are we allowed to ask questions on other items?

The CHAIRMAN: You may ask questions on any of the items, Mr. Hardie.

Mr. HARDIE: In respect of the \$9 million item for grants to provincial governments in respect of resources roads, the other day the minister said they had reached an agreement with Saskatchewan. Since there is an agreement with Saskatchewan, could you tell us where this road will be built for which the federal government is willing to contribute \$1,500,000? Where does that road start and where is it going to finish?

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, I think at this time I would like to add something to what I said in my opening remarks on the first day of this committee concerning roads to resources.

At that time I said we were in active negotiation with seven provinces and in at least two of the provinces we were in agreement in substance. The two provinces that I mentioned were British Columbia and Saskatchewan. At this time I would like to add that we now have negotiations with nine provinces.

Mr. HARDIE: I saw that in the paper.

Mr. HAMILTON (*Qu'Appelle*): Thank you.

I am now going to give you a total in dollars of the estimated costs of the proposals put forward by the provincial governments. These are estimated costs. I think this will make you aware, for the first time, of the difficulty which I have been facing in regard to completing these agreements in respect of roads to resources.

In respect of British Columbia there is no final estimate, and the final estimate will vary according to the terminal route at the south end of this so-called Stewart-Cassiar road. The cost will be somewhere between \$17 million and \$20 million.

Mr. HARDIE: That is the total cost?

Mr. HAMILTON (*Qu'Appelle*): That is the estimated total cost.

In respect to Alberta, the program that they have put before us at the present time amounts to \$20 million. I am using very round figures.

In respect to Saskatchewan the figure is \$20 million; Manitoba, \$15 million; Ontario, \$12,500,000; New Brunswick, \$11,700,000; Prince Edward Island, \$3,300,000 and Nova Scotia, \$16 million. In respect of Newfoundland I just received a letter on Tuesday. We have no estimate for Newfoundland.

Mr. DUMAS: You have nothing for Quebec?

Mr. HAMILTON (*Qu'Appelle*): We have nothing from Quebec.

Mr. ROBICHAUD: Not even a letter?

Mr. HAMILTON (*Qu'Appelle*): No.

The significance of these figures I think is obvious. Under the policy as laid down I am supposed to limit the amount of the program each year to \$3 million, to which the federal government will contribute half.

The provinces have indicated that they do not want to go above that figure of \$1,500,000 because it is far beyond anything they have ever done before.

Even in Ontario, which pioneered this type of idea some eight or nine years ago, they have been spending \$1 million a year.

Our proposal, or offer, has brought estimates from the provinces totalling \$12,500,000 to be spread over a five-year period.

In the case of the other provinces I can only quote the figures I have.

I think the highest amount Saskatchewan had ever spent before for northern access roads was \$500,000. When you talk of \$1,500,000 annually, that is a tremendous increase in provincial participation in this program. When you add our \$1,500,000 to that program, in essence you have six times the annual amount ever spent by Saskatchewan for resources roads. There will be \$3,000,000 spent per year as compared to their highest previous amount of \$500,000.

You asked me particularly about Saskatchewan. The agreement in substance with Saskatchewan is that we have agreed in respect of a road known as the Otosquen road which runs from Hudson bay to The Pas through heavily forested country.

The second road has its terminal at Flin Flon and will start some place west of Nipawin. The exact terminal at the south end of this road is not definitely determined because the Saskatchewan government has not completed its survey.

I have agreed that this work can go forward from the terminal point that they suggest because the resources in the Hanson lake and Flin Flon area are very interesting and worth exploration.

The third portion of the agreement in substance with Saskatchewan deals with a road running straight north along the line suggested on this map. This map does show a road running to the right. The agreement in substance with Saskatchewan says that a survey will be taken on two routes. At least I asked for a survey to be taken on the two routes, one reaching north from Lac Ronge, which is about here, and working north to Stony Rapids. The other road starts from the Buffalo narrows up in this area and goes up to the southern shore of Lake Athabaska.

I understand that the government is not only looking at these two routes but has announced a survey of three potential routes to the north. My difficulty is that, if these roads are going to be completed to certain places and if a certain route is selected, then it becomes very difficult, under the \$15 million grand total limit for five years on which I have to work, to complete projects in the five-year period. With the provinces not wanting to go beyond a million and a half a year, the only solution seems to be an extension of the period. However, this immediately brings up the question of trying to achieve some measure of similarity between each of the provinces. I might say that this is a very difficult aim to try to achieve.

Regardless of how much we try to treat all the provinces alike, their conditions are so different it is almost impossible, from an administrative point of view, to get a deal that is exactly similar.

The extreme situation is, of course, the province of Prince Edward Island. The government has not come to any conclusion in the solution of this problem, because it is tied in with much wider problems now before the government. I am pointing these things out to you because I had hoped before this committee ended to have been able to present to you, if possible, two, three or four agreements completely signed.

Now, I think this statement has added something to the information of the committee, and without going into details of each of the provinces concerning the roads requested in each—because I would not want to give them due to the fact that we are negotiating on them now—I think that it will help clear the air considerably.

Mr. HARDIE: Does the minister mean by the last statement that he does not want to give the details of the roads in question?

Mr. HAMILTON (*Qu'Appelle*): The other day in the house the member for Kenora-Rainy River asked me about a specific road. I was very reluctant to give details on that road because it would tend to draw questions from every other member all across Canada as to where roads might be built in his area. This would make it very difficult for the provinces and federal government concerned in the negotiations to arrive at a decision based on our primary objective in these roads, which is access to natural resources.

In the case of the road from Minaki to highway No. 17 west of Kenora, this road happens to be one of the roads on which our two sets of officials have agreed. I thought under these circumstances I could advance the information to him.

Today, I have told you the details of the agreement, in substance, with Saskatchewan, and if you wish I could give you the details of the agreement in substance with British Columbia. I think everyone knows pretty well what they are. They are building a road from near Dease lake, near the town of Cassiar, southward to the coast, coming to tidewater at either Stewart or Alice Arm or any possible place further south; Terrace, for instance. My officials say now that it has not been considered up to this point beyond the fact it was given as an ultimate terminal.

Mr. HARDIE: To go back to Saskatchewan, have surveys been completed on the four roads the minister has just mentioned?

Mr. HAMILTON (*Qu'Appelle*): No.

Mr. HARDIE: Have they started?

Mr. HAMILTON (*Qu'Appelle*): We are still working on the survey of the southern part of the Hanson lake road. They have just commenced work on a survey of three potential roads to the north. It will take at least three years to complete a survey on the road to the north.

Mr. HARDIE: A few days ago the minister announced that the federal government had given a go-ahead to the province of Manitoba on two roads. Which roads in Manitoba are these?

Mr. HAMILTON (*Qu'Appelle*): The member asked me a very difficult question. I think I will have to roll it to this degree, that the names of the terminal points of these roads are still at the edge of my mind.

There is a name, Lake Wakusko, and generally speaking there is one road which works eastward from that west part of the province heading out towards Moak lake. It comes out in this direction. Now, the other road goes over in this direction, and heads up towards God's lake.

Mr. HARDIE: Have surveys been done on these two roads?

Mr. HAMILTON (*Qu'Appelle*): Not to my knowledge.

Mr. HARDIE: Will that be another two-year delay on surveys?

Mr. HAMILTON (*Qu'Appelle*): I could not answer that question because at least to my knowledge we have no information from Manitoba. There were applications submitted to the government last summer by the province of Manitoba regarding roads leading towards the Ontario boundary, and the surveys on these roads have been completed. They are ready to go to work on them.

Mr. HARDIE: The other day you said in substance that you had advised the provincial government of Manitoba they could go ahead on the two roads. The two roads I am speaking of are the ones the federal government has agreed in substance with the province of Manitoba to go ahead with this year.

Mr. HAMILTON (*Qu'Appelle*): Yes, these two roads. One of these roads is close to the border. They are definitely in the agreement, and we have agreed in substance that these two roads will go forward; that is the one to God's lake and the one across to Moak lake. I do not know of any surveys being conducted on those roads. The conversation which I had with the then minister last winter was that they had done some survey work on the road toward Moak lake, because it is a project that has been under discussion in Manitoba for some time. There has been no survey done on the God's lake road.

Mr. HARDIE: In the province of Alberta we have an estimated \$20 million for their roads program. I wonder if the minister could tell me if in this \$20 million there is anything above and beyond the rebuilding of the Mackenzie highway?

Mr. HAMILTON (*Qu'Appelle*): Yes, very definitely. If the members of the committee will look at this map, the Mackenzie highway runs from Grimshaw, north mostly, through Alberta and then to Hay river in the territories on the south shore of Great Slave lake. The other part is this road that runs from the Mackenzie highway. It is already built out to Vermilion, and the projection is that they should build as part of the agreement a road which connects with our road coming through Wood Buffalo national park. It is this road, to be built from scratch, and the rebuilding of the Mackenzie highway; those are the two component parts of the program under discussion for Alberta.

Mr. HARDIE: Has a survey on the Alberta section of the road from Vermilion to Peace Point or through the Wood Buffalo park been completed, or started?

Mr. HAMILTON (*Qu'Appelle*): No, it is still in the discussion stage. It is part of our proposal in the discussions and I think the government of Alberta is willing to build it if we can reach agreement on how we are going to meet the over-all program. To my knowledge, there has been nothing done by the government of Alberta on the survey because the matter has just been under discussion. It is not yet an agreement in substance but we have agreed at least on what we want to do. I do not think it has got to the survey stage yet.

Mr. HARDIE: On the Mackenzie highway section, is there anything definite on the go-ahead this year on the rebuilding? Have contracts been called or will they be called this summer?

Mr. HAMILTON (*Qu'Appelle*): As you know, the government of Alberta is responsible for the maintenance of that highway. They were working on it last year and they were working on it again this summer. There is considerable pressure on them to do something about it.

This agreement simply envisages that the federal government will come in with this amount of money that we have been discussing to speed up their activities and to improve their standards to handle the type of traffic that we think and know will be using that road.

Mr. HARDIE: That means the rebuilding of a large portion of the Mackenzie highway.

Mr. HAMILTON (*Qu'Appelle*): Yes, that is quite correct, the rebuilding of certain sections which have fallen off in the last two or three years.

Mr. HARDIE: And that will be done this year? A start will be made this year?

Mr. HAMILTON (*Qu'Appelle*): Yes, I certainly hope so.

Mr. HARDIE: I understand that the federal government has completed a pretty good chunk of the survey of that section of the road through the Wood Buffalo park. Is anything going to be done on that road this year?

Mr. HAMILTON (*Qu'Appelle*): The work on the road through Wood Buffalo park was planned for this year—that is this fiscal year, this summer. We put it into our winter works program last year and surveyed and cleared it.

Mr. HARDIE: The estimate for the survey was in your estimates a year ago last spring.

Mr. HAMILTON (*Qu'Appelle*): That is right, and this year we cleared it. But we cleared it in the winter time, instead of the summer.

Mr. MARTIN (*Timmins*): As in the case of the Kenora area, I wonder if in Ontario there would be a possibility at this time for fitting in a program? I have in mind the linking up of the road between the Porcupine gold mining camp area and highway 17 between Blind river and Sault Ste. Marie.

Mr. HAMILTON (*Qu'Appelle*): This question, Mr. Chairman, gives meat to my thought of a moment ago, that if I begin discussing individual roads which the Ontario government has proposed, immediately it puts negotiations into a stage of stress that may not give the best results for both governments.

Mr. HARDIE: Does the province suggest the road to you? Do they suggest the road toward which the money should be put?

Mr. HAMILTON (*Qu'Appelle*): Yes, I will go through the procedure again.

Mr. HARDIE: I do not think we have to go through the procedure again. The minister said that the province suggests the roads. A few moments ago the minister said that he had asked the provincial government of Saskatchewan to survey two routes. Where is the additional money coming from?

Mr. HAMILTON (*Qu'Appelle*): There is no contradiction in my remarks. That is why I have to go through the procedure again. We offered to each of the ten provinces a cooperative deal. They propose a program which they think comes under this arrangement. We then look at each of their proposals and make counter proposals and suggestions with the primary criterion that they open up new resource areas. When we send back our counter proposals they then come back with a counter proposal on their side. That is what we mean by the stage of negotiations. When we are satisfied that they are opening up a new resource area, falling into the criteria that we have established under this offer, then we agree. They make the original proposals. We do make counter proposals and counter suggestions, but they make the final decision. They make the decision on routes. They make the decision on terminals. We are interested in that because it may affect cost. We are also interested because it may affect standards. That, generally speaking, is the procedure.

Mr. KORCHINSKI: The minister mentioned a few moments ago that the province of Saskatchewan is going ahead with the construction of the Otosquen

road. I understand there is a portion of that road that lies within the Manitoba boundary. Has the Manitoba government indicated its intention to construct that portion within its boundary.

Mr. HAMILTON (*Qu'Appelle*): No. We have had conversations with the government of Saskatchewan on that point and we take the responsibility only up to the boundary.

Mr. KORCHINSKI: But the province of Manitoba has not indicated its intention to construct its portion of that road?

Mr. HAMILTON (*Qu'Appelle*): To our knowledge in the department the government of Manitoba has not indicated any intention of doing anything on their section of the road.

I would like to point out to the hon. member that the overall distance is very short and I imagine that the local people will see to it that that short distance of road will be completed.

Mr. KORCHINSKI: I know that it is a very short section of road, but at the same time, is there any way in which the federal government can urge the provincial government to participate in this particular section in order that the link can be connected?

Mr. HAMILTON (*Qu'Appelle*): Yes, I would be prepared to bring it to the attention of the Manitoba government.

Mr. Chairman, I should pause here to point out that there has been a slight hiatus in the dealings with the province of Manitoba.

One minister with whom I was dealing is no longer there, and as yet we have not been informed as to who the new minister is. So, there is a slight delay on some of these points. I have not been bothering them at this stage.

Mr. COATES: Is the program in the maritimes area a new one? Has there ever been any program carried out by the provincial governments in the past along similar lines. Does it differ from the program carried out in other areas of Canada?

Mr. HAMILTON (*Qu'Appelle*): No. As far as I know, and my officials know, there has been no program in the past in the Atlantic provinces similar to what we have in mind. It is also clear that in provinces such as Nova Scotia and Prince Edward Island the possibility of building roads to virgin resource areas is somewhat limited. So, we have added a new criterion down there in that the government has said that, in those provinces where there are no possibilities of opening up new virgin areas of resources, we will allow this agreement to be interpreted in those areas as applying particularly to the tourist industry. In the provinces of Prince Edward Island and Nova Scotia the proposals put forward do emphasize the assisting of the tourist movement in those provinces.

These roads are not part of the provincial highways system. They are not just roads from community to community which are fully a provincial responsibility, but they must help in the movement of tourist traffic, to key tourist areas.

Mr. COATES: Have any roads been agreed upon as yet?

Mr. HAMILTON (*Qu'Appelle*): The answer to that is "partially". I am speaking purely from memory, but I think my memory is accurate, that in the province of Nova Scotia, for instance, they proposed 22 roads to us. We are analysing these now and so far we have agreed to only four. But as we analyse each of them the agreements will go forward.

Mr. ROBICHAUD: I notice that there is \$11 million reserved for this type of program in New Brunswick. Does it cover the road to specific resources, or would it also be in connection with the tourist industry?

Mr. HAMILTON (*Qu'Appelle*): The tourist industry, of course, is a resource; but in New Brunswick I would say by far the greater proportion of the estimated cost of their program is opening up new country that is mostly in the north of New Brunswick.

Mr. ROBICHAUD: Have any surveys been started or completed on these roads in New Brunswick?

Mr. HAMILTON (*Qu'Appelle*): My understanding is that a couple of projects have been surveyed and are ready to go, and surveys are being started on the others.

Mr. ROBICHAUD: Would the minister state if this is to cover the completion of the Plaster Rock road across the northern part of the province of New Brunswick?

Mr. HAMILTON (*Qu'Appelle*): My officials informs me that the answer is no.

Mr. ROBICHAUD: Has any request been received from the province of New Brunswick for the completion of the Plaster Rock road?

Mr. HAMILTON (*Qu'Appelle*): The member is getting me into details. Apparently there is a short road at some place in the area, but we do not have any part of any connecting road system from the point of view of connecting up towns or highway systems.

These roads in New Brunswick open up areas which are not now covered by roads. We are thinking primarily of the forest industry, the base metal industry, and the tourist industry.

Mr. ROBICHAUD: I am surprised to hear that New Brunswick has not made any specific request for the completion of the Plaster Rock road because if there is any road in the northern part of New Brunswick which would open the way to new resources, it would be this road to Plaster Rock because it goes through a heavily forested area.

I am surprised to hear that the province has not made any specific request for this road.

The CHAIRMAN: Are there any other questions? I think the answer to that is quite obvious. We are dealing with a matter of New Brunswick policy entirely.

Mr. ROBICHAUD: But this is supposed to be a policy in cooperation with the federal government.

Mr. DUMAS: This road building program is a very important one in my estimation and I think the minister has given a fairly good explanation. And if I understood him correctly the government has contacted all the provinces. Nine of them have come forward with a program, and this program amounts roughly to \$115 million.

Am I to understand that it is a five year program covering this \$115 million?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. DUMAS: Now, how many provinces have already signed agreements with the federal government?

Mr. HAMILTON (*Qu'Appelle*): The answer to that is none.

Mr. DUMAS: You say none of them. Does the department expect to use the full amount of \$9 million this year? I understand that agreements have to be signed of course.

Mr. HAMILTON (*Qu'Appelle*): I have no way of giving even an intelligent guess in answer to that question. This estimate of \$9 million was made last winter when the program was first worked out and it was put in the estimates. Even at this period six months later I still do not have any more information as to the amount.

Obviously British Columbia is working on it at full speed and the province of Saskatchewan has started on two roads; the province of Ontario has a road program of a similar nature which might be brought under it; and with Manitoba starting on two roads, there is going to be a sizeable amount of money given out.

With New Brunswick and with Nova Scotia both planning to embark on programs this year, there will be a sizeable amount of money expended but as to what amount, I do not think I could make even an educated guess.

Mr. DUMAS: However, before the federal government contributes to the building of these roads, agreements have to be signed. That is the important thing.

Now I wonder if the department has decided on a policy with regard, let us say, to the province of Quebec?

On the Trans-Canada highway, Quebec did not take advantage of it; but am I to understand that if the province of Quebec were to come forward at a future time would—well, they could do so—therefore I ask the minister if, later on, Quebec should wish to come under this program, I wonder if they will be able to take advantage of it on the same proportion to what has been paid or will have been paid to the other provinces?

Mr. HAMILTON (*Qu'Appelle*): Well, I would think that if the province of Quebec were to come into this program, they would certainly get the full agreement, that is, \$15 million over a period of five years, whenever they wanted to start.

But if they should come in even within five years from now whether they would have the right to the same amount of money that they would have if they had come in sooner, on a retroactive basis, I would doubt the practical wisdom of such a thing.

I do know that consideration has been given in connection with the Canada Council, for instance, and that they have set aside certain funds. But we have in this department six different types of cooperative agreements. However, in fact, with this one coming into effect with the provinces, we work on a year to year basis.

All I can say in answer to your question is that this five year agreement applies any time a province comes in.

Mr. DUMAS: I wonder if the minister could tell us how many miles of road are involved in this \$115 million of estimates, roughly? I do not want to have any details by provinces, but roughly, how many miles of road are involved?

Mr. HAMILTON (*Qu'Appelle*): These figures of course, are very very rough, because even the provinces do not know—

Mr. DUMAS: I think they should.

Mr. HAMILTON (*Qu'Appelle*): As to length of some of these roads. I shall give them by provinces, and you can put them down on the table that you already have.

British Columbia, 260 miles. This is an approximation of two lengths.

In Alberta, 400 miles.

In Saskatchewan, 824 miles.

In Manitoba, 538 miles.

In Ontario, 413 miles.

In New Brunswick, 342 miles.

In Prince Edward Island, 82 miles.

In Nova Scotia, 445 miles.

Newfoundland did not give us any information.

Mr. NIELSEN: Does that \$115 million cover any roads to be built in the Yukon and Northwest Territories?

Mr. HAMILTON (*Qu'Appelle*): No. The program in the Yukon and Northwest Territories comes under a separate vote. This is the roads-to-resources program in the provinces.

The total road program is divided into two parts; the territorial program and the cooperative program with the provinces. In theory, if every one of the provinces came in and used their full amount over a five-year period, this would be a \$150 million program in the provinces; and, if used, the figure for the territorial program would be \$100 million in the same five-year period. This \$115 million is the total, at the moment, of the projects offered by the provinces.

Mr. BASKIN: I am interested in Ontario. Could the minister tell us just what work is in progress at this time in Ontario where there is federal participation?

Mr. HAMILTON (*Qu'Appelle*): There is no work in Ontario under this program with federal participation at the present time. They have proposed to us a very extensive list of road proposals in Ontario, but since there is no agreement signed obviously there is no federal participation. Certainly if these roads are looked at from an over-all point of view, those which seem to us to come up to our criteria we accept and those that do not we do not accept. We might come up perhaps with an alternative.

Mr. BASKIN: Is there likely to be any this year, in 1958?

Mr. HAMILTON (*Qu'Appelle*): I would think that, because they have their own program going on, many of those items will be acceptable to us and therefore some of the work they are doing will probably come under this agreement.

Mr. ROBICHAUD: From what the minister has said the province can go ahead with a road and after it is practically completed come in and ask for federal participation?

Mr. HAMILTON (*Qu'Appelle*): That is a generalization which is true only to the point that where a province has this type of program, and has it under discussion with us, and if during the period of discussion we accept it, then we will share in it. In the case of Ontario, here they have this program rolling every year, I would suspect some of these propositions brought before us are part of their current program this year. We do not necessarily accept a proposal because they have started it. We apply the criteria in respect of the opening up of new resources and determine whether or not it is acceptable.

Mr. ROBICHAUD: I understood from the minister a while ago that no projects could be started before an agreement was signed with a specific province, and at the same time he said the federal government expected to pay a sizable amount in New Brunswick this year for these roads. Here we are coming up to the first of July and no agreement has been signed; only three or four months are left in the season for this type of work. How can we explain this statement from the minister that a sizable amount will be spent this year in New Brunswick, or in any other province?

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, no federal monies will be spent for roads unless we accept the proposals. In most of the provinces, when there have been proposals before us, we discuss those proposals with them, and the minute we agree on any one I write a letter saying that I give authority to go ahead with this road; that is in respect of most of the provinces. In the case of Ontario, where there has been no agreement signed and we have only agreement in part on several of their proposals, they have a regular

program in progress. I said I thought that in that province where there is a regular program if they wished only parts of their regular program to come under this agreement that would be considered if it came within our criteria. In that case the hon. member's generalization is correct; but in most of the provinces we usually write a letter and say we agree on this and this and authorize them to go forward. The actual monies become available when the final agreement is signed.

Mr. ROBICHAUD: In respect of road construction in Ontario in the last few years, what supervision has the federal government had over that construction? I think it is generally known what has happened.

Mr. NIELSEN: What has happened?

Mr. ROBICHAUD: Ask the ex-Minister of Public Works for Ontario. He will tell you.

Mr. HAMILTON (*Qu'Appelle*): I have been looking over the terms of the agreement with the various provinces. These are based essentially on the type of contract that was used between the dominion government and the provincial governments in the trans-Canada highway agreements. The terms of agreement list a number of things which the province has to do, and then the control features are listed here such as; that it will before it enters into any contract obtain the approval in writing of the minister to that contract; that it will not rent equipment owned by it to any person if such person proposes to use the equipment in performance of any contract unless the minister has, in writing, given approval to such renting; that all contracts will provide for payment to the contractor of either a lump sum price, unit prices or a sum to be determined upon a basis which the minister has in writing approved; that it shall in respect of the project employ only residents of Canada and shall refrain from discriminating against any person by reason of his race, religion or political affiliations; and that it will cause to be inserted in all contracts a covenant that, in respect of the work to be done under such contract, the contractor and all his sub-contractors shall employ only residents of Canada. All the way through it is the same general agreement as the trans-Canada highway agreement. They have to submit statements, certified by the provincial auditor, to maintain full records and vouchers, to allow and to assist representatives of Canada designated by the minister to make such inspections, inquiries, tests and appraisals that the minister may consider necessary to the construction of the project or the determination of the cost of the project.

Mr. HARDIE: Does the agreement say anything about standards of roads?

Mr. HAMILTON (*Qu'Appelle*): Yes, it includes standards for all roads.

Those are the major points of discussion between the provinces and the federal government before we can go ahead.

Mr. HARDIE: Are the standards the same in all provinces?

Mr. HAMILTON (*Qu'Appelle*): No.

Mr. ROBICHAUD: Mr. Chairman, I can understand now why the province of Quebec is not anxious to enter into such an agreement.

The minister stated that before a province entered into a contract with a contractor for the construction of certain roads that it should be approved by the federal government. How can they start on these projects, and how can they have projects partly completed before the agreement is signed with the federal government?

Mr. HAMILTON (*Qu'Appelle*): Once again, after all points have been discussed—standards and all the other things—I write a letter authorizing them to go ahead. In other words they can start before they sign a formal agreement.

Mr. MARTEL: Following what we have just heard, could the minister tell us if the contracts are given directly by the provincial government, or if they are given by the federal government? I know the federal government has jurisdiction over the supervision, but the contract, as I understand, is given by the provincial government.

Mr. HAMILTON (*Qu'Appelle*): Yes. There is no interference here, as we see it, with provincial roads. The provincial government has the full responsibility for the roads and has full responsibility for setting up these contracts, and for building the roads to certain standards, but we, because we have paid a certain amount of money towards them, must make sure that this agreement has been lived up to because of the interest of the federal taxpayer.

Mr. NIELSEN: I would like to depart from roads for the moment and turn to the branch of administration again.

With respect to this whole problem of shipping and other transportation costs in the Pacific northwest—when I say “Pacific northwest” I think of the Yukon Territory, the western portion of the Northwest Territories, that portion of northern British Columbia commencing at a line roughly just under Prince Rupert and following the parallel of latitude right across Alberta—and including western Saskatchewan—present navigation laws of the United States contain a certain provision that permits the transportation of merchandise between points within the continental United States through routes recognized by the Inter-state Commerce Commission.

I am quoting from the legislation here; “—when such routes are in part over Canadian rail lines and their own or other connecting water facilities”. In this legislation in the United States, Alaska is expressly excluded from its provisions. Alaska is very closely tied in with the economical development of Canada's northwest. It is in essence an economic island.

This provision in the United States legislation means simply this, that goods shipped in bond to Prince Rupert from points in the United States cannot be delivered from there to any Alaskan port in ships that are not of United States registry.

This legislation has denied to Alaska the use of Canadian steamship lines to take advantage of the favourable transportation costs afforded by the existing rail connections between the United States interior points and Prince Rupert, which is at Alaska's front door. The transportation cost referred to, lies in the fact that rail rates from mid-western and eastern United States points are the same via Canadian rail lines to Prince Rupert as they are to the United States Pacific coast ports.

Steamship rates from Prince Rupert, which is 640 miles north of Seattle, to Alaskan ports reflect a saving in ocean haul, comparing Prince Rupert with United States ports many hundreds of miles to the south, and there is, in most cases, a considerable saving in the over-all transportation cost in favour of the route through Prince Rupert on goods moving to Alaska from United States mid-western and eastern points. I include the Yukon in this consideration.

Both the United States and Canada have for a long time adhered to the principle that their respective “coasting trades” should be reserved to ships of domestic registry, and any proposals looking to adjustments that might affect this principle would be regarded, in some interested circles, as an abandonment of this basic policy.

Until now, the policy of the United States in the development of its Alaskan territory, although of high interest to Canada, is no part of her direct national concern. It was suggested that the result of current policies, however effective and desirable they may be in their support of the coasting trades, has been to accentuate very considerably the prime handicap, the high cost of

transportation under which, from the beginning of their respective histories in the north—the Yukon and Alaska,—these territories have laboured in the development of their vast areas.

The major economical problem is a highly seasonal one. It rests on the one-way character of the traffic, freight and passenger. About 90 per cent of the southbound traffic moves during the six-month period from the first part of May to the end of October. In the remaining six months some ships are laid up, but some semblance of regular service must be maintained and ship after ship must be sent on unprofitable voyages. Such unprofitable winter operation makes for high costs and high over-all transportation rates.

This traffic problem is further aggravated by the limitation on the service that can be performed by the ships of the two countries—that is Canada and the United States. Some rational arrangement whereby the minimum number of ships, Canadian and United States would be permitted to perform the maximum possible service, during the six slack months at least, would be indicated.

Mr. Chairman, there is perhaps no part of the world where two nations have more closely identical problems, conditions, and objectives than Canada and the United States have in their lands in the northwest Pacific. The development of these lands, necessary in the broad national interests of the two countries, depends substantially, if not primarily, on transportation, and some move looking to cooperative action in this direction seems to be indicated.

The obstacles which confront any effort to work out mutually beneficial cooperation are not easy to overcome.

Two of these are the tendency of both nations to maintain the principle already referred to with respect to coastal trade, that should be protected and ships of their own registry should be utilized. Another major problem is the seasonal and one-way character of the traffic. I suggest at this point, Mr. Chairman, that this department take into active consideration now the matter of initiating the commencement of negotiations with the United States government to the end that these obstacles might be overcome.

There is another aspect of this coastal shipping trade which is tending to keep costs of transportation up. That is the fact that most United States ships are of the freighter type, whereas most Canadian ships are of the more speedy but less commodious passenger type. Now the freight being hauled by the Canadian ships should be hauled by the United States ships, and vice versa, if we are going to have an economical cooperation.

The suggestion that I have involves international implications in that negotiations would have to be commenced with those concerned in the United States to the end that mutual benefit would be derived by both Canada and the United States. These restrictions on coastal shipping could be relaxed to the extent that we could reduce the transportation costs in this coastal area. It affects not only Alaska, but also the Yukon, the Northwest Territories and the over-all development of that area which I initially described as Canada's Pacific northwest. Might I also suggest, Mr. Chairman, that the Department undertake, in conjunction with those negotiations that I have already suggested, to initiate negotiations concerning the possibility of obtaining corridors to Tidewater through the Alaska panhandle. I am thinking of a possible highway route to Skagway from Whitehorse. Whitehorse is already served as far as Carcross by a good highway. There remains roughly 60 miles between Skagway and Carcross, which I believe the responsible authorities in Alaska to be keen to see developed as a highway. This also involves the government of British Columbia, as any feasible route would have to pass through the northern portion of that province. My suggestion in that connection is that perhaps this department could commence inquiries with a view to the initiation of the necessary negotiations to accomplish these

objectives. Mr. Chairman, these two proposals, in my opinion, would do much to advance the reduction of shipping costs to the north and thereby assist in the over-all development approach to Canada's Pacific northwest.

I have one further suggestion. I understand in the past—and this perhaps more properly comes under the jurisdiction of the Department of Transport, but it requires cooperation between this department and the Department of Transport—I understand that in the past there have been subsidies paid to shippers who are serving the west coast and particularly the northern west coast population. In any event it is my suggestion that this department would be well advised perhaps to inquire into the subsidies which have been paid in the past and to which I refer with a view to applying this principle of advancing subsidies to those vessels now supplying Canadian industries and populations in the northwestern portion of British Columbia, and indeed as far inland as the Peace river—and, of course, the Yukon Territory.

I leave those three suggestions with the department, Mr. Chairman, in the hope that some of these problems might be alleviated through the courses which I have suggested.

The CHAIRMAN: You appreciate, Mr. Nielsen, much of your inquiry concerns one, if not two, departments?

Mr. NIELSEN: Yes.

The CHAIRMAN: Would the minister like to comment on this?

Mr. HAMILTON (*Qu'Appelle*): Yes. I have listened with interest to the information and suggestions of the honourable member. I certainly would agree that if anything could be done, particularly in respect of the coastal rates, that some advantage would come to the northwest of our country.

The member has of course pointed out equally lucidly that you are running afoul of the coastal shipping policy of both nations, and that the difficulties will be immense in achieving special consideration for the areas of the Yukon, Northwest Territories and Alaska. I will certainly take a look at the matter and see what we can come up with. In so far as the corridor to the Skagway is concerned, I do not intend to say anything at this time. It has been something that has been looked into by the department and I should like to review the information available before making a statement.

Now the third suggestion concerning subsidies: this is something outside the department. I recognize that anything that affects the rates and costs of living in the north is our concern. We will also take that into consideration in order to see what can be done.

Mr. NIELSEN: It might be of assistance in considering this difficulty which must be overcome, with regard to the relaxation of the shipping regulations of the two countries to realize that Alaska is fast approaching statehood. This may make a big difference in the United States policy as they view the future development of their "49th State".

The CHAIRMAN: Are there any further questions, gentlemen?

Mr. HARDIE: I am wondering if this is the place for me to ask this question. Since the Department of Northern Affairs carry in their estimates amounts for road work in the Northwest Territories, although the supervision of contracts is looked after by the Department of Public Works, I am wondering if I might ask questions on, for instance, the cost of the Mackenzie highway to date and questions relating to the Mackenzie highway. That is the extension in the Northwest Territories around the west shore of Great Slave lake. I ask this because I do not want to go back to the Department of Public Works and be told that I happen to get the answers in this department.

The CHAIRMAN: Mr. Hardie, as I said at the beginning, we will allow plenty of latitude.

Mr. HARDIE: It is not that; it is a question of whether or not the people here can give me the information.

The CHAIRMAN: If they have the information, they will be glad to give it to you.

Mr. HAMILTON (*Qu'Appelle*): I am sure, Mr. Chairman, that there is no question at all that we have all the information on the Mackenzie highway in the territories. Mr. Hardie, do you mean that or do you mean in Alberta?

Mr. HARDIE: The Mackenzie highway in the territories.

Mr. HAMILTON (*Qu'Appelle*): I think we can prepare a summary of the work done to date and the amount we estimate to spend this year.

Mr. HARDIE: I am interested in that too, but I want to know if I may ask questions regarding the cost of the winter work program, and what was paid, say, to the contractor on the Yellowknife-Fort Rae section last year.

To clear this up, this is what I should like to know; when the Department of Public Works let a contract and supervise the job, is payment made by the Department of Public Works to the contractor, or is it made by the Department of Northern Affairs?

Mr. HAMILTON (*Qu'Appelle*): All we do in our department, as you know, is to plan these roads. The Department of Public Works becomes our agent. They let the contracts, and they make the payments. All we do is provide the money.

Mr. HARDIE: I will get that in public works estimates, then. Would the minister give us a breakdown on the estimated amount to be spent this year on the Mackenzie highway, the section on the west shore of the Great Slave lake between Fort Providence and Yellowknife. There is a total amount of \$3,813,200 in the estimates this year for roads and bridges. How much of this will go on to the section of the road north of Providence and how much will go on the section of the road from Yellowknife to Fort Rae?

Mr. HAMILTON (*Qu'Appelle*): I will read this section, if I may, from the notes I have here.

This is an extension to Yellowknife via Fort Providence and Rae. The construction commenced during 1956-57 from mile 27 on the Mackenzie highway for a distance of approximately 40 miles at an estimated cost of \$1,206,400.

Do you want the exact amount, Mr. Hardie?

Mr. HARDIE: That is what I am asking.

Mr. HAMILTON (*Qu'Appelle*): \$1.2 million.

The department also expended \$134,200 for a survey of the road between the Mackenzie river crossing at Fort Providence and Yellowknife via Fort Rae.

During 1957-58, an additional 52 miles were completed at a cost of about \$2,600,000. In addition clearing of the right-of-way was completed to about mile 100 north of Fort Providence.

An amount of \$2,667,000 has been provided in the 1958-59 estimates for the continuation of this project. A contract has been awarded for the 50-mile section north of Fort Rae.

Mr. HARDIE: Should that not read "north of Fort Providence"?

Mr. HAMILTON (*Qu'Appelle*): You are correct. It should be Fort Providence.

It is expected that an award will be made for a 30-mile section of the Yellowknife to Fort Rae portion of the road.

A contract has been awarded for the construction of the Kakisa river bridge (mile 56 from Mackenzie highway). Site investigations for a bridge

over the Mackenzie river near Fort Providence will be done this summer. The total cost is estimated at between \$10½ million to \$12½ million. It is scheduled for completion by late 1959 or early 1960.

Does the member want the details of this years contracts?

Mr. HARDIE: No. \$2,700,000 will be spent on them?

Mr. HAMILTON (*Qu'Appelle*): Yes; 2.667 was the actual figure.

Mr. HARDIE: I think the minister in his statement said that in 1957-58 52 miles had been completed. Am I to take it that the completed road which is to be covered with crushed rock or whatever it is that goes on it, was completed for 52 miles last year?

Mr. HAMILTON (*Qu'Appelle*): That is right.

Mr. HARDIE: How much of that 52 miles is completed from Yellowknife west to Fort Rae?

Mr. HAMILTON (*Qu'Appelle*): None is completed according to the chart I have here. It is being graveled this year.

Mr. HARDIE: You say it is being graveled this year?

Mr. HAMILTON (*Qu'Appelle*): Yes.

Mr. HARDIE: Will they haul that gravel from the pits at Yellowknife or will they cover it with glacial silt that they find along that road, crushed rock and mine muck?

Mr. HAMILTON (*Qu'Appelle*): I must ask the experts to answer your question directly.

Mr. ROBERTSON: Mr. Nicol will answer the question.

Mr. J. I. NICOL (*Assistant Chief, Works, Research and Planning Division, Northern Administration and Lands Branch*): Mr. Chairman, the first nine miles would be graveled with "glaze" from the Consolidated Mining and Smelting Corporation mine. The balance would be graveled with gravel which will be crushed during the coming year. The Mannix Company will be opening a gravel pit at Mile Twenty.

Mr. HARDIE: You say at Mile Twenty on the road?

Mr. NICOL: Yes.

Mr. HARDIE: According to the surveyors that was glacial silt. Is it going to be crushed rock or gravel?

Mr. NICOL: It will be crushed rock.

Mr. HARDIE: You say it will be rock. So it will be completed with crushed rock?

Mr. NICOL: That is right.

Mr. KORCHINSKI: On page 423 there is an item of \$227,046. It says less the amount considered to be recoverable from the government of the Northwest Territories and the government of the Yukon territory. Perhaps you might explain what it involves? I mean the recoverable portion.

Mr. HAMILTON (*Qu'Appelle*): Mr. Robertson will answer your question.

Mr. ROBERTSON: Mr. Chairman, there are a number of items which are handled in the Northwest Territories on a joint basis in a sense. For instance, in the case of schools, the Department of Northern Affairs and National Resources operates schools in the Northwest Territories.

The portion of the cost of those schools that is attributable to Indian children attending the schools is paid by the federal government. The Northwest Territories have to pay the costs that are attributable, however, to the non-Indian children. The payment it would make to us would be reflected in this total.

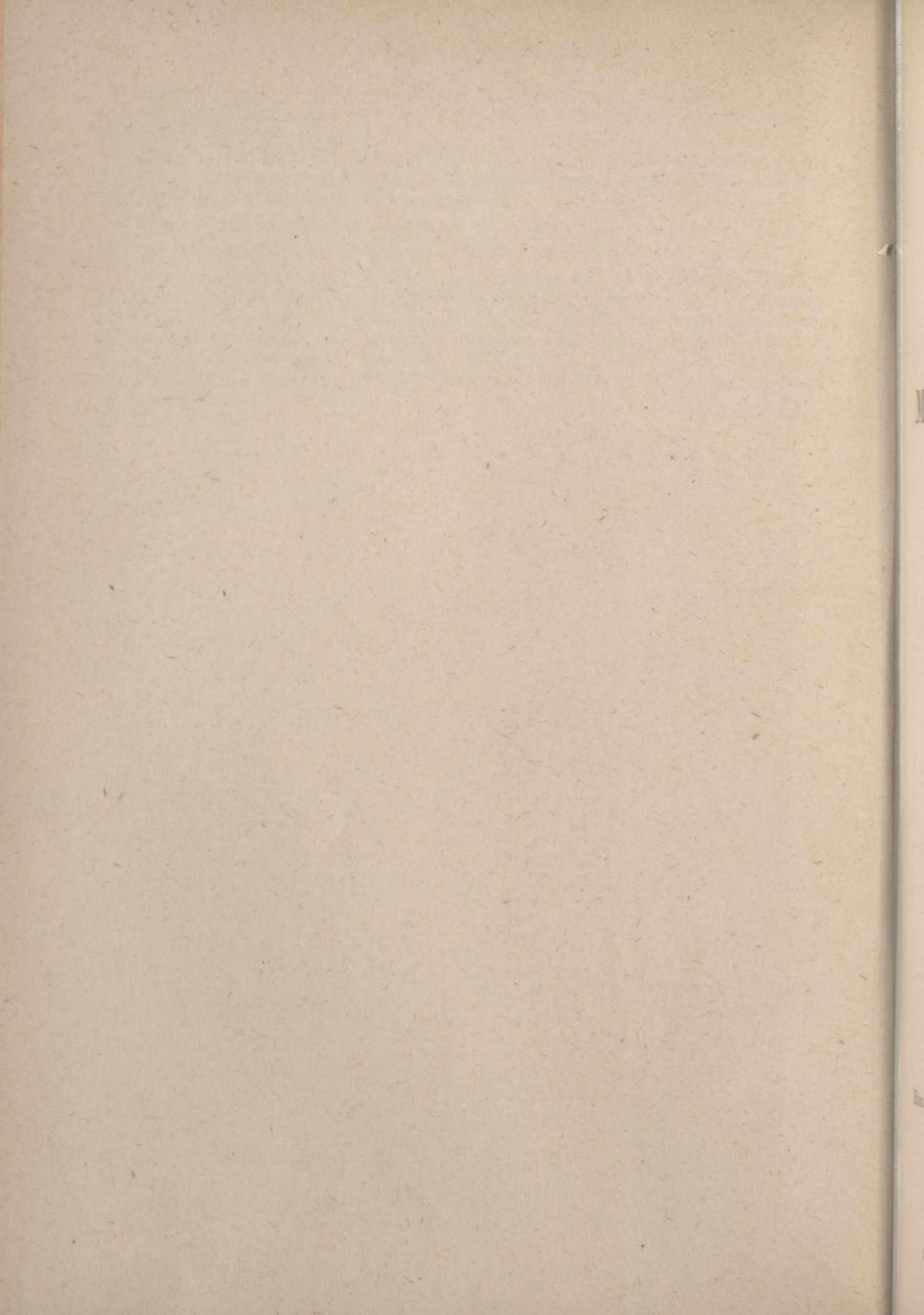
A further kind of thing that would be reflected here is 15 per cent of the cost of maintenance of roads, in which the division is 85 per cent federal and 15 per cent territorial.

There would be other items of that kind such as welfare payments where there is a division made between attributable federal responsibility and the part attributable to territorial responsibility.

The CHAIRMAN: Shall we approve the item?

Mr. HARDIE: No, Mr. Chairman. We have not even started on it.

The CHAIRMAN: Gentlemen, our next meeting will be on Monday morning at 10.30. In case there is any misunderstanding, I expect that on Monday night, if we are through with the motion for supply, the Estimates of the Department of Mines and Technical Services will then be referred to this committee, and we shall commence work on those estimates after we are through with the estimates of the Department of Northern Affairs and National Resources.



HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 7

MONDAY, JUNE 30, 1958

Estimates 1958-59 of the Department of
Northern Affairs and National Resources



WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister;
and Mr. F. J. G. Cunningham, Assistant Deputy Minister.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,	Hardie,	Payne,
Baskin,	Kindt,	Pugh,
Bruchési,	Korchinski,	Roberge,
Cadiou,	Latour,	Richard (<i>St. Maurice-</i> <i>Laflèche</i>),
Coates,	Leduc,	Robichaud,
Drouin,	MacRea,	Simpson,
Dumas,	Martel,	Stearns,
Fleming (<i>Okanagan-</i> <i>Revelstoke</i>),	Martin (<i>Timmins</i>),	Villeneuve,
Fréchette,	Martineau,	Woolliams—35.
Godin,	McLennan,	
Granger,	Mitchell,	
Gundlock,	Muir (<i>Cape Breton North</i> <i>and Victoria</i>),	

Eric H. Jones,
Clerk of the Committee.



MINUTES OF PROCEEDINGS

MONDAY, June 30, 1958

(9)

The Standing Committee on Mines, Forests and Waters met at 10.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Cadieu, Coates, Dumas, Hardie, Korchinski, McLennan, Murphy, Nielsen, Roberge, Robichaud and Stearns.—12.

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. R. G. Robertson, Deputy Minister; F. J. G. Cunningham, Assistant Deputy Minister; F. A. G. Carter, Chief Administrative Officer; R. A. Faibish, Private Secretary to the Minister; and G. M. Carty, Executive Officer: and, *of the Northern Administration and Lands Branch:* Messrs. B. G. Sivertz, Director; W. G. Brown, Chief, Territorial Division; J. V. Jacobson, Chief, Education Division; F. C. Bradley, Chief, and J. I. Nicol, Assistant, Works, Research and Planning Division; C. M. Bolger, Assistant Chief, Arctic Division; T. D. Skelly, Head, Lands and Timber Section, Mining and Lands Division; J. C. Palmer, Head, Petroleum Section, Mining and Lands Division; and J. F. Doyle, Administrative officer.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

Items 282 to 289 inclusive of the Main Estimates and Items 584 to 586 inclusive of the Supplementary Estimates, concerning the Northern Administration and Lands Branch, were further considered.

At 12.10 o'clock p.m. the Committee adjourned until 9.00 o'clock a.m. on Tuesday, July 1, 1958.

Eric H. Jones,
Clerk of the Committee.

EVIDENCE

MONDAY, June 30, 1958
10:30 a.m.

The CHAIRMAN: I see a quorum, gentlemen. We are on items 282 to 289 inclusive of the Main Estimates and items 584 to 586 inclusive of the supplementary estimates.

The minister and his staff are here. Are there any questions?

Mr. HARDIE: I wonder, Mr. Chairman, if the minister or his officials could tell us what company or companies hold the reservations in the Peel Plateau area.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): You will find, if you pick up your copy of the proceedings of this committee of about two or three meetings ago, that they are tabled there.

Mr. HARDIE: Now, does the Peel Plateau Exploration Limited hold both concessions?

Mr. HAMILTON (*Qu'Appelle*): Yes. It is all in the minutes of proceedings and evidence No. 4. On pages 115 and 116 there is a list of the companies holding permits in the area.

Mr. HARDIE: I am talking about the reservation.

Mr. HAMILTON (*Qu'Appelle*): There is also Peel Plateau Exploration Limited which holds 6,133,760 acres. The information is given there.

Mr. HARDIE: What would happen for instance if a company holding an oil permit or a reservation were to find minerals in that reservation? What would be the procedure then?

Mr. HAMILTON (*Qu'Appelle*): In the Yukon and in the Northwest Territories we have oil regulations which deal with the whole area as if it were one.

But, for quartz we have two sets of regulations, one for the Yukon and one for the Northwest Territories. If they found hard rock minerals while drilling for oil in the Yukon they would immediately be governed by the Yukon quartz mining regulations. If they found hard rock minerals in the Northwest Territories they would come under the Northwest Territories regulations.

Mr. NIELSEN: The hon. member for Mackenzie river has referred to these areas which have been allotted the companies in the Peel plateau and Eagles plains area as concessions.

Mr. HARDIE: Yes, that is right.

Mr. NIELSEN: Would the minister care to comment as to the use of that term as opposed to the use of the term "permit".

Mr. HARDIE: They are not oil permits, they are concessions that were bid on. They were put up for bid a few years back, both these reservations, the Peel Plateau Exploration Company were the only people who bid on them. They have 6½ million acres, or whatever it is.

Mr. NIELSEN: My question is directed to the chairman.

Mr. HAMILTON (*Qu'Appelle*): There is nothing much that I could add. The facts are fairly well known. Some years ago, as a means of stimulating exploration in the north, they did give a concession, which is the proper term,

respecting two applications—the Eagle plain and the Peel plateau—to a company which was called the Peel Plateau Exploration Limited. This was put up for bid and it was open for any company to bid on, and with open competition they received it. With the tremendous interest taken it seems very unlikely that it will be necessary for us to make this sort of inducement again.

As a matter of interest to the committee, the oil regulations in the north were last brought up to date in 1950. Starting from September 23, 1957, we announced to the oil companies interested in exploration in the north that the regulations would be brought up to date. This work has been going on since last fall and during the winter. We have had numerous meetings with officials of the Canadian Petroleum Association which represent the oil companies, and they give us their opinions. We have also requested and received ideas from various individual companies.

This work is about complete and I hope, that once cabinet approves them, new regulations will be promulgated in short order.

Mr. NIELSEN: Could you please give me a rough estimate of the time that the two regional contracts went out for bid.

Mr. HAMILTON (*Qu'Appelle*): The date, I believe, is given on page 115 of the minutes of proceedings. The first order in council was dated May 14, 1952.

Mr. NIELSEN: Thank you.

Mr. HARDIE: I still have not got it clear. I realize that if minerals were found on the Yukon side of those reservations that they would come under the Yukon Quartz Mining Act and if on the Mackenzie River side, under the Northwest Territories Mining Regulations.

What would happen, for instance, with a company working on an oil permit in these reservations if they were, say, five years or two years from now to stake out a number of mineral claims in those reservations and record them. Would the government allow money spent in the exploration for oil against the assessment work to hold the mineral claims in good standing.

Mr. HAMILTON (*Qu'Appelle*): There are two sets of regulations and we would follow the set of regulations as laid down. There is no connection whatever between the two sets of regulations. They would have to follow the regulations under the oil regulations and spend that amount of money required for oil exploration. If they found hard rock minerals and went through the procedures laid down under the respective acts which guide them, they would have to put up that money privately. There is no connection at all.

Mr. HARDIE: No credit?

Mr. HAMILTON (*Qu'Appelle*): No.

Mr. HARDIE: That was my question.

The CHAIRMAN: Are there any other questions?

Mr. HARDIE: Have there at present in the Peel plateau or in the Eagle plains reserves—(either one of those reservations)—been any mineral claims staked to date, or recorded to date?

Mr. HAMILTON (*Qu'Appelle*): I would have to get my officials to look at the maps and see if there is any overlapping of mineral claims with oil reservations. At the present time I cannot give you that information. I think, Mr. Chairman, that it would not take very long to get it and if you will be satisfied I could get you this information at a future meeting.

Mr. HARDIE: Have you not any officials from the mines branch here?

Mr. HAMILTON (*Qu'Appelle*): Yes, but they cannot remember every claim.

Mr. NIELSEN: And it would not be current anyway.

Mr. HARDIE: All I want to know is, have any claims been staked on the reservations about which I asked?

Mr. NIELSEN: It would not be current anyway, because a claim might have been staked yesterday.

Mr. HARDIE: I am not asking for up-to-date information, I am asking if we have had any claim staked.

Mr. HAMILTON (*Qu'Appelle*): Are you interested only in the Northwest Territories?

Mr. HARDIE: No, I am interested in the Yukon territory right now.

Mr. HAMILTON (*Qu'Appelle*): Well in the Yukon territory they are recorded at Whitehorse. We do know what is going on but it will take us a little while to get the information that is current.

Mr. HARDIE: Have any claims been staked in the last five or six years? That is a simple question.

Mr. HAMILTON (*Qu'Appelle*): I get reports every month, but they give it to me in mines and districts, and I do not want to say here at this meeting that we definitely have such claims staked in the Yukon area, but we can get that information for you.

Mr. AIKEN: I would like to ask a question which refers to item 287. I wonder if the minister would explain to the committee the circumstances of the relocation of the town of Aklavik. It is something on which I personally have no knowledge and I should be interested to know why relocation was required and what the nature of it is.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman I am going to ask my deputy to handle that because he was in it from the beginning.

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): Mr. Chairman, there were a number of considerations that led to the decision that Aklavik ought to be relocated. I might preface my remarks by saying that Aklavik is the largest settlement by far in the lower Mackenzie and the Mackenzie delta. It has the greatest concentration of population outside of Yellowknife in the entire Northwest Territories.

Aklavik itself was located where it is by accident. It simply happened to be a place where there had been some gathering of native people interested in trapping. At an early point General Young, now the deputy minister of public works established a signal station there. It had originally been intended for Herschel island but it was located on a particular bend on the river in the delta. The delta area is purely and simply a deltaic deposit of silt brought down from the upper reaches of the Mackenzie river. It is very low-lying. It is completely embedded with perma-frost.

The town was quite adequate as long as it was very small, but as soon as it became apparent that it needed to grow for administrative reasons then a number of defects occurred.

In the first place because it is completely made up of silt and completely frozen with perma-frost as soon as rights began to be established and as soon as buildings of a substantial size began to be built the worst possible defects occurred through the melting of the perma-frost. Melting of perma-frost is a problem at any time. That is the most serious problem of all when it occurs in silt or clay areas, because there is apt to be a large water content and the character of the land shifts and changes with melting and thawing, and this creates a very serious problem.

In the second place, because it was so low-lying—only a very few feet above the water level—it was virtually impossible to put in a sewer and water

system. It could not be done without pumping the whole system. There was also no really good source of water. The Mackenzie river can be used but it carries such a large burden of silt that settlement is a serious problem. Silting occurs constantly if the Mackenzie river water is used for a system of that kind.

The third consideration was that it was found to be absolutely impossible in the delta area to establish an air field or an air strip. It was tried during the war but it just could not be made a successful operation because of the silt problem and the perma-frost problem. So that as a result of this, Aklavik, as it became the principal administrative centre, would be utterly cut off from any means of transportation for about six to eight weeks per year, the time of break-up and freeze-up. You could not reach it by air or water. It is impossible to reach it by land because of its location in the delta. A further consideration was that there were no building materials—no aggregate for concrete or gravel at Aklavik. It had to be hauled from Arctic Red river, which is roughly the closest point. This is a 40-mile haul and when gravel reached Aklavik its cost on the barge was in the vicinity of \$25 per cubic foot. The cost of building an air field would be utterly prohibitive.

A final consideration is that because the land in the delta is purely silt deposit, it is constantly subject to shifting and changing.

When you fly over the delta you can see by looking down, the location of channels over the past 30 or 40 years. They are etched out with curves. The trees grow to different sizes, depending on the time the channels were made.

Aklavik is on a bend in the river and it is quite possible, in fact quite likely, that at some point the river will cut through. It is constantly undermining the banks, and the roads periodically slide into the river. You could not put a large and substantial settlement there. It really is totally unsuitable.

So, when the point was raised where it became apparent that a centre had to develop for the lower Mackenzie as the principal administration centre of the western Arctic, the advisory committee on northern development, which is the senior committee that coordinates recommendation to the government on policy, looked into the matter carefully and came to the conclusion that it simply could not recommend to the government that the development should take place at the old site of Aklavik. There were too many things wrong with it and the costs were too great. So it recommended to the government that a new location should be chosen, and it settled a number of criteria that were thought were essential, a number that it thought was desirable and a number that it thought would be useful but not particularly important in a new site.

A team was established to go in there. The team was headed by an engineer from the Department of Northern Affairs, but it also had on it representatives from Mines and Technical Surveys, National Research Council, where they have a number of specialists in perma-frost, and from other organizations such as National Health and Welfare and so forth, to consider water supply.

This team spent from about February 1954 to about August 1954 examining, as I recall it, seven sites that had been settled on as potential sites. I might also add that we came to this decision after discussing it with some of the local people so that we could get any suggestions that they might have from their detailed knowledge. As I recall it, four of these sites were on the west side of the delta and three on the east side. It was clear that a desirable site had to be beside the delta. It could not be in the delta. So it had to be either on the margin on the west or on the margin on the east.

The hope was to get a site on the west side, because it was felt that that would be preferable. In the first place it would have land access to the northern part of the Yukon and to the regions over there. In the second place it would be closer to the principal hunting areas that are used for cariboo by the people living in the delta. It would also be closer to most of the trapping areas in the delta.

However, it turned out, after careful examination, that there was no site on the west side that could be recommended. All of them had one serious defect or another that made it impossible to settle on. Of the three sites on the east side, one was not suitable, two were good, one was distinctly better than the other, and this was what was called East-3, the third site on the east side. The East-3 site had I think every one of the essential criteria. I think it had all but one of the desirable criteria. It lacked one or two of the criteria in the third category, so East-3 was settled on.

The project is going ahead and has been going ahead since 1955. Everything since 1955 confirms that the site chosen was an excellent one. It has worked out. There is aggregate for building and for gravel. As a result of this, the cost of building an air field is much less than elsewhere. There is a good water supply. It is within the tree line and this provides the shelter which is relatively important up there.

The soil, by and large, is as good as you can get anywhere in that area. So that as I say everything that has developed since then has confirmed that this was the best choice that could be made for the site. I think that covers the question.

Mr. AIKEN: I have two more questions, Mr. Chairman, is this moving a total federal responsibility, or are there other contributions?

Mr. ROBERTSON: It is a total federal responsibility. It was a federal decision to undertake the move. Consequently the federal government is paying the whole cost of the move.

But that does not mean that the federal government is paying the full cost of any building which anyone may choose to put up. If a person, let us say, has a house at the old Aklavik and he wants to move, then his house will be moved, if it can be moved; or if not, he is given compensation for the house that has to be left behind.

Mr. AIKEN: How much longer is it expected to take to complete the project?

Mr. ROBERTSON: I am told that the new townsite will be open in September of 1959, and we hope it will be complete in 1961.

Mr. AIKEN: How far was this removal in terms of miles?

Mr. ROBERTSON: It is about 38 airline miles, and it would be about 60 miles by river.

Mr. HARDIE: Yes, from 60 to 71 miles by water.

Mr. ROBERTSON: And the channels are very tortuous.

Mr. HARDIE: In regard to housing at the new townsite of Aklavik, I think a few years ago it was intended to build what might be called the Eskimo-type of house for the natives.

Meetings were held between the officials of the Department of Northern Affairs and National Resources and the local people who were interested. I think it was decided that persons who were working at E-3, the new townsite, could rent any one of these houses and apply that rent against the purchase price during the construction period.

I wonder if the deputy minister could tell us about what that plan is and whether it has changed, and if it has changed, what the new plan is.

Mr. ROBERTSON: Perhaps Mr. Cunningham who was more closely associated with that particular phase of the work might answer your question.

Mr. F. J. G. CUNNINGHAM (*Assistant Deputy Minister of Northern Affairs and National Resources*): Mr. Chairman, Mr. Hardie's facts are quite correct. There has been no change.

Recognizing the fact that many of the Indians, Eskimos and persons of mixed blood living in old Aklavik lived in very sub-standard accommodation—many families were living in from 200 to 300 square feet of the most squalid accommodation—we thought it would be worth while to try to take those of them moving—to give them a somewhat better type of living accommodation at the new site.

Of course, in every large construction project it is necessary to put up work camps. So rather than to build the barracks type of work camp, which would be useless at the end of the construction period, we got the idea of putting up small houses. We called them "512's", because they have 512 square feet of space.

It is an ordinary frame house, well insulated, reasonably warm, and very cheap, and the cost is around \$5,500.

At Aklavik E-3 the houses will be used as bunk houses. They have a recreation room, a dining room, a kitchen, and they will be used for the construction workers.

Now, when the construction period is over, these houses will be placed on good foundations, on pleasant lots, and will be sold for the depreciated cost to the people who now have sub-standard houses in the old town.

The depreciated cost should be not more than \$3,000, and they will be sold on very easy terms.

In the meantime, if not required as premises for workers, perhaps in other areas, they are rented to people who are working at Aklavik E-3 who will be living there, and their rent is being credited to the ultimate purchase price.

Mr. HARDIE: What would be the total rent?

Mr. CUNNINGHAM: One half of it.

Mr. HARDIE: I received complaints last winter from Aklavik concerning persons at E-3 who had moved there during the construction season or before—let us say two years prior to that time—who were having difficulty renting a house, although these places were not in use during the winter months. They were having difficulty renting these houses.

Mr. CUNNINGHAM: I am told that is true, but it applied to construction camp buildings over which we did not have control because they were "512's" under the control of persons who had unfinished contracts.

Mr. HARDIE: You would rent them at \$50 a month or whatever it was, and you would rent them to the contractor; and then the contractor, when he moved off the job, would put the houses back in the same shape in which they were when he took them over; and the rental he paid would be applied against the purchase price of those houses.

Some of these people who would be working steadily, let us say, ten months of the year, at E-3, naturally would like to live in their home now and to pay for it during the period when they have earnings, during this construction period when they are making some money.

They would like to say to themselves: this is my house and I am living in it and paying for it as I go along. But this not happening in many cases.

Mr. ROBERTSON: There are two points there: it was made clear—or I hope it was made clear—we tried to make it clear from the beginning, that the policy was to use these buildings during the construction phase in construction operations, and that they would be available for rental only to the extent when they were not needed to house construction people. This may not have been entirely clear to some and it may have caused some difficulty.

As to the second point in regard to paying for them while the people are earning—I am in complete agreement with Mr. Hardie that it is highly desirable; but that does not mean that they do have to occupy the house in order to do this.

We have had an arrangement for at least two years now, which, I must confess, has not been taken advantage of to any great extent.

Under that arrangement people could sign a contract to take one of these buildings and to make payments pending their occupation while they would not be occupying the house. Then, if they did occupy the house, 50 per cent of the rent would go towards the purchase price. On the other hand, if they did not occupy the house, 100 per cent would go towards the purchase price. In addition, depreciation on it would be granted to them. So it was an advantageous arrangement and I wish more people had taken advantage of it.

Mr. AIKEN: Are there any federal government buildings involved in this construction work?

Mr. ROBERTSON: Yes. We have a list. In the first place, there is a federal building just to house the offices for the administration.

Secondly, there is an R.C.M.P. building for mounted police operations. Then there is federal housing that has to go with that for the people involved.

There is a very large school, and two hostels. One is for the children of Roman Catholic people, and one is for the children of non-Roman Catholic people. These are also being built by the federal government.

There is also a 100 bed hospital being built by the federal government to replace two church hospitals at old Aklavik. Rehabilitation facilities are provided for people coming back, Indians and Eskimos returning from hospitals in the south, where they receive treatment, or vocational training or something of that kind, so they may earn their own living in the area.

Then there is a power plant and utility system which is now being built by the Northern Power Commission.

In addition there is a signals building and relief services; an airport, and the services involved. I think that covers the major items.

Mr. AIKEN: Approximately what is the percentage of cost for moving, providing homes, and the construction of federal government buildings?

Mr. ROBERTSON: Oh, the federal government cost is by far the larger. I do not have the percentages. I have not the exact sort of figure being asked for. I must say that the cost of moving to the new townsite, whether private or federal, is estimated to be 11 per cent of the total cost, whereas 89 per cent of the total cost relates to the construction of new and better facilities than ever before existed in old Aklavik.

Mr. HARDIE: Could the department tell us how many people—that is, local people, people who reside in the Northwest Territories—work on the job, let us say, worked on the job at E-3 last year.

Mr. ROBERTSON: I do not think I have it for last year, but I have it for this week. 199 local people are employed on the project at E-3.

Mr. HARDIE: Have you the number of people from outside?

Mr. ROBERTSON: Yes, it is 246.

Mr. HARDIE: You say there are 246 people from outside employed at E-3 now?

Mr. ROBERTSON: That is right. I am told that the skilled trades really have to be brought in from outside at this stage.

What can be provided locally are some people who have had training in carpentry, the operations of bulldozers and heavy equipment and that sort

of thing. But for things like the erection of power plants and special trades such as plumbing, electricity and that kind of thing, all the people have to be brought in because they are simply not available locally.

Mr. HARDIE: Maybe not locally at Aklavik, but there must some available at Fort Resolution, Fort Smith, or Fort Simpson?

Mr. ROBERTSON: I think any available locally at those places would be employed in those localities at the moment, so far as I am aware.

In those particular places there is a great deal of construction, such as Fort Smith, and Yellowknife.

Mr. HARDIE: And at Fort Simpson and at Fort Resolution?

Mr. ROBERTSON: I do not know if there would be much at Simpson or at Resolution.

Mr. HARDIE: There are some at Fort Smith and some at Yellowknife. I think the department should make a real effort to see if people from all those places might be available to work at Aklavik. I refer to Franklin, Coppermine, Simpson, South Nahani, or Liard. No matter where they are, they should be brought in.

Mr. HAMILTON (*Q'Appelle*): I think I should make it clear that instructions to this effect have been given, and that they are being followed at considerable extra expense. Perhaps Mr. Cunningham might have a word to say about it.

Mr. CUNNINGHAM: We have prepared for this year a detailed list of every person with his skill, and a note as to his desire to work in all the Mackenzie river settlement from Aklavik right up the river to the lake, and at Yellowknife as well as at Hay River.

We have a list of the names and addresses of every person who wants to work on our Mackenzie river project. We have a note as to what he can do, and information on his experience.

These figures are constantly kept in front of the contractors and the employment officers, who are doing everything they can to see that anyone who is capable of working and wants to work will get the opportunity.

Mr. HARDIE: Could you give us some figures of those available for work?

Mr. CUNNINGHAM: In anticipation of this very question we asked Mr. Merrill, our district administrator, to let us have the figures.

At Yellowknife, there are 30 men and 5 women.

At Hay River, there are 50 men.

At Forth Smith, there are 24 men and 8 women.

At Simpson, there are 20 men and 2 women.

At Rocher River, there are 6 men.

At Resolution, there are 24 men.

At Coppermine, there are 25 men.

At Franklin, there are 16 men and 3 women.

At Fort Liard, there are 38 men.

At Rae, there are 15 men and 6 women.

At Fort MacPherson, there are 32 men and 10 women.

At Wrigley, there are 28 men and 10 women.

At Haines Junction, there are 6 men.

At Aklavik (old), there are 38 men.

At Fort Good Hope, there have been no returns recently, but the estimate for there is 16 men.

This is the total number of unemployed. One-third, according to Mr. Merrill, would be willing to leave their settlements for employment.

Mr. HARDIE: Thirty per cent?

Mr. CUNNINGHAM: That is Mr. Merrill's estimate.

Mr. HARDIE: The total of unemployed?

Mr. CUNNINGHAM: This is the total number of people registered at our request for work.

Mr. HARDIE: That is the total of people who requested work at Aklavik E-3?

Mr. CUNNINGHAM: Yes, or at some other place.

Mr. HARDIE: And you say about one-third of them would be willing to go to another settlement to work?

Mr. CUNNINGHAM: Yes, according to Mr. Merrill.

Mr. HAMILTON (*Qu'Appelle*): If the questions on that point are finished I would like to give the information I was asked to give earlier about mineral claims.

We have had the records checked and we find that no mineral claims have been staked or have been assigned at Peel Plateau or Eagle Plains by anyone in the past five years; there are no mineral claims in good standing in these two areas.

This information is up to date as of yesterday—I should say as of today—in the Northwest Territories, because yesterday was a Sunday.

Mr. HARDIE: Going back to the matter of concessions, may a mineral company or may anyone now move into a reserve or a reservation and stake mineral claims?

Mr. HAMILTON (*Qu'Appelle*): There is no reason at all, because there is no connection between oil and minerals.

Mr. HARDIE: I would like to go back to the first statement which the minister made when we opened our hearings, when he said at that time that the plans of the department for 25 years have been brought down now into a five year plan.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, in 1955 the commissioner of the Northwest Territories and the commissioner of the Yukon territory, Mr. Collins, presented to the Gordon Commission particular recommendations in so far as the Northwest Territories and the Yukon territory were concerned.

In those recommendations there was outlined a general program of building a grid system of roads which, in the opinion of the two men at that time, most effectively opened up new territory.

When I came into the department I asked for information on this subject and I was presented with those recommendations. I looked up the departmental files and I found that on no occasion had any of these proposals, or the general proposal in itself, been accepted by the previous administration.

This program that they had put forward was for a period lasting until 1980. Part of the policy of the new government is to expand the general thinking of the proposals put forward by the two commissioners and to put a time limit of five to seven years, roughly, on this program.

The only difference that occurred in this planning was that I looked at the specific routes that they had suggested and found that they were just generalized projections designed to open up new areas without any particular thought going into the precise needs of any one area.

In general, the idea behind their proposals was absolutely sound. Therefore the only difference in the road program which I have put forward in this committee as well as in other places, has been that we have made more precise in some areas the generalized proposals put forward in 1955; and in other areas we have shifted the general locations to meet my long range

planning needs which is to tie in the grid system in the two territories, with the settled areas in the provinces to the south.

Generally speaking those are the only changes. I can go over this whole story on the map if you would like to have it in detail.

Mr. HARDIE: Let us go just to the places where you have made the precise changes. If you refer to the recommendations made to the Gordon Commission you will find that they would suggest, for example, the reactivation of the Canol road over to the Mackenzie river valley.

Mr. HAMILTON (*Qu'Appelle*): What we did more precisely was to make a decision that the Rose river bridge would be a junction point from which we would build a road westward to Carmacks. The survey was done on that many years ago.

Mr. HARDIE: Is there any money provided in this year's estimates for that road?

Mr. HAMILTON (*Qu'Appelle*): No. We are speeding up the rehabilitation of this section of the Canol road up to Rose river. We are getting a plan ready for a road down to Watson lake. The fourth step in this grid is the relocation of this road over to the Mackenzie river basin.

What we accepted from the first recommendation of 1955 is: (a) the general concept of a road from the Alaska highway across to the Mackenzie river basin in this direction as indicated on the map. We added to it the old plan of building a road from Rose river crossing to Carmacks. The new road would go through to Watson lake.

The purpose of this is that this mineral area has very great potential. We thought four roads emanating from this common point would be a start on creating a system which would open up this southeast portion of the Yukon.

The road project through to the Arctic from near Dawson city was included in the proposal of 1955. What we have done this year and to some degree last year during that emergency program, was to start working on the plans. Survey parties are now out surveying in detail. They are surveying the route which one of these roads will take across into the Mackenzie river valley. That is, I think, the main portion of it.

There is some discussion in respect of roads up in this area to deal with the new asbestos operation there, and so on. I am not as familiar with names of those roads as perhaps I should be.

Mr. NIELSEN: I suppose you are thinking of the 60-mile road from Dawson up to the territory to this Clinton creek asbestos property?

Mr. HAMILTON (*Qu'Appelle*): Yes. I am not too sure of the details in that area.

What we did was to take this generalized plan and try to compress it into a shorter period, from five to seven years, and to work out a program whereby step by step we could accomplish it in that period of time.

The same thing would apply to the Northwest Territories. We have accelerated our program.

Mr. HARDIE: How have you done that?

Mr. HAMILTON (*Qu'Appelle*): I would say that we have accomplished that in the first instance by getting some work done last winter, and clearing roads faster than the program called for.

Mr. HARDIE: But they will not be clearing them this winter?

Mr. HAMILTON (*Qu'Appelle*): That could be correct.

I would also say in respect to our long range plans that a survey is being run through to Great Bear lake, and if we finish the construction up to Great Bear I would suggest that in—I do not want to say five years in respect of this particular road for obvious reasons—that in five years we will be close

enough in the construction over the distance to the Coppermine area that we would then be in a position to consider a final extension at that time from the Coppermine area through to the Arctic at some place like Fort McPherson. We will have accomplished the two major proposals contained in the recommendations of the Gordon commission of 1955, which were recommended to be completed by 1980.

The map I have just been handed illustrates that the survey will be going up to the east end of Great Bear lake at Sawmill bay this year.

I do think that is considerable evidence of the speeding up of the road program. If we do get a road built in, say five years, to the east end of this lake we will be well on our way to completing the general program, suggested by the commissioners in 1955, within the next five to seven-year period.

Mr. HARDIE: In respect to the cut-off 28 miles out of Hay river to Fort Rae and into Yellowknife, which is part of the minister's proposal for this speeded up program, how many miles of road are being contracted for this year having regard to the section between Yellowknife and Fort Providence?

Mr. HAMILTON (*Qu'Appelle*): I will have that information available in a moment.

I will read this into the record.

Mr. HARDIE: This is for this year?

Mr. HAMILTON (*Qu'Appelle*): This is just the one part that you asked about. I will leave out the odd dollars.

A contract has been awarded to Poole Construction, Edmonton, amounting to \$79,000 for the Kakisa bridge. A contract has been awarded to B. G. Linton of Hay river amounting to \$397,000 for grading and installing culverts in the first 50 miles north of Fort Providence. A two-year contract has been awarded to Mannix Limited, Calgary, amounting to \$1,800,000 for the installing of culverts and crushed rock surfacing from mile 20 to mile 58 on the Yellowknife to Fort Rae road. The road construction is to commence in mid-May. The clearing of the 100 miles north of Fort Providence has been completed. That portion is what we intended to do this year, but we accelerated that work into last years winter work project.

Those are the amounts of the contracts awarded in that area. They total roughly \$2,566,000.

Mr. HARDIE: What is the amount that was spent last year on that road?

Mr. HAMILTON (*Qu'Appelle*): The figures were given to the reporter at the last meeting. He turned them over to one of the secretaries and we have not got them available today. However, I would say the rough estimate for that particular section would be the same.

Mr. HARDIE: So there is no speed-up in that section at all?

Mr. HAMILTON (*Qu'Appelle*): Not as far as the total amount of money that is estimated.

I think I made it clear in the past that we have been keeping in mind this question of winter work. What we accomplished last winter was intended to be this year's work. Naturally we are now taking a look at that question from the point of view of providing work for this coming winter.

I would say that the amounts of cash in respect of this particular portion of the program are approximately the same each year.

Mr. HARDIE: So actually there has been no speed up since the new government took over compared to the former government at all?

Mr. HAMILTON (*Qu'Appelle*): There is this one important exception; we did this winter work last year. It amounted to a sizable amount of work.

Mr. HARDIE: That is right, but that was done last winter. You will not be doing that again this winter?

Mr. HAMILTON (*Qu'Appelle*): We are now considering next winter's work.

I hope you do not forget that in respect of the Yukon, where we had plans and where there was some pressing urgency. In order to achieve these things I have described to you, we did speed this program up tremendously.

I think you should judge the five-year program roughly at the end of five years. You must move along as fast as the plans are ready.

We did concentrate last fall on getting plans ready in respect of the Yukon program so as to push our road through to that area.

Mr. HARDIE: Could you give me a breakdown of the item covering Yukon roads and bridges in the amount of \$3,138,600 appearing on page 420?

Mr. HAMILTON (*Qu'Appelle*): In the Yukon, to illustrate this speed-up, the total vote is \$3,100,000 which is an increase of \$2,500,000 over last year. If you put that into percentage figures it means a 400 per cent increase in the amount.

The detailed breakdown for this year is as follows. There are nine items. (a) \$1,400,000 is estimated for the cost of the new highway bridge over the Yukon river at Carmacks.

I might point out that next year we are starting two more projects which will exceed even this year's program.

Mr. HARDIE: Let us get the breakdown for this year.

Mr. HAMILTON (*Qu'Appelle*): (b) Mile 265 to 277. Relocation of the existing highway.

Mr. HARDIE: What is the amount in respect of that?

Mr. HAMILTON (*Qu'Appelle*): \$180,000.

(c) Tatchum creek, a steel highway bridge amounting to \$100,000.

Mr. NIELSEN: These are estimates, are they?

Mr. HAMILTON (*Qu'Appelle*): Yes.

(d) Resurfacing sections of the Whitehorse-Keno road, \$74,000;

(e) Mile 263—replacing deteriorated timber bridge with a 40-foot span steel beam bridge, \$25,000;

(f) Mile 131—

Mr. NIELSEN: I am sorry. You said Mile 263 in respect of which highway?

Mr. HAMILTON (*Qu'Appelle*): That is in respect of the Whitehorse-Keno road. This refers to the replacement of a timber bridge with a 40-foot span steel beam bridge on treated timber piling.

(f) Mile 131. Replace deteriorated timber bridge with 90-foot long, 12-foot diameter steel multiplied arch pipe culvert and raise road grade six feet, \$23,000;

(g) Miles 55, 183, 195—replace deteriorated timber bridges with steel arch pipe culvert, \$5,000;

(h) May river—completion of bridge, \$5,000;

(i) Crooked creek—completion of bridge, \$5,000.

The second road is the Canol road. Again in respect of that road the program has been stepped up from three years to two years.

(a) Improvement of road from Johnson's crossing to Pelly river, \$100,000;

(b) Replacement of Rose river bridge, \$35,000.

Mr. HARDIE: That is in respect of the Canol road?

Mr. HAMILTON (*Qu'Appelle*): Yes.

The third big road we are working on is the Dawson-Eagle Plain-Fort McPherson road.

We use the name Fort McPherson just to clarify that we are headed that way. We do not know where it will terminate.

For the surveying of this road there is a figure of \$400,000 within the vote this year and \$200,000 out of the vote last year. There is really \$600,000 in respect of this item.

Mr. HARDIE: For this year?

Mr. HAMILTON (*Qu'Appelle*): There is an amount of \$400,000 in this year's estimates. We had a supplementary item last year in the amount of \$200,000.

The fourth road is the Dawson-Clinton creek road. This is the one I referred to earlier. The amount in respect of this road is \$500,000 for surveying and for some construction.

Mr. HARDIE: This is for surveying. Has this not been surveyed yet?

Mr. HAMILTON (*Qu'Appelle*): This is for surveying and for some construction.

The fifth road is the Stewart crossing-Dawson road construction amounting to \$182,000.

The sixth item covers roads in the Whitehorse area, amounting to \$100,000. This makes a total of \$3,138,000 or an increase of 400 per cent over last year's program.

Mr. HARDIE: There is nothing shown in that list in respect of the Stewart-Cassier road. Is that covered in the other item?

Mr. HAMILTON (*Qu'Appelle*): That is a program which comes under a different vote.

Mr. HARDIE: That comes under the other vote?

The CHAIRMAN: Yes, that comes under the \$9 million vote.

Mr. HARDIE: In respect to this road from Whitehorse to the Keno road, the large portion that is being spent in that regard has to do with resurfacing certain sections of the road, and the construction of bridges on the existing road. There is nothing actually new in this at all. There is no new area that is being opened. This will give a better standard of road than the present standard?

Mr. HAMILTON (*Qu'Appelle*): This road is one of the most heavily used roads in the north. It is used mainly for the hauling of ore from the mines at Keno. At the present time there are three large rivers to cross.

During last year in the winter months the delivery of this ore was held up not only for the usual one or two months during break-up and freezing, but for most of the winter.

These three projects were originally estimated in the amount of \$4½ million. This year's estimates include a figure of \$1,400,000. This road will be used nearly 12 months of the year. There may be some periods during which we will have to place bans on certain sections of the road. This will improve tremendously the economics of moving mining and oil development equipment into these locations. We hope to maintain this arterial road as the main road up to the Dawson city and Keno road. We want to keep traffic moving over this arterial road at good speeds. The installation of these three bridges is vitally important to the building of a road from the Dawson city road up into the Arctic.

For the benefit of those members who are not familiar with the locations that I have just been talking about, these roads that we are spending these large amounts of money on run from just west of Whitehorse up to this point where the road branches off to the Keno mines. The other branch runs over here to Dawson city. This road there is where we jump off for the road to the Arctic.

If this line of communication is not well established and usable most of the year then the economic efficiency of this road going in here is reduced.

At the present time we are primarily concerned with the economical purposes, of increasing the flow of heavy ore shipments from this Keno mine area down to Whitehorse and then by rail to Tidewater.

The primary purpose of completing that road with this high standard of bridges is so that it will serve as a sound economical arterial road from which we can jump off for our other construction work.

Mr. NIELSEN: May I also suggest, Mr. Chairman, following the remarks I made at our last meeting in respect of the reduction of shipping costs up the coast by extending the six months shipping period, that the completion of this road will extend that period and thereby make shipping operations more profitable.

Mr. HARDIE: The whole point is this; the existing road is being brought up to a better standard in order to give 12-month service to the mining area around United Keno. We have these large expenditures in respect of the Whitehorse-Keno road. We have, of course, this new work on the Canol road. I have heard the former member for Yukon ask that moneys be spent for the improving of this road. That is part of the 25-year program which has been squeezed into the five-year program. There is the Dawson-Eagle Plain and the Clinton creek road surveys. There is the Stewart crossing to Dawson city road. That road is in existence today. The roads in the Whitehorse area are roads that are in existence today, or are roads to new sub-divisions in the area. I cannot for the life of me see in respect of this year's estimates where there is any real move to squeeze the 25-year plan into a five-year plan.

Mr. HAMILTON (*Qu'Appelle*): I can give you a very simple and blunt answer.

This year we have an amount of money in the estimates both for the Northwest Territories and the Yukon amounting, in the case of the Yukon, to a 400 per cent increase in actual dollars spent, and in respect of the Northwest Territories, if you take the total amount—

Mr. HARDIE: There is a cut-back.

Mr. HAMILTON (*Qu'Appelle*): No, there is not a cut-back at all.

Mr. HARDIE: It has been cut back from \$4 million some odd to \$3 million some odd?

Mr. HAMILTON (*Qu'Appelle*): Only because we have completed part of this year's program as a winter works project last year to offset unemployment.

This is the situation today in respect of the actual work under way in the form of money estimated this year for surveys and so on. We have undertaken a \$31 million program, which we have started, which will last for one to three years of the five-year period. It is estimated that as we get our plans more precisely worked out we will spend a total of roughly \$100 million. That will be an average over the five years of \$20 million a year.

If you can find one year in the last several years during which \$20 million was spent on road building in the northern territories, you are a better man than I am. If you take the actual votes you will find that the amounts have been very minute in previous years in respect to the northern territories.

For the Northwest Territories, for instance, in 1954 it amounted to \$2,500. In the years 1955-56 it amounted to \$8,600, and in 1956-57 it was \$1,448,000. Last year this amount was \$3,800,000.

Mr. HARDIE: That was the year of the big jump.

Mr. HAMILTON (*Qu'Appelle*): That is right.

The point is, that if you look at this item in respect of the Yukon you will find that the total for two years is also very minute. It amounts to roughly \$5 million a year. We are now working on a program which will amount to \$20 million a year. I do not think there is any comparison—

Mr. HARDIE: You say that this year the figure will be \$5 million to start and that during the next one, two or three years the amount will be \$20 million per year?

Mr. HAMILTON (*Qu'Appelle*): That is right on the average.

Mr. HARDIE: That is your plan?

Mr. HAMILTON (*Qu'Appelle*): Yes.

I would like to finish my sentence, which you interrupted.

I do not think you gain anything by trying to compare amounts that have been spent in the past with the figures I have just quoted. If you take the average for the last five years in the Yukon you will arrive at something in the neighbourhood of \$2 million per year compared to an average for the next five-year period of \$10 million a year in our plan.

Mr. HARDIE: Well, the minister knows as well as I do that it is only in the last three or four years that there has been any real movement or any real information, so far as the people in the southern areas are concerned, that money spent in the north will do something for Canada.

At the time the former prime minister set up the Department of Northern Affairs and National Resources, in the fall of 1953 you will notice that there were great strides made.

However, every time I have asked the minister a question we get a long-winded answer in this committee, ever since we started.

Now, so far as the increase is concerned, or the decrease, in the Northwest Territories in particular, the figures given for this year a moment ago by the minister on the Fort Rae to Providence road—he said it was the same as last year, although one contract is a two-year contract for \$1,800,000.

So that we can then take that as meaning that \$900,000 of that will be spent this year,—which will drop the estimate for the amount spent this year in the Northwest Territories. And it proves that this amount of \$900,000 that will be spent for the following year has made up the total a two-year basis. And it is less than it was last year.

This is the speed-up of building roads in the Northwest Territories that we have been hearing about.

Mr. HAMILTON (*Qu'Appelle*): What the hon. member has said illustrates precisely what I have been saying,—and this will not be a long-winded explanation—the amount we estimated at \$1.8 million for this year is part of a two-year contract. There will be additional amounts, and the \$1.8 million next year will probably be much expanded.

I am going back to the one statement, because this is crucial to this whole question policy in the Northwest Territories.

I told this committee when I searched through the records of the department I found over and over again refusals of the government of that day to accept proposals by the department for development in the north involving road building.

In the last election campaign the Leader of the Opposition group pooh-pooh'd this whole idea of northern development roads as being roads from igloo to igloo.

I put it to this committee flatly, that we and the people of Canada rejected that point of view. We rejected the point of view of the previous administration.

We take the results of the last election as, in large measure, a vindication of our view of the opening up of these northern areas, as part, in turn, of a larger program of national development.

This business of trying to show that the amount spent on one section of a road around Great Slave lake this year is the same as last year, and the suggestion that there is no speed-up is completely out of perspective; because when you take the total spent in the north over a period of five years in the

past, and the period of the next five years, then that will be the way that you should judge them.

I have said very candidly that we have moved in the Yukon because we think there is very real reason for moving in the Yukon. The mere fact that we have an oil industry breaking into that area, with planned expenditures, that as a minimum will be \$110 million, and more likely will reach the figure of \$250 million over the next four or five years—is evidence as to why we have had to go there first. It shows that this plan of ours has been carefully and economically thought out.

As for as the Northwest Territories, one reason I have never stated a definite time in going to Coppermine is that we have to look at the world demand for copper and go to various companies and see how many millions of dollars of investment it will put in to open up the copper area.

In respect of Coppermine, we must be sure that in the public interest we have advised the government correctly in completing that road to Coppermine.

Mr. HARDIE: You have to do the same thing in all base metals.

Mr. HAMILTON (*Qu'Appelle*): Yes, that is right.

Mr. HARDIE: Whether it is the Yukon or the Northwest Territories.

Mr. HAMILTON (*Qu'Appelle*): I have received the impression, knowing the record as I do, that the people of Canada are just now aware of interest in the north, and that the previous government did not—

Mr. HARDIE: The last three or four years, I said.

Mr. HAMILTON (*Qu'Appelle*): Now, I say flatly to Mr. Hardie that when the leader of his party comes out in the campaign and describes this program as a roads program from igloo to igloo that he has got to reverse his stand publicly before Mr. Hardie can be taken seriously.

Some hon. MEMBERS: Hear, hear.

Mr. HARDIE: We will go back to the oil area you just referred to, and to which you have referred so many times during this committee's sittings. That is the part marked in blue, along the Mackenzie river. You were building a road from Flat creek in the Yukon into this area, when the cheapest route for the oil companies or for anyone else to come into that area to explore would be to take the Mackenzie river system and, from there, take your road in from the Mackenzie river into the oil area, which is adjacent to the river.

Mr. HAMILTON (*Qu'Appelle*): Where would you start this road from?

Mr. HARDIE: The present road you have marked there; you can take it from McPherson into that area. And you get a cheaper road, a cheaper route and cheaper transportation, instead of the long truck haul—first, a rail haul from Skagway to Whitehorse, and then you take it across into the Peel plateau. You would have a water system, the Mackenzie water system to the Fort McPherson area, and then build a road from there into the Peel plateau or into the oil area.

Mr. HAMILTON (*Qu'Appelle*): This is the weirdest thing—

Mr. HARDIE: There is nothing weird about it, at all. Show me where it is weird.

Mr. HAMILTON (*Qu'Appelle*): I am dealing with the men who put money into this area, and who wish to use this road to get into the oil, even in the upper reaches of the Mackenzie. I distinctly asked one of the largest groups, who are exploring the southern part of the area, or the upper reaches of the Mackenzie, what we could do about a road in that area to help them out; and they came back and said that in their estimation it would be very wrong to put roads in there. And I think—

Mr. HARDIE: If it is wrong to put it in there, it is wrong to put it in other places.

Mr. HAMILTON (*Qu'Appelle*): I am giving you an estimate of their opinion. They did say that they would come back to us if they could think of any way that was practical to handle it. In the southern area of the territory, the upstream area of the Mackenzie river system is the cheapest transportation at the moment. But they want, for sound financial reasons, to be able to move in there for twelve months of the year, to move in by road.

You cannot build up a road system down the Mackenzie for twelve months of the year. That is why they like a short haul from Flat creek into the Mackenzie river delta area. When you come out and start to say that we should start at that area and work backwards—

Mr. HARDIE: The exploration companies in northern Alberta and British Columbia which explored originally for oil a few years ago transported all their equipment during the winter, and then they built their roads into the area that they wanted to work. Regardless of that road you are now speaking about, going in to the Peel plateau from Dawson City, any oil company going in there will have to bulldoze the roads from that road in the winter-time, and not in the summer-time—because they will not be able to do it in the summer-time.

Mr. HAMILTON (*Qu'Appelle*): We are not talking about the same subject at all. These same oil companies, working on the lower parts of the Mackenzie river, are the ones that want the road in from Flat creek into that area. That is the way they want to get in because they are talking about moving equipment in.

Mr. HARDIE: What companies are those?

Mr. HAMILTON (*Qu'Appelle*): There is a whole list of them that operate in there in that area.

Mr. HARDIE: But which companies have come to you and asked for that road?

Mr. HAMILTON (*Qu'Appelle*): In the first instance, practically all the people in Peel plateau and those companies associated with them.

Mr. HARDIE: The Peel Plateau Exploration Company?

Mr. HAMILTON (*Qu'Appelle*): Yes. And there are other companies operating in the upper reaches of the Mackenzie, such as the Todd Briggs Company with 3.7 million acres. They requested no roads and they agreed that the Flat creek road is the best route in there.

And you can go down there and talk to several others who have spoken to me. I cannot give the names offhand because I would have to check my records back. I have found complete support from the oil companies in using this approach in to the area, because they have water transportation in the summer, and being able to get in to the area either in winter or summer works tremendously to their economical advantage.

Mr. HARDIE: When moving heavy equipment into the area it is moved at the time of the year they can get in. They will use the cheapest kind of transportation in to that area, and that is the Mackenzie river, the only short route in to the oil fields. Once they go into production, the oil is not going to be hauled out by road, anyway. The oil will come out of there by pipe line. The road is only for exploration purposes, so far as the oil companies are concerned.

Mr. HAMILTON (*Qu'Appelle*): That road is for exploration purposes in to the main artery through the area. They are responsible themselves for bringing it from that main artery to their area. We do not accept any responsibility for the building of the oil company roads, but we do have to accept the responsibility of building the main artery through to take loads

up to 60,000 pounds, and let them get their exploration equipment in there so that they it be available for both winter and summer. It gives them a 12-month opportunity to move equipment in which they did not have before.

Mr. HARDIE: You mean the road from Flat creek, is going to be for 60,000 pound loads?

Mr. HAMILTON (*Qu'Appelle*): That is what we have requested our contractor to provide.

Mr. NIELSEN: Am I correct in assuming that Mr. Hardie is opposed to routing that road from Flat creek?

Mr. HARDIE: I am saying that is the most economical way so far as oil is concerned—and the minister has said that it is for the reason of the oil industry that that road is going in there—I am saying that it is not the most economical way, and the minister has said that it is for reasons of the oil industry that this road is going in there, to tap that area.

Mr. NIELSEN: And he said for minerals, as well.

Mr. HARDIE: Yes. I say that, so far as the oil companies are concerned—and they are the ones that apparently are doing the work in that area—that it is a lot cheaper for them to take their equipment down the Mackenzie river and put the road from there to the Peel plateau.

Mr. NIELSEN: Then I am correct in assuming that Mr. Hardy is opposed to a routing that will be for that purpose from Flat creek.

Mr. HARDIE: Well, that particular road, yes. I say if they want to build a road into the mineral area, let us build it into the mineral area from Flat creek. But let us tap the oil area from the Mackenzie river.

The CHAIRMAN: Any other questions. Do you approve of those items 282 to 289 of the main estimates?

Mr. HARDIE: What is the supplementary estimate item 586, for \$3,500,000, which is for construction or acquisition of buildings, works and equipment, further amount required—as set out in the supplementary estimates? Before we go into that, so far as the roads program is concerned, this committee has been asked to pass money for the building of what are called resource roads in the northern parts of the provinces.

Up to this time we have had from the minister a statement in regard to the Stewart-Cassiar road started over a year ago and in Alberta we are doing some repair work on the Mackenzie highway. I was, as a matter of fact, on my feet a moment ago when he said that the highway from Whitehorse to Keno was to be brought up to standard, so that when the road goes through Flat creek, and north, this road would be in such a condition that it could take these heavy loads. My point the other day, so far as the Mackenzie highway was concerned, was that the Mackenzie highway had to be brought up to proper standards, and \$1,500,000 a year will not bring the portion on the Alberta side up to the proper standards that will be required in the future if we are to get any tonnage over that road or any increase of tonnage over it because of the road to Bear lake.

Then in Saskatchewan we had two roads. One I think the minister said the other day was from Hudsons Bay to Le Pas. This road is connecting a number of settlements between these points. As a matter of fact I think the Saskatchewan government started building this road to connect up with their highway system into a known area at Flin Flon. Actually it is connecting up the Saskatchewan road system with the Flin Flon road system. The other road to Hansen Lake is into an area that we know is mineralized. We are not finding any new minerals on either one of these roads.

Now in Manitoba I still have not got it straight in my mind what roads the Manitoba government are going to bring with the co-operation of the federal government. In Ontario the only road I think I have heard of is the one around Minaki which was originally a forest access road. In New Brunswick we do not know where the roads are going but they are going into the northern part of New Brunswick. In Prince Edward Island and Nova Scotia these roads are going to have nothing to do with mineral development but are going to open up tourist areas.

We are asked now to pass an estimate of \$9 million which will go towards roads in the northern parts of the provinces, resource roads, and to this time we still have not got any definite routes on where the money is going to be spent. The committee has been asked to pass this estimate and we apparently cannot get this information. I think that the minister should come out and tell us exactly on what roads the money is going to be spent if he wants us to pass this estimate, and how much money will be spent this year so that we have an idea of what is going on.

Mr. HAMILTON (*Qu'Appelle*): We have been over this ground once before. I will traverse it briefly again. I do not think that we can discuss roads in detail in this committee which have not yet been agreed upon by the two parties to the agreement. I have said that where questions are asked of me, concerning roads that have been agreed upon, I will give their location and what information I have concerning them.

The main thing I think for us to consider is voting the over-all vote of the \$9 million is that this is an estimate based on a policy announced by the government: that we would be prepared to spend \$1½ million a year in each of the ten provinces for the roads that meet certain criteria of national resource development, and later on the tourist roads in the provinces you mentioned were added. Therefore in theory the amount that would be spent this year is ten times \$1½ million dollars or \$15 million dollars. Some of the provinces themselves are not certain what their roads program is going to be. So it is unlikely that we will be able to give an accurate estimate whether the provinces will use their full \$1½ million that they call on us for.

The second point I wish to make is that we as a federal government do not make the initial proposals. It is the provincial that make these proposals because it is their prerogative. Roads are the responsibility of the provinces. When the road program is put forward, we analyze to see if it meets our criteria and if it does meet them we accept it. If it does not meet them we say that it cannot be accepted. We discuss this and we recommend certain alterations so that they could meet these conditions. I think I have made it abundantly clear that if the provinces which own these resources and have the responsibility for roads, put a program up to us, we do not quarrel with them on where they proposed they should be. That is their responsibility. We merely accept or reject them in so far as they meet our criteria; and you can understand, I think, and I am sure the committee does, that we could not possibly give all the details for roads which have not been agreed upon. You have mentioned specifically, and I too have mentioned this road in Alberta, because there is no difference between the Alberta government and ourselves on why we are rebuilding that Mackenzie river highway.

It is once again a question of bringing up to a standard that will enable this heavy transport to move safely and quickly into the territory because we need this road as a base for moving into the northern area.

The only difference that we have—and it is not a difference at all—is the fact that I made very clear at the meeting on Friday that to complete this program to the standard that the provincial government thinks necessary to

provide this service, requires in the case of Alberta an amount greater than \$1,500,000 per year for 5 years that we have laid down under the policy. I pointed out very candidly, this has put me in a very difficult position, is a problem we have to work out. I cannot go beyond that in provinces like, Manitoba, where negotiations have come to a halt because of the situation in the province. I did give you the rough location of the roads. It does not mean anything unless you are from Manitoba, but this is to open up the area of Moak and God's lakes.

I cannot give you any definite information on Ontario because there are only a very few of the road programs put forward that we have agreed upon.

In the case of Nova Scotia there are four out of the 22 agreed upon, and only one in New Brunswick.

In the case of Saskatchewan I was completely candid in giving you all the information that I could about the three roads there. There is the Otosquen which was never constructed until we agreed on it last year. Then we have the Hansen Lake road, and the survey on the road to Stoney rapids and Uranium city.

I have given you information on Alberta and of British Columbia. I cannot see any more information that I could give this committee without putting the provinces into an insufferable position.

Mr. STEARNS: I don't want to destroy a quorum, but I have a meeting at 12:00 o'clock. If you want us to come back this afternoon, I would welcome that suggestion.

As far as I am concerned, this committee is to decide whether we want to approve the figures set forth, and not to discuss the matter of policy. I do not know where the roads are going, that is up to the department. I do not think this committee has any right to decide where they are going.

Mr. HARDIE: They do not.

Mr. STEARNS: Why?

Mr. HARDIE: If this department asked us to build a road from here to there—

Mr. STEARNS: You can quarrel with the right to build it but have you the right to suggest to this committee where it should be built.

Mr. HARDIE: I am not suggesting where I want to built.

Mr. STEARNS: I thought you were.

Mr. HARDIE: In one part, yes; the first part.

Mr. DUMAS: I think the committee has the right to question the minister about the estimate of \$9 million for the construction of roads, but I think that the minister also at the same time has told us that no agreements have been signed with the provinces. He does not want to put the provinces in a bad situation. So I think that Mr. Hardie has been right in part of his discussion because he wanted to know where the roads were to be built. But, due to the fact that the provinces have not come forward with a definite program and a definite amount of money which they would be ready to put forward, the department of course cannot go ahead and decide by itself where this money is going to be spent.

Mr. AIKEN: I also feel that the minister has made as full an explanation as can be made on this estimate at this time.

The CHAIRMAN: Will the committee approve of these items then?

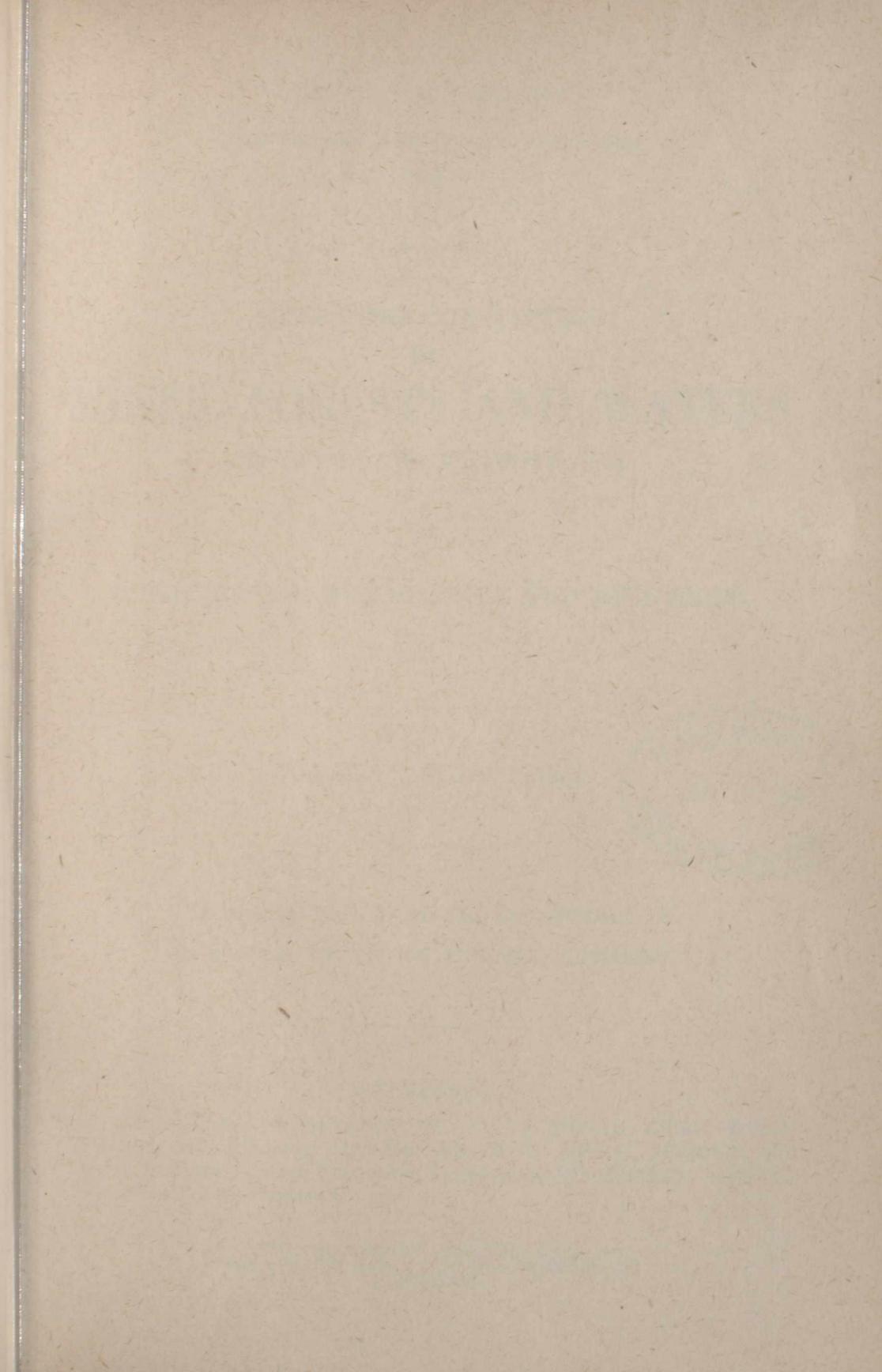
Some hon. MEMBERS: Agreed.

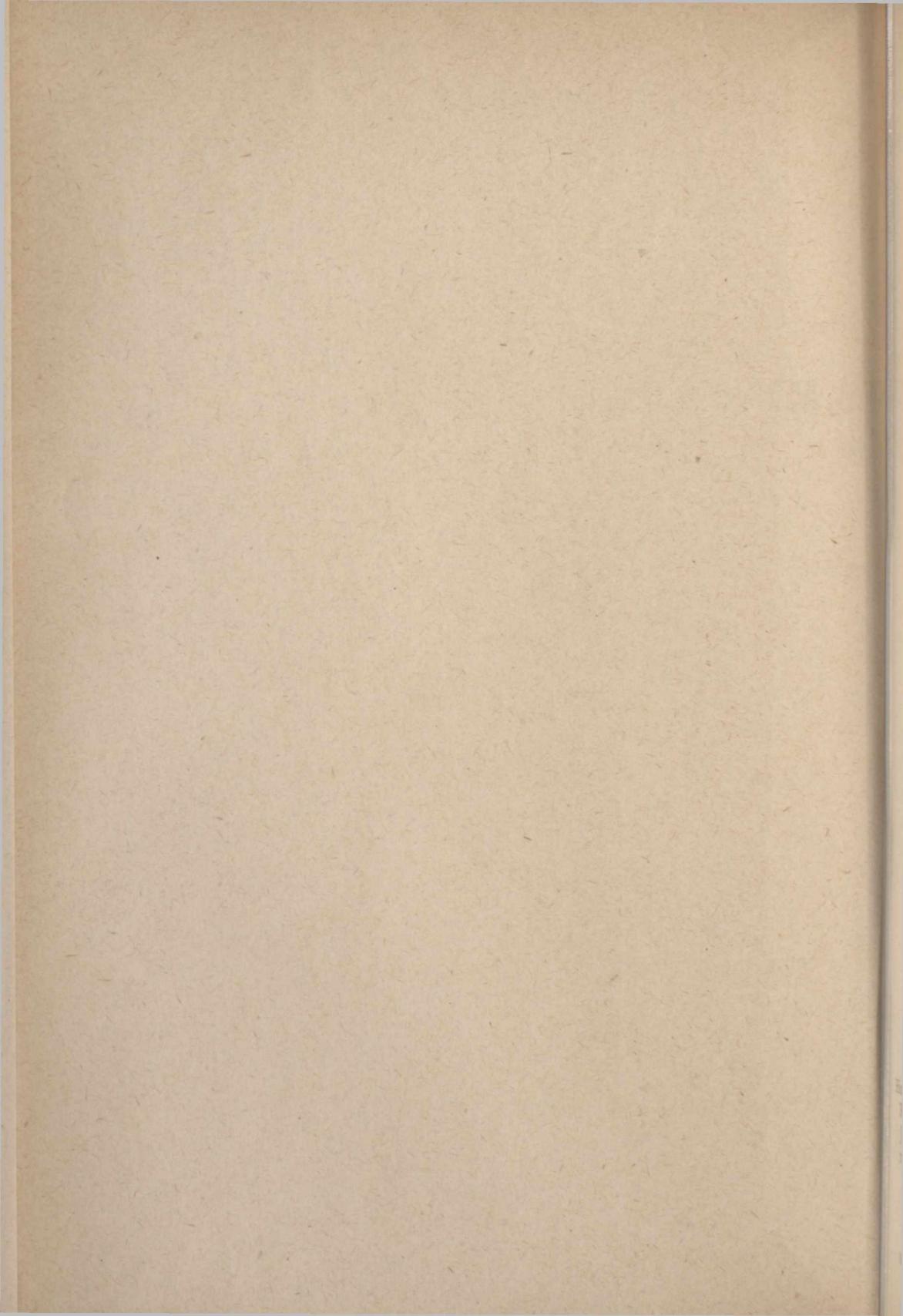
Mr. HARDIE: Just a moment. Do you mean all these items for the Northwest Territories administration?

Mr. KORCHINSKI: I do not know if my question is in order, Mr. Chairman, but it may have some bearing on what we are discussing. We are discussing primarily access roads into these areas. My question is this: are there any studies being conducted in order to accumulate some information as to shipping in the Northwest passage?

I ask this question because perhaps in time to come you will be carrying on a considerable amount of shipping there. Perhaps with a view to extending the shipping season in the Hudson Bay area, is any information of that nature being compiled? I do not know if my question is in order at this time, but perhaps it does have some bearing on the matter.

The CHAIRMAN: Would it be agreeable to you if the minister answered your question tomorrow? The meeting tomorrow will be at 9 o'clock. Some of the members wish to get away now because they have important engagements at 12 o'clock. Please try to be on hand promptly tomorrow at 9 o'clock.





HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 8

TUESDAY, JULY 1, 1958



Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. F. C. Bradley, Chief, Works, Research and Planning Division; Mr. B. G. Sivertz, Director; and J. V. Jacobson, Chief, Education Division of the Northern Administration and Lands Branch.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baskin,
Bruchési,
Cadieu,
Coates,
Drouin,
Dumas,
Fisher,
Fleming (*Okanagan-
Revelstoke*),
Fréchette,
Godin,
Granger,

Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRea,
Martel,
Martineau,
McLennan,
Mitchell,
Muir (*Cape Breton North
and Victoria*),

Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafèche*),
Robichaud,
Simpson,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

ORDERS OF REFERENCE

HOUSE OF COMMONS

MONDAY, June 30, 1958.

Ordered,—That, notwithstanding an Order of the House of June 9, 1958, the Standing Committee on Mines, Forests and Waters be empowered to print 1,250 copies in English and 250 copies in French of its Minutes of Proceedings and Evidence, and that Standing Order 66 be suspended in relation thereto.

Ordered,—That the name of Mr. Fisher be substituted for that of Mr. Martin (*Timmins*) on the said Committee.

Attest.

LEON J. RAYMOND,
Clerk of the House.

REPORT TO THE HOUSE

MONDAY, June 30, 1958.

The Standing Committee on Mines, Forests and Waters has the honour to present its

SECOND REPORT

By order of the House on June 9, 1958, your Committee was empowered to print 750 copies in English and 250 copies in French of its Minutes of Proceedings and Evidence.

Due to the wide interest by members of the House in its proceedings, your Committee recommends that it be empowered to print an additional 500 copies in English of its Minutes of Proceedings and Evidence, and that Standing Order 66 be suspended in relation thereto.

Respectfully submitted.

J. W. MURPHY,
Chairman.

MINUTES OF PROCEEDINGS

TUESDAY, July 1, 1958.

(10)

The Standing Committee on Mines, Forests and Waters met at 9.00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Cadieu, Coates, Drouin, Dumas, Fisher, Fleming (*Okanagan-Revelstoke*), Hardie, Korchinski, Latour, Martel, Martineau, McLennan, Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Pugh, Robichaud and Stearns—(21).

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. E. A. Côté and F. J. G. Cunningham, Assistant Deputy Ministers; F. A. G. Carter, Chief Administrative Officer; R. A. Faibish, Private Secretary to the Minister; and G. M. Carty, Executive Officer: *of the Northern Administration and Lands Branch:* Messrs. B. G. Sivertz, Director; W. G. Brown, Chief, Territorial Division; J. V. Jacobson, Chief, Education Division; F. C. Bradley, Chief, and J. I. Nicol, Assistant Chief, Works, Research and Planning Division; C. M. Bolger, Assistant Chief, Arctic Division; and T. D. Skelly, Head, Lands and Timber Section, Mining and Lands Division: *and of the Forestry Branch:* Messrs. J. D. B. Harrison, Director; D. R. Redmond, Chief, Forest Research Division; H. W. Beall, Chief, Forestry Operations Division; J. H. Jenkins, Chief, Forest Products Laboratories Division; and S. MacCallum, Accountant.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

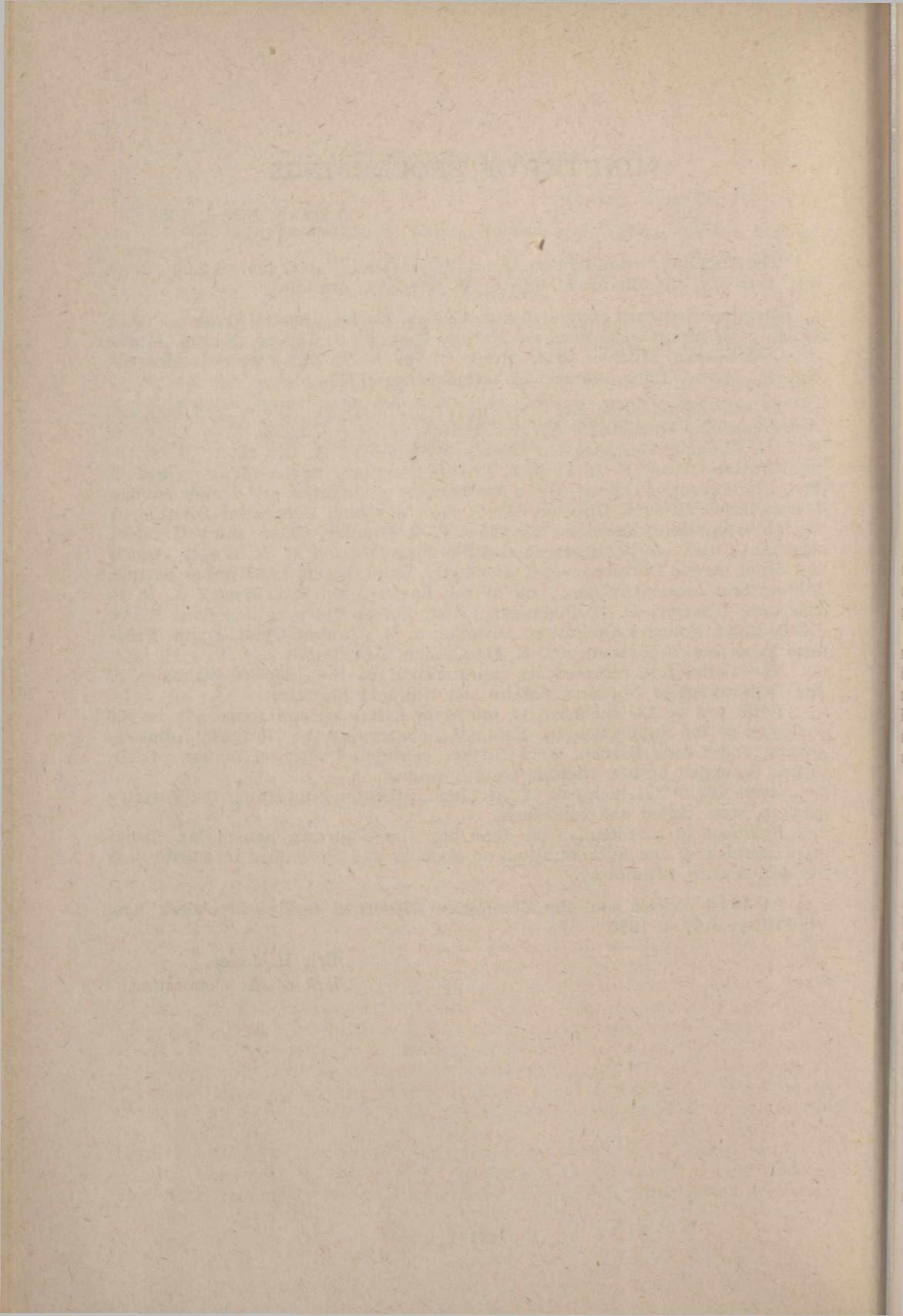
Items 282 to 289 inclusive of the Main Estimates and Items 584 to 586 inclusive of the Supplementary Estimates, concerning the Northern Administration and Lands Branch, were further considered and, on motion of Mr. Aiken, seconded by Mr. Nielsen, were approved.

Items 290 to 301 inclusive of the Main Estimates, concerning the Forestry Branch, were called and considered.

Pursuant to a resolution on June 5th, the Chairman named Mr. Fisher as a member of the Subcommittee on Agenda and Procedure in substitution for Mr. Martin (*Timmins*).

At 10.55 o'clock a.m. the Committee adjourned until 9.30 o'clock a.m. on Friday, July 4, 1958.

Eric H. Jones,
Clerk of the Committee.



EVIDENCE

TUESDAY, July 1, 1958.
9:00 a.m.

The CHAIRMAN: Gentlemen, we have a quorum.

Before we take up any departmental business, I hope that all the members of the committee will be able to accept an invitation to attend a dinner to be given by the chairman either on Tuesday or Thursday next between six and eight o'clock.

Gentlemen, we are on the main and supplementary estimates of the Northern Administration and Lands Branch. Yesterday one of our members inquired about supplementary item 586, which is Construction or Acquisition of Buildings, Works, Land and Equipment—further amount required \$3,500,000. I think the minister indicated his willingness to lead off on this discussion.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): I am going to make a statement and then ask one of my officials to go into more detail on this \$3½ million expenditure. The largest amount in this \$3½ million is an item for the step-up in development of the Frobisher Bay program. Last fall it became apparent to the government, with the request to extend the airport runway at Frobisher Bay and with the rapid growth of the commercial traffic by airline through Frobisher Bay, that a large program of construction would be necessary at this airport.

One of the responsibilities of the department, as I said in the first statement I made to the committee, is the coordination of the work in the north by all departments even though this work is being done largely for the Department of Transport and the Department of Northern Affairs and National Resources. It has been accepted by other departments that our department should fulfil its function in this Frobisher Bay area by coordinating all activities in the area.

In January we set up a Frobisher Bay development group composed of the officials of the Department of Public Works, the Department of National Defence, the National Research Council, the Treasury Board, the Department of Health and Welfare, the Department of Justice, the Department of Transport and ourselves as the main operators.

This Frobisher Bay development group has the responsibility of planning and coordinating the activities of construction and operation in this area. Under the Frobisher Bay development group there is a Frobisher Bay projects office. This is an engineering team which has the task of preparing the plans and supervising the operations in the area to maintain maximum efficiency and coordination, and particularly is concerned in reducing costs.

If anyone makes a study of the costs of government and construction in the north I think they would find to be true what I said in my opening statement, and that is that the whole success of our northern development program will rise or fall on the ability of the department to get the costs down on ordinary things such as the building of homes, heating of those homes and the providing of services for those homes along with the provision of power for the community.

Now, today, to save time and to be more precise in a statement of what is being done there and for an explanation of the items we have under discussion now, I have asked Mr. Bradley who is an engineer with much experience

in northern construction and building to make a statement to the committee. He is the engineer in charge of the projects office. I know you will be interested in his statements of how we have gone about coordinating the efforts in that area and what we have done to reduce costs in the building of the community at Frobisher Bay.

Mr. F. C. BRADLEY (*Chief, Works, Research and Planning Division, Northern Administration and Lands Branch*): Mr. Chairman and gentlemen, the first thing we did at Frobisher when we had this task facing us was to have a look around the other government departments in order to see what surplus equipment and buildings we could obtain to cut down our costs.

First we found that the army, through the Department of National Defence, was able to let us have ninety buildings which at the moment are surplus to their requirements. These are Butler buildings and we have them on loan. These buildings have been adapted to our requirements for schools, living accommodation of from one to three-bedroom apartments, garages, contractors' camps, and so on.

Following on that, we looked around for other equipment such as the large and expensive cooking ranges which are used in contractors' camps and which are normally furnished by the catering contractors but paid for by the government. We looked for other items such as transite pipe and equipment which we might be able to obtain from other government sources. We obtained this equipment from the Department of National Defence and it means that there is an amount of something more than \$1 million which we can in effect deduct from our over-all program.

The next thing we looked at was the type of houses or the type of construction in the north.

I have read reports going back to as far as 1940 written by people who have worked in the north. In the context of all these reports, in the end, they have all said we must have an Arctic house. Presumably what was meant by that was we must have a type of construction which would economically combat the rigors of the Arctic. In that regard we set about designing, not necessarily the house, but the type of construction from which any house or any type of building could be constructed. Briefly, this takes the form of insulated material sandwiched between, depending upon the durability required, plywood of varying thicknesses, aluminum or fibreglass. At present we are making these panels up in standard sizes, eight by four, and they are all interlocked with a patented locking device which means that, taking a comparable house which is the one-room Eskimo house which takes roughly ten days to erect, we can erect—and we have done it—one of these houses in half a day.

Incidentally, one of these houses is out at the Experimental Farm at the moment. The house weighs three tons as against ten tons for a conventional and comparable house. Therefore, from the point of view of transport, it is very economical; you can fly them in. The insulating feature of the house is so much higher in standard that we estimate a saving of 1½ gallons of oil a day for the whole 365 days in the year. If one wants to do some figuring on that, the average price we are paying for oil at the moment in the north comes to 47 cents a gallon, and so if we save one gallon a day it comes to \$171 a year we save on each house.

That sounds like a small amount—a gallon per day—but we just built 70 houses, or recently contracted for 70 houses of this type, and if you multiply 70 times \$171 you arrive at a fair savings.

Going on from the type of house, we then looked at the oil consumption of the various units. We found in respect of the standard stove, which has been used to heat this type of house, that by adding modern combustion improvements we could increase the efficiency of that stove and save again in the order of two gallons of oil per day.

These are quite conservative figures. These units have been carefully tested and will be put to the proof during this winter.

We now have an oil conservation for the small Eskimo house amounting to a savings of three gallons per day throughout the whole year. As I say, oil at the moment is costing an average of 47 cents a gallon.

The next thing we looked at was integration of services. In the past because of the slow growth of the north it has been necessary for each unit, whether a fairly large one or a medium sized one, to be operated on its own merits. It had its water supply carried in by car and sewage removed by little honey trucks, and the power supplied by a small diesel generator.

To give an example, at Frobisher the size of the Northern Affairs community is in the order of 230 houses. We could increase that number to 600 by integrating the services, which is the estimate we have for this year. By grouping the 230 houses into 600 we could save in the order of \$390,000 a year. Again, these figures are not at the top of the estimate, they are at the bottom. We have taken the lowest and most conservative figure so that at the end of the year when we have to justify the estimate we hope to have a little in hand.

I do not know that there is anything more or any other figures that you would like than the ones I have given you. There is much more information but it is inclined to be in detail.

Mr. HAMILTON (*Qu'Appelle*): Would you just say a little more about this integration of services which include such things as central heating?

Mr. BRADLEY: Heating methods at Frobisher in the past, and for that matter in most of the small places in the north, have been handled by separate units in each house, all space heaters. In the case of Eskimo houses they use a unit called a medio stove with which they heat the building and which the Eskimos use for cooking. An Eskimo is not too mechanically minded and his idea of heat control is to get the building very hot—about 80 degrees or 85 degrees—and open the door until he gets the temperature he wants.

The first thing we did was to modify these stoves. That was not nearly sufficient. There are very small areas here in which we still have these stoves, but they are not worth going into in respect of the small unit plans. These houses again are modernized with the techniques of heating, both temperature and water. They are of a simple form of utiladore construction which is cheap to erect. For insulation we use the simplest form. We use sphagnum moss packed into the utiladore boxes. A utiladore is, in fact, just a square box in which you carry your services; your water, your sewage and your central heating. By having one central heating plant and one central source of sewage disposal—which means that instead of a normal chemical toilet in the building you have the normal flush toilets which all discharge into one big tank—and one generating plant, we arranged the working part of the townsite at Frobisher Bay so that we had the generator plant, the boilers and the sewage disposal units all together so that the labour, equipment and everything is all in the one area.

The next step was the installation of the central heating, using boilers of reasonable size which permitted us to use heavy fuel rather than using diesel fuel. We can now use a fuel called Esso 46 which is a light bunker fuel. By using this type of fuel we can save about seven cents per gallon. This fuel also has a higher calorific value.

I have not as yet got the figures so far as the Northern Affairs consumption figures are concerned, but to give you some idea, two years ago the National Defence used in the order of 24 million gallons of fuel oil per year. When you figure on a seven-cent a gallon saving in respect of that sizable amount you arrive at a fairly economical result.

We also make a big saving in respect of central heating plants as a result of bulk supply of fuel. At the moment drums are expensive to handle, and the drums themselves have a \$12 penalty on them. So that for every drum that is lost, and the average over a number of years has shown that between one-third and one-half of the drums that go into the north are never returned, you must add \$12 to whatever the oil fuel calculations are in respect of Frobisher Bay.

We took this situation into consideration in calculating the savings at \$390,000 in respect of this small townsite of 600 people. This was a figure that was contributory to our savings. We have saved then by using heavy fuel oil instead of diesel, by tanker installation instead of drums wherever we put in central heating plants in the north. We can expect to make, at last count, a conservative estimate of 25 per cent savings on our present heating costs.

Broadly speaking at Frobisher Bay what we have also done is to make sure that the units we are installing are of a size which will permit us to take them out and use them in other places. We are not installing great big plants. We are trying to keep the diesel units down to a fairly small size so we can use them should there be a requirement in other places when this townsite which we are completing now is finished.

Mr. HAMILTON (*Qu'Appelle*): Thank you very much, Mr. Bradley.

I think I can, on behalf of the committee, express our thanks to the people of the Frobisher Bay Development Group, and particularly to the Projects Office for the type of thing you have heard about today. What you have heard in the last five minutes might seem surprising to you; however it is probably more important to the future opening up of the northern areas than even the more vast projects which seem much more dramatic such as the building of great highways, or ice-breakers, or other big projects.

If these savings are achieved and I have no reason to doubt the figures of the engineers, we will have done something, I think, in northern construction which will bear more weight than anything I know of on future activities there.

I know that every member of this committee joins me in my appreciation of engineers like Mr. Bradley who have come to us from other bigger jobs and put their tools and energies at the disposal of the people of Canada.

Mr. Chairman, I do not think you will mind my making that statement of appreciation at this time.

The CHAIRMAN: Thank you very much, Mr. Minister. Are there any questions in regard to this item?

Mr. DUMAS: Mr. Chairman, I wonder if the minister could tell us how many people are employed at the Projects Office at Frobisher Bay?

Mr. BRADLEY: We have an establishment of six. At the moment we have one.

Mr. HAMILTON (*Qu'Appelle*): That is the reason I did not mention any other names.

Mr. DUMAS: What is the actual population of Frobisher Bay?

Mr. BRADLEY: At the moment?

Mr. HAMILTON (*Qu'Appelle*): Do you mean just the Eskimos?

Mr. DUMAS: I am speaking of the Eskimos and others, if there are other people there now.

Mr. HAMILTON (*Qu'Appelle*): I wonder if I might answer this question. There are 230 Eskimos, groups of the Canadian military, groups of the American military, and a large group of transport people. At the present time moving into the site is a fairly sizable number of construction people. I went up about two months ago. The population then was in the vicinity of 800 or 900.

Mr. HARDIE: The other day in the Estimates Committee, when the defence estimates were before the committee, I asked the deputy minister of defence if there was an army or a Canadian establishment—either army, air force or navy—at Frobisher Bay. His answer was that there was not at the present time an establishment. I was just wondering where this confusion comes in.

Mr. HAMILTON (*Qu'Appelle*): I do not want to explore that question too far. The main forces at the moment there are American. There are other military there. There may not be an establishment—but I think I have said enough on that.

Mr. HARDIE: I will take that up in the Estimates Committee.

How many aircraft are at present using Frobisher for refueling—that is, commercial aircraft?

Mr. HAMILTON (*Qu'Appelle*): About two months ago the figure was given to me in numbers of passengers by the airline people. The figure was 700 passengers a week. That was at the end of April. By July—that is this month—they estimated the number of passengers would be 1500 per week. They did have an estimate of what they thought it would be some time in the future about—3000 a week going into Frobisher.

Mr. HARDIE: This includes C.P.A.?

Mr. HAMILTON (*Qu'Appelle*): As well as Pan American, Scandinavian Airlines, and T.W.A. I think there are about five or six altogether.

Mr. HARDIE: I understand that C.P.A. have cut back their trips over the pole recently by half.

Mr. HAMILTON (*Qu'Appelle*): I have not heard that. Incidentally, you asked the number of aircraft. I think they told me that the average number of passengers was about 70 a plane, which would give you a rough idea.

Mr. HARDIE: About 10 planes in March?

The CHAIRMAN: I would appreciate it if we did not go beyond these items.

Mr. HARDIE: These questions concern this because the point was made by the minister that the station of the runway would provide need for a greater establishment at Frobisher Bay.

What would be the ultimate population of the area?

Mr. HAMILTON (*Qu'Appelle*): From the present information we have it is estimated that the population will be 4,500 of a permanent sort.

Mr. HARDIE: Of this number, could the minister give an approximate number of how many Eskimos would be there?

Mr. HAMILTON (*Qu'Appelle*): Did you ask for the number of Eskimos?

Mr. HARDIE: Yes.

Mr. HAMILTON (*Qu'Appelle*): At the present time there are 230. It is thought that with facilities such as schools, rehabilitation centres and vocational centres there, there will be an estimated number of 600 from the eastern Arctic.

Mr. HARDIE: The rest would be made up of the Departments of Transport, Justice and Defence, as the minister stated?

Mr. HAMILTON (*Qu'Appelle*): Many of them would be private people working for the airlines. There are already two private banks up there, and we foresee quite a number of private business moving into the area. The estimated 4,500 is composed of military personnel, civilian personnel and Eskimos.

Mr. HARDIE: What will the total cost of the project be, in the ultimate?

Mr. HAMILTON (*Qu'Appelle*): We have a very round figure which includes the estimated military expenses as well for the next five or six years. There is the permanent townsite and the power installations and all the airport buildings, runways and so on which will reach close to \$75 million.

Mr. NIELSEN: When was this plan first conceived?

Mr. HAMILTON (*Qu'Appelle*): The first necessity for it arose last year with the request to extend the runway for combination of purposes; one military and one civilian. There was a decision to make it a joint project under our direction. This was taken, I would say, in the month of January this year. I would have to speak with some diffidence as to that date. I am told that February 4 was the actual date on which the policy was accepted by the government, but the actual planning did take place in the previous month.

Mr. NIELSEN: Have you any idea of the estimated revenues that the government is likely to realize from the establishment?

Mr. HAMILTON (*Qu'Appelle*): This statement we do not make very loudly, but it is hoped that our project will be self-liquidating. By that I mean the military contribution in sharing runway costs and building costs, with the fact that this townsite will be rented out to civilian personnel, not government, and to military personnel at rates sufficient to amortize the cost of the project over a certain length of time.

We hope that we will have a self-liquidating project. Likewise, airport services to civilian airports and terminal building will work on the same basis. The reason I am not making it a flat statement of fact that we will achieve it, is that our history of airports in Canada has been that only the largest airports pay their way.

There may be a loss in there, because we do not know the full traffic that will move through there. We have the estimate of the airlines, of course. Likewise, with this question of costs in connection with the homes, we cannot charge civilians or any other person an amount beyond which they will not pay. It has to have some relation to their ability to pay. But it is thought that with these efforts we are making to reduce costs, we will have a rental figure that will be very attractive to all those who wish to rent accommodation from us. Of course, with private individuals going up there, the hope is that many of these units will become privately owned. At the present time we do not foresee that occurring in the immediate future because these units are integrated very closely.

Mr. NIELSEN: What is the source of your electric power at Frobisher?

Mr. HAMILTON (*Qu'Appelle*): At the moment we are just planning an orthodox diesel plant, even though there are other possibilities in the back of our minds.

Mr. NIELSEN: And this also is planned—

Mr. HAMILTON (*Qu'Appelle*): I wonder if I might interrupt. I hesitated a moment ago, but I do not think there is any reason for being too close-mouthed on this particular aspect. There is very serious consideration and a tremendous amount of planning activity going on at the present time to work out the economic and engineering possibilities of putting in a nuclear power unit at Frobisher Bay, along with the diesel plant for power and heat. But you must remember that one of the big arguments in considering the nuclear power plant in this area is that it has tremendous reserves of heat which ordinarily have to be cooled and got rid of in a settled community. The nuclear plant is a source of heating the homes, as well as providing us with light and power for the community.

Now, this statement which I have just made does not mean that it is going through for certain. It has not been approved as government policy or anything of that sort.

Each project which we bring forward for the Frobisher Bay development group has to go through the cabinet for approval. But we are giving serious thought and we are putting a tremendous amount of energy into a study of the engineering and economics aspects of creating a small nuclear power plant for Frobisher Bay.

Mr. NIELSEN: This whole project is planned to be self-liquidating. Have you any idea, considering the matter quite apart from the possibility of the installation of nuclear power, of the period over which this whole project might be amortized?

Mr. HAMILTON (*Qu'Appelle*): That point is under discussion in the department. The assistant deputy minister, Mr. Cunningham, says that it will take between 20 and 40 years. Personally, I think a better answer would be that some parts would become self-liquidating sooner, while others would take a longer period of time.

In connection with nuclear power, the reason we are considering it is to reduce costs in the area.

Mr. HARDIE: A statement was made some time ago that they would test the commercial value of atomic energy along the DEW line and in the north. There is nothing actually hush-hush about it; the announcement was made quite boldly.

Mr. NIELSEN: The idea of this project, I take it, is that various portions of it will become amortized in varying lengths of time.

Mr. HAMILTON (*Qu'Appelle*): I think that is a reasonable assumption, because I gather from the officials that there is still debate going on about the length of time for amortization for some of these projects.

The CHAIRMAN: Are there any other questions? May I remind the committee that Mr. Fisher has been substituted as a member of the committee in place of Mr. Martin. As he is interested in forestry, I welcome him to the committee.

Mr. FISHER: Would the minister be good enough to say a word with respect to the social aspects of the community in terms of what your department will do by way of recreation?

Mr. HAMILTON (*Qu'Appelle*): I would ask the man in my department who has been sitting here for several weeks just waiting for an opportunity to answer a question of that kind, because this question of human values in the north is one which I suggested would be a very proper one to question him on during this committee.

This question has arisen in connection with a project such as Frobisher Bay, and I think it would be very wise if we might have a statement from possibly the one man who knows more about it than any of us. I refer to Mr. B. G. Sivertz, director of northern administration and lands branch. Mr. Sivertz.

Mr. B. G. SIVERTZ (*Director of Northern Administration and Lands Branch*): Mr. Chairman, the problem that we have to deal with in connection with people to do the work in the north has been thought of in the past largely in terms of outpost establishments of a few white men among a predominantly Eskimo population.

I speak now of the Arctic, but of course in the Mackenzie district the same principle applies. The population there instead of being Eskimo is northern Indian in respect to the indigenous population.

If we are speaking of Frobisher, and I understand that is what the committee is engaged in at the moment, then it is of the Eskimo people. As is clear from the prospect of Frobisher as described, the predominant characteristic of the Frobisher Bay community in future is not going to be that of a primitive Eskimo community at all.

It is going to be a place where a large group of people have to live and work in order to carry on the technical operations which are fairly complicated and in the servicing of transportation and communication facilities. This requires the handling of power, a central heating plant, and that sort of thing, and it requires a pretty well trained group of people.

We do of course envisage bringing the Eskimos into the life and operation of northern Canada to the greatest possible extent. The resources of the land in which the Eskimos have lived in the past are diminishing. However, the population is increasing so other livelihood must be found for a substantial proportion of these people. In a sense another livelihood must be found for all of them because the level of their existence in the past has been low to such a degree that it is not acceptable to Canadians speaking generally, and to other sections of the Canadian population living in that way.

Infant mortality is extremely high. Life expectancy of the individual is extremely low. These conditions describe a life of hardship that we are trying to alleviate.

I think very rapid progress is being made in that direction, and I think that within the next few years we shall see emerging from the school system of the north some Eskimo men and women who will be able to take their place in the activities of Canada by and large, but more especially in the Arctic which is their home and where they actually like to live and work.

However, to turn from the Eskimo section of the population and to speak of the requirements at large of a community such as Frobisher Bay, and those which will be duplicated elsewhere as mining, particularly, develops, we must have facilities in those communities which will enable Canadians to live in the north with their families.

The idea of having single men living in barracks in outpost arrangements is not quite satisfactory. It is, to begin with, uneconomic because it is extremely expensive. The premiums which have to be paid to induce people to live under such circumstances are extremely high.

The alternative, we think, is to build a community which will be an attractive place and from which will emerge a body of the Canadian population which thinks of themselves as dwellers in a northern community that they have selected to work in and where they do not think of themselves as going up to live in the north to endure a period of a year or two years, and then to flee back to the security of southern communities.

This was characteristic in particular regions—for instance, in the Yukon in the early years where men thought of themselves merely as people living there and enduring hardships only for a short time and then leaving it again.

But there has in the interval grown up a population which thinks of themselves as "Yukoners".

The problems of living in the comparatively bleak Arctic lands of Canada are not problems which are insuperable. Cold is not something which will prevent people from living in comfort and pleasure in the Arctic.

What is needed, however, is the development of physical facilities whereby people can live in a reasonable standard of comfort with their families while their children attend schools of good quality and where there are the safeguards of hospital and medical facilities as well as good transportation and communication.

In our experience, without these amenities which Canadians have come to think of as fairly standard for the country, people are not interested in living and working in the north; but with those amenities, they are interested. We think of our job as having to do with creating a condition that will enable a section of the Canadian population to grow up, thinking of themselves as residents of the north, whether it is the Yukon Territory, the MacKenzie district or whether it is the Arctic—and even including the high Arctic.

The CHAIRMAN: That was a very interesting question and a good answer.

Mr. FISHER: I had a letter the other day from someone in Frobisher Bay who was lamenting the fact there was not much there in the way of reading material. Are there libraries planned?

Mr. HAMILTON (*Qu'Appelle*): There is a northern library service, but I was going to mention one thing that Mr. Sivertz did not mention.

I think I am right in saying that one of the first plans in moving up was that one of the temporary buildings is always set aside as a recreation centre. This is done because of the length of the nights in the winter-time and the extent of the cold weather period during the year, it is important to have a closed in community centre. The reasons for it are more than just seeing movies and holding dances. It is a place for people to meet together and to intermingle as white and Eskimo. In this way, the Eskimo can learn the language and associate with his fellow workers in social activity. In this way he becomes quite fluent with the language he has to deal with in his ordinary work. He also gets to the stage of more and more thinking like and understanding the people he has to work with.

I am not suggesting for a moment the Eskimo should give up all his better characteristics as a very original and primitive group. These characteristics have enabled him to survive all through the years. However, I think it is necessary in northern community work that the people who work together should be able to play together; and I just wanted to point out that that recreational facility was there.

The northern library service will move into these communities. When I was up at Frobisher bay I did not see any library facilities.

Mr. SIVERTZ: There is a library in the school but this is not available to contractors' employees and people who live at the airport.

Mr. FISHER: I know they are getting *Hansard* up there. The thing that always develops in these closed communities is that sometimes there is an irritant or strain because of the fact that some form of community government does not develop to give the people on the job a chance to express themselves and to run certain aspects of their own activities. What plans have been made in regard to this?

Mr. HAMILTON (*Qu'Appelle*): At the present time I do believe they are starting something in this regard in Frobisher. In the last few months a group of Eskimos have been formed who serve as sort of an advisory council and who meet to discuss their activities.

It is the intention in every one of our northern communities to give increased responsibility in government as rapid as they can accept it. This would be true in Frobisher.

Mr. PAYNE: What is the situation in regard to medical services in Frobisher bay?

Mr. SIVERTZ: The Department of National Health and Welfare is charged with handling medical and hospital services in the north. The organization is called the northern health service. They are now operating a nursing station at Frobisher bay. It does not have a doctor, but it has two registered

nurses and some assistants principally to look after the Eskimo population. This is now being expanded. They are sending in a doctor and buildings are being erected this summer to enlarge the facilities so that they may deal with medical and hospital problems.

Mr. PAYNE: What is the incidence of tuberculosis with Eskimos in the area? Is it high?

Mr. SIVERTZ: I cannot give it for Frobisher Bay, apart from the general region of Baffin Island. It is high in Baffin Island—almost 8 per cent. This, however, is indicating a very sharp reduction now as a result of a saturation or complete program instituted two years ago by the tuberculosis case finding institute in the Department of National Health and Welfare, whereby they made it their objective to remove every source of infection by tuberculosis from a given area, rather than just cover the region superficially, as had been done in the past. Therefore, they have gone over for the second time some of the regions they went over two years ago, and again in 1957. They found that in some places there were no fresh cases of tuberculosis and in other cases they have found the incidence down to around 2 per cent. So, we are in a period of transition now in respect of the incidence of tuberculosis, that we hope will reflect a true and very marked reduction as a result of this saturation survey and case finding that has been conducted by the doctors in the past two years.

Mr. FISHER: Is the writer-photographer Wilkinson an employee of your department?

Mr. SIVERTZ: Yes.

Mr. FISHER: Where is he stationed at the present time?

Mr. SIVERTZ: At Baker Lake.

Mr. FISHER: In that connection, would it be possible to put this development on film, so that eventually in this way we would have something that could be distributed fairly widely across the country, in order to tell the complete story? I think it could be a money maker.

The CHAIRMAN: Are you speaking about Eskimo life?

Mr. FISHER: I am speaking of the integration of the two.

Mr. HAMILTON (*Qu'Appelle*): Mr. Sivertz informs me at the present time there is a film board project on Dorset Island which is covering the development of the Eskimos in that area.

At this time I would like to mention the contribution made to Eskimo development by a private company at Rankin Inlet. They have just made a film in the north in which they show their nickel and base metal mine at Rankin Inlet, which employs about half Eskimo and half white. It starts out by showing the Eskimos living in tents, and the gradual shift by the company of these people into homes, much the same as you would find in suburban cities. I do not dare mention a city because it will cause a new cartoon some place. But it is amazing, when you see the pastel coloured houses; they look like any settlement in our major areas.

The most important thing this film demonstrated even, over the short period of time in which it was taken, is the growth in strength and bodily structure of the Eskimo because of his getting regular meals. It has been the up and down effect on his diet which has caused malnutrition and malformation in his bone structure. The physical actions shown illustrate the tremendous growth in bodily strength which comes from proper food.

Rankin Inlet is on the west side of Hudson Bay. If we are able to obtain some films of the north, I wonder how many members of the committee would be interested in seeing this type of thing in operation? There is nothing extremely

dramatic about this; it is simply the operations of mining in the northern area, primarily focused on the Eskimo, their life and the jobs they do. Even the private companies are motivated along the line of using the native population as indigenous workers, paying them the same wages as the white man, and they have done so without increasing their costs. I think we owe a great debt to these humanitarian, looking-forward companies who are operating at Rankin Inlet.

Mr. NIELSEN: I think that is an interesting suggestion. I would make the motion that we have the departmental officials concerned obtain the films which were described by the minister for a showing to the committee. I might suggest that we also obtain the film "City of Gold".

Mr. HAMILTON (*Qu'Appelle*): I think we can obtain the one from the Rankin Inlet people and I believe the "City of Gold" is a National Film Board film and we could also obtain it. Perhaps these films could be shown at the dinner; they would serve as interesting entertainment.

The CHAIRMAN: Is that agreeable?

Agreed.

Mr. PUGH: Are the Eskimos employed there living in the same type of houses as is the average person who is up there?

Mr. HAMILTON (*Qu'Appelle*): You mean at Rankin Inlet.

Mr. PUGH: For instance, those employed by the mining companies on government projects?

Mr. HAMILTON (*Qu'Appelle*): When the Eskimos first come in they live in their tents, but they are put in houses as fast as they can be and that house is rented to them because they are highly paid workers. The same thing would apply to employed workers in any of our northern developments. An Eskimo receives the same wages for the same type of work and he pays the same rent.

Mr. PUGH: For the same type of accommodation?

Mr. HAMILTON (*Qu'Appelle*): I think roughly that is so. It is true that principals of schools and senior employees, who ask for such accommodation, have homes with three or four rooms. We have that type of home as a different unit. We do give that to our school teachers who have their families up there with them; we have to provide family accommodation. However, as far as the accommodation for the Eskimos is concerned, many white families have lived in much worse for many years.

I wish you would take a look at the house which is on exhibit at the experimental farm. It is classified as a one-room house. The floor space is 400 square feet; it is a sizeable house. By using a partition and putting in bunks in a certain arrangement you do have privacy. If any of you wish to drive out there you can go in and ask to see the experimental northern house at the experimental farm. Mr. Bradley did not emphasize it, but you can pick up any of the panels because they are made of styrofoam. They are all locked together and you can completely seal them at great strength and pull them apart easily. If you want to see some of the ways we are able to reduce our costs in heating, you will see them there. These houses are provided for the Eskimos. So far the white people going up there are for the most part administrators and civil servants who if they desire have a larger unit; or if they are single they live in barracks. If an Eskimo wants to pay the rent for a bigger house he can.

Mr. McLENNAN: What would the four-room house cost?

Mr. HAMILTON (*Qu'Appelle*): At the present time we are paying about \$5 thousand.

Mr. HARDIE: On the site?

Mr. HAMILTON (*Qu'Appelle*): No, that is just the building.

Mr. STEARNS: Is that the price at Ottawa or the erected price up north?

Mr. HAMILTON (*Qu'Appelle*): That is the price in Toronto.

Mr. AIKEN: I think we have pretty well covered the Northern Administration and Lands Branch estimates. I would like to move that we approve these items in the main estimates and the supplementary estimates.

Mr. HARDIE: I have some questions on this subject before you do that. On the completion of the vocational training school at Yellowknife would you say whether or not the Eskimo vocational training school at Leduc, Alberta will be closed.

Mr. J. V. JACOBSON (*Chief, Education Division, Northern Administration and Lands Branch*): Yes; but the training will continue, on a partial basis, at Yellowknife. The same type of training will be carried on at Yellowknife as at Leduc but on a reduced basis.

Mr. HARDIE: The training at Leduc was one of the most successful operations which the department has undertaken in past years, in respect of education. As a matter of fact last spring when I was in Tuktoyaktuk there was an Eskimo boy there who had trained at the vocational training school at Leduc who had returned home to find himself employed on the DEW line for one month, and then laid off and back on the trap line. I visited him in this house, which was a very nice house, where he had a couple of white fox skins hanging up, and also a couple of seal. He said to me at that time, "As soon as I can get a stake I am not going to stay here; I am going back to Leduc or Edmonton."

Another Eskimo boy who was very fortunate in having gone through the vocational training school contracted tuberculosis, and is now in hospital at Aklavik. He wrote a letter to me and suggested that he and other Eskimos thought that the courses in vocational training of four months were altogether too short and that they should be increased to at least ten months. I think myself that this would be a very good and practical idea.

Mr. HAMILTON (*Qu'Appelle*): In answer to the question about the school at Leduc, I have met these boys and have talked with them, and there were six in the house last spring. However I have seen them in operation, handling these big "cats" and bulldozers; it is most amazing. I have spoken to the maintenance people who have years of experience who tell me that the Eskimo boys are not only good operators but they also really have a feeling for the maintenance which goes far beyond the white man's sense of responsibility. I suppose one could reason that life in the north is such that they have to be sure everything they work with operates well. They have a real sense of responsibility and these machines are well and truly looked after.

If anyone here thinks he is superior to the Eskimo because he happens to live in a different part of Canada, and if he wants to lose that feeling of superiority he just needs to see the Eskimo in his own habitat hunting almost with his bare hands and surviving in that country with the aid of tools or weapons which in many instances he has made himself; then you will see how small you are. The second thing is to see him operate, after a four-months course at Leduc, a caterpillar, bulldozers, snow removal equipment and other large trucks and, if you ever thought that any person because he lived in an ancient civilization was inferior to you, you would never have that feeling again.

The new school of Yellowknife for training will be lengthened to provide a full course. In response to a very great need by Eskimo boys we have advanced the course to the standards which we hope will enable them to complete.

The member from Mackenzie River was able to give us one or two stories on Eskimos which are of interest. I would like to add one more. This comes

first hand from Frobisher. One of the newspaper men was questioning an Eskimo who said he was going to save his money in order to send his children to school in Nova Scotia. The newspaperman was surprised and said, "Why are you going to send him to Nova Scotia?" The Eskimo replied that down there the standard of education is very much higher than in other parts of Canada. This is an Eskimo speaking who means business. Then he asked: "Do you not like the three-room school here?" The Eskimo replied "Yes, it is fine, but it has divided classes and I would like my children to have an opportunity in an organized school." Then the newspaperman asked him, "Won't you miss your family when they are down there?" The Eskimo answered, "Yes, but I want them to be able to compete with other Canadians on equal terms." These Eskimos are very independant people and this newspaperman was surprised, and I imagine that any other people of Canada would be surprised, to see the spirit which exists among them.

I have another story which I would like to tell, if the committee would bear with me, because it has something to do with this matter, and this is, in opening the north country you can never completely separate yourself from the ordinary human things of life. I have in my file the story of an Eskimo girl who came down here and was trained. I will tell the story as simply as I can. This is a story of a girl named Ann Witeltuk who came down to the settled portions of Canada and trained for various jobs. On her own she went out and got herself a job as an airline stewardess and is now working out of Montreal on Trans-Air. She wrote a letter to Mr. Sivertz. The letter is written in a language which any person of ambition in this country would understand. This girl was very proud of the fact that she, almost unaided, had found herself a job and that she was proving very satisfactory; and she expresses, as would any girl, the desire in her travels to see certain things and certain people. If any Canadian girl thinks any differently from the way that girl thinks I would like to know about it. It was a typical letter from a young girl on her first job expressing the same thoughts which you get from any of the young people of Canada.

I wish I had that letter here. It is written in a somewhat simple expression of a primitive people who have learned our language. Just the reading of that letter makes one feel very proud that our northern citizens, the Eskimos, are coming into our civilization and meeting us on our own ground and taking jobs which are highly skilled and highly prized by our Canadian girls and competing with them on a fair basis.

There are other stories. I am very sorry I do not have the copy of the letter here to read to you at this time.

Mr. HARDIE: I feel that the Leduc training program has been a success, although in some cases the people who graduate from that school are still unable to get work. If it had been possible, and had the government allowed them to stay in Leduc, some of these people could have gone to work outside. Speaking of the Eskimo girls, I think a great deal more has to be done for the Eskimo girls, for instance, at Tuktoyaktuk where a large number of the boys have had training. I think the department will agree it is a very serious problem which arises when the boys go out to work and leave a large majority of the girls with no training and nothing to do. I think the department will have to look at this very soon. It is creating problems in the north.

The Leduc training program was a program where the boys who came out of the north lived in homes with white persons. They were living in good homes; they were treated as children in the family and went out with other children. I hope the department in the not too distant future would consider opening up a school similar to the one in Leduc in the provinces of Canada to give these people an opportunity to see what the rest of the world is doing

The CHAIRMAN: Will it be all right if the minister and his officials take that for consideration?

Mr. HARDIE: To come back to the rates of pay; what is the rate of pay for an Eskimo miner at Rankin Inlet?

Mr. HAMILTON (*Qu'Appelle*): It is impossible to give you an exact figure. The Eskimo starts and is given a house, and we step him up in pay, as he steps up in grade, to a scale equivalent to the white workers. I cannot say what the actual amount is. If my memory serves me correctly I think it is \$1.65 or \$1.67 an hour.

Mr. HARDIE: How many are there there?

Mr. HAMILTON (*Qu'Appelle*): Eighty-three Eskimos and eighty-seven white men.

Mr. HARDIE: Getting that top pay?

Mr. HAMILTON (*Qu'Appelle*): No, at all levels.

Mr. HARDIE: How many are getting that top pay now?

Mr. HAMILTON (*Qu'Appelle*): About half a dozen are at or very close to the top level.

Mr. KORCHINSKI: Has there been interest aroused among the Eskimo population to take up professions and trades which are more prevalent in the south? I am thinking of the statement made this morning, that there were no doctors but only registered nurses in an area. I am wondering perhaps if some interest could be built up so that these people could go back as doctors and professional men in their field?

Mr. HAMILTON (*Qu'Appelle*): We have only moved into this field in the last four or five years. This is the first organized effort, really, beginning with the birth of this department four or five years ago. It would be premature to speak of doctors and top level professional people at this stage because we have to achieve some elementary educational standard first. At Yellowknife we are expanding, and at Leduc the first training was for nursing and waiting on table, but now we are expanding it to include office work, stenography and so on; but to achieve professional standards you have to have many years of elementary, secondary and university education. At the present time there are no Eskimos at university. Our hope is a few will get through elementary school and into secondary work.

I look at these tremendous sums in the estimates that are being spent on schools in the north and the building of hostels and I feel in one sense a tremendous satisfaction in providing schooling for them and a curriculum which enables them to move either in their own way or in our way if they want to go our way. However, I also see the human problem involved when you take away the children of an Eskimo family and move them to a residential school. You have caused yourself to break into a family relationship which would have very serious effects in any part of the world. We have a situation in our thinly populated area of Saskatchewan where we are moving children from the farms to community schools and putting them into residence. This has caused a tremendous rupture in those districts where it is being done; the parents naturally resent it. In the northern districts where distances are in hundreds of miles the separation of children from their parents is a tremendous problem from a sociological viewpoint. I, and I suppose all the department, stands condemned for having provided that type of a school, but at the moment it seems the best we can do.

Mr. HARDIE: It is the only way out.

Mr. HAMILTON (*Qu'Appelle*): Those who have criticized us for putting in these hostels are speaking from human emotion only. Those who see the problem as a whole visualize what we must do to help these children. There

may be ways to ameliorate the impact on the family which is caused by taking the children and educating them like this. I think you understand the immensity of the problem.

Mr. AIKEN: May I renew my motion?

Mr. HARDIE: I think there were about sixteen people who starved last winter, and they were in three groups. Could Mr. Sivertz tell us the area concerned and whether or not in this area there was a northern service officer or an R.C.M.P. detachment?

Mr. SIVERTZ: In the three areas concerned in the Keewatin district, there was no northern service officer nor R.C.M.P. detachment. These areas are Henik Lake, Garry Lake and Chantrey Inlet.

Mr. HARDIE: Were these people normally resident in that area or had they moved there from some other place to follow the caribou?

Mr. SIVERTZ: These people are resident of the area.

Mr. HARDIE: And there no northern service officers in this area?

Mr. SIVERTZ: Not resident in those areas; but those areas are included in the jurisdiction of a resident northern service officer. For example, the one at Baker Lake is expected to visit, periodically, Garry Lake and Henik Lake; but these places are one, two hundred miles and the other three hundred miles away, and neither he nor the R.C.M.P. constable at Baker Lake can visit them very frequently. They did expect that the Eskimos in both those areas were reasonably well provided for and that starvation was not imminent. This was as a result of a visit within the last month before the starvation occurred.

Mr. HARDIE: Then what happened? If they were considered well provided for and were at starvation within a month afterward, what was the reason for this?

Mr. SIVERTZ: At Chantrey Inlet we did not have any recent visit immediately preceding the deaths.

Mr. HARDIE: I am speaking of Garry Lake, where a visit was made one month before the starvation.

Mr. SIVERTZ: There was an emergency food cache in existence at the time of the visit. It was subsequently destroyed by fire. The starvation was a reality in spite of the fact that we are not sure the deaths resulted from starvation but possibly from another cause. There was, however, a shortage of food. This simply means that the Eskimos were almost completely unsuccessful in obtaining any meat at all and their fishing operations were extremely unproductive during the two or three weeks immediately preceding the deaths. All the bodies have been recovered and autopsies have been performed but we do not have a report yet to make certain what was the cause of death. There is a doubt expressed that starvation was the immediate cause of death although food was indeed short.

The CHAIRMAN: We have a motion by Mr. Aiken, seconded by Mr. Nielsen that the main estimates, items 282 to 289 inclusive and the supplementary estimates items 584 to 586 inclusive be approved.

Mr. KORCHINSKI: Mr. Chairman, I asked a question yesterday and it was indicated I would get an answer today.

The CHAIRMAN: Would you ask it again now?

Mr. KORCHINSKI: The question was in reference to what studies are carried out to determine the possibilities of developing the shipping in the north which might have to be more extensive in the future because of the development in the north.

Mr. NIELSEN: I asked that same question in the Railways, Canals and Telegraph Lines committee which is now examining the estimates of the

Department of Transport and a very comprehensive answer was given at that time. However, if this department has any plans of its own in this regard it may be of interest.

Mr. HAMILTON: (*Qu'Appelle*): I could say a few words on this. This matter has been discussed at government level and it is the intention of the government to speed up tremendously research on Arctic transportation, in the eastern Arctic particularly; this means sea transport. The study will be composed of various parts. Very little of it will actually come under this department. One part will come under the Minister of Mines and Technical Surveys where we are trying to find information about the northern islands and the waters off the northern islands by means of hydrographic surveys. The depths of the water is one thing which we need to know. The other part of the experimental work will deal with the question of getting ships through northern waters where the ice problem is a limiting factor. This will be done mainly by the Department of Transport.

I understood the member for the Yukon to say a report was given in another committee. A great deal of this activity will be carried out under the Department of Transport and some of the things which have been mentioned in the estimates of the Department of Transport will probably have to do with the question of icebreakers to see if we can improve our work in this regard.

You have all seen, no doubt, the statement of recent days in the newspaper where Dr. Zimmerman, Chairman of the Defence Research Board, was discussing certain plans that we had in the north. This appeared in the *Ottawa Citizen* on June 17. The headline is not too pleasant, and says: "Canada trails Soviet by years in developing north territory".

I am not denying the truth of that headline because we have almost virgin ground in the north in our research program. The government in effect has inaugurated the first preliminary steps of a tremendously expanded research program in the north which deals with the request you mentioned, that is transport by sea in the north. This does have some bearing on the question which was in the back of the minds of the members, expressed at the meeting yesterday regarding the question of Hudson Bay navigation.

This work will be done by the Department of Transport. In the house yesterday it was mentioned that the *Labrador* was getting ready for its spell of northern service. It is now part of the Department of Transport and will be used in exactly the same type of work as in the past. It is my personal regret, Mr. Chairman, that we have done so little in our northern areas. It is a matter of embarrassment to me, as the minister responsible, that we do have to collect most of our information from sources outside of our country, in respect of our northern areas. I think that there is no secret about it that we get much of our information from the periodicals published in the U.S.S.R. We do not know how accurate this information is. We have to read so much dialectics of the communist world to get the little gems of factual information that may pop up from time to time. But their maps and their information have been one source.

Then there are also our neighbours to the south with their activities in the northern part of our area. They provide us with much information. But we, as a nation, have not as yet, begun to grapple with this problem of research in the north. It is true that we are starting, but we have so far to go. The future is completely unknown to us.

The CHAIRMAN: That is a good conclusion, Mr. Minister.

Mr. HARDIE: Before the motion is carried—I am sure that the members of the committee want to get on with these estimates and get out as soon as possible. Now this department, the Department of Northern Affairs and

National Resources handles practically every phase of life in the Northwest Territories. There is the education of the Indians and Eskimos, the recording of mining claims, the inspection of mineral claims and of oil permits, the administration of the department and coordination of the work of other departments. I do not want this committee to make me feel that I am holding them up. I am going to accept the motion, but I will reserve my questions on mining and education and other matters for the house.

The CHAIRMAN: We appreciate your contribution, Mr. Hardie. Is the motion to approve all the items concerning the Northern Administration and Lands Branch carried?

Items agreed to.

Now, gentlemen, we are on the estimates of the Forestry Branch of the Department of Northern Affairs and National Resources.

Main Estimates	
Item 290. Branch Administration	\$ 139,678
Forest Research Division—	
Item 291. Operation and Maintenance	\$1,322,886
Item 292. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 164,283
Forestry Operations Division—	
Item 293. Administration, Operation and Maintenance	\$ 302,780
Item 294. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 19,230
Item 295. To provide for contributions to the Provinces for assistance in forest inventory, reforestation and forest fire protection in accordance with agreements that have been or may be entered into by Canada and the Provinces	\$1,650,000
Item 296. To provide for contributions to the Provinces pursuant to agreements entered into or to be entered into, with the approval of the Governor in Council, by Canada with the Provinces, of amounts equal to one-half of the amounts confirmed by the Provinces as having been spent by them in establishing forest access roads and trails for the attainment of adequate fire protection as well as other aspects of forest management	\$1,000,000
Item 297. To provide for a contribution to the Province of New Brunswick for assistance in a program designed to combat the spruce budworm infestation, in accordance with an agreement entered into by Canada and the Province	\$ 600,000
Forest Products Laboratories Division—	
Item 298. Operation and Maintenance	\$ 750,299
Item 299. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 259,260
Item 300. Grant to Canadian Forestry Association	\$ 20,000
Item 301. Eastern Rockies Forest Conservation Board—Remuneration and Expenses of the Federal member of the Board	\$ 5,575
	\$6,239,991

The main estimates of the Forestry Branch are on pages 59 and 60, items 290 to 301 inclusive. There are no items for this branch in the supplementary estimates.

If it is agreeable to the committee we will have a statement from the minister on the Forestry Branch. After he has finished, Mr. Dumas has some questions he would like to ask, and I will recognize him immediately afterward.

Mr. HAMILTON (*Qu'Appelle*): I am very sorry Mr. Fisher is not here, because I know he joined the committee because of his particular interest in forestry. However we will have to go along without him, and he will have to take it from the minutes.

I am just going to say a word or two about the forestry votes. I think every Canadian knows the value of our forest industry in Canada, both in dollars and cents and in providing jobs. At the present time the provinces have under their control 80 per cent of the forests of Canada, and there is an additional percentage in private hands. I am going to give you some recent statistics to show you the immensity of the industry.

In 1955 the production of forests contributed to the Canadian economy a figure of \$2,228 million. Of this, \$690 million was in pulp and paper alone.

Undoubtedly it is a stupendous industry in this country. It is a very valuable industry in our export picture. The exports of lumber products in 1957 totalled \$1,457 million. To those of you who are interested in trade balances, the net positive balance from the forestry in this country was \$1,231 million.

It does give us an idea of how completely dependent we are on this industry, which gives us the dollars to buy goods abroad that we want and need. These figures are simply astounding.

I could give you a long list of the dominion's activities in the forest business. However, I think I might summarize it this way; that even though the greater bulk of the forests belong to the provinces, we do take a tremendous interest in research. I shall come back to research later, without listing all the different things we have done over the last 20 or 30 years in the department, and discuss the general problems as they are today.

I think the matter of importance we should look at now is that much of the money we are spending is in the form of cooperation with the provinces in the handling of their national resources. There are five types of agreements at the present time and my department is preparing for you—which will be available in a few minutes—a copy of this chart, which indicates to you the contributions to the provinces by the Government of Canada under the federal-provincial forestry agreements.

This chart lists five types of agreements; the forest inventory, as shown by the crossed lines on the graph; the reforestation shown by the solid blue; the budworm spraying work, which is a type of emergency expenditure for the assistance of the provinces shown by these lines running obliquely from left to right; and then the access roads program.

In addition we have a fire protection type of agreement with the provinces which I think will gain in importance as the years go on. The fire protection first comes into the chart the year just over in March and accounts for this amount.

Looking at the chart, even at a distance, you will find that the expenditures have been moving up, taking the grand totals. If you were to take out this emergency budworm spraying part, and add on these amounts, you will find that the impact has come this last year or two.

Having said that, I would suggest that this would invite questions from you on these continuing inventory agreements, on these fire protection agreements, the forest access roads agreements, and even this six-months emergency program we put in last winter of forest access roads with the provinces. This is a program which was started some seven years ago, and has been accelerated somewhat in recent years, not because we had any direct ownership of these resources in the provinces, but because we as a people are so completely dependent on the products of the forest industry. We have a national interest in helping with research and helping with those cooperative programs that protect, maintain and expand this great national asset.

For the benefit of the committee, the Forestry Branch staff have just come in and I will be referring some of these matters in a moment to Mr. Harrison who has moved in beside Mr. Côté.

Mr. Harrison, I should like to pay you the courtesy of repeating what I have been saying for the last five minutes. I have been giving a quick outline of the importance of the forest industry to Canada, both in the number of dollars it earns and the number of jobs it provides in Canada. I skipped over very lightly the dominion activities historically. I then went into detail in respect of the five types of cooperative agreements with the provinces.

Continuing, I should like to say a few words about the question of research because I think this is fundamentally our major problem.

In the past we have built up across Canada five forest stations where we have done certain amounts of management in connection with our own forests and assistance to the provincial governments in their forest problems. Secondly, we have done a certain amount of work in basic research in these stations. Now the basic research to date has been of the actual practical problems facing the forest industry.

There has been some criticism within the department, and from outside as well, that we should now move forward to the next stage of research. In other words, instead of just taking a problem of forest management or a problem of forest silviculture from a province, or our own foresters, and trying to find out what we can do to meet that problem, the suggestion now is that we should ask our forest research laboratories to embark upon a program of basic fundamental research for the future, getting at the fundamentals of the most important problems.

It is in this particular field that I am very glad to see Mr. Harrison present because he is in touch with this problem, as a forester of many years standing, and can express himself very clearly and accurately on these matters. But I will repeat that the basic problem in forest research is to move forward into pure research looking forward to fundamental answers rather than just meeting ad hoc situations.

Another part of research work, besides forestry in itself, is on the matter of forest products. I have given the committee some indication of the tremendous importance of the forest industry to this country, not only for the jobs it provides but for the fact that it is the biggest single earner of dollars abroad which provides us with the money to buy goods from other nations. This, of course, comes down to the fact that, if we are to extend the use of our forests in the provision of more products and better products, tremendously increased attention must be given to forest products research.

We do have to report that over the past two or three years increased sums of money have been spent in building up research facilities, both for forestry research and forest products research. As a matter of fact, this year I hope to have the pleasure of opening up the new laboratories which you will find in Ottawa and Vancouver, dealing with forest products research. I have visited two of the forestry research stations and I hope to get around to the other three as soon as possible.

I am going to leave the details of this to Mr. Harrison, but I want to conclude with a statement on a subject which was raised in the house the other day concerning pollution of waters.

One might wonder how the subject of water pollution ever got under northern affairs. It does not come under northern affairs in the legal sense, but it so happens that in our research work we have been contributing sizeable sums of money annually, and more recently a very large capital expense item has been entered into in connection with research in pulp and paper. There is a private organization called the Pulp and Paper Research Institute which is financed largely by contributions from the pulp and paper industry. As I said, we have made large contributions too, which took us into the question of pollution of streams from pulp mills, as one of these research problems. In their search for an answer to this problem, that affected their industry, last year a significant technical breakthrough was made which has some bearing on the over-all problem of pollution of waters. This technical breakthrough did not achieve, in the first stages at least, the objective that the Pulp and Paper Research Institute had in mind, namely the correcting of the problem in so far as the pulp and paper plants were concerned, but it did demonstrate that this technique which they have evolved offers interesting

possibilities in the form of getting rid of the by-products of other types of plants such as petro-chemical plants, and also in getting rid of human sewage.

So a statement was made just at the end of March by the head of this institute, which was sort of lost sight of due to the interests of so many people present in other events. But this technical break-through is of some importance to this committee because one of the largest contributors to the pollution of waters, of course, has been the dumping of waste from pulp and paper plants.

I think you would like to know that the money spent by the people of Canada to assist this research has made forward steps in this regard. I would like to read to you something of the background of this because I think many members are interested in this problem.

Members of this committee will recall that the government of Canada joined with the United^a States in a reference to the International Joint Commission in 1946 to study the pollution of boundary waters in the connecting channels of the Great Lakes system. These studies have been proceeding for some years now. The International Joint Commission recommended in 1950 that both governments accept objectives for boundary water quality control which should be observed in these connecting waters. These objectives were accepted by both governments and since that time the International Joint Commission, the province of Ontario and industry have been actively engaged in the improvement of water quality. As a result, great strides have been made on both sides of the boundary. I am sorry to say, however, that the improvement in the prevention of pollution caused by the discharge of municipal sewage has not progressed as far or as efficiently as the improvements attributable to industry. For example, industries in the vicinity of Sarnia and Windsor have effectively cooperated by the expenditure of considerable sums of money to meet the standards set by the International Joint Commission. I understand that more recently, however, the Ontario Water Resources Commission has started issuing definitive orders to municipalities for the prevention of pollution of streams by municipal sewage. There is every expectancy that effective action by provincial governments in this field, where they have a prime responsibility, will be met with the same success as have efforts by federal governments on both sides of the line for the prevention of pollution in boundary waters.

I believe honourable members would be interested to know that the government of Canada has been contributing over the last several years substantial sums of money to the Pulp and Paper Research Institute of Canada for the development of techniques to improve this major industry of Canada. As a matter of fact, the government of Canada, McGill University and the Canadian Pulp and Paper Association are the members of this unique research institute. Among matters being examined very closely, of recent years, is that of prevention of pollution of streams by pulp effluents. While the efforts for the recovery of pulp mill effluents have not yet been crowned by success, several important techniques have been evolved which hold great promise. It is quite in the realm of probabilities that important contributions will be made, as a result of the development of these techniques, to the petro-chemical industry, to the disposal of municipal sewage effluents and, we hope, to the elimination of pulp mill effluents. The government is encouraging the Pulp and Paper Research Institute of Canada by every means at its disposal (including the construction of a \$2½ million research laboratory at Pointe Claire, Quebec) to pursue vigorously its research in this and other fields, of value not only to the pulp and paper industry but to Canada at large.

I hope that these two illustrations of the federal government's efforts in the field of prevention of water pollution underlines the fact that the government not only is conscious of the problem but has been and is working actively in this sphere. I should repeat, however, that just as it is the responsibility of the provinces and municipalities to provide water to the inhabitants of the various localities, so is it their prime responsibility to provide clean water. A major contribution will be made when these bodies ensure that raw municipal and untreated industrial sewage are no longer dumped into the streams.

I have taken the opportunity, Mr. Chairman, to read that statement into the records of this committee because of the fact that during the debate in the house I did not have the opportunity that I would have liked to make that statement.

I can only conclude, in so far as this department is concerned, that even though we have not been over-optimistic in our expectations from this very promising technical break-through, we do have hopes that within a very short period of time these problems of municipal sewage and the effluents from petro-chemical plants and pulp and paper plants will be met by the work of the Pulp and Paper Research Institute to which this government has contributed large sums of money. This device that they have is called the Thomas suspension technique, and I hope that every member of this committee will be conscious of the fact that money voted through this department has been instrumental in moving this research forward and that if it does succeed and if our waters can be cleared of the effluents from this type of industry, and from human sewage, by the money voted under this department, it has been well spent and in the interests of the public health of Canada.

Mr. ROBICHAUD: As it is five minutes to eleven I move that we adjourn and start—

The CHAIRMAN: Mr. Dumas, do you want to ask anything before we adjourn?

Mr. DUMAS: We have been here for two hours. It is a national holiday today—Canada Day—and I think it would be in order if we were to adjourn.

I would suggest that, if it is the aim of the committee to proceed as quickly as possible with the balance of the estimates of the department, we sit maybe on Thursday and Friday and get through the estimates this week.

Of course we have Mr. Harrison with us today, the director of the forestry branch. We are very pleased to see him here and I hope that he will not be too disappointed if we do not give him the opportunity this morning of making a statement. However, Mr. Harrison, you are not losing anything. We will have many questions for you and we know that you will be able to answer them.

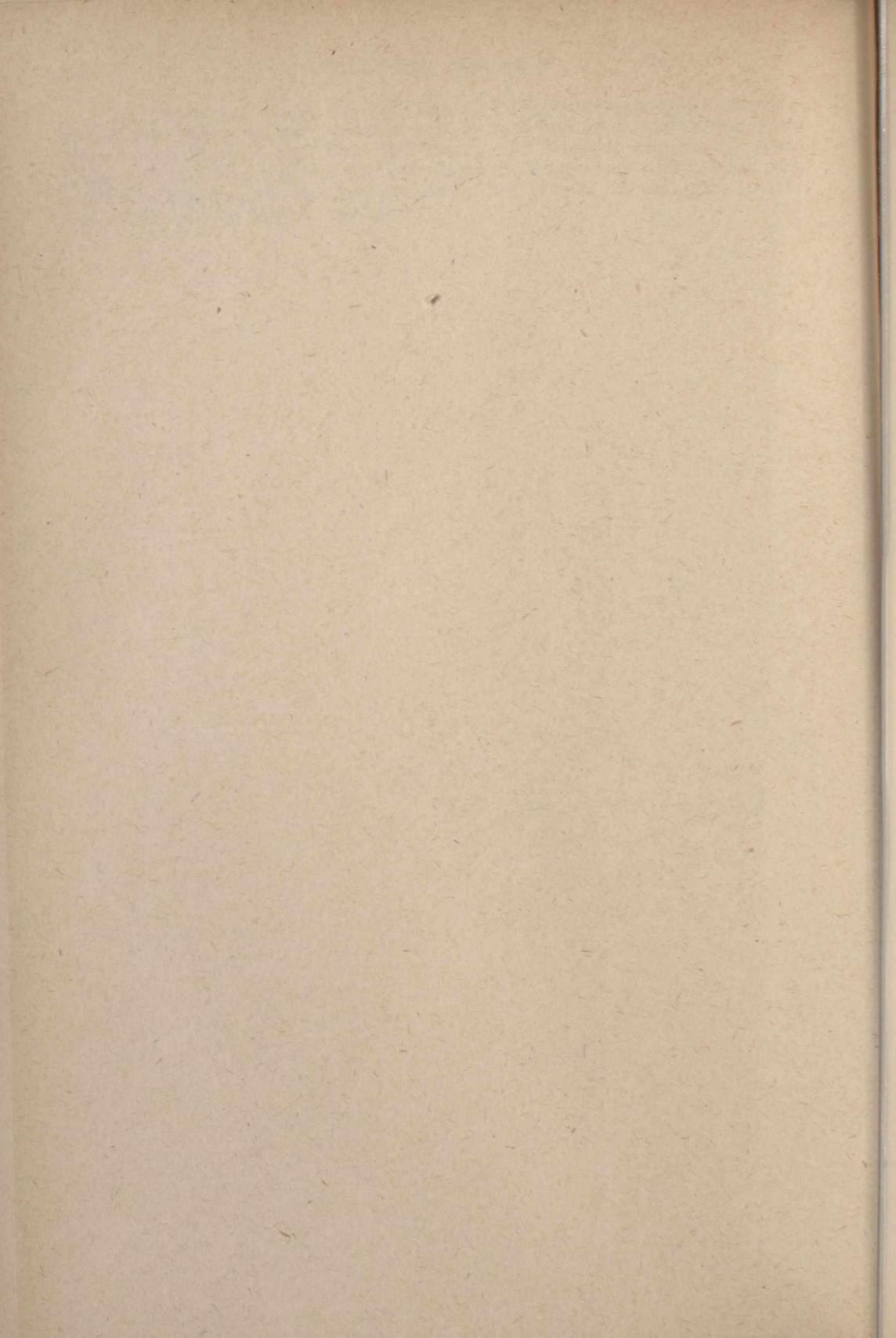
The CHAIRMAN: We have planned a meeting on Friday morning next at 9.30. Is it your wish that we have one on Thursday also?

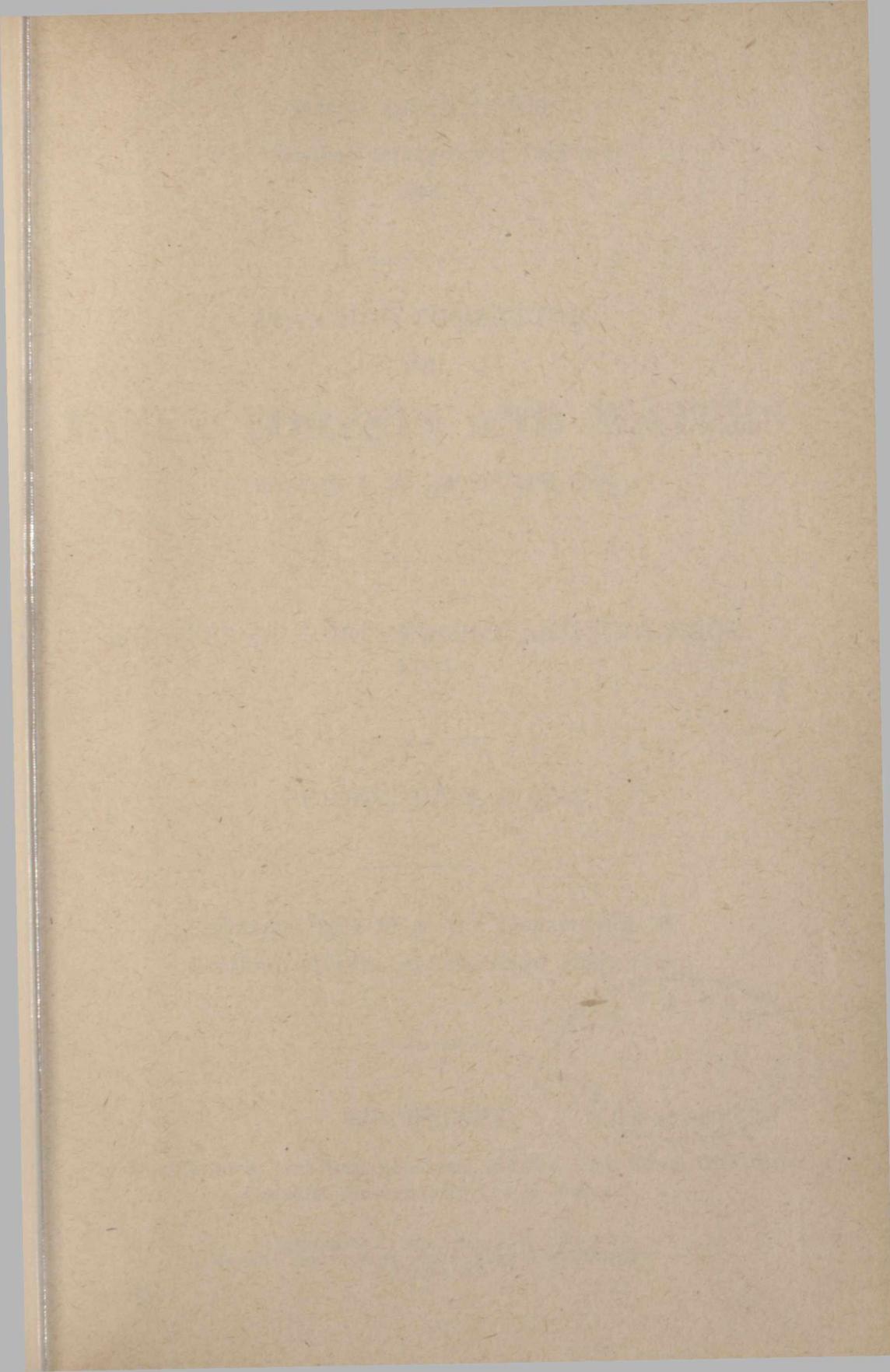
Mr. FISHER: No.

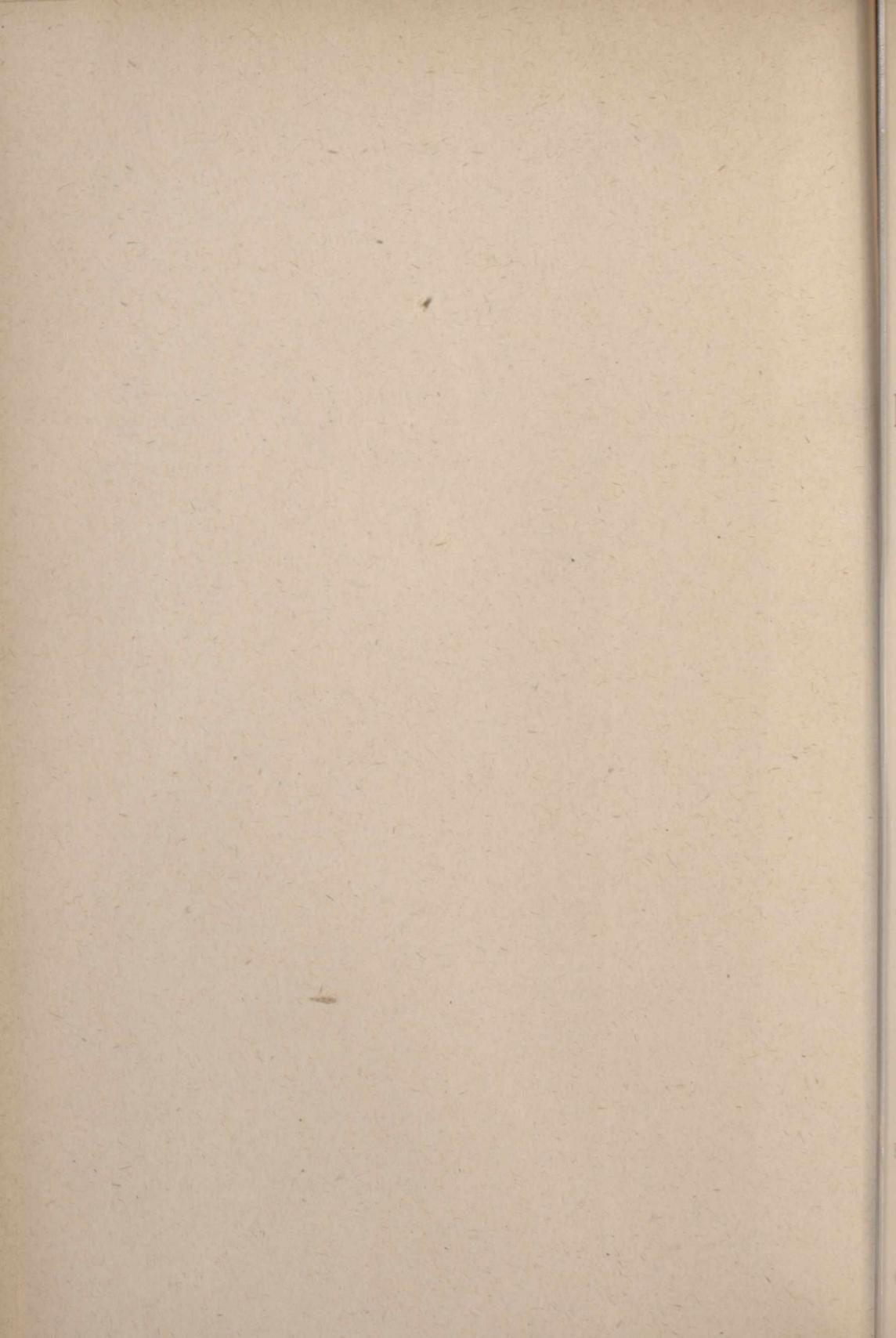
The CHAIRMAN: Well, then, we will continue with our regular meeting on Friday morning and we will deal with the items now under discussion.

Mr. FISHER: May I present a suggestion? Have you a steering committee? I just want to bring up, after Mr. Harrison has spoken, the criticisms of the Canada Forestry Act by professional foresters. I wonder if you would bring in to this committee or perhaps later on, after the estimates are through, three people I would like to have before the committee in connection with the Canada Forestry Act. They are Dean Sisam and Major General Kennedy. Then I would like the head of the C.I.F.—Canadian Institute of Forestry—to appear before the committee in connection with this branch.

The CHAIRMAN: Thank you, Mr. Fisher. We do have a steering committee and, if convenient, we can probably have it meet this week and discuss your idea. As a matter of fact, your Mr. Martin has been on the steering committee. As you have replaced Mr. Martin on the committee, I should ask you to take his place on the steering committee. You will be invited to that meeting, which will be held in my office.







HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 9

FRIDAY, JULY 4, 1958

Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Honourable Alvin Hamilton, Minister; and Mr. Alan Field, Director,
Canadian Government Travel Bureau

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958



STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRea,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafleche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

ADDENDA (*English Edition only*)

Minutes of Proceedings and Evidence, No. 8, July 1, 1958

Page 224:

line 17: after "Eskimo boy" insert ", named Angus Elias,".

line 24: after "Eskimo boy" insert ", named Abe Allen,".

ORDERS OF REFERENCE

HOUSE OF COMMONS,
WEDNESDAY, July 2, 1958.

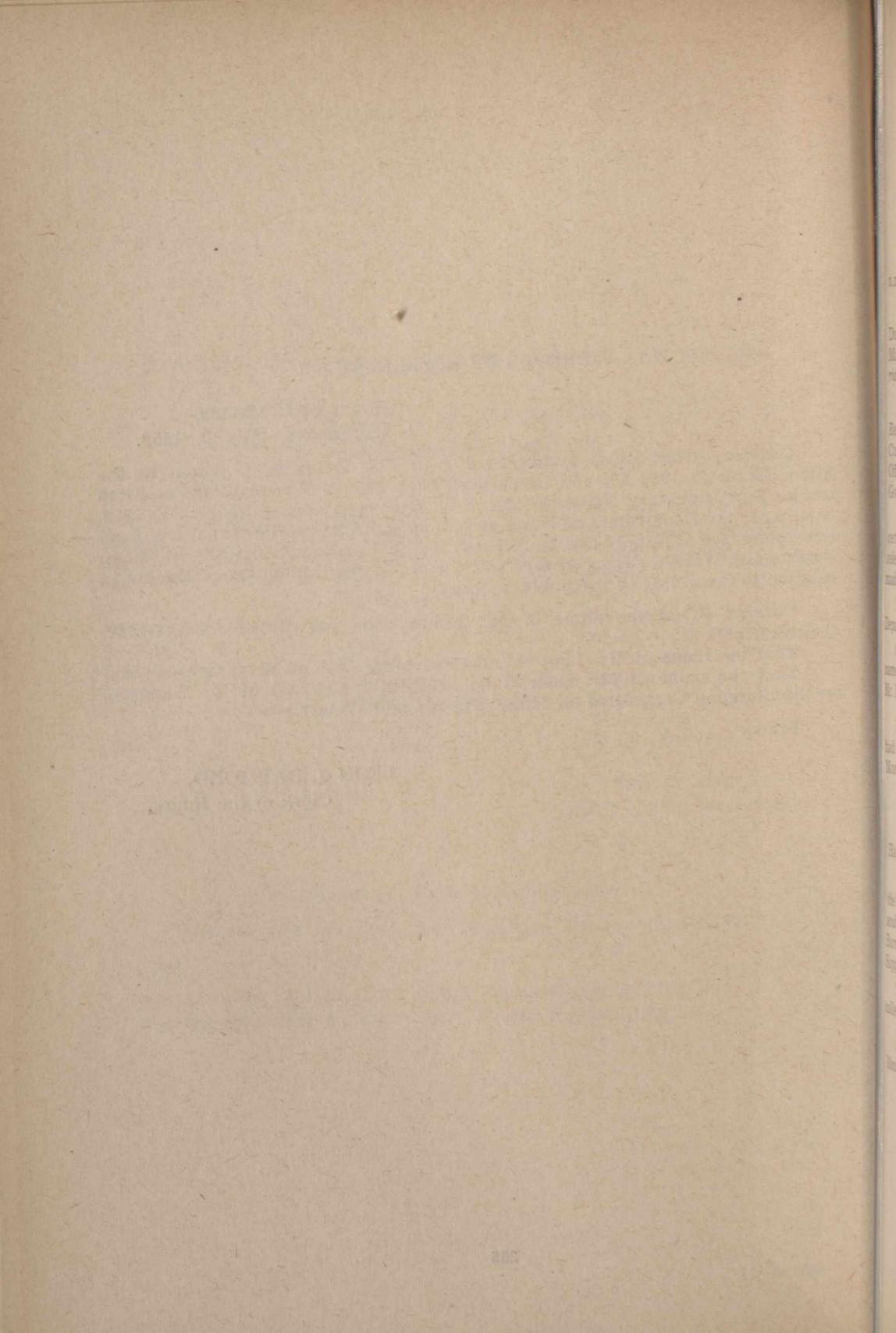
Ordered,—That items numbered 193 to 218, inclusive, as listed in the Main Estimates 1958-59, and items numbered 575 to 577 inclusive, as listed in the Supplementary Estimates for the fiscal year ending March 31, 1959, relating to the Department of Mines and Technical Surveys, be withdrawn from the Committee of Supply and be referred to the Standing Committee on Mines, Forests and Waters, saving always the powers of the Committee of Supply in relation to the voting of the public moneys.

Ordered,—That the name of Mr. Baldwin be substituted for that Mr. Bruchési; and

That the name of Mr. Bigg be substituted for that of Mr. Frechette; and
That the name of Mr. Doucett be substituted for that of Mr. Simpson, on the Standing Committee on Mines, Forests and Waters.

Attest.

LEON J. RAYMOND,
Clerk of the House.



MINUTES OF PROCEEDINGS

FRIDAY, July 4, 1958
(11)

The Standing Committee on Mines, Forests and Waters met at 9.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baldwin, Baskin, Bigg, Cadieu, Coates, Dumas, Fisher, Fleming (*Okanagan-Revelstoke*), Gundlock, Leduc, MacRae, Martel, Martineau, McLennan, Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Pugh and Villeneuve. (22)

In attendance, from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. F. J. G. Cunningham, Assistant Deputy Minister; F. A. G. Carter, Chief Administrative Officer; R. A. Faibish, Private Secretary to the Minister; and of the *Canadian Government Travel Bureau:* Mr. Alan Field, Director.

The Chairman read the Orders of Reference dated July 2, 1958, whereby certain Estimates of the Department of Mines and Technical Surveys had been referred to the Committee; and certain substitutions of members had been made.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

On the items of the Main Estimates concerning the Forestry Branch, namely, Items 290 to 301 inclusive, on motion of Mr. Pugh, seconded by Mr. Dumas,

Resolved, That the undermentioned persons, regarding whom Mr. Fisher had filed certificates of summons, be called to appear before the Committee on Monday next, July 7th, namely,

Mr. J. W. B. Sisam, Dean, Faculty of Forestry, University of Toronto;
Major-General Howard Kennedy of Ottawa; and

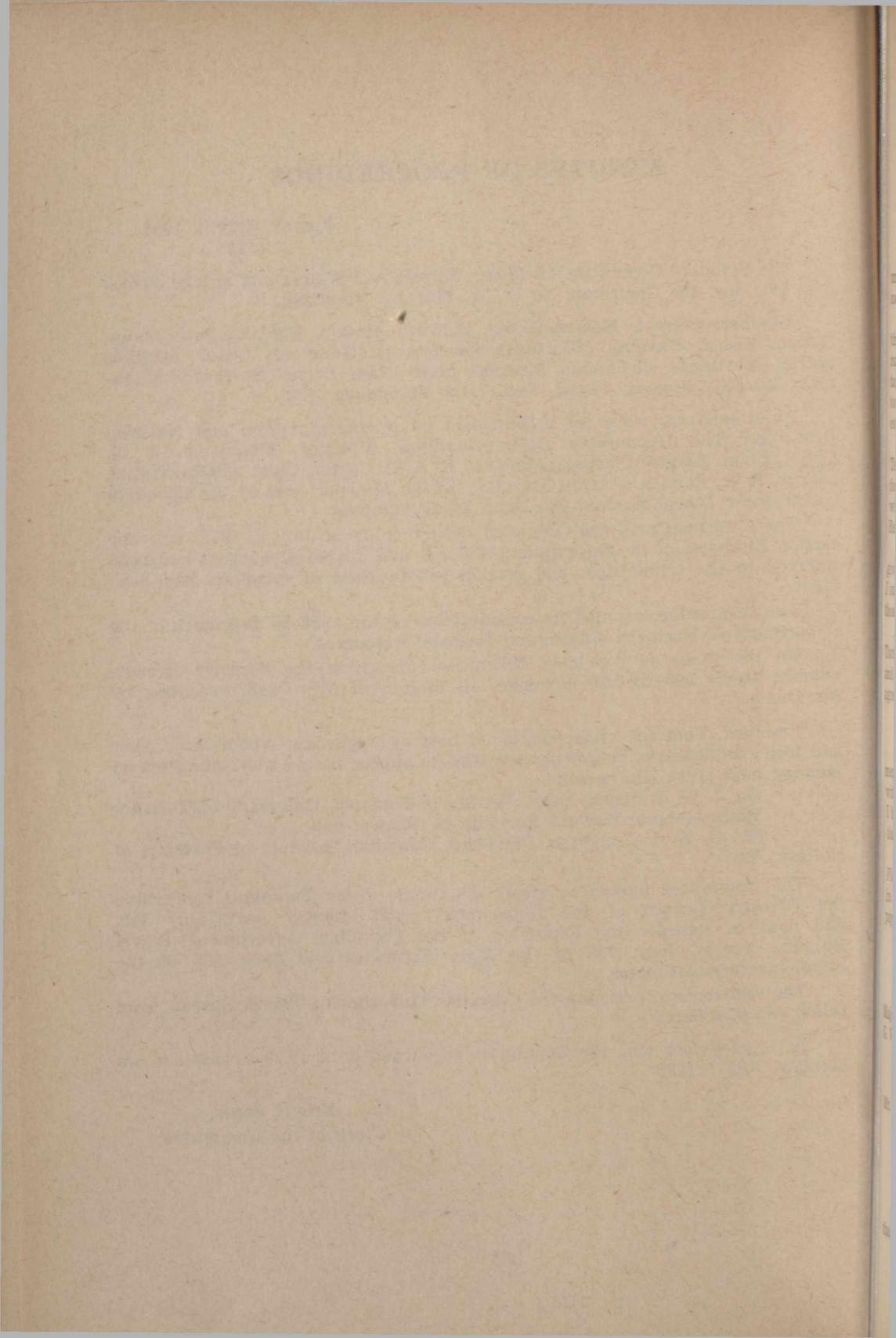
Mr. G. W. I. Creighton, President, Canadian Institute of Forestry, of Halifax, N.S.

The Committee agreed to stand the items of the Estimates concerning the Forestry Branch of the Department until Monday next, July 7th, and next to consider the Estimates of the Canadian Government Travel Bureau, namely, Item 303 of the Main Estimates and Item 588 of the Supplementary Estimates.

The said items concerning the Canadian Government Travel Bureau were called and considered.

At 11.00 o'clock a.m. the Committee adjourned until 10.30 o'clock a.m. on Monday, July 7, 1958.

Eric H. Jones,
Clerk of the Committee.



EVIDENCE

FRIDAY, July 4, 1958

The CHAIRMAN: We have a quorum gentlemen. It is just a little after 9.30.

First, as you likely all know, we have three new members on our committee; Mr. Baldwin, Mr. Bigg and Mr. Doucett. We extend a welcome to the new members. I hope they enjoy it as much as the rest of us have.

No doubt you have all read the printed copies of the proceedings. For those who have not been here before there are booklets available regarding national parks. We will see to it that you obtain the number you would like to have to distribute to conservation clubs and others to whom you may wish to send them if you will make known your requirements to the clerk of the committee.

You may be aware that the estimates of the Department of Mines and Technical Surveys have been referred to this committee; and it may be possible for us to start on them a week from today. It depends on how soon we finish with the estimates of the Department of Northern Affairs and National Resources.

In view of the fact that we have three very important people called to give us information and evidence in connection with forestry on Monday next, I suggest that for today we let the estimates of Forestry Branch stand because those three people all have agreed to be here Monday morning next.

They are Mr. J. W. B. Sisam, Dean, Faculty of Forestry, University of Toronto; Major-General Howard Kennedy, of whom most of you have heard, and Mr. G. W. I. Creighton, President, Canadian Institute of Forestry. Is that agreed?

Agreed.

In our meeting on Monday morning we may have a supplementary statement that the minister may wish to make, and then we shall have these three witnesses available, who are coming on Monday morning, as I have mentioned. I have had confirming telegrams from two of them, and a telephone confirmation from Major-General Kennedy, that they will be here on Monday morning.

The certificate for their attendance has been properly signed by Mr. Fisher, and what we need now, gentlemen, is a motion to call these witnesses in order that it will be proper and legal, and that they will be entitled to payment for their expenses as witnesses appearing before the committee.

Mr. BALDWIN: I so move.

Mr. DUMAS: What are their names?

The CHAIRMAN: Mr. Sisam, Dean of Forestry, University of Toronto, Major-General Howard Kennedy who has given evidence here before, and Mr. G. W. I. Creighton, President of the Canadian Institute of Forestry.

Mr. NIELSEN: Are these the gentlemen asked for by Mr. Fisher?

The CHAIRMAN: That is right. So moved by Mr. Pugh and seconded by Mr. Dumas. All in favour?

Motion agreed to.

Mr. DUMAS: At what time is the meeting on Monday morning?

The CHAIRMAN: 10.30 a.m.

Mr. DUMAS: Do you expect that these witnesses will be here for more than one morning?

The CHAIRMAN: That all depends. You may have to consider sitting twice on Monday, because one of these men comes from Halifax and another from Toronto. It may be that they will have to go back, but they are to be here to give evidence before the committee. But if it is possible for us to cooperate with their business arrangements, I know that the committee will do so.

Mr. PUGH: Just on that, Mr. Chairman, might it not be better if Mr. Fisher were to move that motion, as he is the one who proposed them?

The CHAIRMAN: It would not make any difference. Agreed?

Mr. FISHER: No; I would just as soon have it the other way.

The CHAIRMAN: Is it agreed, then, that we should now proceed to consider the estimates of the Canadian Government Travel Bureau.

Agreed.

The item of the Main Estimates is 303, on page 60 in the main estimates and Supplementary Estimate item 588.

CANADIAN GOVERNMENT TRAVEL BUREAU

Main Estimates

Item 303. To assist in promoting the Tourist Business in Canada, including Grant of \$5,000 to the Canadian Tourist Association	\$2,182,206
---	-------------

Supplementary Estimates

Item 588. To assist in promoting the Tourist Business in Canada—Further amount required	\$ 78,000
---	-----------

The minister is not yet here. Is the head of the Canadian Government Travel Bureau here? Yes, Mr. Alan Field.

Would it be agreeable, gentlemen, to have the director of the travel bureau give a statement. If Mr. Field has a statement to make it is quite all right. A policy statement will be made a little later by the minister.

I might say to the new members that we allow plenty of latitude in this committee. You are free to ask questions concerning government policy. Of course, the officials of the department do not give evidence regarding government policy. Would anyone like to make any inquiries of Mr. Field, who is the Director of the Travel Bureau.

Mr. AIKEN: I have a few questions. Mr. Field, could you give us any idea as to the comparative number of inquiries your department has received this year as compared with last year?

Mr. ALAN FIELD (*Director, Canadian Government Travel Bureau*): Yes, I can. The bureau up to June 27 in the Ottawa office had processed the record number of 520,194 inquiries. These are mainly from the United States. It is an increase of about 20 per cent over last year.

Mr. AIKEN: I do not know whether you have the figures, but do we still have a substantial travel deficit with the United States—that is, in respect of people who come to Canada from the United States, as compared with those from Canada who go to the United States?

Mr. FIELD: This is not the responsibility of the bureau. The bureau's job is simply to interest Americans in coming to Canada. That is how the terms of reference of the bureau have been interpreted since it was started in 1934.

The deficit of the travel account, estimated by the Dominion Bureau of Statistics in 1957, was about \$161 million. This is about the same as it was in 1956. It shows signs of levelling off. The deficit on the exchange of Americans and Canadians showed a drop-off last year. In 1956 it was \$82 million and in 1957 it was about \$75 million.

Mr. AIKEN: How much interest do Europeans have in travel in Canada? Is there any interest from there?

Mr. FIELD: There appears to be a growing interest on the part of Europeans to visit Canada, but it is hampered, as the minister knows, by the currency restrictions which exist, in countries like the United Kingdom. If the United Kingdom would lift these restrictions as we hope they will, there will be a greater number of residents of the United Kingdom visiting Canada.

Mr. AIKEN: Do all provincial governments now have travel bureaus?

Mr. FIELD: Every one of the 10 provinces has quite active provincial travel bureaus to encourage visitors from other countries, as well as visitors from other provinces, to come into their province.

Mr. AIKEN: And do you have in figures the tourist areas in Canada where American money is spent?

Mr. FIELD: Well, the Dominion Bureau of Statistics has a unit that prepares a report on a monthly basis as well as a yearly basis, and they can make estimates of tourist traffic. But you must understand that when they make a count at the border crossing point, or when they do a survey, they cannot be sure that the person coming into Ontario or Manitoba is going to stay in Ontario or Manitoba. He will circulate around, in many cases. We know that a large percentage of these American visitors do travel in more than one province. So, it is very hard to get this type of breakdown statistically.

Mr. AIKEN: I am afraid that a lot of these questions relate to the bureau of statistics. I am just asking in general terms. Does the tourist industry still stand third in the earning of foreign dollars?

Mr. FIELD: Yes it does. According to the last D.B.S. estimate on earnings or income to the Canadian economy, only newsprint and wheat rank ahead of travel as an earner of dollars for the Canadian economy.

The CHAIRMAN: I wonder gentlemen, if it would be agreeable to have a statement from the minister now that he is here, and then to have agreed questions after that.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): Mr. Chairman, my remarks in this regard will not be very extensive because I intend to deal only with the general background of our thinking in regard to this question of tourist policy.

As intimated by one of the questions asked here this morning, our tourist industry is one of our big dollar earners. At the present time we are working under a deficit of roughly \$160 million. As the situation now stands roughly \$160 million more is being spent by Canadians abroad than tourists are spending in our country.

This industry at one time was a surplus industry to us. With the standard of living growing rapidly more Canadians are moving in wider fields.

There is also an inducement to Canadians to visit our neighbour to the south, in the fact that they are allowed to bring back a certain value of goods duty free every four months. This inducement has led to tremendous traffic crossing the border from Canada, especially around the Great Lakes and the St. Lawrence, for example. Of course, there always has been a lot of traffic in the Windsor-Detroit area, and this traffic is increasing in western Canada.

It has occurred to us as a department, therefore, to make strenuous efforts to increase the flow of tourist travel from the North American continent and Europe to this country. Certain things have been done.

The first thing, as has been announced in the budget, is that we have given to the people who go from Canada to the United Kingdom the advantage of combining certain values of articles that they bring back because of the fact that they do not travel to Europe every three or four months. This

advantage does not directly help our tourist industry. It does help in that we are trying to provide the United Kingdom with dollars so that more of their people can come to Canada.

We have other things in mind, such as inducements to the British tourist to come here, by allowing him to tie in his cost of meals and hotels on a sort of credit card arrangement so that he does not have to use money out of his small allotment, which the United Kingdom government allows him, to pay for those expenses when he comes out here.

The big thing we are trying to do is to assist in this problem of bringing American tourists in to this country, and to find out what kinds and concentrations of advertisement will achieve greater results.

As you know, for the last year, and this year as well, there has been a concentrated program of advertising in the northeastern United States as an aid to the Atlantic Provinces tourist industry. This is part of a three-year program which is yielding very positive results. One naturally wonders if this type of saturation advertising can be applied to other parts of the United States with the production of equally satisfactory results for other parts of Canada. I am not going to say what our precise plans in this regard are because there is a certain advantage in keeping our thoughts to ourselves at this stage.

We are doing some rather difficult work in an attempt to evaluate the effect of certain types of advertisement in the United States in regard to achieving certain things.

I am going to take the opportunity here of mentioning a phenomenon which has occurred in the last few months that I think is of interest to the committee.

Since we announced the northern development program officially there has been a tremendous flood of letters to the minister's office inquiring about tourist opportunities in the north. Some of these inquiries have been a little bit extreme. For example, there was a request for information having regard to how a person would go about setting up a motel at Coppermine. Of course, no matter how enthusiastic we may be, and how hard we are pushing this program, the possibilities of opening up the Coppermine area are rather limited at the moment. Seven years from now an idea like that might be worthwhile considering.

We have informed this inquirer that our plans in respect of Coppermine are very indefinite, and that if he would inquire again in about five or seven years we might be able to make a suggestion in that regard.

I have given you an extreme example to indicate that many people realize the tremendous financial opportunities that exist in the tourist industry.

One individual set up a fishing camp on the east shores of Ungava bay. He is doing quite well, but he knows that his clientele are limited because of the cost of transporting the tourists in and out over that distance. He is watching very closely developments which will decrease the cost of transportation in that area, because the salmon and char fishing in that area are very good.

Although that camp is located in the northern part of Quebec I think it demonstrates that there is tremendous interest in the tourist industry in our areas.

I want to speak more specifically about the Alaska highway. The Alaska highway is tremendously attractive to our friends to the south. Now that Alaska is a state I foresee a tremendous increase in the traffic along that road. Americans I feel will want to visit the forty-ninth state.

Traffic along the Alaska highway at the present time is heavy. It consists of a good deal of truck traffic. The Alaska highway is a good highway except

that it is a bit dusty during the summer months. The Department has prepared an up-to-date pamphlet, having regard to travel along the Alaska highway, pointing out the accommodation and type of operation that exists along that highway.

I know that one member of the committee has travelled over that highway very recently. I believe he travelled from Whitehorse to Ottawa in six days.

Mr. NIELSEN: I was two and one-half days travelling on the Alaska highway.

Mr. HAMILTON (*Qu'Appelle*): Mr. Nielsen travelled two and one-half days from Whitehorse along the highway, and three and one-half days to cover the balance of the trip to Ottawa. It takes six days for a careful driver like the member from the Yukon to travel from Whitehorse to Ottawa.

I mention this because I feel that as a result of the propaganda published by motor car companies advertising their cars, people tend to believe that to travel over the Alaska highway is a test of endurance and that only the strongest machine could survive. The fact is that you can travel, in any type of car that you see driving around Ottawa, from here to Fairbanks, Alaska, as long as you keep your speed below 60 miles an hour. I would suggest that you would be wiser to keep your speed down to 50 miles an hour while travelling on the Alaska highway because of the dust hazard. That same hazard exists on any prairie road that uses gravel as an all-weather base.

I have mentioned these facts because they lead up to my next remark. If we are going to take advantage of the tremendous desire on the part of people to see the last frontier, we must do certain things in order to make them aware of the accommodation that is available. Secondly, we must provide amenities along the highway.

I would like to think that I could wave a magic wand and create all these things immediately, but in practice it will take planning, initiative and energy on the part of the many people who are investing their money in this industry. These people are aware that the Department of Northern Affairs and National Resources are willing to keep the people of Canada and the United States informed as to the accommodation that is available, and the beautiful scenery that exists so that they will be encouraged to travel in those areas. As a matter of fact, we have sent a member of the travel bureau staff to the Yukon to assist in the creation of a travel bureau there.

I understand a question was asked this morning in respect of travel bureaus existing in every province. I see no reason why the Yukon should not have a travel bureau as well. The scenery in the Yukon is magnificent.

As I mentioned the other day, the parks department is attempting to locate an area there to be set aside as a national park. We realize that it will be a wonderful aid to that whole area if we can take advantage of the magnificent scenery and fine sporting activities. I do not want to talk about the Yukon too much because it may appear that we are trying to promote that district too much at the moment. I only mentioned that area as an example of our thought in regard to the tourist industry in the north.

In concluding my opening remarks in respect of the tourist industry as a whole, Mr. Chairman, I might say that I have been in contact with the various components of the tourist industry in Canada; the Canadian Tourist Association. The Dominion-Provincial Tourist Conference is held every year in Ottawa.

The conference represents every level of tourist industry activity, whether federal or provincial, private or municipal, and I hope it will be possible to consciously work out a program in terms of expanding the industry to about three times its present size.

Some of the main assets we possess now are the Trans-Canada highway—which is almost completed—and the growing knowledge in the United States that Canadian roads are now passable. As this knowledge grows, so will the number of tourist dollars spent in this country grow. We must remember that the tourist dollar is a prize for which there is tremendous competition. The Mexican people seek the tourist dollar, the people of the West Indies seek the tourist dollar and the people of Europe seek the tourist dollar, so our task will not be an easy one.

The federal government's part is a very simple one. We must advertise in the United States in an attempt to induce tourists to come here. I think it will be interesting to watch the degree of success we achieve in the next few years in this regard.

Mr. FLEMING (*Okanagan-Revelstoke*): Although I realize the primary function of the tourist bureau is to attract American tourist trade to Canada, has any consideration been given to the possibility of encouraging Canadians to travel in Canada to a greater extent? Is it possible that the terms of reference of the travel bureau might be amended to coordinate the activity of the various provincial tourist bureaus, who are already advertising along these lines, in order to keep a greater number of our Canadian tourist dollars in Canada?

Mr. HAMILTON (*Qu'Appelle*): That is a policy that is fairly clearly set at the present time. The federal government's responsibility lies in advertising outside of Canada. The provincial governments have a clear responsibility for advertising their own provinces.

The danger of the federal government moving into the field of inter-provincial travel and local travel advertising is that immediately we advertised one area of Canada we would be subject to tremendous pressures from every other area in Canada. Therefore we leave the task of advertising their own areas to the provincial governments and local chambers of commerce. We do assist them in every way we can to facilitate travel in Canada. Our thoughts are not very different from theirs in that regard.

The federal and provincial governments meet once a year at the Dominion-Provincial Tourist Conference. We have very close relationships with the Canadian Tourist Association. These various organizations have the responsibility of increasing the amount of Canadian travel in Canada.

I think everyone will recognize the danger involved in the federal government moving into that field and advocating that tourists should visit certain places in Canada.

We are guilty to some degree on that score. The pictures we send abroad are scenes of certain areas in Canada. These pictures are taken of various parts of the country from coast to coast.

I should perhaps mention that the Department of Northern Affairs and National Resources has been attempting to create an incentive to the tourist industry by reminding them that the year 1967 is the one hundredth anniversary of this country. 1967 is only nine years away. We are asking the various organizations to set their sights, for the ten-year period ahead, at building the tourist industry in Canada, as part of their contribution to the national celebration, to a billion dollar industry. If you trace a projected graph forward to the number of visitors to National Parks and other areas at the present time you will realize that this target is not an impossible one. There must, however, be a tremendous amount of effort put into this project by the various tourist bureaus. I think the activities can be given additional impetus if we look forward to a target like the one I have set for 1967.

Mr. FLEMING (*Okanagan-Revelstoke*): Mr. Chairman, I appreciate the difficulties involved. The only reason that I brought this subject up was because

of the fact that this is such a vast country, and because there is a growing realization among Canadians of the attractions which exist in other parts of our country.

Unfortunately it is true that provincial tourist bureaus work in fairly limited frameworks. For instance, here in Ontario the tourist bureau does not reach out into the province of British Columbia very extensively. I suspect that the British Columbia tourist bureaus do not advertise to any extent in the maritimes.

I was wondering if there was a possibility that the federal government tourist bureau could act as a coordinating centre or clearing house for the different provincial tourist bureaus in an attempt to make information about the various parts of Canada a little more available to Canadian tourists. I realize there are difficulties present, but I do hope that continued consideration in regard to this type of promotion could be given.

Mr. HAMILTON (*Qu'Appelle*): We have gone quite a long way in that direction. We have some distance yet to go. I think it should be kept in mind that when I say we advertise in American publications, that does mean that the advertising does not get back into Canada, as you know.

I would like to mention that we have a film entitled "Trans-Canada Summer" which takes the viewer on a trip from Newfoundland on the east, through the maritime, Quebec and Ontario, the prairies and out to British Columbia. It also takes a little by-trip down to Windsor and Detroit. The idea of this film is to give a Canadian, or anyone else, an idea of the tremendous variety of scenery and activity which exists across this great dominion.

Mr. Chairman, the only objection to my offering to show this film to the members of the committee is because the film runs for 50-odd minutes. However, any member who has not seen all of Canada would be very interested in this film. It is a very fine educational film—the photography is excellent. A lot of time has been taken in the preparation of this film. Too much time is spent in showing pictures of places that are not as attractive as the district I come from! But I suppose every member would feel that way! Scenes from almost every part of Canada have been used in compiling into this 53-minute film.

If a group of the members wished to see this film I am certain I could arrange for it to be shown. I know the people who prepared this film have worked very hard with it. I would like to see all the members have an opportunity to see the film before it is distributed to the various tourist branches across Canada, and to our film libraries in the United States. If enough members wish to see it I think we can arrange to show the film, but I cannot force a showing on you.

Mr. PUGH: Mr. Chairman, what value of goods can an American tourist take back to the United States duty-free?

Mr. HAMILTON (*Qu'Appelle*): The Minister of National Revenue and the Minister of Northern Affairs and National Resources have prepared a booklet advising people who cross the border how much they can take back, and so on.

American tourists visiting Canada for a few hours are allowed to take \$200 in goods back. If they stay in Canada for more than ten days they are allowed to take \$500 worth of goods back into the United States duty-free. This provision in the customs regulations gives us a tremendous opportunity to change the trade balance.

Mr. PUGH: This is a tremendous advantage actually.

Mr. HAMILTON (*Qu'Appelle*): It is, yes. I feel that Canadians realized very quickly the advantage of the \$100 item they allowed us. I am sure the advantages of allowing those large amounts of goods to be taken back are fairly obvious. As we all know, the American tourists coming here buy English china, and woollen goods which they find very difficult to obtain in their own country.

I have often thought that if enterprise was the same across this country as it is in certain localities where they advertise these types of goods, that we could develop a tremendous market for Canadian and British goods to travellers from the United States.

Mr. BALDWIN: Mr. Chairman, apropos of what the minister said in regard to the question of roads into the north, it is very interesting, and I think very true in that I have seen people coming off the Mackenzie highway travelling through Alberta in order to get home who were very dissatisfied and very disconsolate about the type of roads with which they had to cope. I was wondering if there was any comparative figures in regard to the moneys expended by the United States and Canada on road systems generally. I am thinking particularly of the comparison by per capita or population, or gross national product, for instance.

Mr. NIELSEN: You are talking about the Mackenzie Highway in Alberta.

Mr. BALDWIN: No, I am talking about the Alaska Highway too. The Mackenzie Highway should not be dignified by that name.

Mr. HAMILTON (*Qu'Appelle*): We do not have figures available in that regard. I am sure there are statistics compiled of that nature. The good roads association I am sure would have figures of that type. I am sure that by digging around we could probably get these figures for you. We do not have them available now.

Mr. BALDWIN: I had in mind that this was a weak point in provincial highway systems, particularly in some of the western provinces. I was thinking in terms of the ultimate possibility of the federal government assuming a larger share of the program for highway construction.

Mr. BIGG: Mr. Chairman, I feel that our own national parks do not receive enough publicity. There are thousands of people who do not realize there is a golf course at the Prince Albert national park. This is one of the finest golf courses in the world. Tourists are always looking for good golfing facilities. This park is not in my constituency although it was at one time. The park is not publicized enough. I agree there are many more inexpensive golf courses. The green fees charged at most of the national park golf courses are very high. I think there is a feeling among Canadians that national parks are reserved as playgrounds for the rich.

If you go to Banff National Park, Jasper National Park or Prince Albert National Park it costs you a week's wages to play a round of golf. I think the green fees should be much lower than they are. Tourists all like to play golf, particularly those from the prairies. They will travel a thousand miles into the United States to play golf and they do not even know whether golf courses exist there or not. Of course, they receive quite a shock when they find out how much the green fees are, but in spite of that fact they will still come if they know a golf course exists.

Mr. HAMILTON (*Qu'Appelle*): You will realize, Mr. Bigg, that this question of recreation in national parks was discussed the other day. It is one of the problems with which we are faced. Frankly, national parks were not set up for recreational purposes, they were set aside as beautiful places for people to look at. However, in view of the tremendous demand for recreation this is a decision we must make in the next few years. We must decide whether we are going to promote recreation in national parks or protect them as originally planned.

I do not intend to defend the rates charged in these parks for playing golf. However, as you know, the golf course at Banff is privately owned. There is a proposal before the parks department now to assist the local community in building a golf course for people of more moderate means. This proposal is being considered.

I must agree with you that Canadians do not know as much as they should about their own national parks, and the facilities that are available there. Here in the city of Ottawa you have a perfect example of that situation. They have created a park at Hog's Back. I have spoken to natives of Ottawa who were delighted with the idea that right in the centre of Ottawa was a park. They have travelled far abroad in years past looking for just such a place. Now that they have this park in the centre of the city they are delighted.

I know there is a tremendous demand for recreational facilities. This subject does not come within the tourist vote. I do not want to cut this discussion off completely because the two subjects are related.

Mr. BIGG: This is one of the few opportunities we have of speaking about this subject.

The CHAIRMAN: Your suggestion is welcome, Mr. Bigg. There is a relation between the two.

Mr. NIELSEN: Mr. Chairman, does the Department of Northern Affairs and National Resources make grants toward the preservation or creation of tourist attractions in the sense of grants to museums or in aid of museums?

Mr. HAMILTON (*Qu'Appelle*): Not at the present time. We do help the Canadian tourist association as the provincial governments do. I do not know of any grant unless you can call our contribution toward local historic sites a grant. These sites are operated by local groups. We look after the historical site portion and in fact the grant to them is tied in with some local tourist attraction. We do not make direct grants toward local tourist attractions, however.

Mr. FISHER: Mr. Chairman, I have two questions I would like to put to the director of an interpretive nature. I do not know whether he will be able to answer them, and perhaps you will rule them out of order.

Through this large body of inquiry, have you any idea how strong an interest, or demand there is for the north shore route along Lake Superior, especially as a result of this new bridge at Makinac. Can you interpret the response as being strong?

Mr. FIELD: It has not been evident yet.

Mr. FISHER: The response has not been evident?

Mr. FIELD: The new route is too new. It will have to be publicized before Americans in general will know about it. It is not enough just to have an opening ceremony, even though such a ceremony is largely attended by television, newsreel and photographic concerns. We have to do a development job in a publicity way.

Mr. FISHER: The second question is also of an interpretive nature. The government of Ontario has had to introduce a number of regulations having to do with travel in the bush because of fire protection problems. In a sense these regulations are limiting and regulating tourist movement. Have you noted any reaction or comments from tourists to the effect that before they can go on certain trips they have to register?

Mr. FIELD: No, we have had no appreciable lessening of travel and travel inquiries to our offices in the United States and in Ottawa as a result of this. This is an old problem which I have faced quite often, while I was in New York city as Travel Bureau manager there. For instance, the province of Quebec would have a bad fire situation in the bush country around Laurentide park and would place a restriction on travel. The automobile clubs, who are very effective in promoting travel in Canada, would then call us to ask for directions. We would tell them that they could still travel the main highways but that travel in the bush might be restricted. However, this restriction would not prevent American tourists from getting reasonably close to these areas.

I have never during the 7½ years I was in New York witnessed a bad reaction about bush fire restrictions.

Mr. FISHER: I have a final question which I will direct to the minister, Mr. Chairman.

I am sure the minister is aware of the tremendous development on the Red Lake road, after it was opened up, in terms of tourist development. As the Department of Northern Affairs and National Resources progresses with the access road program in cooperation with the provinces, new areas will be opened up. As we both realize, in respect of our own particular region, a new area will be opened up next year. The problem I can already see developing is, will the department of highways of the provincial governments take over the maintenance of these roads and keep them up to standards that will keep the tourists happy, and develop lodges and other like places along the roads? I wanted to ask the minister if he had given any consideration to the development of these areas, and whether it will be part of the policy of the Department of Northern Affairs and National Resources to find ways of encouraging the provinces to accept that responsibility?

Mr. HAMILTON (*Qu'Appelle*): Yes, Mr. Chairman. In the early stages of the road resources program we were thinking primarily of exploration for minerals. We also took a look at the pulp and timber. It is in our minds at all times while this road is being built, that, if all other things fail, if no minerals are discovered and there are limited supplies of pulp and timber, the tourist possibilities are always there.

Now in my own thinking—and that is as far as it has got—the tourist industry will not suffer because these roads are not maintained at tourist levels. I think the answer to the problem is something as follows: As long as the American knows that he can get to Red lake on a good road, he does not object to the last 60 or 80 miles being a little rough or of pioneer standard. His reason for wanting good roads is that he has only a three-week holiday. That is usually the case. As long as he can get up there fast and back to work fast, that is his main requirement. But when he is touring on the long swing tours he has to have good roads. These roads are not part of a scenic tour at all. These are the extensions into the reserve areas which will be very useful in the tourist business because more and more tourists both in Canada and the United States are carrying their tent equipment and their boats with them.

The motels and commercial camps, as you know, in Ontario—particularly in the Red lake area—the more remote they are, the more they charge not only because it costs more to run them but because the people who go into that area are willing to pay more for this remoteness than they would on a populated route. So, that is a supplementary reason for good roads for tourists travelling across the country.

I have not discussed with any province the question of keeping the roads to that level which would attract more tourist travel. We have discussed on the other hand that the main purpose of these roads. In the first instance it is to pick a route through the area to the resources. Even though the present grades and curves are not up to the standard of modern tourist travel, it requires a money to widen them, lower the grades and bring them up to a level which may enable them to become part of the highway system. We hope that in the areas which are in the Canadian shield that 80 per cent of the basic road we put in under the Roads to Resources program can be eventually turned into a road for the general public. That 80 per cent is a figure that we have discussed with the provinces while their engineers and our engineers are picking out the route of that road and arranging the standards between us.

I think that answers your question in this respect that it shows our thinking but we have not at this stage thought of making that route into a tourist route from the beginning.

Mr. FISHER: I just wondered if in the figures that D.B.S. collects on what the Americans spend here, whether there is included in that figures, for example, the American who comes in and takes a bit of property and develops his own camp. Is that shown as part of the American expenditure in Canada?

Mr. HAMILTON (*Qu'Appelle*): I am not too sure about this but I believe that when the American goes back he is asked to indicate the amount he has spent—the same as Canadians do coming back into our country. It is from that that we get the figures. As you know in Ontario they have a summer resort program whereby an American may come in and homestead an area, build a cabin on it or build a camp, and that brings many of them back each year. I think that when they build those camps and return to the U.S. the estimated amount of money which they have spent is requested on a form. I have never actually seen it done but I think that is the case.

Mr. McLENNAN: Following along the same lines, does the federal government cooperate with the provincial governments for the opening up of access roads to those camping sites and picnic sites. In British Columbia the forest branch there is doing a wonderful job, except that they are not doing enough of it. I believe that with more camp sites and picnic sites opened up it would be a terrific help to the tourist business to keep bringing in many thousands of Americans and keep a terrific number of Canadians at home, for the simple reason that there are thousands of Canadians going out to camping sites in the United States and the big parks down there for the simple reason that they cannot afford to pay the price for auto courts. They have to go to spots where they can camp and if there were more camping sites opened up I think it would be a terrific help to the tourist business and keep a lot of Canadians at home.

Mr. HAMILTON (*Qu'Appelle*): In answer I am in 100 per cent agreement. At the last Dominion-Provincial Tourist Conference last fall it was discussed and I advocated it very strongly. Last winter, as you know, we set up an emergency camp ground picnic program for a five-month period and the province of British Columbia came next to Ontario—they were in the first two anyway. The amount of money they took to put into these camp ground and picnic site projects was very very high. I believe the provincial minister told me when he was down here that nothing that had been done in recent years in British Columbia has proved so popular as those camp grounds and picnic sites. He gave me the story of one camp ground they put up to hold 200 camps and cars and they were wondering whether or not they had made it too big. The day it was opened there were 200 cars in the camp and 200 cars on the road. The people on the road slept in their cars overnight so that in case anyone moved out the next morning they could move in. There are tremendous demands by Canadians for camp grounds and picnic sites along our highways and off the highways where they can get a little privacy and quiet.

Mr. PAYNE: I would like to deal with the Canadian tourist bureau offices—as in the folder—in Chicago and New York. Have these offices been operating successfully? Has this already been asked?

The CHAIRMAN: No.

Mr. PAYNE: I was wondering if the operation of these offices had been successful and if any thought has been given to the opening up of similar types of offices in the Pacific northwest area of the United States such as Seattle and Spokane and also in the area of Minneapolis.

Mr. HAMILTON (*Qu'Appelle*): I have already made an announcement regarding that publicly; that following the opening of the Chicago office our next objective is one on the west coast. The place for it has not been finally decided but it is almost settled that it will be San Francisco.

Mr. PAYNE: Why so far south?

Mr. HAMILTON (*Qu'Appelle*): We have taken the advice of men, like Mr. Dolan, who is down there and others in External Affairs. We also feel that we can build a tremendous interest down there for the people to come up to the beautiful cool province of British Columbia during that hot California summer. I suppose those are some of the reasons for our deciding on San Francisco.

Mr. PAYNE: I have one other supplementary question. I do not know about any other western province but I believe Alberta sustains a travel information unit around Great Falls. Is that done in conjunction with your department? Is there any liaison or cooperation with the dominion government travel bureau in that respect?

Mr. HAMILTON (*Qu'Appelle*): I shall ask Mr. Field to answer your question.

Mr. FIELD: When we speak about offices in the United States we refer only to those offices which are operated or manned by the staff of the Canadian travel bureau, that is, in Chicago and New York.

But in addition, the Department of External Affairs through its consulates in the United States cooperates with the Bureau. In every one of our consulates; and at the Embassy in Washington there is a desk where travel information is given out.

The province of British Columbia has an operator in San Francisco who moves between San Francisco and Los Angeles, and he works with the travel people in the consulates and they pass information back and forth. He goes to see many of the major travel agents who call at the travel bureau for information.

Mr. PAYNE: So there is close liaison?

Mr. FIELD: Yes.

The CHAIRMAN: Is anything being done with our embassies and high commissioners in other countries to stimulate the tourist industry?

Mr. FIELD: Yes, and this has gone on for many years. The Department of Trade and Commerce has always had a very active interest in promoting travel. Every trade mission and every external affairs post abroad receives supplies of literature for distribution in the areas that it covers.

Mr. NIELSEN: I notice that the item for advertising in American newspapers and magazines has been increased over last year. In spite of the fact that I have browsed through a good number of American magazines and that I have noticed a good number of travel advertisements, nevertheless, I have yet to see one concerning the Yukon.

Undoubtedly it is the intention of this department now to give serious consideration to the inclusion of the Yukon as one of the travel spots of Canada in its advertising program.

Mr. HAMILTON (*Qu'Appelle*): I think we can definitely consider something like that.

I would like to point out to the committee that the amount has increased in dollars. Quite frankly, I wish the amount that we are spending on advertising were much greater, because I see positive results from that advertising.

While the cost has increased I must confess it has not bought more advertising. It is just an increase in cost in payment for the same amount of advertising. This is particularly true of magazines.

There is a 12 to 13 per cent increase in magazine advertising costs in there, and a 2 to 3 per cent increase in newspaper costs, but this increase in the amount spent for advertising does not mean increased space for advertising.

Mr. NIELSEN: One further question. I have mentioned in the house the excellence of the Alaska highway and its superiority to any other gravel road of the same kind anywhere on the North American continent, and I want to emphasize that again.

But it appears that a good number of industrial advertisers and manufacturers of tires use the example of the Alaska highway as a proving ground for the excellence of their product. I wonder if the travel bureau would not watch for that sort of thing and perhaps register a protest, on occasions when such advertising appears.

I might add that the Board of Trade in Whitehorse, and other agencies interested in advertising the Yukon have pursued this course.

Mr. HAMILTON (*Qu'Appelle*): You suggest that they use some particularly bad road in some particular city as an example?

Mr. NIELSEN: Yes, or some other province of Canada.

The CHAIRMAN: Would you like to have the record of revenue from the tourist industry in Canada in the last ten to fifteen years and the amount spent on advertising, following the question which was asked—and the proportion spent for advertising in newspapers and other media?

Mr. BIGG: I think you should also warn them that the access roads to the Alaska highway are a disgrace. People who come to the Yukon through our country, come back with wrecked automobiles. That is the best you can call it.

Mr. FISHER: What relationship is there between the travel bureau and the Canadian Restaurant Association? Is there any effort made on your part to encourage the development of better eating facilities in Canada, a wider range of menus, and that sort of thing?

Mr. HAMILTON (*Qu'Appelle*): Before answering your question, might we clear up the point raised by the chairman.

Would it not be simpler if we just put this table on the record. Then when you have your minutes, you will see the growth in the number of people coming in. The figure has jumped from \$149 million in 1938 to \$362 million in 1957, in a period of 20 years. And the number of visits has increased from 17 million to 28 million.

I think if a person studied these figures he would realize that last year there were almost two Americans in Canada for every Canadian who lived here, and he would get an idea of the tremendous value of having people moving back and forth across the border, both from an educational as well as a tourist point of view.

I think we should put this information on the record and thereby save reading all these figures.

The CHAIRMAN: You will have this information before the next meeting concerning the travel bureau.

STANDING COMMITTEE

TOURIST EXPENDITURES

(Millions of Dollars)

Year	Expenditures of Foreign Visitors in Canada			Canadian Expenditures in U.S.A. and other Countries				Number of U.S. Travellers into Canada (Border Crossings)	Travel Vehicle Permits
	United States Expend. in Canada	Overseas Expend. in Canada	All Countries	Expendi- tures in the U.S.	Expendi- tures in other Countries	Total Expendi- tures	Excess of Foreign expendi- tures		
1938	134	15	149	66	20	86	63	17,084,525	1,265,086
1944	117	3	120	57	3	60	60	12,551,072	451,626
1946	216	6	222	130	6	156	86	20,855,715	1,492,106
1947	241	10	251	152	15	167	84	22,669,840	1,663,853
1948	267	13	280	111	21	134	146	25,127,451	1,823,988
1949	270	18	288	164	27	191	95	24,261,223	1,989,954
1950	260	15	275	193	33	226	49	23,516,711	2,060,148
1951	258	16	274	246	34	280	-9	24,879,527	2,219,601
1952	258	18	276	294	42	336	-60	26,276,834	2,278,165
1953	282	20	302	307	58	365	-63	28,024,746	2,506,114
1954	280	22	302	303	69	382	-90	26,422,565	2,450,844
1955	303	25	328	363	86	449	-121	28,283,400	2,524,993
1956	309	28	337	391	107	498	-161	27,666,500	2,484,444
1957	328	34	362	403	120	523	-161	28,670,788	2,555,074

(Authority—D.B.S.)

Mr. GUNDLOCK: I have one question in connection with the table. How do Canadians spend that \$160 million that they spend outside the country? Is there a certain percentage which go to Switzerland to ski, and which go south for the sun? Is there a figure like that available?

The CHAIRMAN: I think the figure is much higher than that, because we have a deficit. Would you be able to put that on?

Mr. HAMILTON (*Qu'Appelle*): As to that deficit figure of \$160 million, Canadians actually spent \$523 million abroad, while visitors to Canada spent \$362 million.

There are extensive figures from the Dominion Bureau of Statistics in a volume entitled *Travel Between Canada and Other Countries*—the latest volume is for 1956, and it gives a breakdown.

On page 37 thereof you will find a section on Canadian Travel Overseas, and the statement is broken down into points of entry. The items are broken down into what they spent on business, education, health and recreation. Perhaps if I give you the percentages that would be enough.

Mr. GUNDLOCK: I would like to have just the tourist part of it. That is what I am interested in. My point is this: the amount of money they spent going to Switzerland to ski, for instance, when they could do it at home, and that sort of thing, and in connection with the strictly tourist business.

Mr. HAMILTON (*Qu'Appelle*): It is not shown in this table. What I proposed to do was to give you an idea of what they go over there for. The tables read as follows:

STATEMENT 1. Number and Expenditures of United States Travellers in Canada, 1953-1956

Type of Transportation	Number of Persons				Expenditures			
	1953	1954	1955	1956	1953	1954	1955	1956 ¹
	(Thousands)				(\$ Millions)			
Automobile:								
Non-permit or local traffic.....	9,557	9,720	10,923	11,939	21.9	22.8	28.5	35.4
Customs permits.....	7,316	7,128	7,315	7,241	135.0	127.5	136.9	137.2
Repeat trips of permit holders...	2,520	1,795	2,594	3,210	—	—	—	—
TOTAL.....	19,393	18,643	20,832	22,390	156.9	150.3	165.4	172.6
Non-Automobile:								
Rail.....	1,026	941	940	882	43.9	46.2	41.5	43.7
Boat.....	326	347	370	399	14.2	16.8	13.0	15.7
Through bus.....	352	335	340	339	23.0	23.2	22.3	22.0
Plane.....	214	239	288	315	24.9	26.0	37.3	36.6
Other.....	6,714	5,908	5,513	3,342	19.3	20.7	23.4	18.7
TOTAL.....	8,632	7,770	7,451	5,277	125.3	132.9	137.5	136.7
GRAND TOTAL.....	28,025	26,413	28,283	27,667	282.2	283.2	302.9	309.3

¹ Subject to revision.STATEMENT 4. Percentage Distribution of Vehicles by Province of Exit for Non-Resident Automobiles Travelling in Canada on Customs Permits¹, Three Days or Over, 1956

Province of Entry	Province of Exit							
	Maritimes	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	B.C.	Yukon
	%	%	%	%	%	%	%	%
Maritimes.....	91.53	5.06	3.39			0.02		
Quebec.....	3.39	82.25	14.34			0.02		
Ontario.....	0.87	7.51	90.75	0.66			0.21	
Manitoba.....		0.06	16.48	73.50	3.56	3.17		3.23
Saskatchewan.....		2.66		8.60	74.90	7.36		6.48
Alberta.....		2.25		3.39	2.86	43.06	35.67	12.77
British Columbia.....		0.25		0.37	0.30	6.40	89.62	3.06
Yukon.....		0.78		1.89	2.14	39.96	50.43	4.80

¹ Exclusive of commuters, summer residents and locals.STATEMENT 7. Non-Resident Automobiles Travelling on Customs Permits¹, Percentage of Volume, Classified According to Length of Stay in Canada by Province of Entry, 1956

Province of entry	Length of stay in Canada		
	1 day	2 days	3 days and over
	%	%	%
Maritimes.....	35.80	13.64	50.56
Quebec.....	31.60	20.98	47.42
Ontario.....	39.50	21.68	38.82
Manitoba.....	28.53	18.44	53.03
Saskatchewan.....	20.71	15.64	63.65
Alberta.....	19.57	13.31	67.12
British Columbia and Yukon Territory.....	24.58	23.33	52.09
CANADA.....	35.34	20.94	43.72

¹ Exclusive of commuters, summer residents and locals.

STATEMENT 9. Distribution of United States Travel Expenditures in Canada by Province of Entry, 1952-1956

Province of entry	Percentage of total				
	1952	1953	1954	1955	1956 ²
Atlantic Provinces ¹	7.8	8.1	7.9	7.7	7.9
Quebec.....	18.3	18.6	18.1	17.4	18.3
Ontario.....	50.6	51.5	50.5	53.6	51.5
Manitoba.....	2.6	2.5	2.6	2.7	3.0
Saskatchewan.....	1.7	1.8	1.9	1.5	1.6
Alberta.....	3.5	2.9	2.8	3.0	2.8
British Columbia.....	15.5	14.6	16.2	14.1	14.9
TOTAL.....	100.0	100.0	100.0	100.0	100.0

¹ Entering mainly through ports in New Brunswick.

² Subject to revision.

STATEMENT 23. Purpose of Visit Reported by Canadians Returning Direct from Overseas Countries, 1956.

Destination Reported	Business	Education	Health	Recreation	Visiting friends or relatives	Other
United Kingdom only.....	7.9	2.3	2.5	19.8	66.9	0.6
U.K. and other European Countries.....	17.7	8.3	1.6	44.4	27.6	0.4
Other European Countries only.....	14.5	5.8	3.5	21.8	54.2	0.2
Other Commonwealth Countries.....	4.5	3.1	9.0	73.7	9.1	0.6
All Other Countries.....	8.8	5.9	5.0	66.9	12.4	1.0
GRAND TOTAL.....	11.4	5.3	3.6	42.3	36.8	0.6

Statement 23 shows that the biggest reason for going abroad is to go skiing in Switzerland and particularly to look at the scenery of Europe.

Mr. MARTINEAU: In respect to the amount which is spent for advertising, does that apply to our own tourist operators to encourage them to develop characteristic Canadian features, for instance, food facilities and restaurant facilities? Is any thought given to the encouragement of Canadian restaurant owners in the hope that they might try to develop a cuisine that is particularly Canadian rather than a pale imitation of the American style; the same would apply in respect of accommodation, amusement and so on. I believe that a great majority of the tourists who come here want to find something different, and that a lot of them are dissatisfied because they find here about the same thing that they find at home, only it is a pale edition. We do have good Canadian food and we are also able to develop typical Canadian accommodation and so on; but as far as I can see not much thought has been given to it. I wonder if any money has been spent in the encouragement of Canadian tourist operators to do that?

Mr. HAMILTON (*Qu'Appelle*): The answer as far as the federal government is concerned, is that we have no specific activities along that line. I do think I, and many of my officials, are guilty of suggesting the same thing on many occasions to large groups of interested people. But I should point out that the provinces are doing a fairly good job on that particular aspect of the problem of attracting tourists to this country. I have heard speeches by various provincial ministers at conferences of restaurant operators in Ontario and in my own province of Saskatchewan. Also I have read about them in Quebec.

The governments of the provinces are doing several things to encourage restaurant operators to meet this need. They have the device of labelling

the A,B,C, and D's, and secondly they are putting out booklets on native dishes. The pressure now, from a propaganda point of view, is to get away from trying to duplicate things which are in the United States and instead to put in things that are typically Canadian.

I played my part in that recently when I attended a Canadian Chamber of Commerce meeting at Detroit and Windsor when I laid it on the line quite flatly that Canadians did not need to make any great moves to prove they are Canadians but merely had to act like they are and that would be sufficient to attract people and bring them here.

I think you will find that the provinces are doing a pretty good job on that. I do not know how many provinces have put out cookbooks and things like that, but I know pressure is on the restaurant owners at all times in an attempt to encourage them to try to keep their food Canadian. I know it takes a little time for restaurant operators to develop the same standard that you would find in Switzerland or southern France because those countries have made a tremendous business just out of providing good food.

However, I do know that more and more our hotels and dining places are bringing in the ideas which they have seen in European centres.

This is a strange story, Mr. Chairman, but I saw a chap from Ireland presiding over one establishment on the Alaska highway and bringing all that culture to bear in an area which most people would consider a pioneering area. You will never find a more sophisticated nor a better run establishment than this. I am learning not to mention the names of any cities or towns. I think that you would want to know that that sort of thing is going forward gradually. It will take some time to develop the standard which exists in Switzerland and in other places.

The CHAIRMAN: Perhaps the officials will have the information for us on the amount spent by the tourists.

Mr. FIELD: We can only give you the figures of the Dominion Bureau of Statistics which is the amount spent in each province by visitors from other countries. That is provided in the report of the Dominion Bureau of Statistics.

The CHAIRMAN: That will be in the record for the next meeting.

Mr. GUNDLOCK: I came back from Alberta last week and met a lady from South Carolina who had travelled extensively in Europe and was just on her way home from the Canadian Rockies. Of course I asked her for her impressions. The reason I am bringing this up is that it coincides with what the minister has been speaking about on several occasions. I was attempting to get her to say that our Rockies are more beautiful than the mountains in Switzerland; but it finally boiled down to the words "They are not lived in." In Switzerland there are villages up and down the mountains, but our Canadian Rockies are not lived in. That seems to have impressed her more than anything. The thing which bothered her the most was the fact that her money was not as good as ours. She had neglected to secure Canadian currency before she left home.

Mr. PAYNE: One point which causes some concern has to do with the advertising. A great deal of the advertising sent out by the provinces, the railways and the air lines is excellent, but there is such a multiplicity of it that I wonder if an effort to coordinate these productions might be more effective and probably bring about a saving. It may be, in some cases, only a question of a little give and take at the provincial level.

People outside this nation predominantly are interested in Canada. Is it not possible to coordinate the printing of both magazine advertising and the mapping services? The mapping services are excellent but there is a tremendous multiplicity of them.

Mr. HAMILTON (*Qu'Appelle*): In answer to that, every year we have a Dominion-Provincial Tourist Conference at which the air lines, the railways and the tourist operators are represented. What we do to help coordination is to put our program before them. Provinces make known what their plans are and the railways I believe, the air lines and the other groups of private operators build their program around what they know we are doing. It would be a tremendous problem to try to put every bit of advertising in a tight program for all levels. We think we are doing a most effective thing by letting them know what we are doing, and it will put the responsibility on them if not duplicating our efforts; likewise the province would do the same thing.

I have heard discussions in which railways companies have indicated the type of program that they were preparing. We have jointly discussed how we could solve the problems. We have been looking at the problems as one; that is the governments and private people in the tourist industry do have a very high level of planning and coordination at these dominion-provincial tourist conferences which are held every year. The conference this year is being held during the last week of November in the city of Ottawa.

I think anyone who reads the news stories arising out of this conference, or who talks to the people who attend the conference will find that it is a very practical method of dealing with these problems.

Mr. DUMAS: Mr. Chairman, I would like to ask one or two questions of Mr. Field.

I understand that the travel bureau is working in cooperation with the provinces and with the municipalities and different organizations. If you had a request, Mr. Field, from a person in the United States, for instance, who wished to go to the Gatineau valley, are you in a position to communicate with the Chamber of Commerce or an organization in that district so you could get the information quickly, in order to enable you to tell these people asking for the information, that they could go to certain places and expect to find certain accommodations either for fishing, or for hunting in the fall?

Mr. FIELD: Yes, we are. This is one of the most highly organized facets of the travel bureau operation.

About 300,000 of our inquiries are actually in written form, by letter or by postal card. We service these inquiries. This year we were actually able to maintain a 48-hour schedule throughout the year with a 24-hour schedule most of the time. In other words, from the time an inquiry came in, 24 hours later the envelope containing all the literature was on the way through the mail.

As soon as we service an inquiry—we have all the pamphlets on every part of the country including the Gatineau—we put out a referral list that goes to the Chambers of Commerce, the provincial governments and so on listing all the inquiries, and a brief summary is given of what that inquirer wanted so that on the municipal and provincial level they could follow up the inquiry that we received.

This referral list actually is a capsulation of everything which the bureau does. This is the end result.

We made a survey this year to see if this referral system was working and if any of the transportation companies of the provinces or municipalities had any suggestions to offer. As a result we received a continuous stream of letters praising this particular side of the bureau's activity.

Mr. DUMAS: I have another question, Mr. Field. In the 1956 report it is mentioned that 27,666,000 people came to Canada. This is the figure covering entries to Canada. Do you have those entries divided by provinces or by districts like the maritime, the province of Quebec, the province of Ontario and so on?

Mr. FIELD: Yes.

Mr. DUMAS: Could we have those figures for 1957?

Mr. FIELD: The 1947 report is not ready yet. The Dominion Bureau of Statistics will have this report ready in August.

Mr. DUMAS: Could we have the figures for 1956?

The CHAIRMAN: Would you like those figures in respect of several years back, Mr. Dumas?

Mr. DUMAS: Yes.

The CHAIRMAN: Before eleven o'clock—I wonder if the committee would consider requesting that information be made available in respect of the last 10 or 15 years. Could we have that information?

Mr. FIELD: Yes.

Mr. DUMAS: This information would be very interesting.

The CHAIRMAN: Members of the committee might also like to consider the idea of calling further witnesses to give information to this committee.

Members might also consider the possibility or desirability of joining with the committee of the other house which is set up each year in respect of the tourist industry.

Mr. Field, have you a breakdown of the amount of money spent by Canadians in foreign countries by provinces?

Mr. FIELD: No, that is not available.

Mr. BIGG: Mr. Chairman, will we have an opportunity of seeing that film? Perhaps some of the other members would like to see it as well as the members of this committee. It might be worthwhile acquiring that film from the National Film Board.

Mr. HAMILTON (*Qu'Appelle*): That suggestion brings up a technical problem. There is a screening room at the National Film Board offices which will hold about 30 people. This room has the advantage of being air conditioned. It is very pleasant to go there at eight o'clock in the morning and look at these films. The only other places that we could possibly show the film would be in the committee room at the northeast corner of this building on the ground floor.

The CHAIRMAN: That is room 118.

Mr. HAMILTON (*Qu'Appelle*): What I would like to do in showing a film like that is to invite all the members—not that they would all come—to give them an opportunity of seeing this film. I think it would be much better to do it that way than to show the film at a dinner. Perhaps the film could be shown and all members of both houses could be invited. I imagine the members of this committee would attend pretty well in force.

The CHAIRMAN: Perhaps some of the senior members of this committee will recall that we have had very good attendances in the Railway Committee Room at some very fine showings of films. I think we have had as many as 300 or 400 people there.

The steering committee will consider this matter. We will examine the idea and arrange for a showing.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, this film has just been completed and will be a film that Princess Margaret will see in the next few days. It is being flown to England. She will see that film as a preview of some of the sites she will be seeing here in Canada. You will have the knowledge, when you do see the film that Princess Margaret has already seen it.

Mr. AIKEN: Mr. Chairman, I just want to make a suggestion. There has been a lot of questions with regard to statistics. I have had that book on travel

between here and other countries. It is full of tables of the type which members have been asking for. I do not know whether there are copies of this pamphlet available, but it is a very good source of information. It might be a good idea to have copies made available to members of the committee.

The CHAIRMAN: I think we should make that pamphlet available to members of this committee.

Mr. MARTEL: Just one further question, Mr. Chairman. Could the minister tell us if there are any grants allowed to organizations to publish tourist guides other than the \$5,000 given to the Canadian Tourist Association, with the thought of encouraging the publication of more favourable information in regard to the different areas on a municipality or Chamber of Commerce level? I am thinking in terms of publications for tourists in addition to the publicity given in magazines.

Mr. HAMILTON (*Qu'Appelle*): Mr. Chairman, for a fairly obvious reason we do not give grants to local groups like that. There are simply dozens of such groups, and once we started this we would be deluged. I do believe that some of the provinces have given assistance to certain regional activities but I cannot give you the exact information on that.

Mr. FISHER: Will Mr. Field be back before us again?

The CHAIRMAN: Yes.

Mr. FISHER: I wonder if he can give us information at a later meeting of the sample technique and follow-up that the travel bureau uses and how satisfied the visitors have been with these aspects of the division.

The CHAIRMAN: Are there any other questions, gentlemen?

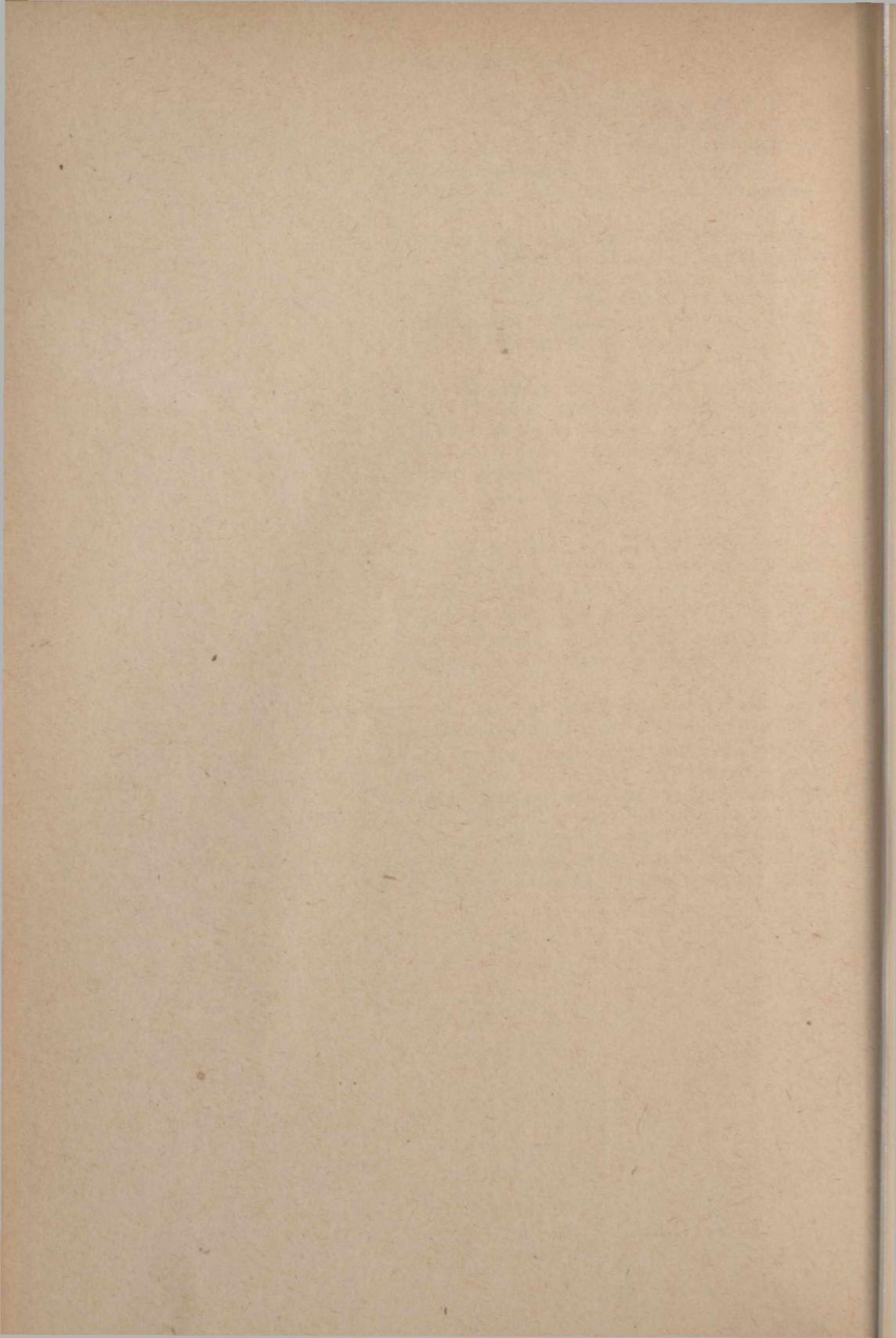
Mr. MUIR (*Cape Breton North and Victoria*): I would like to put this on the record: would it be at all possible to have the advertising budget for each individual park?

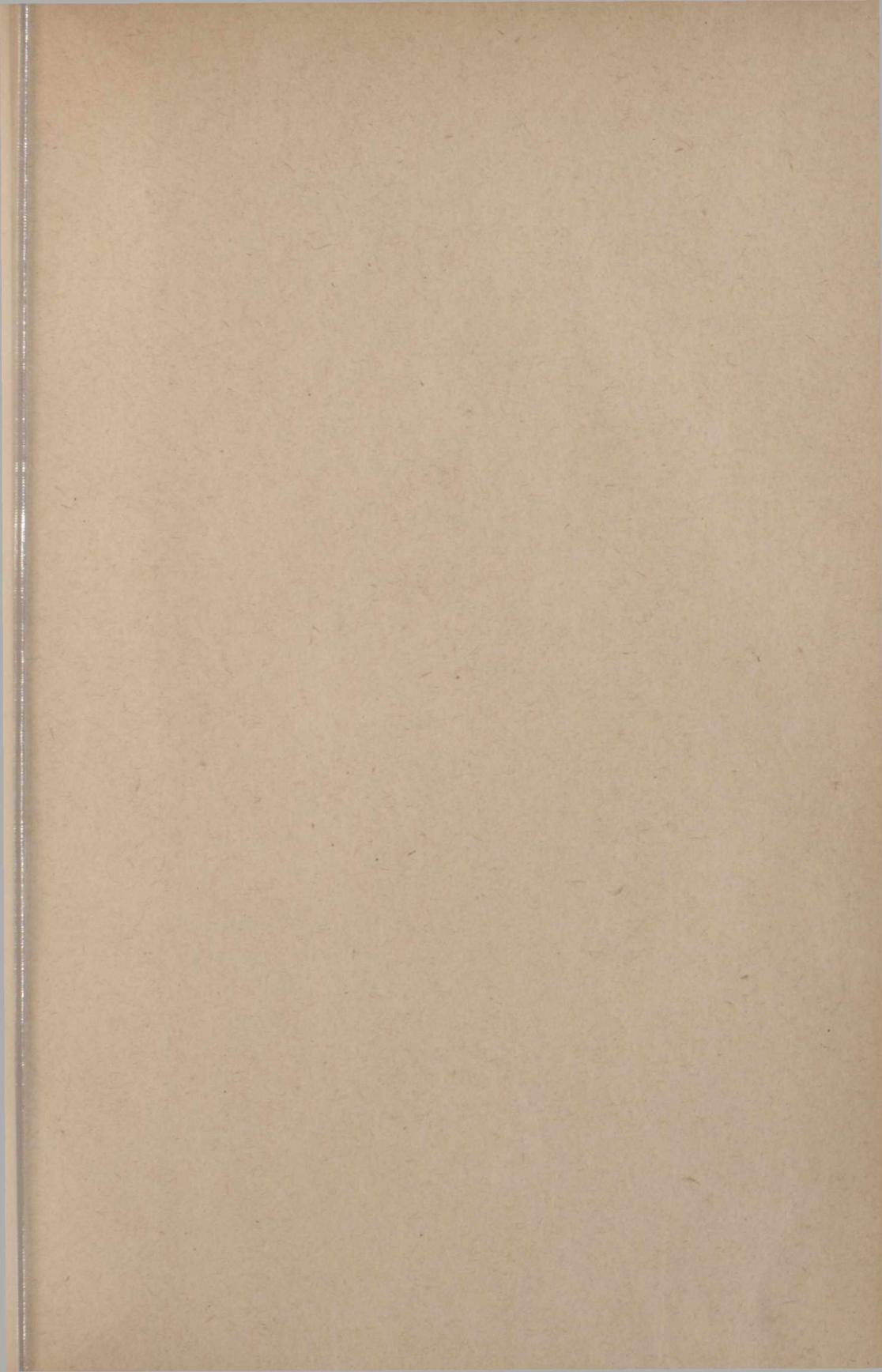
Mr. HAMILTON (*Qu'Appelle*): We have no advertising budget for each individual park. The advertising of the department is for Canada as a whole.

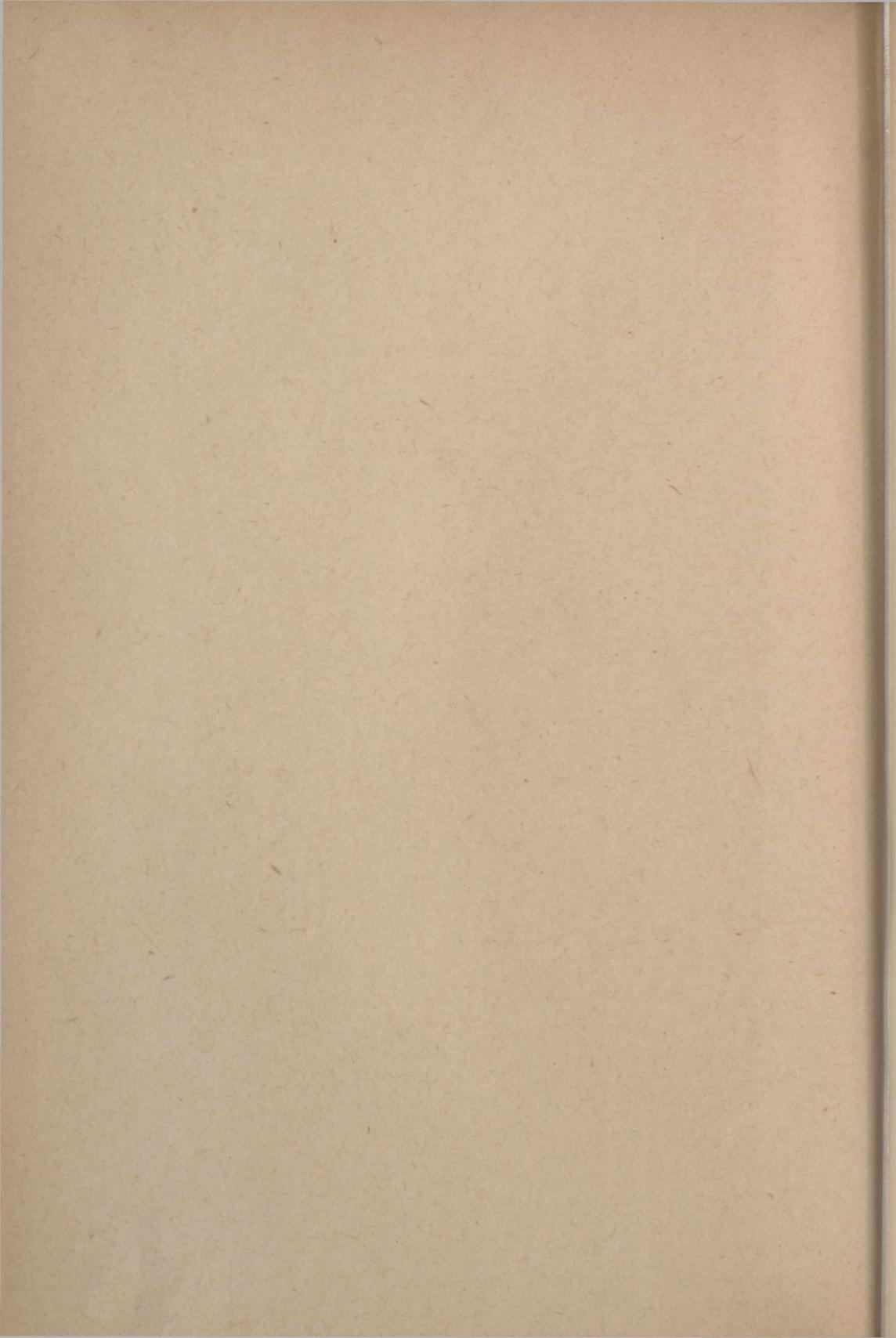
The CHAIRMAN: Well, gentlemen, the next meeting on these estimates will probably not be before Friday next. Then, I think you will receive a great deal of valuable information. Members are free at any time to offer suggestions with regard to the calling of witnesses. We shall be glad to have your opinions.

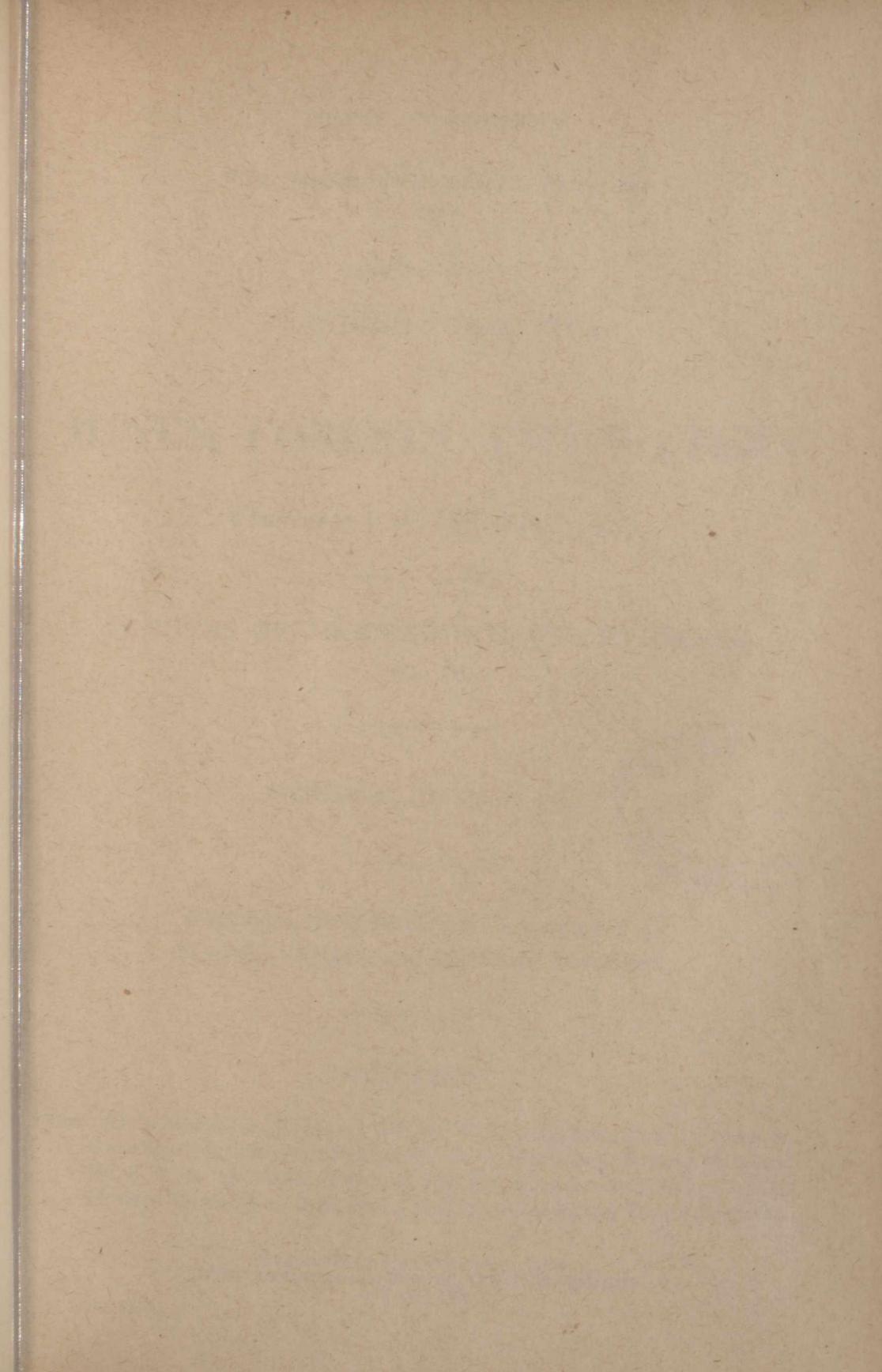
The next meeting of the committee is on Monday morning next July 7th when we shall have the three experts on forestry before us to give evidence. We shall, no doubt, have a full attendance, as usual. Thank you very much, gentlemen.













HOUSE OF COMMONS

First Session—Twenty-fourth Parliament
1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 10

MONDAY, JULY 7, 1958



Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. G. W. I. Creighton, D.Sc., President,
Canadian Institute of Forestry; Mr. R. G. Robertson, Deputy Minister;
Mr. J. D. B. Harrison, Director, Forestry Branch; and Major-General
Howard Kennedy, C.B.E., M.C., M.E.I.C., Consulting Forest Engineer.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-President: Erik Nielsen, Esq.

and Messrs.

Aitken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRea,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Laflèche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

MONDAY, July 7, 1958

(12)

The Standing Committee on Mines, Forests and Waters met at 10.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baldwin, Baskin, Cadieu, Doucett, Fisher, Fleming (*Okanagan-Revelstoke*), Godin, Gundlock, Kindt, MacRae, Martel, Martineau, McLennan, Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Pugh and Woolliams.—(21)

In attendance: Mr. G. W. I. Creighton, D.Sc., President, Canadian Institute of Forestry, of Halifax, N.S.; and Major-General Howard Kennedy, C.B.E., M.C., M.E.I.C., Consulting Forest Engineer, of Ottawa and *from the Department of Northern Affairs and National Resources:* The Honourable Alvin Hamilton, Minister; Messrs. R. G. Robertson, Deputy Minister; E. A. Côté, Assistant Deputy Minister; F. A. G. Carter, Chief Administrative Officer; and R. A. Faibish, Private Secretary to the Minister: and *of the Forestry Branch:* Messrs. J. D. B. Harrison, Director; J. H. Jenkins, Chief, Forest Products Laboratories Division; H. W. Beall, Chief, Forestry Operations Division; A. Bickerstaff, Assistant Chief, Forest Research Division; and S. MacCallum, Accountant.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

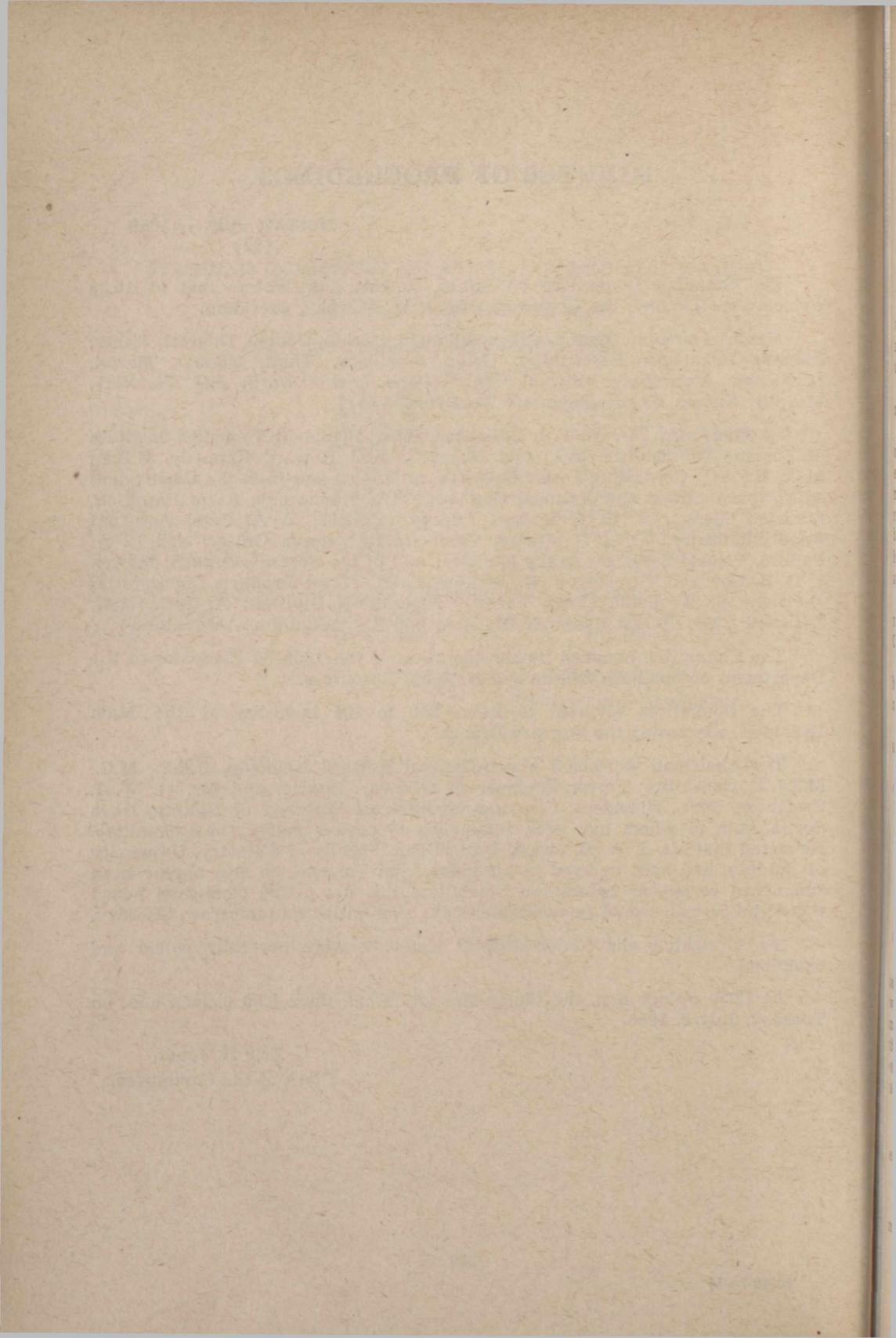
The Committee reverted to Items 290 to 301 inclusive of the Main Estimates, concerning the Forestry Branch.

The Chairman welcomed Major-General Howard Kennedy, C.B.E., M.C., M.E.I.C., Consulting Forest Engineer of Ottawa, Ontario, and Mr. G. W. I. Creighton, D.Sc., President, Canadian Institute of Forestry, of Halifax, Nova Scotia, both of whom had been summoned to appear before the Committee. He stated that Mr. J. W. B. Sisam, D.Sc., Dean, Faculty of Forestry, University of Toronto, had been delayed in his flight from Toronto, he also having been summoned to appear before the Committee this day. The Chairman hoped that Dean Sisam would be available to the Committee on tomorrow, Tuesday.

Mr. Creighton and Major-General Kennedy were severally called and examined.

At 12.30 o'clock a.m. the Committee adjourned until 9.00 o'clock a.m. on Tuesday, July 8, 1958.

Eric H. Jones,
Clerk of the Committee.



EVIDENCE

MONDAY, July 7, 1958.

10:30 a.m.

The CHAIRMAN: Gentlemen, we have a quorum.

Before we call witnesses this morning I was wondering if the committee would like to have on record, for study, some suggestions which I had made respecting the tourist industry. I wonder if you would let me know if you are all agreeable to the suggestions.—I am glad to see the minister is here.

Our study of the tourist industry is like a "dragging anchor." At our next meeting I hope there will be some very piercing questions.

With your permission, I would like to have put on the record the names of the ministers whose jurisdiction the Travel Bureau came under, since it was established in 1934, and the amounts paid for each publication, newspaper and magazine during the last five years. I would also like to have placed on the record the number of films concerning Canada's tourist attractions which have been shown in the United States during the past five years, and how many talks have been given by employees of the Travel Bureau in the United States in an attempt to boost our tourist industry.

If possible, I would like to have on the record the amount of tourist revenue now enjoyed by Mexico and two or three of the states; Florida and California.

Also I would like to ask if there has been a study made of the Switzerland billion dollar tourist industry. Perhaps we could have that information for our next meeting.

Gentlemen, I am sorry to inform you that Professor Sisam will not be with us this morning due to a T.C.A. flight cancellation.

We do have the honour of having with us Dr. G. W. L. Creighton, President of the Canadian Institute of Forestry, of whom I think most of you have heard. I know that in Ontario particularly and, I think, perhaps in all of Canada, Major General Howard Kennedy is known. These gentlemen are here this morning. However, in view of the fact that one witness has come from the east coast, I am going to suggest that before we ask them to make any statements we might consider meeting this afternoon unless, of course, we finish this morning.

Which of these gentlemen would you like to have called first, or have any of the members any statements or observations to make?

Mr. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): I must attend a cabinet meeting this morning, Mr. Chairman. I just wanted to say how pleased I am to be here to welcome our two witnesses this morning. I know several of the members around the table will want to get their viewpoints in respect of some of these matters. I have asked my officials of the department to take very careful note of what is said and to keep the suggestions in mind.

I was not aware until a short time ago of the cabinet meeting this morning.

The CHAIRMAN: You have been at every meeting thus far, so we will excuse you this once!

Mr. HAMILTON (*Qu'Appelle*): Thank you.

The CHAIRMAN: Are there any observations any member would like to make?

Mr. BASKIN: Mr. Chairman, I am interested in the subject of reforestation. In the testimony which we are privileged to hear this morning I am wondering if one of the witnesses could include an explanation of matters having to do with reforestation in European countries; how it is carried out. Could we be given an idea or two in that regard?

The CHAIRMAN: That is a very good question. Are there any other observations?

Mr. FISHER: Mr. Chairman, I want to have Mr. Creighton speak—I know he will be familiar with the report that was presented to the Gordon Commission by the Canadian Institute of Forestry, which he represents—on the recommendations, which are included in this report, that a special committee should be set up under the framework, or with some sort of link-up with the federal government, to act as a forestry advisory committee, and to carry out certain recommendations made in this brief. I think this was the core, in many ways, of the Canadian Institute of Forestry's brief, and I wonder if it would be possible to have as much elaboration as we can get from the president of the C.I.F. in this regard?

The CHAIRMAN: Mr. Fisher, would you like to have Mr. Creighton make a statement?

Mr. FISHER: Yes, if possible, especially having to do with these recommendations.

The CHAIRMAN: Mr. Creighton, this is an informal type of meeting. It is not restricted in the way some committee meetings are, and the members of this committee are quite at liberty to ask you questions in regard to anything except on government policy. We do want to get as much information as we can, especially from people like yourself. Would you like to make a statement?

FORESTRY BRANCH

Main Estimates	
Item 290. Branch Administration	\$ 139,678
Forest Research Division—	
Item 291. Operation and Maintenance	\$1,328,886
Item 292. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 164,283
Forestry Operations Division—	
Item 293. Administration, Operation and Maintenance	\$ 302,780
Item 294. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 19,230
Item 295. To provide for contributions to the Provinces for assistance in forest inventory, reforestation and forest fire protection in accordance with agreements that have been or may be entered into by Canada and the Provinces	\$1,650,000
Item 296. To provide for contributions to the Provinces pursuant to agreements entered into or to be entered into, with the approval of the Governor in Council, by Canada with the Provinces, of amounts equal to one-half of the amounts confirmed by the Provinces as having been spent by them in establishing forest access roads and trails for the attainment of adequate fire protection as well as other aspects of forest management	\$1,000,000
Item 297. To provide for a contribution to the Province of New Brunswick for assistance in a program designed to combat the spruce budworm infestation, in accordance with an agreement entered into by Canada and the Province....	\$ 600,000
Forest Products Laboratories Division—	
Item 298. Operation and Maintenance	\$ 750,299
Item 299. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 259,260
Item 300. Grant to Canadian Forestry Association	\$ 20,000
Item 301. Eastern Rockies Forest Conservation Board—Remuneration and Expenses of the Federal member of the Board	\$ 5,575
	<hr/>
	\$6,239,991

Mr. G. W. I. CREIGHTON, D.Sc. (*President, Canadian Institute of Forestry*): Mr. Chairman, and gentlemen I want to say that I was highly honoured to be invited to attend this meeting today. I also want to say, that I had no idea what questions I might be asked. I came here, perhaps cold.

If I could just make a few general remarks, then I could perhaps try to answer some of the questions that might be asked.

I want to say, first of all, that as a young man, just one week out of college, I came to the city of Ottawa to work for a pulp and paper company which at that time, had an office just across the street, in the Victoria building. I was always thrilled at that time to look out the window and see these parliament buildings—I am still thrilled to come and see them. I certainly felt a little proud when walking through the grounds today looking at the beautiful Peace Tower and the buildings.

The forest industries, the federal government and the provincial government departments all feel that our forests and our forest industries form one of the important blood-streams in the life of commerce of Canada. We think the forests and the forest industries have been rather taken for granted. We feel the forest and forest industries, to a large extent, pay the bills of this country, and it is one of the groups of industries that stands on its own feet without any "pump-priming" from the governments.—Perhaps that is as it should be. We are rather proud that it does, though it long has been a contention of the forest industries that, since the federal government takes so much from the forests the federal government should assume a little more responsibility in giving some more aid to the forest industries.

We all felt, when the Canada Forestry Act was passed, that the federal government had recognized and accepted that responsibility. The assistance received through the Canada Forestry Act has certainly been most welcome and has done a lot of good.

Personally I have always felt that the federal forest service is a department of the government that should receive a little more attention from the federal government. The members of that service, and the work which they are doing, are recognized throughout the provinces, and, I think far beyond the boundaries of Canada.

It is not fair to pick out individuals or different groups in that department, but I cannot help mentioning the work of the Forest Products laboratories. I understand that the Forest Products Laboratories have recently moved into new quarters that were long overdue. The men in that group have certainly helped the forest industry in this country. I know that we in the Province of Nova Scotia appreciate very much what the Forest Products Laboratories of Canada are doing.

In the field of photogrammetry, the Federal Forest Services have done work which is recognized throughout the world. The work which they have done has certainly been of assistance in helping carry out the forest inventory that was started as a result of the Canada Forestry Act.

The help that the federal government gives the provinces in every field of forestry—forest management, the aid to forestry industries, and the federal forestry service—plays an important role.

The federal service in the field of research is in a position to do work which the provinces cannot hope to do. We in the provinces can carry out certain fields of activity, but the federal forest service is in a position to carry out work and give service to the industries and to the provincial departments that the provincial departments cannot hope to do themselves.

I want to take this opportunity of saying that we in the provincial service and industry—I myself was in industry for a number of years—feel that the federal forest service is deserving of a great deal more support than they have received up to the present time.

In the field of reforestation, the work is more important in some provinces than in others. Major-General Kennedy can tell you much better than I can what is being carried out in Ontario. I have seen the work there, and I know that a great deal of fine work and effort is being put into the program of reforestation, particularly in blow-sand land.

I have seen a small amount of the work which has been carried out in British Columbia and I am, of course, familiar with what we are doing in the maritime provinces. In our own particular part of Canada, we have a moist climate, and we have excellent natural regeneration. We do carry out reforestation projects in Crown Lands, and we supply trees to private land owners. In my part of the country, in my own opinion, if the amount of money that is being spent on reforestation was spent in regard to improvement cuttings we would probably get more for our dollar than we are getting by planting trees. However, in the minds of the general public, reforestation is a necessity and, whether we think it is a necessity or not, public pressure forces us to plant trees in waste areas.

In some of the other provinces with drier climates the natural regeneration is more difficult to obtain, and the reforestation projects are much more important than they are to us on the east coast.

With reference to the question of the brief presented by the Canadian Institute of Forestry to the Gordon commission, I must confess that it is some little time since I have read through that brief. I was not the president of the Institute at that time; Dean Sisam of Toronto University was chairman. It is most unfortunate that he has not yet arrived, because he could answer your questions in that regard. He worked on the brief, and could answer questions much better than I could. I read the brief through, and at the time I read it I was fully in accord with everything that was said. Right at the moment, without refreshing my memory, I must confess that I cannot speak about it intelligently.

If there is any point in which you are particularly interested, and if we have a few minutes after this meeting, I would be very pleased to refresh my memory and to discuss the points in which you are particularly interested.

It is quite possible that Major-General Kennedy has a little better memory of that brief than I have. If so, he may be able to answer your questions.

Mr. FISHER: To follow that up, Mr. Chairman; the brief recommends that the federal government take the initiative in establishing a committee consisting of foresters, forest administrators, economists, taxation experts, businessmen, political leaders and others as might be necessary or desirable, nominated by the provincial and federal governments, and that this committee be given the necessary powers and facilities to perform the following duties. Those duties include: periodical analyses of available information; to direct the formulation of the forest policy; to initiate an analysis of all the obstacles impeding the developments in the forests; to make recommendations as to the roles which the federal and provincial governments should play; and to—and this is one that I especially wanted comments on—recommend such fiscal arrangements or policies as may be required to fulfil the objective set, and to study and recommend ways in which the Canada Forestry Act can be made a more positive instrument in the evolution of a national forest policy.

I recognize this is a very general but, from my experience with foresters—and I have had quite a bit—there is a general feeling that the federal government should take a stronger lead. Though I am an opposition member I feel the turnover which we have had at the policy-making level—that is the ministers—we now have the opportunity for perhaps a stronger lead. That is why I wanted to get you, as head of the Canadian Institute of Forestry, and Dean Sisam, whom I know presented this brief, to give us your points of view.

Mr. CREIGHTON: Yes. I feel that everyone in the forest industry, and certainly members of the C.I.F., feel that it would be a step forward if the federal government would take a stronger lead in matters pertaining to forests and the forest industry. If such a committee was set up it could meet periodically. It should not act in a positive manner in matters of interest, but it would help only in administering the Canada Forestry Act.

The CHAIRMAN: Are there any other questions, gentlemen?

Mr. PUGH: By province, how is Canada keeping up with the reforestation program?

The CHAIRMAN: What do you mean by "keeping up"?

Mr. PUGH: I mean, are we keeping level with our cuttings now?

Mr. CREIGHTON: Are you asking me that question?

Mr. PUGH: Yes.

Mr. CREIGHTON: I do not know that I can give a definite answer to that question.

I believe in some parts of Canada we are definitely overcutting and in other parts—even in a little province like mine—there are some sections where we are not cutting enough. Forests by and large that have been cut over are now not fully stocked and they are not producing as much as they are potentially capable of producing. The actual planting of trees is not necessarily the answer. I think that better cutting methods and less waste in many cases would do more. We could cut in a manner so that our forests will produce naturally. Very often natural regeneration is better than the results we get from going out and planting trees.

There are some places where we have some drifting sands or where the climate is very dry and where natural regeneration is not satisfactory and it becomes necessary to plant.

Over a large part of Canada if we cut properly and protect the forests from fires, then nature will give us satisfactory crops. Very often there are too many trees to the acre. We know that we must, like the farmer, get out with a hoe and thin out the trees in order to help nature along.

I think, in the minds of the public, perhaps, too much emphasis is laid on actual planting of trees. I think it is the manner in which we harvest our crop that will really determine whether we can continue to cut as much timber as we have in the past.

I think, in many parts of Canada, with proper management, we could double and treble what we are taking off now.

I do not know whether I have answered your question properly, sir. I do not feel that I can answer it in any more detail than that.

Mr. PUGH: What would you suggest as an approach to this problem of decreasing the waste, of which you speak?

Mr. CREIGHTON: It is largely an economic problem. While there are many places with perhaps more timber than markets can be found for, it is difficult to cut. With a better road system in the forests we could get back into these areas. In the older parts of Canada, where there are roads through forests, the waste is being eliminated and it is possible to go back at more frequent intervals.

In forests such as we have in Canada, we have a wide variety of tree species. Balsam fir will mature at perhaps 50 years of age; spruce at somewhat older; pine, somewhat older, and some of the hardwoods also at somewhat older. If you wait until one particular tree species has matured and is ready to cut you have lost the shorter lived trees.

The way we have been logging in the past is to perhaps go in once in a generation and log an area, and then forget about it.

Mr. DOUCETT: Is it not true that the firms which are doing this work find it more economical to take a whole cut than to go in and select the trees, as you have suggested? I agree with you that that is a good suggestion.

Mr. CREIGHTON: Some of the firms say it is more economical, but when they have a good road system into their limits I think they find it is economical to go back at shorter intervals. As firms are going further and further north they are beginning to look at areas near their mills because transportation becomes such a problem. I think more and more firms are changing their ideas in regard to what is economical.

Mr. DOUCETT: This problem of agreement should be adjusted, but do you think they would have to do this and thus in taking the crop? As I understand it now they are permitted to go in and take pretty much what they like, except as to size, and so on, in regard to which there are certain regulations. In regard to species, they can take them as they go along. I have seen a lot of these cuts and will admit they are pretty devastating.

Mr. CREIGHTON: There has been high-grading in all our forests in the past. Certainly our forests have been high-graded. The pine was taken first, as you know; then the spruce was taken; and then certain of the hardwoods. Everywhere in Canada, we find that the forests have been high-graded. I think for the last number of years there has been a definite trend for a change, but there has been a very definite trend to high-grade.

Mr. DOUCETT: Probably there is a lot of room for improvement yet.

Mr. CREIGHTON: There is still a lot of room for improvement. I have some sympathy for the companies that are operating in the forests. I do not think they can change their methods as fast as some of us would like to see them do. Economic conditions shackle them to some extent. However, I think the very fact that people are getting together and deciding that there is room for improvement is an indication that people are thinking about this problem.

I remember, when I was a young forester starting to work for a pulp company, that a forester was not allowed near an operation. We just worked on surveys. If we went to the operating end of it we were chased away. You will find today that there are foresters acting as woods-managers for most of the pulp companies, and you will find that technically trained foresters are the men who are responsible for getting out the cut.

Mr. DOUCETT: The statement which you just made, Mr. Creighton, is fairly good evidence that there were harvests by methods which were detrimental to our forests. The companies were a little afraid of you fellows, because they thought you might—

Mr. CREIGHTON: I do not know whether they were afraid, but I know that we were not allowed around the operation.

The CHAIRMAN: Mr. Pugh, would you like to have Mr. Harrison give a supplementary answer to your question, including the amount of money that is being spent federally?

Mr. PUGH: All right, but just before that answer, could you tell us what ties are attached to that money? I am thinking that forests come within provincial jurisdiction, to start with. The Gordon Commission apparently made some recommendations. How exactly does the federal government institute such regulations, and what is the federal authority in this regard?

The CHAIRMAN: I wonder if perhaps the deputy minister could refer to the Canada Forestry Act in order to give the committee an idea of where the responsibility lies?

Mr. PUGH: Yes, sir.

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): Mr. Chairman, in connection with the point which has been raised here having regard to the responsibilities, it is true that the forest resources, like other natural resources in the provinces, are, in the first instance, owned by the provinces except to the extent that they have alienated them to private interests. The federal government enters the forestry field to the extent that it provides, under the Canada Forestry Act, for research in forestry, for research in forest products and for making the agreements with the provinces in respect of joint participation in forestry programs that will be of assistance. This does not interfere with the ownership and control by the provinces of the forest resources within the provinces.

There are, of course, cases where the federal government has a proprietary and a direct interest. In national parks, for instance, the federal government has a direct interest. In the two northern territories, where forestry has not been of a major importance thus far because we are only now approaching the point where these more remote forest stands are becoming of direct economical interest, the federal government has a proprietary interest. Up until now most of the effort of the federal government has been in respect of research, forest products research and agreements with the provinces for assistance in the provinces on useful forestry matters.

Under the Canada Forestry Act, section 6 provides that the minister may, with the consent of the governor in council, enter into agreements with any province for the protection, development or utilization of forest resources, including protection from fire, insects and diseases—that aspect of forestry work comes under the Department of Agriculture rather than under the forestry branch of the Department of Northern Affairs and National Resources; forest inventories—there have been agreements in this respect and the program is under way; silvicultural research—there have been cooperative arrangements entered into in that matter as well; watershed protection—there the most outstanding example is the eastern Rockies forest service with which Major General Kennedy is particularly familiar. He has been the chairman of that group for a number of years; reforestation—about which there has been some discussion already; forestry publicity and education—there has been a good deal of work in that regard; construction of roads—just this past winter there was a substantial program in respect of forest access road construction; and improvement of streams in forest areas—I am not aware of any specific agreement in that regard, but perhaps Mr. Harrison could say something about that; improvement of growing conditions—this is really silvicultural and research in general; and management of forests for continuous production—there is a division of the forestry branch that is engaged in forestry management work. It has done, I think, a great deal of very useful work in that regard.

This is, in general, the way in which the forestry branch of the Department of Northern Affairs and National Resources of the federal government comes into the picture, and the way it fits in with the direct constitutional and proprietary responsibilities within each province.

Mr. Pugh was asking for information on forestry service. If he wants more information on the expenditures I think Mr. Harrison could perhaps answer his question.

Mr. PUGH: I am interested in the total expenditures for one year for those things which you have mentioned.

Mr. ROBERTSON: Do you want a breakdown by provinces, Mr. Pugh?

Mr. PUGH: Do you have it?

Mr. J. D. B. HARRISON (*Director, Forestry Branch, Department of Northern Affairs and National Resources*): We were advised by telephone

that a member of the committee had asked that the summaries, appearing in the annual report at the department for last year, should be brought up to date.

I have pleasure in tabling these summaries. Do you wish me to read some of the figures?

The CHAIRMAN: How many pages are there? You have two pages?

Mr. DOUCETT: May we have two copies?

Mr. ROBERTSON: On page 80 of the annual report there are tables setting forth the work on forest inventories, reforestation, and federal payments to the various provincial governments on forestry agreements. I think what Mr. Harrison has, are figures that would bring this table up one more year.

Mr. HARRISON: Essentially that is it, sir. There is a slight modification in the last table because fire protection and access roads have been added to the table.

Mr. PUGH: May I have the total expenditure in British Columbia, Ontario and Quebec?

Mr. HARRISON: I will table the whole report, as follows:

PROGRESS IN FOREST INVENTORIES

Project Class	APPROXIMATE AREA COVERED			
	Prior to Fed.-Prov. Agreements	UNDER FEDERAL-PROVINCIAL AGREEMENTS		
		Prior to 1957-58	Fiscal Year 1957-58	Total Area Covered Initial Inventory
	sq. mi.	sq. mi.	sq. mi.	sq. mi.
Ground Control Surveys.....	107,000	297,000	14,000	418,000
Air Photography—				
Small scale.....	246,000	454,000	88,000	788,000
Medium scale.....	215,000	260,000	15,000	490,000
Total.....	461,000	714,000	103,000	1,278,000
Base Maps—				
Small scale.....	74,000	498,000	113,000	685,000
Large scale.....	215,000	149,000	17,000	381,000
Total.....	289,000	647,000	130,000	1,066,000
Field surveys for forest data.....	157,000	750,000	152,000	1,059,000
Interpretation of photographs.....	162,000	834,000	124,000	1,120,000
Forest maps.....	84,000	753,000	273,000	1,110,000
Inventory reports.....	53,000	705,000	301,000	*1,059,000

*Forest maps were made for an area of approximately 70,000 sq. mi., for which no reports were prepared. Thus the total inventory area is 1,129,000 sq. mi. approximately.

REFORESTATION UNDER THE FORESTRY AGREEMENTS

Province	NUMBER OF TREES PLANTED		AREA PLANTED		AREA SEEDED	
	Fiscal Year 1957-58	Total to Date	Fiscal Year 1957-58	Total to Date	Fiscal Year 1957-58	Total to Date
			acres	acres	acres	acres
Prince Edward						
Island.....	79,000	330,000	55	266		
Nova Scotia.....	256,000	722,000	294	855		
Ontario.....		55,790,000		55,790		6,000
Manitoba.....	1,127,000	4,120,000	886	3,529		
Saskatchewan.....	184,000	1,392,000	165	1,103	256	1,262
British Columbia.....		11,949,000		14,160		
TOTAL.....	1,646,000	74,303,000	1,400	75,703	256	7,262

CANADA FORESTRY ACT

FEDERAL PAYMENTS TO PROVINCES UNDER FEDERAL-PROVINCIAL AGREEMENTS

Province	FOREST INVENTORY		REFORESTATION		FIRE PROTECTION		ACCESS ROADS		TOTALS	
	Up to March 31/57	Fiscal Year 1957-58	Up to March 31/57	Fiscal Year 1957-58	Fiscal Year 1957-58	Fiscal Year 1957-58	Up to March 31/57	Fiscal Year 1957-58	Up to March 31/58	
	\$	\$	\$	\$	\$	\$	\$	\$	\$	
Nfld.....	—	—	—	—	33,912.96	2,872.11	—	36,785.07	36,785.07	
P.E.I.	—	—	69,603.10	16,036.23	1,518.15	—	69,603.10	17,554.38	87,157.48	
N.S.	296,629.24	10,920.51	5,013.97	3,929.78	20,532.27	14,140.70	301,643.21	49,523.26	351,166.47	
N.B.	111,782.69	17,545.31	—	—	36,862.32	29,832.88	111,782.69	84,240.51	196,023.20	
Ont.*.....	1,538,953.89	220,632.64	572,219.67	19,788.20	152,598.20	249,247.12	2,111,173.56	642,266.16	2,753,439.72	
Man.....	306,745.04	19,390.10	42,190.10	11,273.50	42,049.23	118,213.76	348,935.57	190,926.59	539,862.16	
Sask.....	228,162.97	23,774.11	11,813.33	2,098.50	49,502.72	95,056.04	239,976.30	170,431.37	410,407.67	
Alta.....	480,860.61	58,518.88	—	—	62,095.77	23,642.19	480,860.61	144,256.84	625,117.45	
B.C.	2,454,815.17	462,359.82	137,180.60	—	100,928.38	77,362.95	2,591,995.77	640,681.15	3,232,676.92	
Totals.....	5,417,949.61	813,171.37	838,021.20	53,126.21	500,000.00	610,367.75	6,255,970.81	1,976,665.33	8,232,636.14	

* Ontario's figures have been adjusted to reflect refunds made by the Province which have been credited to the Consolidated Revenue Fund.

PROVINCE	(Aerial Spraying Agreements)		
N.B.	2,264,270.56	985,729.44	3,250,000.00
B.C.	—	83,926.89	83,926.89
Totals.....	2,264,270.56	1,069,656.33	3,333,926.89
Grand Totals.	8,520,241.37	3,046,321.66	11,566,563.03

Mr. PUGH: And what about Quebec.

Mr. HARRISON: Quebec did not enter into any of the agreements.

Mr. PUGH: Has Quebec had any payments made on anything at all? There have been no agreements with Quebec at all?

Mr. HARRISON: There have been no forestry agreements with Quebec.

Mr. FISHER: At the present time research in forest biology, i.e., pathology and entomology, is concentrated in the science service of the Department of Agriculture. As research in depth in these problems continues, would not integration of all forestry research under the same administrative heading relating to silviculture problems in the forestry branch be worth while. I would like to ask the two witnesses at the head of the Forestry Branch of the Department whether they could give any opinions on that. Have you any opinions on that, Mr. Creighton?

Mr. CREIGHTON: Well, sir, since the two branches have grown up separately, it is just theoretical. If I knew nothing about the thing at all I would be of the opinion that it would be desirable to have them all under the one head. But since the two branches have grown up separately, and it might cause some disruption, heart burning and hard feeling, I am not quite certain whether it would be advisable to attempt to bring them together or not. I have an open mind on the subject, but if you were starting from scratch I would say it would be desirable to have them under one head.

Mr. FISHER: What are your ideas, General Kennedy?

Major-General HOWARD KENNEDY, C.B.E., M.C., M.E.I.C., (*Consulting Forest Engineer*): I would give my vote in favour of the present arrangement, the reason being that agriculture has a much wider appeal than forestry, in the matter of getting money. They also have splendid laboratories, and really splendid personnel; and I do not believe the difficulties of working between those two groups are sufficient to justify a change at this time. Because if you did develop for the Department of Northern Affairs and National Resources laboratories for them you would be duplicating a great deal of what undoubtedly Agriculture would have to maintain. I think there is great strength in having very strong, powerful and well staffed laboratories; and I believe that the future lies in strengthening these as necessary, rather than developing new ones.

Mr. FISHER: Is it fair, Mr. Chairman, to ask that question of the head of the forestry branch?

The CHAIRMAN: I am inclined to think that you are going into government policy.

Mr. FISHER: Could the deputy minister tell us if any consideration has been given in the last three or four years to integration?

Mr. ROBERTSON: Yes, Mr. Chairman, the matter has been discussed from time to time; and as Mr. Creighton and General Kennedy have suggested, there are both pros and cons in the matter. One can make an argument that forestry research and forestry work should include all aspects, including forest biology and forest entomology. On the other hand one can make a quite strong argument that there is a good deal of advantage in having entomology, whether it is agricultural entomology or forest entomology, treated in one place, and biological aspects, whether they be agricultural biology or forest biology, in the same place, since many of the experts I believe employed on agricultural entomology are precisely the same experts as those required for forest entomology. And as General Kennedy also said, there is some strength in having laboratories build up in these fields which can serve the common problems, and they are common problems of both the agriculture side and the forestry side.

It does seem to me, and it has hitherto been, that the best course at present is to have maximum cooperation between the two agencies with as little duplication as possible, so that the work can be done to maximum effectiveness under the arrangements that now exist. The answer to the question asked is that consideration has been given from time to time as to whether this arrangement should continue.

Mr. FISHER: Would the deputy minister agree to comment on Mr. Kennedy's view that, because agriculture is the more popular field, it has received more popular support throughout the years. Would you agree with the worth of that comment?

Mr. ROBERTSON: I do not think, Mr. Chairman, I would care to comment on that.

Mr. FLEMING (*Okanagan-Revelstoke*): It seems to be fairly well established that agriculture research and forest research in these three classifications are complementary, and that if they were separated it would only create confusion of interests.

Mr. ROBERTSON: Could you repeat that question please.

Mr. FLEMING (*Okanagan-Revelstoke*): If there was an integration of forest and agriculture research and if the two were separated then you would have to create a liaison between the two separate branches where the majority of the work is within the one department in research and forest biology and entomology.

Mr. ROBERTSON: Is this on the basis of suggesting that forestry research might go to agriculture?

Mr. FLEMING (*Okanagan-Revelstoke*): No. I gather the majority of that research is now in the hands of agriculture.

Mr. ROBERTSON: No, Mr. Chairman, I may have given a wrong impression. The Department of Agriculture does research on forest biology and various entomology diseases, insect afflictions and things of that kind; but all the other research on silviculture and so on is done in the forest branch.

Mr. FLEMING (*Okanagan-Revelstoke*): If it were spread between the Department of Northern Affairs and National Resources and the Department of Agriculture you would have some sort of liaison between the two, whereas now the two are already working together and there is no necessity for liaison.

Mr. ROBERTSON: That is perfectly correct, Mr. Chairman. You would either have to have a complete entomological section in forestry and a complete entomological section in agriculture, which would to some extent be a duplication, or else you would have to have more liaison in entomology with forestry providing the service for agriculture. You get into a liaison question or the duplication question either way.

Mr. FLEMING (*Okanagan-Revelstoke*): An increase in expenditure.

Mr. ROBERTSON: Quite! I should make a further point, Mr. Chairman, that cooperation is quite close between the two departments and arrangements are being made for common housing of the scientists of the two departments in a number of centres to improve this liaison.

The CHAIRMAN: Mr. Fisher, to make it clear, a moment ago I interjected respecting a statement from the administrative head regarding government policy, and I thought that should be directed to the deputy minister in the absence of the minister.

Mr. FISHER: The agreements under the Canada Forestry Act—the ones in operation now—were, I believe, negotiated in November 1956, and run from April 1957 to March 31, 1962.

Mr. ROBERTSON: That is only one part of the agreements. There are agreements on forest inventory, and on reforestation and on fire protection. They started at different times.

Mr. FISHER: Those are the fire protection ones, I believe.

Mr. ROBERTSON: I believe that is correct.

Mr. HARRISON: For five years I believe, yes.

Mr. FISHER: What has been the general reaction to these agreements. Has there been general satisfaction from the point of view of the provinces, and beyond that have there been any requests for extension?

Mr. HARRISON: I had better discuss briefly the different kinds of agreements. The main contribution by the federal government in the agreement in 1952 was directed towards assistance in forest inventories—forest inventory surveys, to be exact. That program has been a tremendous success. It was most welcomed by the provinces. Seven provinces saw fit to participate in these agreements, and I think it is generally agreed that the inventory surveys that they are making on the whole forestry service were speeded up at double the speed—nearly 100 per cent, so that those seven provincial inventories are now complete. One or two reports remain to be published, but the material is there and the provinces have entered into what we call the inventory maintenance phase. For the invention is not something that is done once and comes to an end; as you know, the state of the inventory changes because of the cutting of the forest, growth and the constant accidents that occur, and so forth.

With respect to reforestation, that program solely concerns reforestation in the sense of seeding and planting trees—not natural reforestation. The financial contributions were on a smaller scale. Help was given with respect to the establishment of new nurseries. Payments are made for areas planted up, those areas being vacant crown land, and crown land outside timber limits and so on; and there has been a small amount of seeding. A number of provinces seem to have been willing to take this assistance.

The fire protection agreements started out two years ago with the idea that the federal government would contribute \$500,000 that year, \$750,000 the next year and \$1,250,000 for each of the next three years, such sums to be divided among the participating provinces of which there are nine. These sums would be pro rated according to a formula which was agreed upon at a meeting of representatives of the provinces with the deputy minister of this Department in Ottawa in 1956. That assistance is given for the acquisition of capital assets. It is not given for ordinary business of fire protection or fire fighting costs and so on. To the best of our knowledge it has been extremely helpful. At any rate all the federal share last year has been spent, and the net result will be a contribution by the federal government over a five year period of \$5 million towards additional capital assets for fire protection which, practically speaking, will be matched by the provinces. It is quite a big contribution. All sharing is on a fifty-fifty basis with the exception of a limited amount of road building which has been undertaken where the federal share is only 25 per cent because the roads are not only for fire protection but for other purposes as well.

The CHAIRMAN: I think we should have a statement from General Kennedy. Is that agreed?

Some HON. MEMBERS: Agreed.

Major-General KENNEDY: Mr. Chairman and gentlemen, I had not the advantage of being born in Nova Scotia so I cannot approach the former speaker in eloquence of oratory. As we were not quite sure of the line of

discussion that would take place here today, naturally I do not think any of us who were summoned had prepared material for it. Therefore, what I have to say may be in the nature of rambling remarks.

Before starting my discussion, however, I would like to say that Dean Sisam called me from Toronto to ask me to express his regret at not being here, and wanted me to say also that if at any subsequent meetings you would like him to come and give his views he will be glad to do so. So that if at some subsequent meeting you would like to have Dean Sisam, and you give him sufficient notice, he will guarantee to take the train next time, and be sure to be here.

Now, in this matter of a general statement, I think it is wise for us to look somewhat at the genesis of the various methods by which the forests of the provinces are carried.

The provinces were given the natural resources, including the forests, water resources, mines and so on at Confederation, as a source of revenue. They now find generally that with the increasing costs of fire protection and all the other things they have to do, that there is comparatively little revenue coming from those sources. After taking the total revenue from the various provinces and trying to balance it up against the indirect revenue that the federal government receive in the way of taxation from the forest industries—and I think it is probably worth while noting that the federal government has a great stake in the forest industry through taxation that it applies.

The last time I was connected with a group which was studying a comparison of such returns was in the preparation of a brief for the Canadian Forestry Association to present to this department. At that time we came to the conclusion—and we had a couple of good economists working with us—that for every dollar the province got from the forests in the way of revenue or fire protection costs from the industry or, from stumpage and all the other revenues—, the federal government was collecting around \$11 in the way of taxation. Naturally there is a feeling that the federal government should share, to a much greater extent than they do, in the financing of the new look we are taking at forests, because there is a new look being taken now. As Mr. Creighton indicated, those of us who call ourselves foresters were looked upon with great suspicion—even 20 years ago. Twenty-five years ago if you did not dare speak out in an open meeting you were thought to be subversive.

We have now actually got to the point where we can speak our minds in open meetings, and we are making use of that in many of the provinces. With this new look in forestry we feel there should be a new look at the financing of forestry. That brings us to what the federal government might do. Actually, the administration of forests, their protection and so on, is very definitely a provincial obligation, but there are two particular fields where the federal government can give a tremendous lift to what is happening in our forests.

Naturally, the first thing that comes to mind is scientific research. Because the federal government has these tremendous and very useful laboratories for the studying of the various things that plague our forests whether insect diseases or other types of disease or fungi or whatever they may be, obviously it is in the best position to carry out this scientific research. Because in some of the smaller provinces it would be terrifically expensive to duplicate the laboratories and the scientific personnel that the federal government had got there. The scientific personnel is not available for every province to have. They could not all have them.

When you talk of research I think it should be broken down into probably two categories. There is the real scientific research which has to do with the long-term view of the things that are not likely to be or could not be done by the province. There is also what they might call the data analysis aspect, where you find out how much things cost and how things might be better done

—heating of camps, and the like. That perhaps belongs to the forest industry and the provinces if they want to carry it out. But I believe that in the field of real scientific research, the federal government must take it on and they must continue to expand; and probably there will be an increasing and ever widening circle of expenditure for laboratories and personnel.

I would like to congratulate the government on what it has done this year in the way of contributions made to groups such as the Canadian Forestry Association. It is a non-profit organization supported mainly by industry, or largely supported by industry—I do not know whether it is “mainly” or not. But the various provincial governments and the federal government contribute money to it. This year the federal government doubled its contribution from \$10,000 to \$20,000. At least that was in the estimates, and I presume it will go through. And on behalf of foresters and people concerned with forests, particularly members of the Canadian Forestry Association, I want to express my appreciation.

Another thing which the federal government is helping with is inventories; but to me one of the biggest contributions you can make to the provincial foresters is by way of assistance in developing trunk roads. I do not like the term “access roads”, —that may lead into fields in which you do not want to be—but I refer to “trunk roads”, for opening up our major water sheds. If you want to really practise forestry in Canada you have to have roads in the forests. We are overcutting certain areas because of the lack of roads in other areas which are mature or over mature. The reason for lack of roads is lack of someone to build them, and have jurisdiction over them.

Most of the roads in forests are built by industries. The moment a road is opened it is used by the public and there is a battle on right across Canada in every province over the use of private roads built in public forests. If the cost of building trunk roads was shared by the two major governments—the federal government and the various provincial governments—with industry bearing its share then the public could use those roads. The various provincial governments would then be in a position to require industry to carry out more adequate forestry measures in handling their forests.

I think what Mr. Creighton was talking about is that industry is still cutting immature timber where there is over-matured timber further afield which is going to waste because there are no roads. Our forests are not being adequately protected in many instances because of the lack of roads.

I would like to put in a strong plea for assistance for the provinces and the industry in the building of trunk roads to open up watersheds. I am not speaking of roads with which logging activities are carried out. I think every major watershed should be opened up. The provinces would then be in a position to require of industry better cutting methods.

There were some questions asked about a brief that was presented by the Canadian institute of forestry for the Gordon commission, Mr. Fisher I believe asked questions as to whether we stood behind the Canadian institute of forestry's brief.

I happened to be one of the members of the institute who was present when that brief was presented to the commission. I might say that those of us who were present and helped to present it are still behind it.

In respect to the advisory committee which was suggested in that brief, I might say that there is, on a smaller scale, a similar committee in the province of Ontario. This was one of the recommendations made to the royal commission some years ago. We have found that this advisory committee has been working extremely well although it has no power whatever to do anything other than to advise. However, with a broadly based committee of people who study and know the basic problems with which governments and the forestry industries are faced—whether they be economical problems or problems of

management—as long as we have a group of people who are interested in the management of our forests but disinterested from the standpoint of not being responsible for spending provincial or federal money, but who are in position to give some advice, then I believe that it is a most useful type of committee.

In Ontario this committee meets monthly. The minister asks for its advice in respect of problems which he faces. It advises him not only in respect of those specific problems, but on subjects in respect of which it feels action should be taken. Sometimes we say “no, we do not think you should do that” and sometimes we give approval to certain things on which the minister asks advice. It gives him great strength to have an outside group such as the committee of citizens mull certain problems over and study all aspects of them before making its recommendation.

The minister does not have to accept such a recommendation, but it serves as a red light sometimes when there is an intention to do something which would later require serious amendment. On the other hand the minister receives much support in regard to sensible things which he does that do not meet with the general approval of some section of the public in that he can justify his action on the grounds that it had prior approval by his advisory committee.

I do not know that I have any further remarks that I can usefully make, but I would be glad to answer any questions which may be asked.

Mr NIELSEN: In regard to the suggestion in the report to the Gordon commission respecting the setting up of this advisory committee, I would like to know, not having read the report myself, how it is proposed to clothe that committee with powers. Is it proposed that this body be created by statute and clothed with certain powers?

Perhaps before I put my second question I should make an observation. By the creation of such an advisory committee it might open the door to an undesirable, or perhaps desirable precedent, in that other branches of the government might say that they had special areas of the national economy to develop and therefore should have advisory committees. I am thinking in terms of an advisory committee to the northern development program, for instance, or an advisory committee on museums, or an advisory committee on water resources.

There may be the danger that once clothed with statutory powers this advisory committee could directly assume, whether intentionally or unintentionally, certain powers that rightfully belong either to the minister of a department concerned, or to the government.

Having made that observation, perhaps Major General Kennedy would care to comment on the feasibility of this particular group, which has been recommended, being set up as a voluntary committee for the purpose of creating a standing royal commission, as it were, on the advances of the forest industries in Canada with perhaps some assistance from the federal treasury to enable this body to get together once a year, if they thought it advisable.

Perhaps the voluntary aspect of such a committee would be more advisable than the creation of a statutory committee.

Those are the two questions sandwiching the observation on which perhaps Major General Kennedy would care to comment.

Major General KENNEDY: In answer to the question of whether it would be a voluntary committee or a statutory committee, I think it must be clothed with more than voluntary status. I think the committee should have a recognized status by having its members appointed by order in council, or something of that nature. On the other hand, it should not have executive or administrative powers at all. It should only advise.

Taking for example this type of committee in the province of Ontario, the members do not receive any remuneration other than their out of pocket expenses. If they are summoned to a meeting in Toronto they are reimbursed their out of pocket expenses. The last meeting of this committee was held at the outskirts of Algonquin park. The committee went there to see what was going on. There was a particular condition existing there on which it will probably make a recommendation to the minister at the next meeting on Friday of this week.

Under circumstances such as these where the minister has asked this committee to look into a particular situation the members are entitled to their out of pocket expenses. It has been amazing to me how willingly people serve on this committee.

Mr. NEILSEN: If you do not mind my interjecting at this point, why is it you wish to create a statutory body to accomplish what you are accomplishing now?

Major-General KENNEDY: I have found, for instance, that the Canadian institute of forestry or the Canadian forestry association, or any voluntary institute cannot always get to first base in respect of meeting with the minister. I think it would be much better if the committee suggested were created by an order in council and that its meetings would occur under arrangements made between its chairman and the minister.

Mr. NIELSEN: Assuming that this committee was created, is it your view that its powers, once exercised, must be of necessity accepted by the government, and once a recommendation is made the government must accept such a recommendation?

Major-General KENNEDY: No. We have found that some of the recommendations made to the provincial government have been turned down, not because the members did not think these recommendations were good ones, but being reasonably practical men it is realized that we are acting as private citizens, and we do not always appreciate the political situation. Sometimes a suggestion might look perfectly reasonable to me, as H. Kennedy, but because of political reasons the action I would like to see carried out does not fit into the broader political picture.

Mr. NIELSEN: I do not wish to create the impression that I am taking a stand against the formation of such a committee. I am merely exploring the other sides and the resultant effects, as it were.

If it is recommended that the creation of such a committee is to be, as it were, emasculated, and it needs the exercise of the government's discretion in regard to accepting or rejecting its recommendations, then why create a statutory committee?

Major-General KENNEDY: It has been recognized that the committee in Ontario has been of great assistance to the minister. Unfortunately the minister who has made the greatest use of this committee has just recently resigned. He was extremely anxious that we should meet regularly and discuss the problems with which he was faced as the minister of the department.

The CHAIRMAN: I think, Mr. Nielsen, the point which you are raising regarding the feasibility, or the workings of this particular committee was emphasized by Major General Kennedy as giving it more prestige, is that not right?

Major-General KENNEDY: Yes, and it also creates some reason for a committee approaching the minister. There are so many crack-pots that—

Mr. NIELSEN: I see, you do not want to be placed in the category of a crack-pot committee.

Mr. MARTEL: We have heard—

Mr. NIELSEN: I wonder, with the chairman's permission, if I might just ask Mr. Creighton to comment on the questions which I have asked.

Mr. CREIGHTON: Mr. Chairman, in my province we have had a similar committee functioning for many years. I know that it has been of great assistance to the minister in the same way as Major General Kennedy has outlined in respect of the Ontario committee.

In our province it is a voluntary committee. The minister himself selects the members of this committee from our forest products association, from technical foresters, and from sportsmen's groups. It is a committee usually of about a dozen people. They receive no remuneration. It is purely a voluntary committee. It has been of very great assistance and has strengthened the minister's decisions in regard to certain problems. The minister calls the committee together to discuss a problem. Again, the minister does not always act on a recommendation, but no one expects him to. Both sides of a question are discussed thoroughly and then from the advice the minister receives he then acts. I know that he appreciates the advice of that committee. I think a similar committee would help the federal minister.

I do not feel that it is absolutely necessary to have this committee appointed by order in council, but I think it would be clothed with just a little more prestige if it were.

Mr. NIELSEN: Thank you very much.

Mr. MARTEL: We have heard Major General Kennedy tell us that many of the forest areas are not readily accessible right now. I would like to know in respect of forest areas that are not readily accessible if there is any danger with regard to future crops.

I would also like to ask a question regarding the matter of cooperation with the provinces. I heard Major General Kennedy say that forests are a direct obligation of the provinces but that they would like to have more cooperation in regard to scientific research. I would like to know—and I understand so far that no agreement has been made with the province of Quebec—if they have had cooperation from the lands and forests department of the province of Quebec. The province of Quebec has a very good lands and forests department. I presume the federal government is, from time to time, in contact with that department and I would like to know if they have cooperation from them.

Mr. ROBERTSON: Mr. Harrison could perhaps comment on that.

Mr. HARRISON: Mr. Chairman, in regard to access roads—I know Major General Kennedy does not like that phrase—roads into the forests, it is quite true, as has been pointed out already, that there are what we call productive forests in Canada. That means, forest lands that are capable of producing merchantable timber. Some cannot be reached yet. There are other areas which are only reached with great difficulty. Those forests cannot be brought under any intensive kind of management until there is better means of communication.

Means of communication are important from two points of view. One important feature is that we are now cutting over-matured timber areas and letting the younger areas grow.

The other important point is from the point of view of protection not only from entomological and pathological threats, but the even more important point of view of fire protection. If we can get to a fire quickly we can generally deal with it, but if it takes us days to get to it we probably have a major fire on our hands when we arrive. A great deal of danger exists from that point of view.

On the other hand the problem is tremendous because of the curious nature of our country. The population is, looking at a map, all at the bottom with the forests piled on top. The distances are very great.

A great deal of progress has been made, and a great deal of economies have been created in opening up limits by means of building roads through them, but there is a tremendous amount yet to be done.

In respect of the question of cooperation in the province of Quebec, it is true that the province of Quebec has not seen fit to enter into any of these agreements in respect of financial assistance. On the other hand, the various research departments and the various branches have had a district office near Quebec for a great many years. I am very happy to say that our relationships with the department of lands and forests and with the school of surveying of forests at the Laval university are excellent. We have the fullest cooperation, and a great deal of interest is shown in our work. As far as I know the situation is very excellent.

Mr. BALDWIN: Mr. Chairman, it is correct, is it not that heretofore there have been no forestry operations permitted in national parks with the exception of limited licences which have been granted in the Wood Buffalo national park?

Mr. ROBERTSON: That is correct, Mr. Chairman, subject to one or two minor exceptions. The parks branch does carry out what is called "sanitation cutting" in the management of parks in order to maintain the forests in healthy condition. In addition, one or two parks, such as Yoho, there were timber limits in existence before the parks were taken over. Those continued. However, subject to those exceptions your statement is correct.

Mr. BALDWIN: In regard to Wood Buffalo national park there are one or two limit licences granted there. Having regard to the statement made by Mr. Harrison, I believe there was a joint inventory completed by the province of Alberta covering the forestry potential of northern Alberta, at least. I am wondering if that inventory included Wood Buffalo park. I have been trying to get some information in that regard and I was wondering if there was an inventory available covering the forestry resources of Wood Buffalo national park?

Mr. ROBERTSON: Mr. Chairman, that inventory would not be made as part of a cooperative agreement with Alberta. The forestry branch itself has recently begun to do some work analyzing the forest stands in Wood Buffalo park to an extent greater than had been done heretofore because it is recognized there is a good deal of overmature timber in Wood Buffalo park which should be utilized on a controlled basis. This overmature timber is being utilized now on a controlled basis.

I do not know if Mr. Harrison could tell you in any more detail what has been done, or is being done at the moment.

Mr. HARRISON: We are not yet in a position, Mr. Chairman, to give you global figures for forest stands for parks as a whole. The timber limits to which you refer have had primarily what we call 'global surveys' made. We know approximately how much timber is there. More intensive studies have been carried out in the last year or two but the results are now being analyzed. That work is being supplemented by a certain amount of forest research to establish what the growth potentials and so forth are. Those figures will be used as a guide to management of the resources in those areas. I am sorry that I have not got those global figures for you yet.

Mr. KINDT: We have been talking about trunk roads. I would like to ask two questions.

The CHAIRMAN: Somebody said "development roads".

Mr. KINDT: The first question I would like to ask is, what is the responsibility between the federal government and the provincial governments under the eastern Rockies forest conservation board for the construction of the highway west of Longview in Alberta?

Major-General KENNEDY: I have been chairman of the Eastern Rockies Conservation Board since its inception.

The reciprocal acts between the federal government and the government of Alberta covering the boards activities were set up not from the standpoint of forestry itself so much as the use of the forest to protect the water supply to the Saskatchewan river.

As you probably know, the glaciers which supply a large proportion of the summer flow of the Saskatchewan river are disappearing, or diminishing in size. Some of those glaciers have already disappeared. The result is that something has to be done to slow down the run-off and get the water into the soil for slower release during the summer months. That was the basic idea behind the development of the Eastern Rockies Conservation board.

An agreement was made which was supported by reciprocal acts whereby the federal government provided all the money to build the road mentioned. The capital sum provided was \$6,300,000. This money was used to build all the roads which were created in the forest reserves and to carry out the other projects that were necessary, such as ranger accommodation, communications—both high frequency radio and other—and to provide the necessary equipment to look after the park. That road was built for the purpose, as Mr. Harrison mentioned, of getting into the more remote areas. The trunk roads were provided for two purposes; one was for the administration and the other was for the development and subsequent care of the park. We felt we had to have a very comprehensive system of roads. Of the \$6,300,000 we spent roughly \$5 million on roads.

If you are interested in the board's actions, rather an interesting sidelight of that situation was that those roads have turned out to be self liquidating in that before they developed its roads that area had never produced more than \$75,000 in surface revenue annually from both timber and grazing. Since a road system has been developed—about 900 miles of road of which 275 miles is trunk road, as I call them, and subsidiary roads—the income from that area is of the order of \$600,000 a year. That income is derived from both the sale of timber and from mining people, or oil people who are exploring there, and from grazing. There are some 33,000 animals grazing in that area.

This increase was a great surprise to both governments involved because of the nature of the agreement. Starting out, the ceiling for maintenance was set at \$300,000 a year of which the federal government contributed \$175,000 and the provincial government contributed \$125,000. The provincial government agreed to turn over any surface revenues in excess of \$125,000. Inside three years, more than \$125,000 a year was being taken out. This amount has grown over the years. In order to rectify the situation the province has taken over all the administration and maintenance charges since 1952. In 1955 we finished our capital expenditures. The province is now financing all the Eastern Rockies Board's operations. It provides fairly generously with funds to develop new roads to open up other valleys, and so on.

Mr. KINDT: I would like to ask a supplementary question. I take it from what you have said, General Kennedy, that the province is now responsible for that road west of Longview?

Major-General KENNEDY: Yes, completely.

Mr. KINDT: Does that include the section which goes through to the eastern Rockies' forest service area?

Major-General KENNEDY: Yes. Our trunk road starts at Coleman and goes right through—

Mr. KINDT: That is not the road I am speaking of. I am speaking of your trunk road. The road you are speaking of goes north and south?

Major-General KENNEDY: Yes.

Mr. KINDT: I am speaking of this other road which is a multi-purpose road giving advantages to the people who wish to go through from west of High river to Banff joining up with the trunk road.

Major-General KENNEDY: Yes. That road is an inferior road. It cost \$3,000 a mile for that road. That road was built because the height of the Kananaskis mountain range was such that it was impossible to go over it. We had to have a system of access roads going into that area and into Sheep creek, and also into Johnson creek, Jumping Point Creek etc. We have many access roads.

Mr. KINDT: We are not speaking of the same road. This road leading from Longview, joining up with your trunk-line road which goes north and south through the forest reserve—that is the feeder road from Longview—is in terrible condition. Members of my constituency out there are raising Cain about it.

Major-General KENNEDY: If this road is outside the park boundaries it is the municipality's responsibility. Anything lying outside forest reserve boundaries is a municipal responsibility. Our jurisdiction does not extend outside park boundaries with one exception.

Mr. KINDT: I will come to that exception if I can get the floor.

Mr. Chairman, this road of which I speak is a local purpose road used for perhaps half a dozen different purposes. Probably one of the main purposes would be the operation and function of the forestry research and forest resources. This road is used by people who are going fishing in that area and also by people going into the Banff area, and so on.

Now, is it the federal government, the provincial government or the municipal government that is concerned with the improvement of that road? There seems to be some doubt as to which body is concerned.

Major-General KENNEDY: The federal government has nothing whatever to do with it. Anything within the forest reserve boundaries comes under provincial jurisdiction.

Mr. KINDT: By agreement that is the way the situation stands today?

Major-General KENNEDY: Yes.

Mr. KINDT: I think that answers my question.

Mr. NIELSEN: Mr. Chairman, I would like to ask a question on a different subject now if there are no further questions in regard to this subject.

I would like to direct a question, or perhaps a series of questions to Mr. Harrison, if I may. Would Mr. Harrison tell us what formula is exercised by the forestry branch in calculating the grants made to the various provinces with respect to forest fire fighting assistance.

Mr. HARRISON: The formula takes into consideration two things—the area of the forest which the province has to protect, that is the measure of the size of the problem; and the average annual expenditure made by each province on fire protection. Those two factors are set up and totalled separately, and the totals are taken as 100 per cent. We strike a series of percentages, add those two percentages in the two columns together, and average them. That gives us a percentage of the total amount for each province, which comes out by multiplying the variable sums in dollars.

Mr. NIELSEN: Further along those lines, Mr. Harrison, the second factor in your formula is the average annual expenditure made by the province in fire protection.

Mr. HARRISON: That is right.

Mr. NIELSEN: I presume then that the principle behind this second formula is to place the bulk of the responsibility on the respective provinces for the care of their forests. Is that true?

Mr. HARRISON: I should make one correction in the formula. A special arrangement was made in the case of Prince Edward Island—a flat sum of \$5,000 I think.

Maybe I should go over the details of the formula. The contributions consist of two parts; (a) each province receives 2 per cent of the total, except Prince Edward Island which receives \$5,000 annually. The amounts are calculated. It comes off the total. (b) The remainder of the total federal contribution is distributed among the provinces (excepting Prince Edward Island) in accordance with a combined table of percentages made up from (x) average expenditure on forest fire protection 1952-54 (and subsequent three-year average) by each province expressed as a percentage of the total of such expenditures by all provinces, and (y) forested area of each province expressed as a percentage of the total forested area of all provinces.

With respect to those reforested areas I might state as an aside that we recognize two major classes of forests. One we call productive, that could produce merchantable timber, and the other is non-productive,—that is the area bearing trees, but where growing conditions are so tough we cannot expect ever to get merchantable timber out of them. So that in applying that formula, productive forest area is given twice the weight of non-productive forest area.

Mr. NIELSEN: Then would my observation, considering the second factor, be true. Perhaps, Mr. Chairman, this question may be directed to the deputy minister because it may be considered policy. Would my observation concerning the second factor be true, then, that this factor is there so as to encourage or to place the major responsibility for forest protection as far as this formula is concerned on the provinces?

Mr. HARRISON: The complete responsibility for forest protection lies with the province.

Mr. ROBERTSON: I think I see Mr. Nielsen's point on this. It was not primarily for that reason. There were two reasons for putting this factor in. One is that it was felt that in the case where the province had done a good deal itself toward forest fire protection, it was entitled to rather more assistance than a province which had not done much at all. In other words, the principal was to help those who help themselves. The other one was to provide some assurance that this minimum level of protection would not be diminished as a result of federal assistance being given, but it was not for the purpose of loading more on to the provinces.

Mr. NIELSEN: May I direct this question to Mr. Harrison. Has consideration ever been given to including perhaps the additional factor of the economic ability of the province to undertake adequately to protect its forest reserves?

Mr. HARRISON: In answer to that question may I say that there are a great many different possible means of arriving at the fairest means of distribution among the provinces. A great many different approaches were studied over a period of two or three years before these agreements ever came into effect. The one that we have followed seemed to us to be the fairest one when that formula was presented at a meeting here in Ottawa of representatives of all

the provinces. The meeting was presided over by our deputy minister, and they all agreed that that formula was about as fair as any could be. It was acceptable to the provinces.

Mr. NIELSEN: Then my question is answered in the negative.

Mr. ROBERTSON: That is correct.

Mr. NIELSEN: On this same point, Mr. Chairman, may I ask Major-General Kennedy what view he takes of this present formula which is in existence for grants to the various provinces in respect of forest protection.

Major-General KENNEDY: Actually I must admit I have not studied it. I have just accepted it, and I have not got views to put forth at the moment. I might wrap a towel around my head and study it for a while, I suppose. That is the first time I realized what the basis was. I have not had a chance to think of it.

Mr. NIELSEN: You would not care to express an opinion.

Major-General KENNEDY: No, not offhand, because it might be wrong.

Mr. NIELSEN: I wonder if I may ask Mr. Creighton the same question.

Mr. CREIGHTON: My personal feeling is that the formula is fair. Like everyone else, once you get your foot in the door you are like the camel. You like to get your head, and then your whole body in. But as far as the formula is concerned, it is fair and reasonable.

Mr. NIELSEN: I wonder if the department, through Mr. Harrison, or some other official, could tell me what work has been carried out, if any, north of the 60th parallel, with regard to forest inventories.

Mr. HARRISON: For about four to six years the forestry branch of the northern administration lands branch has cooperated by sending one survey party to points in the Yukon. A little work was done on the Slave river. Most of the work was done, however, on the Peace river which of course is south of the 60th parallel.

A year ago last January the forestry branch was asked to step up the surveys, and to take responsibility for making recommendations regarding methods of handling timber in the northern territories. We had two parties down there last year, and one the year before.

Mr. NIELSEN: Where is that?

Mr. HARRISON: On the lower Slavey river, lower Laird, and upper Laird, in the upper Watson lake area. Those are the main places that received attention in the field. More work has been done along the Mackenzie. A great deal of work has been done on mapping from air photographs and classifying forests strictly from the air photos. The procedure we follow is, first of all, to get some kind of base map, and then to get photographs. We have experts who are able to classify these photographs according to the type of forest there. They classify them according to their general type, whether softwood or hardwood. They do that with considerable precision. They can also read off their average height, which is a guide to volume and they can read the average density. Stands are all classified on that basis. In the course of that mapping, areas of small growth and vacant areas are set out. But we have a pretty good idea of what the forest distribution is. For instance a great deal of information is available on the Peel and Snare. The Peel as you know runs very far north, into the Mackenzie.

Mr. NIELSEN: And the Snare?

Mr. HARRISON: The Snare?—I cannot answer you on that. But with others, we have quite a lot of information on, or enough to make it possible to give a preliminary estimate of how much timber is there. We do not like giving these preliminary estimates very much. We are making good progress in getting better measurements by making direct estimates from air photos. But

we do like to do a certain amount of ground sampling work to confirm the observations from the photographs in the first place and confirm estimates of timber volume by measuring sample units on the ground. I cannot tell you the exact areas covered by these surveys.

Mr. NIELSEN: While you are looking up that information, Mr. Harrison, I wonder if you could tell us if the Yukon territory and the Northwest Territories come in for grants in aid of forest protection on the same formula as the provinces?

Mr. ROBERTSON: No.

Mr. HARRISON: No.

Mr. NIELSEN: What is the yardstick with respect to the Yukon and Northwest Territories?

Mr. ROBERTSON: Perhaps I can answer that. The position is that the forests in those two territories are under federal control and administration, and therefore there is no point or possibility of an agreement. It is simply a matter of direct federal administration. I think Mr. Harrison has the information which Mr. Nielsen was asking for.

Mr. HARRISON: The summary I have before me, Mr. Chairman, does include the Wood Buffalo National Park. Up to the end of 1957, forest cover maps have been prepared for 32,815 square miles, and volume estimates for 7,585 square miles, in Wood Buffalo National Park and the Northwest Territories. In the Yukon territory forests have been mapped on 22,090 square miles and volumes estimated on 18,750 square miles.

Mr. NIELSEN: What volume have you estimated there so far?

Mr. HARRISON: On the whole of that area?

Mr. NIELSEN: On the 18,000 square miles you used for estimating.

Mr. HARRISON: In the Yukon?

Mr. NIELSEN: Yes please.

Mr. HARRISON: I have not got that information in front of me, unfortunately.

Mr. NIELSEN: May we have that information?

Mr. HARRISON: There is quite a considerable number of different blocks. Along the Stewart river the volume of softwood timber big enough for sawing was 359 million feet. Then, along the Alaska highway it was estimated at 400 million feet. Are you interested in volumes in the Northwest Territories also?

Mr. NIELSEN: No, my purpose in asking these questions is to bring out the fact before the committee that there are approximately 500 million board feet of merchantable timber in the Yukon alone.

Mr. ROBERTSON: There is more than that, Mr. Chairman.

Mr. NIELSEN: That was 1947.

Mr. HARRISON: There is a great deal more than that. There is about 760 million feet in those two figures I gave you.

Mr. NIELSEN: It sounds as though you were doing some interesting research work.

Mr. HARRISON: On the McQuesten river in central Yukon 39 million; in the vicinity of Teslin and Big Salmon rivers approximately 51 million; in the vicinity of Ethel lake and MacMillan river and the upper Stewart river about 83 million.

Mr. BALDWIN: Before you lose your place, Mr. Harrison, have you the volume of Wood Buffalo National Park as far as your explorations have gone?

Mr. HARRISON: Peace river delta portion of Wood Buffalo National Park, one billion 200 million board feet.

Mr. NIELSEN: I have one further question on the same area while you are on your feet, Mr. Harrison. What, if any, action is being taken, or policy is being adopted, with regard to reforestation in the Yukon?

Mr. HARRISON: In the Yukon we have not the large timber tracts which are under management as yet. In Wood Buffalo National Park we have. The reforestation problem—perhaps I better straighten out that word. "Reforestation" has been referred to many times. The main problem in forest management where you have a good deal of over-matured timber is to confine your cutting to the over-matured timber to protect the existing young growth, so that it can grow up to size. That is the No. 1 problem. In some cases you can have situation of urgency because the timber may be so over-matured that before long it will be destroyed.

Naturally in timber disposal attention has been given to that aspect of the problem. At the same time means are being studied for getting natural regeneration from natural seeding or protecting small growth which may be among the big trees, when it is good and already established. That approach is the usual one throughout Canada, and certainly it would be within the Yukon and northern territory. Actual tree planting has not been undertaken there and, except in very special cases it might be a long time before it is. The great problem is to get forests under proper management.

Mr. NIELSEN: If you will allow me, Mr. Chairman, to make one simple observation. I notice that in the preface to his remarks Mr. Harrison stated there is not a great market for Yukon timber. I would like, if you will allow me, to draw to your attention the fact that if you look ahead 20 or 30 years to the possibility of a large number of mines opening up in the Yukon and Northwest Territories, and note the fact that there is almost a dearth of merchantable timber in the Mackenzie river valley and the mineralized areas of that country, any market that exists for Yukon timber—and there is a great deal of it,—will be in the Mackenzie valley or in those portions of Alaska which are not easily accessible to Yukon river navigation. So that we feel that in the territory, timber is very vital to our economy. It is in the national interest to look ahead 20 or 30 years with a view to preservation, or manage it with as much vision as is done in the rest of Canada.

Mr. HARRISON: I can assure you that that is precisely what we are endeavouring to do, in cooperation with the Northern Administration and Lands Branch. Mapping is the procedure as outlined now as a first step, toward finding out where the timber is, and what kind it is. And that has to be extended over the whole area as rapidly as can be done. Within the branch I can assure you that responsibility is very keenly felt. It costs a lot of money to ship timber in from outside to some of those areas. Do you want me to continue with the other figures on the Peace river?

The CHAIRMAN: If he desires it.

Mr. HARRISON: The alluvial flats of the Peace River above the delta contain about 600 million. There is a total of 1 billion 800 million which is an estimate of the large quantities on the lower Peace. Some work is being done in the Birch Hills south of the Peace. I do not have those figures with me yet.

Mr. FISHER: I have about a dozen more questions that I want to ask our special witnesses and I am sorry that I have not been able to concentrate on them. I do not want to hog the questioning. I wonder if I may read these questions to them and if we have a later meeting they could be considering the points.

The CHAIRMAN: That is all right.

Mr. FISHER: The first question itself is also of interest to Mr. Baskin. Would the witnesses care to make a general observation on whether the many different places where artificial regeneration has been attempted on old agricultural land has been generally successful and what steps the federal government might take to encourage that sort of regenerative effort?

I would also like to know whether they consider there are any specific steps the federal government can take in any direction to encourage greater utilization of hardwood species in Canada which is a fundamental problem for the pulp and paper industry.

Next, the anticipated greater use of the forests in a recreational sense will create more and more problems for the forest industries of the provincial governments relating especially to the wild life, fish and game sectors. Is there anything that the witness feels that the federal government can play any part, more than they are doing at the present time to help solve those problems which are getting larger and larger?

I have several questions on the future of white pine that I want to bring to the attention of General Kennedy. It has been said that the income tax has had its effect on the future of white pine, by making it unattractive to hold crown land for the purpose of growing new crops of timber. Would he care to comment on this?

I would also ask him to comment on some statements made by Mr. Bedell of the federal forestry branch, that if a large future cut of white pine cuts is to be secured, four steps must be taken.

There have been certain statements by foresters that there was a danger that operating programs, for example against the spruce budworm, are tending to stretch out the outbreak. In other words, to make the problem continue; that if it had been left alone it would have solved itself, although maybe not in the proper way. I should like some comments on that too.

At the present time the Senate special committee on land use in Canada has been sitting off and on. Does the witness feel that this sort of investigation is worth while from a forestry point of view. If so, has he any suggestions as to what part committee members or members of parliament could play in such an investigation?

In the remoter areas where we have forest resources, such as the Yukon and certainly more in northern Ontario, we have a special problem of over-maturity and of decadence. Have they any observation on steps that the federal government might take to combat this increasing problem?

I would like to ask more questions concerning the application of the fiscal policy of the federal government which was raised by General Kennedy as to how it relates to the provinces not having enough money to carry things out. But there have been certain arguments put forward by Mr. A. M. Moore of the Canadian Tax Foundation which seem to reject, from an economic point of view, the whole idea of sustained yield, that is fundamental in all forestry policy. I would like some comments from the witnesses upon this particular point of view. It seems to me we have the clash of the economic point of view of the harvester as against the point of view of the forester who must take a sort of rotation view of things, and I would like some comments on that.

I have a few other minor questions developing out of this but those are the main points I would like our expert witnesses to speak on later on.

The CHAIRMAN: Well, gentlemen, it is just about 12.30 and since we are going to have Professor Sisam tomorrow I would suggest to the committee that we meet tomorrow instead of this afternoon. We will also have present our two distinguished guests I hope tomorrow. The meeting tomorrow morning is at 9.00 o'clock sharp.

Mr. NIELSEN: Is it convenient for the witnesses for us to refrain from sitting this afternoon in favour of tomorrow?

The CHAIRMAN: I think another meeting will do it.

Mr. FISHER: Yes, I think one meeting. I would like Dean Sisam here because without casting reflections on the two witnesses, he has had considerable experience on world wide forestry. He has viewpoints that will be very valuable to us, and with the three gentlemen in front of us we can get a great deal of value out of it.

Mr. BASKIN: Is the arrival of the President of the United States going to conflict with this meeting?

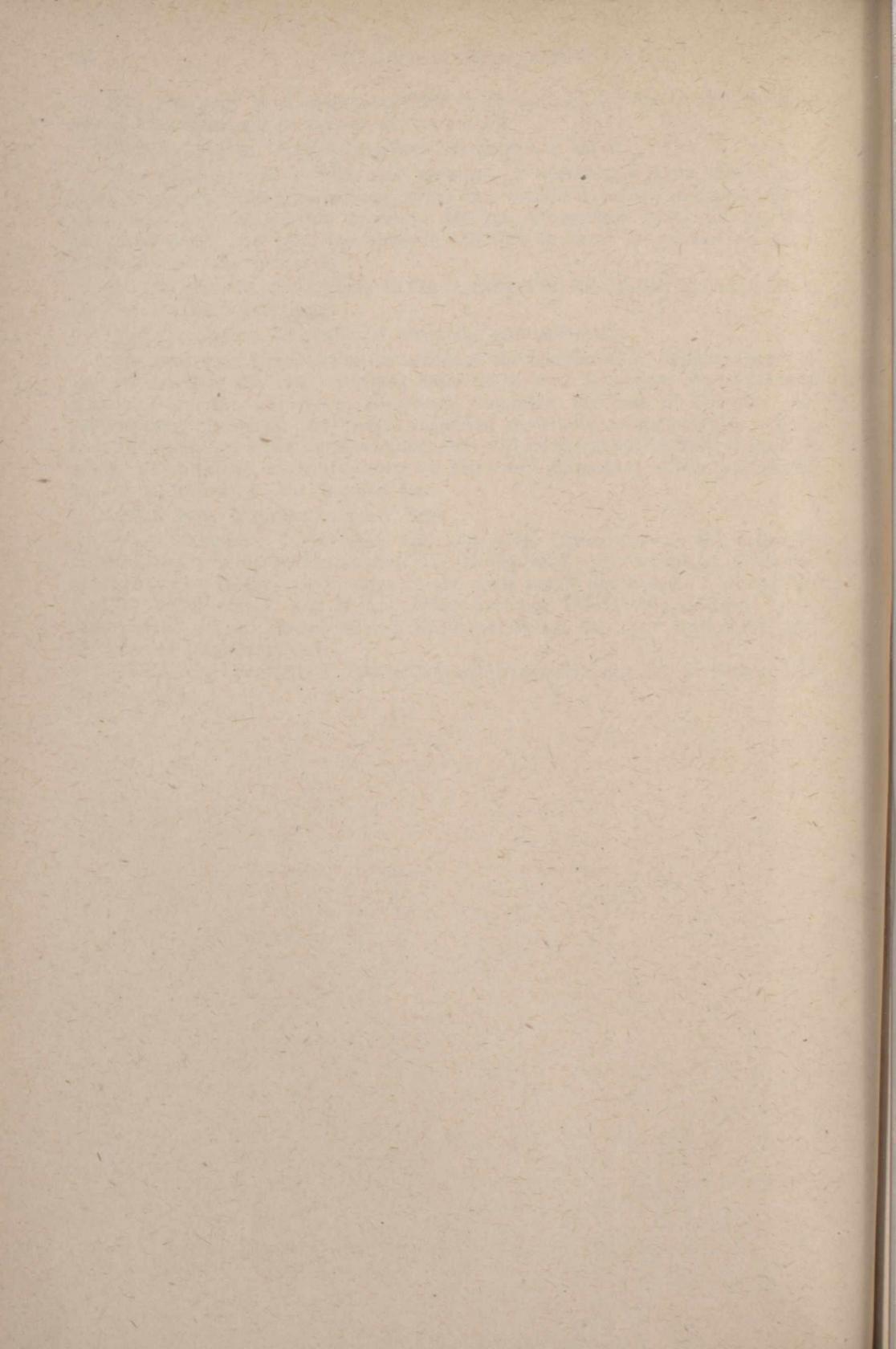
The CHAIRMAN: That should not make any difference.

Mr. DOUCETT: I would like on behalf of the committee to express appreciation of the time the two witnesses have taken with us today, Major-General Kennedy and Dr. Creighton, President, Canadian Institute of Forestry, and for the way in which they have answered questions so forthrightly. I am sure the members sitting around this table will be delighted to have them here again, to enlighten us some more on this very important subject regarding this great resource that Canada has.

Some Hon. MEMBERS: Hear! Hear!

The CHAIRMAN: Just before you leave—the other day on the estimates of Northern Administration Branch, Mr. Kindt made an observation of interest regarding the keeping of moneys in the area being developed. I would like that to be extended, and if any other member would like to make some observation on the same idea I think it would be very important, and relevant to this committee.

Thank you, gentlemen. We will meet tomorrow morning at 9.00 o'clock sharp.



HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 11

TUESDAY, JULY 8, 1958



Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Major-General Howard Kennedy, C.B.E., M.C., M.E.I.C., Consulting Forest Engineer; Mr. G. W. I. Creighton, D.Sc., President, Canadian Institute of Forestry; Mr. H. C. McQuillan, M.P.; Mr. R. G. Robertson, Deputy Minister; Mr. J. D. B. Harrison, Director, Forestry Branch; and Mr. J. H. Jenkins, Chief, Forest Products Laboratories Division.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-Chairman: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRea,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafèche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

TUESDAY, July 8, 1958.

(13)

The Standing Committee on Mines, Forests and Waters met at 9.00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Baskin, Cadieu, Coates, Doucett, Dumas, Fisher, Fleming (*Okanagan-Revelstoke*), Gundlock, Kindt, Latour, Leduc, MacRae, Martel, Martineau, McLennan, Murphy, Nielsen, Payne, Pugh and Villeneuve—(20)

In attendance: Mr. G. W. I. Creighton, D.Sc., President, Canadian Institute of Forestry, of Halifax, Nova Scotia; Major-General Howard Kennedy, C.B.E., M.C., M.E.I.C., Consulting Forest Engineer, of Ottawa; and Mr. H. C. McQuillan, M.P.: *from the Department of Northern Affairs and National Resources:* Messrs. R. G. Robertson, Deputy Minister; E. A. Côté, Assistant Deputy Minister; and R. A. Faibish, Private Secretary to the Minister; *and of the Forestry Branch:* Messrs. J. D. B. Harrison, Director; J. H. Jenkins, Chief, Forest Products Laboratories Division; H. W. Beall, Chief, Forestry Operations Division; A. Bickerstaff, Assistant Chief, Forest Research Division; and S. MacCallum, Accountant.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

Items 290 to 301 inclusive of the Main Estimates, concerning the Forestry Branch, were further considered.

The Chairman announced that he had learned from Dean Sisam, who had been summoned to appear before the Committee, that he would not be able to appear.

Major-General Kennedy and Mr. Creighton were further examined. At the suggestion of Mr. Payne, Mr. H. C. McQuillan, M.P., was called as a witness. He addressed the Committee on some of the forest problems in British Columbia and was questioned thereon.

During the proceedings Mr. Murphy temporarily vacated the Chair which was assumed by Mr. Doucett.

At 10.30 a.m. the Committee received the following members of the Delegation from the House of Representatives of Nigeria, namely: Mr. D. C. Ugwu, Mr. L. S. Fonka, Mr. J. S. Tarka and Mallam Muhtari, Sarkin Bai. They were introduced to the Committee by Mr. T. R. Montgomery, the Clerk Assistant of the House, and were welcomed by the Chairman.

Following further consideration of the above mentioned Estimates of the Forestry Branch, they were allowed to stand. Major-General Kennedy, Mr. Creighton and Mr. McQuillan were retired.

The Committee reverted to Item 303 of the Main Estimates and Item 588 of the Supplementary Estimates, concerning the Canadian Government Travel Bureau.

Mr. Robertson presented certain tables of statistics concerning the operations of the Travel Bureau which had earlier been requested. It was ordered that the said tables be printed in the proceedings of the Committee.

At 10.55 o'clock a.m. the Committee adjourned until 9.30 o'clock a.m. on Friday, July 11, 1958.

Eric H. Jones,
Clerk of the Committee.

EVIDENCE

TUESDAY, July 8, 1958.
9:00 a.m.

The CHAIRMAN: Gentlemen I see a quorum. We are on items 290 to 301 of the estimates of the Forestry Branch. Yesterday we had before us two witnesses, Major-General Howard Kennedy and Mr. Creighton, who is the president of the Canadian Institute of Forestry. They are here again this morning. There were some questions asked, and they are ready with their answers.

I regret that Dean Sisam is not able to come. He has other appointments for today; and tomorrow, of course, because of President Eisenhower's visit we shall not be able to have a meeting. On Friday Mr. Sisam has another meeting, and on Saturday he is going away. So we will have to dispense with calling him.

Are you ready to hear all the answers and have them placed on record? Whom do you want to answer your questions, Mr. Fisher?

Mr. FISHER: I would like each one to take a crack at all of them.

The CHAIRMAN: Are you ready General Kennedy?

Major-General HOWARD KENNEDY, C.B.E., M.C., M.E.I.C. (*Consulting Forest Engineer*): I have not got my list of questions here. Could the questions be asked one at a time?

Mr. FISHER: The first one, Mr. Chairman, which I would like them to deal with is, what can be done, in their point of view, by the federal government to encourage the utilization of hardwoods in the pulp and paper industry?

Major-General KENNEDY: In answer to that question, as far as the federal government is concerned I would say that their field probably lies in the experiments in which they can take part or carry out in connection with the forest products laboratories; and therefore Mr. Jenkins is probably better able to answer this question than I.

The other thing is in the matter of assisting in publicity. We know that many Canadian companies could use a tremendous amount more hardwood than they now are using. It just happens that because it does not float it does not appear as attractive to them as do conifers. But, now with the exploitable forests receding, hardwoods are becoming considerably more attractive. Within the last six weeks I have been told that the Howard Smith Company for instance, who are making fine papers at Cornwall, found that they can run up as much as 70 per cent of hardwood.

Mr. FISHER: Is that fine paper?

Major-General KENNEDY: Yes, they are making a wide range of fine papers, printing papers and things of that sort. So that although the fibres in hardwood are shorter than in softwood, particularly in spruce, it is evidently possible to manufacture and utilize them in manners that are satisfactory for use in most of the things for which we now use conifers. I think it is a matter of publicity and experimental work, to show how such use may be carried on in conjunction with the use of conifers because most of these mills are geared to use conifers. It means certain technical changes, to start the mixing of hardwood with the conifers.

Mr. FISHER: Following from that, is yellow birch usable in the eastern parts of the country in the pulp mills?

Major-General KENNEDY: Yes. For instance the International Paper mill at Hawkesbury is practically converted to using all hardwoods, including both white and yellow birch. Yellow birch is more valuable for veneering, flooring of furniture than it is for pulp.

Mr. FISHER: What will be the effect of the die-back in that part of the country, as far as using it for pulp is concerned?

Major-General KENNEDY: The die-back has not improved the situation, but it has been mainly in the older and mature trees that would have been used for lumber and veneer. Of course die-back has hit eastern Ontario, too.

Mr. PUGH: What does the term "die-back" mean?

Mr. FISHER: The great mystery!

Major-General KENNEDY: Birch in eastern Canada and in the new England states has been dying for the past number of years. Nobody is quite sure what the reason is. It looks as though it may be a virus disease. We do not know why it occurs nor what can be done to prevent it. The fact is, it is dying; and it is usually the old and matured trees that are dying,—the bigger trees.

Mr. PUGH: I was not quite sure what I was running into.

Mr. DUMAS: Well, Mr. Chairman, I think the reasons why more hardwood is not used in making pulp are, first of all, that it can be put to a better use. It would be in some cases too expensive to transform into pulp. Another reason is the weight. Transporting would be very costly. You cannot float hardwood very easily.

Major-General KENNEDY: Consider some of the mills in Southern Ontario and Quebec which are bringing their conifers from over the height of land. There is hardwood right on their doorstep, and the transportation facilities have improved in the last couple of decades for the mills in the older parts of the industry.

Mr. DUMAS: Yes, the mills in the eastern townships, like Hawkesbury, Gatineau Point, Three Rivers, etc. can use a lot of it.

Major-General KENNEDY: Yes, the new mill at Thurso, of the Singer company, will run almost entirely on hardwood.

Mr. FISHER: What effect will this switch to hardwood have, in the long run, on the silvicultural management of pulp and paper forests?

Major-General KENNEDY: It should be very beneficial to it. The volume of conifer forests is much more vast than that of hardwoods. The hardwoods are now closer in to us than most of the conifers. But the fact is if we use our poplar and birch and species such as that we can reap so much more per acre in many of our stands that it would be very beneficial, not only economically but to the keeping of healthy forests.

Mr. BASKIN: I have a question regarding the future of the hardwood industry in Canada. When we think of reforestation our minds immediately turn to the conifer species. What is going to be the future of hard maple and yellow birch, for lumber, in this country? Certainly there is no reforestation that I have heard of that amounts to very much.

Major-General KENNEDY: Well, when you talk of reforestation the matter of planting of hardwoods and planting seedlings of hardwoods is very "chancy", because the moment you plant hardwoods, whether it be maple or birch, are usually attacked by rabbits, deer and other predators. Back in 1946, when we made the study in Ontario, we discovered only about 2 per cent of the plantations of hardwood that had been planted in Ontario had come through.

And the same thing is happening right now up in plantations in Algonquin Park, mainly from deer.

However, they are now experimenting with scarifying the earth here in Ontario, in the upper Ottawa valley, and making openings in the forest. They find they are getting fairly natural reproduction. We will have to get the deer population down if we are going to have hardwoods or young pine.

Mr. BASKIN: The upper Ottawa valley produces very poor types of hard maple. The good hard maple in Ontario,—in all Canada, I suppose—has been grown in western Ontario. Would you say that in perhaps the not too distant future that species will disappear altogether?

Major-General KENNEDY: I do not think it will disappear; but I do not think we will grow first quality maple in this area, particularly in the Ottawa valley, because we are pretty well on the northern limit of the growth for maple. Whether it is frost, or whatever is attacking it, we do not grow good maple in this country. It is only one tree out of probably a dozen or so from which you could really make lumber or flooring, or what have you. However, it is suitable for tapping for maple syrup and so on. But we do not grow good maple in this area comparable with the warmer climates.

Mr. BASKIN: Do mineral stains have a serious effect?

Major-General KENNEDY: Yes; mineral stains down-grade maple lumber very considerably in this area.

Mr. PAYNE: In Ontario does the provincial government in their provincial park reserves permit the harvesting of trees on a commercial basis?

Major-General KENNEDY: No, I would say with the exception of some areas on the fringes of Algonquin park they are not cutting any considerable quantities of maple. There is what is known as the Petawawa forest management unit which I mentioned yesterday. In that area they are carrying on experimental work and they are allowing the cutting of all the species that are there in the ages and quality that justify their cutting. Generally speaking there is no cutting going on in the provincial parks. There is a fair amount of cutting of coniferous up in Quetiquo Park, but not hardwoods.

Mr. FISHER: Mr. Chairman, much of the nostalgia and sentiment about the magnificent forests of the past centres around white pines. There is a question of whether the white pine is ever going to come back, and what can be done to bring it back. This is a question, I believe, that is especially interesting to General Kennedy, if I read the 1947 report right. Have you any ideas or suggestions in that regard?

Major-General KENNEDY: Yes, there has been a great deal of experimentation done since that report was written. Right in Ontario in their own laboratories, and also at Petawawa at the experimental station, experiments are going on now in regard to the development of disease-resistant white pine, that is, resistant to blister rust and the weevil which is another great enemy of the white pine, probably even worse than blister rust where it occurs in a stand. It is pretty well assured that we are going on in Ontario with very considerable regeneration activity involving an attempt to bring back the Ottawa valley. White pine grows better in the Ottawa valley for some reason than anywhere else in Eastern Canada.

Mr. G. W. I. CREIGHTON, D.Sc. (*President, Canadian Institute of Forestry*): There are people to debate that, General Kennedy.

Major-General KENNEDY: I am not speaking of the stubby stuff you have down there in Nova Scotia!

Mr. PUGH: You should come out to British Columbia, sir.

Major-General KENNEDY: You have some good white pine out there, but not much of it.

Mr. CREIGHTON: You sound like Charlotte Whitton!

Major-General KENNEDY: If you ever have a great quantity of white pine coming from Canada it will come out of the Ottawa valley. White pine is not growing very well in the Temagami region. Up in the Ft. Frances area it is not doing nearly as well as it is in the Ottawa valley.

If you get the seed from white pine on mineral soil, and if it is grown with a mixture of hardwoods or some other species to protect it from the weevil, it has an exceedingly good chance of coming through.

We are getting bullish in the matter of bringing back the white pine in the Ottawa valley. Incidentally, Ontario is ready to go ahead and spend a considerable amount of money to develop or to bring back the white pine.

Mr. FISHER: Maybe Mr. Harrison could tell us what research is going on by his branch in relation to the white pine problem. What particular thing are you trying to do?

Mr. J. D. B. HARRISON (*Director of Forestry, Department of Northern Affairs and National Resources*): We have done a great deal in that regard, Mr. Chairman. The main problem was to find out whether the old concept which has been referred to, that white pine can only come back again after a fire, was correct or not. This concept used to be accepted as gospel. That is not true. We have found that white pine can regenerate naturally after logging.

The results you get vary considerably with the particular growing conditions or site on which the stand happens to be. On certain sites it would be necessary to treat the soil mechanically by what we call scarification to create conditions in which the new stand can come up naturally. A very considerable amount of progress has been made in that direction.

I might say we are getting some very active cooperation from some of the industrial companies who have white pine limits and who are interested in this question. Naturally we are also cooperating very closely with the Lands and Forest Department of the Ontario provincial government on this question.

Mr. CREIGHTON: A good many of these stands that you refer to are probably 300 to 500 years old. It is a question whether people are willing to wait that long nowadays.

Mr. FISHER: In respect of the stands of white pine in Nova Scotia, what age are they?

Mr. CREIGHTON: Our white pine was all cut out. The old growth stands were cut out following the Napoleonic wars. The white pine we cut today is from 80 to 150 years old.

Mr. FISHER: What size sawlog do they give you?

Mr. CREIGHTON: They will average perhaps 16 to 18 inches. You get the occasional one up to 3-foot, but the average would be around 16 to 18 inches. That is at the butt of the tree. The logs would not be that large.

Mr. FISHER: I have one final point in regard to white pine I would like to touch on. I have encountered statements in forestry writings that express the opinion that until something is done with our fiscal policy there is nothing really to encourage people to hold areas of white pine and to do work on them. Have you any comments to make in that regard, General Kennedy?

Major-General KENNEDY: Some of us have been commenting rather bitterly about that for a long time because of the method of charging income tax on forests. For instance, I happen to own woodland myself. Under the present system of taxing—some of those trees are of the age of the ones that Mr. Creighton has been talking about here, a bit over 100 years old—in the year I cut those I will have to pay income tax on the growth of 100 years. If I

harvest them I have to pay income tax. I think now you can spread that income over five years. I am not sure about that, but I believe so. However, I am not cutting any of them.

The facts are that both individuals and companies who hold timber for a long time suffer from the fact that they cannot charge off in the way of a so-called depletion which probably is not the right term because a stand should not be depleted if it is a well managed one.

However, once an operator has written off what he paid originally for forest land that is all he gets. If an operator has held this forest for 70 years all he can charge off is the money he paid for the land 70 years ago. Such an operator could sell the land to a new operator who could come in and charge off what he pays for the land today, which makes a vast difference, because one man could probably charge off \$10 per thousand for depletion or stumpage value while the other fellow who held the land and managed it well for years can only charge off perhaps 10 cents. That is the difficulty.

Mr. FISHER: Mr. Chairman, I would like to direct a question to Mr. Harrison now.

We have heard that you have some forest economists, I believe working in association with your branch. Are there any economists working on studies of this particular problem of the relationship of taxation to the whole forest management problem?

Mr. HARRISON: Yes, Mr. Chairman, we have under discussion at the present time, at the request of the Canadian Lumbermen's Association, a proposal to extend studies of that kind especially with respect to white and red pine. We expect to have a meeting this week to see what we can do about it. A certain amount of work has been done by our very small economic section. During the last year or two we have been unable to put any resources directly on that study except just to keep track of what the tax laws are.

Mr. FISHER: How many economists do you have?

Mr. HARRISON: There are three forestry officers in the economic section.

Mr. FISHER: That is not very strong when you consider the scope of the forestry industry, is it? Are there any plans to expand that number?

Mr. HARRISON: Yes, we have hopes of moderate expansion.

Mr. FISHER: Have there been any requests from the Department of Finance for your people to study this particular problem?

Mr. HARRISON: No, not directly. We have consulted with them, at their request, in regard to problems of this kind. We have very close cooperation, and we are doing a lot of work right now, with the Dominion Bureau of Statistics, but not with the taxation department.

Mr. FISHER: I thought this point, Mr. Chairman, was something that members of parliament could well take interest in because, while it does not directly apply to this committee, it may be something that needs to be seriously considered if we are ever going to do something about bringing back the white pine.

Mr. PAYNE: In respect of the west coast logging industry there are a number of questions that are of interest to us. We have talked about this problem at various times, but I feel there has been a minimum of information given in this direction.

We have a member of parliament, who is a lumberman, Mr. H. C. McQuillan. Why he is not a member of this committee I do not know. Would it be possible to have Mr. McQuillan called before the committee to make a statement? He has played a very prominent role and has been associated for a number of years with the Truck Loggers' Association of British Columbia. I think if he were called before this committee he could give us a lot of precise

information respecting a number of problems that are of some interest to us. Could he be called?

The CHAIRMAN: Yes. Could we get him this morning? We will try.

Mr. PAYNE: I believe so, sir. I have one definite question with which we have been considerably concerned and that is a program of fire protection on the southern stretches of the Yukon and in far northern British Columbia. In that connection it is not that I have any desire to belittle the drought conditions, across the prairies, but I would like to point out the fire damage that is occurring in the northern reaches of British Columbia and the southern section of the Yukon today. In the future of Canada's welfare it is I believe dollarwise a much greater loss than the drought conditions across the prairies. We are anxious to know what program of cooperation is under way with the province of British Columbia or the Yukon regions conducted directly by the federal authority to protect and preserve the great resources of this nation. Is it possible to have a statement on that?

The CHAIRMAN: The deputy minister will make a few comments.

Mr. R. G. ROBERTSON (*Deputy Minister, of Northern Affairs and National Resources*): Mr. Chairman, I cannot deal with the details, but perhaps Mr. Harrison can supplement the particular points after I have made a short statement.

I might say as far as fire protection in the Yukon is concerned that like other forest management in the territories, it is a federal and not a territorial matter. There is a relatively small forestry section in the Yukon. If my memory is right, it numbers 19 persons at the present time. It would be extremely costly and difficult to provide an adequate forest fire protection staff in the Yukon, with its vast size and the lack of adequate communications and roads. When the recent very serious fires did break out and were worsened by the drought, we sent people from our parks organizations up to the Yukon. We sent four experienced fire fighting people at the initial stage and later we sent another four. These are not to provide the man-power but to provide the skill in the forest fire operations. We received our last reports yesterday and the fires are now well under control. As far as northern British Columbia is concerned, that of course is a provincial matter.

I do not know—and perhaps Mr. Harrison can confirm this point—of any detailed cooperative arrangements thus far between ourselves and British Columbia on this matter. However, I think some arrangements will have to be worked out. We do have them in Alberta between the Northwest Territories, Wood Buffalo park and Alberta. There is a good cooperative arrangement there with regard to fire protection on the boundary. It does depend on working together to get adequate fire protection when you have two jurisdictions coming together. Mr. Harrison, could you say a few words to supplement my statement?

Mr. HARRISON: I am not able to in this immediate situation. We are carrying out certain research work with British Columbia on fire damages but that is not specifically connected with this northern area.

Mr. ROBERTSON: All I can say further is that now that these more remote forest areas are progressively becoming of direct interest, I think a good deal more attention has to be given to this particular question.

Mr. PAYNE: Will that be considered?

Mr. ROBERTSON: Yes.

Mr. FLEMING (*Okanagan-Revelstoke*): Is it correct that until quite recently British Columbia was not interested or did not indicate particular interest in this matter of cooperation with regard to forest fire control with your department?

Mr. ROBERTSON: I was not meaning to suggest there was any dereliction on their part.

Mr. FLEMING (*Okanagan-Revelstoke*): Is this not fairly recent on the part of the province?

Mr. ROBERTSON: Well, I think the interest in both jurisdictions is a developing interest and has become very much greater in the last year or two. I do not mean to suggest that it was the province that particularly had not shown interest, but up until now no particular arrangement has been worked out.

Mr. FLEMING (*Okanagan-Revelstoke*): Is it not correct that other provinces took an interest earlier?

Mr. ROBERTSON: I do not know.

Mr. HARRISON: There is perhaps one fact which may throw light on this. It is to be expected in the province of British Columbia that the interest in the far northern forests in that province is certainly going to increase. This will be due largely as a result of federal assistance to their forest inventory. They were able to gain more information about that part of the province than they had before. It has been found that the extent and value of the forest resources in the northern part of the province is very much greater than had previously been imagined. That has been a very recent discovery and since it has been established that the forests are larger and more valuable, much greater interest on the part of the province seems inevitable.

Major-General KENNEDY: Doesn't the protection of that far northern part of British Columbia and the Yukon tie in very closely with our remarks yesterday on the matter of development of trunk roads into these areas? They will never be thoroughly protected until we have roads, and until we have roads we might as well forget about making any really active protection. With the distances involved, we cannot get the material or the men in to handle fires. If roads were there, we could reach those places. With the possibility of allowing "make work" schemes, in the future the development of that type of road is a subject the government could consider.

Mr. PAYNE: There is one other factor which has caused us certain worry and we are wondering whether attention is being paid to it. As we all know the Alaska panhandle comes down in British Columbia to a depth of about 600 miles and so flanks a great section of our forest resources. I believe that statement would be correct. Is there any liaison or any negotiations with the American authorities in the area relative to fire protection, means and methods of logging in the area?

The CHAIRMAN: Mr. Harrison says "no".

Mr. PAYNE: Would it not be a worthy project on which to undertake discussions with our American neighbours?

Mr. ROBERTSON: Mr. Chairman, I think one question that would have to be considered is the matter of who discusses with whom. The forest management of the forest fire protection area you are speaking of is of course provincial. I think probably it would mainly be a matter of professional contacts between the respective services on the two sides rather than nation to nation or very formal discussions.

Mr. PAYNE: Our query is basically whether these have been undertaken. In regard to their international nature, would guidance and assistance be required from the federal authority?

Mr. ROBERTSON: As far as I am aware, and I think as far as Mr. Harrison is aware, there are no arrangements at the present time.

Mr. CREIGHTON: In that regard, Mr. Chairman, I could mention the fact that in eastern Canada the fire service of the province of New Brunswick has an agreement with the neighbouring state of Maine and, I believe, with forest services in several states.

If a fire breaks out in Maine near the New Brunswick border, the New Brunswick service goes to the fire; and if a fire breaks out in New Brunswick near the Maine border, the Maine service assists. So there is a precedent in this cooperative arrangement between the fire services in Canada and those in the United States.

I believe that the arrangement between New Brunswick and Maine has worked out very smoothly and successfully.

Mr. ROBERTSON: There would have to be in fact a working arrangement of some kind between the two directly responsible jurisdictions.

Mr. HARRISON: The service was arranged by themselves. It was not carried out at government level.

Mr. FISHER: We have a problem because of the tremendous capital plant in the pulp mills establishments in finding economical ways of intensive management close to mills, whereas in the northern region, as has been brought out, the problem is one of extensive forest management. We must get some kind of intensive management closer to the mills.

Probably the road program is the most important in that respect. Do the witnesses have any suggestions as to how the federal government might help intensive management in those areas which are closest to the pulp mills?

Major-General KENNEDY: I can only speak of what is going on in Ontario today.

We are having very intensive studies made now of where trunk roads should be placed; that is being carried out under the auspices of the government, industry and the advisory committee to the minister. The advisory committee is where the spark came from. But now industry and the Department of Lands and Forests of Ontario are developing not only mapping desirable locations for roads but they are assessing a schedule of priority for the various projects.

As soon as that spade work is done—and it is approaching completion now—then I think there will be an approach made asking for federal assistance in the development of these roads which would become a three-way development, that is, federal, provincial, and industrial. That is the hope.

Mr. CREIGHTON: The work which the research branch of the federal government has carried out has been of great assistance to us in Nova Scotia. The federal services have experimental areas there where they are cutting under different systems to determine the best methods of cutting, and they are attempting to get better regeneration.

Personally I would like to see more of these studies carried out by the federal service. I think it would be very helpful for the federal service to have some experts working on it because we in the provinces do not have that kind of employee. I feel quite strongly on that matter.

I certainly would like to urge again that more support and more assistance be given to the federal forest service in order to carry out the experimental work which they have under way at the present time.

Mr. FISHER: A number of pulp and paper companies have been carrying out research work on their own, and they have been coordinated in that work by the C.P.P.A., the Canadian Pulp and Paper Association, and the wood-lot section.

Last year when corporation taxes were raised in Ontario it was the head of the largest single pulp and paper organization in Ontario which came out with a statement to this effect: what is the use of the pulp and paper industry

carrying on experimental and research work and plowing money into it if the government is to come along and take a sort of bigger bite out of the thing?

Is there any way by which the federal government can encourage more of this research work by the pulp and paper industry? Is there any way the federal government can encourage more intensive study in this respect?

Mr. HARRISON: Mr. Chairman, Mr. Fisher has referred to the need for obtaining higher production of wood on the most accessible and most productive land.

We in the Forestry Branch recognize very clearly the need for information in order to make that sort of thing possible.

To go back a little bit in the development of forestry in Canada in order to get things into focus, you can recognize five major periods in the development of forestry in this country; starting with the forestry convention of 1906, from that time until the outbreak of the first war, the great question which exercised everybody was that of fire protection.

That still remains of extreme importance especially from the point of view of how much should be spent on it; and this approach has been extended to treatment against insects and disease.

After the first war industry became very active in this matter. This was followed in the thirties by a widespread undertaking of extensive working plans. Then the second war came along. Since that war, in this decade, the great question has been how to get regeneration. That is, first stage.

I believe, and I think some others believe as well, that this is the stage where we will be intensively managing our best and most successful forests in order to get more wood per rotation.

It is coming on us very fast, this question of regeneration, and especially how to get natural regeneration, which in most cases is so much better than planting, and of how to develop practical means of intensively managing forests so that we may achieve high yield, requires vast and immediate research.

We have been contributing what we could. Moreover there is a growing interest in these questions. Unfortunately some of them take a long time to answer. But I think the specific answer to your question probably is what the federal government can best do by way of the research that is necessary in order to demonstrate that these developments are possible, and then to hand those findings over to industry, to operators, and to provincial forest administrators to develop practical modifications which will make it possible economically to put those findings to practical use.

I think that is the biggest contribution we can make, and that is just exactly what we are trying to do.

Mr. FISHER: The minister in his initial statement spoke of the research program and the fact that they were going to get down to a more basic level. By "basic" what is meant in this particular regard?

Mr. HARRISON: I think the intent of the minister's remarks was that whereas in the beginning of research work—I am speaking about the forestry branch—starting about 40 years ago, naturally the first experiments made were those of modifying the best forests in order to see what would happen. That sort of work is still necessary and we are going a great deal more deeply into the reason why things happen. I mean the approximate reason. Of course we can never get the ultimate reason.

We carry on studies in pure forestry subjects such as silviculture, mensuration, mathematics, and these are supplemented by more work in the allied sciences such as ecology, tree physiology, and meteorology, with respect to forestry areas.

I think what the minister meant in his remarks was that we are expanding considerably in proportion to the work that is going on towards those allied sciences. I do not think he intended to indicate that we were dropping direct work in experimental silviculture, because all these things have to be done together; they have to be done at once because the various aspects of these things present a complicated problem.

You spoke of the need for using the best forests for high yield silviculture. We need very positive means of identifying the best forest areas.

What are the best places? A tremendous amount of work is being done on that subject by our own forest service, and a lot is being done in cooperation with those who are working in the same field in Ontario, for example, and one or two other places.

All these things have to go on at once. Time is a factor. We are getting very many valuable ideas from one aspect of the work, and they help out with other aspects.

The CHAIRMAN: You might like to hear General Kennedy's observations too.

Major-General KENNEDY: Well, Mr. Chairman, in addition to the research and assistance of that sort I believe that in the minds of the industry—I wear many hats in this business and sometimes I am industry and sometimes I am government, but I have had a fair chance to gauge the thoughts of industry—the question of the taxing of the industry is one of the greatest gripes they have. That is what has occurred in Ontario that was referred to as taking place last year. Forest industries were badly miffed, and whether they had justification or not I am not going to say.

My point is this: The logging tax, this was very considerably increased. The logging tax is a “gimmick” that is arranged between the Ontario treasury and the federal treasury by which the tax comes out of the cost of taking out pulp wood before income tax is made up. It was looked upon as a method of getting the province additional revenue and allowing the industry to benefit by it to that extent. They would have been giving the federal government roughly half the amount of money they pay in logging tax as corporation tax.

They had not realized that it was one of the items of wood cost that could very easily be increased when the government needed money. There was an agreement to a very considerable increase last year in logging tax instead of an increase in stumpage. I think there is probably nothing that industry feels as hurt about as an increase in stumpage. Instead of stumpage increase they got an increase in logging tax. And taxing is one of the critical things in the mind of industry.

Referring to the point I was trying to make before, that a company which has written off for income tax purposes their initial investment, which may be fifty or seventy years old, and cannot charge anything for the value of the timber all it can charge is the stumpage paid to the provincial government. They cannot charge anything off for the increase in trucker values which has occurred over the years.

The sound economical thing for them to do is sell the limits, sell out to another organization which can charge off the full value of the trucker as revealed by the purchased price. That is one of the things that is forcing many of the older organizations in Canada to sell their businesses so as to get a capital gain instead of losing out on income tax deductions.

I think it is almost the crucial question in many operators' minds, and I think should be reconsidered.

Mr. DOUCETT: You speak of stumpage being the only thing they can claim. If they have an annual fire protection program they can charge that in too, can they not?

Major-General KENNEDY: Yes, they can charge in legitimate cost for fire protection and labour costs.

Mr. DOUCETT: And research too, I think?

Major-General KENNEDY: Oh, yes, they can charge that. But the point is they have already written off the original cost of their timber.

Mr. DOUCETT: You are thinking of the original purchase price of an area. They will be able to charge portions of that off.

Major-General KENNEDY: Yes, but many of them who have held it for a long time have already charged that off at a price which is comparatively small as compared to the value of the forest today.

Mr. DOUCETT: But they have also charged any costs which they have up to date.

Major-General KENNEDY: Oh, yes, quite right.

Mr. DOUCETT: Going back to your own property you have a property, as you say, and you have held it for many years and you did not do any harvesting of the trees on it. You have held it and paid expenses on the land which is there, and when you start to harvest it the tax is paid in the year in which you have a big income.

Major General KENNEDY: I am not saying the thing is entirely bad but, on the other hand, the direct result which I think is bad is that they are driving many of the organizations who have held timber for long periods, they are driving them into selling it to certain groups who have not the same thought for the forests as the old-timers. The sensible thing, if we were thinking only in economics, would be to sell your limits and take the capital gain.

Mr. FISHER: That seemed to be the thought of Mr. Moore in his book entitled "Forestry Tenures and Taxes in Canada," which is published by the Canadian Tax Foundation. One of the questions I wanted to ask, Mr. Chairman: I notice that there is a dichotomy between foresters in Canada. Although there are approximately, as you say, 1,800 foresters in Canada I have noticed for a long time that the government forester feels that the industrial forester is to a certain degree an exploiter whereas the person who is an industrial forester feels that the government forester has a soft touch and he is an idealist and far too much the theoretician. Mr. Creighton, could you comment on that position?

Mr. CREIGHTON: Well, Mr. Chairman, I have worked both in pulp companies and for the government and I might repeat the little story I told General Kennedy a few minutes ago. I happen to have been brought up as a Presbyterian. At the time of church union there was a lot of arguing between Methodists and Presbyterians, and at one stage of the argument between the Methodists and the Presbyterians clergymen were arguing the pros and cons of church union. An old Presbyterian said rather testily of Methodists: "They think they have all the piety," and a Methodist came back and said: "The Presbyterians think they have all the money." An old clergyman then said: "And neither one has anything to spare."

I think that at time there is a little argument, but I think perhaps we are travelling the same road and your thinking may be coloured a little bit by the people you work for. But we are both interested in producing wood and we are interested in producing it as cheaply as possible. I really do not think there is too much to argue about between industry and government. We certainly need industry to cut our forests and they have a certain job to do, but I feel personally that our jobs dovetail together and that there is nothing to argue about.

I am quite conscious that industry should be very happy and healthy and that arguments will bring about a healthy state of affairs. I think government and industry have just enough argument to keep them on a healthy plane and I do not think we have anything to worry about. I worked for industry and I was proud to have been with industry. I now work for the government and I feel there is a job to do there and I am proud to work for the government.

Mr. PAYNE: On the experimental program—and I am asking about inefficiency loss in logging recovery—what is the program on the elimination of teredos on the west coast? Is the problem as active in forests on the east coast as well as the west coast?

Major-General KENNEDY: Colonel Jenkins will answer that.

Mr. J. H. JENKINS (*Chief, Forest Products Laboratories Division, Department of Northern Affairs and National Resources*): Mr. Chairman, as you say, it is a very big problem, but it is one on which this department has done very little work. The federal biology plant at Nanaimo has done some work and also the British Columbia Research Council has been working out a means of coping with teredos by means of electric current on the booms. That was developed by the British Columbia Research Council.

This department has not done any work on protection against teredos other than experiments as to wood preservation, but I understand that the federal marine research station at Departure Bay near Nanaimo has done an extensive study.

Mr. FISHER: I would like to ask the witnesses about this special Senate Committee on Land Use in Canada which has been sitting off and on. What is their feeling about this as a worthwhile object and how closely does it tie in with forestry and would it be of any advantage to have a committee of members of this House of Commons sitting and considering something along the same lines?

Major-General KENNEDY: Well, I personally feel very strongly that it is a splendid study that is being made and very necessary; particularly in the areas where agriculture and forestry impinge, because there are so many people that are living on sub-marginal agricultural land which should go back to forest, and so on. I would say the basic idea when the committee was first set up was to study that aspect and that was one thing that it was to completely and thoroughly explore.

I do not know that we would want to recommend that any committee be set up until we see what this present one has achieved. I think when we see how far the present committee has travelled we can then re-assess the situation and I would not be surprised at all that we will find that the results and recommendations are so valuable that we will want to continue. It is then that something on the legislative level would be very valuable.

Mr. PAYNE: Mr. Chairman, the statement has been made both this morning and earlier that a good deal of the experimental work is conducted at the agricultural source.

We are not an outstandingly notable agricultural province. In the province of British Columbia is active research being undertaken with federal assistance to the extent that it is elsewhere in Canada in these marginal agricultural lands where they are converting grass to forests?

Mr. HARRISON: On the question of research carried out by the provincial forestry department of British Columbia, that department has a research division of its own with about fourteen or sixteen research officers who are primarily engaged in finding answers as quickly as possible to the practical problems which come up in connection with the administration of the forests

of the province. They also are doing some other work in connection with treating trees, but most of their work is on these practical problems.

Up until two years ago the forest research division of the federal branch had not been out in that province, although we did have a laboratory of the Forest Products Laboratories division there. Two years ago at the request of the province we established two field parties to investigate the possibility of setting up in British Columbia a system of forest fire danger measurement, known as the Wright system which was developed by this branch and which is in use in all of the other provinces of Canada. That work is still going on.

The province also asked that we do what we could to extend our work in some of the sciences allied to forestry. We have now one forest physiologist and an assistant out there studying problem of seed production which is of particular interest to the province. There is close cooperation between the province and our man who is out there at the university. How that program will develop is a matter which is under discussion at this very time. The chief of our Forest Research Division is in British Columbia talking over the desirable aspects of that program. But it is only two years ago that the federal authorities started forest research work there.

Mr. PAYNE: The problem I am trying to arrive at is this: in view of the close liaison in research work relative to forests, and due to the fact that our province is predominantly allied to lumber and trees and not to agriculture, and by virtue of the fact that we are predominantly lumbering in nature, is this policy not working somewhat of a hardship on the west coast, because in relation to the volume of the forests is there not less research undertaken in the field of lumbering and timber in general than there is in many other areas of Canada where there are marginal agricultural lands?

Mr. HARRISON: We have been guided there mainly by the request of the province for assistance in that particular line. In all the other provinces it is on that basis in respect of the federal work carried out.

As far as the timber utilization problems are concerned, we have a special forest products laboratory which is located on the university campus and we now have a new laboratory which is very fine indeed. This laboratory is there to deal with the special problems of converting and handling British Columbia species and also in assisting in a study of a means of reducing waste.

Mr. CREIGHTON: I think it is true that there has been less forestry research carried on in every province of Canada than research relating to agriculture. That is one of the things which we as witnesses have been trying to impress upon you gentlemen.

Mr. PAYNE: Actually you are reversing the whole situation. My question is fundamental. In view of the close liaison in the agricultural research facilities and those in connection with lumber—

The CHAIRMAN: Is not the answer a matter of opinion?

Mr. PAYNE: Yes.

Major-General KENNEDY: My opinion is that British Columbia has the use of the federal government laboratory services, through the science services, the same as has any other province. Having worked in British Columbia and having a fairly wide knowledge of what is going on across the country, I do think that British Columbia is not suffering because of the fact that it is not an agricultural province.

Mr. KINDT: Mr. Chairman, is it not true that you undertake research in accordance with the problems outstanding? You do not do research just because it is research. We have been speaking in terms of balancing what has been put into research.

If the problems are in British Columbia then the research should be done there; if the problems are elsewhere, it should be conducted elsewhere. It seems to me that you can only use the yardstick of what the problem is in getting at any solution of the problems. I think we are just going in circles.

Mr. DUMAS: Mr. Chairman, I should like to direct a question to Major-General Kennedy. It may be that the answer will be a difficult one to make. On the other hand Major-General Kennedy is an expert in this domain.

This is a problem which is very close to the people in northwestern Quebec. We know in Quebec, for instance, that the pulp mills are in operation. We have one, if we start at the west, at South Temiskaming. I am talking about the most northern localities. Then the most northern one is at Lake St. John at Dolbeau, and then we have some on the north shore. These pulp mills are getting their crop from the rivers flowing into the Ottawa valley, the St. Maurice river and the rivers on the north shore emptying into the St. Lawrence.

In northwestern Quebec the different organizations—for instance the chambers of commerce, junior and senior, the industrial commission—all are thinking that there should be one or two pulp mills established in northwestern Quebec. They are thinking of that area along the watersheds of the rivers emptying into James Bay and in particular an area which is about 20,000 square miles where we figure there must be between 15 and 25 million cords of pulpwood of which probably 30 per cent is mature.

For the last 15 years all those organizations have been urging the provincial government to get the right to establish this area or have some industry come into the area and build a pulp mill or two. This has been considered and some companies are very, very much interested.

We are treading on the provincial rights of the province of Quebec, but nevertheless, those people in northwestern Quebec seriously think that they are not treated as they should be. For instance, in part of that area of 20,000 miles the provincial government has started to let concessions to pulp companies which are operating in the south.

The CHAIRMAN: Would you mind if I interrupt for a minute.

I have been asked to meet the Nigerian delegation and I will ask Mr. Doucett temporarily to chair the meeting.

Mr. DUMAS: The people in northwestern Quebec are worried because they feel they should not be forever supplying pulp mills to the south. I bring the problem to this committee because I feel it is not only regional or provincial but that it is national. In northwestern Quebec we have very important industrial mining. But if you have only one industry in a section you always have a problem, because you are depending on the one industry. I do not say we have only a mining industry; we have the lumber and pulp industry. But we are cutting pulp and lumber to supply the south. I do not think we should say anything about lumber. If we have good lumber we try to supply those who have no lumber. That is perfectly all right, if we can compete in prices. But we feel that the harvesting of the pulp should profit the area due to the fact that we do not have too many industries.

Agriculture is difficult in our region; it is too cold; we are too far north. So the thinking is that it is vital to the area that we have this industry. It is not only vital to the area, but it is vital to the country. For instance, let us take gold mining. The federal government is subsidizing the gold mines. Maybe we would have less worry about the gold mines if we had more other industries in the area.

So I would like to ask Major-General Kennedy if the thinking of the people living in northwestern Quebec is right when they say we should have a bit of this pulp and paper industry. I would like Major-General Kennedy

to give us his idea on this problem. I do not think it hurts anybody, and it is for the good of the country. It is good for the Canadian people. Perhaps he could say something on that.

Major-General KENNEDY: Mr. Chairman, in answer to Mr. Dumas' question, first I would like to say that I appreciated very much Mr. Dumas' calling me an expert, because the last time I was before him I was on the grill, trying to justify the actions of the Federal District Commission. We had 29 appearances before Mr. Dumas in a joint committee.

Mr. DUMAS: We did not have any trouble.

Major-General KENNEDY: No, they gave a very good report. However, I must say that I am in agreement with you, Mr. Dumas. You agree with the people of the north because you live among them. I am in agreement that it is a matter of balancing the provincial resources and keeping alive an industry. You do not want to kill industry in another portion of the province in order to create the same sort of industry in the north. But I believe there is wood enough in the province that should be developed in the north if it possibly can because that is where I believe the mills would be, most economically placed, namely close to the wood because of the transportation problem.

Therefore, not only for the economy of the country, but I believe for economy in producing pulp from that wood, that would be the proper place. The wood is now being shipped, at great expense, down into southeastern Quebec. I believe that a source of wood for the southern mills should be looked for elsewhere, in the matter of hardwood, the use of jackpine and other species, and utilizing your black spruce in the north. Does that answer your question?

Mr. DUMAS: I mention the fact that our forests are mainly black spruce. This is the ideal source of pulpwood. It is the best wood you can have from which to make pulp, and we feel that we should take advantage of this very rich natural resource that we have in our part of Quebec.

Major-General KENNEDY: Another look should be taken at the hauling of wood to some of the mills down south some 400 or 500 miles away.

Mr. PAYNE: We have Mr. McQuillan with us.

The CHAIRMAN: We would be very pleased to have Mr. McQuillan if he is willing to come before the committee.

Mr. H. C. McQUILLAN, M.P.: I did not particularly have anything in my mind that I wanted to bring up before the committee. This came as a complete surprise to me, sir. Some of my colleagues from British Columbia decided that I might be able to help them out a bit with the problems of British Columbia. I have spent my life in British Columbia, primarily in the forest industry, both as a cruiser, logging engineer and operator, and finally operating for myself, which I am doing now. I wish I had known something about this beforehand because I might have had a few facts prepared.

Briefly, as I said, one of the greatest problems in British Columbia with which the federal government can assist is fire protection. I do not know what the exact figures are, but it seems to me that I saw somewhere the figure of \$300,000 a year for assistance in fire protection in British Columbia.

Mr. HARRISON: \$100,000.

Mr. McQUILLAN: Well, the result is that the Canadian government gets most of the revenue from the British Columbia forests, especially in the past 10 years when the revenue has been terrific in the form of income tax. This is one of the real sources of wealth from British Columbia, so far as the federal government is concerned.

So, you have a situation such as has occurred just recently where there was a fire up in the northern part of British Columbia. It would have taken

to check that fire properly, probably twice \$150,000 to have gone in there and done something about it. But, as it was there was no attempt made. The provincial government felt they could not afford to and the federal government did not appear to be sufficiently interested to fight that fire. I forget how many hundred square miles were destroyed. Perhaps General Kennedy has the figures.

That is an indication of what has been going on for years. Down in the more settled areas, where the logging is active, a great part of the fire fighting is done by the industry itself. Sometimes it is an extremely costly business, so costly that it bankrupts a company. For instance, in a part of the country in which I am interested, if we had a fire there today we would probably have to fight it for three or four months. We would have to pay the entire labour cost of fighting that fire, both on our own lands and on crown land if it were to spread into that area. It can bankrupt us very easily.

So, I think that British Columbia is really entitled to a great deal more consideration in the field of fire fighting.

About two years ago there was a good deal of cooperation on the part of industry, the British Columbia government and the federal government in suppressing the spruce budworm outbreak in the northern part of Vancouver island. That was sponsored largely by private industry. We were all very grateful that both the provincial and federal governments acted so quickly; and it appears, in so far as it is known, to have met with a reasonable amount of success. One of the side lines that we are probably going to hear about and that is, that if they find a dead fish in that area we "will be for it".

The reforestation problem is not very severe on the coast, provided we have proper fire protection. Years ago, at the time I first started working in the woods, they were logging tremendous areas of the country on Vancouver Island. It was more or less the same topography. It was not divided into narrow valleys; so when the fire started it swept through a tremendous area. Some of that area was very severely burned several times. That is about the only place that has required any considerable amount of replanting on the coast.

When you get into the northern part of Vancouver Island, and the upper coast, reforestation is natural. In fact, it is too natural, because one of the great problems is going to be in thinning it out and promoting the growth of that forest.

In the interior of British Columbia there is a tremendous amount of purely forest land which will never be suitable for cattle ranges or for agriculture.

Now that fire I mentioned occurred many years ago in the northern part of the province and nothing has been done toward replanting that area. I am sure the provincial government would be grateful for any help it could get in that field. I think it badly needs it.

Of course in the last year we have had some assistance in British Columbia in the field of access roads but as yet, that has not been used too much. Somehow or another, the provincial government was not prepared for that assistance. They did not have the engineering data to go ahead; but they are gradually getting it and making use of that program.

One of our big problems of course, which I heard you speak of a while ago, is in the field of research. In British Columbia our forests seldom are pure because of the number of species in each forest. On the coast, about 30 per cent of our forests is old growth cedar. We are having an increasingly difficult time to obtain a market for certain grades of that cedar, particularly the type of log which is used for nothing other than making shingles.

The pulp industry cannot use those logs to compete in the making of pulp. The recovery is too low, and it makes a very low grade of pulp in general.

Therefore at times it reaches the point of a surplus product. We have our shingle mill industry out there which has always taken care of our lower grades of cedar. But it is in a very depressed state, and it is very urgent that some use be found for that particular type of log as quickly as possible, because with such a percentage of the total stand, very soon it starts to back up on us and it would be impossible for even the pulp and paper industry to carry on.

I think that briefly sums up our problems in British Columbia. I would like to have known ahead of time and I might have had a little more specific data for you. I heard the gentleman mention teredos. I was very interested in that, since I was on the original committee that was asked to consider worthwhile projects to place before the National Research Council, or perhaps the branch of that organization in British Columbia. That was the one we picked on. We felt that was about the toughest and most urgent one that we had. I imagine, at a rough guess, that the loss from teredos damage runs into several million dollars a year. That has been going on since there has been logging on the coast. But, as yet teredos control is still not such that it appears to be economically possible to use it. I hope it will prove to be so soon. Thank you very much.

The CHAIRMAN: Would anyone like to ask a question of the witness? Thank you for coming, Mr. McQuillan.

Mr. FISHER: Mr. McQuillan, these two gentlemen have, I believe, supported the recommendation of the Canadian Institute of Forestry that an advisory council be set up to assist the minister in a purely advisory capacity in making decisions and developing the policy of the federal government as far as its part in the forestry program is concerned. Does that strike you, as someone involved in the industry, as a sensible type of step?

Mr. McQUILLAN: I think it would. Any step that will lead to greater interest on the part of the federal government and particularly the Department of Northern Affairs and National Resources, in the provincial forestry program, is worthwhile.

Mr. FISHER: Were you an official of the Truck Loggers Association?

Mr. McQUILLAN: I was president of it.

Mr. FISHER: What is the main problem in that organization as far as the building of roads and road costs are concerned.

Mr. McQUILLAN: The main problem is that we would have to liquidate our road costs on whatever timber we are able to acquire in the form of timber sales. Sometimes in an area we acquire a small parcel of timber as a timber sale, and there would be considerable opening up costs the operator would have. He would open up that timber, thinking he was going on to the next parcel, and then somebody would come in and bid a fantastic price with which he could not compete. In this fashion he would lose the benefits of his work.

Mr. FISHER: Does the person who comes in have the benefit of the roads the original person put in?

Mr. McQUILLAN: Yes, the title to the roads is entirely in the crown.

Mr. FISHER: In connection with the problems of the truck loggers out there, has there been any suggestion that the federal government should play a larger part in its taxing policy, or that it should operate in a different way so as to help you out?

Mr. McQUILLAN: I do not know that there has been any submission on that score. We have asked the provincial government, through the various Sloan commissions, to try to work out some reasonable protection for the operator who in the first place finds this timber and then in the second

place makes all the capital investment of developing it, such as docks, dumps, access roads and all that.

THE CHAIRMAN: Are there any further questions, gentlemen? Thank you very much, Mr. McQuillan. Are there any of this group of estimates which you want to consider separately?

Mr. FISHER: I have one last question; it has to do with the fight against the spruce budworm outbreak. I have heard it suggested that this treatment is really extending and lengthening the outbreak and creating problems. Has either of you any comment to make on the whole program as it has carried out in New Brunswick, and what it points out for the future in areas where you have over-matured timber that is subject to attack.

Major-General KENNEDY: Probably Mr. Creighton would want to speak on that. He is closer to it, although I have been down there and inspected and visited it. I do not think it is proven at all yet that it is extending the life of the epidemic. We know there is a recurrence, whether the budworm comes in from other areas by means of flight, or what have you, and reinfests the place, is not clearly established as far as I know. But the thing we do know is, if they had not gone ahead with this spraying you would have had no forests, either spruce or balsam in those areas that were seriously affected. So, while it may not be 100 per cent successful, you would not have had any live forests, had it not been for it.

Mr. CREIGHTON: I think that is true. I do not believe anyone can give a definite and clear-cut answer to some of your questions. We perhaps do not know enough about the spruce budworm, but it would appear that it is a condition that exists sometimes when you have a very extensive area of mature or over-mature balsam fir. The conditions are ideal for the build-up of the spruce budworm.

If that affected area in New Brunswick, had had a good roads system built some years ago, and if logging had been carried on, there would have probably been no spruce budworm outbreak. So that in New Brunswick they are faced with this, and if the companies are going to keep cutting, then they have to try to protect the existing forest. If, however, a long-term plan is made, if the area is made properly accessible and if it is managed and cut, it is quite probable there would be no outbreak of spruce budworm in the future. It seems to be a sanitation and management problem.

The CHAIRMAN: Mr. Harrison, would you like to contribute to this subject?

Mr. HARRISON: Mr. Chairman, the scientific study and advice with respect to this problem has been furnished by the forest biology division of the science service of the Department of Agriculture. This department has furnished the funds for Canada's share of the cost of the project. I understand the considered opinion of the science service at the moment is that it is possible that what is being done is lengthening the outbreak to some extent, for the reason that it is keeping some food there for the bugs to feed upon. There was an outbreak, a very severe one, on the Miramichi river. I think the dates were 1912 to 1922. Some investigation was made at that time and some preliminary conclusions were reached. The forests affected to all intents and purposes were inaccessible in those days—or at least most of them were. An immense amount of research has been done since that time. The forestry branch is cooperating on certain aspects of that, in research at Green River, New Brunswick, with the pulp and paper company and the science service. We do not know what is going to bring this outbreak to a stop. A tremendous amount has been learned on population dynamics, and so forth.

I think most people fully agree, and Dr. Creighton does as I do, that if that area is opened up and put under more scientific forest management in

the sense of getting rid of these huge areas of overmatured timber we could at least hope to reduce the probability of this kind of outbreak in the future. In the meantime, I do not think there is any doubt whatever in the minds of anyone who has inspected the area—I might mention that certain areas were left without protection, and you have only to look at them to see the situation—that we would now have a situation where there was no green balsam and very little green spruce from the Miramichi river to the Bay of Chaleur. Not only would that be disastrous from the point of view of industry, but it would create in this old stand of timber a forest fire danger, given bad weather conditions, that my mind refuses to look at it.

The CHAIRMAN: Gentlemen, we have some very distinguished guests present. I am going to ask Mr. Montgomery, the Clerk Assistant of the house, to introduce these distinguished guests to our committee and to our distinguished witnesses.

Mr. T. R. MONTGOMERY (*Clerk Assistant, House of Commons*): Mr. Chairman and gentlemen, this is Mr. D. C. Ugwu, the deputy chairman of the group. This is Mr. L. S. Fonka, Mr. J. S. Tarka and Sarkin Bai. Mr. Sarkin Bai is a Moslem from the north and the other gentlemen I believe are from the south. Mr. Murphy is the chairman of our committee.

The CHAIRMAN: Welcome to our committee. We are very pleased to meet you. We have enjoyed meeting your delegate at the United Nations. Would you like to sit down for a few minutes.

Some Hon. MEMBERS: Hear, hear.

The CHAIRMAN: I would like to say, gentlemen, that we had the pleasure last fall, while we were attending the Commonwealth Parliamentary Association, of meeting some members from commonwealth countries including a representative from Nigeria. I would like to say, gentlemen, that we certainly enjoy meeting your people and we hope that some of us at least will meet them again at a later conference. I must say that it is certainly a distinction for our committee to have you visit us.

Some Hon. MEMBERS: Hear, hear.

Mr. FISHER: One final question and then I will pack up, Mr. Chairman, as far as the witnesses are concerned.

Would the witnesses care to make any general observations on whether the artificial regeneration that has been attempted in many places on old agricultural land has been successful?

Major-General KENNEDY: I could perhaps answer that question. Yes, you just have to look at some of the older plantations in Ontario to see the success of that, particularly in St. Williams, in Norfolk county, which is one of the oldest plantations. They started planting in 1909, so this initial plantation is roughly 50 years old. I have not seen this plantation for several years now. These plantations were placed there because of the blow sand. These abandoned farmlands were sold at tax sales. This white sand goes up over the tops of the fences in many places. They were planted with a mixture of white and red pine at that time. At the time I inspected and made measurements there, which was about 10 years ago, those trees were then roughly 40 years old and were in the order of 50 to 60 feet high and ranged from about 12 to 14 inches in diameter. It was a beautiful stand, but this is where the blow sand was. This land had been purchased for just a few cents per acre 40 years ago and is now valued quite conservatively at over \$1,000 per acre.

Mr. DUMAS: Mr. Chairman, during the last few years not only in Quebec but all across Canada I think that the Canadian Forestry Association and the Quebec Forestry Association have sponsored this project of farm wood lots. I do think they have really made a success of that. I would like to hear what

Major-General Kennedy has to say in that regard, and perhaps Mr. Creighton could say something in respect of farm wood lots in Nova Scotia. I myself think that this is a great thing because we have in the eastern townships of Quebec along the St. Lawrence, and I would say here in the Gatineau valley, some land which is not very good for agriculture but which is very good for reforestation. I believe this farm wood lots program should be encouraged to the limit. I understand Mr. Harrison's department are cooperating in this regard. I understand also that the Canadian Forestry Association, the Canadian Institute of Forestry and the Quebec Forestry Association are doing some work in this respect also.

Major-General KENNEDY: I think this is an excellent project. This program has been tremendously successful. It has been successful probably more from the point of the bigger forest holders than the smaller ones. However, in the province of Quebec, where the program has had great impetus, even the smaller holders of forests are now joining up with the association and undertaking to maintain their forest lands under forest, keeping it free from grazing and operating it on a sound silvicultural basis.

I might say that I am a biased witness in this matter because I have been a firm believer in the farm wood lots projects, and the possibilities of them. That is why I am not worried about the future of these mills that are bringing wood from up in your northern Quebec areas. I think they should be getting it from our farm wood lots. I have some 600 acres of woodlands myself because I strongly and firmly believe in the project.

I think this program of the Canadian forestry association should be encouraged because of the splendid results they have obtained so far. It is actually too early to forecast the final result. This program has only been in operation for two or three years and it is too early to gauge the value of it, but it is growing rapidly and I think has a splendid future.

Mr. CREIGHTON: In my part of the country 75 per cent of the woodland is of private ownership, but one-third of our forest land is in the form of wood lots, and about 50 per cent of the forest products come off that one-third farm wood lots because the wood lots are more accessible and have better and more productive forest lands. As a matter of fact, the pulp mills and the saw mills that operate in our province get a large part of the raw products from farm wood lots. Actually they can buy it a lot cheaper from the farmers than they can operate themselves on their own limits. This is a sore point, naturally, with the farmers. However, it is an actual fact.

Like General Kennedy, I am also a woodland owner. I find that farm wood lots pay good dividends. I have planted up an old field. I am sorry I did, because if I had not I would have received as much value per year from the blueberries in that area as I will get, if I live to be one hundred, from the timber on the land.

Mr. DUMAS: Blueberries are another crop.

Mr. CREIGHTON: We have a certain amount of planting, as a good many plantations that are successful have, but I think we have made the mistake that has been made in a good many places in Canada in the early days. We brought in exotic species. We planted Scotch pine and Norway spruce. We wish now that we had not. We are now sticking entirely to our native species, particularly red spruce and red and white pine.

Mr. MACRAE: I would like to ask Mr. Creighton a question about the bud worm spray. I have seen a lot of this spraying in the last few years. This spraying has the disadvantage of, in addition to killing the bud worm, of killing every other form of insect life. Sportsmen are of the opinion that it is killing the fish as well, but that has not been proven.

Mr. Creighton, there was some discussion on this subject having regard to the fact that this year's spraying would be the last year they would carry that operation out, and this is the largest operation of that kind that has been attempted. Is that so, and are they now finished with that operation?

Mr. CREIGHTON: I cannot answer that question.

Mr. MACRAE: Have you heard it said that this operation would be finished this year?

Mr. CREIGHTON: I have not heard that.

Mr. MACRAE: There has been some discussion in the press in that regard.

Mr. DUMAS: That subject leads me to a question which I would like to ask Mr. Creighton.

The Canada Forestry Act, for instance, has been in force for some years. I think it is a very good act. I think that the maritime provinces have taken advantage of this act, especially Nova Scotia. I understand that a forestry inventory is completed.

Mr. CREIGHTON: That is correct.

Mr. DUMAS: You may not have the final figures, but this inventory has been completed.

Mr. CREIGHTON: We have the final figures now.

Mr. DUMAS: Can you now say that this act has been of some value to the province of Nova Scotia?

Mr. CREIGHTON: This act has been of great value.

Mr. DUMAS: It has been of great value?

Mr. CREIGHTON: It was very beneficial.

Mr. DUMAS: I think the administration of the spraying problem in New Brunswick comes within the jurisdiction of the Department of Forestry and is covered by this act.

Mr. CREIGHTON: I think that is separate from the Canada Forestry Act.

Mr. DUMAS: It is separate. Is the province of Nova Scotia taking advantage of the forest protection under this act?

Mr. CREIGHTON: Oh, yes.

Mr. FISHER: One last question I would like to ask Mr. Creighton. Have you noticed considerable interest in connection with the pulp wood farmers having regard to a floor price for pulp wood?

Mr. CREIGHTON: A floor price?

Mr. FISHER: A floor price for pulp wood under the agricultural stabilization prices board?

Mr. CREIGHTON: Yes.

Mr. FISHER: We will leave it at that.

The CHAIRMAN: That is a good answer.

Gentlemen, I have had a request from one of the members that he be permitted to take photographs of our honoured guests. This request is granted.

Mr. DOUCETT: I have invited the honoured guests to my room during the noon hour and I will get pictures there, Mr. Chairman.

The CHAIRMAN: Have we finished now with the estimates of the forestry branch?

Mr. FISHER: Could we have a report in respect of R.C. 17 and the federal government's contribution in relation to this?

Mr. HARRISON: Mr. Chairman, this R.C. 17 project—a study of ways and means for obtaining regeneration of spruce on mixed wood slopes in western

Ontario—was carried out through the cooperation of the Ontario Department of Lands and Mines, the federal Forestry Branch, the University of Toronto, the Pulp and Paper Institute of Canada—who took the initiative in this regard—two of the large pulp and paper companies—the study has been carried out on the lands of one of them—the Ontario Research Council, and the Ontario Research Foundation which has contributed substantially to the cost of this project. This project has now been going on for approximately five years. It is governed by a steering group representing various cooperating interests. Responsible to that group is a technical advisory committee which has laid out the experiments. There is a technical director responsible to the steering group. Due to the changes in personnel, at least three directors appointed by the province of Ontario have gone to other fields of endeavour. At the present time the technical director, Mr. McLean, is a member of the Forestry Branch. Mr. McLean has just finished a primary report which is now in the hands of the technical advisory committee. This committee will review that report and then hand it to the steering group. This is a very voluminous report, although it is an ad interim report. The work has only been going on for five years. This report does contain a very good deal of valuable information. I think the general attitude is that we are very much encouraged with the results of real value which are going to flow from this project.

Mr. FISHER: Could I obtain a copy of that report at some time for my own personal information?

Mr. HARRISON: Yes. This report has not been published yet, but we would be very glad to provide you with a copy for your inspection.

Mr. DUMAS: Mr. Chairman, I am taken a little bit by surprise. I thought yesterday and today's meetings were to be devoted mostly to the questioning of Major-General Kennedy and Mr. Creighton, and also Mr. Sisam if he had been available. I have a few questions I would like to ask Mr. Harrison. I do not want to extend the length of this meeting unduly, and I do not want to take more of the committee's time than is necessary. However, I was under the impression that we were to direct most of our questions to these witnesses.

The CHAIRMAN: If you would like to have the items stand over, Mr. Dumas, that will be all right. Do you wish to question Mr. Harrison?

Mr. DUMAS: I would like to know if you are not planning to complete the estimates of the Forestry Branch today.

The CHAIRMAN: That will be all right.

Have we now finished with the witnesses we have here?

Mr. DUMAS: Yes.

The CHAIRMAN: Is it agreeable to the committee to allow them to go?

Mr. DUMAS: We certainly would like to have them here with us.

Mr. FISHER: I would like to express my appreciation of the fact that they came as a result of a request. I would like to suggest that a few of the ideas that they have expressed here I think are important in regard to policy. I hope these ideas sink in and permeate very deeply.

The CHAIRMAN: I think we can all agree that we have had a very good discussion which has been a great contribution to this committee's success.

Mr. DUMAS: I would like to extend my personal thanks to Major-General Kennedy and Mr. Creighton.

The CHAIRMAN: We will let these items stand until the next meeting on Friday morning.

Before we adjourn, I would ask the deputy minister to table some information in reply to questions that I asked concerning the tourist industry when

we were considering items on the Tourist Bureau recently, so that we will have those tables included in the printed proceedings.

Canadian Government Travel Bureau

Main Estimates

Item 303. To assist in promoting the Tourist Business in Canada, including Grant of \$5,000 to the Canadian Tourist Association \$2,182,206

Supplementary Estimates

Item 588. To assist in promoting the Tourist Business in Canada—Further amount required \$ 78,000

Mr. ROBERTSON: Mr. Chairman, the material that was asked for yesterday has been produced. If I may be permitted to say so, I think the travel bureau has done an excellent job in getting this material together so quickly. They had fifteen people working on it yesterday and have produced good results.

The first is a table showing the departments and ministers under which the travel bureau has come since 1934.

CANADIAN GOVERNMENT TRAVEL BUREAU

DEPARTMENTS AND MINISTERS 1934-1958

Year	Department	Minister
1934-35	Railways and Canals.....	Hon. R. J. Manion
1935-36	Railways and Canals.....	Hon. C. D. Howe
1936-37	Transport.....	Hon. C. D. Howe
1937-38	Transport.....	Hon. C. D. Howe
1938-39	Transport.....	Hon. C. D. Howe
1939-40	Transport.....	Hon. C. D. Howe
1940-41	Transport.....	Hon. P. J. A. Cardin
1941-42	Transport.....	Hon. P. J. A. Cardin
1942-43	National War Services.....	Hon. J. T. Thorson
1943-44	National War Services.....	Hon. L. R. LaFleche
1944-45	National War Services.....	Hon. L. R. LaFleche
1945-46	Trade and Commerce.....	Hon. Jas. A. MacKinnon
1946-47	Trade and Commerce.....	Hon. Jas. A. MacKinnon
1947-48	Trade and Commerce.....	Hon. C. D. Howe
1948-49	Trade and Commerce.....	Hon. C. D. Howe
	Reconstruction & Supply.....	Hon. Robt. H. Winters
1949-50	Resources and Development.....	Hon. Robt. H. Winters
1950-51	Resources and Development.....	Hon. Robt. H. Winters
1951-52	Resources and Development.....	Hon. Robt. H. Winters
1952-53	Resources and Development.....	Hon. Robt. H. Winters
1953-54	Northern Affairs & National Resources.....	Hon. Jean Lesage
1954-55	Northern Affairs & National Resources.....	Hon. Jean Lesage
1955-56	Northern Affairs & National Resources.....	Hon. Jean Lesage
1956-57	Northern Affairs & National Resources.....	Hon. Jean Lesage
1957-58	Northern Affairs & National Resources.....	Hon. Douglas S. Harkness Hon. Alvin Hamilton
1958-59	Northern Affairs & National Resources.....	Hon. Alvin Hamilton

Mr. ROBERTSON: The second table is a table of advertising charges paid to each United States publication, magazine and newspaper in the last five years.

GENERAL ADVERTISING CAMPAIGN

AMOUNTS PAID TO U.S. MAGAZINES 1954-1958 (Inclusive)

Magazines	1954		1955		1956		1957		1958	
	Inserts	Cost \$								
Life.....	5	54,400.00	5	55,000.00	3	65,325.00	1	23,080.00	2	52,550.00
Saturday Evening Post.....	6	70,540.00	5	65,105.00	4	90,390.00	5	100,931.50	6	113,071.75
Holiday.....	5	26,605.00	5	26,822.00	10	42,327.20	6	35,385.60	6	44,869.20
Look.....	5	36,625.00	5	39,400.00	4	76,410.00	4	66,280.00	3	64,005.00
Colliers.....	5	38,920.00	5	49,560.00	—	—	—	—	—	—
Better Homes & Gardens.....	3	28,650.00	3	28,650.00	2	33,490.00	3	52,070.00	3	58,235.00
Time.....	4	24,500.00	4	25,880.00	4	27,680.00	4	28,820.00	4	31,740.00
American Magazine.....	4	32,230.00	4	31,900.00	4	43,840.00	—	—	—	—
National Geographic.....	5	42,500.00	5	42,500.00	9	55,300.00	6	49,200.00	6	61,720.00
House Beautiful.....	3	15,000.00	3	16,500.00	1	3,950.00	—	—	1	6,500.00
Ladies Home Journal.....	3	34,050.00	2	22,700.00	1	8,075.00	—	—	—	—
Mademoiselle.....	3	5,610.00	1	2,700.00	—	—	—	—	—	—
New Yorker.....	4	6,864.00	4	7,436.00	4	7,436.00	2	2,955.00	2	3,400.00
Atlantic.....	3	4,050.00	—	—	—	—	—	—	—	—
Harpers.....	3	3,240.00	—	—	—	—	—	—	—	—
House and Garden.....	3	4,425.00	3	6,300.00	1	3,150.00	—	—	—	—
Newsweek.....	4	12,580.00	4	13,700.00	4	13,700.00	4	14,940.00	4	16,840.00
Pathfinder.....	4	11,935.00	4	14,630.00	3	17,100.00	—	—	—	—
American Home.....	3	21,780.00	2	14,520.00	—	—	—	—	—	—
Esquire.....	3	7,650.00	2	5,100.00	1	5,190.00	3	20,672.00	2	14,800.00
Saturday Review.....	3	2,700.00	3	3,600.00	—	—	—	—	1	1,300.00
Social Spectator.....	4	870.00	4	2,435.00	4	870.00	4	870.00	4	980.00
Sunset.....	3	5,040.00	3	5,850.00	3	7,800.00	3	9,000.00	3	10,260.00
Town and Country.....	3	1,950.00	3	3,000.00	1	1,600.00	1	2,000.00	1	1,800.00
Redbook.....	3	17,355.00	3	17,355.00	2	12,480.00	2	14,700.00	2	15,960.00
Glamour.....	3	4,845.00	2	4,900.00	1	2,450.00	—	—	—	—
Vogue.....	3	4,845.00	—	—	—	—	—	—	—	—
Bride and Home.....	1	1,200.00	1	2,000.00	2	2,800.00	2	2,800.00	2	2,800.00
Coronet.....	—	—	1	5,000.00	—	—	—	—	1	6,930.00
Bride to Be.....	—	—	—	—	1	1,250.00	—	—	—	—
Cue.....	—	—	—	—	1	1,000.00	—	—	—	—
Readers Digest.....	—	—	—	—	—	—	2	63,800.00	2	69,850.00
Household.....	—	—	—	—	—	—	3	16,200.00	4	16,566.94
Brides.....	—	—	—	—	—	—	—	—	1	3,000.00
Travel Digest.....	—	—	—	—	—	—	—	—	1	759.00

GENERAL ADVERTISING CAMPAIGN

AMOUNTS PAID TO U.S. MAGAZINES 1954-1958 (Inclusive)

Magazines	1954		1955		1956		1957		1958	
	Inserts	Cost								
		\$		\$		\$		\$		\$
EDUCATIONAL										
Grade Teacher.....	333	1,500.00	3	1,500.00	3	2,400.00	3	2,550.00	3	2,700.00
Scholastic Teacher.....	3	1,320.00	3	1,425.00	3	1,950.00	3	1,950.00	3	2,250.00
Instructor.....	3	1,575.00	3	1,650.00	3	3,600.00	3	3,600.00	3	3,900.00
OUTDOOR										
Field and Stream.....	3	5,280.00	3	5,670.00	3	9,000.00	3	9,750.00	3	10,200.00
Hunting and Fishing.....	3	4,465.00	3	4,465.00	—	—	—	—	—	—
Outdoor Life.....	3	5,685.00	3	5,685.00	2	9,150.00	3	9,900.00	3	10,300.00
Sports Afield.....	3	5,670.00	3	5,670.00	3	9,000.00	3	9,750.00	3	9,750.00
American Legion.....	2	7,980.00	2	7,980.00	—	—	—	—	—	—
Sports Illustrated.....	1	3,150.00	3	14,400.00	3	10,490.00	4	15,630.00	3	10,260.00
Argosy.....	—	—	—	—	—	—	—	—	1	3,105.00
Fisherman.....	—	—	—	—	—	—	—	—	2	4,000.00
AUTOMOBILE CLUB,										
Highway Traveller.....	3	10,020.00	3	1,020.00	1	340.00	1	340.00	—	—
Keystone Motorist.....	1	105.00	1	105.00	1	105.00	1	105.00	1	116.20
Mich. Motor News.....	1	195.00	1	195.00	1	195.00	1	195.00	1	235.00
National Motorist.....	—	—	1	295.00	1	295.00	1	295.00	1	295.00
New York Motorist.....	1	195.20	1	193.20	1	193.20	1	193.20	1	188.50
Ohio Motorist.....	1	132.00	1	132.00	1	132.00	1	132.00	1	132.00
Oregon Motorist.....	1	50.00	1	50.00	1	50.00	1	50.00	1	50.00
Pitts. Automobilist.....	1	40.00	1	40.00	1	40.00	1	40.00	1	50.00
Sparks.....	1	140.00	1	140.00	1	140.00	1	140.00	—	—
Westways.....	1	196.00	1	196.00	1	196.00	1	196.00	1	225.00
N. East Tour BK.....	1	630.00	1	807.00	1	807.00	1	807.00	1	990.00
Western Tour BK.....	1	600.00	1	798.00	1	798.00	1	798.00	1	990.00
Motorland.....	—	—	—	—	—	—	—	—	1	325.00
TRADE										
Asta Travel News.....	2	426.00	2	426.00	2	426.00	2	226.00	—	—
Travel Agent.....	2	250.00	2	270.00	2	270.00	2	270.00	1	180.00
Travel Items.....	2	432.00	2	432.00	2	432.00	2	432.00	1	216.00
Travel Trade.....	2	400.00	2	400.00	2	400.00	2	400.00	1	220.00
Wash. Travel.....	—	—	1	125.00	—	—	—	—	—	—
Misc.										
Argonaut.....	3	945.00	—	—	1	350.00	—	—	—	—
Gimlet.....	2	2,040.50	2	2,040.50	2	2,340.00	2	2,456.00	1	1,394.00
Travel Am. Mag. Guide.....	1	1,000.00	—	—	—	—	—	—	—	—
This Week.....	—	—	1	7,868.08	1	7,736.80	—	—	—	—
Farm Journal.....	3	15,390.00	3	18,382.50	3	28,044.00	3	21,000.00	2	14,840.00
Successful Farming.....	3	8,100.00	3	9,375.00	3	12,000.00	—	—	—	—
Modern Bride.....	1	2,500.00	2	5,200.00	2	5,200.00	2	5,200.00	1	2,700.00
U.S. News and World Report.....	4	9,120.00	4	10,120.00	4	11,160.00	4	12,440.00	—	—

MONTANA.....	Billings Gazette.....	—	—	—	—	—	7	840.00	7	840.00	
	Great Falls Tribune.....	—	—	—	10	840.00	7	966.00	7	1,050.00	
NEW JERSEY.....	Newark News.....	14	3,171.84	14	2,888.64	10	2,244.00	7	2,310.00	7	2,340.80
	Newark Star Ledger.....	14	2,788.00	14	2,968.00	10	2,120.00	7	2,352.00	7	2,424.00
NEW YORK.....	New York Wall Street Journal.....	14	9,828.00	8	7,488.00	8	8,712.00	—	—	—	—
	Buffalo News.....	—	—	—	—	—	7	3,150.00	7	3,360.00	
	New York Herald Tribune.....	14	6,591.20	10	4,920.95	10	5,431.45	10	8,352.00	10	7,904.50
	New York Mirror.....	14	6,440.00	14	6,775.00	14	6,440.00	10	6,900.00	10	6,900.00
	New York News.....	14	15,848.00	14	15,848.00	14	16,352.00	10	17,100.00	10	17,100.00
	New York Post.....	14	6,720.00	14	6,720.00	14	7,000.00	8	5,880.00	7	5,880.00
	New York Times.....	14	8,970.00	14	9,261.63	14	9,832.48	10	10,600.80	10	10,600.80
	New York Parade.....	—	—	1	4,466.60	1	4,851.10	—	—	—	—
	New York World Telegram & Sun.....	14	6,455.76	14	6,384.72	10	4,626.48	—	—	10	7,380.00
	Rochester Democrat & Chronicle.....	—	—	—	—	—	—	7	2,016.00	7	2,016.00
	New York Journal American.....	14	6,440.00	14	6,440.00	14	6,380.00	10	7,500.00	—	—
	NORTH DAKOTA....	Syracuse Herald American.....	—	—	—	—	—	7	2,352.00	7	2,448.00
Fargo Forum.....		—	—	—	—	10	1,000.00	7	1,050.00	7	1,098.00
Grand Forks Herald.....		—	—	—	—	—	7	840.00	7	840.00	
OHIO.....	Dayton News.....	10	2,000.00	10	2,000.00	—	—	—	—	—	—
	Akron Beacon Journal.....	10	1,400.00	14	1,960.00	—	—	7	1,680.00	7	1,680.00
	Cincinnati Enquirer.....	14	2,996.00	14	3,024.00	10	2,320.00	7	2,352.00	7	2,352.00
	Cincinnati Post.....	14	2,072.00	10	1,480.00	—	—	7	1,680.00	7	1,680.00
	Cleveland Plain Dealer.....	14	4,032.00	14	4,480.00	10	3,480.00	7	3,948.00	7	3,948.00
	Cincinnati Times Star.....	14	2,128.00	—	—	10	1,600.00	—	—	—	—
	Cleveland Press.....	—	—	14	4,200.00	10	3,200.00	7	3,570.00	7	3,570.00
	Columbus Despatch.....	10	2,000.00	14	2,912.00	10	2,160.00	7	2,352.00	7	2,352.00
	Toledo Blade.....	10	1,480.00	14	2,384.00	—	—	7	1,806.00	7	1,806.00
	OREGON.....	Portland Oregonian.....	14	3,776.00	14	3,920.00	14	4,076.00	10	4,380.00	10
Portland Oregon Journal.....		14	3,092.00	14	3,248.00	14	3,404.02	10	3,660.00	10	3,780.00
PENNSYLVANIA.....	Philadelphia Bulletin.....	14	4,320.00	14	4,320.00	14	4,608.00	10	5,040.00	10	5,193.50
	Philadelphia Enquirer.....	14	6,008.00	14	6,008.00	14	6,296.00	10	7,020.00	10	7,304.50
	Pittsburgh Post Gazette.....	14	4,200.00	14	4,200.00	10	3,180.00	7	3,339.00	7	3,570.00
	Pittsburgh Press.....	14	5,320.00	14	5,600.00	14	5,880.00	10	6,300.00	10	6,300.00
	Pittsburgh Sun Telegram.....	14	5,040.00	14	5,040.00	14	5,040.00	10	5,400.00	10	5,580.00
	Harrisburg News.....	—	—	—	—	—	—	7	1,386.00	—	—
	Scranton Times.....	—	—	—	—	—	—	7	1,218.00	7	1,218.00
SOUTH DAKOTA....	Wilkes Barre Record & Tele. News.....	—	—	—	—	—	—	7	1,596.00	7	1,596.00
	Sioux Falls Argos Leader.....	—	—	—	—	—	7	1,092.00	7	1,092.00	
TEXAS.....	Dallas News.....	10	1,960.00	—	—	—	—	—	—	—	—
	Dallas Times Herald.....	10	1,760.00	—	—	—	—	—	—	—	—
	Houston Post.....	10	2,080.00	—	—	—	—	—	—	—	—
WASHINGTON.....	Seattle Post Intelligencer.....	14	2,860.00	14	2,968.00	14	2,968.00	10	3,528.00	10	3,720.00
	Washington News.....	—	—	14	2,800.00	10	2,200.00	—	—	—	—
	Seattle Times.....	14	2,912.00	14	3,136.00	14	3,280.00	10	3,600.00	10	3,840.00
	Spokane Spokesman Review.....	—	—	—	—	—	—	7	2,268.00	7	2,268.00
WISCONSIN.....	Madison Wisconsin State Journal.....	—	—	—	—	—	—	7	1,386.00	7	1,476.00
	Milwaukee Journal.....	14	3,920.00	14	3,920.00	14	4,200.00	10	4,500.00	10	5,100.00
SPECIAL.....	Financial Post.....	—	—	—	—	—	—	—	1	560.00	

ATLANTIC PROVINCES ADVERTISING CAMPAIGN

AMOUNTS PAID TO U.S. NEWSPAPERS—1957-1958

State	Newspapers	1957		1958	
		Inserts	Cost	Inserts	Cost
		\$		\$	
CONNECTICUT....	Bridgeport Post Telegram.....	5	725.00	3	285.00
	Hartford Courant.....	5	825.00	3	505.00
	Hartford Times.....	5	725.00	3	465.00
DIST OF COL....	Washington Post & Times Herald.....	6	4,185.00	—	—
	Washington Star.....	6	3,320.00	—	—
ILLINOIS.....	Chicago Herald American.....	6	4,275.00	5	3,325.00
	Chicago Sun Times.....	6	4,298.75	5	3,325.00
	Chicago Tribune.....	6	7,559.40	9	10,725.00
	Springfield Sunday Journal Register.....	5	750.00	—	—
MAINE.....	Bangor News.....	5	750.00	—	—
MARYLAND.....	Baltimore Sun American.....	9	4,111.24	—	—
	Baltimore Sun.....	9	4,931.25	—	—
MASSACHUSETTS..	Boston Christian Science Monitor.....	3	1,630.00	3	1,050.00*
	Boston Globe.....	9	5,200.00	9	5,525.00
	Boston Herald Travel.....	9	3,900.00	10	4,350.00
	Boston Sun Advertiser.....	9	4,550.00	9	4,550.00
	World Telegram Gazette.....	5	925.00	3	615.00
MICHIGAN.....	Detroit Free Press.....	6	5,450.00	3	1,875.00
	Detroit News.....	6	5,400.00	—	—
	Detroit Times.....	6	4,950.00	—	—
NEW HAMPSHIRE	Manchester Union Leader.....	5	600.00	—	—
NEW JERSEY....	Newark News.....	9	3,609.16	9	3,515.00
	Newark Star Ledger.....	9	3,640.00	—	—
NEW YORK.....	Albany Times-Union.....	5	925.00	—	—
	Buffalo Courier Express.....	9	5,000.00	5	2,800.00
	New York Herald Tribune.....	9	8,573.00	9	8,450.00
	New York Mirror.....	9	7,250.00	9	7,475.00
	New York News.....	9	18,525.00	9	18,525.00
	New York Times.....	9	11,576.60	9	11,375.00
	New York World Telegram & Sun.....	2	1,991.60	3	1,845.00
	Rochester Democrat & Chronicle.....	5	1,200.00	—	—
OHIO.....	Syracuse Herald-American.....	5	1,400.00	—	—
	Cincinnati Enquirer.....	6	2,520.00	3	840.00
	Cincinnati Post.....	6	1,800.00	—	—
	Cleveland Plain Dealer.....	6	4,237.52	5	3,290.00
	Cleveland Press.....	6	3,825.00	—	—
OREGON.....	Columbus Dispatch.....	6	2,520.00	3	840.00
PENNSYLVANIA..	Portland Press Herald Evening Express....	5	750.00	—	—
	Philadelphia Bulletin.....	9	5,534.50	9	5,525.00
VERMONT.....	Philadelphia Enquirer.....	9	7,293.50	9	7,800.00
	Pittsburgh Press.....	9	6,825.00	5	3,675.00
	Pittsburgh Sun Telegram.....	9	5,850.00	—	—
RHODE ISLAND...	Burlington Free Press.....	5	425.00	—	—
	Rutland Herald.....	5	350.00	—	—
	Providence Journal.....	5	1,300.00	3	825.00

ATLANTIC PROVINCES ADVERTISING CAMPAIGN

AMOUNTS PAID TO U.S. MAGAZINES 1957-1958

Magazines	1957		1958		
	Inserts	Cost	Inserts	Cost	
		\$		\$	
Holiday.....	2	12,676.80	3	22,156.80	
National Geographic.....	2	16,000.00	2	19,205.00	
Saturday Evening Post.....	2	29,498.50	3	36,788.25	
New Yorker.....	2	2,280.00	2	2,600.00	
Life.....	2	24,950.00	2	28,400.00	
Look.....	2	18,550.00	3	35,820.00	
Brides Magazine.....	—	—	1	1,400.00	
Red Book.....	—	—	1	8,360.00	
Sports Illustrated.....	—	—	1	1,200.00	
Argosy.....	—	—	1	1,500.00	

Mr. ROBERTSON: The third table is a summary of Canadian travel film distribution in the United States from 1953 to 1957.

SUMMARY OF CANADIAN TRAVEL FILM DISTRIBUTION IN THE U.S.
1953 to 1957

12 Month Periods	Showings	Attendance	No. of Titles	No. of Prints
Ending December 1957.....	68,286	4,013,861	161	5,164
“ December 1956.....	68,401	4,136,627	150	4,788
“ December 1955.....	65,545	3,900,441	138	4,359
“ December 1954.....	57,007	3,473,964	121	3,700 (est.)
“ December 1953.....	42,737	3,040,030	125	3,144

CANADIAN TRAVEL FILMS ON TELEVISION

	Telecasts	No. of Titles
Ending December 1957.....	1,826 (232 colour)	56
“ December 1956.....	1,524 (140 colour)	42
“ December 1955.....	2,124 (117 colour)	32
“ December 1954.....	509	49
“ December 1953.....	379	49

Mr. ROBERTSON: The fourth question that was asked had to do with the number of talks given in the United States by the staff of the Canadian travel bureau. I am told that it is estimated that since 1950 an average of 25 talks or addresses per year have been made to United States audiences including three to five addresses each year by the director to major audiences and meetings in the United States.

The fifth item is a table showing the estimated number of tourists and expenditures in Mexico, Florida and California. It has been only possible to get authentic figures for the years 1950 to 1957.

ESTIMATES OF TOURISTS AND EXPENDITURES

MEXICO—FLORIDA—CALIFORNIA 1950-1957

Year	MEXICO (1)		FLORIDA (2)		CALIFORNIA (3)	
	US Tourists	Expenditure Million \$	Tourists (Million)	Expenditure Million \$	Tourists (Million)	Expenditure Million \$
1957	419,000	305	7.5	1,250	—	—
1956	499,000	279	7.618	1,250	5.638	900
1955	549,000	260	6.268	1,210	5.25	800
1954	427,000	233	4.	1,100	5.1	725
1953	386,000	226	3.	1,000	5.15	750
1952	489,674	209	2.	950	4.95	700
1951	467,293	194	1.5	900	4.1	660
1950	395,703	172	1.	700	3.55	650

(1) Tourist figures from official Mexico Tourist Bureau. Expenditure estimate by U.S. Dept. of Commerce.

(2) Estimates from Florida State Development Commission, Tallahassee, Fla.

(3) Estimates compiled by Curtis Publishing Co. from State and Municipal sources, including All Year Club of Southern California, etc.

Mr. ROBERTSON: The sixth item is a report on the tourism in Switzerland including a copy of a study published by the organization for European economic cooperation, 1955 and 1956.

REPORT ON TOURISM IN SWITZERLAND

Published by

The Organization for European Economic Co-Operation
1955

TOURIST TRAFFIC

The number of nights spent by foreign tourists in Switzerland rose from 10,656,398 in 1953 to 11,361,181 in 1954, i.e. an increase of 6.6 per cent. The proportion of tourists from the O.E.E.C. countries was 83.6 per cent with 9,496,090 nights. The largest increase in the number of nights was recorded by Germany (18.1 per cent), France (9.6 per cent), Ireland (7.1 per cent) and the United Kingdom (6.5 per cent).

On the other hand, nights spent by United States tourists fell from 934,537 in 1953 to 932,298 in 1954, i.e. a decline of 0.2 per cent, whereas the number of nights spent by Canadian tourists amounted to 53,608, i.e. an increase of 22.1 per cent.

The average length of stay of foreign tourists in hotels and pensions remained stationary being estimated at 2.95 days compared with 2.94 days in 1953.

Out of 100 nights spent by foreign tourists, 46.5 per cent came from neighbouring countries, 38.8 per cent from other European countries and 14.7 per cent from overseas countries.

During the same period, travel by Swiss tourists fell by 3.3 per cent with 11,366,130 nights. This decline in home tourism slightly increased as it was only 1.9 per cent between 1952 and 1953.

These figures show that the volume of national tourist traffic was exactly equal to the flow of tourists from abroad.

In 1954 total tourist travel in Switzerland amounted to 22,727,311 nights, i.e. 5,940,475 arrivals. Compared with 1953 the increase in the number of nights was 1.4 per cent whereas the increase in the number of arrivals was 2.4 per cent.

TOURIST RECEIPTS AND EXPENDITURE

Although Switzerland recorded only a very slight increase in the volume of her tourist traffic, her balance of tourist payments still showed a substantial surplus with \$119 million, revenue amounting to \$204 million and expenditure to only \$85 million. This surplus covered more than the deficit in the Swiss balance of trade which amounted to \$74.7 million and represented 36.8 per cent of the balance of payments surplus on invisible transactions as a whole.

TOURIST ACCOMMODATION AVAILABLE

In the hotel industry, the number of available beds in Switzerland was 169,027, i.e. 3,763 more than in 1953. To this figure should be added the 12,271 beds in sanatoria and cure establishments. After a long period in which hotel capacity declined, the increase in the number of beds in 1954 indicated a recovery in the hotel industry. New hotels are mainly in towns where tourism is particularly active. This is also the case as regards supplementary hotel accommodation (chalets, apartments, camping) which has developed considerably in certain resorts.

MEASURES TAKEN TO PROMOTE INTERNATIONAL TOURISM

Visas and passports

For some time past, nationals of other Member countries have not required a visa for travel to Switzerland and Swiss nationals are also allowed to travel to these countries without a visa. The Federal Government has also concluded agreements with Belgium, Luxembourg, France and Monaco to replace passports by an identity card.

Customs facilities

Switzerland will shortly extend some of the benefits of the Customs regulations in favour of foreign tourists, under the O.E.E.C. Decisions, to her own nationals.

Publicity

The "Office Central Suisse du Tourisme" has 18 offices or agencies abroad.

NIGHTS¹ SPENT BY FOREIGN TOURISTS IN 1954 COMPARED WITH 1953

Country of Residence	1954	Percentage Increase Decrease Compared with 1953	
Germany.....	2,428,765	+18.1	
Austria.....	166,837	+2.6	
Belgium.....	862,730	-12.3	
Denmark.....	141,097	-3.8	
France.....	1,969,233	+9.6	
Greece.....	64,938	-2.2	
Ireland.....	(included in United Kingdom)		
Iceland.....	2	-	
Italy.....	720,184	+7.2	
Luxembourg.....	141,553	-11.3	
Norway.....	20,350	+6.1	
Netherlands.....	684,741	+0.8	
Portugal.....	26,870	-5.9	
United Kingdom.....	2,078,299	+6.5	
Sweden.....	146,659	-2.2	
Turkey.....	43,834	-3.3	
Yugoslavia.....	22,988	+18.3	
Other European countries.....	176,847	+11.7	
United States.....	932,298	-0.2	
Canada.....	53,608	+22.1	
Latin America.....	201,855	+8.9	
Other countries.....	477,495	+20.3	
Total.....	11,361,181	+6.6	

¹ Nights recorded in hotels, boarding-houses and sanatoria.

² Included in "Other European countries".

REPORT ON TOURISM IN SWITZERLAND

Published by
The Organization for European Economic Co-Operation
November, 1957

NUMBER OF FOREIGN TOURIST ARRIVALS IN 1956 (*)

(by month of arrival)

Month	Total No. of arrivals	% increase/decrease as compared with 1955	Arrivals from the United States	% increase/decrease as compared with 1955	Arrivals from Canada	% increase/decrease as compared with 1955
January.....	111,704	+11.4	11,307	+26.0	657	+21.1
February.....	116,333	-5.3	11,807	+4.0	719	+23.5
March.....	189,538	+38.4	17,047	+23.8	1,320	+53.3
April.....	225,811	-9.6	29,360	+17.8	1,559	+3.6
May.....	319,670	+1.2	47,944	+8.4	2,394	+4.8
June.....	432,245	+3.4	56,871	+6.1	2,972	+24.7
July.....	691,224	-0.1	91,435	+1.5	4,378	-5.7
August.....	865,274	+2.4	81,310	-2.5	3,912	+3.7
September.....	460,354	+5.5	48,983	-3.1	2,512	+18.8
October.....	196,045	+4.2	26,876	-10.9	1,436	+16.4
November.....	98,066	+7.6	12,938	-17.9	742	+35.1
December.....	124,813	+12.9	11,101	-19.0	742	+27.7
TOTAL.....	3,831,077	+3.4	446,979	+1.4	23,343	+10.6

(*) The figures in this Table represent the number of arrivals at hotels, boarding houses sanatoria and treatment establishments, so that the same visitor is counted in the Table as often as he changes his establishment in Switzerland.

NUMBER OF FOREIGN TOURIST ARRIVALS IN 1956 (*)

(by country)

Country of residence	1956	% increase/decrease as compared with 1955
Austria	87,732	+ 6.7
Belgium	204,683	- 2.8
Denmark and Iceland	45,892	-15.4
France	666,743	+ 5.9
Germany	947,503	+ 4.5
Greece	13,068	+18.5
Ireland (see United Kingdom)	—	—
Italy	339,170	+ 7.6
Luxembourg	20,232	- 4.7
Netherlands	213,025	+ 6.4
Norway	8,329	- 3.7
Portugal	9,558	+ 5.4
Sweden	55,566	-13.2
Turkey	11,773	+21.4
United Kingdom and Ireland	487,095	- 0.6
Total O.E.E.C. countries	3,110,369	+ 3.2
Yugoslavia	5,010	+ 1.0
Other European countries	76,961	+20.2
(of which Spain)	(49,543)	(+16.6)
United States	446,979	+ 1.4
Canada	23,343	+10.6
Latin America	50,641	- 4.1
Other countries	117,774	+ 6.9
TOTAL	3,831,077	+ 3.4

(a) The figures in this Table represent the number of arrivals at hotels, boarding houses, sanatoria and treatment establishments, so that the same visitor is counted in the Table as often as he changes his establishment in Switzerland.

NUMBER OF NIGHTS SPENT BY FOREIGN TOURISTS IN 1956(*)

(by month of arrival)

Month	Total No. of Nights	% increase/ decrease as compared with 1955	Nights spent by tourists from the United States	% increase/ decrease as compared with 1955	Nights spent by tourists from Canada	% increase/ decrease as compared with 1955
January	625,486	+ 3.8	40,336	+17.6	2,435	-21.8
February	729,528	- 1.8	45,719	+13.1	3,186	+ 4.6
March	773,546	+17.0	50,471	+16.1	4,278	+30.3
April	696,751	- 5.8	66,336	+18.4	3,843	- 3.0
May	850,759	+ 1.3	102,742	+ 4.9	6,532	+ 5.6
June	1,276,775	+ 2.6	125,969	+ 5.5	7,925	+18.3
July	2,042,586	- 0.2	215,217	+ 0.3	10,427	-10.7
August	2,764,213	+ 4.0	205,363	- 2.8	9,495	- 5.5
September	1,239,984	+ 4.6	111,680	- 0.8	5,834	- 3.4
October	540,747	- 0.2	64,123	-18.3	4,153	+13.5
November	351,135	+ 5.8	37,519	-15.6	2,544	+35.7
December	628,104	+22.8	42,177	+ 2.2	2,677	+36.8
TOTAL	12,519,614	+ 3.4	1,107,652	+ 1.2	63,329	+ 2.9

(*) Nights recorded at hotels, boarding-houses, sanatoria and treatment establishments.

NUMBER OF NIGHTS SPENT BY FOREIGN TOURISTS IN 1956 (*)

(by country)

Country of residence	1956	% increase/decrease as compared with 1955
Austria.....	185,191	+ 6.4
Belgium.....	843,048	- 2.9
Denmark and Iceland.....	112,417	-13.1
France.....	2,245,814	+ 3.0
Germany.....	2,855,194	+10.4
Greece.....	69,956	+16.1
Ireland (see United Kingdom).....	—	—
Italy.....	773,206	+ 6.2
Luxembourg.....	128,009	- 4.4
Netherlands.....	800,149	+ 7.4
Norway.....	20,057	- 1.3
Portugal.....	26,997	- 2.1
Sweden.....	153,288	- 7.4
Turkey.....	46,399	+14.8
United Kingdom and Ireland.....	2,108,384	- 4.0
Total O.E.E.C. countries.....	10,368,109	+ 3.1
Yugoslavia.....	16,742	-10.7
Other European countries (of which Spain).....	268,768 (125,351)	+42.5 (+17.2)
United States.....	1,107,652	+ 1.2
Canada.....	63,329	+ 2.9
Latin America.....	192,062	- 2.5
Other countries.....	502,952	+ 2.7
TOTAL.....	12,519,614	+ 3.4

(*) Nights recorded at hotels, boarding-houses, sanatoria and treatment establishments.

Mr. DUMAS: Before we adjourn, Mr. Chairman, I wonder if I would be permitted to make a short remark, and following that to make a request to Mr. Robertson.

There is no question but that we do have a few tables in this annual report of the Department of Northern Affairs and National Resources for the years 1956-57. This report was printed last summer and made available to members this spring. Of course, it covers the operations for the past. We are now interested in the progress being made. I am not blaming anyone for it, but I think it would be better if members of this committee had this report earlier in the year. I was wondering if it would be wise to perhaps print a preliminary report. I just make this as a suggestion.

Would it be possible for Mr. Robertson or Mr. Harrison to secure those tables on page 80 of the 1956-57 report and present them to the committee on Friday morning? I am speaking of those tables on progress in forest inventories, reforestation under the forestry agreements, etc.

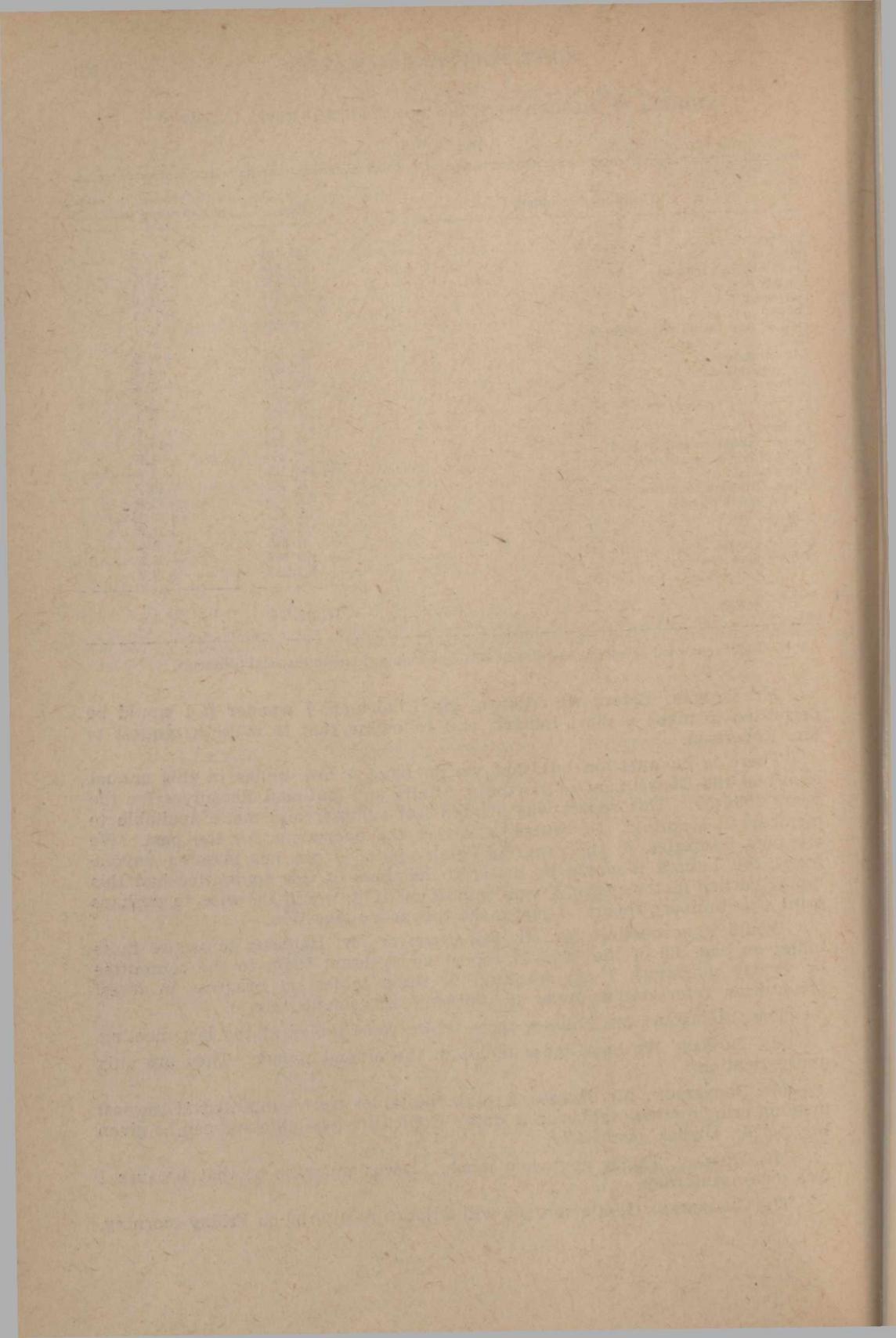
The CHAIRMAN: Mr. Dumas, those tables were tabled at the last meeting.

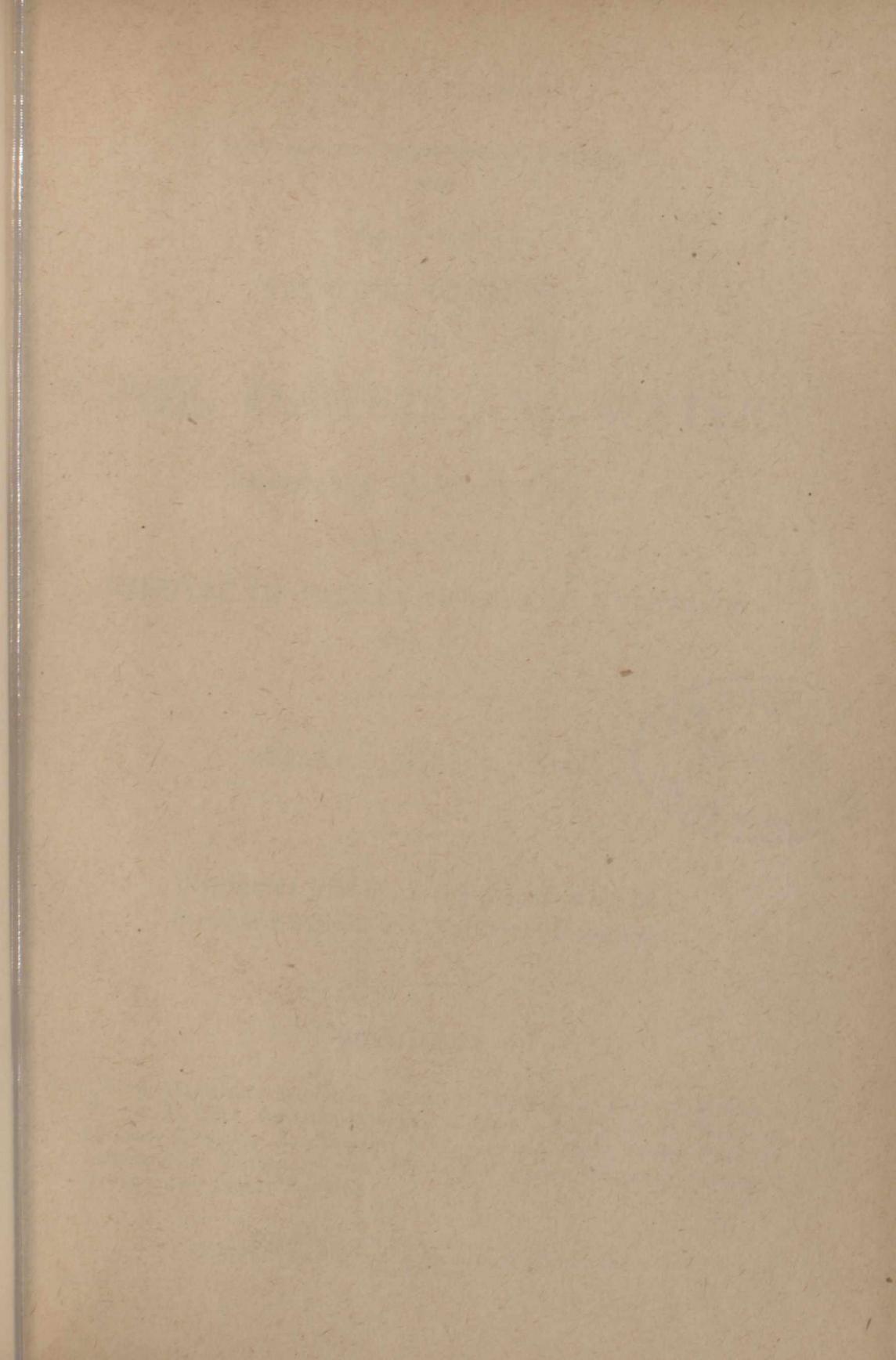
Mr. DUMAS: We have these tables in the annual report. They are only approximations.

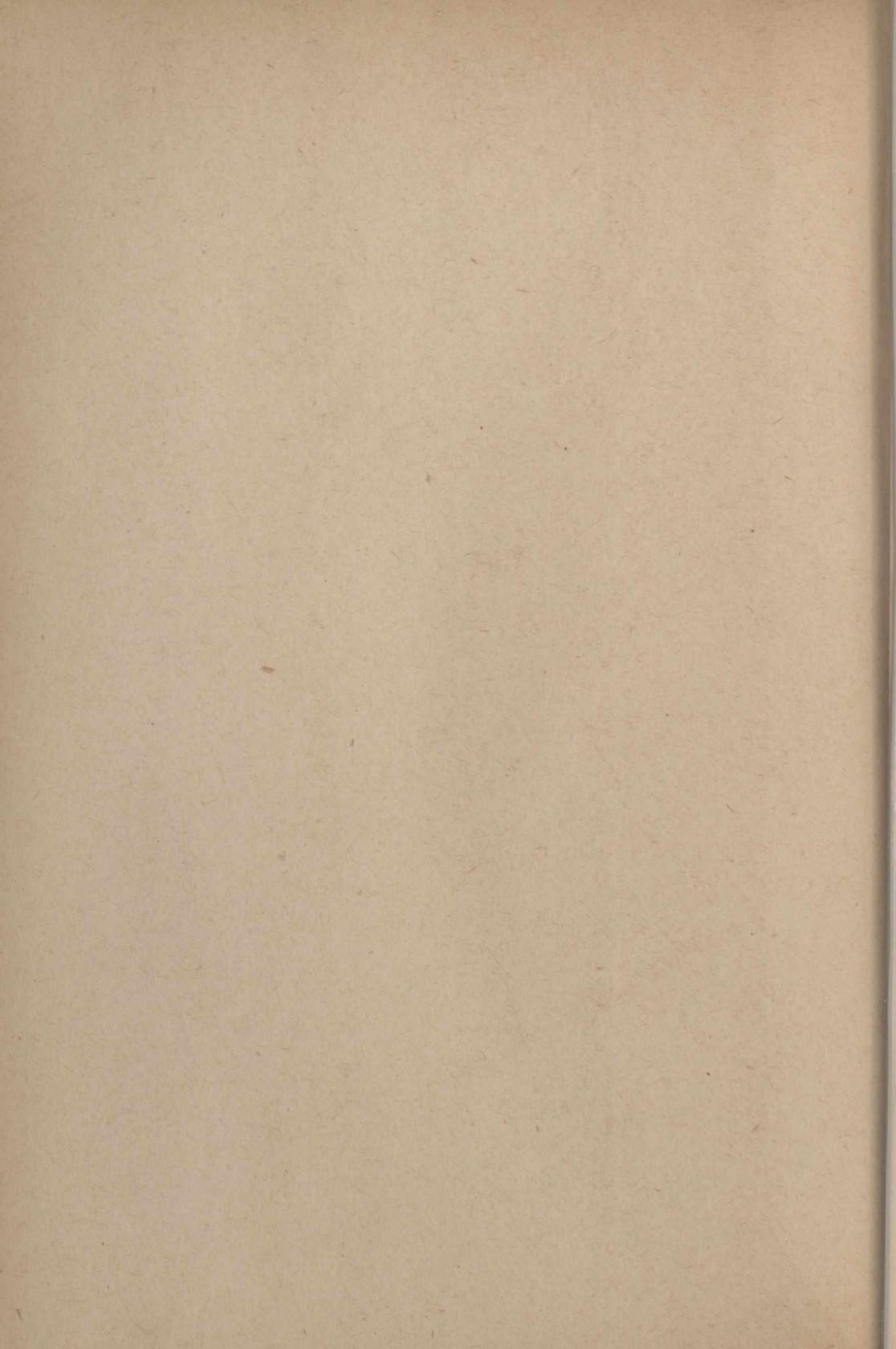
Mr. ROBERTSON: Mr. Dumas, I think the tables were submitted at the last meeting bringing these tables up to date. Copies are available and can be given to you, Mr. Dumas, personally.

Mr. DUMAS: Thank you very much. I was unaware of that because I was away yesterday.

The CHAIRMAN: Gentlemen, we will adjourn until 9:30 on Friday morning.







HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 12

FRIDAY, JULY 11, 1958



Estimates 1958-59 of the Department of
Northern Affairs and National Resources

WITNESSES:

Hon. Alvin Hamilton, Minister; Mr. R. G. Robertson, Deputy Minister;
Mr. E. A. Côté, Assistant Deputy Minister; Mr. J. D. B. Harrison,
Director, Forestry Branch; Mr. J. H. Jenkins, Chief, Forest Products
Laboratories Division; and Mr. Alan Field, Director, Canadian
Government Travel Bureau.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-President: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Laflèche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

FRIDAY, July 11, 1958

(14)

The Standing Committee on Mines, Forests and Waters met at 9.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baldwin, Baskin, Cadieu, Doucett, Fisher, Fleming (*Okanagan-Revelstoke*), Gundlock, Hardie, Kindt, Korchinski, Leduc, Martel, Martineau, McLennan, Muir (*Cape Breton North and Victoria*), Murhpy, Nielsen, Payne, Pugh, Roberge, Stearns, Villeneuve and Woolliams—24.

In attendance from the Department of Northern Affairs and National Resources: The Honourable Alvin Hamilton, Minister; Messrs. R. G. Robertson, Deputy Minister; E. A. Côté, Assistant Deputy Minister; F. A. G. Carter, Chief Administrative Officer; and R. A. Faibish, Private Secretary to the Minister: *of the Forestry Branch:* Messrs. J. D. B. Harrison, Director; J. H. Jenkins, Chief, Forest Products Laboratories Division; H. W. Beall, Chief, Forest Operations Division; V. H. Phelps, Forestry Officer, Forest Research Division; and S. MacCallum, Accountant: *of the Canadian Government Travel Bureau:* Mr. Alan Field, Director: *and of the National Museum of Canada:* Messrs. A. W. F. Banfield, Chief, Zoology Section, Natural History Branch; and G. E. Carron, Administrative Officer.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

The Committee reverted to Items 290 to 301 of the Main Estimates, concerning the Forestry Branch, and approved them subject only to the hearing of Mr. Ian Mahood, an expert on forestry from British Columbia, on Tuesday next, July 15th, he having agreed to appear before the Committee without expense to Parliament.

Accordingly, the said items concerning the Forestry Branch were allowed to stand.

Item 302 of the Main Estimates and Item 587 of the Supplementary Estimates, concerning the National Museum of Canada, were called, considered and approved.

The Committee reverted to Item 303 of the Main Estimates and Item 588 of the Supplementary Estimates, concerning the Canadian Government Travel Bureau. The said items were further considered and were approved.

Item 508 of the Main Estimates, under Loans, Investments and Advances, was called, considered and approved.

The Committee agreed that on Monday next, July 14th, it would commence its consideration of the Estimates of the Department of Mines and Technical Surveys, and on Tuesday next, July 15th, revert to those of the Forestry Branch of the Department of Northern Affairs and National Resources.

At 10.55 o'clock a.m. the Committee adjourned until 10.30 o'clock a.m. on Monday, July 14, 1958.

Eric H. Jones,
Clerk of the Committee.

LETTERS OF P. BOGNER

1892

[Faint, illegible text, likely bleed-through from the reverse side of the page]

1892

EVIDENCE

FRIDAY, July 11, 1958.
9.30 a.m.

The CHAIRMAN: Gentlemen, we have a quorum. We will revert to items 290 to 301 concerning the Forestry Branch. They were held over from the last meeting at the request of Mr. Dumas.

FORESTRY BRANCH

Main Estimates	
Item 290. Branch Administration	\$ 139,678
Forest Research Division—	
Item 291. Operation and Maintenance	\$1,328,886
Item 292. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 164,283
Forestry Operations Division—	
Item 293. Administration, Operation and Maintenance	\$ 302,780
Item 294. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 19,230
Item 295. To provide for contributions to the Provinces for assistance in forest inventory, reforestation and forest fire protection in accordance with agreements that have been or may be entered into by Canada and the Provinces	\$1,650,000
Item 296. To provide for contributions to the Provinces pursuant to agreements entered into or to be entered into, with the approval of the Governor in Council, by Canada with the Provinces, of amounts equal to one-half of the amounts confirmed by the Provinces as having been spent by them in establishing forest access roads and trails for the attainment of adequate fire protection as well as other aspects of forest management	\$1,000,000
Item 297. To provide for a contribution to the Province of New Brunswick for assistance in a program designed to combat the spruce budworm infestation, in accordance with an agreement entered into by Canada and the Province....	\$ 600,000
Forest Products Laboratories Division—	
Item 298. Operation and Maintenance	\$ 750,299
Item 299. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 259,260
Item 300. Grant to Canadian Forestry Association	\$ 20,000
Item 301. Eastern Rockies Forest Conservation Board—Remuneration and Expenses of the Federal member of the Board	\$ 5,575
	\$6,239,991

Will the clerk call Mr. Dumas to see if he is here? I have taken the responsibility, at the request of several members, to call another witness from British Columbia, Mr. Ian Mahood.

Mr. McQuillan, who gave evidence the other day, suggested that Mr. Mahood could make a great contribution to this committee if we called him. Accordingly he is coming here; he will come at his own expense, and at no cost to parliament.

Is Mr. Dumas here, Mr. Leduc?

Mr. LEDUC: I do not believe he is here, Mr. Chairman.

The CHAIRMAN: We will carry on, but we shall have to leave these items open, because Mr. Mahood will be here on Tuesday morning for our 9 o'clock meeting.

Are there any other questions you would like to ask concerning the Forestry Branch?

Mr. NIELSEN: I have just one question: do all the forest areas in the Yukon come within the normal protection of the forestry services?

Mr. J. D. B. HARRISON (*Director, Forestry Branch, Department of Northern Affairs and National Resources*): Not of the forestry branch. The administration of the forests in the Yukon along with the resources are a responsibility of the Northern Administration and Lands Branch. However the Forestry Branch has been asked to give technical advice.

Mr. R. G. ROBERTSON (*Deputy Minister of Northern Affairs and National Resources*): Perhaps I should explain how the administrative arrangement works.

For the effectiveness of administration both in the Yukon and in the Northwest Territory, what has been done is to put the actual operations under the control of the Northern Administration and Lands Branch. So in the case of the Yukon, it is handled actually through the Commissioner of the Yukon who also wears another hat, that of a federal civil servant.

The Forestry Branch gives scientific and technical advice on the basis of which the administration of the forestry work is carried out. But it is actually administered and operated by the Northern Administration and Lands Branch through the appropriate people in the Yukon in the one case, and through the appropriate people in the Northwest Territories in the other case.

Mr. NIELSEN: I am interested in having all forest areas in the Yukon brought under protection. Is there any way by which this can be achieved?

Mr. ROBERTSON: I think they are all under the administrative responsibility of the Northern Administration and Lands Branch. I take it that what you have in mind is that perhaps more provisions ought to be made by promoting this work in certain areas of the Yukon. If that is what you have in mind, I might say it is a point which is to be considered both in the Yukon and in the Northwest Territories.

Mr. NIELSEN: Thank you. That answers my question.

Mr. STEARNS: Has item 300 been dealt with, Mr. Chairman?

The CHAIRMAN: No. We are still on all items of the Forestry Branch. We do not separate them in any one branch of the department.

Mr. STEARNS: You have not come to item 300 yet?

The CHAIRMAN: What we do is this. At the request of the minister—and I think it has made it very successful for our committee—all items under the Forestry Branch or any other branch, are discussed together, not separately. So you may proceed on any one item.

Mr. STEARNS: I am familiar with the Canadian Forestry Association and the Quebec Forestry Association, but are there any other provincial forestry associations in Canada?

Mr. HARRISON: There are provincial associations which are more or less branches of the Canadian Forestry Association. They have a very considerable measure—as a matter of fact, the relationship between these bodies and the parent body in Montreal is now under active discussion. There is a relationship, but I cannot tell you what it will be exactly in the future, because it is now under discussion.

British Columbia, one of the prairie provinces, Ontario, and New Brunswick are the ones which come to mind. The Quebec Forestry Association occupies a rather special position of its own. There is also an affiliation of sorts.

Mr. STEARNS: I am very happy to see that you have increased the grant from \$10,000 to \$20,000 to the Canadian Forestry Association. They perform work which should help you very much.

Hon. ALVIN HAMILTON (*Minister of Northern Affairs and National Resources*): Yes, I think it is one of the happier things that in this particular case we were able to double their grant. It was done mostly in appreciation of the fact that they are doing work which is very necessary in Canada. I refer to the tree farm program which they have started and on which they are working.

The association, as you know, should not be too dependant on the government.

Their grants can never become very large. But we did want to show our appreciation of the very fine program they are working on, so the grant to the Canadian Forestry Association has been doubled.

Mr. FISHER: I would like to address a question to Mr. Harrison by way of a preliminary statement.

I spent a few hours going through the directorate of current research of the Canadian Pulp and Paper Association Wood-lot Section, and I found that there were only a few silviculture experiments listed which are getting any cooperation from the Forestry Branch.

I am sure from your publications that you have many more experiments going on with respect to cutting and silviculture which, might I say, would be germane to the purpose of the directorate.

Has any consideration been given by your research people to integrating these experiments with the directorate itself?

Mr. HARRISON: Yes. There is very close cooperation. In the past it has been done largely through the Wood-lot Section of the C.P.P.A.

The research work has been taken over now by the Wood-lot Department of the Pulp and Paper Research Institute of Canada.

The directorate to which you refer was a matter of discussion over a number of years.

From the record of research work which we carried out, and which appears in our annual report under the heading of Active Research Projects and which might be supplemented by what was being done now by the P.P.R.I.C., anybody who wanted to know about it could get a very comprehensive view of what was going on.

I do not know just what particular line of activity you spotted in this very extensive directorate, but there is a great deal of cooperation with the companies in connection with practical experiments; and then, of course, there is supplementary work which the Forestry Branch carries out in areas of its own forests; experimental silviculture is only part of our research program.

Mr. FISHER: I was amazed at so many different experiments with different types of cutting in order to encourage good regeneration; yet there appears to be a dearth of published reports. One might get the impression—and this may be wrong—but one might get the impression in surveying it that there are 200 odd experiments in silviculture going on, and that these are going on in separate vacuums, and there does not seem to be any relationship between them.

I wondered if your branch was especially interested in them.

Mr. HARRISON: Yes, we are interested in all these things. Experiments have been carried out by company personnel from time to time, and there have been "ad hoc" experiments carried out by forestry officials, who are not research specialists, when it seemed to be a good idea to do something at the time; but there has been a more serious approach to research by the P.P.R.I.C. which is being asked by the industry to make efforts to assume a coordinating position in the matter.

And they, in turn, work with us. We have had a great many talks with the companies also, so that I expect in the next two or three years the pattern will be a good deal more coherent than it is now.

Mr. FISHER: In Ontario it is done by the Research Division of the Department of Mines and Forests, which is very much concerned with what the adequate stock shall be to implement it. Have you any specific work going on on this question of adequate stocking?

Mr. HARRISON: Yes. We have done a great deal in the way of the regeneration surveys to find out how these things may be carried out, and to find a proper way to carry them out. The problem is more complicated than it looks.

As to what we may expect, the decision is up to the province to decide upon what the province will do. We have done a great deal of work in that respect. There has been a great deal of discussion both with the government of Ontario and with the paper companies and larger industrial companies, because they are very interested in this question.

Mr. FISHER: Do you feel that in silviculture we are close to any sort of break-through stage where we will receive something definitive in the way of conclusions on such matters as stocking?

Mr. HARRISON: I am not sure about a spectacular break-through. I can say with confidence that a great deal of progress and a great deal of knowledge has been gained.

The application of silvicultural practices for any given purpose is very complex because of the variations in the forest type in which you are working in the sense of a covering type, and the variations as between sizes; the combination of soil geology, slope, weather and the rest of it.

Satisfactory procedures will have to be worked out for the various conditions. Sometimes very small changes in the conditions will make a practice satisfactory in one place but unsatisfactory in another. It is a matter of gradual progress.

Of course that rate of progress is influenced also by economic conditions—what you can do without going broke doing it, and the amount of pressure there is in new knowledge and new practices to satisfy a change of policy. For example, you mentioned the other day, I think, that you expected to see an increase in what exists in Canada on a very small scale; that is, a deliberate attempt to get more wood off a given area in rotation—high-yield silviculture. That will come. The spur will be economic, but when it does come it is up to the research people to have the knowledge of how to apply the necessary techniques.

Mr. FISHER: One final question—were any of the officials of the Forestry Branch cooperating in any way in the investigation of the Combines Branch in regard to pulp wood in Quebec?

Mr. HARRISON: No, sir.

Mr. HAMILTON (*Qu'Appelle*): I would like to draw to the attention of the committee that at the back of the annual report at pages 94 and 95 there is an extensive list of articles on forest research which may be of interest to the members of the committee if they want to get them from the department.

Mr. FISHER: I have one question in connection with published articles. Several years ago you changed your format, and changed your whole series. Actually I think you began to put your reports out on a higher quality in a more expensive format, is that true?

Mr. HARRISON: We changed certain reports, sir. It was four years ago that the policy was changed. There was several series that had filled their purposes at a certain stage of development and we ceased to use certain leaflets, and so-called research notes, and so on.

The new policy provides that all these mimeographed articles for distribution to the general mailing list be abolished. Mimeographed material is kept to a minimum in respect of distribution.

We do have technical notes—I am talking about the Forest Research Division at the moment—which give reports on minor experiments or interim reports on certain phases of major jobs, that may take a long time to complete, which we thought would be of interest to operators and other research workers. I think about 65 of those reports have been published. They are uniform and cannot very easily be bound. They have been very well accepted. They are distributed without charge to people who can show that they are reasonably entitled to receive them.

Major jobs are recorded in bulletins which are sold by the Queen's Printer. The same arrangement holds true to the forestry branches.

Mr. FISHER: I have heard certain criticisms about the study by A. L. Best on the forest management unit in Quebec. The monographed criticisms were that it was an extremely interesting study but the whole value of it was practically dynamited by the fact that the cost figures were speculative rather than exact. Was there no way of getting the cooperation of the companies so as to have the exact figures?

Mr. HARRISON: As a matter of fact, sir, that question was checked into, and we received the most remarkable cooperation from the operating company, in that instance, Anglo-Canadian. Their records were made available but neither that company nor any other company wanted to publish exact figures. The figures which do appear there give a correct picture but are not precise to the cent. These figures do give a very reliable figure of that operation.

Mr. FISHER: Those figures are very close to the exact ones?

Mr. HARRISON: As a matter of fact that company was not prepared, as it were, to publish their books. They did open their books to us to a remarkable extent, but they just did not want to come right down to the last cent.

Mr. FISHER: You can draw a valued conclusion from them?

Mr. HARRISON: You can draw a valued conclusion from them for an operation of that kind under those conditions.

The exercise was very largely intended, I might add, to put before the woods management people in similar positions, a method of appraising their operations which they might, or might not see fit to adapt.

The comments on that whole project were extremely favourable. The Pulp Producers' Association of the United States bought copies for all their members—about 600 or 700.

Mr. FISHER: I do not think we have heard from Colonel Jenkins in respect of the work which has been carried out on that side of forest research. I think this is very important. Could he give us a short statement of the various trends in research that the Forest Products Division are carrying out? In dollars and cents this is an extremely important part of the whole business. I think it would be of interest to all of us to know just what the trends are.

The CHAIRMAN: I hope you will support my resolution on research when it arises.

Mr. J. H. JENKINS (*Chief, Forest Products Laboratories, Department of Northern Affairs and National Resources*): Mr. Chairman, the Forest Products Laboratories Division is concerned with conservation by better utilization. We are concerned with determination of the properties, mechanical and chemical, of all Canadian woods to insure that they are used to the best advantage.

We are also concerned with studies of the uses of wood and the harvesting and manufacture of wood and wood residue—that used to be called wood waste—to insure that our timber crop is used to the best advantage. We do that by means of working in the laboratories.

We have a program of research which is published each year and has a wide distribution. Those products which we work on are determined in cooperation with industry and other research organizations. We have advisory committees, of industries, to both laboratories.

We are attempting to carry out a balance of informed basic research to supply us with the material with which to plan our applied studies, and then in our applied studies we carry out work mainly in cooperation with industries, but with the closest contact with the departments of forest services of the different provinces. They know what we are doing. These special industry studies are carried out in woodworking industries across the country both in the woods and in the sawmills, and in our own research sawmill at the Ottawa laboratory. By that means we are obtaining data which are of direct application and interest both to the provinces and to industries especially so that we can experience efficient utilization.

We are, of course, especially concerned with this utilization of wood waste. We have carried out studies in that regard in the woods and in the mills.

I have also set up a committee on which I have representatives of the equipment people, of the provinces, of the sawmills and of the pulp mills, and we are concerned with this use of wood residue both in the forests and in the mills to utilize it for pulp.

As you know, in recent years since the war, there has been a tremendous effect on the pulp industry. Instead of using entirely round wood cut in the forest a very considerable proportion of the wood is now obtained from what used to be called waste, especially in the sawmills. There are certain problems connected with the removal of the bark and transportation, but we are working on that problem as well.

We are also carrying out studies which are intended to determine the effect of tree size and species in the different regions on manufacture. That is, you have got a growing tree; what is the best way of getting it out, and what is the effect of the species of all timber. We are carrying that study right through from the stump to the finished product. That has been done in Nova Scotia, Ontario and British Columbia. This study is being done with the cooperation of the provinces, but working directly with the industries.

We have many, many projects under way. Of course on the engineering aspect since the war there has been a tremendous development in the use of wood as an engineering material. Wood is not an old fashioned material any more. We are obtaining more and more information so that wood can be used as a material to compete directly with steel by this glue-lam—that is glued laminated wood. We have built up arches and beams and plywood and various types of hardwoods and things like that.

We are very active in the field of national specifications covering all types of wood products. There is a big specification coming through in the next few months dealing with the engineering design of timber, and we feel that wood will be a directly competitive material.

Of course we are working with other research councils. We are active in respect of the national building code. An example of good cooperation is that the division of building research of the National Research Council looks after the field of research into building, but anything pertaining to wood is handed over to us. Also, any requests that the national services receive with regard to information on wood are handed over to us for reply.

We pay a great deal of attention to our publications of the results of studies because, as I say, we are concerned with utilization and that means

working with industry. Therefore we must pass our material over to industry. We do this by means of government publications and by articles appearing in trade journals.

The CHAIRMAN: Colonel Jenkins, I wonder if I could ask you a question? Would you have any estimate or idea of the amount of waste or end-products that were formerly waste that are now being utilized in the pulp and paper industry as a result of research?

Mr. JENKINS: I can get that information for you in about ten minutes, sir. I am afraid I have not got it at my finger-tips.

The utilization of waste has grown on the west coast. However, during the past five years in the east there has been a very promising amount of utilization. You realize, of course, that every ton of wood which you obtain from waste saves that much in the forests. I can obtain that for the committee and I will table it.

The CHAIRMAN: You will put it on the record?

Mr. JENKINS: Yes.

Mr. AIKEN: I have heard reports recently that certain hardwoods are being used for purposes for which they were not previously being used. Are you undertaking that particular type of research?

Mr. JENKINS: For pulp?

Mr. AIKEN: Yes.

Mr. JENKINS: The division of responsibility between the pulp workers of the C.P.P.A. and the forest products laboratory is that the C.P.P.A. is concerned primarily with the manufacture of pulp for paper and we are concerned with pulp for the manufacture of hardboards or fibreboards, and we are especially interested in the utilization of wood waste for all types of pulp products, both paper and hardboard.

Therefore, we have an interest in hardwood pulp and we keep in touch with developments and carry on experiments on hardwood as such and we do experiments in respect of the manufacture of the various products.

Mr. FISHER: Have you made any comparison with the forest products laboratory at Madison, Wisconsin, in relation to your own laboratory in terms of the amount of money and the staff which you have and in respect of the actual income from American forests in relation to the income from Canadian forests? Would you say that Canada has as big a program relative to the income from the forests as have the Americans?

Mr. JENKINS: The forest products laboratory at Madison works on a slightly different system. They have a budget in the same way we do, but that only represents about half of their funds. They do a lot of work for national defence and other departments of government and from those other departments they also receive a grant. Sometimes it varies; at times, however, this grant from the other departments will run as high as 50 per cent. On the whole, I think, they get proportionately slightly more than we do. Also at the present time I believe there is a bi-partisan committee reporting to the president which is considering increasing their estimates by about tenfold.

Mr. FISHER: Tenfold?

Mr. JENKINS: Yes.

Mr. FISHER: I wonder if this is being followed with interest by the department, or perhaps I should ask that question of the deputy minister?

Mr. JENKINS: They recently prepared a report, of which I have a copy. It is a quite an interesting report.

Mr. FISHER: Amongst the published material turned out by the forest products laboratory there have been several rather theoretical ones insisting

that the future in the woods industry depends not so much upon species of certain kinds and regeneration, but strictly upon the amount of cellulose per acre.

Mr. JENKINS: Not the forest products laboratory here?

Mr. FISHER: No; in the United States. Are there any comparable studies or ideas existent in your laboratory?

Mr. JENKINS: Not direct studies as much; but there is an accumulation of data on a large number of products connected with harvesting and utilization of pulp. We are also working on these building and specification committees. I think it boils down to this: we feel that there is always going to be a lumber industry. There will be, for many purposes, chemical wood products which will be better than wood. You will see the increase in sheathing boards replacing shiplap in many instances.

We feel there will always be a requirement for lumber but perhaps in a different form and perhaps made up in panels. But I do not subscribe to the fact that in the future there will be nothing but pulp mills. Doctor Thiesmeyer and I have been on the same program and we do not see eye to eye.

Mr. HAMILTON (*Qu'Appelle*): There may be a number of members of this committee who are interested in forest products research. We have a new laboratory in the city and I think, if a group were interested, you could go there and see the actual work which is being done and also see some of the highly competent research people at work. Colonel Jenkins I believe would arrange to take some of you through as a group. I found it very instructive last fall when I went through the laboratory even though a lot of it may have been over my head. Some of you here have a more intimate relationship with the industry.

Mr. JENKINS: We would be delighted if any group wishes to come down.

Mr. HAMILTON (*Qu'Appelle*): The building will be officially opened this fall but it is in operation now. You would see there the type of operations which are carried on and you would learn a great deal about the work of the forest products laboratory.

There are one or two members here from the west coast. There is a new building at Vancouver which is now open and if any of the members from the west coast would like to go through it I am sure arrangements could be made.

The second announcement which I would like to make is that we have going on in Ottawa, starting on Monday, the meetings of the Northwest Territories Council. I would like to suggest that if any of you here wish to attend any of the meetings of the Northwest Territories Council, the members of the council would be very pleased to see you in attendance. The council is composed of nine members, four of whom are elected and five of whom are appointed. One of the elected members is now a judge, so that leaves three elected members and five appointed members.

The meetings of the council will be held in the Confederation Building in the Department of Agriculture board room. If any of you are interested in attending you could arrange it with Mr. Robertson, who is the spokesman for the Crown. He has also said that if you are interested he will provide copies of his speech from the throne as commissioner.

The CHAIRMAN: Following on that, would the different groups let me know how many are interested in attending and I will communicate with the deputy minister. I think it would be very interesting to see the Northwest Territories Council in session.

Mr. ROBERTSON: The opening is at three o'clock on Monday afternoon, and the meetings will continue at ten in the morning and three o'clock in the afternoon every day.

Mr. LEDUC: I would also be very interested in the suggestion made by the minister that those of us who are interested have an opportunity of visiting the forest products laboratory.

The CHAIRMAN: Will the different groups similarly let me know in that respect and I will try to arrange a visit at an early date?

Mr. MARTEL: I would like to ask a question of Mr. Jenkins. He mentioned there would be greater use of wood products in years to come not only in the pulp industry but I understand also for making hardboards. I would like to know what the markets are for plywood made from poplar and birch trees. In our area we have large quantities of poplar trees and we would like to diversify our industries. We have mining industries, forestry and agriculture, but we are very far from the markets and feel that we should have some new industries in order to use some of these products that are waste now.

At the present time we have a plywood manufacturing plant at Lesage, Quebec, which uses poplar and birch. Do you think that the marketing outlook will improve in that particular industry?

Mr. JENKINS: There are three types of plywood. There is the Douglas fir plywood made with waterproof glue, the primary use of which is in house construction; it has a tremendous field there and also has some decorative use. Then you have birch plywood which is used, with the exception of some for boxes, primarily for decorative purposes. In respect of birch plywood they ran into some trouble on account of the birch die-back.

Poplar plywood started off badly in that some of the early manufacture was not satisfactory because the glue was poor. This plywood got a bad reputation, but now there has been a tremendous development. There are at present two firms in British Columbia, one in Alberta, two in Ontario and one in Quebec which are manufacturing poplar plywood. The forest products laboratory here, on our experimental lathe has shown that aspen poplar is a wood that can be sealed satisfactorily with proper adhesives and that it is a good product. There is some question as to which field it should come into. It is technically a hardwood, but the birch people do not want to have anything to do with it. It would appear that its main field is in competition with Douglas fir; that is, in house construction. If made with waterproof glue it can be used for sheathing and for roofing and flooring. We have had it approved by Central Mortgage and Housing Corporation, and under the National Housing Act it could be used for those purposes. There is some doubt as to what group it falls into. I think it should be considered technically as a soft wood and should compete in the construction field. I do feel, provided that the quality is kept up, that there are good prospects for it.

Mr. FISHER: We have one of those mills at Nipigon. Is there a constant check made by your laboratory as to the quality of the products coming out of these mills or is it a fact that once it has been accepted as far as Central Mortgage and Housing Corporation standards are concerned that it is accepted all the way through?

Mr. JENKINS: If any product is to be used in building construction under the National Housing Act, Central Mortgage and Housing Corporation has to approve it as to type and manufacture, and if it is a new type in the wood field we will probably work with Central Mortgage and Housing Corporation and carry out some experiments for their benefit.

Also, in respect of an individual product like plywood of a particular material, we will carry out the tests for the firm and charge them and then advise

Central Mortgage and Housing Corporation as to the results. They will make the decision as to whether or not it is acceptable. Once it is acceptable and marked "approved for the National Housing Act", then there is no further check other than by the inspector on the job as to whether or not the material is up to standard. That applies to a lot of our specifications. There is this whole complex difficult problem of acceptance testing.

Mr. FLEMING (*Okanagan-Revelstoke*): Is there very much hardboard being manufactured in Canada at the present time, or is it still somewhat in an experimental stage?

Mr. JENKINS: With respect to this particle board, you probably know what fibre board is, hard board and soft board. This particle board is a new development since the war. It started in Germany.

For particle board, you cut your flakes of wood to a certain shape. Then those flakes are bonded together with resin. The strength of the board depends on the shape of those particles. You can vary the strength of it.

In Canada their use at the present time is confined mostly to table tops—you can put a veneer on them—and also use them for school desks.

Mr. FLEMING (*Okanagan-Revelstoke*): Before I left home I saw various samples of particle board, mostly of European origin, Swedish and German. I wondered if we had gone as far in this country as they appear to have gone in those countries in the production of this product.

Mr. JENKINS: There is a plant in southern Ontario. The information is available, but our furniture people are proceeding very cautiously.

The CHAIRMAN: Shall we approve the items of the Forestry Branch?

Mr. FISHER: I have one last question. Are you having any trouble in recruiting experts for your forestry service, or chemists? Are you having any difficulty at all in recruitment under your present salary scale?

Mr. HARRISON: The main difficulty is to find men with the appropriate training and experience. In any research organization that is always a characteristic feature, because if you get to a certain level, you want to reach a better one.

But by and large we have been quite successful. Perhaps I might ask Mr. Jenkins to speak about his particular problem.

The Forestry Research and Operations Divisions rely mostly on men who have forestry training and who go on to post-graduate work. Mr. Jenkins, on the other hand, is more interested in finding engineers and physicists.

Our experience last year as far as forestry officers are concerned has been somewhat better. But when we want a specialist with a certain kind of training to do a certain job, it is difficult to find him. Sometimes we have to wait for months and to keep the position open in order to find the right man.

But as Canadian forestry schools are giving more and more post-graduate courses, we hope the situation will improve. There are difficulties, yes.

Mr. FISHER: Are they severe difficulties? What would be the best way to improve the situation from the point of view of the government?

Mr. HARRISON: The most encouraging thing is the development by the four forestry schools in Canada of their post-graduate training.

The very fact that requirements are going up in an organization such as ours, especially in the research field, should lead men who want to go into research to undertake higher training before they come to us.

Then we have means to help them to take still further training at a later stage. Those means have been used and they have been extremely successful. But we do not take on many people in any one year besides the staff we have.

Looking back over the last four or five years there have been years when we were much more fortunate than we thought we would be. And there have been two or three posts which we just could not seem to fill. But sooner or later we found the men.

Now I shall ask Mr. Jenkins to say a word, especially concerning the non-forestry aspects.

Mr. JENKINS: Mr. Chairman, in the past we have had difficulty in obtaining engineers and physicists. This year it has been a little better in so far as juniors are concerned. However, our main problem is in recruiting and in bringing in people with experience. We are just having no luck at all.

Some opposite numbers,—other research institutions with whom we work very closely—I am thinking of one in Australia for example—have very strong forest products organizations, and they have one very definite advantage in that they can go outside the country when they want to get a good man.

But our handicap here is that we have not been able to interest anybody in the starting grades to come into the organization.

Mr. FISHER: Is that not a reflection on your salary scale, indicating that it is not attractive enough?

Mr. JENKINS: In part, yes.

Mr. FISHERS: That would be a question for the minister and the deputy minister to take into consideration would it not?

Mr. ROBERTSON: It goes a bit beyond that. The rates and salary scales are set for scientific personnel by the Civil Service Commission and the treasury board for comparable positions in the government as a whole. So, as a result, the scale is set on a broad basis.

The only change that can be made departmentally—and again this would require Civil Service Commission as well as treasury board approval—is to seek the upgrading of classifications within the salary scale.

Mr. FISHER: Mr. Jenkins seems to have put his finger on a problem which we as a committee might encourage the government of the Civil Service Commission to try to alleviate. This is an important field, and if they cannot get the right men, and if there is a shortage, it seems to me vital some steps should be taken to get them. How do you do that?

Mr. ROBERTSON: I think that all that can be done is what is done from time to time. When we find difficulty in filling a certain category of positions, we make recommendations. This is done periodically in the upgrading of certain positions. We would indicate to the Civil Service Commission that we cannot fill a certain position at the salary which is attached to it. Then we may get authorization to increase the classification or we may not. But we cannot ourselves change the classification.

The CHAIRMAN: How would it be—since you have hit on an important subject—if we should take it up in our agenda committee with the idea of including it in our report?

I know what you have in mind. It has been dear to my heart for a good many years.

Shall we approve these items, then, gentlemen, items 290 to 301, subject only to the hearing of the witness from British Columbia, Mr. Mahood, next Tuesday, for a few minutes?

Items agreed to, subject to the foregoing qualification.

Now, the National Museum items.

NATIONAL MUSEUM OF CANADA

Main Estimates

Item 302. Administration, Operation and Maintenance \$603,292

Supplementary Estimates

Item 587. Administration, Operation and Maintenance—Further amount required \$ 15,000

I do not think that this item will take very long. Would you like to carry on with it now, and then go into the travel bureau?

We have a little better than half an hour left.

Mr. CADIEU: I have a couple of questions to ask the minister about northern roads.

The CHAIRMAN: You have questions about northern roads?

Mr. CADIEU: Yes, I did not get an opportunity to ask them before.

The CHAIRMAN: Perhaps when this other witness comes on Tuesday you might ask them, Mr. Cadieu. We have already passed and tentatively approved those items, but we will give you an opportunity on Tuesday morning.

Mr. CADIEU: I shall not be here.

The CHAIRMAN: Would you like to have a short statement from the minister or one of his officials about the museum? If not, we may have some questions.

Mr. PAYNE: May we have a brief statement?

Mr. E. A. CÔTÉ (*Assistant Deputy Minister of Northern Affairs and National Resources*): The National Museum had its beginning in 1842. It became a separate institution in 1920 when the divisions of biology and anthropology were placed under the geological survey.

Work was curtailed for many years due to two wars and a depression. But in 1947 reorganization was carried out with appointment of a full time chief curator. This part of the work was placed under the responsibility of the mines and resources department at that time.

In 1951 the Massey Commission recommended the division of the National Museum into two parts, natural history and human history, so we have come to the point now where the museum has been divided into two branches.

We expect on the vacation of the Victoria Museum building by the geological survey and the National Gallery in 1959-60 that more space on a temporary basis there will become available, and that there will be a re-deployment of the museum into the building which was originally designed for it. This will allow us for the first time to exhibit to the public some of the material which we have accumulated over very many years.

The scientific work of the National Museum is of a very high order. It is one of the few institutions in Canada which carries on really first class scientific work both in the natural as well as in the human history fields.

The CHAIRMAN: Are there any questions?

Mr. AIKEN: I have two questions. In general terms, what is the reason for the increases in the administration this year over last year? I see there is an increase of approximately \$170,000?

Mr. ROBERTSON: One part of the increase is because the war museum has been transferred from the Department of National Defence where it formerly was, to become part of the National Museum.

Mr. AIKEN: Part of your department?

Mr. ROBERTSON: So the total estimate for the war museum now appears here instead of coming under the Department of National Defence. I think that is the main increase.

Then there is some increase in field work, scientific work in the field, and there is a very minor staff increase, I believe. Those are the reasons.

Mr. AIKEN: In connection with the war museum, is there any activity by way of increasing the exhibits, or is it fairly static in its work?

Mr. CÔTÉ: The war museum is limited by space. They now have a fairly good storage space, but they lack personnel to refurbish a good deal of the equipment. However, considerable progress is being made on that side, and we hope that in the existing display building it will be possible to take a lot of this refurbished equipment and to change the exhibits from time to time.

Mr. AIKEN: In your scientific work do you have any equipment for carbon testing wood to determine the age from which it comes?

Mr. CÔTÉ: No, we have not got such equipment. We have had it done in cooperation with the geological survey.

Mr. AIKEN: I take it there is such equipment in Canada?

Mr. CÔTÉ: We have had to do some work in the past in the United States, but I gather there is some equipment which the geological survey has now.

Mr. AIKEN: Thank you.

The CHAIRMAN: The items are approved, including supplementary item 587? Agreed.

Items agreed to.

CANADIAN GOVERNMENT TRAVEL BUREAU

Main Estimates

Item 303. To assist in promoting the Tourist Business in Canada, including Grant of \$5,000 to the Canadian Tourist Association \$2,182,206

Supplementary Estimates

Item 588. To assist in promoting the Tourist Business in Canada—Further amount required \$ 78,000

Mr. Field is here to answer further questions on the travel bureau.

We do not yet have the printed proceedings of our last meeting, when some tables concerning their work were included, but they will be available for the members when the estimates are before the house. Perhaps some of you would be glad to make some contribution.

Mr. KINDT: In working with the Alberta travel bureau I have found there has been some discontent as to the reliability of national figures when broken down to provincial levels; that is to say, the information in respect of amount of money and the number of tourists. Would it be possible for the federal tourist bureau to improve the statistical figures as applied to the tourist trade?

The CHAIRMAN: Maybe I have the wrong impression from your remarks, Mr. Kindt, but each province has its own statistical department in regard to what tourist revenue amounts to. These provincial tourist bureau statistical departments in all probability look after the question of the number of tourists coming from other provinces. Was that what your question had reference to?

Mr. KINDT: I was referring to both interprovincial and federal tourist bureaus. It is my impression that the figures are very unreliable. I should be glad to see what could be done from the federal point of view to improve the statistical figures on which the provinces as well as the dominion must rely.

Mr. ROBERTSON: Mr. Chairman, perhaps I could make a general comment and then Mr. Field could amplify.

This question has arisen I think at every federal-provincial tourist conference that I have attended, namely the last four or five. The figures are put together by the bureau of statistics and at every conference there has been a discussion in respect of the possibility of improving the figures.

Mr. KINDT: That is right.

Mr. ROBERTSON: The difficulty is in finding a means of doing this. There are no immigration offices which a tourist must pass through in going from one province to another. There is no really firm way of getting a check on the figures. The possibilities of improving the system have broken down constantly due to this basic fact that there is no way of really keeping check on the figures.

I do not know whether there is anything Mr. Field can add to that statement.

Mr. FIELD (*Director, Canadian Government Travel Bureau*): I do not know if I can add anything other than to say that the dominion bureau of statistics is not and never has attempted to report on interprovincial travel. I think the bureau does a good job reporting on travel between Canada and other countries. The majority of the dissatisfaction that has been expressed has been in regard to interprovincial travel, which Mr. Robertson mentioned.

Each province has its own method of gathering statistics. Some provinces have highway counting systems. The maritime provinces, for example, have a highway count system which results in fairly accurate figures.

The dominion bureau of statistics—our official statistic gathering organization—has no responsibility in regard to the interprovincial travel picture.

Mr. KINDT: I have heard from officials in the province of Alberta that that argument is always advanced. Securing accurate figures in regard to interprovincial tourist travel is like trying to pin an eel with a blunt fork. We just cannot arrive at reliable figures in regard to interprovincial travel, is that true?

Mr. ROBERTSON: Mr. Chairman, that is perfectly true.

Mr. HAMILTON (*Qu'Appelle*): I would just like to say a word or two on this subject because, like the hon. member, I have been interested in it for many years.

During the time I was in the province of Saskatchewan I tried very hard to get the Saskatchewan government to do something in regard to collecting figures of people coming into the province and going out. I received the same answer from the government of Saskatchewan as you are receiving here. There are so many roads going into Saskatchewan from the east and the west that it would be very expensive to set up check points.

The same situation applies to Alberta and to other provinces. I think this same situation applies to the states of the United States. There are only a few states maintaining border crossing points. California is an example of one that does. In the state of California there are check points to make sure that tourists do not bring in foreign fruits which could possibly be diseased. The primary purpose of these checking point is to look for fruit but in so doing they get an accurate count of the number of tourists coming into this state from the bordering states.

In Canada we have not set up any such system. In our prairie provinces it would be a mammoth undertaking which would cost much more than the results would justify.

I think you will understand that it might be possible for the provinces of Ontario and Manitoba, for instance, to set up border checking points because there is only one road leading into the province of Ontario from Manitoba, but you would have to keep a team of personnel employed there during the full year to get accurate figures.

Mr. DOUCETT: In respect of the provinces of Quebec and Ontario it would not be too easy to do this because of the number of crossing points.

Mr. HAMILTON (*Qu'Appelle*): I was going to use the eastern boundary of Ontario as an example because of the many places of entry into Quebec. As a result of these almost insurmountable difficulties we can only make calculations.

I realize this is a matter of some seriousness. The dominion bureau of statistics issues a list of tourist income by provinces. If you look at the list you will find the province of Saskatchewan appears very close to the bottom with an income from the tourist trade of about \$1,500,000. However, there is no way of measuring the east-west traffic into Saskatchewan. East-west traffic is Saskatchewan's most important traffic. The only traffic travelling north into Saskatchewan is traffic from the United States.

This subject has been discussed on many occasions with the same conclusion being arrived at; how can a sufficient number of border crossing check points be established to give reliable figures?

Mr. WOOLLIAMS: Is the border check system used in respect of tourists coming from the United States?

Mr. HAMILTON (*Qu'Appelle*): When tourists coming from the United States cross our borders the customs officials obtain a statement from them as to their origin and destination, etc. That information is collected by the dominion bureau of statistics and compiled into those tables that I mentioned the other day, which are available to members of this committee.

Mr. WOOLLIAMS: I take it we have no means of calculating the number of people from Ontario who have the privilege of visiting Alberta?

Mr. HAMILTON (*Qu'Appelle*): No.

Mr. PAYNE: Would it be possible to consider the human element as well as border check points in this regard? I think such a consideration would be highly representative.

Mr. HAMILTON (*Qu'Appelle*): I think I understand the significance of the hon. member's question. This idea has been discussed in the province of Saskatchewan. An attempt was made on a casual basis for a period of two months on the main highway by putting up signs about two miles from the Saskatchewan border asking all tourists to report. When a tourist stopped he was given a map and perhaps a leaflet listing the accommodations and points of interest in Saskatchewan. In that way a certain amount of information was collected. However, I think if you asked the officials of the tourist bureau in Saskatchewan how this worked out, they would tell you that a very very minute proportion of tourists travelling along at 60 miles an hour stopped because of a sign saying that all tourists should report at a tourist information centre.

Mr. KORCHINSKI: Would it be possible to have a voluntary check program? For example, in every town and community you will find there is a secretary or someone available to see that tourists visiting those areas have access to little checking cards covering origin and places visited which could be put in a mail box.

The CHAIRMAN: Mr. Korchinski, I think that question has been fully covered. It is a very difficult problem, as the minister and his deputy have already explained. It will take time to work out a solution to this problem. I agree that we should have more accurate information available, but it will take a lot of time and money to do this.

Mr. AIKEN: Mr. Chairman, just before we conclude with this item I would like to ask one further question.

Does the bureau of statistics or a branch of the Department of Northern Affairs and National Resources receive a statement from tourists crossing the border in regard to the places they expect to visit? I am thinking that if a tourist came to Ontario it is not very likely he would go on to British Columbia. Is there a check of that type made?

Mr. FIELD: Yes. If a traveller comes in from the United States at a border crossing point he would be asked that question. That is one of the means by which the dominion bureau of statistics gathers its statistics.

The CHAIRMAN: That is the responsibility of the Department of Citizenship and Immigration, is it not, Mr. Field?

Mr. FIELD: Yes, this check is made in cooperation with the Department of Citizenship and Immigration.

Mr. AIKEN: Those figures are not published, are they?

Mr. FIELD: Oh yes, there is a monthly report as well as the annual report which has already been tabled.

Mr. AIKEN: This table is not considered sufficiently reliable as to where the tourists actually stayed?

Mr. FIELD: You mean in which province they stayed?

Mr. AIKEN: Yes.

Mr. FIELD: These figures are fairly reliable. In the monthly report there appears table No. 3 which shows the number of travellers entering into Canada by province of entry. That table is reliable. The only hitch in this regard is that the traveller may come into Ontario and then go on to Quebec and spend 60 per cent of his time there and then move to the maritimes and spend 30 per cent of his time there.

Mr. PAYNE: May I suggest, Mr. Chairman, that a lot of Canadians are like myself. This is our own country and we hate like the devil to be considered a statistic.

Mr. KINDT: Mr. Chairman, I think this is a very important subject. My purpose in raising this issue was because of these statements that are made that the Canadian tourist industry is one of the largest enterprises that we have in Canada. Such a statement leads me to the conclusion that we ought to invest a lot more money in the tourist business. I think such a statement is generally accepted and rightfully so. I believe that more money should be invested in this field because of the many attractions we have, and because of the income that is involved. I believe the logical conclusion is that we ought to have more accurate figures in respect of the revenue from foreign tourists in Canada.

Mr. ROBERTSON: We do have accurate figures in regard to foreign tourists in Canada.

The CHAIRMAN: We do have accurate figures in regard to foreign tourists but we do not have accurate figures in regard to tourists travelling from one province to another. I agree that even the figures pertaining to foreign tourists are estimates.

Mr. HAMILTON (*Qu'Appelle*): I would like to put these figures on the record, Mr. Chairman.

I discussed this point last fall with the travel bureau. The tourist industry has repeatedly asked the government of Canada and the provincial governments to increase their budgets for advertising and promotional work in the United States. The main point of their suggestion was that the amount of money spent should equal a figure of one per cent of the total amount of tourist dollars spent in this country.

At the present time we are spending .3 per cent of that amount. If we were to increase our expenditure in this regard to one per cent we would be spending three-tenths of the amount that tourists spend in Canada. The tourist industry has asked that we spend one per cent of that amount which would be an increase of $3\frac{1}{3}$ times what we are spending now.

At the present time the federal government spends on advertisement an amount roughly equal to what the provinces combined spend. If the tourist industry's suggestion was accepted the federal government and the provincial governments would have to spend three times what they are now spending on advertising.

MINES, FORESTS AND WATERS

This problem is not one that has been considered only academically. As you know, this is the second year of the maritime advertising program. We are focusing our concentrated advertising program in the northeastern portion of the United States on the beautiful maritime provinces.

After comparing the amount of money spent in regard to this program—\$300,000 per year—with the increase in the tourist trade in the Atlantic provinces, we feel that a fairly accurate measure can be made of the yield from each dollar spent on that program.

At the present time, if inquiries coming into the tourist bureau in regard to the maritime provinces can be taken as a gauge—the number of inquiries is much greater in respect of the maritimes than it is in respect of the rest of Canada—it would seem to indicate that a concentrated program of advertisement does yield measurable results.

When this item first came to our attention I did not mention that we had an experimental project underway in an attempt to measure the results of effective regional advertisement in regard to bringing more tourists into Canada. This point I do not want to mention in detail, beyond the fact that we are thinking of some operations of that nature. If the facts are revealed then the experiment would not be as good. I have discussed this subject very seriously because we must be concerned with it.

We are trying to get some validity of measurement in the scope which we have. I notice that the province of Ontario has set up regional studies in counties and districts to obtain statistical information. We may be able to have use of that information and, along with any other similar information from other provinces, we will see if we cannot come up with better suggestions.

My deputy minister has reminded me that last fall at the dominion-provincial tourist conference we agreed to embark on a cooperative program of obtaining information. The provinces and ourselves are combined on this thing. We have hired a firm in Toronto to do this study for us. I think I have made it clear that we are grappling with this problem of obtaining more information.

My deputy also informs me that included in the item you are voting is a new grant of \$5,000 to the Canadian Tourist Association in order to encourage that association to carry on its studies.

Mr. BALDWIN: I had a thought which came to mind before the minister spoke. It seems to me that it might be possible to employ the services of one of the professional research bureaus which take samples from time to time in service stations, motels and such places.

Mr. HAMILTON (*Qu'Appelle*): That is exactly what this is.

The CHAIRMAN: Gentlemen, I hope many of you will consider ways and means of improving this tourist industry. If you like you can read the first speech I made on this subject in the house in 1945. I said that in ten years' time the amount for the tourist industry should be \$1 billion. It is one department of government which, in my estimation, has been neglected. I will say very frankly that the revenue from it can be multiplied. I think that the ideas and suggestions which you express will have the impact which is necessary to get the required funds. You cannot run an automobile without gas and you have to pay for the gas.

Mr. MARTINEAU: Is there any supervision exercised by the federal government in respect of exploitation of tourists by certain unscrupulous operators? In some cases tourists are being overcharged for rooms and things of that sort?

The CHAIRMAN: That is a provincial matter. I think it is discussed at these general sessions. I would suggest that those of you who are able to might try to arrange to be at this conference in the fall. I have attended one or two. I think that some of us should be there in an official capacity because these

conferences are really worthwhile; you can let your hair down. All that is discussed is the tourist industry and you have in attendance the railways, the steamships and many other associations.

Mr. KINDT: Mr. Chairman, may I suggest that we be extended an invitation to attend so that we do not forget?

The CHAIRMAN: That is a good idea.

Mr. HAMILTON (*Qu'Appelle*): I have a brief statement in answer to the question asked by Mr. Martineau. In so far as exploitation of tourists coming into the country is concerned, it is, of course, a provincial responsibility; but, at the federal level, when we do receive complaints these are submitted back to the provincial people because it is very important, every time there is a bad case of exploitation, that it comes to their attention in order to make sure that the person who operates in that fashion under the provincial government licence is checked up and checked up fast.

There is another way of checking, as you know. Many of these motels and hotels apply for membership in the Canadian automobile associations. The automobile associations have men constantly on the move during the seasons to check on the facilities which are available to the tourist. I think we are coming to improved standards all along the line because of the plea for supervision of the industry. If anyone sees a sign such as Saskatchewan Automobile Association or Ontario Automobile Association he knows that when he goes in there he will receive checked accommodation.

Mr. WOOLLIAMS: When can we expect a full discussion on coal? I am particularly interested in that. I have several mines in my constituency.

The CHAIRMAN: You will have an opportunity when we have before us the estimates of the Department of Mines and Technical Surveys.

Mr. WOOLLIAMS: Some of us would wish to have witnesses present, particularly from the coal board, so that we could go into some of the major problems which exist in that industry particularly in Alberta.

Item 303 and Supplementary Item 588 agreed to.

The CHAIRMAN: On Monday we will start on the estimates of the Department of Mines and Technical Surveys.

On next Thursday night, between 7 and 8 o'clock in room 375, we will have the film "Rankin Inlet". I hope that some of you will be able to see it. You may ask your friends and neighbours to come with you to see this film. It is under our sponsorship. Ours is the best committee of the house, and let us keep it that way.

Before you go, there is another item, item 508, under Loans, Investments and Advances.

LOANS, INVESTMENTS AND ADVANCES

Main Estimates

Item 508. To authorize the operation of a revolving fund, in accordance with section 58 of the Financial Administration Act, for the purpose of acquiring and managing stores required for the operation and maintenance of the National Parks of Canada; the amount to be charged to the revolving fund at any time not to exceed	\$1,000,000
--	-------------

Mr. HAMILTON (*Qu'Appelle*): My administrative officer points out that this item has not yet been passed. This is an item under loans, investments and advances. It is to authorize the operation of a revolving fund, in accordance with section 58 of the Financial Administration Act, for the purpose of acquiring and managing stores required for the operation and the maintenance of the National Parks of Canada; the amount to be charged to the revolving fund at any time not to exceed \$1 million. This is the start of a new revolving fund in the national parks branch to save us coming back so often with requests.

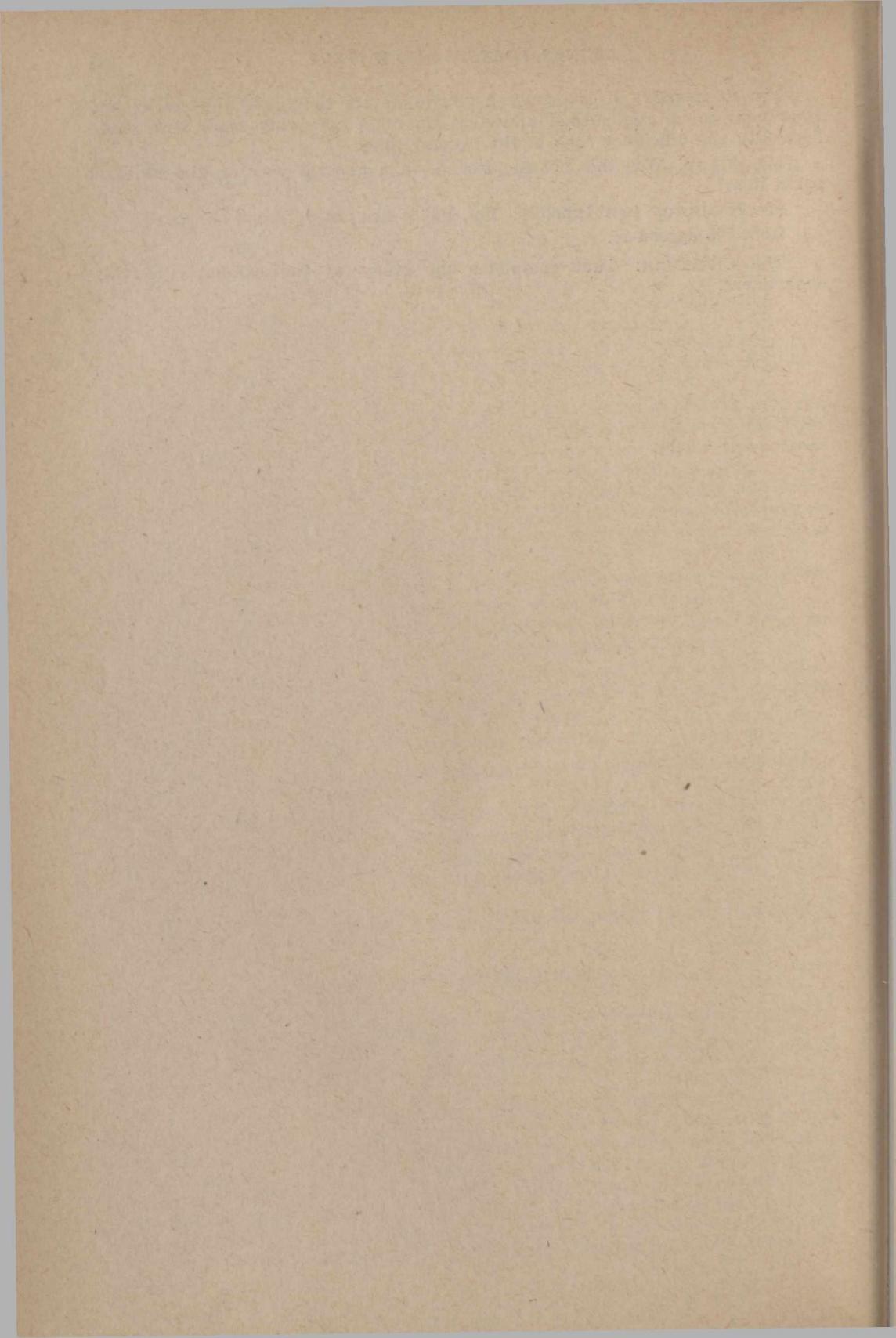
Mr. ROBERTSON: It is purely a simple device to enable the stocks and equipment to be replenished and kept up on a revolving basis with more flexibility and efficiency than at the present time.

Mr. AIKEN: Was this not mentioned, in a general way on the national parks item?

Mr. HAMILTON (*Qu'Appelle*): Yes, but it has not yet been approved.

Item 508 agreed to.

The CHAIRMAN: That completes the study of the estimates of this department.



HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 13

Including Index of Items relating to the Estimates the
Department of Northern Affairs and National Resources.

TUESDAY, JULY 15, 1958

ESTIMATES 1958-59 OF THE DEPARTMENT OF
NORTHERN AFFAIRS AND NATIONAL RESOURCES
including Report to the House thereon.

WITNESSES:

Mr. Ian S. Mahood, B.Sc.F., B.Com., professional forester; Mr. E. A. Côté, Assistant Deputy Minister; Mr. J. D. B. Harrison, Chief, Forestry Branch; and Mr. J. H. Jenkins, Chief, Forest Products Laboratories Division.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-President: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafleche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,

Clerk of the Committee.

ORDER OF REFERENCE

HOUSE OF COMMONS,
MONDAY, July 14, 1958.

Ordered,—That the name of Mr. Martin (*Timmins*) be substituted for that of Mr. Fisher on the said Committee.

Attest.

LEON J. RAYMOND,
Clerk of the House.

REPORT OF THE HOUSE

THURSDAY, July 17, 1958.

The Standing Committee on Mines, Forests and Waters has the honour to present the following as its

THIRD REPORT

Pursuant to its Order of Reference of June 3, 1958, your Committee has considered and approved items numbered 266 to 303, inclusive, and items numbered 560 to 508, inclusive, as listed in the Main Estimates 1958-59; and items numbered 580 to 588, inclusive, and item numbered 659, as listed in the Supplementary Estimates for the fiscal year ending March 31, 1959, relating to the Department of Northern Affairs and National Resources.

Your Committee has held 14 meetings on the Order of Reference of the House concerning the estimates of the Department of Northern Affairs and National Resources. These meetings were devoted to the estimates pertaining to the under-mentioned branches, etc., approximately as follows: Departmental Administration, etc., two meetings; National Parks Branch, two meetings; Water Resources Branch, one meeting; Northern Administration and Lands Branch, four meetings; Forestry Branch, three and a half meetings; and National Museum of Canada and Canadian Government Travel Bureau, one and a half meetings.

Your Committee heard a full statement of the national development policy of the government and its emphasis on northern development. A policy of cooperation with the provinces to achieve the maximum reach of national development was explained. Your Committee has examined the substantially increased expenditures that are provided for in the current estimates for roads and other facilities in the North, and for the "roads to resources" program in conjunction with the provinces. Your Committee recommends the continuance of this program in the interest of national development.

It is obvious that the activities and responsibilities of the department will continue to expand rapidly during the years ahead, and your Committee feels it to be essential that this expansion should not be frustrated by insufficient financial attention. Your Committee has noted that there has been a steady increase in the estimates of the department over the years since its inception, and your Committee has noted that there has been an increase of nearly 250 per cent in the 1958-59 estimates over those of 1954-55.

This expansion has occurred during a period when the staff of the department has increased only by 42 per cent. Your Committee observes that the greatest single need of the department would appear to be an increase of its staff in order to keep apace of its rapidly expanding responsibilities.

Your Committee was given a report by the Minister of the need for a better and more complete inventory of natural resources in Canada, and also for the need of more comprehensive programs for the conservation and prudent management of such resources. It notes with approval the plans now under way for the summoning of a National Conference on Conservation in the next year or two and commends these plans in the interests of better resource utilization in Canada.

Your Committee heard a full statement from the Minister concerning the policy underlying the establishment and preservation of the National Parks and endorses it. In this connection your Committee commends to the attention of other Members of the House the publication entitled "Wisdom's Heritage: the National Parks of Canada", which is available on application to the department. Further, your Committee recommends the continuance of the work of establishing and preserving the National Parks, both for their underlying purpose and also to provide amenities and recreation for Canadians in the future.

Your Committee has examined the programs of the department with regard to Water Resources and Forestry and has noted the increased activity in relation to a number of aspects thereof. Your Committee recommends that increased attention be given to the compilation of material on water resources and to their multiple use, and, in the case of forestry, to forest research. Your Committee also noted the increased emphasis being given in the United States to forest products research and recommends that the government give consideration to increased support of that activity in Canada.

Your Committee carefully examined the program and policies of the department in the northern territories, including, in addition to economic development, matters affecting the Eskimo people, the Indian people, and all northern citizens. Emphasis was directed to the integration of the native northerner. Your Committee also examined the policies affecting the social advancement of the peoples of the north.

Your Committee questioned the Minister and officials of the department concerning programs relating to the Eskimos. It shares the concern that is felt for the future of numbers of these people who have been dependent on the caribou, the numbers of which are declining in a catastrophic manner, and on trapping for fur, an industry which has suffered extreme price declines.

It commends the efforts now being made to construct schools, to provide more and better education, to give vocational training, and to secure employment for these people in order that they may be assured of a more secure future and of a better standard of living.

Your Committee endorses the continuance and expansion of the program to develop the northern areas as an integral part of Canada.

Your Committee recognizes that, at the present stage of development of the north, it is essential there continue to be a heavy balance of investment for many years to come. However, your Committee is equally convinced that the resources of the north are such that investment today will be amply repaid by the development of future years.

Your Committee recommends that the government authorize the Department of Northern Affairs and National Resources to organize familiarization trips for the Members of the House throughout Canada's Northland in the same fashion that similar educational trips are now being conducted for the members of the Armed Forces attending Staff and Defence Colleges, the National

Research Council, the Defence Research Board and departmental officials, from time to time.

During its consideration of the estimates concerning the Forestry Branch, your Committee heard statements from and examined the following expert witnesses, namely, Major-General Howard Kennedy, C.B.E., M.C., M.E.I.C., Consultant Forest Engineer; Mr. G.W.I. Creighton, D.Sc., President, Canadian Institute of Forestry; Mr. H. C. McQuillan, M.P., Immediate Past-President, Truck Loggers Association of British Columbia; and Mr. Ian S. Mahood, B.Sc.F., B. Com., professional forester.

Your Committee noted with interest that the National War Museum has been transferred to and now forms a part of the National Museum of Canada.

Your Committee recommends that, to ensure efficient operation of the Canadian Government Travel Bureau, there should be continuity of its control and supervision by it remaining under one department of government instead of being periodically transferred to other jurisdictions.

Your Committee has noted the steady increase in enquiries concerning travel to Canada and recommends that the activity of the Bureau continue on at least as great a scale as today with a view to eliminating the adverse balance of payments on tourist account that now exists. Views were strongly expressed that there should be an increase in expenditure, both by the federal government and by provincial governments, to stimulate the development of this important industry.

Your Committee examined the policies that have been introduced under the Atlantic Provinces Power Development Act to assist those provinces in developing adequate and cheaper sources of electric power. It commends this policy strongly and recommends that it be continued in cooperation with the provincial governments.

Your Committee examined the program and estimates of the Northern Canada Power Commission and noted the growth of the operations of the Commission in order to make power available for industrial and community development in northern Canada. The basic quality of covering all costs from the sale of power but, within that, of making power available at the lowest possible cost, is considered as being in the best interest of northern development.

Members of your Committee took full advantage of the invitations of the Minister and witnesses to question them without restriction.

Your Committee records its appreciation of the conscientious attendance and hearty cooperation of the officials of all branches of the department, and of the valuable assistance given to it by other witnesses.

Your Committee recommends that it be activated during succeeding sessions, and with a larger membership than at present, for the purposes of keeping under close review the very important matters of the development of northern Canada as part of the national development policy and of the resources of Canada generally, and, thereby, of keeping the Canadian public well informed thereon; and that the estimates of the Department of Northern Affairs and National Resources be referred to the Committee in future sessions.

A copy of the Minutes of Proceedings and Evidence in respect of the said estimates is appended.

Respectfully submitted.

J. W. MURPHY,
Chairman.

...the ... of the ...

MINUTES OF PROCEEDINGS

TUESDAY, July 15, 1958
(16)

The Standing Committee on Mines, Forests and Waters met at 9.00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baldwin, Baskin, Bigg, Coates, Doucett, Dumas, Fleming (*Okanagan-Revelstoke*), Gundlock, Kindt, Korchinski, Leduc, Martel, Martin (*Timmins*), Martineau, McLennan, Murphy, Nielsen, Roberge and Stearns—(20).

In attendance: Mr. Ian S. Mahood, B.Sc.F., B. Com., of Nanaimo, B.C., professional forester; and *from the Department of Northern Affairs and National Resources:* Messrs. E. A. Cote, Assistant Deputy Minister; J. D. B. Harrison, Chief Forestry Branch; and J. H. Jenkins, Chief, Forest Products Laboratories Division.

The Committee resumed its consideration of the 1958-59 Estimates of the Department of Northern Affairs and National Resources.

The Committee reverted to Items 290 to 301, inclusive, concerning the Forestry Branch. Mr. Mahood was called thereon; he presented a statement on the need for federal forest research in British Columbia, and was questioned thereon.

Following further questioning of departmental officials, the said items nos. 290 to 301 inclusive, were approved.

The Committee continued *in camera* for the purpose of deliberating on its report to the House.

The Chairman presented to the Committee a draft report which the Subcommittee on Agenda and Procedure had unanimously recommended for the approval of the Committee. The Committee made certain amendments thereto. On motion of Mr. Dumas, seconded by Mr. Fleming (*Okanagan-Revelstoke*), the draft report as amended, was unanimously approved by the Committee, and the Chairman was ordered to present the said amended report to the House.

The Committee recorded its appreciation of the assistance which had been given to them by the Minister of the Department of Northern Affairs and National Resources and his officials, and also by the Clerk of the Committee.

At 10.45 o'clock a.m. the Committee adjourned until 9.30 o'clock a.m. on Friday, July 18, 1958.

Eric H. Jones,
Clerk of the Committee.

EVIDENCE

TUESDAY, July 15, 1958
9:00 a.m.

The CHAIRMAN: Gentlemen we have a quorum.

We welcome back Mr. Martin who replaces Mr. Fisher on our committee. We are going to revert to the estimates of the Forestry Branch of the Department of Northern Affairs and National Resources items 290 to 301 inclusive.

FORESTRY BRANCH

Main Estimates	
Item 290. Branch Administration	\$ 139,678
Forest Research Division—	
Item 291. Operation and Maintenance	\$1,328,886
Item 292. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 164,283
Forestry Operations Division—	
Item 293. Administration, Operation and Maintenance	\$ 302,780
Item 294. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 19,230
Item 295. To provide for contributions to the Provinces for assistance in forest inventory, reforestation and forest fire protection in accordance with agreements that have been or may be entered into by Canada and the Provinces	\$1,650,000
Item 296. To provide for contributions to the Provinces pursuant to agreements entered into or to be entered into, with the approval of the Governor in Council, by Canada with the Provinces, of amounts equal to one-half of the amounts confirmed by the Provinces as having been spent by them in establishing forest access roads and trails for the attainment of adequate fire protection as well as other aspects of forest management	\$1,000,000
Item 297. To provide for a contribution to the Province of New Brunswick for assistance in a program designed to combat the spruce budworm infestation, in accordance with an agreement entered into by Canada and the Province.....	\$ 600,000
Forest Products Laboratories Division—	
Item 298. Operation and Maintenance	\$ 750,299
Item 299. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 259,260
Item 300. Grant to Canadian Forestry Association	\$ 20,000
Item 301. Eastern Rockies Forest Conservation Board—Remuneration and Expenses of the Federal member of the Board	\$ 5,575
	\$6,239,991

We have a distinguished witness here, but before we call on the witness I am going to ask that we make a correction in the earlier evidence and table some information which I asked for at a previous meeting. I will call on Colonel Jenkins.

Mr. J. H. JENKINS: (*Chief, Forest Products Laboratories Division*): Mr. Chairman, Mr. Fisher had inquired regarding the money that was made available in the United States for forest products research and I had mentioned at that time that a special bipartisan commission was studying this matter and that they had recommended a very considerable increase in the money for forest products research. Mr. Fisher asked at about what level that would be and I said about tenfold. I find that I am incorrect and it would be closer if I had said about sixfold. I have two paragraphs of the extract from the report of the bipartisan commission. It suggests that at the end of ten years the allotment of forest products research would go up to \$15 million. I have that extract together with a table showing the amounts spent on different types of research in the United States and with your permission, Mr. Chairman, I would like to have that go into the record.

Also at the end of the day the chairman asked for some information as to the amount of wood waste that was going into pulpwood in Canada. I have that information now. It shows that on the British Columbia coast there is the equivalent of about 1 million cords—they express it in a different way, but it is equivalent to about 1 million cords—and in eastern Canada where the growth in the use of this wood waste has been more recent, it is not so impressive, but it is going up very quickly. It has gone up from 35,000 cords in 1951 to 180,000 cords last year and it looks as if it would go up to 225,000 cords this year. That would mean that there is about 1½ million cords of wood that has been obtained from sawmill residue—that used to be called sawmill waste; and that on the basis of allowable cut, would be equivalent to the allowable cut of over 1 million cords in each of these regions. With your permission, Mr. Chairman, I would like to have that tabled also.

The President's Appointed Bipartisan Commission on Increased Industrial Use of Agricultural Products
 Extracts from "TASK GROUP ON FOREST PRODUCTS" Final Report, January, 1957—p. 2.

"The program proposed is withal modest in size—it would in ten years bring direct federal outlays for forest products research and development up to a level that is needed and justified today. Total annual outlays would reach \$13,000,000 at the end of the ten year period as compared with about \$2,300,000 in 1957. Of the total annual amount, \$9,000,000 would be allotted the forest products laboratory for direct research and development; about \$1,000,000 for contracted research and development with other laboratories; \$2,000,000 for product research and development at the forest service experiment stations; and \$1,000,000 to naval stores research and development.

"These allotments would permit expansion of the research program of the forest product laboratory by about 4½ times, even greater expansion of the products field research at the forest experiment stations, initiation of contract products research, and fivefold expansion of naval stores research."

Paragraphs for Insertion into the Minutes Regarding the Utilization of Mill Residues for Pulp in Canada

Since World War II there has been a very marked expansion in the utilization of "sawmill residue" (slabs and edgings) for pulp in Canada especially in the coast region of British Columbia. In this coastal region, in 1956, some 1,200,000 units (equivalent to about 9/10 cords wood) of chipped sawmill residue were delivered to the pulp mills. This volume is enough for 500,000 tons of chemical pulp and is approximately equivalent to 475 million board feet of logs. Although the expansion in the utilization of sawmill residues for pulp in eastern Canada has not been as great as for British Columbia, there has been, nevertheless, very encouraging progress during the past six or seven years. The annual volume of sawmill residue going into pulp in Ontario, Quebec and the Maritimes has risen from 35,000 cords in 1951 to 180,000 cords in 1957, and estimates for 1958 indicate that about 225,000 cords of this material will be utilized.

The volume of this sawmill residue utilized for pulpwood is equivalent to the "allowable cut" on over one million acres of forest land in each of these two regions. The Royal Commission on Canada's Economic Prospects gives a figure for "allowable cut" of 61 cubic feet per acre in the British Columbia coast region and of 16 cubic feet per acre for Quebec and Ontario.

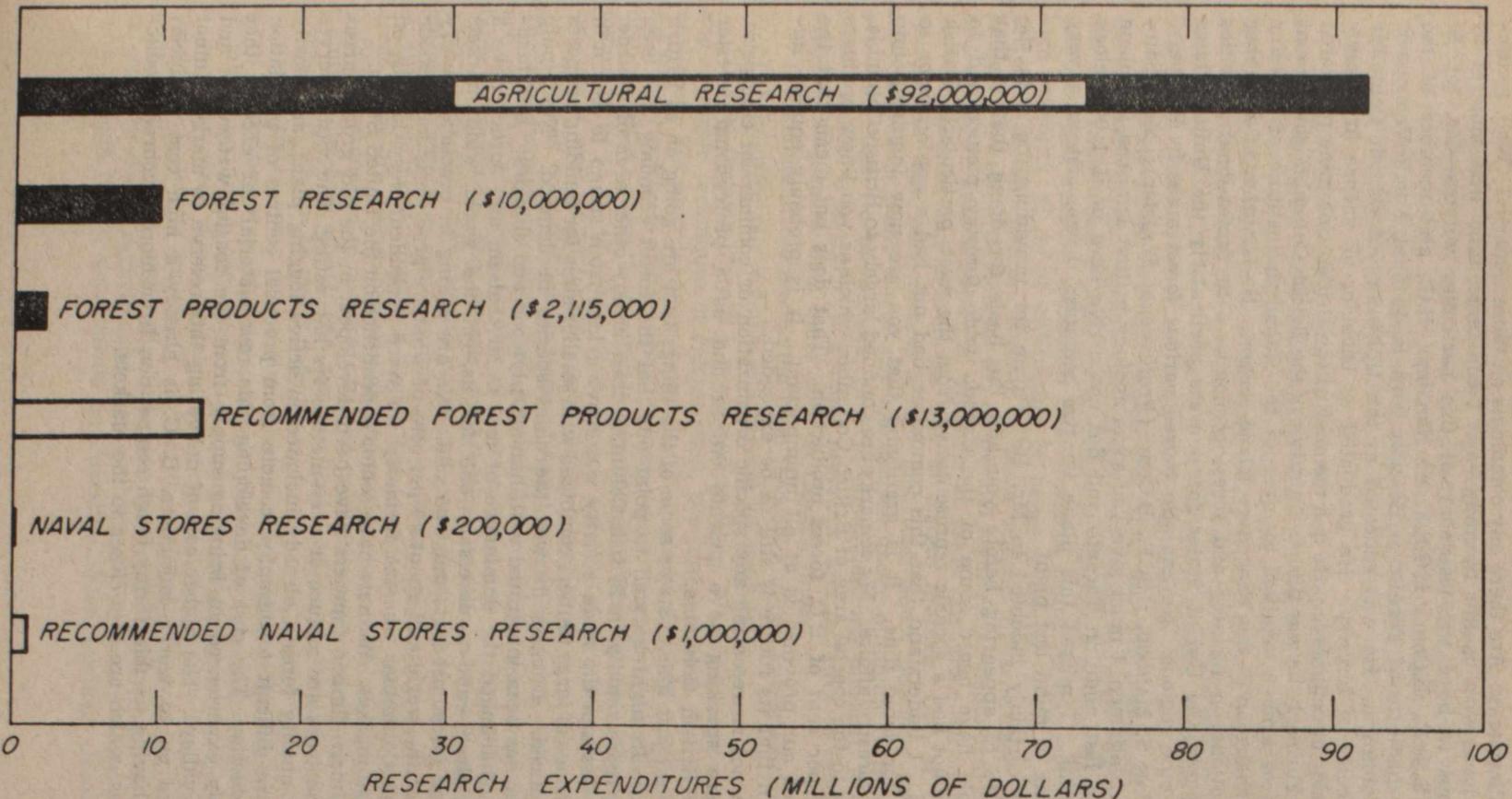


Figure 2.—Comparative federal expenditures for research on agriculture, other than forestry, on forestry, and on current and recommended forest products and naval stores research. Forest research figure includes current forest products allotments.

The CHAIRMAN: Are there any comments on those remarks? Well, gentlemen, we have with us this morning—and I can understand that some of us are anxious to have the testimony of this particular witness—Mr. Ian S. Mahood, B.Sc.F., B.Com., B.C.R.F. of Nanaimo, B.C., and member of the Canadian Institute of Forestry. He was born in 1915 at North Vancouver, British Columbia. He was educated at the University of British Columbia in the faculty of forestry. He graduated as bachelor of science in forestry and bachelor of commerce. He is a member of the British Columbia registered foresters. Formerly he was timber appraiser of the British Columbia government in charge of timber taxation, member of the Canadian Institute of Forestry and past chairman of the Vancouver Island section. He is author of a number of publications on forestry and forest economics. In professional activities he has toured the United States forest areas particularly the United States southern pine regions. He has also toured various forest areas in Europe.

Mr. IAN S. MAHOOD, B.Sc.F., B.Com. (*Professional Forester*): Mr. Chairman and gentlemen, I must give you some apology in that I missed my plane connection last night in Toronto and did not arrive here until 1:00 o'clock this morning. I missed this plane by two minutes. I was not in a very good frame of mind last night.

I am certainly indebted to Mr. Bill Payne for providing me with the opportunity of appearing before you and the basis for doing that is that you people have heard some of the Canada wide forestry picture and to date have not had a specific representative from the west, particularly British Columbia. I understand that this committee had not had a session prior to this one for some time. It is gratifying that you are now inquiring into Canada's forestry affairs. My remarks are confined largely to British Columbia, primarily to the coastal area of British Columbia which as you know produces about 80 per cent of B.C. forest production. That does not mean that the interior of our province is at all unimportant. It is probably equally important in that its future is still to be expanded.

I am not representing any specific organization or commercial enterprise. I am here speaking as a private citizen and as a professional forester active in British Columbia.

I would just like to stress some of the things that are going on in British Columbia. It might be well to point out that the forest economy has been changing more rapidly in British Columbia than in any other area of Canada. Thirty years ago the main activity was moving logs from stump to saw mill where a range of large timbers combined with smaller sizes for building purposes was produced. Douglas fir was the chief species in demand. Now, pulp and paper has been integrated with lumber, plywood and shingles. B.C. hemlock has challenged the dominance of fir. Cedar, balsam and spruce have a growing place,—and a necessary one for us,—in the world wide markets where our forest products must be sold. We are selling in practically every country of the world and about 80 per cent of what we produce is sold outside of British Columbia, whereas formerly we were dependent very largely on the British market. We now have senior dependence on the United States.

The main timber frontiers have been developed, in the old growth areas where the trees are mature or over-mature for harvesting. The vast reserves of lower-quality forests, already included in active logging plans, are mostly situated in difficult topography, remote from practical centres of population and production. The cost of developing this raw material far exceeds that previously experienced in bringing supply from the coastal waterways and forward valleys. The higher cost of delivering this reserve to market cannot be passed on to world consumers. B. C. is already a high cost producer, already having trouble facing tough competition from more favoured production areas, which are also closer to the markets.

The cut-over areas which are on Vancouver Island, the lower mainland and lower Fraser Valley are the heard lands which founded and prospered the coast forest industry. These lands must be kept in production. They must be "tree-farmed" to supply low-cost raw material continuously. A policy of "cut and move" does not serve the public interest. A policy of "cut and reproduce" does.

A significant change, in which B. C. has been a leader, is a provincial policy of sustained yield management in which cut must equal growth. This is a sound and vital program but it adds to the cost of production. It requires the expenditure of large sums of money to grow and protect a crop which will not be harvested for three generations or more. Such practices are used in some other parts of the world, but in British Columbia there is too little experience and know-how to guide such expenditure.

It should be clearly appreciated that B. C. faces a unique and unusual circumstance in its position with respect to export markets. In almost all our traditional market areas, with particular emphasis on the United States southern pine region,—Australia, New Zealand, South Africa, and Britain, a high standard of forest cultivation is being achieved. There are dynamic increases in the domestic supplies in these regions. In some cases, the trees being grown are B. C. Douglas fir, spruce and hemlock, transplanted, harvested and converted into commercial products at lower cost than we in B. C. can harvest, process and deliver the like to distant markets. One of the chief reasons for this phenomenon is the fact that forest practices have been developed to a point where selected species under optimum cultivation are providing high yields per acre, close to population and markets. Remoteness from markets is one of B. C.'s major problems, and in order to remain competitive B. C., more than other area in Canada, must:

- (a) Maintain tree production from land close to our lowest-cost transport.
- (b) Improve our volume and quality of production.

In tree-farming there is a great deal to learn. We must improve practical and economic techniques of reforestation. We must increase the yield of the new crop. We must increase its quality in terms of fibre for pulp and paper, for lumber products and plywood. The crop must be grown in a shorter period of time. Other areas in the world are concentrating on fast-growing crops, maturing in 15 to 40 years. B. C. cannot compete if its silvicultural system requires a wait of 70 to 120 years for the harvest.

There is no indicated shortage of forest resources in the western world. The tree-farming programs that are being successfully prospered elsewhere are creating an actual surplus of raw material. As a result of this, B. C. faces uncertainty, and serious competition. It follows that industry and government, both federal and provincial, must face the future of our forest enterprise with a dynamic rather than a passive attitude. It is necessary to accept the principle that to a degree the future can be moulded to suit our needs, if we are determined enough. Increasing competition requires unceasing critical examination of our products and production methods. Competition will stimulate our best efforts. But research that leads to constructive changes is necessary if we are to avoid defeat.

Some thirty years ago in the southern pine region of the United States, forest production was grinding to a halt. Now, that area is a major producer of pulp, paper and lumber, and is still expanding. 95 per cent of this production is based on trees which were not in existence thirty years ago. This tremendous advance is the result of the "tree-farming" movement. Years of painstaking research under the leadership of the U.S. forest service through its southern forest experimental station have recreated the forest economy there. A long list of experiments and practical demonstrations showed land

owners, industry and the public, techniques of commercial forest growing. Such publications as "Planting the Southern Pines" have shown the choice species for each soil, the best seed to use, the number of trees per acre to plant, and all the other intricate technical information necessary to grow a crop of trees.

In Canada, a parallel exists in agriculture. The prairie wheat harvest has been sustained, at great public cost, by the aggressive research programs that have created strains of wheat that are resistant to disease, that can withstand frost and drought, and that produce economic yields per acre.

These same principles of agricultural production must be applied to forest production.

In the southern pine region, tree breeding is providing improved quality species and higher yields. Similar thoroughgoing research has not yet been undertaken in B.C. It is a monumental job, not only to get the new forest growing, but to restock the cut-over lands with trees that will produce better wood faster. That is the challenge that forest research must meet.

The 1956 report of the royal commission relating to forest resources of British Columbia provides a comprehensive review of research on pages 625 to 651. The royal commissioner, the hon. Mr. Gordon Sloan, concluded that research is, "woefully inadequate". Among his findings are these significant illustrations:

- (a) Staggering volume of work must be done in the next 20 years if government, as the major owner of forest land, and 53 per cent shareholder in the profits created by industry, is to play its full role.
- (b) Lumping research by all agencies—governments, industry, and university, three times as much is spent on products as on forest growth and protection.
- (c) Industry, notably the larger corporations with far less individual responsibility for perpetuation of the forest economy than either provincial or federal governments, is collectively spending in excess of the governments.
- (d) Federal forest research in B.C. is first in the form of forest products research, in a well equipped and well staffed laboratory at Vancouver; then in the fields of insect infestation and plant diseases, through Science Service of the Department of Agriculture.
- (e) The federal government maintains experimental stations devoted to tree growing and related sciences in all forest regions in Canada with the exception of B.C. The federal government's annual expenditures on tree growth and related research is \$1,250,000 annually but none of it on the job in B.C. Federal revenue from the forest activity in B.C. is estimated at \$112,800,000 (1954-55). Federal expenditures on forestry operations in B.C. exclusive of capital approximate \$1,113,000 or less than one per cent. Using this basis of measurement for comparison, the province of B.C. spends on the forest 33.4 per cent of its direct forest revenues. The Royal Commission on B.C. forest summarized this situation:

"The present expenditure on forestry projects by Canada in this province in view of the major contribution our forest industries make to the national economy in the domestic and international markets of the world is certainly not overly generous."

It will be appreciated therefore that expenditure by governments is inadequate in the field of fundamental and applied research on the growing of the crop. This is in sharp contrast with other areas of Canada where provincial and federal governments either jointly or separately are engaged

in impressive programs. The Ontario government maintain five regional research stations dealing with tree breeding, soils, silviculture, pathology and related studies. The federal government has an excellent laboratory at Petawawa, Ontario, estimated to have cost in excess of \$1 million.

Primary wood manufacturing industries provided in 1955 17.1 per cent of Canada's total value of output of all manufacturing; measured in the same way, British Columbia's dependence on the forest was more than three times as great, at 54.1 per cent. This comparison brings into focus British Columbia's need of greatly enlarged forestry research.

A few of the more important items requiring study in B.C. are:

Tree seed production and collection.

Development of strains of trees best suited to the geographic climate and soil condition.

Suitability of species to site.

Regeneration methods and practices.

Stand improvement.

Fertilization for improved growth.

Plant ecology.

Fire protection.

Effective slash burning.

Control of non-commercial vegetation.

Economics,—mainly related to allowable cuts and taxation applicable to forest growth.

Management of established stands. (Pruning, thinning growth, costs and returns).

Control of wild life damage and ways to obtain a balance between game management and forest regrowth.

The foregoing are but a few of the items not being attended to with adequate investigation, whether basic or applied, in B.C.

A full appraisal of all needs, together with analysis of work already being done in products research and insect and pathology would be necessary before priorities could be assigned. No one expects government to write out a blank cheque and say "Get on with it." There are four main agencies doing research in B.C.: provincial government, federal government, industry, and university of British Columbia. Some form of co-ordination more effective than the informal liaison now in existence is necessary. Each agency should be encouraged to do more. How much more each should do, and in what particular field, requires most serious consideration. The first thing for all to agree on is, that it is a very big job, and that a start on it is overdue.

The degree of participation by federal forestry and the form of its work should be studied carefully. For example, it may be that the dominion should specialize in the fundamental or basic scientific research, rather than attempt to enter all areas, which might cause overlapping or duplication. Decision would follow, when appraisal of the needs and coordination of the effort among all four agencies is obtained.

It is recommended:

1. The federal forest service, with its long experience and competent staff, should provide leadership in analysing the research needs of British Columbia.

A committee of experienced foresters representing the federal government, the provincial government, industry, and the university of British Columbia, under the chairmanship of a qualified layman, should make a comprehensive study of programs now in existence.

2. A working plan applicable for the next ten years, covering the items of greatest urgency, should be developed.

3. Adequate financing should be provided.

4. Federal government should be prepared to increase its participation to a degree,—

adequate to the tremendous need;

relative to its interest in the substantial revenue it draws from British Columbia's forests;

and at the very least, commensurate with the expenditure it undertakes in other Canadian provinces.

The CHAIRMAN: Gentlemen you have heard a very interesting statement. Would someone like to question the witness?

Mr. AIKEN: There is one figure I missed and that was the percentage of Canadian forest products that come from British Columbia. I believe you gave that figure.

Mr. MAHOOD: I said that the Canadian primary wood manufacturing industries provided 17.1 per cent and British Columbia dependence on the forest was 54.1 per cent. The point being that British Columbia dependence on the forests is more than three times as great as Canada.

Mr. BIGG: The witness said that the federal government had about \$100 million in revenue. Where does that come from?

Mr. MAHOOD: Primarily from income and corporate taxes in respect of the forest industry.

Mr. PAYNE: Relative to the matter of fire protection in our hinterland what fire protection is there in the border regions of the Yukon?

Mr. MAHOOD: The main agency responsible for the fire protection is the provincial government. They are dealing with that and they have a good organization in that respect. The problem in those northern areas and in particular along the Alaska Panhandle which you referred to is the lack of adequate access. In those zones there have been very heavy fire losses. I think that it is also a new area in respect to administration in that it has not been developed too heavily. It is only in recent years that the provincial government has had a specific fire organization in the area. They are dealing with different forest types than is in the southern part of the province and the fire hazard at certain periods is very high. They have quite a lot of different problems than they have had in the past and I think it probably fits into the same scope of which I have spoken here today that a considerable amount more research is required in that area for fire protection and more specifically some activity to provide access to the area.

Mr. AIKEN: I gather from your remarks that you feel that the federal government should do more in forest research in British Columbia and I was wondering if you would specify any suggestions you might have as to the places where such a program could be established and the type of work that could be done for the benefit of the committee and the officials that are here.

Mr. MAHOOD: I mentioned that the forest products side of research is being looked after, and in saying that I do not suggest that they are doing all that ought to be done. Undoubtedly, like all agencies, they could do more with appropriate budgets.

In the field of pathology and insect control there is a program, but I feel it could very readily be expanded particularly in the area of insect control. In mentioning those two areas I want to make it clear that they are being financed almost exclusively by the federal government at the present time.

It is in the area of general forest research, in respect of tree growing and protection, that the real vacuum—if you might call it that—exists. I would suggest that is the area which ought to be expanded.

Mr. STEARNS: You mentioned the cycle for B.C. fir is 75 to 100 years. What about the British Columbia spruce? What cycle do you work on in that respect? It is a species which competes with our eastern spruce.

Mr. MAHOOD: I would not like to go on the record as quoting something like that. My experience is not very great in the spruce area. As a general statement, I would not expect that spruce would grown any differently in British Columbia than it would here.

Mr. STEARNS: If we figure we work on about a forty year cycle here, could I assume that you would work on the same?

Mr. MAHOOD: Yes.

Mr. STEARNS: More and more the western spruce competes with our eastern spruce. The price at Boston today for eight inch western spruce is \$85 to \$90. We cannot afford to cut spruce unless we get \$108 to \$110. You are about \$20 under us all the time and we try to tell people our spruce is superior to yours which works once in a while but not often. If your prices were more in line with ours, would you not have more money to spend on your tree farms and on reforestation?

Mr. MAHOOD: That would be very nice if we could arrange it that way; but unfortunately we cannot raise our price and expect to sell it. If we are selling spruce at that price—and I do not know whether we are—it is probably because somebody else is selling at a low price and we have to get down to it.

Mr. STEARNS: Our salesmen were delighted to hear that the price went up from \$85 to \$90 at Boston for western spruce.

Mr. GUNDLOCK: That would be interior spruce?

Mr. PAYNE: I think we are a little off the beam. I think we have to look at the gross national product and its influence on the economy of Canada. We have a province with a dollar production in wood in Canada of 17 per cent, and a growing percentage in pulp. We have a province paying \$112 million in tax revenues and 1 per cent is being returned from the federal authority who receive that money. I think it is important that we should consider the statement that the federal and provincial governments receive around \$230 million annual revenue from agriculture and spend \$150 million, roughly, in research, and in the timber industry across Canada their revenue on the other hand, is \$175 million and the combined federal and provincial governments are spending around \$45 million in research. I think it is time that we started to shake our heads and get things in a little more perspective in our national economy.

I would like to ask a question which has been asked by a number of other members; that is, the source of pulpwood in British Columbia. The question is why do you use valuable and heavy timber for the production of pulp?

Mr. MAHOOD: I think that question was answered by Mr. Jenkins here when he mentioned that something like 1 million cords of waste wood goes into pulp in British Columbia. There are a number of changes in British Columbia, and very much more than in any other part of Canada. I think it is very significant, with one or two exceptions, that practically all the pulp mills in British Columbia do no primary logging for pulp products. The only ones doing that are the pulp mills in the high altitude type of pulp for rayon. They are logging hemlock primarily and converting it into pulp.

In the newsprint field, the wood going into pulp is now largely all small cuttings, pre or relogged out of the forest and it is not suitable for saw logs. The kraft pulp mills are using 100 per cent saw mill or logging waste. Frankly, I think the pulp industry in British Columbia could not exist if it was dependent

upon whole logs for its source of raw material. Its only ability to prosper in British Columbia at all is due to the fact that it has low-cost wood which is a waste by-product. If they were utilizing logs, they would be out of business. It is one of the important developments in our forest economy that these pulp mills have been developing waste utilization. It is quite a different situation in eastern Canada where the pulp mills are almost entirely doing primary logging for pulpwood.

Mr. PAYNE: In the program under the department of national resources, \$640,000 was spent last year in the province of British Columbia for access roads when the program of \$3,232,000-odd was instituted. Would Mr. Mahood tell us the effectiveness of this program? Is it justified?

Mr. MAHOOD: I am quite confident it is justified and very effective. I think I mentioned earlier the problem in the more northern areas, particularly those areas bordering on the Yukon and the new state of Alaska. I am not sure, but I understand that the major use of this money is to provide access for fire protection and the development of the country, and in that respect it is a very worth while undertaking.

Those of you who are from British Columbia know it is a very mountainous province with a good deal of undeveloped country. Any work in this district is certainly worth while.

Mr. PAYNE: In respect of the northern forests bordering on the new estate of Alaska, what effect has the Panhandle and the lack of access to it, going to have on forest development.

Mr. MAHOOD: I do not have any detailed information on that. However, as you know the Alaska Panhandle comes down almost to Prince Rupert and it has a narrow strip of twenty miles or so off the waterfront. There are some pulp and paper developments in Alaska and under development at the present time. They are putting their mills at tide-water and their wood supplies will be drawn from the valleys which end up in Canada. Their development on the foreshore of the country will be a road block to Canadian access to that northwest corner of the province. Access to the Panhandle and access from the western area of the province to the border of the Panhandle will be an increasing problem. How it will be solved, I do not know.

Mr. MARTIN (*Timmins*): You mentioned the quite considerable cost factor in respect of future crops. Would you outline this for us further?

Mr. MAHOOD: Well, the situation, of course, hinges on the very competitive nature of the whole forest economy, world wide. To bring wood from any distance by rail, or from rail to water, is very expensive. \$6 to \$8 a cord is just a round figure which you might expect to move wood 40 or 50 miles by truck or rail. We do not feel our economy can stand that. We have to utilize the wood close to our converting plants and centres of population. In a pioneer development, such as there has been in British Columbia, as the years go by you keep moving further and further back into the mountain areas, and in moving to the mountain tops you are getting species such as low-grade hemlock and balsam and a great deal more cedar, all of which are not readily salable.

Apart from our cost of production in respect of transportation going up, the sale value of the product goes down and the cost of converting it goes up. For instance, cedar makes an ideal pulp but it has a specific gravity of 20 or 21 compared to 28 in fir and hemlock, with the result that you get a much lower yield per cubic foot of wood going into pulp, less than in respect of Douglas fir. That increases your cost substantially. In a long-term sense we would not be able to compete unless we develop a new crop of desirable species which can be sold in the world market.

The feeling is that our job is to grow a new crop close to the mills on the land which is being logged off. That is going to be the sustaining area for our whole economy. I think there is a parallel situation here. Ultimately as eastern forests are logged in Ontario you will be bringing wood from Hudson bay, this would be very expensive. Fortunately, under proper management, the forests do grow up again and the logging cycle can be repeated on the areas close to the mills.

Mr. AIKEN: Is there any coordinated reforestation program in British Columbia, or is it purely voluntary?

Mr. MAHOOD: It certainly is a coordinated program. Under provincial policy and provincial law, there is a requirement to provide for reforestation in logging operations, and most of the major operations have planned their logging to provide for natural regeneration, and where they do not provide for that they undertake planting. A number of companies are now planting acre for acre in respect of logging.

Mr. FLEMING (*Okanagan-Revelstoke*): Do you feel that the program of regeneration is maintaining the forest?

Mr. MAHOOD: In terms of natural regeneration it is taking upwards of ten years before an area is restocked, and in a great many cases it is being restocked with unsuitable species which are not likely to be competitive in world economies.

Mr. FLEMING (*Okanagan-Revelstoke*): You feel that the species being planted are not satisfactory?

Mr. MAHOOD: No; the species being planted are almost 100 per cent Douglas fir on land which is suitable for it. The point is the reforestation, whether by natural or artificial means requires management if the best species are to be obtained. Research is needed to determine and improve this management.

Mr. FLEMING (*Okanagan-Revelstoke*): What is the policy in respect of these areas which are logged off by the small operator? Is there anything done if the smaller organizations have logged off an area? Are they responsible, or is it a responsibility of the provincial forestry branch?

Mr. MAHOOD: The provincial forestry branch is responsible for crown lands in public working circles. They have a working plan for the area and they regulate the logging to accelerate natural regeneration or they follow up with planting where it becomes necessary.

Mr. STEARNS: What acreage have you in tree farms at the present time out in British Columbia, approximately?

Mr. MAHOOD: I could not really pull a figure out of the air.

Mr. STEARNS: Have they started a program of tree farming in connection with their cut-over land?

Mr. MAHOOD: Yes.

Mr. STEARNS: Will it be 75 to 100 years before they can benefit from B.C. fir and before it will be large enough for commercial use.

Mr. MAHOOD: That is the expectation; but we will bring that down quite a bit after research data is obtained.

Mr. BIGG: Is it not true that money spent on forest fire protection is much better spent than on reforestation?

Mr. MAHOOD: No.

Mr. BIGG: If you are save an acre of grown trees you are saving fifty years' growth.

Mr. MAHOOD: You have to have the trees there first.

Mr. BIGG: You have millions of acres which are being burned over today and it would be a good thing if we could save them.

Mr. MAHOOD: Absolutely. That would be a very difficult question to answer categorically.

Mr. BIGG: When you burn the trees not only do you burn the trees but you also burn the land and you cannot grow any more trees on it.

Mr. MAHOOD: I would not want to minimize the value of fire protection.

Mr. BIGG: If you are going to spend \$100 million on something, it should be spent on something worth spending it on.

Mr. MAHOOD: I think we would have to spend it on both adequate fire protection and adequate research.

Mr. FLEMING (*Okanagan-Revelstoke*): You feel that the principal problem is the integration of the federal government, provincial government, industry and the universities?

Mr. MAHOOD: Yes. It is one of the main points to achieve.

Mr. FLEMING (*Okanagan-Revelstoke*): It comes back to that. There is integration required of the four agencies on a land program?

Mr. MAHOOD: I would prefer not to use the term integrate in the sense that they have to be under one administration. I do not think I used that term. I think I said coordination.

Mr. FLEMING (*Okanagan-Revelstoke*): Whether or not there is a central direction it would have to be an integrated program so that each agency will be working forward along a specific line.

Mr. MAHOOD: Something of the nature would be useful.

The CHAIRMAN: Have you any estimate of the damage done in dollars annually by insects or worms in British Columbia?

Mr. MAHOOD: Yes. You are all familiar with the damage which has been experienced in eastern Canada with the spruce budworm. However, we have had an outbreak of a similar type of insect which has been dealt with very effectively. We have, however, a problem which is probably unique compared to other parts of Canada, in that we have the ambrosia beetle which attacks the log as soon as it is cut and does a great deal of damage to the lumber in the sense of degrading it.

The problem is that most of the areas of the world have quarantine restrictions in the respect that they do not allow importation of this lumber. We cannot export lumber infected by the ambrosia beetle to Australia and Britain and so on, and the American market is getting much more resistant to it. The real damage is in the sense of degrading and it is estimated that it costs coastal British Columbia something in the area of \$4 or \$5 million a year in lumber value in the production on the coast alone.

This is an annual loss far exceeding direct losses due to insects such as bud worms. The control of ambrosia beetles has been worked on quite aggressively in the last several years, and for a number of years prior to that on more of a long-term investigational basis by the federal government. It has recently been indicated that there are some substantial control measures for the beetle, first of all by reducing the amount of woods inventory to a minimum and getting the logs to water storage where they can be sprayed economically by chemical.

However, the insecticides used in respect of the ambrosia beetle are new. There is a danger these chemicals can be damaging to other types of biology, particularly fish, and a great deal of research has to be done to control the application of these measures which will alleviate the problem.

Mr. STEARNS: If the trees are debarked, will the beetle attack them anyway?

Mr. MAHOOD: Yes. They will even attack them after 18 months of submersion in salt water.

Mr. FLEMING (*Okanagan-Revelstoke*): If coordination of effort appears to be the most desirable thing in order to achieve some long-range objectives, how would you suggest that we arrive at a start on this coordination? Where would it originate and how could something effective be done to secure more effective coordination of effort?

Mr. MAHOOD: Your question is how should the demand originate?

Mr. FLEMING (*Okanagan-Revelstoke*): If this is required, how can we arrive at the point where the coordination begins to take place more effectively perhaps than it is at the present time?

Mr. MAHOOD: I feel there is a willingness to coordinate and cooperate by all the agencies which are now in action in British Columbia. The problem probably lies at the financial level. If, at the moment, there was some indication by the federal government and that it is prepared to participate on a scale which they have not previously done, then the province, certainly, as well as industry, would have a clearer appreciation of their areas for contribution on a long term and planned basis.

Mr. FLEMING (*Okanagan-Revelstoke*): If the money were available, the coordination or the cooperation would automatically follow?

Mr. MAHOOD: I am quite sure of that. My point is that the federal authority has been in the research field, in the rest of Canada. They have a very competent and qualified staff. The opportunity is there for this staff if given adequate financing to expand activities into British Columbia and be the basis for an enlarged program in the province.

Mr. FLEMING (*Okanagan-Revelstoke*): There is not sufficient money available at the moment to do the job?

Mr. MAHOOD: I understand it has not been made available.

Mr. PAYNE: I think that there is research being done Teredo. What is the annual loss through Teredo and what agencies are working on that control? We were advised there were developments under way whereby some electrical process was being used in log booms. Have you any knowledge of this, and is it effective?

Mr. MAHOOD: I do not have specific information of the Teredo research program with me of what progress is being made. It is a problem similar to the ambrosia beetle problem. I could not estimate the losses. It would be very substantial. The agencies which are doing the work on it are the British Columbia Research Council, in particular, as well as several industrial companies of the industry which do specific research of the problem. A number of other companies contribute to the activity either through the university or to other agencies. I could not indicate to you at all the scope these contributions or the total expenditure involved.

Mr. AIKEN: I would like to ask a question of one of the departmental officials. In a general way we have been discussing cooperation between the federal and provincial authorities and private authorities. I wonder if the department could tell us in what fields the federal contribution is generally made? Is it in research exclusively, or do they also contribute on reforestation projects?

Mr. J. D. B. HARRISON (*Director, Forestry Branch*): As outlined previously to the committee, we have these agreements under the Canadian Forestry Act and one or two other special agreements whereby federal assistance has been given to the province for certain specific activities which include forest

inventory work, and reforestation of vacant crown land. In addition, the assistance has been extended on a large scale to New Brunswick in respect of the budworm and assistance on a somewhat smaller scale was carried out in British Columbia.

Apart from that, the main functions of the department are research in forest products—I might say that forest product research is to all intents at the government level and in research respecting the growth of the forests, forest managements, etc. Reference has already been made to the work in forest entomology and forest pathology by the science services of the Department of Agriculture. That may be regarded as covering two sections of the field of forest protection. Forest fire protection lies with the forestry branch.

The other lines of activity, to take one of the smaller ones, include research in improved forest inventory methods. Then, thinking of the whole field as a circle, the remainder is given over to research on many different aspects of the growth of the forest ranging from experiments in silviculture, experimental treatment of the forest itself, studies of improved methods of measuring the forest and especially measuring growth and yield, and work in a great many of what we call allied sciences including ecology which is the relationship between the growing plant and the tree and its environment, site classification systems, tree physiology, with special regard to flowering and the production of seed; and forest meteorology. I could go on with this quite a while, but the point is an endeavour is made to carry out an integrated program cooperating in the various districts with whatever agencies happen to be in that field. It is different from district to district, so as to carry that work to all these major fields at least to some extent at the same time. Because we have found by experience that that is the way to make the best progress. Work in one part of the field can have the most surprising or extraordinary result in another part of the field. Does that answer your general question?

Mr. AIKEN: Did I understand from Mr. Mahood that your department does not maintain any establishment in British Columbia, that is, the building with headquarters as such.

Mr. HARRISON: We have an excellent forest products laboratory there. It has just been built. We have been working in that field for many years in British Columbia. With respect to forest research, up to two years ago the British Columbia government did that by itself, aside from what is done by industry. Two years ago we were invited to do two things. One was to undertake certain aspects of forest fire research in British Columbia in an effort as a first step, to adopt what we called the Wright system of fire danger measurement of conditions in that province. It is very different from the rest of the country. We have had two parties out there and they are still working. We were also asked to undertake some of the work in the allied sciences and as a start we have one physiologist out there. The committee may be interested to know that the chief of the Forest Research Division is in British Columbia now discussing the development of that program.

Mr. CÔTÉ (*Assistant Deputy Minister*): Mr. Chairman, I think I might interject to make one point to supplement what Mr. Harrison has said just now. That is that the federal payments to the provinces under the various federal-provincial agreements under the Canada Forestry Act up to March 31, 1958, totalled something over \$8.2 million and during that same period up to March 31, 1958, British Columbia received \$3.2 million of federal money and assistance in the various fields of forest inventory, reforestation, fire protection and access roads.

Mr. PAYNE: That was covered by a statement given earlier and was stated as the amount spent on access roads and fire protection. What is the breakdown, how much was for research and how much was under this access road and fire protection?

Mr. CÔTÉ: This is not research, sir, this is federal government assistance under the federal-provincial agreement.

Mr. PAYNE: Have you a breakdown of what that figure consists of?

Mr. CÔTÉ: Yes sir. For British Columbia on the forest inventory a total of about \$2.9 million, for forest inventory; reforestation, \$137,000; fire protection, over \$100,000; access roads last year \$77,000.

Mr. PAYNE: Over what period of time are these figures taken from.

Mr. CÔTÉ: It originated about 1952, sir.

Mr. PAYNE: Did it start in 1952, the first payments when the agreements were first established?

Mr. CÔTÉ: That is correct.

Mr. PAYNE: The evidence given earlier, that \$3.2 million was spent on access roads and fire protection roads, was incorrect, then? This \$3.2 million represents about \$77,000 some odd for fire protection and access roads?

Mr. CÔTÉ: For British Columbia, sir?

Mr. PAYNE: Yes, for British Columbia.

Mr. CÔTÉ: The figure was \$610,000 for all of Canada on access roads.

Mr. PAYNE: I am discussing the figures of spending in British Columbia since 1952 of \$3,232,000.

Mr. CÔTÉ: Correct.

Mr. PAYNE: What amount of that would you say was for access roads and fire protection roads?

Mr. CÔTÉ: On access roads, \$77,000.

Mr. PAYNE: In the evidence of an earlier statement given in this committee on access roads and fire protection roads the full amount was spent in British Columbia over that period of years. That earlier evidence given then is incorrect?

Mr. CÔTÉ: What figure was given on access roads?

Mr. PAYNE: We were told at a much earlier session of this committee that there was on the program of access roads and fire protection \$640,681 spent last year and under the total program for access roads and fire protection roads over the period since the inception of this program had been \$3,232,676. Now we are told that there are \$77,000 listed for fire protection and access roads. It is very difficult for us to form a proper logical conclusion based on information of this type.

Mr. CÔTÉ: Well, I think sir you will find that this table has been published *in extenso* in the evidence and that \$3.2 million is British Columbia's proportion. The \$77,000 is for road access for British Columbia; \$100,000 is for fire protection for British Columbia; reforestation, \$137,000 and something in the order of \$2.9 million for forest inventories. The total amount for access roads in Canada was listed here at \$610,000.

Mr. PAYNE: Yes that is right.

Mr. CÔTÉ: And fire protection something in the order of \$500,000 for the first fiscal year. This was the total amount provided for in the agreement for all of Canada and was completely spent. British Columbia did expend its full share of that.

Mr. PAYNE: This is quite contrary to the information that was given to us at an earlier meeting. Certainly we were not given to believe that this was inclusive of operations other than access roads and fire protection.

Mr. CÔTÉ: I think, sir, this table as such was tabled to the committee at that time.

Mr. PAYNE: I think the committee should be properly and fully advised on questions asked, and not given this in scanty detail, because I had up until now considered we had in British Columbia a reasonable program in access roads. I find at this late date we have veritably no program at all. It was

dictated to us otherwise. I do feel, Mr. Chairman, that it is the responsibility of our expert witnesses to bring us accurate and full advice. It is difficult for us to form opinions or act in committees on a sensible and logical basis if our information is faulty.

The CHAIRMAN: These figures were tabled, you know.

Mr. PAYNE: They were also dictated to us here at the meeting.

Mr. KINDT: Would it be possible to go from the general to the particular. May we have the lump sum or the entire sum set out giving in column one the figure for the Dominion of Canada, and then have a breakdown by provinces, with reference to the various uses of roads and access roads and all the other details. Perhaps that is available in some table. If the witnesses would refer particularly to that table, it would place in our hands the information desired.

Mr. CÔTÉ: Mr. Chairman, this information was tabled before the committee on July 7 and it is published in proceedings No. 10 on page 269.

The CHAIRMAN: Have you your copy of the proceedings before you, Mr. Kindt?

Mr. KINDT: I am sorry I have not got them here.

Mr. CÔTÉ: This is the evidence I mentioned a moment ago.

Mr. PAYNE: They may have been tabled after the meeting. But I am referring to that which was given in evidence and which was dictated to us at the time the question was asked. The question was asked by two members. One was by myself and the other by Mr. McLennan, as we were both interested to know if there was an access road program in operation in British Columbia, and this was the information which was passed verbally to us. The table, or the schedule, may have been tabled at a later date. However, this was dictated, and I must confess that it was with some amazement we found that a program had been in existence since 1952 because those in the forestry business in our part of the world, surely did not know anything about it.

Mr. CÔTÉ: It would be helpful to me, sir, if the member could indicate roughly the date on which these questions were asked and when this was dictated.

Mr. PAYNE: I cannot reply definitely. It was one of the first meetings, in the early discussions we had on forests. However I am sorry to take up so much of the committee's time.

The CHAIRMAN: Are there any other questions?

Mr. DUMAS: While Mr. Mahood is here I would like to say something. I am not going to question Mr. Mahood. His statement this morning was very interesting, although it could have been made by any other forester or in any other part of Canada because the complaint has always been that the federal government has not thrown back into the industry enough money compared with what has been paid by industry to the federal government. But we must not forget that the first responsibility is a provincial responsibility and of course the Canadian Forestry Association, and the Quebec Forestry Association and all the other associations claim also that the province has not put back into the industry a sufficient percentage of the money which has been paid by the industry.

I would appreciate it, first of all, if Mr. Mahood would tell us this morning if he is satisfied with what is being done by his province in this,—is the province doing enough for the British Columbia forest industry or could the province do more?

Mr. MAHOOD: I think they could be doing a great deal more. I do not think people generally or the public realize the degree to which forestry supports the Canadian economy. If we were to stop all forestry activity in Canada, people would be astounded to find how our standard of living would drop and

our ability to employ people and so on. We are not a really agricultural province at all in British Columbia. Canada as a whole is not, as most people popularly believe an agricultural country. Most people regard it as an agricultural country. It is not, it is a forest country. For 50 years we have been talking always about the vastness of our forests and for that same 50 years we have done extremely little to develop them on an adequate, long term, sustaining basis. I feel that the public of Canada could well afford to increase their forestry activities.

Someone mentioned that the United States was doing something like six times as much. Well we should be doing it ten times more. I do not think we are scratching the surface of what we have to do to maintain our economy in this direction.

Mr. DUMAS: You are right, Mr. Mahood. I am a forester myself and I think much more should be done for this very vital industry. If my province, like any other province, would come to the federal government and say "We want more money for our forests. We want more money for forest production and access roads," probably the federal government would in part answer the suggestions made by the different provinces.

I notice here in this table under the Canada Forestry Act this program was started in 1952. It has been mentioned by Mr. Côté that a total of \$8 million has been paid. Two and three quarter million dollars have been paid to the province of Ontario and \$3.2 million has been paid to the province of British Columbia. Much more could have been paid but maybe if the province would have asked for more, they would have received more too. That is one point we have to consider.

Mr. MAHOOD: No doubt they have asked for me. I am not sure of that; but I fancy if they are like other British Columbians they probably have. It should be put in perspective, that the \$3 million quoted for British Columbia for the period is largely devoted to inventory work which I believe is a five year program now coming to a close. So there is a one-shot activity in there which may never be repeated.

Mr. DUMAS: Much more money could be spent on forest fire protection.

Mr. MAHOOD: Absolutely. I think if you took out the inventory thing which I suggested as a one-phase investigation, so to speak, the balance of the other expenditures is quite small in perspective.

Mr. DUMAS: Now, Mr. Mahood, across the country we have five district offices, for the Forestry Branch. We have one in Calgary, one in Winnipeg, one in Valcartier, Quebec, one in Fredericton and one in St. John's, Newfoundland. Do you feel that the country should be subdivided? Do you feel that there should be more of those district offices?

Mr. MAHOOD: There certainly should be a district officer in British Columbia. He would be doing a similar amount of work to the district officer, say, for example, in Valcartier, Quebec.

Mr. DUMAS: Is British Columbia dependent on the Calgary office as it is now?

Mr. HARRISON: No.

Mr. DUMAS: Are the operations in British Columbia under the Calgary district office?

Mr. HARRISON: Not in research, no.

The CHAIRMAN: Well then, gentlemen, shall we approve the items?

Items agreed to.

The CHAIRMAN:

I am sure the members of the committee would wish me to thank Mr. Mahood for having appeared before us this morning.

Some hon. MEMBERS: Hear! Hear.

(—The committee continued in camera.)

INDEX

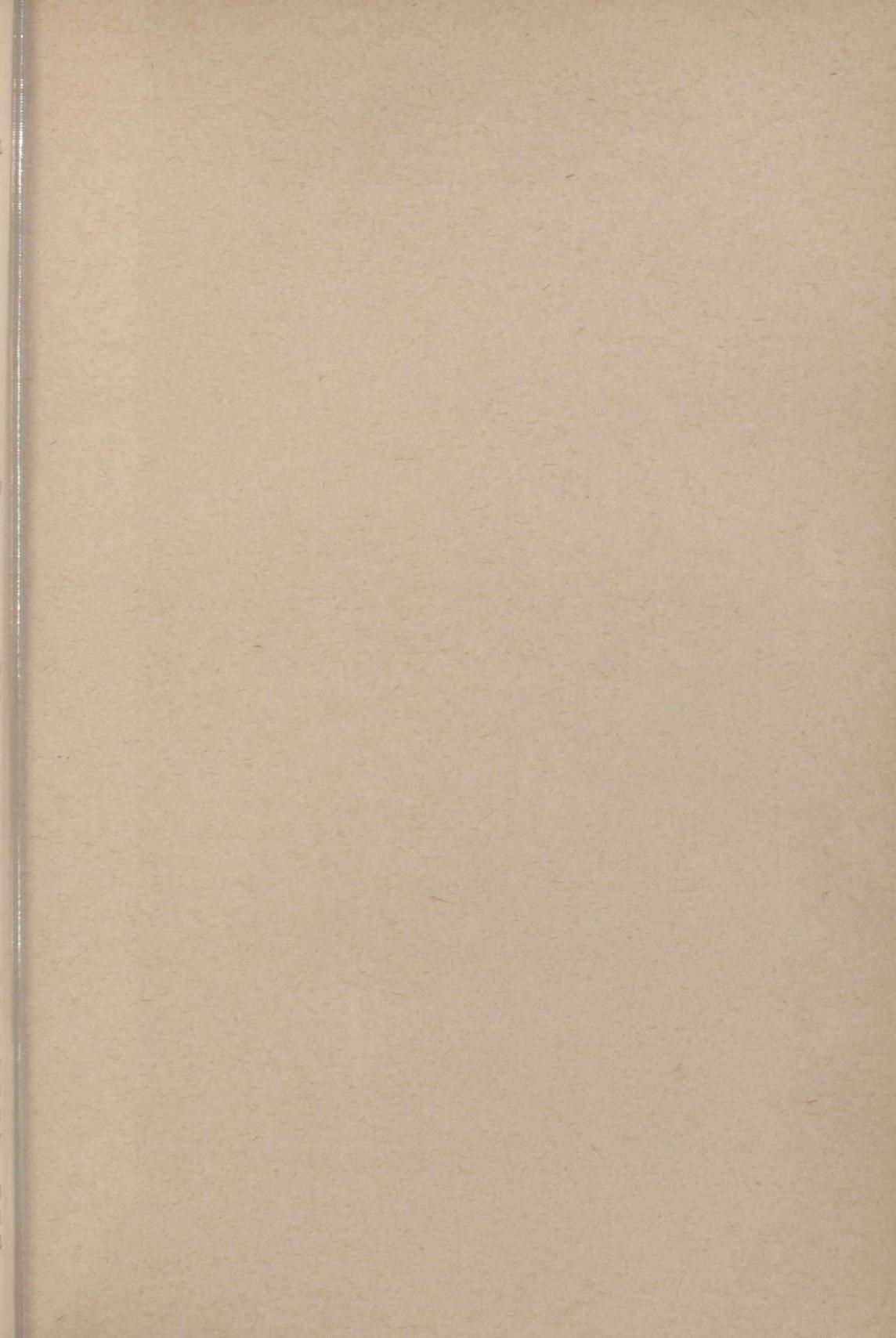
ESTIMATES—DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

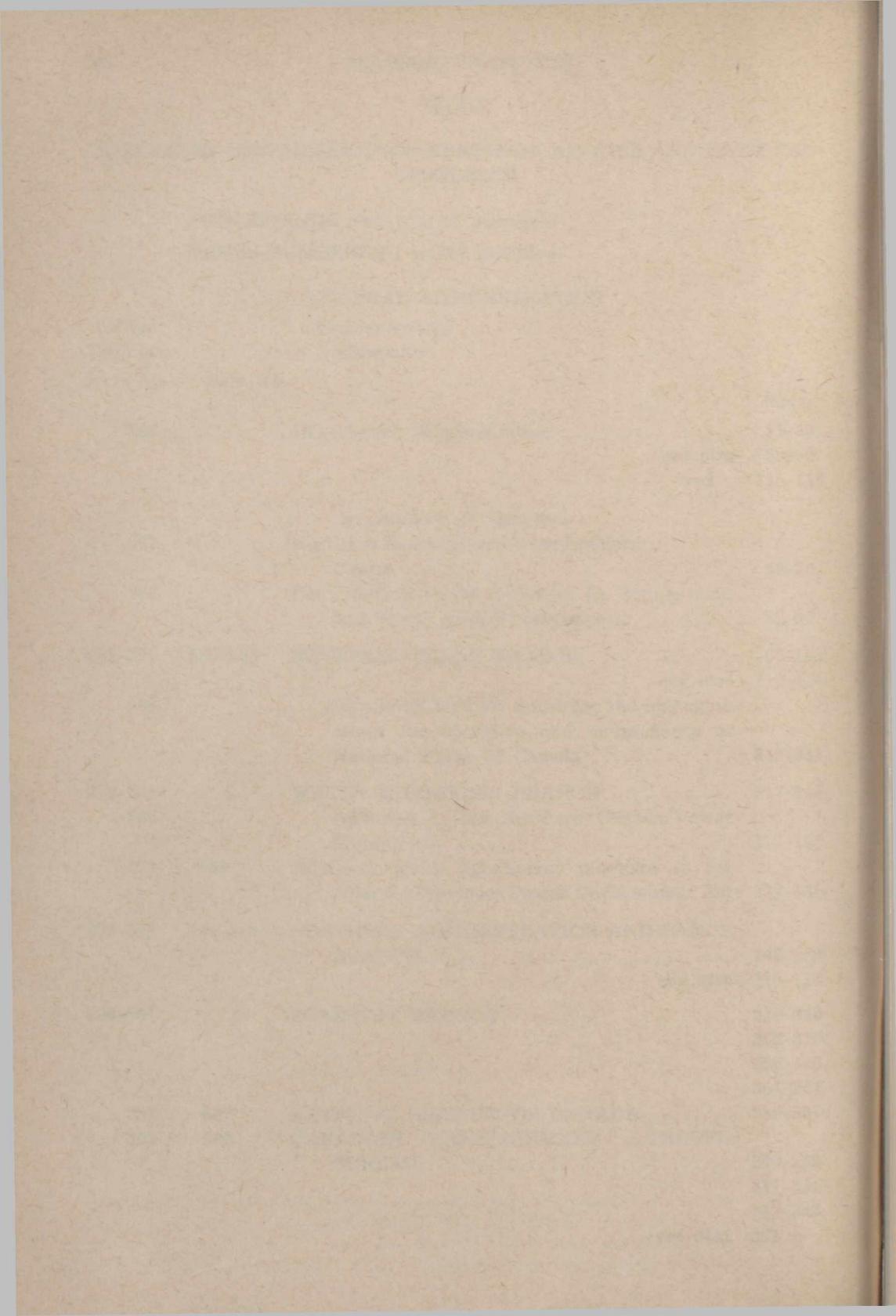
PROCEEDINGS Nos. 1 to 13 inclusive.

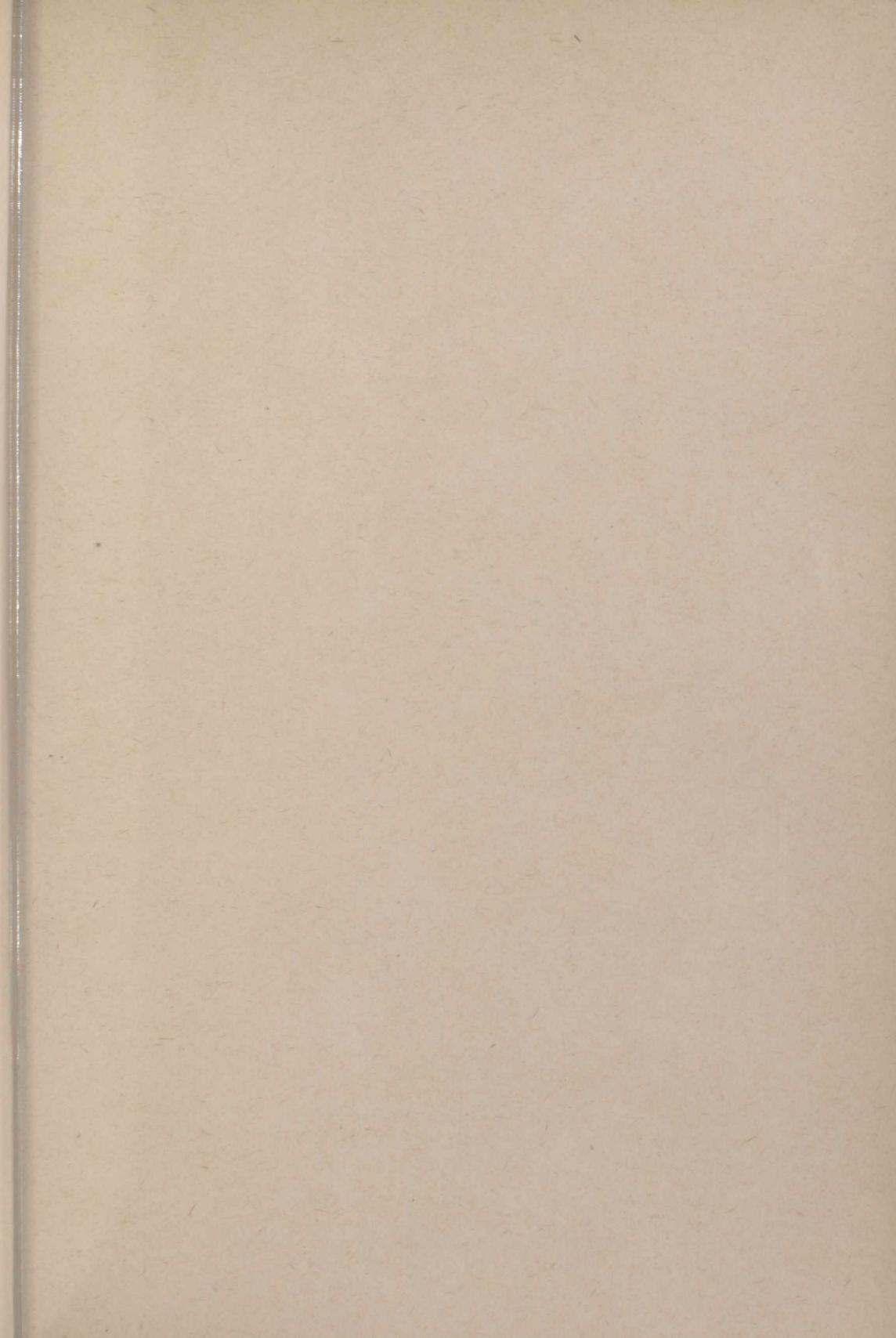
PAGES NUMBERED 1 to 367 inclusive.

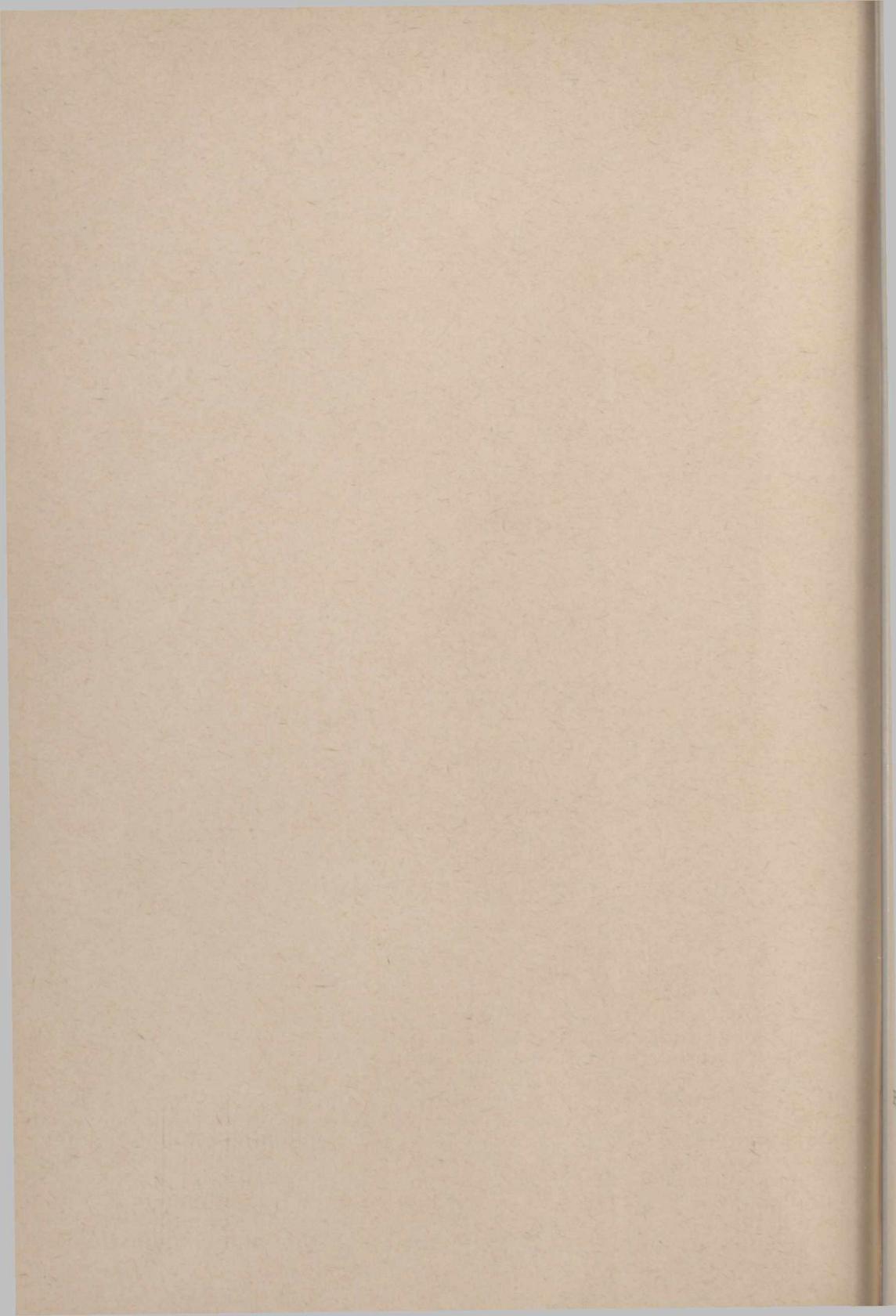
GENERAL ADMINISTRATION

<i>Main Estimates</i>		<i>Supplementary Estimates</i>		<i>Pages</i>
<i>Item No.</i>		<i>Item No.</i>		
266		Department Administration		11-49
			<i>see also</i>	59-60
			<i>and</i>	115-116
STATEMENT OF MINISTER				
267		Northern Research and Coordination Centre		49-25
268		Contributions to the Provinces for Campground and Picnic Area Developments		52-62
269-275	580-583	NATIONAL PARKS BRANCH		62-108
			<i>see also</i>	113-114
508		Revolving fund for acquiring and managing stores for operation and maintenance of National Parks of Canada		342-343
276-281		WATER RESOURCES BRANCH		117-145
506		Advances to the Northern Canada Power Commission		117-145
507	659	Advances under agreements pursuant to the Atlantic Provinces Power Development Act		117-145
282-289	584-586	NORTHERN ADMINISTRATION AND LANDS BRANCH		146-229
			<i>see also</i>	115-116
290-301		FORESTRY BRANCH		229-240
				262-310
				325-335
				351-367
302	587	NATIONAL MUSEUM OF CANADA		336-337
303	588	CANADIAN GOVERNMENT TRAVEL BUREAU		240-258
				311-321
				337-342
			<i>see also</i>	261









HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 14

MONDAY, JULY 14, 1958

Estimates 1958-59 of the Department of
Mines and Technical Surveys.

WITNESSES:

Hon. Paul Comtois, Minister; Dr. Marc Boyer, Deputy Minister; Dr.
J. M. Harrison, Director, Geological Survey of Canada; and Mr.
W. H. Miller, Director, Surveys and Mapping Branch.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-President: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafleche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

ORDER OF REFERENCE

HOUSE OF COMMONS,
Wednesday, July 2, 1958

Ordered,—That items numbered 193 to 218, inclusive, as listed in the Main Estimates 1958-59, and items numbered 575 to 577 inclusive, as listed in the Supplementary Estimates for the fiscal year ending March 31, 1959, relating to the Department of Mines and Technical Surveys, be withdrawn from the Committee of Supply and be referred to the Standing Committee on Mines, Forests and Waters, saving always the powers of the Committee of Supply in relation to the voting of the public moneys.

Attest.

LEON J. RAYMOND,
Clerk of the House.

THE UNIVERSITY OF CHICAGO

OFFICE OF THE DEAN

CHICAGO, ILLINOIS

January 15, 1950

Dear Mr. [Name]:

I have your letter of January 10, 1950, regarding the [subject]. The [subject] is being handled by the [department]. I am sorry that I cannot provide a more definitive answer at this time, but the [department] is currently reviewing the [subject]. I will contact you again once a final decision has been reached.

Sincerely,
[Name]

MINUTES OF PROCEEDINGS

MONDAY, July 14, 1958
(17)

The Standing Committee on Mines, Forests and Waters met at 10.30 a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Baldwin, Baskin, Cadieu, Coates, Doucett, Dumas, Fleming (*Okanagan-Revelstoke*), Granger, Kindt, Korchinski, MacRae, Martel, Martineau, McLennan, Murphy, Nielsen, Payne, Pugh, Roberge, Stearns, Ville-neuve and Woolliams. (22)

In attendance, from the Department of Mines and Technical Surveys: The Honourable Paul Comtois, Minister; Mr. J. Richer, Executive Assistant to the Minister; Dr. Marc Boyer, Deputy Minister; Dr. W. E. van Steenburgh, Director-General of Scientific Services; Dr. J. M. Harrison, Director, Geological Survey of Canada; Dr. J. Convey, Director, Mines Branch; Dr. C. S. Beals, Director, Dominion Observatory; Mr. W. H. Miller, Director, Surveys and Mapping Branch; Mr. W. K. Buck, Chief, Mineral Resources Division; Mr. E. J. Fraser, Assistant Chief, Explosives Division; Mr. K. M. Pack, Chief Administrative Officer; Mr. R. B. Code, Chief of Personnel; and Mr. G. H. Murray, Chief, Editorial and Information Division.

The Chairman read the Orders of Reference of July 2, 1958, whereby certain Estimates of the Department of Mines and Technical Surveys were referred to the Committee.

The Committee proceeded to consider the Estimates of the said department.

On motion of Mr. Dumas, seconded by Mr. Baldwin,

Resolved,—That the Committee print 750 copies in English and 250 copies in French of its Minutes of Proceedings and Evidence concerning its consideration of the estimates of the Department of Mines and Technical Surveys.

Items 193 to 195 inclusive of the Main Estimates were called.

The Minister made a statement on the work and responsibilities of his department and of himself as its Minister, copies of which had been distributed to the Committee. The Minister and his officials were questioned on the subject matter of the statement.

It was agreed that the next meeting, on Tuesday, July 15th, be devoted to further consideration of the Estimates of the Department of Northern Affairs and National Resources (See Proceedings No. 13); and that Items 193 to 195 of the Estimates of the Department of Mines and Technical Surveys stand until Friday, July 18th.

At 12.30 o'clock p.m. the Committee adjourned until 9.00 o'clock a.m. on Tuesday, July 15, 1958.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

OF THE BOARD OF DIRECTORS

OF THE [Faded Name] COMPANY

HELD AT [Faded Location] ON [Faded Date]

[Faded text block containing the beginning of the meeting minutes, including the opening prayer and the reading of the minutes of the previous meeting.]

[Faded text block containing the report of the officers and the financial statement.]

[Faded text block containing the discussion of the company's business and the adoption of resolutions.]

[Faded text block containing the adjournment of the meeting.]

[Faded text block containing the closing remarks and the signature of the secretary.]

[Faded text block containing the names of the directors and officers.]

[Faded text block containing the date and location of the meeting.]

[Faded text block containing the names of the directors and officers.]

EVIDENCE

MONDAY, July 14, 1958.
10:30 a.m.

The CHAIRMAN: Gentlemen, we have a quorum.

We are here to consider the estimates of the Department of Mines and Technical Surveys. Our first item will be number 193. The minister will, in a moment or two, make a statement.

It is necessary for us again to consider the quantity of copies of the proceedings to be printed.

It has been moved by Mr. Dumas and seconded by Mr. Baldwin, that we have 750 copies printed in English and 250 copies printed in French, on the estimates of Mines and Technical Surveys.

Motion agreed to.

Before the minister makes a statement I am going to repeat what I said when we began the study of the estimates of the Department of Northern Affairs and National Resources, namely, that I am going to allow considerable latitude. This is a very interesting department and I know the minister and his deputy and officials want you to scrutinize the items. I hope that you will get as much pleasure out of the study of the estimates of this department as we did out of the ones we have just finished. Tomorrow morning we will have another session.

I shall now ask the minister to make a statement.

Hon. PAUL COMTOIS (*Minister of Mines and Technical Surveys*): Mr. Chairman, and members of the committee I am pleased to be here this morning. It is quite an experience for me to be before the standing committee for the first time. Last year, as you know, we did not have this opportunity of discussing the estimates of my department. Last year was my first experience in the House and I can tell you that it was a real one.

I am pleased to have with me the officers of the department to discuss every matter concerning my department.

I have prepared this statement or speech. It is not a political speech at all as you will see. Everyone has a copy of it.

As you know I am a French-Canadian. I shall probably make some mistakes in my pronunciation but if you were to try to say this in French, you would be more likely to understand my mistakes.

Some Hon. MEMBERS: Hear! Hear!

Mr. COMTOIS: So as not to delay you we will start immediately.

ADMINISTRATIVE SERVICES

Main Estimates	
Item 193. Departmental Administration	\$623,942
Item 194. Explosives Act—Administration, Operation and Maintenance	\$113,055
Item 195. Mineral Resources Division— Administration, Operation and Maintenance	\$230,700
	<hr/>
	\$967,697

You informed the committee on June 9 that it would be considering matters related to the development of our natural resources, including, evidently, the important field of mineral resources.

You referred to my department as the one that provides the basic scientific knowledge and technical assistance indispensable to mineral and other resources development.

I should like now Mr. Chairman, to make some remarks on my department, largely by way of telling the committee something of its functions, the nature of and reasons for its activities, its relationship with other dominion and provincial government departments and agencies with industry, and with international agencies, and how it is organized to conduct its activities.

Each of you has received a copy of the act establishing the department and I should like to direct your attention in particular to clauses 5, 6 and 7.

Clause 5 defines the duties, powers and function of the minister. It reads as follows:

The duties, powers and function of the minister extend to and include all matters over which the parliament of Canada has jurisdiction relating to mines, minerals, explosives and technical surveys.

Clause six in its seven sections defines in broad terms the nature and scope of my department's functions, as does clause seven. They read as follows:

6. The minister shall

(a) collect and publish full statistics of the mineral production and of the mining and metallurgical industries of Canada, and such data regarding the economic minerals of Canada as relate to the processes and activities connected with their utilization, and collect and preserve all available records of mines and mining works in Canada;

(b) make detailed investigations of mining camps and areas containing economic minerals or deposits of other economic substances, for the purpose of determining the mode of occurrence, and the extent and character of the ore-bodies and deposits of the economic minerals or other economic substances;

(c) make a full and scientific examination and survey of the geological structure and mineralogy of Canada;

(d) make such chemical, mechanical, metallurgical and other researches and investigations as are necessary or desirable to carry out the purposes and provisions of this act and particularly to aid the mining and metallurgical industry of Canada;

(e) have the control, management and administration of any astronomical observatories maintained by the government of Canada;

(f) collect and prepare for exhibition such specimens of the different ores and associated rocks and minerals of Canada and other materials as are necessary to afford a knowledge of the geology and mineralogy and the mining and metallurgical resources and industries of Canada; and

(g) prepare and publish such maps, plans, sections, diagrams and drawings as are necessary to illustrate and elucidate any reports of investigations and surveys made pursuant to this act.

7. The minister may, for the purpose of obtaining a basis for the representation of the mineral and mining resources and of the geographical and geological features of any part of Canada, cause such measurements, observations, investigations and physiographic, exploratory and reconnaissance surveys to be made as are necessary for or in connection with the preparation of maps, sketches, plans, sections or diagrams.

The members of the committee have also received copies of a reprint from the April 1958 edition of the Precambrian, a mining periodical published in Winnipeg. The reviews of our activities contained therein were prepared

by officials of my department at the request of the publishers of the Precambrian who kindly devoted practically the whole April issue to the department.

My remarks will partly supplement the information contained in the reprint and I also draw freely from the text during the course of my talk. With reference to the reprint, I should like to stress the statement that appears in the foreword which reads:

A department, like a person, can be busily engaged for years on important activities and yet comparatively few, other than those directly interested, become more than vaguely aware of its existence. To a large degree this is true of the Department of Mines and Technical Surveys. Most of those who use its services or otherwise benefit from them are perhaps fairly well aware of its activities, their purposes and its accomplishments.

It is desirable, however, that an organization which serves an industry whose annual output is now well in excess of two billion dollars be more widely known. For the work it does, why it is being done, the facilities for doing it, and the people who do it are matters of interest, not just to a few, but to the many—because they all benefit directly or indirectly from its activities. Moreover, these matters will be of still greater interest in the years ahead, for it can be safely assumed that resources development will figure even more prominently in the future than in the past in the expansion of the Canadian economy.

Support for the latter view appears in the final report of the Royal Commission on Canada's Economic Prospects. Dealing with the outlook for mining and looking ahead 25 years, the statement reads in part:

The course of external demand for the products of Canada's mines and forests will be strong and buoyant and will lead to a large expansion in output. There may well be more than a 50 per cent increase in the production of lead and copper; almost a doubling in the production of nickel and zinc; a fourfold increase in the production of aluminum; and more than a fivefold increase in the production of iron ore. Proved reserves of the principal minerals in Canada are already adequate in most cases to maintain production at the present levels over the next twenty-five years and it is probable that new methods of prospecting will lead to the discovery of new deposits, which should enable the increased demands that are anticipated to be met.

We anticipate that the resource industries, including forestry, fishing, mining and electric power, will grow in relative importance in the economy. In 1955 they accounted for 10 per cent of the total output. By 1980 the figure will possibly have risen to approximately 15 per cent.

As I stated, clauses 5, 6 and 7 of the act provide an overall, legally worded picture of my department's duties and functions. In dealing with the functions I should perhaps state at the outset that we are primarily, though by no means wholly, concerned with mineral resources development. This will be borne out by remarks I shall make later. I should also state that my department is essentially a research and technical organization, although we do have two main administrative functions. We administer the Emergency Gold Mining Assistance Act, which provides cost-aid to our gold mines, and the Explosives Act, which regulates the manufacture, storage, sale and importation of explosives and the transportation of explosives by road. The act does not apply to explosives under the control of the Minister of National Defence nor to transportation by vessel, aircraft or public railway. Its main object is to ensure the safety of the public and of those handling explosives.

Apart from this, however, research is either the active or end purpose of practically all our work. Most of the sciences and technical skills are represented on our professional staff. We have geologists, mineralogists, geophysicists, metallurgists, physicists, chemists, hydrographers, astronomers, geographers, engineers and surveyors. And here I should like to state that, over the years, my department has been fortunate in attracting to its staff scientists and engineers of outstanding and widely recognized ability without whose services a research organization such as ours would be unable to function. The fact is that a nation like Canada, with its great potentialities for growth, has more need than ever for people of such skills. This scientific and industrial progress of our neighbour across the Arctic serves as a constant reminder of this.

The functions of my department actually start with its mapping services. We are the mapping organization of the government of Canada. We establish the framework of surveys throughout the country which provides control for all other surveying and mapping in Canada. We also provide the maps used in the development, not only of our mineral resources, but of all our national resources. In this same general field of endeavour we do all the charting of Canada's coastal and inland waters. We issue the official Canadian sea and air navigation charts, volumes of sailing directions and the standard tide prediction tables for Canadian seaports, and we maintain the National Air Photographic Library in which one print from each air negative taken by or for the Dominion Government is filed. At present approximately two and a half million photos covering nearly all the land area of Canada are on file. And you should see these in the department. You will be surprised at the extraordinary number of files and maps we have in hand.

My Department also has the important task of mapping the geology of Canada. In this work and in the other mapping work I have mentioned, use of the latest surveying, mapping and other techniques is required to keep abreast of the demands. During the past five years, for instance, we have mapped several hundred thousand square miles of Canada's North on a reconnaissance basis by use of helicopters and supporting fixed-winged aircraft.

The end results of our geological work are the reports and maps. These are intended mainly for the guidance of prospectors and others actively concerned with the search for and development of mineral deposits and as a contribution to geological science.

As a part of its geological services to industry my Department maintains a few regional offices. Our office at Calgary is the largest of these. It makes basic geological information available to the oil industry to aid in the exploration for oil and gas.

Our Vancouver office assists local industry in matters relating to ground water supplies, engineering geology and occurrences of metallic and industrial minerals. At our Whitehorse and Yellowknife offices the resident geologists help in the development of the mineral resources of the territories. Our office at Sydney is maintained in cooperation with the Nova Scotia Department of Mines and the Nova Scotia Research Foundation. It is concerned mainly with problems of the coal industry.

As a natural follow-up to our geological services we maintain well-equipped laboratories for research on the processing of ores and minerals for the economic recovery of the marketable products. In this same general field of activity we also have laboratories for researches on solid, liquid and gaseous fuels and in physical metallurgy. Much of our present work on fuels relates to Canadian coals and most of our work in physical metallurgy is in the nature of a service to the metal fabricating industries and to the Department of National Defence.

My department is concerned also with the economics of mineral resources development and our mineral resources division, attached to our head office, gives its whole attention to such matters.

The division collects and prepares information for use of my department, other government departments, industry and the public on mineral resources and on legislation affecting the mineral industry. It carries out economic studies on all aspects of Canada's mineral industry. It assists in the administration of the Emergency Gold Mining Assistance Act and serves in an advisory capacity to the Department of National Revenue in the administration of those sections of the Income Tax Act and regulations that apply to the mineral industry. During the past several weeks an officer of the division has been serving as consultant to the Borden Royal Commission on Energy. Last fall the division assisted in the preparation of material for the brief the Canadian Metal Mining Association presented to the United States Tariff Commission. This was in reference to tariffs the United States was then proposing to place on imports of lead and zinc.

I have said that mineral resources development is not the only concern of my department. I had partly in mind our work in the field of astronomy conducted by the Dominion Observatory at Ottawa and the Dominion Astrophysical Observatory at Victoria, British Columbia. I had also in mind our work in geography.

In the light of recent outer-space developments I need not emphasize the importance of studies in astronomy in this modern age. Actually it seems certain that such studies will increase in importance.

The observatory at Ottawa is perhaps known, however, to members of the committee and to Canadians as a whole through its daily time service. Its staff is also engaged in considerable geophysical research, and though of a fundamental nature, this work is of interest to mineral resources development.

The work at Victoria is concerned principally with pure research on the motions and physical properties of the stars.

Our work in geography is directed to such matters as land use, ice conditions in Arctic waters and in the St. Lawrence river, terrain analyses, and the production of a new atlas of Canada. These and other studies and activities have formed part of the work of my department since 1947.

From this bird's eye view of the functions of my department may I now turn to our relationship with other federal and provincial government departments and agencies and with industry.

First, our relationship with other federal departments. None of the departments is fully self-sufficient and possibly our department is the one most frequently called upon by the other departments for assistance and guidance. The defence services, for instance, are frequently faced with metallurgical problems and these are handled by our department. The National Research Council's Technical Information Service calls on our department to deal with queries within our fields of endeavour and on other departments for queries in their respective fields. The Department of Transport leaves the charting of coastal and inland waters and aeronautical charting to us. My department works in close cooperation with the army survey establishment of the Department of National Defence in the production of topographical maps. Most of the army survey establishment parties work during the field season under the financial control of my department, their expenses being covered by a financial encumbrance from the defence department. The maps produced by either unit contain all the basic information required for civilian or defence purposes and need only one overprinting to meet the special requirements of either department. The field work undertaken is jointly planned.

We handle the technical problems of the Dominion Coal Board and cooperate with Eldorado Mining and Refining Limited in research on uranium ores. At present we are collaborating with Atomic Energy of Canada Limited, and with industry, in developing materials for use in nuclear reactors. We have been serving as consultants to the Department of Northern Affairs and National Resources on the mineral resources aspects of development roads in the provinces and territories. We have had a geologist on loan to the St. Lawrence seaway authority to act in an advisory capacity on engineering geology problems, and we produce the electoral maps used by the chief electoral officer.

I could cite other examples of the assistance we give to other departments to show that there is sufficient cooperation between departments in the federal government to avoid duplication.

Nor is there any duplication of our work with that of the provincial government departments and agencies. A main reason for this is that our work and theirs, though it may be in the same general field of endeavour, differs in nature and purpose. The work of the provinces stems from their responsibilities in administering resources development within their borders, whereas our work arises mostly from the need for research on the technological problems of the mining and metallurgical industries. Our officials and those of the provinces are in frequent consultation and the possibility of duplication of effort is reduced to a minimum.

Our relationship with industry is, of course, mainly a matter of carrying out our primary function of conducting technical and scientific research directed toward the efficient development and use of Canada's mineral wealth.

I should emphasize that our services to industry do not, nor are not intended to meet all the research requirements of mineral resources development. Several of the larger companies have excellent research facilities of their own and some of the provinces maintain facilities for research in some of the fields of mineral technology. Besides, the universities and a number of private enterprises in Canada and the United States, combined, do considerable research for, or of benefit to, the mineral industry.

And here too I should state that our services to industry are so organized as to keep duplication of effort to a minimum. Actually, there is very little such duplication. One of the several reasons for this is that our personnel have frequent contact with personnel in industry. In fact, many of our research projects are carried out jointly with industry.

I should make some reference also to our relationship with international agencies, congresses and the like—such bodies, for instance, as the British Commonwealth scientific conference, the international union of geodesy and geophysics, the international hydrographic bureau, the international geological congress, the international geographical union and the commonwealth mining and metallurgical congress. These relationships have taken the form of exchanges of publications and technical papers with universities, libraries, learned societies and other institutions throughout the world. Such exchanges are a must for any organization engaged in research work. For instance, we exchange the publications of our dominion observatories with other observatories throughout the world.

Occasionally officials of my department are asked to serve in one capacity or another on United Nations or Colombo plan projects. Just recently, for instance, the director of our Geological Survey of Canada spent five weeks in the West Indies to make a preliminary examination of its needs for geological investigation and to suggest what and how it might be done.

I might add also that memberships in international technical societies form a valuable media of contact for the professional staff of my department.

At this stage, before dealing specifically with the activities of my department's five branches, I wish to make a few remarks about our mineral industry. The headway this industry has made in the past two decades has been little short of remarkable. It was only as recently as 1950 that the annual value of our mineral output first reached a billion dollars. In 1956, just six years later, it exceeded two billion dollars and was still higher in 1957. In about 11 years we have risen from a lowly position in crude oil production to a position of world importance. During the past 20 years our iron ore potential has increased to a point where we can now look ahead with considerable confidence to an annual output of 80,000,000 tons of ore within the next quarter of a century. That tonnage, I may note, is not far short of the present United States output, and compares with output of approximately 24 million tons in 1957. We are among the leading producers of uranium ore and our reserves are huge.

It is true that the demand for the products of the mines is at present at low ebb and that this is reflected to a varying degree in mineral production and export figures. Nevertheless, we have good reason for optimism as to the outlook. For we now know that this country has a vast mineral potential, and that there is a growing demand in all countries for metals and minerals that we can readily export without endangering our own needs.

Our mineral industry is not only one of our leading primary producers; it is also among the leading exporters. Canada exported metals and minerals and their products to the total value of \$1.9 billion in 1957, this being about 39 per cent of our total exports for that year.

It may be of interest to note also, in passing, that the Dominion government received \$258 million in taxes from the mineral and metallurgical industries in 1955, the latest year for which figures are available. In addition, of course, is the huge total collected by the provinces and municipalities in taxes.

I mention these facts about the industry by way of suggesting something of the extent of its requirements for research.

It would be difficult to put a dollar value on the benefits industry derives from the part of my department's research devoted to mineral resources development. It would not be difficult, however, to show that the benefits over the years have been far in excess of the expenditures. However, in our services to the mineral industry as well as in our other researches, our policy has been to encourage other organizations and enterprises, public and private, to carry out as much research as they can on their own. In a broad sense our research is directed to projects of national rather than local interest, though the two sometimes coincide. We endeavour to make the results to our work known widely through our publications and other media. Because of the benefit accruing to the mineral industry through the publication of these results, no charge is made in most cases for the research and investigative projects we undertake at the request of a particular company.

Now, Mr. Chairman, after this general presentation, may I be permitted to relate these duties, functions and activities that I have outlined to the particular branches and divisions that make up my department.

These branches and divisions are shown here on the organizational chart before you.

The Surveys and Mapping Branch

One of the main functions of the department, as I explained earlier, is to establish a framework of survey control and to produce maps over the length and breadth of Canada, and charts of our coastal and inland waters. This is done by the surveys and mapping branch, which is also responsible for legal surveys of lands that come under the administration of the federal government

and for the production of aeronautical charts. The branch has the task of delineating, as a partner with the provinces, the boundaries between the provinces themselves and between them and Yukon and Northwest Territories.

Its load of work is exceedingly heavy in order to keep abreast of our economy, which has been expanding at so fast a rate since the war.

The branch is always on the alert to improve upon techniques and instruments in order to accelerate mapping and to reduce costs. I might say that, while the advent of air photography and air transport have assisted in speeding up mapping, the improved techniques and instruments have proven a major factor in boosting our production from 15 new maps a year in the late twenties to the rate of 240 new maps in 1957.

Topographic maps are produced at several scales. The most detailed map is the one at 1 over 50,000, or close to one inch to the mile. This scale is warranted as soon as an area in Canada becomes a centre of development. If we were to map all of Canada at this scale about 12,000 maps would be needed, or about 50 years' work at our present rate of production.

The Canadian hydrographic service maintains a fleet of 7 ships and 49 launches and in addition, makes use of three chartered ships. This service has the responsibility for preparing sea and freshwater navigational sheets for all of Canada. Several of the ships in the fleet are outmoded and obsolete. At the present rate of charting it would take decades to complete the essential charts. I have recommended a ship construction program and some organizational changes which should speed up this most essential charting.

I have brought here for display, for the benefit of the committee, some maps and charts that illustrate the type of work of my department.

Maps are possibly taken too much for granted by most of those who use them. It is not realized how important, how indispensable they are. I would say that good maps are at the roots of discovery, development, conservation and administration of resources. Good maps and charts are indispensable for the carrying out of major engineering projects, for safe sea and air navigation, and for any planning for economic development.

In Canada's assistance to other countries in the Colombo Plan or the United Nations technical assistance plan, great stress has been laid on mapping programs for these countries to assist in their resources development. And our surveys and mapping branch has provided expert advice to plan and to carry out these programs financially supported by Canada.

A new building is being erected on the department's site on Booth street. It is our hope that, with a better grouping of our mapping units in this building, together with better facilities and equipment, an acceleration of our mapping program at a lower cost per map will result.

The surveys and mapping branch has a continuing payroll of 996. It is the largest unit in my department.

The Geological Survey of Canada

The geological survey of Canada has been serving our mineral industry since 1842. With its 116 years of existence it is probably the scientific organization of longest standing in Canada.

Today, as in the past, geologists of the Survey are busily engaged in the field and in the laboratory acquiring information that Canada must have to develop its mineral estate to the full.

Getting this information out to the interested public in the form of geological maps and reports is one of the survey's major functions. Some of these publications like "Prospecting in Canada", issued recently, are in such demand that they rank among the country's bestsellers. Others, like the geological maps of Canada and of some of the provinces, have wide circulation among the mining fraternity.

Although the geological survey of Canada is not itself a prospecting organization, the information contained in its maps and reports has frequently led directly to the discovery of mineral deposits.

The survey's twofold task of mapping and interpreting Canada's geology and of carrying on essential supporting research has grown greatly since 1842. Today the survey serves an industry that boasts an annual output worth over two billion dollars and that has for its field of operation a territory of 3.8 million square miles.

Survey geologists face a formidable task. Canada contains vast areas of muskeg and of mountainous terrain that are practically inaccessible. Another drawback is the short field season, particularly in the far north. They overcome this by arriving before break-up and by leaving only when forced to by the oncoming winter.

Probably the greatest innovation in recent years has been geological reconnaissance by helicopter. The geological survey adopted this method in 1952 in the interests of national development to make possible an evaluation of Canada's mineral potential in this generation instead of generations hence. The pace of mapping has been so slow by conventional ground methods that, despite more than a century of effort, almost two-thirds of Canada remains unmapped, even on a reconnaissance scale.

So successful has aerial reconnaissance proved that, in the seven major projects carried out since 1952, survey geologists have mapped nearly half a million square miles of territory on a reconnaissance scale.

Research forms a vital part of the geological survey's over-all program of work. However, because of inadequate and cramped facilities and the difficulty in obtaining qualified personnel, the survey has not been able to carry out a research program commensurate with the size and importance of its task. The spacious modern new building which will house the geological survey and which is to be fitted with the latest in scientific equipment, will permit the expansion of programs of applied and fundamental research in long-desired directions.

To better assist industry in finding mineral wealth and on problems involving engineering and surficial geology, the geological survey has offices in five of the provinces and territories: Vancouver, British Columbia; Calgary, Alberta; Whitehorse, Yukon; Yellowknife, Northwest Territories, and at Sydney, Nova Scotia. These offices are staffed with resident geologists.

This year 77 geological survey parties, including one large helicopter-supported party, are in the field to map Canada's geology.

To stimulate and support geological research in Canadian universities, the federal government makes grants-in-aid available to universities with which to carry out various research projects. The grants are awarded with the advice of the national advisory committee on research in geological sciences. The director of the Geological Survey of Canada is chairman of the committee.

The geological survey of Canada has 313 employees in continuing positions.

If you can imagine an organization taking on a goodly share of the problems and headaches of a two billion dollar industry, on the one hand, and helping to pave the way, through a broad program of research, for the future growth of that industry, on the other, then you have, in a nutshell, the work of my department's mines branch.

The work in the branch, in its assistance to our mineral industry, runs the gamut from assays and analyses of ores and minerals to such fundamental research as the study of some aspects of the genesis of western Canadian oils. This assistance takes in five fields of research endeavour: mineral dressing and process metallurgy on metallic and non-metallic ores; methods of obtaining

uranium production; technology and utilization of industrial minerals; utilization of solid, liquid and gaseous fuel resources; and scientific metallurgical research services to the Canadian metal industry, the Department of National Defence and the atomic energy project.

In the 50 years of its services, branch assistance has grown from the application of known methods of technology by a handful of engineers to a highly organized research effort carried out by 600 persons in a \$12 million plant. Branch activity may be broken down into fundamental research, development research and technical service.

The great bulk of mines branch work is done in answer to specific requests from industry for ore-dressing and beneficiation methods, metallurgical treatments, or for information on fuels technology.

The branch does, however, discourage requests for routine tests and assays which a company should do itself or should have done by a commercial firm. To discourage such practice, it has set its charges for routine tests and assays just above those of commercial laboratories.

Often as not the success or failure of a mining venture hinges upon the development of an economical method of processing the ore. Or the solving of a baffling mining or metallurgical problem may mean the difference between the cessation of operations or the growth of a prosperous industry.

The branch's prime concerns today are the development of economical methods of processing Canadian ores and minerals for the recovery of marketable products, and in this day of mounting costs, to do research on ways of improving present processes to make operations more profitable. With huge tonnages now somewhat common in the mineral industry, even a slight improvement in recovery is readily reflected in company revenues. This research has proven to be quite beneficial in the case of our uranium mines.

Canada's present forefront position as a major producer of uranium has necessitated a great deal of painstaking test work and research by the branch on the processing of radioactive ores. Almost overnight, its engineers and chemists were faced with a whole new set of metallurgical problems. They resorted to chemical methods of extraction and found the answer in leaching processes. These processes, developed in the branch's laboratories, are now in use in Canada's uranium plants.

One unit of the mines branch devotes its whole attention to the industrial minerals. Once considered lowly in relation to metallics, these minerals take in non-metallic minerals such as asbestos, graphite, mica, feldspar and many others, and include sands, clays, rocks and industrial waters. They have grown greatly in stature during Canada's rapid industrial headway of the past decade.

At the same time, probably no other segment of the mineral industry has had to lean so heavily on the mines branch for assistance: first, because the problems for investigation in industrial minerals are almost infinite; secondly, because most of the industrial minerals have a low unit value. The industry is, therefore, not in a position to support extensive scientific investigations. The work in the mines branch has resulted in numerous instances in the development of Canada's deposits of industrial minerals and the consequent replacement of imported materials.

Through field investigations and laboratory research, the mines branch is playing an important role in the development of efficient uses and the extension of markets for Canadian fuels. Its studies of the type, quality and uses of all fuels and of production methods, are directed largely toward the development of cheaper and more efficient methods of consumption.

Another unit of the branch is wholly concerned with researches in physical metallurgy. The vital importance of metals and their alloys in the modern scheme of things has emphasized the necessity for technical and scientific

know-how in this field of endeavour. The work in the branch covers practically all phases of physical metallurgical science and engineering. The laboratories are equipped for operations ranging all the way from casting and metal forming to the precise determination of atomic positions in alloys. Excellent facilities are maintained for applied research on an industrial or semi-industrial scale. These include complete foundry, heat treatment, metal working and welding equipment.

Many factors are coming into play in mining and metallurgy which make research more vital than ever to the continued progress of Canadian industry. Several of the new metals appearing on the scene must be extracted from lower and lower grade ores. At the same time, mining operations are being carried out at greater and greater depths. To make operations economical, plants of the future will have to handle greater tonnages; and new techniques will have to be developed to handle these tonnages.

All this work of the mines branch not only contributes to a more prosperous industry; it greatly assists in conservation by reducing waste to a minimum and by making it possible to develop low-grade ore deposits. The work also helps strengthen Canada's position in its balance of trade with other nations, as our mineral products are exported to many countries.

The branch has 588 continuing employees.

The Geographical Branch

I turn now to the geographical branch, the youngest and smallest branch of my department. Its task, stated briefly, is getting to know Canada "from the ground up".

Its function is to—and here I quote—"collect, organize and make readily available for the use of government, geographical data about Canada and foreign areas of importance to Canada and to prepare studies on specific aspects of Canadian geography for the use of those engaged in government, defence, business and scientific research." The core of this work is carried out by regions, namely Canada as a whole, northern Canada, eastern Canada and western Canada.

The branch is primarily concerned with Canadian geography, but has a section devoted to the geography of the rest of the world. It maintains reference services which are unique in Canada. Its book library is the largest specialized geographical library in the country, containing over 17,000 volumes. The map library is one of the ten largest in North America, consisting of over 115,000 sheets from all parts of the world.

A major task of the branch has been the preparation of a new atlas of Canada. The 110 page atlas is expected to be ready for distribution in the latter part of this year. Work on French edition is now in hand. When viewed in sequence the atlas sheets will characterize and give meaning to the internal development of Canada, and to some extent, to this country's international relations. A bound copy of the sheets of the atlas already published is available here for the perusal of the Committee. We will present this atlas later on. A look at the atlas will give members of the Committee an idea of the work that has been required in preparing it.

In an over all pattern of development, at the federal, provincial or municipal level, basic geographical data is all-important. For example, data on ice distribution assists in planning for better and safer navigation; land use surveys provide the basic data to assist in the important task of planning for the proper use of our land; air photo interpretation of the northern stretches of Canada is essential to our national defence as well as for planning access routes for development purposes; studies of the set-up of our main cities are important in planning for civilian defence.

A number of other geographical studies or projects come to my mind, but I should like to dwell on one of them which, I believe, could be of great importance to Canada. This is the undertaking of a land-use survey of all Canada.

I also believe that, a country like ours, large in size and plentiful in resources as it is, must make the most valuable use of the land available. This is especially true in developing a solid basis for forestry, agriculture and community development. It is particularly apparent where lands which should be in forest are denuded, leading to serious erosion problems. It is also apparent in the rapid depletion of valuable agricultural land for industrial and municipal use. A proper realistic approach to this problem will protect the natural heritage of our land for future generations.

I plan to study the possibility of such a project, which could be undertaken by our geographical branch, possibly in cooperation with the provinces. It would supplement the soils, forestry, geological and other resources maps that now cover a major portion of Canada's inhabited land. The land-use maps would be presented on scales equivalent to existing topographic maps.

Our geographical branch director will be pleased to inform you further on what other countries have done in land use studies and on what we have already done in Canada, in a small way, at the request of some provinces.

The branch has 49 continuing employees.

Dominion Observatories

The fifth branch of my department is the dominion observatories. It comprises the dominion observatory in Ottawa and the dominion astro-physical observatory in Victoria, British Columbia. A number of subsidiary stations are also maintained across Canada.

The dominion observatory provides accurate time service, seismic, gravity and magnetic data, and carries out basic research in stellar physics and geophysics. At Victoria, fundamental problems in astrophysics are studied, such as the physical characteristics of stars and the organization of the galaxy and the universe.

The branch is concerned primarily with fundamental research which helps man comprehend the size, shape, structure and forces of the earth and of the universe and how these forces are inter-related.

The dominion observatory makes nightly observations throughout the year to provide accurate time. It provides this time to users throughout Canada through the Canadian Broadcasting Corporation's one o'clock signal and through observatory station CHU by means of short wave broadcasts. These reach the land area of Canada and its surrounding coasts.

Magnetic maps and charts, constructed and revised by the branch from the results of its ground and air surveys throughout Canada, are used by prospectors and exploration companies to check their equipment, whether it be the simple compass or the complicated airborne magnetometer.

The importance of studies of the earth's magnetism as an aid in the location of mineral deposits has long been recognized. The gravity method came into use much later, following the development of the modern gravimeter. This instrument is capable of rapid and accurate measurement of the earth's gravity.

In addition, magnetic maps and charts are of special importance to mariners and to air navigation.

A few detailed gravity surveys have been conducted by the dominion observatory to test and develop methods of geographical prospecting. However,

the observatory's chief function connected with its gravity work is to carry out regional measurements of gravity and to act as the central agency in Canada for the collection and coordination of gravity data from all sources.

Most of the ore deposits in the Canadian shield lie in extensive belts or zones and presumably are related to deep-seated structures within the crusts. Regional gravity measurements, which in some cases are capable of outlining such broad features, provide important information that stimulates and guides more direct methods of exploration.

In addition to this aid to prospecting and development, the study of gravity and its variations provides basic data for a better comprehension of the physical characteristics of the earth's crust over major continental areas.

In the field of seismology, the observatories branch maintains stations in several locations in Canada. In certain areas in Canada, particularly in certain parts of the Pacific coast, which present earthquake hazards, studies are undertaken to outline those areas where earthquake hazards are more intense. Seismology, I may state, is one of the branches of science most dependent upon international cooperation. Canada, with its vast expanse of land where seismic phenomena can be observed, has an obligation to international seismology.

Seismology is one of the sciences which assist in determining the structure of the interior of the earth.

In our studies in astrophysics we are concerned with the branch of astronomy that deals with pure research on the motions, composition and other physical properties of the stars. While positional astronomy is concerned with where the stars are, astrophysics is concerned with what they are and how they behave.

The primary purpose of the work at the astrophysical observatory in Victoria is to obtain, in collaboration with other countries, a clearer understanding of the stellar universe, of which our solar system is a very small part.

A major project of the dominion observatories is the erection of one of the largest radio telescopes in the world near Penticton, British Columbia. We hope to have the telescope in operation in 1959. It will open wider windows to outer space and give Canadian astronomers a new view of the universe. It will measure 84 feet in diameter and will pick up radio waves given off by all objects in the heavens. These waves will be transmitted to the control building where observations of the electrical currents give scientists an idea of the composition of space.

Radio astronomy techniques penetrate the curtain of atmospheric dust, which for years has limited optical observations. These new techniques have increased by 10 times the distance man can see into outer space.

The dominion observatories branch has 108 continuing employees.

Conclusion

I feel confident, Mr. Chairman, that the committee will realize that my remarks have covered only a few highlights of the wide range of research and services performed by my department. As the various items of the estimates are introduced more details can be presented. I should like to say, in addition, that we welcome the opportunity of having the work of our department examined by this committee. As a technical department we do not get many chances to discuss and explain our essential role in government. In turn, it will be most useful to have the comments of the committee on the many aspects of the work of the department. Such a meeting as ours is sure to be mutually beneficial to all.

I should like to apologize, Mr. Chairman, for making so long a statement, but I wanted to explain as well as I could the different branches of my department.

Before closing, I might say that I have with me the directors of the different branches. First of all is, of course, Dr. Marc Boyer, the deputy minister; Dr. W. E. van Steenburgh, director-general of scientific services; Dr. J. M. Harrison, director, geological survey of Canada; Dr. John Convey, director, mines branch; Dr. C. S. Beals, dominion astronomer; Dr. N. L. Nicholson, director geographical branch; Mr. W. H. Miller, director, surveys and mapping branch; Mr. W. Keith Buck, chief, mineral resources division; Mr. E. J. Fraser, assistant chief, explosives division; Mr. K. M. Pack, chief administrative officer; Mr. R. B. Code, chief of personnel and Mr. G. H. Murray, chief, editorial and information division.

Thank you Mr. Chairman and members of the committee for your kind attention.

The CHAIRMAN: Thank you very much, Mr. Minister, on behalf of the members of the committee and myself for a very interesting statement. As I said earlier, I think that this inquiry will be of great interest to all of us.

Mr. KINDT: Mr. Chairman, before launching into a discussion of the work of the various branches, I should like to add a footnote to what you have said in respect of this splendid submission on the functions of the Department of Mines and Technical Surveys. I listened with great interest to the remarks in regard to the preparation of maps.

I thought, before discussing the details, I might raise a question that has been in my mind for some months, in fact since I came to Ottawa. We as members would appreciate—at least I would and I am sure many other members would, having spoken to them privately—if we could each have one of your electoral maps for each province with a picture of the member of parliament appearing on the particular constituency he represents, the whole map to be reduced to some useful size so that we could associate the faces of the individuals with the constituencies they represent. For example, to drive home the importance of the question I have raised, I assume the minister of the department of Mines and Technical Surveys comes from the province of Quebec, but I can swear that I do not know the constituency he represents.

Upon looking around this room I feel that we are all acquainted, but we cannot call one another by name. There are just two or three members here that I can call by name. If we had such a map we could associate the name of the individual member with his constituency. I think this would be of benefit to all of us. Perhaps, Mr. Minister, you could accept such a task as an additional duty of your department so that each member of parliament could have such a map as soon as possible. I feel it would be most helpful and beneficial.

Mr. STEARNS: I am pleased you have made that suggestion because just last week I asked for ten electoral maps from the ten provinces and I now have to find a place to put them. They are very large. If these maps can be reduced in size they would then be of tremendous value to every new member, and possibly to the older members as well. I do not think we need photographs of each member. We will be receiving a parliamentary guide soon which will include those photographs.

Mr. KINDT: Even with the parliamentary guide I think it would be useful to be able to associate the members with the constituencies.

Mr. STEARNS: I think this is an excellent idea and would very much like to see it followed if possible.

Mr. DUMAS: Mr. Chairman, we have had the new idea presented to us of having a picture of each member of parliament printed on an electoral map. This may be a good idea, I do not know. The maps as prepared now are too large to be useful to individual members. I would suggest that these maps can be reduced to a smaller scale by the Department of Mines and Technical

Surveys without too much trouble. Perhaps the minister or the deputy minister can tell us if it is technically possible to include the pictures of the members of parliament on such a map.

Mr. COMTOIS: I think the maps could be reduced to a useful and handy size. However, placing of the member's photograph on such a map is a different problem.

Mr. KINDT: Mr. Chairman, the Speaker of the House of Commons has a photograph of all members of parliament. I would suggest that a picture of about the size of a 50-cent piece is all that would be required. It seems to me that this suggestion would only involve a minor technical matter. There would be no need to retain the details of the map. As a matter of fact, I would suggest that the less detail appearing on the map the better. I am only concerned with the association of members' face with their constituencies.

Mr. WOOLLIAMS: I take it, Mr. Chairman, that what my hon. friend from Macleod has in mind is just a map for the use of parliamentarians. I would suggest that if someone ordered an electoral map and received one with a member's picture on it, he would not find it very acceptable.

Mr. KINDT: I had in mind a map that would help us to recognize the members of the House of Commons so that we could refer to them, for example, as the hon. member for Bow River, who has just spoken, and whom I happen to know very well.

Mr. STEARNS: Mr. Chairman, I wonder if the photograph feature of this suggestion can be treated as a separate proposition. If we could receive electoral maps, of a reduced size, then, once the parliamentary guide is available, we would have both the map and the photographs.

Mr. KINDT: We would then be in exactly the same position we are in now. We would not have the detail that I think is required.

Mr. STEARN: I had in mind in regard to such a map the difficulties that would arise should the members of parliament change this year or next.

Mr. COMTOIS: That is one difficulty that would arise in the preparation of such a map. Electoral maps are prepared on a permanent basis for ten years. Every ten years we have a distribution of electoral maps. They are prepared and distributed every decade. In regard to placing photographs of members on electoral maps, I must say that no one is here on a permanent basis.

Mr. KINDT: That is true.

Mr. COMTOIS: A member of parliament might die, resign, or leave politics altogether.

Mr. FLEMING (*Okanagan-Revelstoke*): Mr. Chairman, I should like to suggest that this is an interesting idea but we could discuss it for a long time. Can this suggestion be referred to the steering committee which could inquire into the feasibility of the idea and report back to this committee at a later date?

Mr. DUMAS: Mr. Chairman, I should like first of all to thank the minister for giving us such an elaborate statement. It is a well prepared statement.

Mr. COMTOIS: I hope it was a comprehensive statement.

Mr. DUMAS: The statement will be very useful to the members of this committee who wish to investigate the different branches and extensions of the department of mines and technical surveys. I am certainly not objecting to the expenditures made by the department of mines and technical surveys because I have always felt they should be higher than they are. I feel that a great deal more money should be voted to this department because its work is not only essential to our mineral industry but also affords valuable assistance in finding our natural resources, especially our mineral resources which are hidden in the earth.

There is no way of making a visual assessment of these resources, so the provincial and federal departments of mines do as much work in geology, mapping and geophysical surveys as our explorers require to find more mines. In the past the department did a splendid job and I wish to say here that we are fortunate in having in this department officers, engineers and geologists who are tops. I wish to congratulate them upon the work they have done. If they are supplied with the necessary funds they can do even more work every year. This is quite essential.

We have received from the minister a copy of a reprint from the Precambrian which was published in April 1958. The information in it is well presented. I understand that it was prepared by the officers of the department. They did a good job. I may say in passing that some of the members of the committee would like to have additional copies of the reprint. Perhaps the minister will tell us later if we may be able to secure more copies to distribute among the mining fraternity in each of our constituencies.

Mr. COMTOIS: A certain number of copies are available.

Mr. DUMAS: In the western part of the country the Precambrian is well distributed but in the eastern part it is not. I have received this magazine monthly for a long time and find it very interesting. I am sure that members of the committee would like additional copies. In this regard I wish to say it is unfortunate that the annual report of the department covering the activities for 1956-57 was published too late. It was distributed last fall. We have this report on hand now. It is well prepared and it is up to date as far as 1956 and part of 1957 are concerned; but it is not up to date so far as the fiscal year 1957-58 is concerned. This is the year in which we are most interested at present, but we have nothing on it. The department used to have a summary of activities report published early in the spring or early in the winter so that we could use it when studying the estimates of the department.

I wish to congratulate the officers of the department for publishing this summary report every year, commencing with 1950. But I notice the last one was for 1956. I should like to suggest to the minister that we have this summary report earlier on future. It is an excellent report, especially for members of a committee such as this, who are called upon to study the estimates of the department.

These estimates, as I said before, involve only some \$30 million, when it should be \$60 million. It is not the amount that is so interesting to us. I should like to know how many parties were active in the geological survey branch in the previous year.

This report which I have in my hand for 1956 is an excellent one and I think that in future the department should publish the report before we sit on this committee, so as to facilitate our work.

Another point that I should like to raise and is in the form of a question. The minister told us before the number of employees in the department. I think he gave a number in the vicinity of 2,000. Presumably they are permanent employees, but it would be interesting to have the number of seasonal employees also. I do not wish to take up more of the committee's time but again I wish to stress to my friends and colleagues and to the members of this committee that we should insist on having more money voted to the department of mines and technical surveys.

Some Hon. MEMBERS: Hear! Hear!

The CHAIRMAN: I am glad you are very research conscious. Would the minister or the deputy minister care to comment on any of the questions.

Dr. MARC BOYER (*Deputy Minister of Mines and Technical Surveys*): The preliminary report which we used to issue, referred to by Mr. Dumas, was

mostly intended to inform the House of our activities for the year concerned so that it might be possible to relate them to our estimates. It always takes some months to assemble and edit the material for an annual report and to print the report. Our last annual report, Mr. Dumas, was for the fiscal year ended March 31, 1957. We no longer publish a summary of activities report but we are trying to get our annual report out as soon as possible after the end of the calendar year so that it will be available when our Estimates are being considered.

Mr. DUMAS: Dr. Boyer, do you expect that the annual report for 1958 will be before the House soon enough to enable us to study and comment on the work of that year. The summary report is the only answer to the problem.

Dr. BOYER: Mr. Murray, who is in charge of our editorial and information division, tells me that it can be done. I was thinking of the time it takes with the Queen's printer to bridge the gap between manuscript and final copy.

Mr. COMTOIS: If it can be done, we will do it

Dr. BOYER: Mr. Dumas asked a question regarding seasonal employees. The continuing staff of the department at the moment is 2,334. The staff, including summer employment, is 3,633.

Mr. DUMAS: Roughly 1,300 seasonal employees?

Dr. BOYER: That is right.

The CHAIRMAN: Are there any other questions, gentlemen?

Mr. McLENNAN: Do I understand that this department will work with the provincial and municipal governments to conduct a survey of certain districts for erosion, drainage and water conservation plans and programs?

Dr. BOYER: Part of this is being done in a major way in the geological survey of Canada by studying underground waters, their occurrence and their extent in relation to the geological formations. There is no definite program. We would like to undertake more work in the study of underground waters in Canada. This can only be done by geologists.

Mr. McLENNAN: I was thinking more of the Fraser valley which is one of the most important parts of British Columbia. The municipalities and the provincial government are trying to get together to conduct a survey. They do not seem to be able to get enough money to do the right job and I know they are very anxious for the Dominion government to make that survey. That part of the country is developing very fast and if a plan is not made of it, it will end up as a hodge podge.

Dr. BOYER: We have with us Dr. Harrison, director of the geological survey of Canada, and Mr. Miller, director of our surveys and mapping branch. May I ask each of them what he knows of the project raised by the hon. member.

Mr. W. H. MILLER (*Director, Surveys and Mapping Branch, Department of Mines and Technical Surveys*): Our topographical survey has been working for about two years on the preparation of the base maps of the Fraser river development for the Fraser river board in Victoria. When we do mapping of this kind, we put in additional control and prepare a larger scale map than our standard maps. This can be done at the same time as the standard control mapping is being carried out.

Mr. McLENNAN: I was thinking more of the drainage and water resources of the valley rather than the river. I understand there is a survey on the river. The municipalities are in trouble with drainage and it is getting to the point now where it is actually detrimental to the health and welfare of the people who live there. Development is so fast and the drainage so poor that the sewage disposal is in very bad condition. I know the provincial and municipal governments in the valley are very anxious to have a survey made. The provincial

government will put up a certain percentage of the money but the municipalities are unable to match it and they are very anxious to have the federal government join with them and the provincial government to conduct that survey of drainage and water conservation. The water situation in itself is very bad.

Mr. COMTOIS: The matter might be discussed or brought forward when there is a federal-provincial committee meeting. Such meetings take place once in a while, I think. Such a matter could be discussed and contemplated. We have not been approached yet, so far as I know, on that matter.

Mr. McLENNAN: I would be very satisfied to have it brought up at any committee meeting. You say you have not been approached. Well, there is always a first time for you to give it your consideration.

Dr. J. M. HARRISON (*Director, Geological Survey of Canada, Department of Mines and Technical Surveys*): This probably comes more under the functions of the department of northern affairs and national resources, which has a water resources division. That department is primarily concerned with such matters as you have mentioned—surface drainage, and the like. I do not know whether it is concerned with water pollution specifically; that probably comes under the Department of National Health and Welfare.

Mr. McLENNAN: I was not thinking of water pollution.

Dr. HARRISON: General studies on sedimentation and other special projects are being initiated by the water resources division. The geological survey of Canada studies only the distribution of underground waters in which the geological formations play such an important part. Groundwater specialists in our British Columbia office in Vancouver are available for consultation in all these projects. I should like to emphasize that everything we did in this region regarding water was done in cooperation with the water resources division of the Department of Northern Affairs and National Resources and we are interested in the sedimentation studies particularly.

The Fraser River project has not been brought specifically to my attention. Most of what you are mentioning sir, is the concern of the Department of Northern Affairs and National Resources.

Mr. DUMAS: Mr. Chairman, the minister, in his statement, emphasized the fact that the department has been very fortunate in attracting to its staff scientists and engineers of outstanding and widely recognized ability without whose services a research organization such as this department would be unable to function. May I ask Dr. Boyer if the department has sufficient geologists, mining, civil, and other engineers at present to do work that has to be done, every year without finding it necessary to cut down on the work because of difficulties in recruiting a sufficient number of the men needed.

Dr. BOYER: In answer to Mr. Dumas' question I would say that there are ups and downs in recruiting. Sometimes, as we have seen in the past—four or five years ago—industry was making quite a bid for geologists, geophysicists and mining engineers because of the development of the petroleum industry in the west and the large developments of iron ore and other minerals that were taking place north of the St. Lawrence river. The salaries offered by the companies were much higher than the government could offer. However, this gap was largely bridged by increases in government salaries and by a general reclassification of positions, and although I do not think that government salaries are as high as those in industry, the difference between the two becomes small enough at times for us to attract and retain some of the best talents in each of the professions we have in the department. Recruiting in some of the professions is difficult at times and less so at others. In some

professions there might be quite a demand, as there is at present in Canada for surveyors. It is difficult to get surveyors or engineers for surveying work in the department.

At the moment, because of the decrease in the tempo of exploration and development, it is not too difficult to recruit geologists. The size and organization of the Geological Survey of Canada are barely sufficient to meet present needs. However, if we had to complete the mapping of the geology of Canada in, say 10 years, we would then need to increase the Geological Survey more than ten fold. It seems that we will always have to operate on a priority basis in reference to our work in geology and the publication of maps, and this applies as well to the other branches of our department.

Mr. DUMAS: I understand that early in the spring some of the members of the Geological Association of Canada were concerned as to whether student geologists would experience difficulty in finding work this summer. This was brought to the attention of the department and it certainly collaborated with this organization in order to make sure that young men—students or junior geologists—would have work this summer, so that they would not leave the profession. This is very important because, even though we have temporary unemployment now in nearly all the spheres of endeavour, there will be a great need for geologists in the future. The department can certainly help in this matter. I understand from the report that the department has 50 parties on geology. Approximately how many of those student geologists are employed on those parties on a temporary basis by the department?

Dr. BOYER: We made this addition to our regular program, Mr. Chairman, because of the strong case the Geological Association of Canada made to us to the effect that, if the young geologists at university did not find employment this summer, they may lose interest in the profession. It is very important to have them for the future development of Canada. So we met that challenge, or this request by the association, by adding 50 undergraduate geologists to our parties. We added six parties to our program and this absorbed 40 of the students and we employed ten other by increasing the sizes of the parties we had already planned.

Mr. DUMAS: In doing this did you meet the requirements of those who were interested?

Dr. BOYER: I do not think we met the requirements of them all. No one expected that, but the provinces did the same thing. In setting up new parties you have to find competent people to head them and that is not easy.

Mr. COMTOIS: The main trouble is to find people to head the parties.

Dr. BOYER: I believe the Geological Association of Canada was satisfied that we had met its request.

Mr. PUGH: Once a survey is made, how long is it before it is necessary to go over the ground again? Is it over ten years?

The CHAIRMAN: Of what type of survey are you speaking?

Mr. PUGH: Geological.

Mr. COMTOIS: I will ask Dr. Harrison to answer this question as there are different types of surveys. Depending on the development that may ensue after the survey is made a more detailed survey may be required later.

Mr. PUGH: Before you answer that, I have had numerous letters on those young geologists from British Columbia and the suggestion was that we have not had a geological survey there for some time and we are ripe for one now. The idea was these young men would be given jobs if possible in this work. I was wondering to what extent this could be done or to what extent British Columbia may need a resurvey.

Dr. HARRISON: I might first point out that we have several different kinds of surveys. There is an initial reconnaissance survey in which we get an overall view of the country so covered. In some instances we cover as much as 125,000 square miles in one season in the surveys. The next stage is to select sections of that large area which merit more detailed geological investigation, with the idea of assisting prospectors.

The second stage usually is done either by the province concerned or by the federal government on a scale of one inch to one mile. Then in addition to that—or finally you might say—is the detailed geological mapping which is done in the vicinities of active or potential mining camps. This mapping is at various scales, the average being one inch to 1000 feet.

A resurvey may involve merely a more detailed investigation of an area that already has been mapped in part. It may mean that some of the old mapping, perhaps dating back before the first world war, needs to be revised in the light of modern methods.

Finally the locations of geological surveys are controlled by the availability of topographic maps at the required scales. Priorities for topographic mapping are, of course, controlled by many needs besides those of geological surveying. It sometimes happens that, because of these priorities, topographical maps on a suitable scale are not available at the time the geological investigation was to be started.

This may not be true in your particular case. Terrain difficulties also enter into it. It may be that standard surveys are not practicable at a given time. We have to wait until men and money are available to carry out one of the more expensive helicopter surveys. All of these matters help us decide whether or not we should map a particular area at a particular time.

Mr. PUGH: Where do the requests originate? Is it the engineering branch—I mean the private personnel—or mining companies or, for instance, the provincial government?

Dr. HARRISON: The requests have many sources. In the first place, we ourselves try to size up the overall needs of the country and then do the best we can to meet these needs and to interpret the geology of Canada in the light of the national requirements.

Secondly, the provincial requests have a strong bearing on where we may or may not work. Then there are the requests we receive from engineering groups or private companies. These usually are not direct requests, but come from remarks made to our men. I have in mind such remarks as: "We think there is something worth while in this area; why don't you people come in and map it?" We handle such requests on the basis of manpower and money available and we try to work out a field program.

Mr. PUGH: Can you give the name of an engineering and mining company in British Columbia for instance?

Dr. HARRISON: There is the British Columbia and Yukon Chamber of Mines.

Mr. PUGH: They have made no specific requests recently?

Dr. HARRISON: Not to my knowledge. They might have.

Mr. PUGH: Such requests are made more to the men on the spot, for instance in British Columbia?

Dr. HARRISON: They are usually made through the head office, perhaps through the minister's office in some instance. On a technical basis they are usually from the departments concerned.

Mr. PUGH: Thank you, very much.

Mr. COATES: Will all the estimates for the Dominion Coal Board be considered in this committee?

The CHAIRMAN: We are considering everything except item 219. Item 219 is not referred.

Mr. WOOLLIAMS: Item 219 will not be referred to us?

The CHAIRMAN: It has not been referred to us yet.

Mr. WOOLLIAMS: I understand the program is to go through the estimates item by item.

The CHAIRMAN: We will follow the precedent we established. For instance, when we go into surveys and mapping we will take items 196 to 206 inclusive and any supplementary estimates. So you are not confined to any particular item.

Mr. MARTEL: I noted in the minister's remarks that the Mines Branch discourages requests for routine tests and assays which a company should do itself or should have done by a commercial firm. I should like to know if prospectors who send in the samples for assays have to pay a higher price for their rock sample assays. If so, I feel that the prospector is not given a good chance. He is not given very much incentive or help. The large companies are all right; they can pay for higher assays. Where does the ordinary prospector stand?

Dr. BOYER: In answer to the hon. member's question, in most of the provinces that have a department of mines, there are laboratories where prospectors' samples may be assayed. In most of those provinces the prospectors receive with their miner's certificate or their right to stake claims, coupons that give them the right to certain number of free assays. In the federal government we have the same set-up for assays as in the provinces or private assay offices, except that we do not want to be in competition with private companies. Prospectors in Yukon and Northwest Territories receive coupons from the Department of Northern Affairs and National Resources for a certain number of free assays. By arrangement between the two departments we honour these coupons and we make assays on minerals for lead, zinc, or copper content or for whatever the prospector wants. We set our rates slightly higher than the private assay offices in order not to compete with them.

Mr. MARTEL: And when you receive a sample from a prospector in Ontario or Quebec, does the department do the assay and charge for it or would the department advise the prospector that the sample had been sent to the laboratory of the provincial mines department?

Dr. BOYER: If someone sends us a sample for an assay we charge him for it. He is supposed to know, if he is a prospector, that the same facilities exist in the province where he has his miner's certificate and where he had to deal with the provincial department of mines in some way or other in the past. We do what we can.

There is a distinction between qualitative analysis and quantitative analysis. If the prospector wishes to send us the sample so that he may know what it is, and if it is of any value, we will do a qualitative analysis by minerologists to determine whether or not it contains any valuable material. He gets this service free. If he then wants us to make a quantitative analysis we will do it at a slightly higher cost than a commercial firm.

Mr. WOOLLIAMS: I do not want to rush this problem. Briefly, however, this problem I think is very important to the coal industry in western Canada. I have not all the figures on coal for 1957-58 fiscal year. No doubt the coal board will have them, but for an illustration, in 1956 and 1957 we imported into Canada some 20,065,807 tons of bituminous coal.

It has been pointed out in regard to several mines in the Drumheller valley that if they could acquire one million tons of that market—providing

the Drumheller coal is of the type which would fit into this eastern market that is importing coal from the United States—it would be of great assistance to them. It is for this reason that I should like to devote a little time to the study of this subject.

Various reasons have been given to the coal mining industry in Drumheller in this regard, but I should like to see this committee investigate the possibility of this industry securing a share of the eastern market.

It was pointed out to the minister of labour on one occasion when he met a group of union managers—I believe my hon. friend from Macleod was present on that occasion—that, if the Drumheller coal mining industry could secure one million tons of that eastern market, the coal miners who are now unemployed in Drumheller would be able to go back on the job full time, especially during the winter months.

I would suggest this is a very serious problem. During the war miners were brought out from eastern Canada to Drumheller. At that time the coal mining industry there had a market for several million tons of coal. Since then this market has declined greatly. I should like to have the privilege—because this examination will take some time—of having a certain day set aside during which I could thoroughly examine—for information purposes only—the chairman of the dominion coal board and his experts in an attempt to ascertain why the western Canada coal mining industry cannot secure this eastern market. I should like to ascertain what the situation is at present; I should like to find out if there was any truth in the suggestion that, during the war, when the Drumheller coal mining industries had a market, the operators were shipping inferior coal.

If these questions were examined thoroughly I think it would be of interest to the minister himself. These questions are continually coming before the House of Commons. I should like to have an opportunity of examining this problem and have the facts placed on the record. If there is a solution perhaps we could find it by investigating the problem here in this committee.

If there is no solution to the problem of securing a part of this eastern coal market because of the fact that a different type of coal is required, then I think those facts should be on the record. I should like to see a certain time set aside for the examination of this problem because I feel it is a very serious one. We will be discussing the subject of maps which I think is an important subject, but this is becoming a very serious situation. The energy board is discussing it. The coal mining industry in Alberta is in such shape that people are deserting houses and towns and mines are being closed down.

It seems to me to be the very purpose and function of this committee—

The CHAIRMAN: Mr. Woolliams, I appreciate your ideas in this regard and when we are considering items 217 and 218 we can have the officials of the dominion coal board and other witnesses that you wish to examine appear before this committee. If you let me know the names of the persons you wish called, I will see what can be done in that regard.

Mr. WOOLLIAMS: Perhaps I could give you a list of the names of the witnesses I would like to discuss this question with at a later date because some of my associates from Alberta who have coal mines in their constituencies may well have certain suggestions to make.

The CHAIRMAN: I would suggest that probably we would not be able to hear these witnesses until a week from this Friday. Tomorrow this committee will be considering the Department of Northern Affairs and National Resources' estimates again. The next meeting at which we will be considering the estimates of the Department of Mines and Technical Surveys is Friday. We could set a day aside to examine the several witnesses you might suggest.

Mr. WOOLLIAMS: That is exactly what I would like to have done.

Perhaps Dr. Kindt from Macleod would like to add something to my observations in this regard.

Mr. KINDT: In addition to calling the witnesses as suggested by the hon. member for Bow River, I would like to have witnesses called who could discuss the expansion of the thermo policy as it now exists in the east in relation to the Crownest pass area. I would also like and appreciate very much if the Minister of the Department of Mines and Technical Surveys could be present at such a discussion.

The CHAIRMAN: The minister will naturally be present.

Mr. COATES: Mr. Chairman, I think I can safely say on behalf of the members of parliament for eastern Canada that we are also concerned and anxious in regard to the question of the expansion of the coal industry, and would be interested in an examination of coal board experts in an attempt to clarify the situation regarding bituminous coal in Canada. We look forward to a special day being set aside for such a discussion.

Mr. MUIR (*Cape Breton North and Victoria*): As the chairman has suggested, we could go into this problem thoroughly when we are considering item 217.

Mr. WOOLLIAMS: Mr. Chairman, I would suggest that a thorough examination would take more than one meeting. I would suggest with all due respect that a subject as important as this could not be explored thoroughly in one meeting. I would think that at least three meetings would be required.

The CHAIRMAN: That would be quite all right.

Mr. WOOLLIAMS: Thank you very much, sir.

Mr. DUMAS: Mr. Chairman, in regard to the geological survey of Canada, are we to understand from the minister's statement that there is only one such operation this year? On page 18 of the minister's statement it is stated that 77 geological survey parties, including one large helicopter-supported party, are in the field to map Canada's geology. I am not in a hurry for an answer. Perhaps a statement could be made in this regard at our next meeting. I am interested in the helicopter operations in Quebec.

Mr. COMTOIS: Mr. Dumas, I think Dr. Harrison can make a report on that helicopter operation.

Mr. DUMAS: The helicopter operation at Fort George, Quebec, was to be carried out in two stages. Has the first stage been completed and has a map been issued? I understand this year that you are working on the second stage. Will the second stage be completed this season?

Dr. HARRISON: Mr. Chairman, I cannot give a simple "yes" or "no" answer.

We had hoped when we started the Fort George operation that it would be completed within two years. You must bear in mind that this was a new technique applied to a new kind of terrain. We did not complete as much as we had hoped with the result that this operation will probably take actually three years to complete.

The first stage has been completed and the map is published. We have published the Sakami map.

The second stage will be completed this year. When the map will be released is not known yet.

The third stage of this operation will be completed in 1959. It is not yet certain whether we will require helicopters to complete this third stage. The matter of filling in gaps that we were unable to complete in the two years may be involved. We will not be able to answer that question until the end of this year.

Mr. DUMAS: Thank you very much, Dr. Harrison.

Mr. McLENNAN: I have a report summarizing the activities of the Department of Mines and Technical Surveys for the year 1955. In the bottom paragraph on page 19 is stated:

The field study and mapping of the Tertiary, Pleistocene, and Recent sedimentary deposits of the Lower Fraser Valley were completed for publication—

There is a long paragraph appearing here.

I wondered if those reports and maps which are referred to are available.

Dr. BOYER: I believe this report has reference,—as Mr. Miller, director of the surveys and mapping branch mentioned earlier,—to the fact that we were undertaking a survey on a large scale of the Fraser river. We have nearly completed this survey and the maps will be issued as soon as they are completed. They will be turned over to those who make use of them. I do not think there will be a report accompanying the maps.

Mr. McLENNAN: The last paragraph on page 19 says:

The field study and mapping of the Tertiary, Pleistocene, and Recent sedimentary deposits of the Lower Fraser valley were completed for publication on a scale of 1 inch to 1 mile. This work has already provided data most helpful in answering the hundreds of requests received annually concerning engineering projects, building material supplies, soil utilization, regional planning, groundwater studies, and the search for oil and gas.

Dr. BOYER: There are several projects being done in regard to the Fraser river. I do not believe these are all part of a combined project. Part of this work involves a study which is being done by the geological survey in respect of groundwaters; where the groundwater is, how it can be reached and at what rate it is being depleted and things of that sort. That information is useful to the users.

Another part of this work might be survey work which is being done in the Fraser river itself in connection with planning that might be done by local or federal authorities in regard to the prevention of floods and such like.

I believe several things are mentioned in the same sentence but are not all related to a project.

Mr. McLENNAN: It says here:

—and these modern concepts will provide the basis for forthcoming comprehensive maps and reports which, it is anticipated, will do much to aid the orderly industrial development—

I was just wondering if the maps and reports referred to there are available.

Dr. BOYER: Some of the geological survey maps are perhaps available. There are some reports on studies which have been made here in regard to underground waters, and in regard to some of the surficial deposits in order to have information on hand both for procurement of building materials as well as for the foundations of large structures, and things of that sort.

Perhaps Dr. Harrison could tell us more about these reports.

Dr. HARRISON: I think this is probably what was referred to earlier. We are making a study of bedrock, unconsolidated deposits and underground water which can be utilized in a comprehensive investigation such as was described earlier. We have a geologist in Vancouver working upstream from the mouth of the Fraser river. This is part of a systematic study.

You ask if the reports have been prepared. Certain reports on unconsolidated deposits have been issued. Certain other aspects of the study of

unconsolidated deposits and of the underground water study have been made available to the people particularly concerned on request. These reports as a whole have not been published. Actually it will be many years before a complete report is published.

Dr. Convey mentioned that industrial water reports have also been prepared for that part of the area.

The actual study of the Fraser river valley will take a good many years. The part which we play is the supplying of a systematic geological map with respect to unconsolidated deposits and to underground water.

The CHAIRMAN: Gentlemen, we will let these items stand until Friday. Tomorrow we will be considering the estimates of the Department of Northern Affairs and National Resources. We will be hearing a witness from British Columbia.

I expect that the steering committee, which is meeting this afternoon, will be prepared to submit their report for your consideration.

Faint, illegible text, likely bleed-through from the reverse side of the page.

1875

HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958

STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 15

FRIDAY, JULY 18, 1958

Estimates 1958-59 of the Department of
Mines and Technical Surveys.

WITNESSES:

Hon. Paul Comtois, Minister; Dr. Marc Boyer, Deputy Minister; Dr. W. E. van Steenburgh, Director General of Scientific Services; Mr. W. H. Miller, Director, Surveys and Mapping Branch; Mr. H. A. S. West, Secretary, Interdepartmental Committee on Air Surveys; Dr. J. M. Harrison, Director, Geological Survey of Canada; Dr. J. Convey, Director, Mines Branch; Dr. C. S. Beals, Dominion Astronomer; Dr. N. L. Nicholson, Director, Geographical Branch; and Mr. W. K. Buck, Chief, Mineral Resources Division.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-President: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafleche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

CORRIGENDA (*English Edition only*)

Minutes of Proceedings and Evidence, No 14, July 14, 1958

Page 371, lines 11 and 12: for "Dr. C. S. Beals, Director, Dominion Observatory"
substitute "Dr. C. S. Beals, Dominion Astronomer".

Line 12: after "Dominion Astronomer", as revised, insert "Dr. N. L. Nicholson,
Director, Geographical Branch".

MINUTES OF PROCEEDINGS

FRIDAY, July 18, 1958

(17)

The Standing Committee on Mines, Forests and Waters met at 9.30 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baldwin, Coates, Doucett, Dumas, Fleming (*Okanagan-Revelstoke*), Granger, Gundlock, Kindt, Korchinski, Leduc, Martel, Martin, (*Timmins*), Martineau, Mitchell, Murphy, Payne, Stearns and Villeneuve—(19).

In attendance, from the Department of Mines and Technical Surveys: The Honourable Paul Comtois, Minister; Dr. Marc Boyer, Deputy Minister; Dr. W. E. van Steenburgh, Director General of Scientific Services; Mr. W. H. Miller, Director, Surveys and Mapping Branch; Mr. H. A. S. West, Secretary, Interdepartmental Committee on Air Surveys; Dr. J. M. Harrison, Director, Geological Survey of Canada; Dr. J. Convey, Director, Mines Branch; Dr. C. S. Beals, Dominion Astronomer; Dr. N. L. Nicholson, Director, Geological Branch; Mr. W. K. Buck, Chief, Mineral Resources Division; Mr. K. M. Pack, Chief Administrative Officer; Mr. R. B. Code, Chief of Personnel; Mr. E. J. Fraser, Senior Inspector, Explosives Division; Mr. R. E. Denison, Chief, Purchasing, Stores and Property Management Division; Mr. G. H. Murray, Chief, Editorial and Information Division; and Mr. J. M. Sutherland, Chief, Financial Services Division.

The Committee reverted to its consideration of the Estimates of the Department of Mines and Technical Surveys, and, in particular, Items 193 to 195 inclusive of the Main Estimates.

The said items were allowed to stand while the Committee considered matters which would arise from their later consideration of Items Nos. 217 and 218 concerning the Dominion Coal Board.

On motion of Mr. Kindt, seconded by Mr. Stearns, it was resolved that four witnesses be called from the Alberta coal field district, namely, Mr. Edward Boyd, of Calgary, Alberta, President District 18, United Mineworkers of America; Mr. Henry Sherwood of Canmore, Alberta, Secretary, No. 7297, United Mineworkers of America; Mr. Thomas Mackie, of Drumheller, Alberta, Secretary, Midlandvale No. 172, United Mineworkers of America; and Mr. Frank Aboussafy, of Coleman, Alberta, President of the Crowsnest Pass Industrial Planning Board.

The Committee further decided that it would continue its consideration of Items 217 and 218, concerning the Dominion Coal Board, commencing on Monday next, July 18th, and, thereafter, on succeeding days as might be found necessary.

The Committee reverted to Items 193 to 195 inclusive, further considered and approved them.

Items 196 to 206 inclusive of the Main Estimates, concerning the Surveys and Mapping Branch were called and considered.

Items 207 and 208 of the Main Estimates and Items 576 and 577 of the Supplementary Estimates, concerning the Geological Survey of Canada, were called and considered.

The said Items 196 to 208 inclusive and the said Items 576 and 577 were approved.

The Committee reverted to Item 575 of the Supplementary Estimates concerning the Polar Continental Shelf Project. It was considered and was approved.

Items 209 and 210 of the Main Estimates concerning the Mines Branch were called and considered.

At 11.00 o'clock a.m. the Committee adjourned until 3.30 o'clock p.m. this day.

AFTERNOON SITTING

At 3.30 o'clock p.m. the Committee resumed its consideration of the Estimates of the Department of Mines and Technical Surveys, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baldwin, Baskin, Dumas, Gundlock, Kindt, Korchinski, Martel, Martin (*Timmings*), Martineau, Mitchell, Murphy, Payne, Roberge, Stearns and Villeneuve—(16).

In attendance: The same as at the morning sitting except Messrs. Miller, Harrison and Fraser.

The Committee continued its consideration of Items 209 and 210 of the Main Estimates concerning the Mines Branch and approved them.

It was agreed that Item 211 of the Main Estimates concerning the Geographical Branch stand until later this day.

Items 212 to 215 inclusive of the Main Estimates concerning Dominion Observatories were called, considered and approved.

The Committee reverted to Item 211 of the Main Estimates concerning the Geographical Branch. The said item was considered and approved.

Item 216 of the Main Estimates concerning the Interdepartmental Committee on Air Surveys was called, considered and approved.

The Committee directed that there be recorded its appreciation to the Minister of Mines and Technical Surveys and the officials of his department for the assistance which they had given to the Committee.

At 5.00 o'clock p.m. the Committee adjourned until 3.30 o'clock p.m. on Monday, July 21, 1958.

Eric H. Jones,
Clerk of the Committee.

EVIDENCE

FRIDAY, July 18, 1958
9.30 a.m.

The CHAIRMAN: Gentlemen, I see a quorum. At the last meeting the question of calling witnesses from Alberta, in addition to the officials of the Dominion Coal Board, was raised.

A request was made by two members of this committee to have witnesses present from that province.

Mr. Woolliams and Mr. Kindt have asked for certain witnesses to be summoned. I think it is a matter for the committee to decide this morning.

The witnesses would have to be flown here, and I am hoping that the committee will accede to the request. The two members are anxious that these witnesses be called. The certificates have been signed and filed for their attendance.

Mr. Kindt has requested there be summoned Mr. Frank Aboussafy, of Coleman, Alberta, president of the Crowsnest Pass Industrial Planning Board, and the mayor of Coleman, Alberta; Mr. Woolliams has requested that Mr. Thomas Mackie of Drumheller, Alberta, Secretary No. 172, United Mineworkers of America; and Mr. Edward Boyd of Calgary, Alberta, president of District 18, United Mineworkers of America, be summoned.

Would anyone wish to comment on this suggestion, or oppose it?

Mr. DUMAS: The first one, Mr. Frank Aboussafy, is the chairman of what?

Mr. KINDT: Mr. Frank Aboussafy is president of the Crow's Nest Pass Industrial Planning Board, and he is also mayor of Coleman, Alberta.

The CHAIRMAN: I might mention that I received a letter this morning from Mr. Woolliams who was called out of town today. In it he added another name, that of Mr. Henry Sherwood of Canmore, Alberta, Secretary, No. 7297, United Mineworkers of America; and the last paragraph of his letter says that the union would like to have one witness from Canmore, because they want all the possible representation that can be before this committee on this occasion.

Mr. Woolliams talked to the Clerk of the Committee last evening but he did not then mention this request. However, he sent in certificates for the other two that I mentioned.

Perhaps we could allow this additional name to stand, and approve it subject to Mr. Woolliams providing a certificate for summoning him also.

I thought that if it was agreeable to the committee we might fix a day, let us say, Monday, on which to hear them. On Monday morning the Prime Minister of Ghana will be speaking to the house at 11 o'clock. I thought that we could start on Monday afternoon, let us say, at 3.30 p.m.

When these witnesses are here, I think we should at least have at least three meetings a day. Of course we cannot do that on Monday. It might take two days, but there is no reason why we should not accede to their desire to be able to return to their own jobs, by our having two or three meetings a day if necessary. Is that agreeable?

May we have a resolution or a motion to call these witnesses?

Mr. COATES: Mr. Chairman before we do that, I wonder, since we would be discussing the western phase of the coal problem while these witnesses are here, if at a later time we might take up the eastern phase of the coal problem, or whether we might wish to discuss the overall problem at the same time. The reason I ask this is that, probably, if the eastern phase of it is discussed at a later meeting, we might have some witnesses come here from the east who might be able to assist us in getting the overall picture.

I wonder what your feelings are about that?

The CHAIRMAN: As I said at the beginning, we want all the information we can get.

This is an important subject for this committee, and if you think it desirable to have witnesses from the east then we shall have them.

Mr. KINDT: Mr. Chairman, Mr. Sherwood comes from Canmore which is a tremendous area from which coal is shipped particularly right now. Forty thousand tons were shipped to the Japanese market, and in the last two weeks another 50,000 tons were shipped to that market. It is an important coal producing area.

We felt that to have a witness from Drumheller and one from the Crow's Nest Pass, and the local union secretary, would be about all we could ask for.

But the boys out west would like to have Mr. Henry Sherwood appear here as a witness even though he is not brought here by the committee or paid for by the committee. He could come here at his own expense, and we would like to have him.

The CHAIRMAN: If a witness desires to come at his own expense, there is no necessity for a certificate. I think we would be glad to hear his evidence.

Mr. KINDT: If the committee would pay his expenses, it would be appreciated, I am sure, because he comes from an area about which we certainly want to hear evidence. But in our original plan we did not include him. I leave it entirely to the committee.

Hon. PAUL COMTOIS, (*Minister of Mines and Technical Surveys*): He would not refuse to have his expenses paid for him, I suppose.

Mr. KINDT: Well, you have to understand the situation out there.

The CHAIRMAN: What is his position?

Mr. KINDT: He is head of the union at Canmore.

The CHAIRMAN: Is it agreeable to the committee that we have a certificate for this gentleman, and hear four witnesses from the west? If so, will someone move?

Mr. KINDT: I move that motion.

Mr. STEARNS: I second it.

The CHAIRMAN: You have heard the motion moved and seconded. All in favour? Those opposed, if any?

I declare the motion carried unanimously.

Mr. COATES: Will you investigate the possibility of having the president of the United Mineworkers in the Atlantic area, and one of the officials from Dosco appear from the east?

The CHAIRMAN: I would be glad, Mr. Coates, if you made your representation to the steering committee. I will call a meeting of the steering committee at your request at any time which is convenient to you.

If we are going to go into the western phase of this industry, perhaps we should consider the eastern phase as well.

Mr. GUNDLOCK: In connection with union heads, does the committee think it is proper to have such a representation made to this committee? Would that not be more properly made to a committee concerning labour?

Mr. KINDT: Well, what you say is an appropriate question. But they are all in the mining field with the exception of the Crow's Nest Pass witness, Mr. Aboussafy, who represents both the western side as well as the eastern side of the Crow's Nest Pass, and he is in very close touch. Since he is president of the Crow's Nest Pass Industrial Planning Board, he is the man in that area who has his finger on everything that is going on with respect to development in the Crow's Nest Pass. He speaks for the miners as well as for the industry.

Mr. GUNDLOCK: The reason I mention this is because I certainly am in favour of having these representatives of the coal mining interests from the west heard by this committee, but I rather hesitate to call labour representatives. That is why I asked the question: is it a proper representation for us to have before this committee?

The CHAIRMAN: You will also have representatives from the Dominion Coal Board who are quite familiar with all the problems. They will give evidence and they will be heard.

Mr. COMTOIS: That is right. Mr. Uren will be here.

Mr. MARTIN (*Timmings*): I think it depends to a considerable extent on the individual himself and his capacity, as far as the union is concerned. One union man may be merely a business agent who is familiar only with the administrative end of it and not with the mining end of it. On the other hand you may have a union representative who has worked in the industry all his life.

The CHAIRMAN: I agree. I think you will agree that our two members who have requested that we call these witnesses must know of their individual ability or they would not have asked for their appearance. The motion has been agreed to.

I did not call your attention before to the many booklets which are fastened to the pegboard in this room. If any members of the committee would like to have them for study or for their own use, the department will be glad to furnish them to you.

The next matter which was suggested was that we consider a map of the constituencies with a picture of the member on a particular constituency map.

I have made some inquiries. It was not actually brought before the steering committee. But it would involve a terrific job and a very considerable expense to have the work done.

I would suggest that you take a look at the map which is being prepared for the atlas. It is a map of the Dominion of Canada, and all the ridings are included in it.

There are numbers on each riding and those numbers are set forth at the top of the map indicating the name of the riding.

My personal opinion is that this map pretty well meets requirements.

Mr. AIKEN: This is something new.

The CHAIRMAN: That is right.

Mr. AIKEN: I know I have tried on several occasions to secure something like this but they were never available.

Mr. COMTOIS: It is part of the new atlas of which the English edition has already been printed; the French edition is still under way.

The CHAIRMAN: The deputy minister informs me that we might, through another department, have the pictures of the members printed on the back of the map.

Mr. AIKEN: Why spoil the map?

The CHAIRMAN: I think we will let it stand just at that.

Agreed.

Mr. KINDT: I think we ought to have these pictures made available to us in some form so that we could put them down here, or draw a line up there, or something. I do feel with all respect that we ought to have these pictures.

This is a very fine job and I think there is plenty of room in which we could, in our own way, put the picture in a certain area and then draw a line down from it to the margin.

The CHAIRMAN: There is no room on the face of the map for pictures

Mr. KINDT: Unless we put them on the outside margin and draw a line down to the area concerned.

Mr. COATES: I disagree. I think that if we sit in the house and watch the voting we will soon be able to associate the face of almost every member with his constituency. I came here in June last and it was not very long before I knew all the members of the House of Commons by face, if not by name.

The CHAIRMAN: Perhaps that is the reason you were elected, Mr. Coates.

Would it be agreeable to let this matter stand? You should all have maps available to you.

Agreed.

Now, we have just this remaining matter to consider, our agenda for Monday.

Is it agreeable that we call the witnesses for Monday afternoon at 3.30, which will permit us immediately to wire to these people? I think the plane reservations have been made.

Mr. GUNDLOCK: I so move.

The CHAIRMAN: Would you include an evening meeting, and if necessary on Tuesday we might meet at 9 a.m. and at 3.30 p.m., and at 8 p.m. if necessary.

Will someone so move?

Mr. KINDT: I so move.

Mr. STEARNS: I second the motion.

The CHAIRMAN: Very well, on Monday you will meet at 3.30 p.m., and at 8 p.m. if necessary; and on Tuesday you will meet at 9 a.m. and at 3.30 p.m., and at 8 p.m. if necessary. These meetings will be on coal.

Mr. COATES: To discuss the western phase of the coal problem.

The CHAIRMAN: That is right, and we shall be on items 217 and 218, of the estimates of the Dominion Coal Board.

Agreed.

Also, gentlemen, we shall continue from where we left off last time. We have not passed any items. We are still on items 193, 194 and 195.

ADMINISTRATION SERVICES

Main Estimates	
Item 193. Departmental Administration	\$623,942
Item 194. Explosives Act—Administration, Operation and Maintenance	\$113,055
Item 195. Mineral Resources Division—Administration, Operation and Maintenance	\$230,700
	<hr/>
	\$967,697

SURVEYS AND MAPPING BRANCH

Main Estimates	
Item 196. Surveys and Mapping Branch Administration	\$ 79,110
Item 197. Geodetic Survey of Canada—Administration, Operation and Maintenance	\$ 690,761
Item 198. International Boundary Commission	\$ 75,092
Topographical Surveys, including expenses of the Canadian Board on Geographical Names—	
Item 199. Administration, Operation and Maintenance	\$1,829,769
Item 200. Construction or Acquisition of Equipment	\$ 100,000
Canadian Hydrographic Service—	
Item 201. Administration, Operation and Maintenance, including Canada's annual contribution of \$4,100 to the International Hydrographic Bureau	\$3,352,378
Item 202. Construction or Acquisition of Buildings, Works, Land and Equipment	\$ 545,714
Item 203. Legal Surveys and Aeronautical Charts, including a Grant of \$500 to the Canadian Institute of Surveying and Photogrammetry	\$ 754,674
Item 204. Provincial and Territorial Boundary Surveys	\$ 54,200
Map Compilation and Reproduction—	
Item 205. Administration, Operation and Maintenance	\$1,242,932
Item 206. Construction or Acquisition of Equipment	\$ 18,500
	\$8,743,130

You may wish now to deal with the Surveys and Mapping Branch. If so we might pass items 193, 194 and 195. Is there any objection?

Agreed to.

Now, items 196 to 206 inclusive; they are under the Surveys and Mapping Branch. Have you any observations, gentlemen, concerning those items?

Mr. AIKEN: May we have a statement on the general duties of this branch, Mr. Chairman?

Mr. COMTOIS: That information was included in the general statement I made at the first meeting. Do you want me to repeat it? I have it here?

The CHAIRMAN: There might be a question on whether you are considering accelerating the program of mapping. The minister referred to it the other day.

Mr. COMTOIS: It is on pages 14 to 16 of the statement I presented at the first meeting.

Mr. DUMAS: The preparation of the topographical maps, those maps of 1/50,000, I think is excellent. I think the department has done a very fine job in preparing them.

It was mentioned in the minister's statement that it is now possible for the department to produce as many as 240 maps a years instead of merely 15 as in the 'twenties.

How many of these maps have been prepared since you adopted the system of 1/50,000?

Dr. Marc BOYER (*Deputy Minister of Mines and Technical Surveys*): Mr. Miller will answer your question. I do not know if we have an exact answer, but a good many maps are now made on the 1/50,000 scale.

Mr. DUMAS: Or approximately, what is the area already covered by such maps?

Mr. W. H. MILLER (*Director, Surveys and Mapping Branch*): Mr. Chairman, practically all of our larger scale maps are on the 1/50,000 scale. The principle we adopted was that of converting, whenever possible, our one inch to the mile map to the 1/50,000. That task has been practically completed for all the mapping we have done since adopting that scale.

Roughly speaking, 12 to 15 per cent of Canada has been covered by that scale now.

Mr. DUMAS: Thank you.

Mr. NIELSEN: Could the officials give us any idea whether their department is considering the production of relief maps of the type that the United States mapping service prepares?

I think that Spartan Air Services Ltd. have put out a map of Canada in relief. I am thinking particularly of the Pacific northwest. Has any consideration been given to a similar type of map for all Canada?

Dr. BOYER: Is Mr. Nielsen talking about an embossed map, that is the one whereon heights and elevations are shown by embossing them on the map?

Mr. NIELSEN: That is right.

Dr. BOYER: We do not contemplate putting out any map of that sort. However, on the 1/50,000 map we do show altitudes by contour lines. Some of the maps are one inch to eight miles and we show the contours by different tints, but we have no map which shows the altitudes by relief as does that of the Spartan Air Services.

The CHAIRMAN: The department has some maps here. Perhaps you would like to have an explanation of what they indicate.

Mr. NIELSEN: This department is also responsible for the production of geological survey maps, is it not?

Mr. COMTOIS: That is another item.

The CHAIRMAN: That comes under item 207.

Do you want to include items 207 and 208, also 576 and 577 which are on mapping, with these?

Agreed.

GEOLOGICAL SURVEY OF CANADA

Geological Surveys—

Main Estimates—

Item 207. Administration, Operation and Maintenance, including the expenses of the National Advisory Committee on Research in the Geological Sciences, an amount of \$1,500 for Canada's share of the cost of the Geological Liaison Office, British Commonwealth Scientific Conference, London, England, and an amount of \$40,000 for Grants in aid of Geological Research in Canadian Universities.... \$2,695,905

Item 208. Construction or Acquisition of Equipment \$ 300,565

Supplementary Estimates—

Item 576. Administration, Operation and Maintenance—Further amount required, including an amount of \$1,000 for Canada's share of the cost of the Geological Liaison Office, British Commonwealth Scientific Conference, London, England, and an amount of \$10,000 for Grants in aid of Geological Research in Canadian Universities \$ 103,250

Item 577. Construction or Acquisition of Equipment—Further amount required \$ 15,000

Dr. BOYER: On this question of embossing, we are hard pressed for priorities in putting out maps at a scale of 1/50,000 or roughly one inch to one mile, and maps at scales of one inch to four miles, one inch to eight miles, and so on. It would be quite difficult for us to undertake embossed maps. To do so would require an addition to our facilities, plus experienced employees. We would need to acquire the appropriate mechanical facilities to produce them.

What we are trying to do is to meet the high priority requirements for new maps and the requirements for reprints with corrections of some of the old maps.

Mr. COATES: Have we included item 207 in our current consideration, Mr. Chairman?

Mr. CHAIRMAN: Yes, we have included it Mr. Coates.

Mr. COATES: Might a statement be made having to do with the \$40,000 grant for geological research in Canadian universities?

Mr. COMTOIS: Dr. W. E. van Steenburgh will answer your question.

Dr. W. E. van STEENBURGH (*Director General of Scientific Services*): Mr. Chairman, as I understand the question, you desire information on the grants in aid for the universities.

This year the grants in aid have been around \$40,000, but in the supplementary estimates \$10,000 was added to that total.

Now, following the request of the national advisory committee on research in the geological sciences, they amount to \$61,000. They include 16 new projects.

That means that, at present in the universities, with the 16 new projects that were granted this year, plus the ones that were already in existence, we now have 31 research projects under way at 11 universities.

To date, 51 research papers have been produced in the universities by this research program. The grants are given to universities for work for which we lack the facilities to carry on in our own laboratories. Besides, we want to encourage, in the universities, interest in geology, and the training of graduate students in that science.

It is another effort to support the geological program in Canada.

Mr. NIELSEN: I wonder if the minister would indicate in terms of percentage what portion of the Yukon and the Northwest Territories has been mapped geologically.

Mr. COMTOIS: Dr. J. M. Harrison will answer your question.

Dr. J. M. HARRISON (*Director, Geological Survey of Canada*): I do not think we have the actual percentage figures. It is north of the 60th parallel that you gentlemen can see on the map west of the Ungava peninsula and east of Alaska, comprising the Northwest Territories and Yukon. The blocks which have been coloured indicate areas that have been mapped geologically.

I do not know just what percentage it is, but the Northwest Territories and Yukon are two regions that are receiving the most attention from the geological survey through helicopter operations.

Mr. NIELSEN: It would appear to be a fairly substantial proportion. The coloured portion indicates the geological extent of mapping there?

Dr. HARRISON: That is right.

The green on the map indicates the primary mapping that has been done by the provincial governments, and the other colours refer to the geological survey of Canada. Yellow indicates the areas mapped geologically, and the other represents the areas to be done.

Mr. NIELSEN: Have you any geological parties in the field covering geology in Nova Scotia, British Columbia and the Northwest Territories?

Mr. HARRISON: Yes, we have three parties in this region (*indicating on map*) this year, but we have none in this region (*indicating on map*). The Alberta government has three or four parties working in this area here (*indicating on map*).

Mr. NIELSEN: The Alberta governments sends out certain parties and then sends in to you the information which they gather?

Dr. HARRISON: No. They publish their own maps under their own auspices, and we put out our own maps under our own auspices.

Mr. NIELSEN: So that there should be a greater extent than is shown on your map which has been geologically mapped.

Dr. HARRISON: No. The map shows all the information that was published by the provincial and federal governments. The green is the areas that have been done by the provincial governments only where the federal Geological Survey of Canada has had no information. Anything that is coloured pink

was either originally or subsequently mapped by the Geological Survey of Canada. It does not mean there is no provincial detailed map in the region. It simply means we have obtained, first hand, of the basic data on the region.

Mr. NIELSEN: Have you any parties in that field in the Yukon.

Dr. HARRISON: Yes, three.

Mr. NIELSEN: Could you give us an insight into your plans over the next three years in regard to a continuation of this program.

Dr. HARRISON: We currently have one field party in northwest Yukon laying the ground work for what we propose to call operation Pelly. It is a helicopter operation which will get underway in 1959 and will probably continue to 1960. In 1959 we will probably start laying the basic work for further helicopter operations in British Columbia and perhaps in northwestern Alberta.

We have another man who is establishing supplies at Great Bear lake for a project called operation Coppermine. This will extend the mapping eastward from roughly the Mackenzie river across to the northern boundary of the mainland of Canada. We hope to continue that operation perhaps over two years until we have completely mapped all of the mainland of Canada in the Northwest Territories. It depends upon what the Quebec government plans on doing as to whether or not we will have other helicopter operations in the northern part of new Quebec, extending up to the northern tip of Ungava. This is still in the discussion stage.

Mr. NIELSEN: Could you tell us whether by the end of 1962 the whole of the area north of the sixtieth parallel—the mainland that is—will be completed?

Dr. HARRISON: We do not plan to complete it that soon. I expect it will be about 1965 or possibly in 1963.

Mr. NIELSEN: What is limiting your progress now, if any?

Dr. HARRISON: Money.

Mr. NIELSEN: Yes?

Dr. HARRISON: And personnel.

Mr. NIELSEN: If you had an increase in staff and in funds appropriated you could send more parties into the north and northern portions of the province?

Dr. HARRISON: Yes. It might be of interest to note that, at the present rate of mapping, we will possibly have completed the reconnaissance mapping of Canada by about 1970; that is, the initial reconnaissance mapping of Canada.

Mr. NIELSEN: Do you know that Dr. Bostock's report is not on the display board. Have you that in the department?

Dr. HARRISON: The physiography of the Yukon?

Mr. NIELSEN: Yes.

Dr. HARRISON: That is in our department.

Mr. NIELSEN: I wonder if you could get it. I am interested in it.

Dr. HARRISON: Yes, I will be pleased to.

Mr. AIKEN: Are there people available to do this survey work, provided that money were forthcoming?

Dr. HARRISON: I think so.

Mr. AIKEN: Do you have any difficulty in preparing these survey parties?

Dr. HARRISON: We did in the past to a considerable degree, but in the last two years we have had no difficulty in filling the vacancies on the staff. At present I do not think we have a vacancy on the staff of geological survey of Canada.

Mr. AIKEN: There is no hesitancy in going in the north, is there; it is just a matter of personnel?

Dr. HARRISON: We have had no difficulty in that connection.

Mr. AIKEN: When the province does a survey do you accept it or do you feel under an obligation to do it again?

Dr. HARRISON: We have no obligation to do it again. They work to very good standards and their surveys are quite acceptable. We like to have our own people working in the same general region so that there can be an exchange of information between the provincial and federal officers, and each can gain first-hand knowledge.

Mr. NIELSEN: I have a question to follow up on that. I would like first to observe, as an amateur in the field of geology, that the department procedure of publishing with these topographical maps a concise history of the geology of the area covered by the map and subsequently publishing them in booklet form is extremely commendable. It assists prospectors in the field to a great degree. The reason for my questioning along these lines—and perhaps, Mr. Chairman, it may be an unfair question to ask the witness, and the minister may wish to answer it himself, is that I believe, in view of the expressed desire of the government to accelerate northern development—and when we speak of northern development I am thinking of the northern portions of the provinces, as well as that north of the sixtieth parallel—in view of the desire and in view of the external evidence of it which has already been undertaken in the north, I am wondering whether this department is keeping apace with that acceleration and if not whether it is because of the lack of staff personnel or funds. What can this committee cast its mind on or cast its energy on in order to determine whether the department is in need in order to keep pace?

The CHAIRMAN: I think that is a question for the minister.

Mr. COMTOIS: We have this under study in the preparation of our estimates for 1959 and 1960.

Mr. NIELSEN: You are contemplating that?

Mr. COMTOIS: We are at the same time considering whether we need more staff for that work.

Mr. NIELSEN: Are you then contemplating an increase in your estimates for next year?

Mr. COMTOIS: As much as we can, but it has to be discussed with treasury board, the Minister of Finance and officials.

Mr. NIELSEN: In last year's estimates there was roughly a \$3 million reduction over the previous year's estimates. In this year's estimates you have gone upwards again, I believe I am correct in saying. I hope it is not intended to cut the estimates of this department in your planning, but rather to increase them in order to cope with this acceleration.

Mr. COMTOIS: That is right.

Mr. BALDWIN: I wonder if this witness could tell us if the basis of the priority of this survey is a request from the provinces, industry or an over-all plan from the four corners of the department itself.

Dr. BOYER: Is that on geological mapping?

Mr. BALDWIN: Yes, geological mapping.

Dr. HARRISON: It is actually based on all three. I am not sure how much weight should be given to any one. Our own officers suggest to us what they think should be done in the light of the work they have completed. In addition to that, the technical departments of the provincial governments are notified three times in the course of the year of our plans for the forthcoming year.

They are asked to comment. If it should happen that we would be duplicating work they plan to do we assign the party elsewhere. Our field program usually changes considerably from its original inception in our office in the autumn to what actually materializes in the spring.

Mr. BALDWIN: Is there complete cooperation with the province in regard to the exchange of information? I was thinking for example of the province of Alberta and the oil and gas situation there. Is there cooperation between the two departments?

Dr. HARRISON: Very much so. We have a western plains office in Calgary and the geologist in charge in contact with the Alberta research council which conducts the province's geological survey.

Mr. NIELSEN: You will note, Dr. Harrison, the extreme southwestern portion of the Yukon is not shown on the map as being geologically mapped. I might ask that consideration be given by the department to physically mapping that area as a large portion of it still remains unmapped and is a handicap to those who are prospecting in the area and indeed for those who are navigating in the area by air.

Mr. COATES: Are undergraduates used on these surveys? Is there any way in which you could give me the figure of the number of undergraduates that are employed at the present time compared with those of last year's figures?

The CHAIRMAN: I think part of that was given in the minister's original statement, the number of parties. I think it was 77. I believe he mentioned the number of personnel, but we will have that evidence again.

Mr. COMTOIS: This year we have 195 and last year, 135.

The CHAIRMAN: Are those undergraduates?

Mr. COMTOIS: Yes.

Mr. COATES: Do you know if the number has been increased this year, due to a request from the Geological Survey of Canada Branch?

Mr. COMTOIS: We had requests from the universities and other groups, as I said in the house. I think it was Mr. Fisher who asked a question in the house. We went as far as we could for this year, and we expect to do more next year. But the difficulty is on finding the right heads of parties.

Mr. COATES: I am very pleased to hear that.

Dr. HARRISON: The work of the party would be united without a good party chief.

Mr. COATES: I would like to ask another question, and it is not on this point.

The CHAIRMAN: I think there is one question the committee would like to have answered. Do you have continuity in your survey parties? For instance, in going to Baffin Island, do you have someone in the party this year who was there last year?

Dr. HARRISON: Usually the party chief continues in the region for a number of years, at least five years, to have that continuity. Whether or not he will have the same personnel on his party is partly a matter of chance. We try to diversify the experience that the students get. If a student is at a stage where he is doing useful work in Baffin Island, let us say, and we think perhaps he can get all the good he is going to get out of it in one year we would likely move him somewhere else next year. If he is a new man and just learning to find his way around, he could probably have a second year.

The CHAIRMAN: How many parties do you have on Baffin Island?

Dr. HARRISON: This year we have only one—in the southwestern part of the island.

The CHAIRMAN: I think part of that personnel includes a man named Murphy. Then, Dr. Harrison, I notice that in the minister's statement this year there are 77 survey parties, geological survey parties. Last year how many did you have actively engaged on surveys?

Dr. HARRISON: Seventy-two.

Mr. DUMAS: It would be interesting to have a list of the parties engaged each year since 1950, because I remember that in 1950, we had, I believe, 87 or perhaps 85 parties actively engaged in geological survey.

Dr. HARRISON: It was 89, I think.

Mr. DUMAS: I do not need that information right now. Perhaps we could have it at the next meeting.

Dr. HARRISON: I should point out, as the deputy minister suggests, that it is a case of statistics not meaning quite what they seem to mean. Since 1950 we have been assigning a lot more money and many more men to these helicopter operations, so that, instead of operating six parties in one year we condense it to one field party. In some years we have had two of those helicopter parties operating and thus, although fewer field parties were operating, the total area covered has been much increased. Our first helicopter party was placed in the field in 1952. The actual number of field parties has not increased with the increase in professional staff.

Mr. DUMAS: Do you mean to say that the program has been increased considerably?

Dr. HARRISON: Very much so, yes.

The CHAIRMAN: Would you like to have on the record the number of helicopter parties?

Mr. DUMAS: We have it here, with respect to the Precambrian.

The CHAIRMAN: Do you want it on the record of this meeting?

Mr. DUMAS: I want to have the number of parties engaged each year on the geological survey.

Dr. HARRISON: I can supply that information.

Mr. DUMAS: At a later sitting?

The CHAIRMAN: That will be tabled subsequently.

Mr. AIKEN: I have a question that perhaps this witness might not be able to answer. When we were discussing the estimates of National Museum I asked a question concerning equipment for carbon testing wood and other materials to determine its age. At that time I was told that there was such equipment in the Geological Surveys Branch. Can you enlighten us on that point? Is there suitable and satisfactory equipment of that type?

Dr. HARRISON: The Mines Branch is building that apparatus for us. It is anticipated that in about six months it will be ready to calibrate and for use in dating carbon up to 35,000 or 50,000 years. The equipment will be available about the time we move into the new geological survey building.

Mr. COATES: At page 46 of the annual report it says that a report on the petrographic survey of the Nova Scotia coal fields, including the Mabou field and the Springhill field of Nova Scotia, as well as the Crownest field in Alberta, has been made. I was wondering if information was available as to the quality of the coal in these different areas?

Dr. HARRISON: The quality of the coal is not the function of the geological survey of Canada. We have been utilizing this information to work in with the fuels division of the mines branch on its tests for effective utilization of coal. Our work has been primarily concerned with the geological extension of known deposits and with the correlation between the different deposits.

Mr. COATES: I understand.

Dr. HARRISON: That information is being published regularly. A rather scientific account of one of those investigations by the officer in charge of the laboratory in Nova Scotia is tacked up on the display board.

Mr. NIELSEN: I noticed at the last meeting, and I think I see them here again at this meeting, boxes containing mineral and rock samples. I know that in the Yukon—and the province of Saskatchewan do it as well—we conduct scientific account of one of those investigations by the officer in charge of the prospecting schools to assist in exploration for minerals. I was wondering if this type of thing was available in quantity for distribution or purchase by those organizations interested in that type of work.

Dr. HARRISON: We have sets of minerals and rocks which are available at 50 cents a set, consisting of 40 minerals and 40 rocks. These are intended for the purposes you have mentioned, and they are available through the services we provide. The particular set you have before you costs \$25.

Mr. NIELSEN: It looked rather plush!

Dr. HARRISON: The \$25 sets are intended for people who are interested in their practical use and in their aesthetic value.

Mr. NIELSEN: Does the department conduct any experimentation or research—all types of research—but I am thinking particularly of experiments in extracting gold from black sand?

Dr. HARRISON: That would be the function of the Mines Branch.

Mr. NIELSEN: Then, I shall save that question for some other expert.

Mr. STEARNS: Before we leave this, may I ask a question. Are forestry maps for the so-called 17 or 18 eastern townships of the province of Quebec complete now, or are they not? A year or two ago there were some missing.

Dr. BOYER: Forestry maps, do you mean?

Mr. STEARNS: Yes.

Dr. BOYER: We do not deal with forestry in the department. We produce the base maps on which data obtained from the study of forest cover can be superimposed. That may be done by the province or in the Forestry Branch of the Department of Northern Affairs and National Resources.

Mr. STEARNS: I secured some of these maps for the eastern townships, but I did not take note of where they came from. However, they were not complete. I think there are 17 counties in the eastern townships and there are perhaps about 14 of those maps. I can get a copy of one of them.

Dr. BOYER: Besides supplying the bases for them, the photographic bases on which are superimposed the data of the forest cover, at the request of other departments—if there are some of these maps ready for use we could print them in our Surveys and Mapping Branch.

Mr. DUMAS: Where is the geophysical survey work done this year, mostly? Is it in the Northwest Territories?

Dr. HARRISON: No. We are completing a survey of Nova Scotia, New Brunswick and Prince Edward Island, extending in reconnaissance fashion across the Gulf of St. Lawrence.

Mr. DUMAS: And the maritime provinces?

Mr. HARRISON: Yes.

The CHAIRMAN: Then, shall we approve items 196 to 208 inclusive of the Main Estimates and the relevant supplementary estimates?

Mr. NIELSEN: In connection with the approval of those items, I should like to observe that the committee should go on record as strongly supporting the increase in the estimates of this department to enable them to carry on their work in order to keep pace with northern development which I was speaking about earlier.

The CHAIRMAN: I am glad to have some support on that, because I intended to include it in the discussion with the steering committee when it considers the draft of our report to the house. Do we approve these items, including the supplementary estimates items?

Mr. DUMAS: I have one more question. When do you expect to have the Surveys and Mapping Branch building ready for occupation, Dr. Boyer?

Dr. BOYER: In about 2½ or 3 years, I am told. We just recently started excavation. That is the largest of the buildings on Booth street.

Mr. DUMAS: And the Geological survey building?

Dr. BOYER: By the spring of next year, we hope.

Mr. COMTOIS: The Surveys and Mapping Building has already been started and the contract has been given to the Cape Company of Montreal.

The CHAIRMAN: May we approve all these items including the supplementary item? Is there any objection? None.

Items agreed to.

Will you look at the supplementary estimates? I think it is item 575 on page 6. That is a new item. We might consider it now as it precedes items 576 and 577 which have been approved.

GENERAL

Item 575. Supplementary Estimates—Polar Continental Shelf Project \$78,450

Perhaps the committee would like to have an explanation of what that item represents, what it entails, and what it means.

Dr. BOYER: I should like Dr. van Steenburgh to explain to the committee what this new project is.

The CHAIRMAN: That is on page 6 of your supplementary estimates.

Dr. van STEENBURGH: This particular item is a special project on the Arctic continental shelf.

It originated through the interest of the government, plus the fact that, at recent meetings in Geneva dealing with continental limits of the ocean, it was decided that the resources of the continental shelf now belong to the adjacent country.

This matter of continental shelves was referred to the advisory committee on northern development who felt that, at present, the major effort in exploring resources in the continental shelf belonging to Canada should be carried out in the Canadian Arctic.

We know very little about the continental shelf in the north, and other interested countries have been making investigations near that continental shelf quite close to our own shores. Then too there is the possible question of sovereignty.

Another reason for selecting the north was the tremendous interest in the Arctic at present because of the I.G.Y. program.

The Canadian government is receiving many requests for research projects, not only for the Arctic Ocean but in the whole area adjacent to the Arctic Ocean. Up to the present Canada as a nation has not paid much attention to this area. We have been more involved with the development of our resources in the more populated portions of Canada or in the areas adjacent thereto.

We know very little about the continental shelf at present, so that in this first survey we will work out the techniques on which we may build a more extensive research program for the future. Only one area of the continental shelf will be examined in the north this year, and from that initial area it is expected that the work will move to the northeast and to the southwest until we have accumulated sufficient scientific and practical information dealing with the matter.

You will also note that this project is associated with other items in our estimates. The geological survey of Canada is carrying out aerial geophysical surveys in the Gulf of St. Lawrence continental shelf area this year.

In case you are interested I may state that work on the continental shelf not only deals with the resources but it includes also investigation of the ocean, and the currents of the ocean in the area, temperature gradients, and all those factors that pertain to the characteristics of the ocean in the area under consideration.

Mr. AIKEN: The particulars of the item would indicate that the expenditure this year will be more or less of an organizational nature.

Dr. van STEENBURGH: The supplies for the reconnaissance have already been sent to the north. In the spring of 1959 some six or seven professional people, with assistants, will be working in that area.

They will be trying out means of communication, methods of taking samples, how to locate ourselves on the ice sheet generally, and matters of that nature which must be known before we can enter into an extensive program in the following years.

Mr. AIKEN: How far beyond the actual shores do you consider investigating?

Dr. van STEENBURGH: We are thinking in terms of investigating the physical characteristics of the ocean out to where the shelf breaks into the ocean depths.

Mr. AIKEN: That might be three or four miles or ten to twenty miles?

Dr. van STEENBURGH: We know already that it is between 80 to 150 miles.

The CHAIRMAN: Is water transportation involved in this matter?

Dr. van STEENBURGH: There is no water transportation. Most of the work will be done on the ice. Later, some of the inlets become free of ice. At present we do not know the optimum time period in which we can work.

Possibly we will start working with skis on fixed-wing aircraft landing on the ice. Later on we may have to use floats, in which case aircraft will land on the ice-free inlets.

Mr. DUMAS: Which part of the Arctic will be first investigated?

Dr. van STEENBURGH: There is a weather station at Isachsen. The area under investigation next year will extend from Isachsen to Meighen island on one side and to Borden island on the other.

Mr. DUMAS: Is that south of Ellesmere island?

Dr. van STEENBURGH: No, it is southwest of Ellesmere island.

The CHAIRMAN: Are there any further questions on this item?

Item agreed to.

MINES BRANCH

Main Estimates

Mines Branch (including the former Mineral Resources Investigations)—

Item 209. Administration, Operation and Maintenance	\$3,266,265
Item 210. Construction or Acquisition of Equipment	\$ 270,125

You asked about items 209 and 210 of the Mines Branch. Have you some questions, Mr. Nielsen?

Mr. NIELSEN: Yes, on research.

Dr. BOYER: Dr. Convey, Director, of the Mines Branch, will answer your questions, Mr. Nielsen.

You had one question about the chemical analysis of coal.

Mr. COATES: No, that was my question.

Mr. NIELSEN: Perhaps Dr. Convey could give us a general idea of how extensive is research by the Mines Branch.

Dr. J. CONVEY (*Director, Mines Branch*): That is rather a broad question, Mr. Nielsen, because we cover everything associated with technical assistance to the whole mining and metallurgical industry.

By that I mean that we work on developing processes for the extraction of metals from metallic ores and on the production of industrial minerals from non-metallic ores. We also do research on coal, oil and gas.

Coming back to your question about the black sands, which particular black sands do you have in mind, Mr. Nielsen?

Mr. NIELSEN: You are of course familiar with the area adjacent to Liard.

Dr. CONVEY: Our interest in that area has been mostly associated with the finding of titanium. We have not done very much on gold since the early 1930's. Since I have been at the mines branch we have done nothing on the extraction of gold from the black sands.

In reference to the question on coal, we issue a report annually in which we show the quality of the Canadian coals we analyze.

Mr. COATES: I have a couple of questions along the same line.

On page 74 of the annual report there is an item about coal dust explosibility.

I was wondering whether your department went around and took samples of coal dust from different mines and analyzed them on your own initiative, or whether it was done only by request.

Dr. CONVEY: No. What we aim at is the testing of equipment which would be used in coal mines. Occasionally we receive a sample of coal-dust from a mine, and we would analyze it.

Mr. COATES: Have you ever received requests to test it?

Dr. CONVEY: Yes, on occasion.

Mr. COATES: At the bottom of page 74, it says "deep mining projects, with particular reference to bumps and outbursts in certain coal mines in eastern and western Canada."

The reason I am interested in this subject is that in my constituency, Springhill, which is the main mine, as you are probably aware, a short while ago we had four or five bumps which were dangerous.

In fact, they closed down the mine in an effort to get one slope down to the same level as another. Is that one of your problems?

Dr. CONVEY: Yes, we have a team of engineers at Springhill working on these bumps. We initiated this type of research about 10 years ago. The work is divided into two fields. In one field we are concerned with the strength properties of the rocks, or rock mechanics. In the second we are working on what we call ground mechanics. In this field we attempt to measure the stresses that are associated with mining operations, which upon release, create the bumps.

We have one team in that connection working in western Canada at Crows Nest and at Canmore, and we have a second team working in the Springill area.

The results to date have been very promising. However it is a difficult project for the simple reason that the behaviour of rocks under stress is difficult to measure and predict.

What we obtain is known as a qualitative measurement. It enables us at Springhill to see actually what is coming. Our results are positive, but they are not good enough yet for us to say: "you will get a bump next Tuesday."

Mr. COATES: I noticed in that regard that you have a new machine installed which predicts earthquakes. What is the name of that machine?

Dr. CONVEY: I think you mean the seismograph.

Mr. COATES: A seismograph has been placed in Springhill?

Dr. CONVEY: Yes, and the Dominion Observatory cooperates with us on on these projects.

Mr. COATES: Is this seismograph associated in any way with the bumping?

Dr. CONVEY: We have not obtained any positive results with it. The stresses involved in these outbursts are not great enough to create a truly positive indication, but we haven't given up hope. We do hope that the work of the observatory will assist us technically. Closely as the bumps have occurred, they have not registered on the seismographic equipment.

Mr. COATES: Thank you very much.

Mr. MARTIN (*Timmins*): Is your work confined mostly to the coal industry or is it carried on with respect to hard rock?

Dr. CONVEY: It was initiated for the coal industry, but it has since been extended to hard rock mining. For example, we have assisted the Wabana iron mine in setting up similar measurements and techniques; and we have done some work at the Steep Rock iron mine.

If we had more staff we would have more teams in the field.

In my opinion this is a phase of research which should be extended and accelerated, because the more results we can get out the better will our chances be for improving mining mechanics.

Mr. MARTIN (*Timmins*): Have you any idea as to which particular type of hard rock mining is more subject to it?

Dr. CONVEY: No. We have not sufficient experimental indication yet as to whether one type of rock is more subject to it than another.

Mr. COATES: I would like to join Dr. Convey, to say that I feel also that more funds should be considered for this type of research. It is very important to the lives of miners that every possible precaution be taken to prevent bumps, and that sort of thing, which are very dangerous.

Mr. BALDWIN: Would the witness tell me if any investigations are being made or have any been requested with regard to iron ore deposits in the vicinity of Haines creek, northwest Alberta, near the British Columbia border?

Dr. CONVEY: Yes, we received requests through the Alberta government and we are working in cooperation with it. We have carried out some beneficiation tests.

Mr. BALDWIN: Have you come to any conclusion with regard to the commercial value or the potential value of those deposits?

Dr. CONVEY: It is too early for us to give a positive answer. However, we can say that a lot of beneficiation will be needed.

Mr. BALDWIN: But you are still proceeding?

Dr. CONVEY: Yes, in cooperation with the Alberta Research Council.

Mr. DUMAS: Dr. Convey, I understand your branch has done considerable research in the uranium field. I have read many articles in which your department has been congratulated, and we feel that you have done a very good

job in that department. Now, there is a question that intrigues a lot of people. Those mines, let us say in the Blind river area, for instance, have contracts with the government?

Dr. CONVEY: Yes.

Mr. DUMAS: They are mining at—well, I would not say high speed—but they are big operations. I am wondering if those mines are not being depleted too fast. I understand that the reserves are high; but is there any danger that they are actually mining hygrade in order to fill their contract, and the mines are being depleted before they should be depleted.

Dr. CONVEY: No, they are not hygrading. They are using good mining methods. They have very substantial reserves. They are not taking off the top strata and leaving poorer grades down below.

Mr. DUMAS: Well, it has been done before.

Dr. CONVEY: Yes, but I do not think it will happen in the Blind River or Bancroft areas.

Dr. BOYER: I might add, if Dr. Harrison agrees with me, that the tenor of ore in the Blind River area is nearly uniform throughout the ore-bearing formation. I do not think it is possible to hygrade in the Blind River area, particularly. Is that right?

Dr. HARRISON: The tenor of the ore in the Blind River area is very even throughout. It does not make a great deal of difference which part is mined.

Mr. NIELSEN: Does your branch have any liaison with the Department of National Health and Welfare with regard to devising methods for decreasing the danger resulting from silicosis, and that sort of thing?

Dr. CONVEY: We have worked closely with the Department of National Health and Welfare—not so much in the field of silicosis, other than that we have had occasion to create an atmosphere for them in our laboratory set-ups. We work closely with that department and in connection with the possibility of radiation danger.

Mr. NIELSEN: I was going to ask that question next. Are you doing anything now with regard to devising a method of reducing the danger to miners in that field from the inhalation of radon gas?

Dr. CONVEY: Yes; some time ago we began investigations associated with that, and equipment is now available with which the radon content of mine air can be measured.

The next question concerned the limit of radon that a minor can withstand. Since then we have looked into the question of back fill and have examined the tailings used for this fill. We are watching the situation. We are working in cooperation with the uranium mining companies.

Mr. KINDT: My question might deviate slightly from the subject about which you are now talking but may I go ahead and ask it?

The CHAIRMAN: Well, let us hear your question.

Mr. KINDT: It concerns phosphate rock. In southwestern Alberta we have plenty of nitrogen and plenty of potassium now in sight from the new discoveries in Saskatchewan; but there is need for finding or discovering deposits of phosphate rock which can be combined with ammonium from the gas fields in the production of fertilizers. Phosphate rock now comes from Montana and Idaho. It has to be shipped in by rail. If it were possible to find in southwestern Alberta a continuation of those deposits that appear in the rocks in Montana and Idaho—and it seems certain that there are deposits in there if they could be developed—it would be in line with rounding out the fertilizer picture in western Canada and the developing of that industry.

Dr. CONVEY: We are interested in the end use of phosphate rock, but, the search for the rock is a matter of interest to the geological survey of Canada. We enter the picture once the deposit has been found.

Dr. BOYER: If the hon. member who asked the question would like to have more information on the economics connected with it, we have with us Mr. Buck who is in charge of our mineral resources division.

The CHAIRMAN: Would you like to have that?

Mr. KINDT: I did not get the last part of the answer.

Dr. BOYER: If you are interested in where it is found—was your question related to exploration or to use?

Mr. KINDT: Exploration, primarily. We want to find a deposit of phosphate rock in the west.

Mr. W. K. BUCK (*Chief, Mineral Resources Division*): Deposits of phosphate rock occur in the west. They are an extension of the American deposits to which you have referred. They are not of commercial grade and the company concerned, which produces fertilizer in the west obtains its phosphate from its own mine in Montana.

Mr. KINDT: Is there any possibility that adequate deposits may at some time be found in the Rocky Mountains area?

Mr. BUCK: The chances are not very good. One cannot say definitely about mineral resources, of course.

Mr. KINDT: Are you sure about that?

Mr. BUCK: Well, I must say that one can never know for certain.

Mr. KINDT: One supplementary question; is there any work which is now being done by the department that could be directed toward the discovery of new deposits?

Mr. BUCK: No, there is not, except our general geological mapping program.

Mr. KINDT: You leave it entirely to the prospectors to find deposits?

Dr. HARRISON: The Geological Survey of Canada does the basic geological mapping from which we hope to guide the prospectors in their search for minerals. We are carrying out geological studies in the Rocky Mountains area that might contain phosphate deposits. So far however, we have found only slight indications and the chances of finding commercial phosphates are probably low. This seems to be supported by the fact that the commercial organizations which are vitally concerned with finding phosphates have not done so, and have purchased phosphate deposits in the United States in order to ensure a supply for their own operations.

Mr. KINDT: I might say with all due respect that that is one of the minerals that we would like very much to find in commercial quantities in southwestern Alberta.

Dr. CONVEY: We investigate the samples that are found in the different areas to determine what they are worth. So far none that merits great consideration has been brought to our attention.

Mr. KINDT: Then, we all know that phosphate rock is an extremely hard mineral to find. You can walk over it time after time, prospectors tell me, and not be aware of the presence of the phosphate rock. Due to the difficulty of finding it, it is difficult to get prospectors interested in it. I was wondering if that, in turn, might be the reason why we have not as yet found adequate deposits of that mineral in southwestern Alberta.

Dr. CONVEY: That may be one answer; but in addition I think it is one of those commodities that sells in bulk and does not give a commercial return on your money.

Mr. DUMAS: Mining conforms to economics.

The CHAIRMAN: Then, is it agreed that we meet at 3:30 today?

Agreed.

AFTERNOON SITTING

3.30 p.m.

The CHAIRMAN: Gentlemen, I see a quorum. At the time of adjournment we were dealing with items 209 and 210 concerning the Mines Branch. Are there any further questions?

Mr. BALDWIN: I have a question for the deputy minister in regard to the tar sands on the Athabasca river. Are there any known methods available at the present time for dealing with these deposits which would enable them to be processed and the solvents made available in competition with the orthodox means of obtaining oil from the present methods?

Dr. BOYER: In answer to your question, Mr. Baldwin, I would say that it is at present just a border line case. Some experts say they have reached a stage where they can find a process whereby the tar sands can be mined, and the oil extracted from them at a cost low enough to compete with well petroleum. Others say it is more economical to drill for petroleum than to install the huge plants that would be necessary to handle the great mass of material that would have to be moved to extract petroleum from the sands.

Some companies are experimenting with several processes. Some have even indicated the intention of building a pipeline to Edmonton for the final product they would extract from the tar sands.

I do not think anybody has proven definitely that this would be economical, but a stage is being reached where it might so become. There is still a great deal of oil underground that is not finding a market.

When markets for this oil are found, production of oil from the tar sands may become feasible.

Mr. BALDWIN: I should have mentioned, when asking my question, that I was taking into consideration world conditions which now prevail and which make it hardly economic.

Dr. BOYER: That is right, and conditions on the North American continent, because our exports of petroleum are mostly to the United States.

In the past, processes were found by the National Research Council as well as by our department. Some processes were devised more recently by the companies that have attempted research and development in that field.

Mr. KINDT: The wellhead price for oil is around \$2.50 per barrel for the ordinary well production in Alberta. I understand that it costs about \$3.50 per barrel to process oil with the centrifugal method. I refer to oil from the tar sands at Fort MacMurray.

Dr. CONVEY: Mr. Chairman, the average cost runs between \$2.00 and \$2.60 a barrel. I doubt if they have a correct figure as yet by which to arrive at a cost of production of oil using the centrifugal process.

In addition to what Dr. Boyer has just told you, there is a difficult problem in the mining as well as in the separation of the bitumen from the sand; and on top of that, the heavy bitumen has to be refined. It is not a saleable product as it comes from the centrifuge.

I doubt if there is any correct figure as yet as to how much it would cost per barrel.

The CHAIRMAN: I know that Mr. Dumas and others during this session—I mean others in connection with this department,—have concerned themselves about research, and I am sure that the committee would like to have

some idea from the deputy minister or from one of his officials as to the amount of research that is now being undertaken, approximately as closely as they can give it; and also a statement on government policy with respect to research in this department, whether it should be accelerated and if so, to what extent. Is that agreed?

Mr. PAYNE: May we have at the same time a breakdown as to the activities in different areas?

The CHAIRMAN: I shall ask them to explain it. I do not know if they can do it exactly, but if it is possible to answer your question, Mr. Payne, it will be answered.

Dr. VAN STEENBURGH: Mr. Chairman, I should point out to the committee before I make any remarks that this question touches on a problem which no research organization has yet been able to answer definitely. Many different definitions enter into the question of what is research and what research constitutes.

For the benefit of the committee I might say that there are, in an organization like ours, three types of research. One might be designated as fairly fundamental research. Then there is applied or first aid research and also a lot of technical testing. The line between fundamental and applied research is difficult to fix.

Those of us who are interested in research have felt that the applied aspects of research should be moved out to industry or other organizations especially set up for that purpose. We have used all the influence we can in the department to move the ordinary testing and some first aid work out to provincial research councils and to industries to the extent that they are able to handle it.

The tendency in government research organizations such as our own department is to move the research emphasis back more and more toward research which looks forward to the development of the country and its resources rather than to answering the particular questions of immediate concern. That is the approach most of us have been taking over the past years.

I would say that the quality of the research being carried out in the department is much better than in the past and with encouragement and enlightened leadership it will improve even more in the future.

We think of fundamental research in terms of creative research; research that is adding to the sum total of knowledge which will give us a basis on which to build the future of our country.

Applied research, of course, is the answering of questions which are of immediate practical importance. A department like ours will always have to do some of each of those types of research. We do not want our men to be too much in an ivory tower because they would then lose contact with the practical aspects of industry.

If a scientist becomes too practical he will not likely be creative. It is important to maintain a proper balance between the fundamental and applied research. As our staffs become better trained and more accomplished the quality of our research improves. This trend has been apparent for several years.

If you were to ask me or any of the directors who are here about the various levels of the different types of research in our various branches I am sure you would get several answers. It is most difficult to say that 30 per cent or 40 per cent of the work of any branch is fundamental research and the rest is first aid research or testing. I would be very brash if I should attempt to do this.

The CHAIRMAN: Does that answer your question Mr. Payne?

Mr. PAYNE: Yes.

Items 209 and 210 agreed to.

The CHAIRMAN: Gentlemen, I have just been asked if you would be kind enough to take items 212 to 215 in view of the fact that the director of this branch of the department will have to leave on Monday. Is that satisfactory to the committee?

Some Hon. MEMBERS: Agreed.

DOMINION OBSERVATORIES

Main Estimates—

Item 212. Administration, Operation and Maintenance, including the Expenses of the National Committee for Canada of the International Astronomical Union, a membership fee of \$500 to the International Astronomical Union and a Grant of \$3,500 to the Royal Astronomical Society of Canada	\$777,571
Item 213. Construction or Acquisition of Buildings, Works, Land and Equipment Dominion Astrophysical Observatory, Victoria, B.C.—	\$695,075
Item 214. Administration, Operation and Maintenance	\$140,240
Item 215. Construction or Acquisition of Buildings, Works, Land and Equipment	\$156,150

The CHAIRMAN: Gentlemen, would you like to have a statement from Dr. Beals?

Some Hon. MEMBER: Yes.

Dr. C. S. BEALS (*Dominion Astronomer*): May I put this map on the board?

The CHAIRMAN: Yes.

Dr. BEALS: Mr. Chairman, gentlemen, as Dr. van Steenburgh has just said, our branch, like many others, is divided between practical and pure research.

I might just outline in a general way some of the practical things we do. One of them is to run planned surveys of Canada. I think perhaps it is not always realized that that takes a good deal of time and effort.

Another activity of our department is to provide catalogues of accurate star positions which are used by surveyors, navigators and those involved in fundamental research in astronomy.

We also do a good deal of research in regard to the character of the upper atmosphere. Various methods are used for that. We take spectra of the sun, and observe meteorites, and more recently the earth satellites.

We are also interested in solar phenomena such as sun spots and what we call solar flashes or other disturbances on the surface of the sun which are responsible for such things as the auroras, magnetic storms and various radio fade-outs which are quite important to radio communication people.

We are also involved in the field of seismology—an investigation of earthquake hazards, particularly in certain parts of the world such as the St. Lawrence valley and various parts of the coast of British Columbia where we have a number of seismograph stations.

We also do gravity mapping—not of a commercial kind. We undertake, among other things, the coordination of commercial gravity surveys so they can be made into regional maps which are of assistance in understanding the broad character of the underground structure of the earth's surface in particular places.

Another important duty of the Dominion Observatories is constructing magnetometer maps and charts both for commercial and for navigational purposes—navigation by sea and by air. For this purpose we make observations both on the ground and with an airborne magnetometer which can, of course, cover quite a large area in a shorter time.

I think possibly this map might give you an idea of some of our operations. In order to study earthquakes we have a number of seismograph stations in different parts of the country. They are indicated by the asterisks you see on the map.

We have a number of magnetic observatories where the change in gravity of the earth from day to day is observed. They are indicated on the map by the circles.

Where there is a circle and an asterisk on the map it means that we have the two types of activities in the one place. We have a major astronomical observatory in Ottawa, and an astronomical observatory at Victoria, British Columbia.

We are in the process at present of constructing a radio astronomical observatory, which is a telescope that detects radio-waves and light-waves. It has some special advantages that ordinary telescopes do not have.

We have two geodetic observatories in Alberta, located 25 miles apart for the purpose of triangulation.

The hatched areas on the map indicate the gravity survey that is going on this year in this part of the country (indicating on the map) making use of airplane transportation. These two areas in Saskatchewan and Alberta (indicating on the map) are also gravity surveys which are going on with the aid of automobile transportation.

Again in British Columbia these lines on the map indicate an airborne magnetometer survey which we hope to complete this year. To do so has involved sending the plane carrying the magnetometer on a trip to Tokyo via the Aleutians, and returning by Wake island and Honolulu. We are doing this because it is very important to have magnetometer charts at sea, and unless the nations that are located on the borders of the major oceans do the work, it will not be done. It so happens that we have a newly designed airborne magnetometer which, I think, supersedes those of any country, and we agreed to do some of the mapping of the Pacific ocean.

The fundamental task of astronomy or geophysics is to try to understand the nature of the universe. We are trying to understand the materials, and particularly the forces with which we are dealing when we look at heavenly bodies and when we direct our instruments towards outside space.

If we could understand thoroughly what happens to atoms or molecules or assemblies of atoms or molecules and what they are doing in outer space and in the deep interior of the earth we could quite often help solve the problems we encounter on the earth's surface.

I should like to mention three things in this regard. One is this: the element helium, which has meant a good deal to science, industry and formerly to military operations, was found by astronomers, to occur on the sun before it was discovered on the earth.

The second is that by 1920 astronomers were convinced that the heat of the sun was due to a very efficient atomic energy plant in the sun's interior. The knowledge that such a plant could be working inside the sun and had been working for a long time provided tremendous stimulus to researchers in respect to atomic energy on the earth.

The third is that the use of artificial satellites to study the characteristics of the earth's upper atmosphere is very largely dependent upon the methods of astronomy. If the subject of celestial mechanics, which had been brought to a very high state of perfection by astronomers 100 years ago, had not existed, it would have been necessary to invent it in order to make full use of the various earth satellites which have proved such a stimulus to astronomical research and to research into the character of the earth's atmosphere.

With that brief statement I will conclude my remarks and ask you if there are any questions.

Mr. DUMAS: Dr. Beals, the airborne magnetometer instrument was developed by your branch?

Dr. BEALS: Yes, the instrument was developed by our branch with some help from the University of Toronto, the National Research Council and the Defence Research Board. The main development and completion of the instrument was done by the Dominion Observatory.

I might say that this is the only gyro-controlled airborne magnetometer which gives both the amount of magnetic force and its direction. There are other magnetometers which depend on a simple pendulant to maintain or to give horizontal direction, but they will not work at low altitudes when it is bumpy; they will only work under smooth conditions at very high altitudes.

Mr. DUMAS: Is this instrument now being used by the geological survey branch?

Dr. BEALS: No. The instrument used by the Geological Survey of Canada is quite different. It gives the total force rather than the direction. It is used for quite a different purpose. It is used over limited areas for very detailed surveys whereas our instrument is used more for navigational purposes and covers much larger areas of the country.

Mr. PAYNE: Do you work quite closely with the National Research Council?

Dr. BEALS: We are closely associated with them in many ways. We do not duplicate their work but they help us very often and we are sometimes able to help them. There is close communication between us.

Mr. PAYNE: Is there a certain amount of money allocated for this type of research so that you work jointly, or does this estimate largely represent the total amount Canada is spending in regard to these scientific studies today?

Dr. BEALS: No, the National Research Council does not do much astronomical work. They make some radio astronomy observations but only by radio methods. There is no duplication between the two organizations.

Mr. PAYNE: Is there enough money supplied or do you feel there is a great need for expansion of your department in respect of these astronomical studies?

Dr. BEALS: I feel that the expansion should be rather modest as needs arise. We require some expansion but I would not say we require major expansion in the next year.

Mr. PAYNE: Do you have difficulty in securing qualified personnel to serve on your staff or is there sufficient qualified personnel available?

Dr. BEALS: I think all scientific organizations have trouble finding competent staff. Very few of our positions are vacant. We have been quite fortunate in regard to the personnel that we have been able to attract.

Mr. PAYNE: Where do you draw these men from?

Dr. BEALS: They are mostly drawn from physics departments of Canadian universities. We get some men from England and some from other countries.

Mr. KINDT: Has your research work any relation to weather astronomy?

Dr. BEALS: No. Many people ask us what the weather is going to be but we are unable to tell them.

The main relationship between weather and astronomy is that, for conventional astronomy, we are very dependent on weather. We cannot work unless the weather is good. Otherwise there is no relationship.

Mr. AIKEN: Do I understand that the nature of your work has not changed essentially since the design of the satellites?

Dr. BEALS: No, not essentially. The work we were already doing on the study of meteorites and their velocities in the upper atmosphere is the same in principle, and the instruments used are similar. We help in the world-wide study of the satellites but this has not changed the general character of our operations a great deal.

Mr. AIKEN: The new radio astronomy station, that has been a gradual development and a trend over a number of years?

Dr. BEALS: Yes, it is not a new development in the world as a whole, but with us it is a matter of the last three years.

Mr. AIKEN: I have read in some publications criticism of the lack of availability of observatories to the general public. I know that there was one comment particularly in connection with the observatory in Toronto or thereabouts. Would you like to comment on the observatories under your jurisdiction?

Dr. BEALS: I shall be glad to do so. For many years we have had weekly sessions for the public on Saturday evenings. We used to have them throughout the year but so few people came in the winter months that we now have them only in the spring, summer and fall.

In the observatory at Victoria, British Columbia, and the same in Ontario, we have upwards of 24,000 visitors a year. The observatory at Toronto belongs to the University of Toronto and is not ours; they follow the same general policy that we do.

Mr. AIKEN: You limit most of your visitors to the evenings, do you? Is that the most suitable time for them?

Dr. BEALS: It is the only time that they can look through the telescope. We have many visitors in the day time, but we cannot devote too much of our time to them.

Mr. AIKEN: Does your branch have anything to do with the tracking of the satellites?

Dr. BEALS: Yes. From the first we have been tracking the satellites by photographic methods, and we are tracking this most recent Russian satellite; we are actually getting specifications from the Russians and are sending back positions and times directly.

Mr. AIKEN: There is a fairly free exchange of information with the Russians, is there, as to where their satellite is to be found?

Dr. BEALS: Yes, they have been very cooperative.

Mr. AIKEN: There is one other question I would like to ask. Could you tell us what is the significance of the gravity tests, that is, on the British Columbia coast, what would be the chief value to science of those tests?

Dr. BEALS: There are two advantages. One purpose here is to collect a vast series of surveys that have been made by the oil companies and each of which stands by itself. The companies are not free to tell each other about their gravity surveys but they release some information to us that we use in preparing gravity maps.

These maps are of service to us in the problems of geology and geophysics. In this region here (*indicating on the map*) there is what we call a gravity anomaly; a structure which could be important to the geologist. Next year we will send a party to this region in the west.

Mr. AIKEN: Thank you very much, Dr. Beals.

The CHAIRMAN: Did the Russians advise you each time they were going to launch a satellite?

Dr. BEALS: That is a rather interesting question. They did announce the first satellite in advance of its launching and they published it in several journals. Just before it was launched there was a meeting of Russian and American satellite scientists in Washington and the Russians told their United States colleagues that in a few days they were going to put a satellite up. Unfortunately, nobody believed them or paid any attention to them. It was one of the greatest shocks these gentlemen ever received, but the facts were just as the Russians said they would be.

I don't think they announced the largest one, that is up now, in advance.

The CHAIRMAN: Thank you. Another question the committee would be very much interested in, especially since the launching of the satellites—could you professionally give some idea to this committee of Canada's position relative to the United States in research and scientists? I mean with respect to their ability and the increase in their numbers, the vast increase in their numbers as compared to the United States and throughout the free world.

Dr. BEALS: You mean scientists as a whole?

The CHAIRMAN: Yes.

Dr. BEALS: I do not think I can answer that question directly, but the number of scientists per unit of population in Canada is possibly somewhat less than in the United States, though it is comparable. I do not think we are an extremely advanced country scientifically, nor are we backward. I think we are holding up reasonably well in the scientific world.

The CHAIRMAN: In respect to the U.S.S.R.? Perhaps I did not make myself clear.

Dr. BEALS: These matters are hard to state precisely. As you know, we do not get many figures on the number of scientists graduating, and so forth. The number of titles and number of scientific publications published in the U.S.S.R. is comparable to those published outside, which suggests that they have a powerful scientific organization.

The CHAIRMAN: Of high calibre?

Dr. BEALS: Yes, the best Russian scientists are certainly the equal of scientists elsewhere.

Mr. PAYNE: Mr. Chairman, reverting back to the magnetometer survey made and conducted usually by oil or other companies, do you have access to their records? Do they confide in you?

Dr. BEALS: They do not give their complete records, but in these gravity oil surveys, they give us the township corners. They make many observations in between of course, but for our purposes those are sufficient. They have been very cooperative in letting us have information.

Mr. MARTIN (*Timmins*): I notice, according to the map, that these stations appear to be fairly concentrated out on the west coast?

Dr. BEALS: Yes.

Mr. MARTIN (*Timmins*): Is there any reason for that—geographical reason or anything?

Dr. BEALS: Yes. The area on the west coast in the vicinity of Victoria island is an earthquake area and this group of stations here (*indicating on map*) is for the purpose of triangulation, so as we can tell when and where an earthquake occurs. We are trying to prepare a map on earthquakes on the coast so that we can tell where a large earthquake is most likely to occur. Small ones occur frequently. Earthquakes, some of which have been quite heavy, occur in the St. Lawrence valley at times, but most of our heavy earthquakes in recent times have been on the west coast. The Arctic quakes are much less active.

Mr. STEARNS: Does your department record and measure the amount of fall-out from an atomic explosion? Let me put it this way: which department does occupy itself with the amount of fall-out that might be caused from an explosion?

Dr. BEALS: I think it is the Department of National Defence. We have taken some part in that program because we have stations located in certain areas. We have not helped in a major way.

Mr. DUMAS: Since when has your branch been conducting a gravity survey in Canada?

Mr. BEALS: I believe the work began in 1905. It has been going on ever since.

The CHAIRMAN: Gentlemen, do you approve items 212 to 215 inclusive? Any objections?

Items 212 to 215 inclusive agreed to.

The CHAIRMAN: Would you like now to revert to Item 211?

GEOGRAPHICAL BRANCH

Main Estimates

Item 211. Geographical Branch—Administration, Operation and Maintenance, including a Grant of \$250 to the Canadian Association of Geographers and a Grant of \$3,500 to the University of British Columbia in aid of Research in Foreign Geography \$315,728

The CHAIRMAN: You might like to hear a brief statement from Dr. Nicholson.

Dr. N. L. NICHOLSON (*Director, Geographical Branch*): Mr. Chairman and gentlemen, as the minister said during the first meeting of this committee the program of our branch is to organize and make readily available for the use of government geographical data about Canadian and foreign areas and to prepare studies of various aspects of Canadian geography for the use of those engaged in government administration, geophysical and geographical research.

Our branch, of course, is the youngest and smallest in the department, so that we have not the tradition and well-organized program that the other branches of the department have. However, we are organized on a regional basis and we have geographers on the staff who are experts on northern, western, or eastern Canada and we have a small group who devote part of their time to foreign geography.

Naturally, the foreign unit cannot concern itself with all parts of all the world and so far we have concerned ourselves mostly with Pan-America because Canada has relations with the Pan-American Institute of Geography and History and we cooperate very closely with that organization. We have a man who understands and speaks Spanish and Portuguese and so is able to cooperate effectively with that group.

We have also, on a seasonal basis, attempted to do something regarding geographic studies of the Soviet Union but that has been the extent of any detailed work on foreign countries. Our map collection is the largest in Canada and covers the whole world. We have sources of information on all parts of the world. They may not always be up to date but we attempt to keep them so. This collection of maps is used by all other departments of government, particularly by the departments of External Affairs, Trade and Commerce and National Defence. I am not sure there is very much more I can say at this time, gentlemen. Perhaps if you care to ask questions I can go into the work in more detail.

Mr. KINDT: Is there any relationship between your work and the Canadian National Geographic Society?

Dr. NICHOLSON: The Royal Canadian Geographical Society?

Mr. KINDT: Yes, and the house organ they publish?

Dr. NICHOLSON: The Royal Canadian Geographical Society is essentially an amateur organization. It engages in research; its main work is publishing a journal. I am the vice-chairman of the editorial committee and I meet with them every month.

I should like to say a word in regard to our ice studies. In our studies we are concerned with surveys of Canadian waters, particularly as to when those waters freeze up and we have done a great deal of work on the extent and nature of ice in Canadian waters in collaboration with the National Research Council, the R.C.A.F. and the Defence Research Board. In fact, a good deal of

our effort in the past few years has been directed toward that sort of work, particularly in the Gulf of St. Lawrence where we are trying to determine whether navigation can be extended to the north shore and thus aid in the exploitation of resources in that part of Canada.

Mr. AIKEN: I understand there is tide gauge work done in the northern part of Canada; does that come under your jurisdiction?

Dr. NICHOLSON: That is done by the hydrographic service of the surveys and mapping branch but we have collaborated with them because we have a few parties in the north and we have installed tide gauges. We often get information through our field surveys we know they need and we pass it on to them.

Mr. AIKEN: Would you be in a position to tell the committee anything about tide gauges; what their result is and what information they can give you?

Dr. NICHOLSON: I do not think I should answer that question.

Dr. van STEENBURGH: Mr. Miller is not here to answer that question, but briefly, I may say that we have tide stations on the coasts and in the inland waters in which we secure a detailed record of the datum level of the tides. We have recently extended these into the north and now we have two tidal stations for the Arctic, one at Brevoort and one at Resolute. We must admit that our tidal information for the northern part of Canada is at present very skimpy. We have had pressure for the last several years from the IGY committee and other scientific international organizations as well as from certain of the research groups in Canada, to establish more tidal stations in the north. I should like also to point out that many of the tidal stations in the inland waters and along our coast were built several decades ago. They are not modern in the way they take records and keep records and the equipment is obsolete. We are now contemplating a program whereby we will bring these tidal stations up to date so that we can give the harbours and other people who are interested more precise information more quickly. I might say also that, even in the more populated parts of Canada, our tidal information is not complete. We are looking into the possibilities of extending the tidal stations system.

Mr. AIKEN: The primary purpose of my question was to ascertain whether this information would assist the geographers in locating what may be land masses under the ice in the northern areas.

Dr. NICHOLSON: I think that is part of the reason for the continental shelf project. We will be collaborating in that project.

Mr. BALDWIN: Would your department have the facilities for collecting and integrating information in regard to what parts of the north might be available for settlement and more livable?

Dr. NICHOLSON: Yes, that is one of our purposes in getting this material together. It was realized there was a great deal of information to be obtained from many sources on parts of the north. The geographers are compiling this information and producing regional surveys. We have worked with the Department of Northern Affairs and National Resources from time to time in the production of these surveys, which suggest how the area might be developed. We are approaching the provinces as well.

The CHAIRMAN: Shall we approve item 211?

Mr. DUMAS: Before we do that, I should like to direct a question to the minister. At page 24 of his statement the minister said that the English edition would be ready at the end of the year and that the work on a French edition is now in hand.

Mr. COMTOIS: The English edition is already available for publication.

Mr. DUMAS: Is it prepared?

Mr. COMTOIS: It is at the printing stage.

Mr. DUMAS: But will it be available by the end of the year?

Mr. COMTOIS: Yes.

Mr. DUMAS: You say the work is in hand for the preparation of the French edition; could the minister tell us when this French edition will be available to the public?

Mr. COMTOIS: It will depend on the Queen's Printer.

Mr. DUMAS: Could we have an idea?

Mr. COMTOIS: Possibly within a year after the English edition is ready for distribution.

Mr. DUMAS: Could we have an idea as to the price of this atlas to the public?

Mr. COMTOIS: We cannot reasonably sell it at less than \$25 each.

The CHAIRMAN: Will you ask him if it might be available to the members of the committee?

Mr. DUMAS: Maybe later.

Mr. COMTOIS: The separate sheets can be made available on request, but a complete atlas is \$25. I expect that every member of the house and the senators will be provided with one copy of it.

Mr. DUMAS: I am not too much worried about that, but I think the price of \$25 is a reasonable one.

Mr. COMTOIS: It cost much more than that.

Mr. DUMAS: It is a very extensive atlas.

Mr. COMTOIS: We will not have any competitors at that price.

Mr. DUMAS: It will be very welcome when it is available.

Mr. STEARNS: When may we have copies of these electoral maps which we looked at this morning?

Mr. COMTOIS: This will be the first time we will have a French edition of the atlas.

Mr. STEARNS: I was asking about those maps which you showed us this morning of the electoral districts. Are they in supply now so that we may have a copy?

Dr. BOYER: Those maps were rushed through the press for the benefit of the committee. They were only proof copies. The maps will be available soon.

Mr. DUMAS: How long has the department been working on this atlas?

Dr. BOYER: We have been working on this jointly with other departments of the government for at least six or seven years. First there was an inter-departmental committee representing interests of all departments that had something to contribute to this atlas. Also subcommittees were established to consider what material the atlas should contain, and the final selection was made by another committee.

After that a directing committee took up the task of compiling the data and turning it over to our Surveys and Mapping Branch where the sheets are being printed. It took a lot of time because the atlas is quite different from the one that was issued in 1915.

Item 211 agreed to.

The CHAIRMAN: Before we go to the next item—this morning Mr. Dumas asked Dr. Boyer for information concerning the number of geological survey field parties since 1950. That information is now available and we will put it in the record at this point.

Number of geological survey field parties since 1950:

Year	Number of Field Parties
1950	89
1951	88
1952	78
1953	79
1954	87
1955	70
1956	71
1957	69
1958	77

Average—78½

Because large expensive field parties are counted in the same manner as small, inexpensive, short-season field parties, the above figures do not give a very meaningful picture of the annual field effort or of the progress made in mapping Canada. A better indication of effort and progress will be had if it is borne in mind that, in the 110 years prior to 1952, a little more than a million square miles were mapped; whereas since 1952 nearly half a million square miles have been mapped by seven large, helicopter-supported operations. In addition, mapping by conventional methods has continued at about the same pace as during immediately preceding years. Thus, although the number of parties fielded during recent years is less than the number in 1950, there has been a substantial increase in annual field effort since 1952, and a very substantial increase in the pace of mapping.

The CHAIRMAN: I was wondering if the department has anything to do with the question as to the feasibility of atomic powdered ice-breakers in the north? Are you cooperating with any other department in that?

Dr. BOYER: No. If we are contributing it is in connection with the metallurgical aspects of the power plant itself and not with the general policy for the program.

Main Estimates—

Item 216. To provide for purchases of air photography and the expenses of the Interdepartmental Committee on Air Surveys, including purchases of equipment \$1,900,000

Mr. DUMAS: Is the department conducting a large photographic survey actually itself, or are you having this work done by contract?

Dr. BOYER: All the aerial photography that is being done for the federal government is contracted to private industry. Some years past some of it used to be done by the R.C.A.F., and then as air programs changed and units became less available to us for this type of work we turned to private sectors of the economy. So, for the past four or five years it has been all contracted to private industry.

Mr. DUMAS: Where are the contracts actually located in the country? I mean where are they actually located during 1958? Is it mostly in the north?

Dr. BOYER: We have with us Mr. West who is secretary of the inter-departmental committee on air surveys. He will be able to tell you where the contracts are for this year.

Mr. H. A. S. WEST (*Secretary, Interdepartmental Committee on Air Surveys*): Our main contracts are in the archipelago. These are six-year contracts with three main companies, Spartan Air Services Limited Ottawa, Photographic Survey Corporation, Toronto, and Aero Surveys, Limited,

Vancouver. The rest of the contract this year is mainly finishing up the mainland. There is still some work to be done in the central and eastern territories and in northern Quebec. The balance is on the prairies in connection with agriculture and the P.F.R.A. and in scattered sections of the country for revision of maps and for special jobs such as public works, historic sites and the like. A fair amount of it is for forestry.

Mr. KINDT: Would the forest surveys come under your branch?

Mr. WEST: No.

Mr. PAYNE: Is there no line between your department and the Forestry Branch of the Department of Northern Affairs and National Resources?

Mr. WEST: Yes. We get requests directly from that branch.

Mr. PAYNE: If you are covering a fixed area for two purposes you can combine the contract?

Mr. WEST: Yes.

Mr. PAYNE: And that is done?

Dr. BOYER: I might add that the interdepartmental committee on air surveys represents the interests of all departments. We have in the estimates of our department the total vote for all aerial photography required by the federal government departments. At a certain time in the year we ask all the departments what their needs are for aerial photography, whether for forestry cover or otherwise. Then the committee meets to determine what it will cost to meet these needs in our program for the following year. We compare these requirements with those of the previous year and establish an order of priority. We have been spending an average of about \$1½ million on aerial photography during the past several years.

Mr. PAYNE: Your estimate includes the aerial photography called for by other departments?

Dr. BOYER: Yes. If the Forestry Branch of the Department of Northern Affairs and National Resources wanted a coverage at low altitude to make an appraisal of the forest cover, or an inventory of some sort, it would request us, as a committee, to undertake the job and to provide the aerial photographs.

Mr. BALDWIN: What would be the relationship between the facilities for doing that work and the requirements? In other words, have you considerably more work than you have facilities with which to undertake it?

Dr. BOYER: There is a certain amount of work that can be undertaken by a number of companies that are in the field. We try not to have too much in one year, and too little in another. Otherwise, the companies would probably have to obtain more units and enlarge their organizations one year in order to handle a heavy program and then have little to do the next year if the program were light. So we try to average the work out. We do not refuse the requests of any department but we discuss the needs so as to establish priorities.

Mr. KINDT: Do the completed surveys become the property of the private company doing the surveys?

Dr. BOYER: The companies supply the films and produce the negatives of all the photos taken, and the negatives become the property of the federal government.

Mr. WEST: The companies produce as many prints as we want. There would be at least two.

Mr. KORCHINSKI: Is there any endeavour made to see—in conjunction with the provincial governments,—that no duplication is made in this work?

There have been cases where provincial governments have found it necessary to evaluate land, for example. There might already have been some work done on that land by the federal government.

Is there any cooperation between the provinces and the federal government to give them that information, or must they duplicate it?

Dr. BOYER: If a province wanted a low altitude program of photography of a certain area, and if the federal government had not need for that photography, we would leave it to the province to contract with the companies and to pay for the work.

If the request which is made will serve more than the purpose of the province, we would agree to undertake to contract for it.

Mr. GUNDLOCK: Are those surveys just the actual photographs, or would they be interpreted? I mean by that, would these photographs, for instance, show gravel deposits or certain other valuable aspects of the territory photographed?

Dr. BOYER: In general, what we buy are just the photographs.

Mr. GUNDLOCK: For the purposes of obtaining certain data?

Dr. BOYER: If it is photography of a northern region of Canada, we would get photographs taken at, let us say, 35,000 feet. These high altitude photographs would cover a much wider area and we would thereby make a saving in costs because it would require fewer photographs to do so than would be required by low altitude photography.

Mr. GUNDLOCK: There are no further comparisons of those figures from a technical standpoint?

Dr. BOYER: There is, but not in negotiations with the companies. As soon as the photographs are available, many governments of Canada use them for several purposes. For example, the geological survey of Canada uses them in planning its airborne operations, as has been explained to you by Dr. Harrison; or the photos may be required to study apparent outgrowths and features of a geological nature.

In the case of northern Canada, particularly, the photographs are used for what is called photo interpretation, where they enable the study of the physical features of the country. The aerial photographs are studied and the features shown on these are related to spot-ground observations.

Our contracts call for the companies to supply the photographs but not any mosaics or other interpretive features.

Mr. WEST: Once the photograph has been obtained, we become custodians of the negative, and whatever prints we want, but we can order prints from those negatives through the National Air Photographic Library.

Mr. KINDT: Does all this work have to be done during July and August?

Mr. WEST: In the southern parts, we can get photographs starting in March and continuing through to November, but in the northern parts the work is mainly confined to July and August.

Mr. STEARNS: If an aerial photographer should undertake today to survey a certain amount of land for a paper company, when it has completed its survey, would it offer you copies of the work it did for your library? Is that the practice?

Mr. WEST: They generally approach us to find out if we are interested.

Mr. STEARNS: If you had done the work first, they would ask you if you had already done it?

Mr. WEST: If the companies have a job to do in an area which has already been covered, they can buy prints from us just the same as anyone else.

Mr. STEARNS: And I suppose it works vice versa. Do they offer to sell you prints for your library?

Mr. WEST: Yes.

Mr. DUMAS: It is a fact that a lumber company might have an area photographed which has already been photographed by your department a

few years ago, but those photographs would not be up to date? Therefore, if they wish to have up to date photographs, they would have to conduct these surveys frequently?

Mr. WEST: That is right.

Mr. DUMAS: Except for the Arctic islands, most of the mainland of the country has been covered by aerial photography except for the northern tip of Ungava, and maybe some sections in the Northwest Territory?

Mr. WEST: Yes.

Mr. DUMAS: I think the department has done a very good job. We can contact your branch—I have done so quite often—and we can obtain prints from the library in a matter of a few days.

It is very useful in prospecting, and for forest inventories especially, that these photographs have been taken recently. And for mining, it is practically an indispensable part of the work which has to be done.

I wish to congratulate the department for the very fine work it has done in the past.

Dr. BOYER: I should have stated in my previous remarks that the aerial photographs are used chiefly as a basis for the topographical mapping of Canada.

In addition, there are other uses made of these photographs as I have explained, but I must emphasize that their main purpose is for topographical mapping.

Mr. KINDT: Are most of these maps assembled here at Ottawa? I mean the work of the aerial photographer—is it mostly centralized here at Ottawa?

Dr. BOYER: The compilation and interpretation of these photographs, in Ottawa, is preceded by the establishing of control points in the field

Mr. AIKEN: I have one further question. After what lapse of time do you consider a new set of aerial mapping necessary? I am thinking of perhaps an area that had been photographed 25 years ago. Would it be considered necessary to rephotograph it at any later date?

Mr. WEST: I would say our photographs probably north of the tree-line will be good for a great many years. But in places like the Niagara peninsula, or where development is going on, they should be rephotographed in perhaps five or ten years. Similarly too, in regard to forest fires or oil operations, any change on the face of the earth will require rephotographing. As a matter of fact the photography along the D.E.W. line, which is the newest photography we have, is out of date already.

Mr. AIKEN: The test is whether there have been physical changes in the features of the surveys?

Mr. WEST: Yes.

Mr. KORCHINSKI: How many years so far has there been before new photographs have been taken?

Mr. WEST: Since 1923.

Mr. KORCHINSKI: That was the first year. Since then there has not been any change?

Mr. WEST: I am sorry I did not understand you. I thought your question was, when did the photographing start?

Mr. KORCHINSKI: I was asking how often do you rephotograph any areas where there has been development. That is, suppose you have taken photographs in 1950, have there been any more recent photographs taken since then, where there has been development?

Dr. BOYER: In answer to that, Mr. Chairman, I would say that there is no systematic way that we have yet agreed upon as to rephotographing Canada. We are so busy in our Surveys and Mapping Branch in turning out maps of unmapped areas of Canada that we have not yet given the desired attention to revising the existing maps in the more populated areas by corrections showing the new man-made features. There will be a need for rephotographing most of the southern latitudes of Canada in years to come. This will be governed by the extent of the program that we will undertake of revising the maps.

Mr. KORCHINSKI: I asked that question because I have seen some of these photographs and they have been of invaluable assistance for assessing the value of land, with which I am familiar. I think it was 1949 that the last aerial photograph was taken of that particular area that I am referring to, and we found that because of the physical changes that have taken place they are out-moded in some cases. Although they provide some assistance, we generally felt that perhaps a recent photograph would be more valuable.

Dr. BOYER: I would say, Mr. Chairman, in answer to this that as soon as these points or requests come to our attention for needs in rephotographing they are incorporated in our planned program for the next year or years to come; but there is no present systematic plan of rephotographing after a stated number of years.

Mr. DUMAS: Is it a fact, Dr. Boyer, that some areas in the country have been rephotographed by your department?

Dr. BOYER: I would say that every year in our program we do some rephotographing of areas that were already photographed.

Mr. DUMAS: Mr. West, what is the total estimated cost of this six-year contract in the Arctic islands.

Mr. WEST: \$6 million.

Mr. DUMAS: And those contracts were applied for by tender?

Mr. WEST: Yes.

Mr. KINDT: Does air photography and equipment become obsolete, the same as other types of equipment? I was wondering if the department has modernized using the multiple shot equipment which seems to be in effect across the line. I have seen it there, but not here. I was wondering if you have the benefit and use of multiple shot equipment.

Mr. WEST: You refer to the multi-lens camera?

Mr. KINDT: Yes, instead of taking one picture you can take a co-ordinated picture and perhaps half a dozen shots at the one time covering a wider range.

Mr. WEST: It was experimented with but was not found satisfactory because of the variation in texture of the resultant print. It is practically impossible to eliminate the lines adjoining the various pictures.

Mr. KINDT: And requires too high an altitude?

Mr. WEST: That may be so.

Mr. KINDT: And telescopic lens?

Mr. WEST: Yes.

Mr. GUNDLOCK: I am still wondering if there could not be a tie-up with this aerial photography along with our exploration program or wish for making exploration data available. For instance, I understand that from aerial photography they can locate gravel deposits. And as I mentioned before, gravel deposits are, in certain parts of our country, as valuable as or even more valuable than a gold mine. That may sound like a funny statement to some of you. However, I have had experience with that very thing. Shallow

deposits of coal for instance are being located by aerial photography and I wondered if there could not be a tie-up—or is there any work in that direction?

Dr. BOYER: I am not sure if I have understood the member's question, Mr. Chairman but our geological parties are on the look out for coal seams or gravel beds or other economic features. Our geographical branch also undertakes studies in certain areas of Canada from aerial photography, the photos show all the gravel and sand that generally takes the appearance of what are called eskers, these being physical features that were left by the retreating glaciers. The geological survey of Canada, in certain areas such as the lower Fraser river, makes geological surveys, not only of the rock features, but of the surficial deposits that may be commercial use—the clay, the gravel, the underground water, or any material that may be of commercial value.

The CHAIRMAN: Any other questions, gentlemen?

Mr. DUMAS: Mr. Chairman, I wonder if I could revert to vote No. 203 with your permission and the permission of the committee. I would like the minister, if the minister would be willing to consider it, to increase the grant to the Canadian Institute of Surveying. I think that the department has been generous in the past, but this institute is growing all the time and we have members from every part of the country, every province is represented in this institute. They are doing great work and I just leave that with the minister, I am not asking for an answer immediately, but I would like the minister to maybe consider the increasing of the grant to the Canadian Institute of Surveying.

Mr. COMTOIS: It is my intention to do everything that is possible to expand the grant and the help. We are going to do that when we prepare our estimates for 1959-60, and I will do the best I can to get a favourable decision from the government.

Mr. DUMAS: But if you ask for it now you are sure to have it?

Mr. COMTOIS: Yes.

The CHAIRMAN: Gentlemen, are you ready? Will we approve item 216? Item agreed to.

The CHAIRMAN: That concludes all the items except 217 and 218, and notices have gone already to the members for the Monday sittings at 3.30 p.m. and 8.00 o'clock and, as we agreed this morning, on Tuesday, if necessary, we will have three meetings. The four witnesses have sent telegraphic confirmations of their arrivals and I expect they will be here.

Mr. MARTEL: Mr. Chairman, some of us are on the Banking and Commerce committee which is sitting at the same time Monday, 3.30, right after the question period, and in the evening from 8 to 10.

Mr. DUMAS: This question was brought up this morning, and Mr. Martel is right when he says that they are sitting at the same time; but these witnesses are coming from far away and I think we could manage. For myself, I may have to excuse myself from this committee to go to the Banking and Commerce committee. This is an unfortunate part of being in too much of a hurry—we are on many committees. It happens I am on the Banking and Commerce committee, but I will make a point to come here at 3.30 and maybe leave an hour after. Mr. Martel may be able to do the same thing.

Mr. MARTEL: On Tuesday we are sitting in the morning as usual?

The CHAIRMAN: Yes, at 9.00 o'clock on Tuesday morning. It was agreed this morning, that we would have three meetings on Tuesday, if necessary, because of the witnesses coming from such a distance, rather than keep them here for another day.

Mr. KINDT: One other member of the house, Mr. McFarlane, asked me if he could have the privilege of attending this meeting on Monday to listen in.

The CHAIRMAN: Oh, yes, all members are privileged to attend all meetings of committees. They are not privileged to ask questions, but they can always ask them through a member who is a member of the committee, but we welcome all members at our committee proceedings.

Mr. DUMAS: Mr. Chairman, before we adjourn and with your permission I would like to say this: first of all, I would like to thank the minister for giving us such an elaborate and clear statement, but I think the minister will not object to that; and on behalf of this committee I would like to extend especially to the officers of his department, the deputy minister and the directors and the assistant directors and the technical officers of the department, our sincere thanks for their cooperation. Again I wish to say that we are certainly impressed by the work they are carrying out.

They should not be disappointed because we do not keep them here longer. I know they would have liked to have been kept here longer. However, as I said before, we have many committees this year; but next year we will try, gentlemen, to have you not only for two days but for three or four days. I am serious when I say that, because I am sure the officers of the department would like to be questioned on their work as much as we can question them, and this would probably lead to an increase in the estimates of the department which would permit them to carry on more work and have maybe more staff that they have now. However, on behalf of the members of this committee I wish to thank them most sincerely.

The CHAIRMAN: Thank you very much, Mr. Dumas, and I think you express the opinion of every member of the committee. We have been very fortunate in having the responsibility of the estimates of this department and the Department of Northern Affairs before us, the two, I think, most interesting departments for keen observation and study, and I think you hit the nail on the head when you said that you appreciated the work of the department and the calibre of the personnel in those departments. They certainly impressed me as I am sure they did every member of the committee and, Mr. Minister, I wish to congratulate you.

Mr. AIKEN: Mr. Chairman, perhaps next year we will have some more pointed questions than this year.

The CHAIRMAN: I would not doubt it.

Mr. COMTOIS: Before adjourning, Mr. Chairman and gentlemen, I am glad to say that these meetings have been very helpful. I thank you all for your cooperation and I would not quit this room without saying how grateful I am to the members of my staff. They have been very helpful. I have found them very cooperative. They know that they have a new minister at the head of the department and they are doing their best to help me, and I am very thankful to them. I want this to be put on the record.

The CHAIRMAN: Thank you very much.

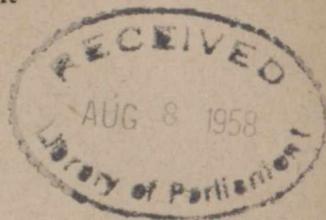
The meeting is adjourned until Monday at 3.30, gentlemen.

Faint, illegible text, likely bleed-through from the reverse side of the page. The text is arranged in several paragraphs, but the characters are too light and blurry to be transcribed accurately.

HOUSE OF COMMONS

First Session—Twenty-fourth Parliament

1958



STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 16

MONDAY, JULY 21, 1958

Estimates 1958-59 of the Dominion Coal Board

WITNESSES:

Hon. Paul Comtois, Minister; Dr. J. Convey, Director, Mines Branch; and Mr. A. Ignatieff, Chief, Fuels Division; all of the Department of Mines and Technical Surveys: Mr. W. E. Uren, Chairman, and Mr. C. L. O'Brian, Assistant to the Chairman, Dominion Coal Board; Messrs. Edward Boyd, President, and William Ure, Secretary Treasurer, District 18, United Mineworkers of America; Thomas Mackie, Secretary, Midlandvale No. 172, United Mineworkers of America; and Mr. Frank Aboussafy, President, Crowsnest Pass Industrial Planning Board.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-President: Erik Nielsen, Esq.

and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafleche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

MINUTES OF PROCEEDINGS

MONDAY, July 21, 1958.

(18)

The Standing Committee on Mines, Forests and Waters met at 3:30 o'clock p.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Bigg, Coates, Doucett, Drouin, Dumas, Gundlock, Kindt, Korchinski, Latour, Martel, Mitchell, Murphy, Nielsen, Payne, Roberge, Stearns and Woolliams.—(17).

In attendance, of the Dominion Coal Board: Messrs. W. E. Uren, Chairman; C. L. O. O'Brian, Assistant to the Chairman; and D. A. Edgar, Financial Officer: *of the Department of Mines and Technical Surveys:* The Honourable Paul Comtois, Minister; Dr. J. Convey, Director, Mines Branch; and Mr. A. Ignatieff, Chief, Fuels Division, Mines Branch *and the following witnesses from the coal industry in Alberta:* Messrs. Edward Boyd of Calgary, Alberta, President, and William Ure of Calgary, Alberta, Secretary Treasurer, both of District 18, United Mineworkers of America; Henry Sherwood of Canmore, Alberta, Secretary, No. 7297, United Mineworkers of America; Thomas Mackie of Drumheller, Alberta, Secretary, Midlanvale No. 172, United Mineworkers of America; and Frank Aboussafy of Coleman, Alberta, President, Crowsnest Pass Industrial Planning Board.

The Committee proceeded to consider the Estimates of the Dominion Coal Board.

Items 217 and 218 of the Main Estimates were called.

In a statement presented by Mr. Uren, copies of which were distributed to the Committee, he described the functions and composition of the Dominion Coal Board, amplifying his remarks in considerable detail with the history of governmental policy over the years in relation to the assistance of coal movements by the payment of subventions—still the principal function of the Board.

Mr. Uren was questioned on his statement and on matters arising therefrom. Further questions were directed to Mr. O'Brian and Mr. Ignatieff.

At 5.30 o'clock p.m. the Committee adjourned until 8.00 o'clock p.m. this day.

EVENING SITTING

MONDAY, July 21, 1958.

(19)

The Standing Committee on Mines, Forests and Waters met at 8:00 o'clock p.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Bigg, Coates, Doucett, Dumas, Godin, Gundlock, Kindt, Korchinski, Martel, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Payne, Roberge, Robichaud, Stearns, Villeneuve and Woolliams.—(18)

In attendance: the same as at the afternoon sitting except the Honourable Paul Comtois.

The Committee resumed its consideration of Items 217 and 218 of the Estimates of the Dominion Coal Board.

Messrs. Uren, O'Brian and Ignatieff were further questioned.

At 8.20 p.m. Mr. Murphy vacated the Chair which was assumed by the Vice-Chairman, Mr. Nielsen.

Messrs Boyd and Ure were severally called and questioned.

Mr. Aboussafy was called; he made a statement on the coal mining industry in the Crowsnest Pass area and was questioned thereon.

Mr. M. L. McFarlane, M.P., being present but not a member of the Committee, by unanimous consent, questioned certain of the said witnesses.

Dr. Convey was questioned.

At 10.10 o'clock p.m. the Committee adjourned until 9.00 o'clock a.m. on Tuesday, July 22, 1958.

Eric H. Jones,
Clerk of the Committee.

EVIDENCE

MONDAY, July 21, 1958,
3:30 p.m.

The CHAIRMAN: Gentlemen, I see a quorum. We are on items 217 and 218 of the estimates of the Dominion Coal Board. I think with your permission we should first have a statement from Mr. Uren, who is chairman of the Dominion Coal Board.

DOMINION COAL BOARD

Main Estimates

Item 217. Administration and Investigations of the Dominion Coal Board	\$ 120,395
Item 218. Payments in connection with the movements of coal under conditions prescribed by the Governor in Council	\$ 8,580,250

Mr. W. E. UREN (*Chairman, Dominion Coal Board*): Copies of my statement are available for all the committee.

Mr. Minister, Mr. Chairman, the committee witnesses, inasmuch as a great number here are here for the first time as far as anything in connection with coal is concerned, I hope you will bear with me while I make a short statement giving a background of the difficulties that have been encountered in the past and a few of the difficulties that we are going through at the present time.

I want to thank you on behalf of myself, the board and the staff for this opportunity of coming before you and stating the facts as we see them, and to answer as far as possible all the questions that you may ask. This statement will probably enable you to ask some questions which you might not have thought of previously.

The Dominion Coal Board is a body corporate established by act of parliament in 1947 following a recommendation of the Royal Commission on Coal of 1946.

This royal commission, popularly known as the Carroll Commission from the name of its chairman, Mr. Justice W. F. Carroll, found there was a need for an agency to co-ordinate all federal government activities relating to coal. It was also the commission's opinion and advice that financial assistance rendered by the federal government to the coal mining industry should be channeled through and administered by such an agency.

The Dominion Coal Board Act, 1947, in establishing the recommended agency, in reality provided for a new department of the Government of Canada. The Dominion Coal Board is not a part of the Department of Mines and Technical Surveys although the two have the same minister and there is close co-operation between them, especially on technical matters. The coal Board and its civil service employees have been designated by the establishing act as a separate department over which a minister shall preside. The chairman of the coal board has been designated, in relation to the Civil Service Act, as the minister's deputy. In other words, as chairman of the coal board I report to the minister directly as does the deputy head of his other department, the Deputy Minister of Mines and Technical Surveys.

The coal board itself consists of the chairman and six other members. The chairman, as chief executive officer, devotes all his time to the board's activities and to the direction of his civil service staff. The other members are, generally speaking, men of national prominence in the mining, marketing and engineering aspects of the coal industry who receive a per diem remuneration and travelling expenses while attending the periodic meetings of the Board.

In relation to the government, the function of the chairman and his colleagues of the board itself is an advisory one. We keep the minister and, through him, the government, informed of all the many problems of the Canadian coal industry. We contribute our own considerable experience and the researches of the board's staff to the solution of these problems. We make recommendations which, of course, the government is free to accept or reject. I think I may say with assurance that no recommendation is ever made by the coal board that does not receive the most careful consideration.

The coal board's responsibilities are not simply advisory ones. When policy has been established, whether in the form of act of parliament, order in council, cabinet directive or ministerial instruction, the Dominion Coal Board has been the government's administering agency in virtually all matters relating to coal.

The board's staff handles the checking of information, the calculations and the accounting in connection with all coal subvention payments, and issues the payments as voted by parliament. These payments are in accordance with the various coal subvention regulations established from time to time by order in council.

Under the recently enacted Atlantic Provinces Power Development Act, the coal board has been designated as the administering agency which will have charge of the payment of subventions to the provinces on the use of coal in thermal electric power plants.

Under the Maritime Coal Production Assistance Act, the coal board is designated as the agency to determine on behalf of the government certain matters of capital cost of mine mechanization projects for which assistance loans have been made. In practical effect, the board's duties in connection with this act are much more extensive. As directed by the minister and his predecessors, the coal board has had almost the entire responsibility for administration. The board carefully investigates all applications for coal production assistance loans and makes recommendations as to whether or not such requests be granted. Later, if the loans have been authorized by the government, the board's staff handles the bookkeeping and accounting connected with payment of interest and repayment of principal.

The comparatively small civil service staff of the board consists of an assistant to the chairman, a financial officer, a statistician, an administrative officer and some 14 clerks, bookkeepers, stenographers and typists. The assistant to the chairman is an engineer with many years of specialization in the problems of the coal industry.

The coal board is authorized by the act establishing it to engage additional expert assistance for particular studies, surveys or investigations, and on certain occasions in the past it has done so.

For example, we employed Professor Christie to look over the power situation in the maritime provinces from which the grid system finally was put into effect, and the thermal power—or part of the Thermal Power Assistance Act—are a result of surveys made by him a few years ago.

The Dominion Coal Board has a number of other duties and responsibilities and may undertake such additional ones relating to coal as the minister may require. With its wide experience, its continuous studies of the fuel situation and its store of information on the subject it has, for example, been of service for many years to other government departments through the provision of technical advice on fuel requirements, utilization and purchasing. In this respect, I might mention that, through the interdepartmental fuel committee, it works very closely with the armed services. It is also worth mentioning that the Dominion Coal Board Act provides authority for handling the situation if a national fuel emergency arises by reason of emergency events or conditions inside or outside Canada.

Although the coal board has a variety of duties and responsibilities, I think it may be said with accuracy that the chief of them, under peacetime conditions at any rate, is the administration of coal subventions. A word or two about subvention policy may be in order, and with that I should like to include a very brief sketch of the historical background that led to the establishment of the board.

The basic subvention policy arises out of the fact that nature placed our vast Canadian coal reserves in regions remote from the central part of the nation where there has been the greatest development of population and industry. Nature, it may be pointed out, also placed enormous coal resources in a region of the United States comparatively close to the industrial centre of Canada where there is the greatest Canadian coal consumption. Coal is an expensive material to ship, and the expense increases with the distance of shipment. There are also great variations in the cost of producing coal. Some types of mining, coals and coal seams tend toward high costs of production; others tend toward low costs.

The basic coal subvention policy, which has been followed by all Canadian governments since 1925 is simply, within prescribed limits, to pay enough of the transportation costs to try to make Canadian coal competitive with imported coal in the principal coal using regions of Canada.

The history of government assistance to the Canadian coal industry goes back to confederation. Immediately before confederation, the Nova Scotia mines had a thriving coal trade with the eastern seaboard of the United States. They exported some 70 per cent of their total production to that country. But in 1866, the United States imposed a duty of \$1.25 per long ton on Canadian coal. If you think for a moment of the prices and the purchasing power of a dollar at that time, you will understand the effect of such a duty. The Nova Scotia coal producers turned to the development of markets along the St. Lawrence and, in spite of competition from coal brought from England as ballast in ships, they managed to work up a substantial trade. However, this trade had its problems and in 1877 a select committee of the House of Commons was instructed by the house to inquire into the situation. Following the inquiry, a duty of 50 cents a ton was imposed on imported coal.

Let me skip the next 40 years, although they were not without coal problems, particularly during the first world war. In the nineteen twenties, both the House of Commons and the Senate of Canada devoted a great deal of attention to coal. Throughout the country there was also an increasing interest in coal. There was a rising hope that a country with such huge coal resources might become self-sufficient in this fuel. From 1921 to 1926 coal matters were successively considered by a special committee of the House of Commons, a special committee of the senate, a select standing committee of the house and a second special committee of the house, as well as by the Royal Commission on Maritime Claims.

It was the conclusion of these various bodies that financial assistance should be provided by parliament to assist the movement of coal from the mines in both eastern and western Canada to the major centre of consumption in Ontario and Quebec. There was a period of trial and of investigation of costs out of which the subvention policy emerged which has been applied ever since.

May I return for a moment to the background of the Dominion Coal Board itself. It is the successor and heir of previous agencies.

There had been a fuel controller for the emergency situation of the first world war who, on the termination of his duties, recommended the creation of a continuing authority to make broad investigations into the whole question of making Canada's position with regard to fuel supplies less insecure. In 1922, partly to implement this recommendation and other suggestions which had

been made by the 1921 special committee of the House of Commons and also no doubt partly to meet a fuel emergency that had arisen, the Dominion Fuel Board was established with Dr. Charles Camsell as its original Chairman.

The first funds for coal shipment subventions in the present sense were voted in the 1924-25 fiscal year and the then minister of mines was authorized to direct their payment. He delegated the responsibility of administration to the Dominion Fuel Board and 42,000 tons of maritime province coal were shipped under subvention. Meanwhile the Board of Railway Commissioners was instructed to conduct a series of tests and investigations into the costs of transporting coal to the central provinces both from the eastern and the western coal deposits. This experimental and investigative stage lasted until about 1928 by which time subvention administration had settled down to a routine responsibility of the Dominion Fuel Board. That was a few years ago.

By the time of the outbreak of the second world war, the Dominion Fuel Board had acquired much knowledge and experience in the coal situation. It was consequently the obvious agency to be used as the nucleus of the wartime coal administration and later of the office of the coal controller. It may be remembered that Canada then faced a critical situation not only in the control and allotment of available fuel but also in its procurement in adequate quantities for rapidly expanding war industries. It will also be remembered that at first we were the only North American country actually engaged in the war. In order to stimulate and assist further production by Canadian coal mines, the Emergency Coal Production Board was established in 1942.

It may additionally be remembered that submarine activity in the gulf and the lower part of the St. Lawrence River eventually completely cut central Canada off from water shipments of Cape Breton coal. By that time, however, the United States was in the war and the allotment of fuel supplies for emergency purposes was worked out co-operatively between the two countries.

I mention the submarine activity in the St. Lawrence because it is relevant to coal problems existing today. At the time the submarine activity succeeded in disrupting the water shipping route to central Canada, Nova Scotia coal lost outlets in Ontario which consumed about 900,000 tons a year—and these markets have never since been recovered to the extent of more than about 230,000 tons.

The Dominion Fuel Board was reconstituted at the end of the war and continued to function until the establishment of the Dominion Coal Board in 1947. The Dominion Coal Board is in effect the former Dominion Fuel Board as modified partly by wartime experience but mainly, as already mentioned, by the recommendations arising out of the very thorough investigations of the 1946 Royal Commission on Coal. In its background and indeed in its membership and staff, the Dominion Coal Board inherited much of the knowledge and experience of its peacetime and wartime predecessors. In the past eleven years it has continued to increase and expand that knowledge and experience of Canadian coal problems.

As you must be well aware, the Canadian coal industry is going through a period of adjustment due to the impact of other fuels, especially oil and natural gas. This adjustment in certain coal producing regions of the nation has been painful and it is far from completed. I venture to believe that the effects of this situation would have been considerably more distressing both in damage to the economy as a whole and in terms of employment in the coal industry if it had not been for the coal board's continuous efforts to solve or at least to ameliorate the problems that have arisen.

Thank you.

Attached to the copies of this statement which have been distributed to you is the act to establish the Dominion Coal Board, an act to place Canadian coal used in the manufacture of iron or steel on a basis of equality with imported

coal, commonly called the Canadian Coal Equality Act, and an act to assist producers of coal in the Atlantic maritime provinces and finally an act to provide assistance in respect of electric power development in the Atlantic provinces.

The CHAIRMAN: Thank you very much, Mr. Uren, for your comprehensive survey.

I do not think, gentlemen, that we will have these various acts as part of our minutes. We will just take the titles as given to us by Mr. Uren. Is that all right.

Mr. WOOLLIAMS: I would like to congratulate Mr. Uren for his fine report in reference to the coal board. I would like to ask a few questions of Mr. Uren which might bring out some of the facts which concern us in Alberta. I am happy today to see here four witnesses—Dr. Kindt and I discussed with the chairman and they were brought from Alberta—who are members of certain of the coal unions of Alberta, who will be giving evidence later on.

There are certain facts, Mr. Chairman, which I should like to bring out at this time so as to lay the foundation and basis for that other evidence to come later. So, with your permission, I should like to ask Mr. Uren a few questions.

Mr. Uren, I wonder if you would mind giving a fairly detailed statement of the types of coal produced in Canada and their uses and where they are particularly found.

Mr. UREN: I will call on my technical assistant, Mr. O'Brian to answer that.

Mr. C. L. O'BRIAN (*Assistant to the Chairman of the Dominion Coal Board*): The types of coal found in Canada, ranging from east to west, start out in Nova Scotia with what is known as a high volatile bituminous coal used for steam purposes; it is a coking coal which produces coke for use in blast furnaces producing iron and steel and can be used also under certain conditions and with proper equipment for domestic heating. It was also used for many years as a railway fuel and is regarded as a good quality bituminous coal as compared to any English or American coal.

Moving west, we have a somewhat similar coal in New Brunswick although it is not of the same quality as the Nova Scotia coal but it falls into somewhat the same usage.

Coming to Saskatchewan—you will notice we have skipped across Ontario and Quebec—the Saskatchewan lignite is the next coal. It is a very low heat value coal containing a large amount of moisture but it is very easily mined and at very low cost. Its burning qualities in lump form are pretty much the same as a block of wood. It is comparatively smokeless, but the heating value would be about half as high as American bituminous or Nova Scotia coal. The coal is so cheap, as it is recovered by strip mining, that it has found a very wide market in steam production. In Winnipeg and even in western Ontario, very large tonnages are sold for the production of steam in pulp and paper mills, in the packing plants, and in various other industries. This lignite deposit represents the foundation for the thermal-electric plants at Brandon, Estevan, Boundary Creek and ultimately, I hope, it will provide even more fuel for other thermal-electric plants of the Manitoba and Saskatchewan power commissions.

Moving further west we come to the sub-bituminous region of Alberta. We have there a variety of coals arranging from black lignite to the Drumheller type of coal which is a premium domestic coal with about 9,500 to 10,000 heat units per pound. This is a good blocky coal, quite easily mined and produced with not very much slack.

Mr. BIGG: How does that compare to Nova Scotia coal?

Mr. O'BRIAN: It is a different coal entirely. The burning qualities of this coal, because of the moisture content, are such that it is first of all not a coking coal. In other words, when it heats it does not form a sponge-like mass. It is a free-burning coal and burns more or less like a block of good hard maple with a long flame and a light gray smoke. It has been a standard domestic fuel in western Canada long before my time and, I suppose, back 45 or 60 years.

The coal suffers from one disability and that is as it is stored it loses the moisture inherent in the coal. May I make it clear that this moisture is inherent in the coal. It looks dry, hard and tough, but it contains about 15 or 18 per cent moisture as part of its constitution. When that coal is stored or exposed to hot winds or sunshine, the moisture evaporates and the coal flakes away into dust. I am not enough of an expert to say what part the moisture plays; but, those are the characteristics.

In the mining of the coal, a very large proportion of it for the domestic market ranges from the nut sizes, that is 1 by 2, up to lump sizes and 8 inch blocks. Together with these there is also produced a certain amount of stoker coal which is used in domestic heating in offices, schools and large buildings. The slack from this coal is being used at the electrical plant at Drumheller and was also sold formerly in Calgary for steam production.

In between the Drumheller and Saskatchewan coals, there are a lot of other sub-bituminous coals lying north of Edmonton, around the Battle river mine, at Camrose and in several districts of Alberta. This coal, in its general characteristics, is the same as the Drumheller but lower in quality and higher in moisture, and up to the present time has been developed mostly by strip mining which has been a tremendous advantage in the costs of mining and various other ways.

You will notice as we move west the coal gets better and better. The next coal is the so-called bituminous "C" non-caking coal.

Mr. WOOLLIAMS: How does the coal, as we move further west, compare with the coal which you discussed at the beginning; that is the bituminous coal from Nova Scotia?

Mr. O'BRIAN: This coal is entirely different.

Mr. WOOLLIAMS: What are its comparative heating qualities?

Mr. O'BRIAN: About 9,500 to 10,000 compared to 13,500 B.T.U.'s per pound in Nova Scotia.

Mr. BIGG: It is much higher in heating qualities?

Mr. O'BRIAN: Drumheller is much lower.

Mr. BIGG: I thought you said 95,000.

Mr. O'BRIAN: 9,500.

Mr. WOOLLIAMS: How does it compare with the coal brought in from Pennsylvania, the bituminous coal imported from Pennsylvania to Canada each year?

Mr. O'BRIAN: Most of the bituminous coal coming in from Pennsylvania is steam bituminous coal which is brought in for factories, very much the same as Nova Scotia. In fact, these are competitive. All the eastern production in Canada is good for steam production.

Mr. WOOLLIAMS: Could either one supplement the other? One is a steam coal. What do you call the coal around Alberta and I suppose the Crowsnest Pass? What do you call that?

Mr. O'BRIAN: That is bituminous coal, a steam coal.

Mr. WOOLLIAMS: It is the same as in Nova Scotia?

Mr. O'BRIAN: Yes, it has some different characteristics, but it is a steam bituminous coal. I have not got that far west yet.

Mr. KINDT: I was about to suggest that perhaps the witness might be permitted to complete the discussion on the classes of coal.

Mr. O'BRIAN: The next coal, further west, is the bituminous "C" non-caking, found in the coal areas of Coalspur, Lethbridge, Saunders and in the Ardley area.

Mr. BIGG: Do I understand that Lethbridge and Crowsnest coal is the same?

Mr. O'BRIAN: No. I have not come to the Crowsnest coals yet. This particular coal is a cross, if I may say so, between the Drumheller type and straight bituminous coal. It has a higher heating value than Drumheller and lower than the Crowsnest or other similar coals. It has about 6 or 7 per cent inherent moisture. It is a very high grade domestic type coal. It also was of use in the railways and for a certain amount of steam production. There are only two producers of that type of coal now, so the tonnage is declining.

Mr. BIGG: Are the seams deeper?

Mr. O'BRIAN: No. The main reason for it is that the two big producing companies of this steam coal lost their market, the C.N.R. Secondly, in the Saunders area the mining conditions became so expensive that the two mines simply could not keep in operation. Lethbridge is still producing.

Finally we have the coals of the Rocky Mountain area, the mountain coal produced at Canmore, Bellevue and Coleman. There is also the coal produced on the B.C. side of the Crowsnest Pass which is similar in quality and supplies the same market. We treat these as all the same for subvention purposes. I will leave the Canmore coal till later. These coals were developed largely as the railways moved west through Canada. They were developed as railway coal. These coals are bituminous and in that, they are similar to the Nova Scotia coals, but they differ in two ways. One way is they contain about two thirds as much volatile matter. Volatile matter is the material in the coal which when you put it on the fire, gives a long flame and has a very definite effect on the steam producing qualities of the coal.

Secondly, due to the pressure on the coal when the seams were laid down, it is very friable; by friable I mean it breaks up very easily. From an equivalent quantity of coal handled the same way from any of the Crowsnest mines compared with the Nova Scotia mines you get twice as much dust.

Mr. BIGG: Has the Crowsnest coal coking qualities in the trade comparable to eastern coal.

Mr. O'BRIAN: Yes, it has the same coking qualities. I think the coking properties are better than Nova Scotia. However, the chief market was in the railway locomotives. In the days when they had a fireman he took care to place the coal dust on the fire in order to take full advantage of the coking properties not losing any part of the dust. When the railways went to stokers, the stoker just blew the dust in and a lot of the dust blew up the stack. The mine ended that by briquetting the coal. About 70 per cent of their market was in the railway locomotives. That market now is practically gone. The Canadian National Railway takes no coal for the railways, and another company, the Canadian Pacific are taking less every year.

Mr. WOOLLIAMS: This is Crowsnest coal?

Mr. O'BRIAN: Yes.

Mr. WOOLLIAMS: From the southwestern part of Alberta?

Mr. O'BRIAN: Yes. It is an extremely good coking coal. The market for that type of coal is limited at the present time.

We have a special type of coal which is Canmore coal. That is classed as an anthracitic coal. It is on the borderline between straight anthracite or hard coal and the bituminous coal. The heat and the pressures of mountain building have probably driven it a little further along the line in coal making.

It followed the same development path. It was a railway fuel, comparatively smokeless. The C.P.R. liked it for their purposes operating west of Calgary; they got less smoke from it. It is also very friable and the only way it could possibly be marketed was by this simple process of briquetting the fines. The lump coal is competitive with anthracite as a household coal. It has a high heating value. It breaks up more. Its burning characteristics are perhaps somewhat different but it can and is being used in place of anthracite for domestic heating and in equipment adapted for anthracite.

Mr. WOOLLIAMS: That means stokers?

Mr. O'BRIAN: No; hand-firing.

There are some other smaller deposits of inferior coal through the interior of British Columbia. At Hat Creek during the war a certain amount of low grade lignite was taken out.

Finally, we come to Vancouver Island where we have a bituminous coal, pretty much the same as in Nova Scotia; it is of pretty much the same properties. It is a fairly high volatile coal. It varies a little from Nanaimo, which is perhaps a little better for domestic use, to Comox which is straight steam production coal.

That practically takes you from one side of the country to the other.

Mr. KINDT: May I ask what the British thermal units in general are of the coal from the Crowsnest pass? Does it run between 12,000 to 14,000 B.T.U.'s?

Mr. O'BRIAN: Approximately.

Mr. BIGG: Is this the time to ask about the comparative cost per ton?

Mr. WOOLLIAMS: Could I summarize it something like this: In Nova Scotia we are producing a bituminous coal; in Saskatchewan we are producing a lignite coal; in the Drumheller valley, which takes in East Coulee, and that district, we are producing sub-bituminous coal; and in the Crowsnest pass area we are producing bituminous coal similar in nature to the Nova Scotia coal?

Mr. O'BRIAN: Similar in some ways. The burning characteristics are so different I hesitate to say similar.

Mr. KINDT: I think it has already been stated that the B.T.U.'s are between 12,000 and 14,000. Again, how would that compare with Nova Scotia?

Mr. O'BRIAN: About the same. About 13,500 for Nova Scotia and some of the coal runs as high as 14,000. Roughly they are the same.

Mr. WOOLLIAMS: In the Canmore district, or the mountain area, we have a type of anthracite coal. How many tons of bituminous coal in 1957 were used in Canada?

Mr. O'BRIAN: For the fiscal year ending March 31, 1958, the total consumption of bituminous coal in Canada was 28,378,000.

Mr. WOOLLIAMS: How much of that anthracite was used in Canada?

Mr. O'BRIAN: In that same period, 1,773,000.

Mr. WOOLLIAMS: And how much sub-bituminous coal was used in Canada?

Mr. O'BRIAN: I am sorry. That would be included in the bituminous in these statistics.

Mr. WOOLLIAMS: Approximately, then? Have you any idea of how many tons that would be, roughly, more or less?

Mr. O'BRIAN: Roughly, the Alberta sub-bituminous in that would be about 1,700,000.

Mr. WOOLLIAMS: You say about 1,700,000?

Mr. O'BRIAN: That is right.

Mr. WOOLLIAMS: Almost two million tons; and how much anthracite was used in Canada?

Mr. O'BRIAN: I gave you that; it was 1,773,000.

Mr. WOOLLIAMS: Oh yes. Now, how much bituminous coal was imported into Canada from the United States or from anywhere?

Mr. O'BRIAN: In the same period, 17,388,000 tons.

Mr. WOOLLIAMS: Was there any sub-bituminous coal brought in?

Mr. O'BRIAN: No.

Mr. WOOLLIAMS: Was there any anthracite brought in?

Mr. O'BRIAN: Yes.

Mr. WOOLLIAMS: How much?

Mr. O'BRIAN: 1,714,000 from the United States; 132,000 from the United Kingdom; making a total of 1,846,000.

Mr. WOOLLIAMS: Would you mind telling us, now that we have broken this down into four or five groups, what the use of bituminous coal is? What is it used for in Canada?

Mr. O'BRIAN: Mostly for steam production in industry; in the railways; and in the production of coke for the use of blast furnaces, iron and steel mills.

Mr. WOOLLIAMS: What is anthracite coal used for?

Mr. O'BRIAN: Domestic heating.

Mr. WOOLLIAMS: And what is sub-bituminous coal used for?

Mr. O'BRIAN: In screened sizes, for stokers and for domestic heating.

Mr. BIGG: How do they compare, the sub-bituminous and the best household coal and the anthracite for household heating?

Mr. O'BRIAN: It depends on your equipment. They will both burn in practically the same type of furnace, but with anthracite coal you have about 13,500 B.T.U.'s per pound, and with the other, about 10,000 B.T.U.'s per pound.

Mr. BIGG: Is there any difference in ash?

Mr. O'BRIAN: Not so much of a difference in ash; it is different in its heat value because of the moisture in the Drumheller coal. For the same size furnace you can get about 50 per cent more heat from anthracite in a given firepot than you can get from the same volume of Drumheller coal, because of its lower heat value.

Mr. WOOLLIAMS: One problem in the Drumheller valley—and I have discussed it with the Chamber of Commerce, with the coal mines, with the coal operators—but not so much with the coal operators—is the question—and this is what I would like to have clarified: we are importing, I believe, from Pennsylvania, as you say, 17 million or about 20 million on an average for the last three four or five years, of bituminous coal.

One of the problems—and this is felt among people who are not connected with the coal industry—is that this coal is coming in from Pennsylvania and it is not of the same type; it is not actually the same type which is used today for the same uses as sub-bituminous coal from the Drumheller valley. Could you enlarge on that for a moment?

I mean, could you enlarge on the fuel uses of the sub-bituminous as it was used in the past, and why there has been a feeling in the market? Because there has been a closing down of mines and there have been men put out of work.

Last winter I think it reached one of the worst conditions since the war and of any time since the 1930's or in the history of the Drumheller valley. Would you just enlarge on the uses of sub-bituminous coal and whether it could hit this other market, and if so, in relationship to the cost?

Mr. O'BRIAN: In the first place, this is a particular type of sub-bituminous coal. When it is mined it is very largely a lump type of domestic coal; big lumps.

It is a fairly high cost coal. The cost at Drumheller is not kept separately from the other sub-bituminous mines in Alberta, because the various operators prefer to keep that information more or less confidential. But in our last coal board report, the cost of producing Alberta coal—

Mr. DUMAS: Which page?

Mr. O'BRIAN: Page 42—this is the cost at the pit-head, the cost of production; the cost at the pit-head for Alberta prairie coal is given at \$4.72 per short ton.

The difficulty with that figure is that it includes very cheap strip coal. Drumheller coal costs at the pit-head from \$8.50 to \$9 per ton, probably.

Mr. BIGG: There must be somebody who can tell us about it.

Mr. WOOLLIAMS: We will get it before we are through—later on. Does that include any freight cost?

Mr. O'BRIAN: No. That is the cost at the pit-head. This is merely a breakdown of cost by all the operators.

Mr. DUMAS: Is that the total mine cost?

Mr. O'BRIAN: That is the cost of the marketable coal produced. The total cost is shown at the bottom of this sheet here. You will see \$4.72 for Alberta prairie; it is the sub-bituminous type. But I shall try to get more information on the cost probably in a better way later on.

The cost would be, I still think, about \$7 to \$8. That means they have to recover of that cost, about 70 per cent from the sales of the lump coal, and about 30 per cent would be from slack or stoker which has to sell at a very low cost in competition with industrial gas in western Canada. It has to sell there.

So they can only recover a small amount from that sale, and it means that they must recover a much greater amount from the lump coal.

Now to answer your other question: you cannot move it to eastern Canada because it has only about 9,000 B.T.U.'s per pound, and the freight rate to move coal with 18 per cent moisture and with that low heat value would not make it competitive.

Mr. WOOLLIAMS: Apart from cost, and eliminating cost, for a moment, could this coal, under any condition, be used in industry in Canada as bituminous coal is used, or could it be used by the railways for whatever purpose is left to the railways which have gone into diesel fuel?

Mr. O'BRIEN: If there was no other coal and it had to be used, then it could be used, but at a very great sacrifice of efficiency.

Mr. WOOLLIAMS: Has it ever been used in Canada?

Mr. O'BRIAN: Possibly on locomotives, but not too much so—only to supply a special want.

Mr. WOOLLIAMS: Has it ever been used in Canada in industry?

Mr. O'BRIAN: It is used in the electric power plant at Drumheller.

Mr. WOOLLIAMS: And what about eastern Canada?

Mr. O'BRIAN: No.

Mr. WOOLLIAMS: What about the type of equipment needed in industrial plants in order to use this coal? Could this type of coal not be burned with special equipment if it were made available in eastern Canada?

Mr. O'BRIAN: In my opinion it could not be used in industrial equipment. But we have the chief of the fuel division with us, and he is an expert in the matter while I am not.

Mr. A. IGNATIEFF (*Chief, Fuels Division, Mines Branch*): In answer to that question, I would say, just as Mr. O'Brian said, that with a sacrifice of efficiency it could be used, but only with a very large increase in tonnage because of the lower calorific value, and the sacrifice of efficiency.

Mr. WOOLLIAMS: Could it be worked out on a percentage, that sacrifice of value?

Mr. BIGG: Could we have it, working on the figures of 9500 as compared to 13,000?

Mr. IGNATIEFF: It would be about two thirds of the heat value.

Mr. BIGG: What would the ash percentage be?

Mr. IGNATIEFF: Sub-bituminous is comparatively low in ash. It compares favourably with bituminous coal.

Mr. WOOLLIAMS: There would not be any problem with ash?

Mr. IGNATIEFF: Only so far as another factor occurs in industrial use, because you must think not only in terms of calorific value but also in terms of the behaviour of the ash.

A lot of sub-bituminous coal has a low fusion point for ash. Consequently, they create a clinking problem. So you see it is not just the calorific value.

Mr. WOOLLIAMS: I do not quite follow you, when you speak about the value being two thirds. Would it be two thirds as good or only one third as good?

Mr. IGNATIEFF: No, it is one third less efficient for heat.

Mr. BIGG: Does the ash have any commercial value?

Mr. IGNATIEFF: No, there are no commercial applications or use for the ash from the stokers.

If the coal is burnt as pulverized fuel, you would get quantities of fly ash which people have tried to use in making concrete, but it is not satisfactory.

Mr. BIGG: I was thinking of ground clinkers.

Mr. IGNATIEFF: Well, it could be done, if it could be used. It has no value otherwise.

Mr. WOOLLIAMS: Is it possible to compare the cost of the use of sub-bituminous coal with bituminous coal?

Mr. O'BRIAN: I do not think so. It would vary from plant to plant. Each plant has its own need and is dependant on a certain type of coal. Some plants have been designed to use stoker coal, while others have been designed to use chiefly slack. There is no uniformity, but as a rule, the cost of using Drumheller coal—to come back to that factor, would be high because it would be largely a lump coal while the coals now being used are on the average slack and nut slack for stoker use and slack for pulverized fuel firing. It would also take about half as much again of Drumheller coal.

The cost would depend on the location of plant where so much of it is freight.

The freight cost of Drumheller coal is as much as the cost of the coal itself.

Mr. WOOLLIAMS: That is, I think, the whole point we are coming to in this discussion, the difference between the cost of the use of bituminous and sub-bituminous coal. This question has been asked over and over again of

many other people in public life; why we do not use, here in Canada, this sub-bituminous coal instead of bringing in coal from the United States and elsewhere?

If it is possible to use one or the other, and if cost is the main element, I think that is where we should endeavour to get some evidence before this committee as to the difference in the cost. You say it would be 50 per cent higher?

Mr. O'BRIAN: Well, trying to work it out without bringing in variations in costs of using the coal the Drumheller coal cost is \$7.25 at the mine. This is the summer price at the present time; and laid down at Toronto, the cost is \$18.78.

There is a subvention of \$4, making the net price \$14.78 for the coal laid down.

That coal contains 10,000 B.T.U.'s per pound, or two million per ton, and the cost of the heat units alone in that coal is about 70 cents per million B.T.U.'s.

United States bituminous coal laid on dock at Toronto at the present time is about—including payment of duty and everything else—it is about \$9 a ton. That coal would contain about 27 million B.T.U.'s per ton. So that would be about 33 cents per million B.T.U.'s for the heat in that coal.

That is before you came to dealing with efficiency of either coal in a furnace or any other subject of that kind, just the cost of the heat units as it goes into the furnace.

Mr. BIGG: Just what percentage of that cost goes out of the country? I think this is relevant. How much of the cost of the coal goes out of the country, short of taxes, as Canadian costs for the American coal? Have you any idea?

Mr. O'BRIAN: No, because most of it would depend on how it were carried over; there is a 50 cent duty on that coal; and also the carriage may be in Canadian bottoms or in American bottoms coming from the American side.

Mr. BIGG: Most of that money does go out of the country?

Mr. O'BRIAN: That is right.

Mr. KINDT: The Crowsnest Pass coal carries 13,500 B.T.U.'s and the Drumheller coal carries 9,000. Would you mind going through the mathematics of it again to show the effect on the Ontario market of the Crowsnest Pass coal?

Mr. O'BRIAN: Crowsnest slack at Toronto would cost laid down \$18.53 which is pretty much the same price as for Drumheller.

Mr. BIGG: But it is much higher in heat units?

Mr. O'BRIAN: That is right; and \$4 subvention on that, would make \$14.53 for the Crowsnest Pass coal, which has about 13,000 B.T.U.'s per pound or 26 million per ton. It would be about 56 cents per million B.T.U.'s; so you have 33 cents for the American, 56 cents for the Crowsnest, and 70 cents for the Drumheller.

Mr. BIGG: What about Canmore coal?

Mr. O'BRIAN: The Canmore lump is a domestic coal.

Mr. WOOLLIAMS: You did go so far as to say that sub-bituminous coal probably could be used but the cost would be outrageous. Now your evidence is that Canmore coal is not suitable in industry at all.

Mr. O'BRIAN: No, it is much more suitable than sub-bituminous coal. Being a low volatile coal it will burn with a short flame and its efficiency is low. It can only be used efficiently with special equipment for that type of coal which equipment is not in existence in eastern Canada.

Mr. WOOLLIAMS: Is there special equipment which is used?

Mr. O'BRIAN: Yes, in the United States there are certain electric plants which use equipment designed especially to use anthracite coal.

Mr. WOOLLIAMS: Is there equipment designed to operate in some areas with this sub-bituminous coal, and is it more efficient than equipment which is designed to operate with bituminous coal in industry?

Mr. O'BRIAN: Yes. There is a plant which has been put in to use sub-bituminous coal. They put in equipment which is designed to use that coal. For example, the Battle River power plant; that is a fair example.

Mr. WOOLLIAMS: If there were industry right in Drumheller, there could be a type of equipment provided to burn that coal efficiently?

Mr. O'BRIAN: There is an industry there now which is using it, and also the Ogden shops were using it.

Mr. BIGG: Could our Canmore people supply this?

Mr. O'BRIAN: You are talking about Canmore?

Mr. BIGG: Yes.

Mr. O'BRIAN: The Canmore mine could supply domestic market for lump sizes replacing American anthracite. There are 1,700,000 tons of American anthracite imported, which I think, Canmore could replace in part and is presently doing so.

Mr. BIGG: Can the Canmore mines supply enough coal to completely replace the imported anthracite?

Mr. O'BRIAN: That is doubtful.

Mr. BIGG: What is the production at Canmore?

Mr. O'BRIAN: The production last year was, I think, about 400,000 tons. I can get an exact answer for you.

Mr. BIGG: What is the greatest figure there, of what they have produced?

Mr. O'BRIAN: I cannot go very far back, but it is approximately that. I have here the last D.B.S. report and the output in 1956 was 220,000 tons—I was high.

Over half of that coal is fine coal—the dust, which must find some other market.

Mr. BIGG: I was wondering more about the potential than the production. What could they produce if they were allowed to?

Mr. O'BRIAN: I would have to get the miner's estimate on that. I could not answer that question because the number of seams, the methods of working and so on are outside my field.

Mr. WOOLLIAMS: Mr. Chairman, instead of referring my questions through the chair, if I may, I will refer them directly to Mr. O'Brian. I shall ask these questions, going into the Drumheller valley coal and Canmore coal as it concerns that area at Bow River particularly. I will deal with Drumheller to start with, as to what its potential markets were—why those markets have fallen off and what the hope is particularly as a domestic fuel for sub-bituminous Drumheller coal and what competition they are meeting with gas and oil in Alberta and other parts of Canada, and what competition they are going to meet in Ontario for whatever type of coal we have.

Mr. O'BRIAN: I have a statement here. Perhaps I might refer this statement to Mr. Uren.

Mr. UREN:

1. There has been a particularly serious slump in coal production in the Drumheller area during the coal burning season ending on May 31, 1958.

2. The output of coal in the twelve month period ending May 31, 1958 from mines in the Drumheller area for the last three years has been—

1955-6	991,300 tons
1956-7	818,780 tons
1957-8	633,703 tons

3. Employment has fallen in this area in direct relation to the output.

4. There are two different causes for this decline one of which has affected the consumption of all household fuels and the other which has affected Drumheller chiefly.

5. The coal produced at Drumheller is almost entirely sold for household use and consumption varies with the time of year and with the weather.

6. In Western Canada, the weather in 1955-56 was some 13.5 per cent colder than normal, in 1956-57, it was approximately normal, while in 1957-58, it was 7.8 per cent milder than normal.

7. This variation in the weather in the three burning seasons is reflected in the retail sales of coal in the four western provinces which were—

1955-6	2,619,000 tons
1956-7	2,409,000 tons
1957-8	1,913,000 tons

8. This mild winter, therefore, has not only affected Drumheller but all coal sales throughout the area.

9. There are other factors which have affected this Drumheller area which has, for some fifty years, produced coal of a grade and type adapted for household use and that has enjoyed a wide market in western Canada.

10. The chief cause of the difficulty in the area lies in the loss of the household heating market in western Canada to other fuels. In the twelve months ending March 31, 1948, there were reported retail sales of coal in the four western provinces of 3,892,000 tons. In the same period ending March 31, 1958, the same sales were reported as 2,014,000 tons or a decline of 1,888,000 tons.

11. The Drumheller area has been particularly affected. In the twelve months ending May 31, 1948, this area produced 1,574,000 tons of coal of which some 44,000 tons were shipped to Ontario and 1,530,000 tons consumed in the west. In the twelve months ending May 31, 1958, the output was 634,000 tons of which some 17,000 tons were shipped to Ontario and 617,000 tons consumed in the west.

12. The loss of market has been due to competition from oil, from gas and from other western coals. This area is comparatively old and has a high cost of production. The loss to other coals is shown by the fact that while in 1947, some 53 per cent of the Alberta sub-bituminous coal sold in lump sizes came from Drumheller, the percentage had fallen to 39.7 per cent in 1957.

13. The loss to oil and gas is shown by the changes in heating equipment. In the prairie provinces in 1947, there were some 641,000 households of which 409,000 or 64 per cent burned coal as principal heating fuel. In 1957, there are reported some 772,000 households of which 245,000 or 32 per cent burned coal as principal fuel.

14. The type of coal produced in the Drumheller areas is not acceptable for use in most of the installed household furnaces in Ontario. The capacities and sizes of these furnaces have been calculated on the use of anthracite coal with a heat value some 35 per cent higher than Drumheller and a very low

volatile content. While the furnaces are of a universal type, the sizes are such that they do not afford sufficient over fire space to burn off the volatiles nor does the firepot hold enough fuel for a reasonably long burning period.

15. Since 1926, various methods of assistance have been made available by government to try and develop a market for this coal in central Canada but without much success. Subvention assistance is presently available on the movement of this coal to central Ontario at the rate of \$4 per net ton, which is sufficient to place this coal on a competitive level with imported coal as required by the subvention policy.

16. While the Ontario market never did provide any large outlet even with the assistance, the competition of oil and recently of natural gas is also rapidly reducing the demand for coal in this area. In 1947 in Ontario, some 773,000 households or 69 per cent burned coal as principal heating fuel, by 1957, this was down to 368,000 or 26 per cent of the total. This competition is particularly hard on the Drumheller type coal in the country areas where it did find some outlet. Coleman type oil stove, propane, and ordinary oil burners are taking over these outlets.

17. Drumheller and other western high moisture coals do not sell well in the summer. These coals do not store well as they tend to break down to fines as the moisture evaporates. This can be prevented by extra precautions on the part of the householder but with alternative fuels readily available, the purchaser will not bother.

18. The household consumer purchases his winter fuel of the kind and at the time that is suitable to him. Efforts have been made to promote summer buying by price reductions, guaranteed loans, etc. with little or no success.

19. This coal is both high in cost for any industrial use and not well adapted for such use in ordinary steam equipment. The slack left over from the production of screened sizes for household use has been sold at a very low price for steam production but there would be no market in the industrial field for any large portion of the output.

20. The only coals presently of interest in the export market are the high heat value coking coals of the mountain region of Alberta. The Drumheller coals have neither the heat value nor the coking properties to make them suitable for export.

21. The situation of the coal industry in Drumheller and in other areas in western Canada was reviewed by the Dominion Coal Board at their last meeting and it was the opinion of the board that everything possible was being done at present to help this industry within the limits of the general subvention policy.

22. Under the conditions outlined, it does not appear that there are any measures that can be taken by government that would be of direct help.

Government could direct the payment of more money than necessary to meet the competition of imported coals in the Ontario market but could such a change in policy be directed to assist one coal field only. Even if more money were provided on the movement of Drumheller coal to Ontario, it is most unlikely that there would be any substantial increase in deliveries.

Government could pay a subsidy on the coal used in the western provinces but again, it is difficult to see how such assistance could be restricted to Drumheller alone or even to coal alone.

Any other type of assistance by quota or direction would require extraordinary authority and would not fit in with the ordinary conception of free enterprise.

Mr. WOOLLIAMS: What is the highest quantity of coal, in the last ten years, that we did ship as a domestic fuel to Ontario? I think you read out that there was at no time market of 40,000 tons. Did we not, during the war, have a larger market?

Mr. O'BRIAN: In the early years of the war, yes.

Mr. WOOLLIAMS: Did we ever ship 150,000 tons of coal to the Ontario market?

Mr. UREN: I think so, of all types of coal.

Mr. WOOLLIAMS: And that is down to what?—I think you said about 17,000 tons.

Mr. O'BRIAN: Seventeen thousand tons from Drumheller, yes. We are dealing with Drumheller alone in these figures.

Mr. WOOLLIAMS: Yes, and I took it from your statement that 26 per cent of Ontario now are burning coal as a domestic fuel rather than 64 per cent ten years ago.

Mr. UREN: That is right.

Mr. WOOLLIAMS: Now I wonder if you mind telling me as to the market. Is the subvention \$4.

Mr. O'BRIAN: \$4 south of Parry Sound and east of Mattawa.

Mr. WOOLLIAMS: And how long has that subvention been on that coal, approximately?

Mr. O'BRIAN: The \$4 subvention was brought in—

Mr. UREN: It has been in since 1953, I think, but it is just a stabbing guess.

Mr. WOOLLIAMS: That is close enough. Could you tell me how much of that coal is mined by strip mining in Drumheller, because that is something that the underground miners, who are here to give evidence, are concerned about? I believe that development was extensive during the war when the demand was heavy.

Mr. UREN: We do not know of any strip mines in the Drumheller valley at all.

Mr. WOOLLIAMS: But in other parts of Alberta?

Mr. UREN: Yes.

Mr. WOOLLIAMS: And is not a similar type of coal produced in Drumheller?

Mr. O'BRIAN: It is the coal I referred to in my original remarks as being somewhat similar, but it is lower in quality.

Mr. WOOLLIAMS: Let us go to Canmore and Crowsnest Pass. I would like to deal with Canmore, if I might. I believe that there has been a recent market found for Canmore coal to Japan. How much coal was shipped last year or during the last six months to Japan?

Mr. UREN: Approximately 40,000 tons last year, and 4,000 tons last month.

Mr. WOOLLIAMS: What subvention was put on that coal?

Mr. UREN: A maximum of \$4.

Mr. WOOLLIAMS: Was it increased just recently?

Mr. UREN: It was just increased within the last year to \$4.

Mr. BIGG: Is this subvention the same in the maritimes?

Mr. UREN: No. It fills the same purpose. It is supposed to meet the competition with other coals at Seattle, Portland and Vancouver, if we had facilities at Vancouver.

Mr. BIGG: It is not \$4? It is not a blanket subvention?

Mr. UREN: No, up to \$4.

Mr. WOOLLIAMS: Could you give us the same information as to Crowsnest Pass as you have with Drumheller and Canmore on the markets, as to how the markets have fallen off in Crowsnest Pass and where the market for that type of coal is?

Mr. O'BRIAN: That would have to be a much more general statement because we have not got it written up in that form. The biggest fall-off with regard to that coal has been the loss of the railway market. As I was saying, about 70 per cent of that coal was sold to the railways and the railway consumption has dropped so much in the last few years that now only about one-third is sold of what was sold up to three or four years ago. There are industrial outlets down in Oregon and Washington states to which they ship in the form of either coal or coke. They also ship to the metallurgical plant at Flin Flon. They shipped to the cement plant at Winnipeg. They ship to pulp and paper mills in western Ontario. They have lost the cement plant to natural gas on a straight cost basis there. They are in stiff competition with natural gas in western Ontario as the Trans-Canada line comes through.

They are meeting that competition this year and we do not know as yet what the tonnage will be because it is just a fight as it is now.

Mr. UREN: In conversations I have had I think I can add that it will be about 50 per cent of last year.

Mr. KINDT: That is, shipments to western Ontario?

Mr. UREN: It will be about 50 per cent of their tonnage last year.

Mr. KINDT: Can you tell the committee Mr. O'Brien what tonnage of United States anthracite is going into western Ontario?

Mr. O'BRIAN: Very little. So small that I could hardly count it. The only record we would have, I believe, would be the imports into Fort William and Port Arthur. They were so small that I did not get them.

Mr. KINDT: I wish you would, because there is some thought that it ranges as high as 2 million.

Mr. O'BRIAN: Only somewhat over one million comes into the country, sir.

Mr. WOOLLIAMS: Do you know of any negotiations for 250 million tons of sub-bituminous coal from Drumheller to be used as steam coal in Vancouver and that there might be some opposition because of coal reserves in that province? Do you know if any negotiations are being carried on at the present time?

Mr. UREN: No.

Mr. PAYNE: I have a question relative to the export potential of coal from the Crowsnest area to Japan. Have you the figures of the export of that commodity over the last year or two and what likelihood there is of creating a market in Japan, if we had satisfactory bulk loading facilities in the port of Vancouver. As I understand, such coal as has been shipped in the past in small amounts has been through either Seattle or Portland.

Mr. UREN: Except for such small quantities of coal to Japan a few years ago that went out of Vancouver, they have gone from either Portland or Seattle; but very little in quantity. Most of the coal has been shipped for testing purposes and the tests are now being carried on in Japan. We have been working on the Japanese market for upwards of seven years so far without measurable success. The chief success that we have had is to get these western coals into the steel plants in Japan for testing purposes because we believe, and our technical experts in the Department of Mines and Technical Surveys also believe, that certain of the Crowsnest area coals and some of the other coals perhaps are suitable for blending with the types of coal that Japan buys from other sources and blends for their steel mills. It looked, a few months ago, as if we were pretty close to knocking on the door but unfortu-

nately Japan has suffered a business recession along with the other countries of the world, especially in her steel industry. So that, in my opinion,—and I emphasize that it is my opinion only and given as such—we will not get any sizeable business from Japan from the Crownsnest pass area in coking coals inside of another year. A coal operators mission is going from western Canada, including Mr. Whittaker, who is a member of the board and who is a mining engineer, to Japan in late October or early November. They are scheduled to leave about October 25 to go over and spend three weeks in and around all the steel mills in which they will study the steel mill coal purchases. I do not think they are going over with any idea of coming back with orders. They are going over with the idea that there will certainly be a better understanding all along the way of what the prospects are.

Mr. PAYNE: Would this shipment now show up economically?

Mr. UREN: Well, they have shown up that they can be blended with the coals that they purchase from other areas, to the extent of about one to ten, economically. It depends entirely on world conditions. We were amazed when the Department of Transport's tariff rates came out today to see that the cost of hauling coal from Hampton Roads to Japan has dropped from \$17.75 last year to \$7.75 this year. That is a \$10 competition that our coals probably have to work up to. I do not say it is that much, but certainly there has been a drop.

Mr. WOOLLIAMS: The coal that was shipped from Japan either went through Seattle or Portland because we have no facilities at Vancouver?

Mr. UREN: Correct.

Mr. WOOLLIAMS: There is a movement, I understand, to build facilities at Vancouver?

Mr. UREN: Yes.

Mr. WOOLLIAMS: Is it going ahead at the present time?

Mr. UREN: It is.

Mr. WOOLLIAMS: How much would they have saved a ton in Canada if coal could have been shipped out of Vancouver instead of out of American ports?

Mr. UREN: About one dollar.

Mr. WOOLLIAMS: Was that not a reason that the additional \$1.50 subvention was put on, to meet that extra cost because we did not have loading facilities in Canada?

Mr. UREN: Not entirely. We also felt perhaps the cost at the Vancouver dock in the early stages might be relatively equivalent to the cost of the long established facilities at Portland; not necessarily Seattle because it has been out of commission—it fell in the ocean and recently has been rebuilt.

Mr. PAYNE: Am I correct that the subvention in the extra cost for coal is \$10 if shipped to the Japanese market?

Mr. UREN: No, sir.

Mr. PAYNE: Would you explain it again?

Mr. UREN: Last year it cost \$17.75 to haul a ton of coal from Hampton Roads to Japan; that is the freight rate.

Mr. PAYNE: Where is Hampton Roads?

Mr. UREN: In Virginia. Norfolk and Hampton Roads are the two largest bulk cargo dispatching points in the United States. It was \$17.50 or \$17.70 last year—I may be a quarter out. That was the freight last year. The freight this year as quoted by the Department of Transport today is \$10 less.

Mr. BIGG: Is it being subsidized by the United States government?

Mr. UREN: No.

Mr. BIGG: What is the cause then?

Mr. UREN: Because shipments from the United States and Great Britain this year of coal have been completely cut off. Perhaps you can call it a form of subsidizing. The coal industry and John L. Lewis got the United States government to take a lot of the 10,000 tonners out of mothballs and put them in bulk carrier service. Now they have bulk carriers running out of their ears.

Mr. PAYNE: What is our rate from Vancouver to Japan?

Mr. UREN: I will get that.

Mr. KINDT: Is it correct, in taking these ships out of mothballs, that the United States is subsidizing transportation?

Mr. UREN: No. They pulled them out of mothballs and they are being used. Supposedly there is no subsidizing.

Mr. BIGG: Have we any Canadian ships hauling coal?

Mr. UREN: Well, we have three Canadian ships hauling coal from Sydney to Montreal, Three Rivers or Quebec. They are the three iron ore ships.

Mr. BIGG: I meant abroad?

Mr. UREN: No.

Mr. WOOLLIAMS: Do the American ships take our coal from Portland?

Mr. UREN: No, Japanese ships.

Mr. KINDT: I would like to have a supplementary statement in respect of the market in northwestern Ontario. In the west, we look upon the Ontario market in two ways; one is lower Ontario and the other is northwestern Ontario. Could you tell us where the coal comes from that is used in northwestern Ontario—the sources of that coal—so that from this information we may ask supplementary questions.

The CHAIRMAN: I wonder if we should perhaps better clarify northwestern Ontario. What area have you in mind?

Mr. KINDT: We should say from Fort William, Port Arthur, on west taking in the Flin Flon area and east of Winnipeg.

Mr. O'BRIAN: The industrial fuel is altogether United States bituminous coal, Saskatchewan lignite or Crowsnest coal. If your cut-off is at Fort William, the chief Canadian coal would be Saskatchewan lignite. I can get you the full information later with the exact tonnages used last year in that area.

For the domestic market it varies. A certain amount of Saskatchewan lump coal is used and a certain amount of Drumheller type coal. When you get close to the lakehead there is an amount of American Elkhorn or Pocatontas bituminous coal coming in.

Mr. BIGG: What type of coal is used for things like, for instance, nylon?

Mr. O'BRIAN: That would be a question for Dr. Sonvey to answer.

Mr. WOOLLIAMS: I know you stated it would be difficult to put on a subvention for any particular tariff, but just to have the figure available, perhaps you could give us later what, approximately, the subvention would have to be on Drumheller coal in order to compete with bituminous coal coming in from Pennsylvania.

Mr. UREN: The present subvention competes with it.

Mr. WOOLLIAMS: Not in tonnage?

Mr. UREN: In dollars and cents.

Mr. WOOLLIAMS: Perhaps I misunderstood you. I was thinking that coal came in at \$9 and something laid down in Toronto, whereas our coal was laid down in Toronto at \$14 a ton.

Mr. O'BRIAN: I was comparing steam slack coal to Alberta lump coal which is not for industrial use but solely for domestic use.

Mr. WOOLLIAMS: I say this with the greatest courtesy to you, that we had your own answer that it would be possible, if one had to, to use this type of coal from Drumheller. My question is what, approximately, would the subvention have to be in order to compete almost equally with the coal coming in from Pennsylvania?

Mr. O'BRIAN: If it got so bad that you had to use it there would not be anything coming in from Pennsylvania.

Mr. WOOLLIAMS: What would the subvention have to be?

Mr. UREN: It is impossible to answer. You would have to figure out the extra cost bringing in the extra number of cars in the yards and also the cost of the extra number of cars to take out the ashes, and other things. That is what the purchasing agent has to do in comparing coals.

Mr. BIGG: Suppose a new factory is going in and we say, "We will supply you with coal." Suppose there was a new factory in Ontario which required coal for all its production, and before there was any change in equipment we were to bid on the supply of thermal heat by coal; the question is what spot price would we have to demand for our coal in order to compete favourably with imported coal, and how much would it cost the government to help us compete?

Mr. O'BRIAN: The competing position is about 33 cents per million thermal units.

Mr. BIGG: It is \$14 a ton for our coal and we have to compete with something like \$9 or \$10?

Mr. O'BRIAN: I would have to work that out.

Mr. WOOLLIAMS: Even if you increased the subvention another \$5 we would appreciate that it would not make all factors equal because Mr. Uren mentioned the difficulty of the increased freight and one thing and another.

However, we are wondering if it is possible to estimate it, because you did say if you had to use it, it might be possible. I am wondering what it would cost.

Mr. O'BRIAN: Approximately \$5 a ton.

Mr. WOOLLIAMS: You would have a subvention of \$5?

Mr. O'BRIAN: No, a ceiling price.

Mr. BIGG: Laid down at the plant?

Mr. O'BRIAN: Yes, this would have to be the price of the coal laid down at the plant, about \$5 a ton.

Mr. PAYNE: I would like again, to return to this shipping rate. I think it is a cardinal thing. In respect of the 10,000-ton Liberty ships being forced back into service, it would appear that the United States Maritime Commission must be operating those and there must be a subsidy paid and it must have been done under pressure from the union and the coal producers across the line and it is having a very blunt effect on the potential of the western Canadian coal business, and it is possible that it is created by the very unions who in the west are complaining today about the difficulties in merchandising.

Mr. UREN: The bulk carries are not being operated by the maritime commission. It is a company formed by John L. Lewis in collaboration with at least some of the southern coal operators and some of the others.

Mr. PAYNE: Are the unions involved in the capitalization of this?

Mr. UREN: Lewis was. I do not know to what extent the union participated in it. The government have not participated in it except that they released the boats.

Mr. PAYNE: Did they release the boats at a cost?

Mr. UREN: I do not know. All I know it is a separate company formed by John L. Lewis and the southern coal operators.

Mr. PAYNE: It would appear than an arrangement has been made with the unions and the southern coal operators which operates to the disadvantage of our own coal producers and coal miners.

Mr. UREN: We cannot say that yet. This has just happened and we are not actively shipping coal to Japan so we do not consider they are competitors. If we had a tonnage of coal and were attempting to continue to ship a tonnage of coal, that would be a different thing. The Canmore coal does not have anything to do with it. It goes to the gas companies.

Mr. PAYNE: What are the rates and what are the points of shipment for the Canmore coal?

Mr. UREN: I have it at the office. It is shipped from Portland and lately from Seattle.

Mr. KINDT: What relation has the steel production in Japan to the slowness with which Japan is responding to the purchasing of Crowsnest Pass coal?

Mr. UREN: They have temporarily discontinued their purchasing

Mr. KINDT: Because of the recession in the steel industry?

Mr. UREN: Yes; and because of some of their previous commitments which aren't delivered. They also cancelled an agreement to take coal which they went into with Red China.

Mr. WOOLLIAMS: How much domestic fuel is used in western Ontario? I am speaking about the rural area which at one time used some Drumheller coal. About how many tons of it are used today?

Mr. O'BRIAN: I could not hazard a guess, but I will bring back later a complete statement on this.

Mr. WOOLLIAMS: Who is supplying that coal today? What area, in Canada or outside Canada, is supplying the domestic fuel in western Ontario?

Mr. UREN: Western or northwestern Ontario?

Mr. WOOLLIAMS: I do not know how you categorize it.

Mr. UREN: They are totally different.

Mr. WOOLLIAMS: I am speaking about the rural area which we used to supply. Who is our greatest competitor in that area?

Mr. O'BRIEN: West of the head of the lakes, which is the area about which you are concerned, I think that Saskatchewan lignite—again this is subject to the figures I will have later—is probably the chief competitor.

Mr. UREN: And the second would be the strip mines of Alberta.

Mr. WOOLLIAMS: I know that this involves a lot of work. However there are, say, 100,000 tons being used and I would like to know who is supplying that 100,000 tons.

Now, I wonder if I might change the subject. Would you mind letting us have some information as to what by-products are produced from the type of coal such as sub-bituminous and other coals. Let us deal with Drumheller. What by-products can be made out of it.

Mr. A. IGNATIEFF: Generally speaking, coal is substantially a substance composed of carbon hydrogen and oxygen. Any kind of coal can produce a

variety of chemicals. There are also different processes, but the economics dictate each process. In answering the particular question in respect of Drumheller coal, the Drumheller coal is not a coking coal, as Mr. O'Brien has mentioned. The method of turning it into products of a higher value would be to produce a char. Every coal when it heats up develops certain sticky properties, some more than others. You can take even a lignite and give it what is known as a carbonizing treatment and produce a char from which you can then get rid of water and you end up with an up-graded product which can be used as a fuel. During that heating treatment you have what are known as distillation products coming off, and these distillation products are composed of various tars, oils and gases.

These can be processed if you have a market for these particular products. Does that answer your question?

Mr. BIGG: Is there a demand for these products at the present time?

Mr. IGNATIEFF: Unfortunately, sir, not in Canada.

In the first place, sub-bituminous coals produce a large proportion of liquid products; but they have different properties from the tars and oils produced in what are known as the high temperature carbonization.

The carbonization applied to sub-bituminous coal would be low-temperature, just to drive off these volatiles.

Unfortunately, most of the products contain large quantities of oxygen and they are not saleable without further processing.

If Drumheller were in an area of industrial development, for example, such as Pittsburg, where processors could pick up these intermediate products, there might be certain possibilities of using them.

I ought to repeat also that in this particular coal, with these particular tars and oils, even the United States is having great difficulty in marketing these products as compared with high temperature carbonization products that would be produced from a bituminous coking coal as being produced in the Crowsnest pass area.

Mr. BIGG: As I understand it, nylon is made from coal.

Mr. IGNATIEFF: Yes, from coal you can produce virtually everything that you can produce from oil. In fact, one of the processes that we have in the Department of Mines and Technical Surveys which we have studied at great length, and which we are always watching to see if we can improve it.—can be used with coal but presently we are working on low grade petroleum and bitumen. Basically the two-coal and oil are related, but the big difference between coal and oil is that coal contains about one half the hydrogen content of oil.

This is the process known as hydrogenation. That process can basically use coal to which is added hydrogen. Gradually you convert a large proportion of the coal into oil products.

Unfortunately the two main difficulties as far as Canada is concerned, are these; first, extremely high capital cost of the plant; secondly, for this particular process you must have a comparatively pure coal. In other words, you have the additional expense of cleaning the coal down to not much in excess of two or three per cent of ash.

Mr. WOOLLIAMS: Does the type of gas used for domestic heating—is that the type of gas which you can make out of coal, let us say, from Drumheller, Canmore and the Crowsnest pass area?

Mr. IGNATIEFF: Yes, with a certain amount of processing.

Mr. WOOLLIAMS: If we were to export gas and if we wanted at some stage to get more gas, is it possible to make that type of gas which we find when drilling for gas wells? I realize there is wet gas and dry gas.

Mr. IGNATIEFF: The gas which is associated with petroleum can be dry without being present in an oil reservoir, or be dissolved in the oil. But in both cases it is methane, pure marsh gas, the same gas that miners have to meet as a hazard in the mines.

Mr. WOOLLIAMS: I believe Germany processed it considerably during the last war.

Mr. IGNATIEFF: During the last war the Germans turned to the total conversion of coal by hydrogenation. For gas production coal is burned, or what is probably a better term, gasified in a fuel reactor, you can produce a whole series of gases, the composition of which is mainly a mixture of carbon monoxide and hydrogen. It is known as synthetic gas.

It is a feed gas for a whole host of industries where they are producing oil products including gasoline, and it can be used in making ammonia for fertilizers and the like.

But the economics on the North American continent are presently against the use of coal for making coals gas because you have to convert it, to a point where the petroleum products and natural gas are always available at more economical levels to start with the particular application.

Mr. BIGG: Do you mean that it is not economical to use coal because of the availability of oil and natural gas?

Mr. IGNATIEFF: Yes; and to give you an example, there was a study made in the United States some years ago. To produce methanized coal gas from a mixture of carbon monoxide and hydrogen, by using what is known to chemists as a catalyst—an artificial methane of about 950 B.T.U.'s per cubic ft. which is the normal amount of energy to be found in natural gas.

The United States is conscious of the fast depletion of their natural gas, and they thought in terms of using methanized coal gas in an area like the Pittsburgh area. The studies showed that under the most favourable circumstances methanized coal gas would run about 70 to 80 cents a thousand, using \$4 per ton coal.

Mr. KINDT: In other words, coal is a hydro-carbon the same as oil and gas and it becomes a question of economics in the utilization of it to manufacture these 10,000 or more products which are made from natural gases and oil?

Mr. IGNATIEFF: That is right.

Mr. KINDT: In other words, if our gas supply were to become diminished to a point where we had to use coal, our costs would go up tremendously in the manufacturing of products produced from the petrol-chemical industry?

Mr. IGNATIEFF: That is quite right, I might add that our department has shown the importance of coal in relation to the future because at the present estimates we have about 90 per cent or thereabouts of carbon—the carbon which is so important in the starting point for all carbon chemicals derived from coal as well as in natural gas or oil. So from the future point of view coal is of extreme importance.

Mr. KINDT: We have had one good economic example concerning the use of coal for gas production in the case of the British Columbia electric company which made use of coal from the Crowsnet pass for gas production. As natural gas became available they switch from coal to natural gas.

Mr. IGNATIEFF: Yes.

Mr. KINDT: The reason I am told, on good authority, was the question of cost. This switch closed one of the mines in the Crowsnest pass.

Mr. IGNATIEFF: Yes, that is correct. And I think they procured their coal from Luscar. There are so many processes that you can apply to coal. In

this instance it is coking coal, perhaps not strands coking coal—but coal which could be carbonized in ovens to produce 500 B.T.U.'s which would produce gas with half the heating value of natural gas.

Natural gas from the Peace River country arriving at a cost—the very least which would probably be—of one sixth of the carbonization gas, so that there is really no incentive to continue to carbonize.

Mr. WOOLLIAMS: Thank you very much. I was wondering about the question of the quantity of coal in Alberta. There have been various statements made about it. Have you any facts as to what is the estimated quantity of coal in the various areas we have discussed, in particular, Alberta?

Mr. O'BRIAN: They are all set out in the report of the royal commission. I could read it into the record later, if you wish.

Mr. KINDT: Roughly speaking Alberta has about 48 per cent of the mineable coal of Canada.

Mr. O'BRIAN: That is right.

Mr. WOOLLIAMS: Is there any percentage as compared to the United States?

Mr. O'BRIAN: I can give you the figures for all Canada. The estimated coal resources of the United States are listed in this latest publication of the National Coal Association, and in billions of short tons it is 1,895, while Canada has 98 billion short tons.

Mr. KINDT: In other words, there is roughly seven per cent of the world's supply of coal in Alberta.

Mr. O'BRIAN: That was just the United States alone that I gave.

Mr. KINDT: It is roughly that, and at our present rate of use I am told there is enough to last around 2,000 years so I do not think we need to worry about the reserves of coal.

Could we come back for a moment now to a new attack on this problem of industrialization.

Mr. Uren in his statement said that his department was charged with the responsibility of administering the thermo-electric provisions and policy of the federal government with respect to eastern Canada.

Mr. UREN: Not the policy, but yes, with respect to the administering of the subventions as laid down by the government.

Mr. KINDT: Would you mind outlining briefly what that policy is?

Mr. UREN: Mr. O'Brian will answer the question.

Mr. O'BRIAN: The policy is stated in the act which accompanies Mr. Uren's statement. Briefly, it provides for an agreement to be entered into with the provincial governments. This matter is under the Department of Northern Affairs and National Resources, by the way.

I shall now quote from section 2 of the act as follows:

An agreement entered into under subsection (1) shall include

(a) provisions for the construction of power projects by Canada and the transfer thereof to the province upon the province undertaking to pay the cost thereof;

(b) provisions for the extension or completion of power projects in the province by Canada and the payment of the cost thereof by the province, or provisions for advances by Canada to the province for the completion or extension of power projects and the repayment of amounts so advanced;

(3) an undertaking by the province to operate any power project constructed, extended or completed pursuant to the agreement;

(d) provisions for the payment by Canada to the province of a subvention in respect of eastern coal used in the operation of facilities for the generation of electric energy by steam-driven generators, if the province so requests, including provisions for establishing the amount of the subvention and prescribing the method of calculation;

(e) an undertaking by the province that any subvention in respect of eastern coal provided for by the agreement will be fairly distributed among the operators of the power projects in which the coal is used, and that the province will take steps to ensure that the amount thereof will be taken into consideration in the setting of the rates charged for electric energy produced by such projects and used for industrial purposes; . . .

Mr. KINDT: How long has this act been in operation?

Mr. O'BRIAN: This act was proclaimed on the 31st January, 1958.

Mr. KINDT: How many plants have been helped under the provisions of this policy?

Mr. O'BRIAN: We can only answer for the subventions which is the only part for which the Board is responsible. No plants have yet received any money. The agreements have been in the course of negotiation. When we drafted an agreement it was submitted to the provinces and last week we received one signed by a province, but as yet no claims have been received for subventions.

Mr. UREN: This agreement just arrived on my desk this morning.

Mr. O'BRIAN: Payments will start as of the 1st, December 1957, and we anticipate that all claims will soon come forward.

Mr. KINDT: This is for the development of electric power?

Mr. O'BRIAN: This is a subvention on the payment for coal used in the production of electric power.

Mr. KINDT: Is there any thought in the department of extending the policy to western Canada and the Crownsnest pass?

Mr. UREN: It is our understanding—this all comes under the Department of Northern Affairs and National Resources—we change our hats and come under another minister to take care of this particular phase of it—but it is our understanding at the meetings we have attended that if other provinces or utilities in the various provinces wish to state their cases, they will be given very serious consideration by the government. That is as far as we can go at the present time.

Mr. KINDT: I take it that if the people of the Crownsnest pass were to come forward with a policy for the development of a thermal-electric plant, that it would receive consideration by the government the same as has been done with respect to similar developments in eastern Canada?

Hon. PAUL COMTOIS, (*Minister of Mines and Technical Surveys*): I think the Minister of Northern Affairs and National Resources made a statement to that effect not long ago in the house. A question was asked him. I do not know by whom, and I think this answer was given by the Minister of Northern Affairs and National Resources: If there is such a demand, or application is made by another province, then it would receive the same consideration. That is what he said, as far as I recall it.

Mr. GUNDLOCK: I wonder if any of these gentlemen could tell us about a thermo plant which would be located favourably so as to do away with freight costs, and how much would it cost to manufacture electricity with coal as compared to natural gas at the present rates in Alberta?

Mr. UREN: What are your present rates in Alberta? A good example is the Calgary power plant where they have a ten year contract for gas at about 10 cents.

They are sitting right on top of some of the largest coal deposits in Alberta; even with coal at \$1 a ton, they could not produce electricity as cheaply as they can under their present contract to use natural gas.

However, we would have to see what the going price of natural gas would be to a public utility in order to find out what the cost would be.

The CHAIRMAN: Gentlemen, it is now 5.30 and no doubt many of you have a good deal of business to attend to before six o'clock. So let us now adjourn until 8 o'clock tonight, and we shall meet again tomorrow morning at 9 o'clock.

EVENING SITTING

MONDAY, July 21, 1958,
8.00 p.m.

The CHAIRMAN: Gentlemen, I see a quorum. Before we carry on from where we left off this afternoon, Mr. Nielsen has an announcement to make regarding a visit that you might like to make to one of the laboratories that we were discussing the other day.

Mr. NIELSEN: We can visit the forest products laboratory on Wednesday. All we have to do is to consider a time. I suggest 9.30 or 10.00 o'clock in the morning. Is that suitable?

Mr. GUNDLOCK: Tomorrow morning?

Mr. NIELSEN: No, Wednesday.

Mr. BIGG: Where is that?

Mr. NIELSEN: In the vicinity of the Central Housing and Mortgage building.

Mr. GUNDLOCK: How long will it take?

Mr. NIELSEN: About one hour to go through the laboratory. Would it be agreeable to start at 9.30 a.m.?

Mr. GUNDLOCK: Where is the rendez-vous—the front door?

Mr. NIELSEN: No transportation has been planned, so I was wondering if those members with cars would see to it that the others who are interested in going are catered to, as far as transportation is concerned.

The CHAIRMAN: Would Wednesday morning be satisfactory, gentlemen, at 9.30.

Mr. NIELSEN: If you would stop by the front door we will see that transportation is provided some way or another.

The CHAIRMAN: That is fine, gentlemen.

Mr. GUNDLOCK: May anyone go?

Mr. NIELSEN: Anyone who is interested may go to the laboratory.

The CHAIRMAN: I will be asking you to excuse me a little later on. I did not know until a few moments ago that one of the items in the Fisheries Committee is up tomorrow; this item being held so that I can be present; so Mr. Nielsen will take the chair, and I will have to get ready and do some homework tonight.

Mr. ROBICHAUD: I believe there is a change in the program for tomorrow. We are having the research board tomorrow in that committee.

The CHAIRMAN: At what time is that?

Mr. ROBICHAUD: 9.30 a.m. It will take a whole day. I just found that out today.

The CHAIRMAN: Your executive assistant left word with my secretary that the item I am interested in will be up tomorrow morning.

We will now begin where we left off this afternoon, gentlemen. You were making some inquiries from Mr. Uren and other witnesses that appeared here this afternoon.

Mr. O'BRIAN: I have some figures which I might read into the record. Somebody asked me about the imports of coal into the Head of the Lakes. In 1956 there were 17,644 tons of anthracite and 1,430,061 tons of bituminous coal into the Head of the Lakes in Port Arthur, Fort William and western Ontario.

Mr. BIGG: From east or west?

Mr. O'BRIAN: Coming up the lakes from the United States.

Mr. KINDT: I was not far wrong when I said 2 million.

Mr. O'BRIAN: Nearly 1½ million for 1957, 6,334 tons of anthracite, and 925,132 tons of bituminous. Up to July 12 this year, 960 tons of anthracite and 112,925 tons of bituminous.

Mr. KINDT: That is as of now.

Mr. O'BRIAN: That is the calendar year up to July 12—the week ending July 12.

Mr. KINDT: When does it close?

Mr. O'BRIAN: That is the calendar year I gave you.

Mr. UREN: The coal year closes March 31.

Mr. ROBICHAUD: Mr. Chairman, I wish to apologize for not having been able to follow up Mr. Uren this afternoon. I was tied up at another committee meeting, but, I have read the report and I have a few questions relating to the marketing of coal.

Mr. Uren, could you tell this committee if the cold strip rolling plant which is planned by Dosco to be constructed near Montreal or, as we would rather see it, in the Sydney area, would have some influence on the future of the coal industry?

Mr. UREN: I cannot answer that. It is not within the purview of the coal board, and it has nothing to do with the present estimates.

Mr. ROBICHAUD: What about the use of coal in the thermal power plant in the maritimes? Has it had much effect on the sales of coal? Another question I would like to ask; has there been a reduction in the demand from the thermal plants in the Atlantic provinces, or maritime provinces, let us say in the last five or six months?

Mr. UREN: Definitely less.

Mr. ROBICHAUD: Was that general in Nova Scotia and New Brunswick?

Mr. UREN: More so in New Brunswick than in Nova Scotia.

Mr. ROBICHAUD: Do you know, Mr. Uren, if any plants have closed at all—any thermal plants—temporarily or permanently in New Brunswick in the last few months?

Mr. UREN: No. I have had no advice of any thermal plants closing, even temporarily—but running on very short time because of high water. They are using the Beechwood plant to its full extent instead of the use of thermal plants.

Mr. ROBICHAUD: How many plants shifted their operation from the use of coal to oil? The particular plant that I had in mind was the one at Chatham.

Mr. UREN: I will have to ask Mr. O'Brian to answer that, because he has covered all those plants; also the Chatham plant.

Mr. O'BRIAN: Our information on the consumption by those plants is from the Dominion Bureau of Statistics. It is not as yet up to date, but from our last information the Chatham plant was still on coal.

Mr. ROBICHAUD: Have you any information to the effect that an agreement has been signed with the New Brunswick Commission for the construction of a thermal plant in Saint John, N.B.?

Mr. UREN: I would have no knowledge of that. It does not come under the Dominion Coal Board. The construction of the plant is a matter for the Department of Northern Affairs and National Resources.

Mr. ROBICHAUD: Now, coal having a close relationship to the production of energy—maybe moreso in the maritime provinces than anywhere else, on account of the lack of hydro-electric power—there must be a close relationship between the production of energy and the use of coal in the maritime provinces. Would you express your personal opinion as to whether the present commission on energy should really study the situation in the maritimes?

Mr. UREN: The present commission on energy—you mean the Borden Commission?

Mr. ROBICHAUD: The Borden Commission, yes.

The CHAIRMAN: Should study what, Mr. Robichaud?

Mr. ROBICHAUD: The power projects in the maritime provinces, because coal has such a close relationship to the production of energy.

Mr. UREN: I do not know how far the terms of reference of the Borden Commission go, but I would say that that is probably one of the ideas that would come within the purview of their terms of reference. After all they take their direction from the government. I am not too sure about it.

Mr. ROBICHAUD: Well, from your personal opinion then, the coal situation in the Atlantic provinces is so closely related to power that the Borden Commission should really study it?

The CHAIRMAN: I do not think, Mr. Robichaud, that that is a matter for this witness. After all that commission is still in session and I do not think you should ask the chairman of the coal board to express an opinion of that sort.

Mr. ROBICHAUD: If my next question is not in order, Mr. Chairman, I will abide by your ruling.

Could you tell us what the future prospects are in the marketing of coal in the Cape Breton mines? I understand that there is a surplus of about 1,400,000 tons and that at the end of the present year that surplus will still exist. Has the coal board any information on the future for this industry, especially relating to the Cape Breton area?

Mr. UREN: Well, the over production, or the excess stocks of 1,400,000 tons was brought about by their continuing to operate during the fall and winter months when normally under general trade conditions, and knowing what the market looked like, they probably should have kept their banks to their normal stocks which would be somewhere in the neighbourhood of 500,000 to 600,000 tons. As far as the future is concerned—and you are asking me now for my personal opinion, and in the opinion of perhaps a great number of the coal board—it is that at their present rate of production and their idle time of only five weeks, plus their holiday time of another two weeks, I would say that the bank will have in the neighbourhood of somewhere between one-and-a-quarter and 1,400,000 tons at that time. Because, while I am not an economist, I am using my own judgment when I say I believe we will not be out of this trough of the recession by the end of this year or the middle of next year. Therefore they will still have coal in their banks to about the extent they have at the present time.

Mr. ROBICHAUD: Do you not think that there should be more emphasis placed on Research in the possibility of using coal by the different governments—whether federal or provincial—that more of an attempt should be made for additional research in the use of coal?

Mr. UREN: Well my personal opinion is at the present time that the government is doing a pretty good job in research. What they are not doing themselves they have a good look-see into what they are doing elsewhere. And as far as the results are concerned in all the research—and I will refer to Mr. Ignatieff, who is Director of the Fuels Division—I have noted that millions of dollars have been spent in Europe and more particularly in the United States in either pure research, or for the benefit of the various coal operators and their results up to date have been very mediocre. I do not think that Canada or the funds of Canada could possibly afford the amount of money that they are spending down there, which I say anyone in Canada, in the government, who is interested in research, has an opportunity to go down and have a look at.

Mr. ROBICHAUD: Thank you.

Mr. WOOLLIAMS: I would like to follow up with a question. I wonder if Mr. O'Brian, during the adjournment period, obtained the figures of the amount of domestic fuel coal that is used in northwest Ontario at the present time.

Mr. O'BRIAN: These are the two other tables I was going to place on the record. I think Dr. Kindt was asking about them. The first is, the total consumption of coal in northwest Ontario.

Mr. WOOLLIAMS: That is at the present time.

Mr. O'BRIAN: This is for the fiscal year ending March 31, 1958. The retail sales of Canadian coal—that is for household use—was 16,518 tons. This I may say is the western area—that is from the Head of the Lakes west to the Manitoba border. United States anthracite for domestic use 2,811; United States bituminous coal, 87,224, a total for domestic or house heating use of 106,881 tons.

For industrial use, 328,584 tons of Canadian coal, 1,563 tons of United States anthracite, 441,039 tons of American bituminous coal; a total of 771,186. For railway use, 200,000 tons of Canadian coal, 195,000 tons of United States bituminous coal and no United States anthracite.

Mr. WOOLLIAMS: What type of coal is that?

Mr. O'BRIAN: Bituminous coal. 195,000 tons of United States bituminous coal in railway use, or 395,000 tons used by the railways. I should say there that the railway use includes a certain proportion in Winnipeg—towards Winnipeg—because our statistics for railway use are not on quite the same basis as the other. The supply of domestic coal—and I mean purely for house heating—to Ontario is: Drumheller to the district east of the head of the lakes, 9,700 tons, to the district west of the head of the lakes, 5,600 tons, for use in railway station heating—which we accept as domestic—in that district is an additional 1,700, making a total of 17,000 tons.

In respect of other sub-bituminous coals in this same period, the figures are as follows: east of the head of the lakes, 1,400. None west of the head of the lakes and none for railway station use. I would explain that by pointing out that until the order in council was changed this spring the mines producing strip coal in Alberta did not participate in subvention. Otherwise the figure might be different. The bituminous "C" coal, that is the coal in the Saunders, Foothills or Lethbridge area, east of the head of the lakes is 22,500, west of the head of the lakes 2,400, or a total of 26,900. Bituminous coal, including Canmore and Canmore briquettes, and a certain amount of western

Canadian bituminous coal, being mostly the Canmore type: east of the head of the lakes, 27,100, west of the head of the lakes 3,500, for railway station use 500, or a total of 31,100 tons.

I have the totals here. The total for the east of the head of the lakes is 60,700 tons, west of the head of the lakes 11,500, for railway station use west of the head of the lakes, 2,200, or a total of 76,400. These figures, Mr. Chairman are the subvention figures. It is possible that some other coal may have moved, although it is unlikely, without subvention. Certainly some Saskatchewan coal moved into that area and no subvention has been available on Saskatchewan coal in that area up until March 31. Therefore there is probably some Saskatchewan domestic, but it would be quite small.

Mr. WOOLLIAMS: What is the consumption in Ontario of sub-bituminous coal, or domestic fuel coal, at the present time? Some of this domestic coal, I appreciate, is other types, like Canmore, covering a certain type of anthracite; but I am thinking for a few minutes in narrowing it down to the demand in Ontario at the present time, in tonnage, more or less in sub-bituminous coal.

Mr. O'BRIAN: Drumheller 9,700 tons out of a total of 11,100.

Mr. WOOLLIAMS: That is the total amount being consumed in Ontario?

Mr. UREN: There is no other bituminous coal going in.

Mr. KINDT: Mr. Chairman, we have a number of witnesses here from western Canada and I would suggest that we call the witness from Calgary, Mr. Boyd.

The CHAIRMAN: Is that agreeable to the members of the committee?

Mr. WOOLLIAMS: May I ask one question first. When we are dealing with costs, have you ever worked out a situation with the railways, on freight, where you have had a whole trainload of coal going to any particular point?

Mr. UREN: As the gentlemen from Drumheller know, for a period of years they have endeavoured to get the railways to carry a trainload and they were never successful.

Mr. WOOLLIAMS: I suppose it was obvious that if you could it would cut the cost of bringing coal into any particular area.

Mr. UREN: That is what they do in the United States but the railways here feel differently. Mr. O'Brian tells me he thinks it is mentioned in the Royal Commission report. There is a totally different set-up here in respect of trainloads as compared to the United States. The distances over there are short and the turn-around for the empty cars is correspondingly short. Here the haul is approximately 2,200 miles and the turn-around is totally different.

Mr. KINDT: Is the railway equipment of the Canadian Pacific Railway capable of hauling, say, an additional one million tons from the Crows Nest pass area to points in Ontario?

Mr. UREN: It may be today, but it never has been in the past.

Mr. KINDT: How much has it been, in your estimation, able to carry in the past?

Mr. UREN: I would not like to put a fixed figure on that; but there are days and days when business was really good, for instance such as the time when the sugar beet industry was flourishing out there, cars were at a high premium.

Mr. KINDT: What I am trying to get at is, if a policy had been adopted and it had been decided to ship two millions tons to Ontario there would not have been the rolling stock on the railways to handle it?

Mr. UREN: Neither the rolling stock nor the power to haul it under normal conditions.

Mr. KINDT: How much could be shipped?

Mr. UREN: That is a question which I do not think anyone could answer, even the railways.

Mr. KINDT: You could not even make an estimate?

Mr. UREN: No. I would not hazard an estimate. It would not be close.

Mr. KINDT: How could a policy be set if it would not be close?

Mr. UREN: If the government accepts the policy then you would have to go and look for the cars or perhaps gather them from other points, or build your cars. With the locomotives which they are putting out of service, they do not have enough diesels to handle it and it would take them, I would say, a few years to even get diesels manufactured under normal conditions.

Mr. KINDT: You would say there is no use talking of increasing the shipments from Alberta to the East?

Mr. UREN: Not two million tons.

Mr. KINDT: In the two million-ton range or even as high as half a million tons?

Mr. UREN: Certainly. Looking back to 1951, we came pretty close to half a million tons, if we did not exceed it.

Mr. WOOLLIAMS: This may not be a very fair question, but do I take it that there has been either no approach taken to a project of this nature or that any approach that has been made by the board has been met with some opposition?

Mr. UREN: I would say there has not been any concerted approach because we never visualized the possibility of the western mines, with the transportation and long haul, and the acceptance of the consumers in central Ontario, being able to replace with Canadian coal two million tons we get from the United States.

Mr. WOOLLIAMS: There really has been no effort made in that respect to cut the cost in order to be able to hit that mark.

Mr. UREN: What do you mean by cut the cost?

Mr. WOOLLIAMS: That if you could get a trainload, or half a trainload of coal moving in one shipment that you would be able to cut the price of coal.

Mr. UREN: The railroads do not subscribe to that.

Mr. WOOLLIAMS: Do you feel, in your opinion, that you could cut the price of coal if you were able to do it in that fashion?

Mr. UREN: We have had some experts up here from the United States.

Mr. WOOLLIAMS: They do it in the United States?

Mr. UREN: I have explained that. I thought I was quite clear about it. The hauls in the United States are of very short distances; your turn-around is very short. Here the distances are very long and the turn-around naturally is very long.

Mr. WOOLLIAMS: Do I take it then that the railways never have been approached on a project of this nature because of the long distance involved?

Mr. UREN: The railways have been approached; not by the board, but they have been approached by Jesse Gouge from Drumheller who is now deceased—he tried it for years.

The CHAIRMAN: Is it the wish of the committee to examine any witnesses who are here?

Mr. WOOLLIAMS: There is one other thing first. Who planned the labour distribution of the men during the war? What I am thinking about is this: there were men taken from the other parts of Canada to Canmore, Drumheller and Crowsnest pass. I am wondering what body in the government planned

the allocation of the manpower force during the war as far as the bringing of men from Kirkland Lake and various other places to the mines in the Drumheller area and other places is concerned.

Mr. O'BRIAN: As far as bringing the men to those places is concerned, there was, because of the shortage of manpower which became acute, a system of inducement to the miners to return to their own mines. The Department of Labour obtained permission from the Department of National Defence to bring back miners who undertook to work in the coal mines. They were brought back by the Department of National Defence and put in the mines.

Mr. WOOLLIAMS: Did the government sponsor that at that time? Did they pay their fares?

Mr. O'BRIAN: That was a Department of Labour matter. I do not believe they did; but in bringing back soldiers I assume they did. There may have been some other financial advantage. I merely know of the effect on the labour situation in the coal mining end of it.

Mr. ROBICHAUD: What is the approximate distance from the main western coal mines to central Ontario? Did you say 2,200 miles?

Mr. O'BRIAN: I do not think it is that. It is around 2,000.

Mr. ROBICHAUD: What would be the distance from Sydney to the same area in Ontario?

Mr. O'BRIAN: Approximately the same.

Mr. ROBICHAUD: What is the difference in the quality of coal, say in the B.T.U.'s of Sydney coal and the coal from the west?

Mr. UREN: Mr. O'Brian spoke about an hour and a half on that this afternoon.

Mr. WOOLLIAMS: That was covered this afternoon.

Mr. ROBICHAUD: I must apologize because I could not be in two places at the same time.

The VICE-CHAIRMAN: Would it be satisfactory if you read the proceedings in order to obtain your answer?

Mr. ROBICHAUD: Yes.

Mr. KINDT: May we get on with the evidence from the witnesses?

The VICE-CHAIRMAN: Is it agreeable that we call Mr. Boyd next? Agreed.

The VICE-CHAIRMAN: Do you wish me also to call Mr. Ure at the same time?

Mr. William Ure is also here if the committee wish to direct any questions to him. I understand he was not summoned but he is making himself available to the committee.

Mr. WOOLLIAMS: Mr. Chairman, I am very happy to introduce to the committee Mr. Edward Boyd, President of District 18, the United Mineworkers of America, and his secretary, Mr. Ure.

Mr. Boyd, what is your position at the present time with the union?

Mr. EDWARD BOYD (*President, District 18, United Mineworkers of America*): President of District 18, United Mineworkers of America.

Mr. WOOLLIAMS: What does District 18 cover?

Mr. BOYD: The coal mining fields in the provinces of Alberta, British Columbia and Saskatchewan; in other words, the organized mines in these three provinces.

Mr. WOOLLIAMS: Approximately how many men are working underground at the present time in the mines, either part-time or otherwise, in Alberta.

Mr. BOYD: At the present time, as far as the employees of our organization are concerned, approximately 2,500.

Mr. WOOLLIAMS: How many other men are living at Drumheller and employed either part-time or wholly in the Drumheller area?

Mr. BOYD: Do you want a breakdown?

Mr. WOOLLIAMS: Yes.

Mr. BOYD: The breakdown would be, as far as Drumheller's section of the industry is concerned—which includes East Coulee—approximately some 850 men employed in what we term the Drumheller Valley which includes East Coulee.

Mr. WOOLLIAMS: What is their rate per hour? Would you give us a breakdown of the classifications of work?

Mr. BOYD: There are numerous classifications of labour.

Mr. WOOLLIAMS: Would you give us a brief breakdown?

Mr. BOYD: What we usually do is consider the top one and the bottom one. The others are classifications coming within that scope. The wages of a miner working on what we term company work at the moment is in the vicinity of \$14.15 a day, in that area.

Mr. WOOLLIAMS: How many hours does a man work?

Mr. BOYD: Eight hours a day.

Mr. WOOLLIAMS: What is the top wage?

Mr. BOYD: I am speaking about the top wage, for instance in Drumheller for a company mine, approximately \$14.50 or \$14.20 a day.

Mr. WOOLLIAMS: How many days a week?

Mr. BOYD: At the moment at Drumheller they are working intermittently, some weeks only three days and some weeks less than that.

Mr. WOOLLIAMS: Could you tell me at the present time how many mines there are operating in the Drumheller region?

Mr. BOYD: Yes; there are three mines operating in the Drumheller Valley, and in the East Coulee area there are also three mines.

Mr. WOOLLIAMS: What are their names?

Mr. BOYD: In the Drumheller Valley the names of the mines are: the Red Deer Valley Mining Company; the Midland Coalmining Company and the Saskatchewan Cooperative Coal.

In the East Coulee area the names of the three mines are: the Money Collieries Limited; the Century Coals Limited; and the Amalgamated Coals.

Mr. WOOLLIAMS: What about the Atlas mine?

Mr. BOYD: That is the Century Coal Limited; they call it the Atlas mine, but it actually is the Century Coals Limited. It is one and the same thing.

Mr. WOOLLIAMS: How many mines are today without any work at all in the Drumheller region?

Mr. BOYD: In the coal mining industry, when unemployment exists through layoffs of some three weeks duration or in the season when employment finishes, having regard to the fact that the youth in the industry to some extent move out, there are probably from some 350 to 400 men left unemployed in that area.

Mr. WOOLLIAMS: Do you know how many men would be out for unemployment insurance benefits and applying at the present time in the Drumheller district?

Mr. BOYD: About ten days ago my information was—and I obtained it just before I left—that there were 20 men who have completed unemployment insurance benefits and now are forced into the position of applying for relief.

In addition thereto, I mention that it is anticipated that from week to week or from month to month there will be individuals who will be forced to apply to the unemployment insurance commission for benefits for further unemployment insurance benefits by the creation of another or further benefit year. There are 20 at the moment and this number will become increased from week to week or month to month, but I do not know by how much.

Mr. WOOLLIAMS: How long have you held the position that you now hold?

Mr. BOYD: At the present time, with the district organization, I have held this position only for a few months. But prior to that, I was secretary-treasurer of the organization for five years.

Mr. WOOLLIAMS: To your knowledge, what is the biggest labour force that the Drumheller area has ever had?

Mr. BOYD: You are talking about men working in the area?

Mr. WOOLLIAMS: Yes.

Mr. BOYD: In the early 1940's and during the war I would say in Drumheller, which includes East Coulee, which is now closed down, there were approximately from 1900 to 2000 men totally employed.

Mr. WOOLLIAMS: And you say at the present time there is a labour force of about 850. I assume that the others have moved elsewhere?

Mr. BOYD: That is right, and they have found their level as far as employment is concerned. The 850 which I mentioned as now in the industry are only working intermittently from one, two, three to eight weeks.

Mr. WOOLLIAMS: What is the reason? If there are men at the present time who are living in the area under similar conditions of only part time employment, and bearing in mind the amount of unemployment insurance, why do they not make an endeavour to get away and move elsewhere?

Mr. BOYD: I have already mentioned that, and I tried to establish the fact in this presentation that the young men will leave the industry, and that the men remaining now are not in a position to leave the industry having regard to their age. In other words, they have been in that industry all their lives. One could say, having regard to the fact that they are 50, 55, 56 to 60 years of age, there is no employment in any other industry for them.

Mr. WOOLLIAMS: What about the strip mines? I believe you have something to say about the number of strip men in the labour force in reference to men employed underground in the coal mining industry?

Mr. BOYD: As far as strip mines are concerned, there are strip mines of two classifications in the province of Alberta; one classification is those strip mines which are operated in conjunction with underground mines and in which so far as our organization is concerned the employees are members thereof.

On the other hand we have types of strip mines which are totally strip, and we have not as yet been able to organize these men. I have reference to Wabemum, Battle River, and some of the areas in the south.

Mr. WOOLLIAMS: Do the men who are employed in the strip mines contribute to the pensions of miners, and can you elaborate?

Mr. BOYD: Only those who are working in the strip mines which are operated in conjunction with underground mines.

Mr. WOOLLIAMS: Therefore, if they are not working in conjunction with underground mines, there is no contribution as far as pensions are concerned?

Mr. BOYD: If they have no contract with these companies then there is no contribution to the pension.

Mr. WOOLLIAMS: What about the Canmore situation? How many men are employed there?

Mr. BOYD: At the moment, to the best of my knowledge and belief, and I would be within 10 at the present time, there are not more than 145 men working at Canmore.

The VICE-CHAIRMAN: Mr. Woolliams: we have a witness here from Canmore, Mr. Sherwood. He will be available for questioning.

Mr. WOOLLIAMS: I know; that is right. And what about the Crowsnest Pass area?

Mr. BOYD: As far as the Crowsnest Pass is concerned, it is one of the areas we are concerned about, and it may be considered as being very depressed.

The Crowsnest Pass area, so far as the United Mineworkers are concerned in the matter of administration, is cut into two sub-districts.

One of those sub-districts of course is on the British Columbia side of the Crowsnest Pass while the other one is on the Alberta side. At the moment on the Alberta side of the Crowsnest Pass there would not be more than approximately 250 men employed. That, however, involves men operating at Coleman, Bellevue, and the Blairmore mine which closed down last year.

Mr. WOOLLIAMS: As head of the union, I have two questions and then I am finished. That is why I dealt with the general picture. I know what the chairman was referring to; if we have brought witnesses from Canmore, he feels that they would have more knowledge of the particular territory involved.

The whole coal mining industry at the present time is pretty well depressed; there is unemployment and men have left it.

Mr. BOYD: That is right.

Mr. WOOLLIAMS: In large numbers.

Mr. BOYD: That is right.

Mr. WOOLLIAMS: What is your solution, if you have one? What is your suggestion in the way of a solution in reference to the Drumheller Valley and Canmore and Crowsnest Pass? What is your solution?

Mr. BOYD: In other words, what is my solution to the general picture?

Mr. WOOLLIAMS: Yes, and when I ask you that question, I ask you as head of the union, District 18.

Mr. BOYD: Thank you. We have discussed this in our own councils quite recently and we have discussed this matter since the end of the war.

I would not say it was annually, but consistently we have made representations, from our district office, to the departments of government concerned—that is the Department of Mines and Technical Surveys, as far as our membership is concerned.

I can assure you that it was a pretty tough job to have them understand statistics such as we have listened to today. I am talking of the Atlas mine. It is hard to get them to understand statistics as to employment in this particular section.

As to how it should be worked be it this way or another way—the only thing they are interested in is getting work: how can they get work. After all, we are coal miners and we have lived in that industry and worked in it all our lives.

Up to the moment we have made representations to the Minister of Mines and Technical Surveys and of course to representatives of the coal board who are always there in connection with it and always present.

Some people in Canada generally who have understood the problem think it may be a psychological one. They can never understand in western Canada when talking about miners, the men who are digging the coal and shovelling it, as to why they should be employed for only one or two days of a week; or as to why they should be laid off in March and then not able to get a job until November of that year, when some 20 million tons of coal are imported into Canada each year, more or less.

Mr. WOOLLIAMS: You heard the evidence given this afternoon as to the types of coal which come in from the United States, that it is bituminous coal, while the coal produced at Drumheller is sub-bituminous coal.

Mr. BOYD: That is right.

Mr. WOOLLIAMS: Go on please.

Mr. BOYD: During the years the coal miners who are digging coal cannot understand why such a situation should be allowed to exist when employment in the coal mining field is absent and when so much coal is being imported into Canada from the United States.

Up to the moment we have consistently made representations to the department of government concerned and to the Dominion Coal Board, with the suggestion that there should and there could be some way in which it could be done, probably not knowing all the facts, but submitting that it could be done by placing an embargo on only two million out of the 20 million tons of coal imported from the United States.

If the miners of western Canada were allowed to produce somewhere around two million tons on which the embargo is placed, then the miners would be happy and they would be employed.

It has been suggested on the other hand that if it were not possible to do it that way, surely a tithe could be placed by the government on the coal to help to make United States coal competitive with coal from western Canada.

It may have been an imperfect idea, made without knowing all the facts. I would admit that to a degree; but still these are the thoughts of the coal men who are working and digging coal and shovelling it in western Canada.

They cannot, under any circumstances, see why there is an industry in western Canada which is depressed and which is really sick at the moment, and which cannot guarantee these men a living in an industry, when they have to wait around to see if there is a light at the top of the tippie in order to find out if they may work the next day or not.

It has gone on now for so long that their unemployment insurance benefits would do anything to relieve the situation with which they find themselves have become depleted. They would certainly appreciate it if the government faced.

Mr. WOOLLIAMS: You heard the evidence given this afternoon that the coal from Drumheller was sub-bituminous coal and that it would be very expensive to use in various circumstances and in various negotiations to move it down to eastern Canada.

Would the miners there be willing to move into any other district which is producing bituminous coal, in order to fit in with your formula?

Mr. BOYD: In which regard?

Mr. WOOLLIAMS: In some areas they are producing bituminous coal and in other areas they are producing sub-bituminous coal.

Mr. BOYD: We have men at Drumheller who, when they lose their jobs there, have for some years considered coal mining as a seasonal occupation, and their first move was to go into the bituminous coal field to seek employment; and vice versa, depending on the vagaries of the industry.

Mr. WOOLLIAMS: What is the average family receiving at Drumheller in the way of unemployment insurance, which is out of work at any of those mines today?

Mr. BOYD: According to the Unemployment Insurance Act the maximum amount of benefits to the best of my knowledge is \$30 per week.

Mr. WOOLLIAMS: And what is the lowest amount?

Mr. BOYD: We know of instances now where a married man with his dependants is only collecting somewhere in the vicinity of \$12 per week.

Mr. WOOLLIAMS: To come back to your unemployment insurance matters, has your union made any recommendations in connection with the Unemployment Insurance Act?

Mr. BOYD: Absolutely. We made representations to the Hon. Mr. Starr, Minister of Labour in the fall of last year.

Mr. WOOLLIAMS: What were your recommendations?

Mr. BOYD: One of our basic recommendations was that the Unemployment Insurance Act as at present constituted does not fit seasonal employment in the coal mining industry and that, because of our membership, unemployment insurance payments should go back to those on a daily basis instead of the present weekly basis.

Mr. WOOLLIAMS: And that was changed?

Mr. BOYD: Oh, some two years ago, I believe, it was changed.

Mr. WOOLLIAMS: So actually your problem is, briefly this; and please correct me if I am wrong: that seasonal employment with you is summer employment, whereas with most of the labour force it is the reverse?

Mr. BOYD: That is exactly so.

Mr. WOOLLIAMS: Thank you very much.

Mr. BIGG: Has it ever been suggested that the men alternate; and that you employ a man steadily, let us say, five days a week for three months and then allow him to work at something else instead of keeping him on just partly employed?

Mr. BOYD: We have never had any suggestion along that line, although I must say that for the purpose of participating in unemployment insurance it has been suggested; but on the other hand, if it were to be done that way, we might get into difficulty with the operations of the Unemployment Insurance Commission.

Mr. BIGG: I mean, if it were possible to be worked out, could it not be done between you and the men?

Mr. BOYD: We have not been able to get the coal operators to agree with the general idea, and under the Unemployment Insurance Act, as it is presently constituted—in other words, the situation is this: if a man went around waiting for orders coming in—if there are no orders coming in, then there is no work.

Mr. BIGG: Suppose there was a shrinking in the economy rather than a disaster; it would be better for a man to know that he had three months of solid work, following which he might leave and work at something else for three months, that is, if work were available, and then return to his former steady employment?

Mr. BOYD: I might say that that question has never been raised.

Mr. STEARNS: To get back to the remark which you made some time ago: supposing there was an embargo placed on United States coal coming into Ontario, and supposing they could not buy American coal. Do you think they would use your coal, or do you think they would turn more and more to the use of oil?

Mr. BOYD: During the period of the war they were tickled to death to buy our coal and use it.

Mr. STEARNS: I am talking about today.

Mr. BOYD: That is a different thing. They might not want to do so. But with a little bit of persuasion and a little bit of education probably they could. That is our opinion.

Mr. WOOLLIAMS: Has the competition of gas and oil, not only in western Canada but in other parts of Canada, developed competition with you?

Mr. BOYD: As far as coal miners are concerned it certainly has.

Mr. KINDT: We have a witness here from the Crowsnest Pass, Mr. Aboussafy. I wonder if we should not hear from the specialized areas first and then have the general questions. Mr. Boyd would still be here.

Mr. BIGG: Do you feel that you have had cooperation from the government, the department, and from members of parliament themselves? Do you feel this is lacking in consideration of your problem, and if so, where? Please be quite frank.

Mr. BOYD: I have been connected with this organization since 1941—seventeen years. In the process of time a royal commission was set up; one of our men was on that commission. When the present board was set up, that was one of the outcomes of that commission.

The Vice-CHAIRMAN: On my right is Mr. Frank Aboussafy, president of the Crowsnest Pass Industrial Planning Board.

Mr. KINDT: I should like to introduce Mr. Frank Aboussafy of the Crowsnest Pass Industrial Planning Board. He comes to us representing both the area on the British Columbia side and the area on the Alberta side. He is very well qualified being president of that organization, and I can assure you, Mr. Chairman, we are happy to have him here today. Since Mr. Aboussafy has a prepared statement, which I am sure he has worked out very, very well, he would like, to save the time of the committee and to cover his points quickly, to read his manuscript and then he will answer any questions which the members may wish to ask.

The Vice-CHAIRMAN: Is it agreed that Mr. Aboussafy will read his statement, gentlemen?

Mr. Frank ABOUSSAFY (*President of the Crowsnest Pass Industrial Planning Board*): Mr. Chairman and gentlemen of the committee, I am indeed very grateful that you have asked me to appear here before you to relate the state of conditions in the Crowsnest pass area.

Here I might say that possibly my remarks will not be so much technical as the fact that they will show the conditions and the possibilities from what could be done about them by way of relief.

The very existence of these towns is threatened by the change in economic conditions, and may I say right now, gentlemen, that these towns and cities which I represent, are not just mining camps. They are towns with many nice buildings and fine homes, as a matter of fact, the federal government two years ago saw fit to spend almost \$300,000 on a building in one of them.

I am just stating this in order that those here who are not acquainted with the Crowsnest Pass may visualize more clearly the message I am trying to bring. If these communities are to continue there must be some assistance given to the coal industry, which so far has supported these people, or bring additional industries to supplement the revenue from the fast declining coal markets.

Because of the coal industry, there exists in all these communities the municipal machinery and social services necessary to present day living and industry. The extent of coal mining operations is now a very slim shadow of its

former size, which naturally has adversely affected the economy of this general area, in line with that in other coal producing centres throughout the dominion and Alberta in particular.

It is not necessary for me to relate at great lengths figures supporting this contention. You all know about it or else it would not have been necessary for us to be here, but I am going to give you a few of these figures just sufficient to make my point clear.

The following figures are for Alberta. I will use only post-war years:

In 1949	8,616,983 tons were produced
In 1957	3,155,354 tons were produced
1958	sliding down badly, and will do well to reach half of 1957 in the Crowsnest Pass.

That is quite a drastic reduction for our area.

In 1952 the Alberta side of the pass had in the neighborhood of 2400 men employed in the coal industry, today there is about 240.

Many of these people, mostly those who were of age and able to adopt themselves to other work have moved out. Many of them stayed because of low cost housing and because their age makes them unacceptable at other jobs. You can also rent a semi-modern home for as low as \$15 per month, and go as high as \$40 per month—here I think you pay 5 times as much.

We have about 400 persons living in the area and working out at odd jobs now such as the Spring Hill sulphur plant construction and other places, Banff, Waterton Lakes, Trans-Canada highway construction and so on, and now at the high employment season of summer, we have approximately 750 males and 46 females looking for work, with 40 vacancies for males and two for females listed.

In Coleman alone—that is the town I come from—I use this because I know it so well—coal payrolls have been dropped from \$3,615,216 in 1952 to \$959,247 in 1957 and certainly will be much lower in 1958.

To show the desperate condition now existing, I would like to quote a paragraph from a news item which appeared in the Calgary Herald last Wednesday and datelined Blairmore, July 16, that is last week. This is in the Crowsnest Pass.

News that money had been appropriated for employment of 30 to 40 men on forestry work spread like wildfire, and local forestry and employment officers were flooded with unemployed seeking work on the proposed project. Only a few were hired.

That is the end of the quotation.

Later I learned that they hired 33 from the nearly 500 applicants.

When stating some of the facts before the board on energy headed by Mr. Borden, he said that conditions such as this should not exist in a country like ours. I heartily agree with him and I am sure you do too.

The reason for this decline is fairly obvious, but for matter of record I would like to put this down.

I am sure we all agree with him but they do exist and it is a depressing feeling.

First, and this applies mainly to our area, the railroads changing from coal to diesel.

I noticed here that you heard a few minutes ago that 195,000 tons were used for the railroad in northwestern Ontario. If that is not a bad condition now, here the railroads are making money out of the coal yet they import coal and let the Canadian coal mines lay idle. I think there should be some guardian and that guardian has to operate from points where there is authority, that is the government.

Secondly, is the competition element in gas and oil for homes and industry.

You may ask under the circumstances what can the government do about these things. The railroads and others cannot be forced to use coal if they feel other fuels are more economical and easier to use.

Of course, that is not what I am going to suggest, but if the federal government feels that coal is a national asset—and I have not met one yet that did not acknowledge the fact that coal is a natural asset—and wish to do something for it to survive, then, as other industries, it must receive governmental protection and guidance. I am going to suggest a few methods which are not drastically radical but the application of them can save the coal industry.

Now, if the United States set the duty at \$1.25 a ton in 1866 the shoe must have been on the other foot, the Nova Scotia coal mines must have been in a position to produce coal and send it to the United States more cheaply than their mines could produce it. So they set this \$1.25, which is approximately more than the cost of a ton, in order to protect their industry and we can see what they have done to their industry today. It is the greatest giant the world has ever known.

I am not saying this, gentlemen, to ask you to put a high duty on coal. I think there are other ways and, besides, possibly a high duty on coal creates a certain amount of hardship to Quebec and Ontario people. I am trying to impress upon you the necessity of protecting our own industry; that is the Canadian coal industry.

For instance, across the line from us there is an act which is called "Buy America Act" or such, and by referring to this act I am not going to suggest that you should keep all foreign coal out, but there is coal today coming into areas which should be supplied by our own coal mines. There is coal used in government buildings which certainly should use coal mined by Canadian labour.

There are almost 2,000,000 tons used in northwestern Ontario which some of our coal mines can satisfactorily supply with little assistance. I have no argument with it. If we did not do it we would not have an industry, so I am in favour of it, because otherwise this country of ours could not grow. We have to have industry for it to grow and one of these industries is the coal mining industry. There are 150,000 tons coming into Winnipeg from the United States which also can be reserved for our western coal.

Just these items alone can support a Canadian coal industry much better than the one we have now and employ all these people. We pay high protection on many items in order that we may have an industry in Canada. Our automobiles, machinery and textiles are protected by a tariff, which is a form of subsidization no matter what you call it.

Living beside such a great giant of industry as our good neighbour, the United States, forces us to use this method. Why could it not be applied, to some extent, to coal? The coal industry supports more men per dollar than many of the others.

The British Columbia government has already enacted that any government orders for coal must be purchased from British Columbia mines, even at high prices. I do not think I quite agree with this kind of legislation within our borders. Something like that is more needed for the dominion, where Canadian coal can reasonably reach.

Gas is a very handy fuel for household use and some mining towns are now using gas for heating their homes but you can question this for industries because some day they may have to revert to coal. Why cannot they be encouraged to use coal now, in order that the coal industry may survive for them to use when they need it.

Freight rates can also be adjusted to make it easier for transportation of coal. Investigation should be instituted with regards to equalization into the freight rate.

A question relating to the power plant at Wabamun came up this afternoon. They are now paying 10 cents for gas. I would like to ask one of my colleagues to answer why they are paying this 10 cents and why they are using this gas. Would you permit that, Mr. Chairman? Perhaps Mr. Ure could explain this.

Mr. W. UREN (*Secretary Treasurer of District 18, United Mineworkers of America*): In regard to Wabamun, Alberta, there are large coal fields down there. It is a low quality coal. The Calgary power commission a few years ago went into that area and they decided to set up a power plant and use gas or coal. In the meantime some of the members, perhaps of this committee, said "We have some oil, we have some gas", and south of Wabamun there are large gas fields. They drilled eight or nine wells and they could not drill anymore wells until they got rid of the gas. While there was expert evidence to the effect that they could produce coal more cheaply than the regular price of gas in Alberta, the company which owned the gas wells along with the Calgary power, gave them a cheap rate so that they could use gas, not for the purpose of making a cheap operation on the power plant but for the purpose of drilling more wells. We found out that in that situation they are giving away cheap gas to the large consumers and trying to boost the price to the ordinary every day man and woman buying gas. That is how the Wabamun field is using gas instead of coal.

Mr. ABOUSSAFY: Thank you, Mr. Ure. I am just stating this case. We have nothing against the Calgary power—not that the gas companies should allow them to use gas cheaply. That is their business. This is a free enterprise country. But I just want to state that wherever gas has been able to beat coal as far as price is concerned, there always has been a reason for it. In other words, some of these days these industries will have to revert to coal because the price of gas is not due to stay down if they keep on selling it to industries promiscuously.

Mr. WOOLLIAMS: In other words it is a dumping price.

Mr. ABOUSSAFY: At the present time you see we have too much gas the same as we have too much coal. In Alberta we are a very wealthy province, and we are proud of it but we must find markets for whatever we have. One of them is coal.

Now, about coal export, here we must commend this government for its encouragement to the export of coal to Japan. Of course, coal export is highly selective, and therefore, will not affect all mines, but where this business is possible a little easing of regulations on the subsidy may be an encouragement. Cutting the price sometimes brings more business, and where a mine is able to do that, they shouldn't have to make it up with the loss of subsidy. The same subsidy should be allowed on better than competitive price as well, thus giving them an incentive.

Mr. UREN: Do you want to go into the price cutting business?

Mr. ABOUSSAFY: If we can undersell the United States.

Mr. UREN: That is not the United States; it is competition between companies in your own area.

The VICE-CHAIRMAN: Will you proceed with your statement, Mr. Aboussafy?

Mr. ABOUSSAFY: I would like to mention something about loading docks. For several years now, the necessity of bulk loading docks at Vancouver has been very apparent to assist pricewise in the export of coal.

Loading this export coal is presently being done at Portland or Seattle, at an additional cost of around \$1.30 per ton.

That is a fairly close figure, because the people who gave me the figure shipped coal themselves to Japan.

Bulk loading facilities at Vancouver would mean saving this cost to government in form of subvention and also employing Canadian labour as well as making Canadian coal more competitive.

This has been projected for so many years. Every year we say we will have loading docks next year, but the next year somehow the people have not been able to finance the project and they have been putting it off year after year. In works like that there is no reason why, possibly, the government could not encourage these private investors.

Mr. PAYNE: May I ask the witness a question? I wish, first of all, to assure the witness that perhaps no one is more interested in such an undertaking going forward than I am myself. The possibilities of sending a bit of equipment port-side depends entirely on the economics of the picture. It would seem, from evidence received earlier today, that Mr. John L. Lewis who through arrangements established in the United States has now certainly largely precluded the possibility of Canada entering the export market in any large way through the establishment of bulk loading facilities in Vancouver because of an arrangement to move coal at the rate of \$7.50 a ton. I understand that these mine-workers are all members of the same union. Is it, then, not a matter where there should be discussions within the union to see that undertakings are not entered into on the American side which precludes an economic operation of Canadian exports from our own export ports.

Mr. ABOUSSAFY: For one thing I am glad that you brought this up. It shows just how much the United States goes out of its way to keep this industry moving. They know it is important. However, since this is the first time I heard this today, I cannot enlarge on it and I could not give you any enlightenment. But, I can tell you that I have had men who have just come over from Japan call on me within the last two or three months. There have been several samples shipped from the coal mine area and they are all satisfactory I have been told by a Japanese who just came over from Japan on his first trip to Canada. His English was excellent and there was no question of misunderstanding. He told me they were very much interested in this Canadian coal, and that his steel company, as soon as they were able, were willing to test a 50,000-ton order. That is from the Japanese. Whether or not he is telling me the truth will be up to him but he did not look like a man who would tell a lie. He was a very well educated person and he sent me a Japanese holiday card to keep in touch and his inquiries were applicable to the personnel in the mines—what they were able to produce and whether or not they were reliable.

The Vice-CHAIRMAN: I wonder, Mr. Payne, if Mr. Aboussafy might continue with his statement and I will ask Mr. Boyd to answer the question which you raised, as Mr. Boyd has indicated a willingness to do so.

Mr. ABOUSSAFY: Possibly this committee does not have much to do with new industry, but I am going to bring this appeal before this committee now.

About new industry it is essential that industrial development be commenced immediately or the entire Crowsnest Pass will be a ghost area. Up to the present, unemployment insurance has partially filled the unemployment problem, but this no longer exists for the majority of the unemployed, as even their seasonal benefits have expired. It should be noted that the seasonal benefit and their extensions in this area meant almost nothing to the recipients, as the majority were on miners welfare fund and D.V.A. benefits and therefore with their means tests, the supplemental benefits were merely sub-

sidizing these pension schemes and the benefit claimant did not receive \$1.00 more nor did the economy of the area get \$1.00 of relief of these seasonal benefits. From this point on, and particularly this coming winter, the hardship is going to be severe in the entire area, and cities, towns and villages are not going to be able to cope with the situation.

As a matter of immediate relief, the exportation of natural gas through this Crowsnest Pass area has been receiving much attention.

I do not want you gentlemen to be much surprised at this; after all, in Alberta we have coal and gas and both have to be marketed. Each one helps the other.

The Savannah Creek sour gas field, if permission for export could be granted, would be piped through this area to a proposed scrubbing plant. A scrubbing plant is a gas cleaning plant. All the gas produced in southern Alberta is called sour gas, and in order to use it for fuel it is necessary to separate the gas from other materials, such as sulphur, etc. There are going to be several of these plants in southern Alberta in the not too distant future, and if export of gas is allowed, one of these plants is scheduled to be located in the Crowsnest Pass, and it will absorb between three hundred and five hundred workers for possibly two years, a nice tidying over for the Alberta side of the Crowsnest Pass. It will also enhance the possibility of plastic manufacture, because sulphur and coke are ideal basic elements, thus encouraging industry of that type to locate there.

Another possible new industry is the projection of a penitentiary for British Columbia and parts of Alberta, and if this can be located in the City of Fernie, which is on the B.C. side of the Crowsnest Pass, it will stabilize it and eliminate the possibility of a beautiful little city from becoming extinct, by reason of the closing of mine operations a few months ago. I feel it would be much better to locate this penitentiary where it can do the most good for employment.

I know your committee has nothing to do with this particular project, but if you think it over there is a possibility that you may be able to assist.

The matter of thermal power generation in the Crowsnest Pass area would be of great importance, both for coal production and employment of labour, and this district is well suited for that, with unlimited coal and water reserves being available. Further economic studies could be encouraged at once because thermo-electric plants cannot be sprung quickly.

The presence of iron ore in the eastern limits of the Crowsnest Pass also provide a basis for a possible new industry for the area.

Good coking coal is available providing all the component parts necessary for steel making are present and there our government can urge the parties responsible to see what can be done.

In summing up, I would like to remind this committee of what Mr. O'Brian has said in his exhaustive article on the present and future energy requirements for Canada, which shows clearly that in future years coal will be largely used in providing this power.

On this point then, it is more important than ever that everything possible be done to preserve a nucleus of the industry so that it could be expanded in an orderly manner when required.

Gentlemen, there is an urgent need for immediate action and since this committee was good enough to bring about this hearing, then I ask you please not to just forget about it. The future and happiness of many depend on it.

The other day I happened to hear our Prime Minister speaking on the radio on the conversion loan. He happened to mention something about war-time thinking for peace-time. The matter of unemployment is a very urgent matter. War-time thinking is needed in order that we may ward it off. Thank you, very much.

Mr. KINDT: I have a few questions which I should like to ask the witness. Are you aware of a publication known as "Alberta's Economic Prospects" which was the Alberta brief to the Gordon Royal Commission?

Mr. ABOUSSAFY: I am aware of it, but I have not read it.

Mr. KINDT: I should like to quote the head of the Electric Power Commission of Alberta:

"The percentage of power generated by hydro, gas and coal in 1955 is expected to be 57 per cent, 40 per cent and 3 per cent respectively, while in 1985 these percentages are expected to be 46 per cent, 12 per cent and 42 per cent. In other words, at the present time, or at the end of 1955, there was 3 per cent of the electrical energy in Alberta produced from coal. It is expected during the next 30 years, by 1985, that 42 per cent of the electricity will be produced from coal. In other words the coal industry is to be called upon to produce 42 per cent of the electricity within the next 30 years."

Stated another way, and it is said somewhere else in the report that they expect five times as much electricity will be generated in thirty years from now and that 42 per cent of the total production in 1985 will come from coal. So, it goes to show, coal as a source of energy is not finished.

Somewhere else in this report it said that the coal industry of Alberta is now looking forward to one of its worst periods in history and it will probably tend to decline until 1960, or probably within the period 1960 to 1965. Then they say it is expected, that the coal industry should start coming back. What we are after now is something to tide that industry over and that is what you have been arguing for.

Mr. ABOUSSAFY: Yes.

Mr. KINDT: The mines in the Crowsnest Pass, one after the other, are curtailing their production as one did a few weeks ago in Bellevue where some 141 miners were let off and only 40 remain which includes office staff.

Mr. ABOUSSAFY: Yes.

Mr. KINDT: In other words, the situation as you have described it hits the nail on the head. Here is an industry in a very, very distressed condition and the need for new industry is one of the things which certainly has to be considered in order to provide some employment for those eight or ten thousand people who live in the Crowsnest Pass.

I want to thank Mr. Aboussafy for coming here today and giving us the picture he did and for bringing it to our attention and for the suggestions he has made. I assure him that every consideration will be given and that wherever it is feasible to act, action will be taken.

Mr. MARTEL: I wonder if this is the time to refer to the recent reports that atomic reactors will, in a few years, be in a position to produce electricity on a competitive basis or at a somewhat similar price to thermal power plants run by coal? Will this hinder the coal industry more than anything else?

The VICE-CHAIRMAN: May I ask that you defer this question for direction to Mr. Uren, the Chairman of the Dominion Coal Board? In the meantime, Mr. Boyd, would you at this point answer the question raised by Mr. Payne.

Mr. PAYNE: I will put the question again. First of all I wish to say that practically any committee which you have run into in Ottawa is primarily interested in the welfare of an industry, east, west or in between. The Japanese market can well be the means of stabilizing the mines in the Crowsnest Pass area. However, a rate structure has apparently come into being, under the sponsorship of John L. Lewis with associates to move coal from the Virginia seaboard to Japan at a rate of approximately \$7.50 per ton. Such a rate structure would make coal shipments from Vancouver via any new bulk loading dock to Japan highly uncompetitive. Is this not a case where the American

union actively has hampered their own Canadian members as well as the Canadian economy? Is it practical to claim subvention against an American competitor whose funds are, in part at least, derived from the payment of dues by Canadian miners who were hurt by this operation?

Mr. BOYD: As far as the policy of the international organization is concerned, in the fall of last year we made representation and presented a brief to the Minister of Mines and Technical Surveys and of course to the chairman of the Dominion Coal Board who was in attendance.

As I indicated to you when giving evidence, as far as the coal miners of District 18 are concerned, they could never see a matter of some 20 million tons of coal being imported into Canada when they were being laid off.

Mr. PAYNE: My question relates to Japanese exports. That is what I would like to have an answer to. What is the attitude of the organization and the union with respect to that?

Mr. BOYD: I am trying to come to it.

Mr. PAYNE: You are labouring a point that you have already covered.

Mr. BOYD: Not from the United Mineworkers. Immediately after we made our representation to the present Minister of Mines and Technical Surveys and the coal board, it was brought to my attention by means of an article which appeared in the official organ of the association in the United States which brought up the question of John L. Lewis' policy having regard to the importation of coal into Canada.

Was there a different policy initiated by District 18 in respect to it? As far as District 18 was concerned, it had no right to suggest an embargo on American coal.

Mr. PAYNE: I am not asking about that or discussing it.

The VICE-CHAIRMAN: Please allow the witness to answer, Mr. Payne.

Mr. BOYD: I will get to the shipping organization in a moment and I will clarify that point.

I was personally in touch with Mr. John L. Lewis and I was advised that as far as Canada was concerned and the two United Mineworkers district conventions, as far as coal was concerned in the dominion of Canada, there was to be no interference by the international officers in that connection.

In other words, in the representations we have made in years gone by and in the representations that we make from now on in connection with coal on behalf of the members of the organization, that we will not be interfered with.

As far as the Japanese export situation is concerned, it was similar to the European situation. I believe they called it a shipping cooperative, and it only came about through the matter of trying to get as many markets for coal jointly along with coal operators in the United States, and they got the American government to agree that it was time that ships were taken out of mothballs for the purpose of expanding those markets and for the purpose of getting coal miners in the United States back to work. That was the situation.

All I can say is that I believe it was correct. Moreover, if this government should have any idea along that line of taking ships or trains out of mothballs, the members of District 18 would go along with it.

The VICE CHAIRMAN: Mr. Martel has a question.

Mr. MARTEL: Does Mr. Uren have a comment on the recent reports that atomic reactors will soon, or in the future will be in a position to produce electricity on a basis competitive to, or somewhat similar to the prices of electricity that is now produced by thermal power plants using coal, and will this development not hurt the coal industry more than anything else?

Mr. UREN: Mr. Martel, I am going to make a remark, and then I am going to turn the answer over to Dr. Convey, who is a member of the technical board.

I wish I might live so long that I could see any damage being done to the coal industry by atomic power. Now, Dr. Convey.

Dr. J. CONVEY (*Director, Mines Branch, Department of Mines and Technical Surveys*): In answer to your question, Mr. Martel, concerning the future of atomic reactors as compared to thermal power stations, being a technical man, we all look for the day when we can introduce economic atomic kilowatts. But at the present time there is no reactor in existence producing what we would call economic kilowatts.

There are several—principal types of reactors which are on the drawing boards, or which are in operation—but we are very, very far from the break through in producing atomic reactor power plants which would provide us with power, let us say, of six mills. We dream about it, but we have a very long road to travel before these reactors will be in operation.

Mr. Uren pointed out that there are some of us who hope to live long enough to see it. But when you look at the cost today, and the actual state of our knowledge concerning the operations of atomic reactors we are still in an initial experimental stage. We are not even in the advanced or practical pilot operation plant stage. So I do not see any competition from atomic reactors for many years to come.

Mr. MARTEL: Was there not a report published recently that atomic reactors would become competitive in the near future? Didn't that appear in the *Northern Miner* a week or two ago?

Mr. CONVEY: Yes, I remember the report. But you must remember that these reactors which were referred to are still on the drawing boards and we have not as yet got a complete picture.

Mr. MARTEL: It will take years?

Mr. CONVEY: Yes, it will take years. I do not think there is a newspaper or a technical magazine which has not at some time within the past few years intimated that atomic power was just around the corner.

Mr. COATES: As a result of your explanation of this, is it not true to say that because of this very fact, and because of the fact that Ontario has to a large degree exploited most of its hydro possibilities that the future of the coal industry is indeed a bright one for the production of power?

Mr. CONVEY: From the point of view of the generation of power I feel that the coal industry has a good future ahead of it, and that the atomic reactors when they do come, will merely supplement the thermal power plants which are operating today.

When one looks at the picture today, it is quite gratifying to realize that the efficiency of these thermo stations has trebled due to the fact that boilers can be used at much higher temperatures and pressures than was formerly the case in the early thirties; and with such advances in the way of thermo power efficiency, I think that the future is not as dim as it might appear to some. This is a period of the doldrums in a very sick industry; but its future is definitely there.

The VICE-CHAIRMAN: Before we leave Mr. Payne's question, and since Mr. Uren has indicated some interest in it, I wonder if Mr. Payne would like to ask Mr. Uren to comment?

Mr. UREN: I think, Mr. Payne, you are laying a little too much stress on John L. Lewis' part of the shipping industry. If you read over what I said this afternoon, it was that this shipping industry incorporated, or whatever they call it, does no harm whatsoever at present because we are not regular

shippers of coal to Japan; and with regard to the tariff reduced I think \$10 less than it was last year, if there is a resumption of export business of coal to Europe and Asia and Japan and to countries—more particularly to England, to the extent that there has been in the last four or five years, the differential will be wiped out, and they will be looking for more bulk cargoes. That is our hope.

The VICE-CHAIRMAN: Mr. McFarlane is here but he is not a member of the committee. He would like to ask a question. Does he have the unanimous consent of the members?

Agreed.

Mr. McFARLANE: I would like to ask Mr. Uren a question. Can he confirm whether or not there has ever been a contract for coal signed with Japan, for coal from the Crowsnest area?

Mr. UREN: No, not for any quantity from the Crowsnest Pass area.

Mr. McFARLANE: That would be from Fernie and Michel?

Mr. UREN: Fernie, Elk river, Coleman, and West Canadian Collieries—that covers the plants of all the operators in the Crowsnest Pass. There has never been a firm contract signed by any of them.

Mr. McFARLANE: There has never been a contract?

Mr. UREN: No sir.

Mr. McFARLANE: Could there have been a number of shipments?

Mr. UREN: Just shipments. There is no contract at the present time between Japan and Canada.

Mr. WOOLLIAMS: Following what Dr. Kindt said regarding the commission report, and what the witness said that the future for coal looks bright from now on, I would like to have some answer placed on the record as to how long it takes to train a good coal miner—an underground coal miner—how many years does it take? I should think from the security point of view that at some time we might be looking for such coal miners and not be able to find them.

The VICE-CHAIRMAN: I shall ask Mr. Boyd to answer your question.

Mr. BOYD: In an attempt to answer your question, Mr. Woolliams, let me say that the matter of training a coal miner comes under the Mines Regulations Act of the province of Alberta, which is somewhat similar to an act along that line of the province of British Columbia. It provides that an individual must have been working at the face for one year before he may win a certificate of competency. But our experience is this: that if a man comes into a coal mine, he must work at one or two lower classifications. He will probably be working at these lower classifications for a couple of years. It usually takes about three years before he becomes an old hand at the coal face.

Mr. KINDT: I would like to ask Mr. Aboussafy a question. In his statement he mentioned the hope that a thermo plant might be established at the Crowsnest Pass.

Judging from Mr. Aboussafy's statement, and from the policy which is now in effect in eastern Canada, there is the hope of its application to western Canada. I would suggest to Mr. Aboussafy who is head of the Industrial Planning Organization of the Crowsnest Pass, that if he could come up with a scheme or a plan, a workable plan whereby a thermo industry could be started out there, we would all be behind him.

But as to whether it would be accepted or not—you generally have to make several attempts at these things—it must be justified economically in order to gain support.

There are many many other things which have to be taken into consideration, but that is a point which has been cleared up at this meeting, and it

is a point which I think you raised in your brief, so now I think you ought to go home knowing that your federal government is behind that policy if it could be economically justified.

Mr. ABOUSSAFY: Yes, Mr. Kindt. I was rather surprised when I heard that, and I was pleased. However, we are looking for something a little quicker.

As you said, that is something to work on, and to develop when the time comes, when it becomes economically feasible. But that takes time and we have not got time.

We have got to have a certain amount of business from this coal that is entering Canada today.

I think a quick arrangement could be made while we are working on this other scheme. We should not be left just because we have a thermo electric plant in view, because it takes too long to develop.

Therefore I would like to see this committee say: there is a solution; it is a solution, but it is a longer term solution. But what we need today is to divert some of this coal which is now coming into Canada and which could be produced and delivered reasonably cheap from our coal mines.

Mr. KINDT: Is there any possibility arising from the discussion which has taken place today with your particular part of the coal industry that you could meet the situation in some measure in the Crowsnest Pass by getting a little more market for your coal than you now have?

Mr. UREN: I do not think so. It is quite possible with one or two coals—but not with all the coals of the Crowsnest Pass. They have been tried and have failed. I do not say that there are not some good coals in the Crowsnest Pass that have never been mined. There are some good seams out there which would satisfy the Ontario market. But up to date one company and one company only has continued to satisfy the Ontario market.

The reason for that—and I am being quite blunt—I have told it to the operators and I tell it to the committee—some of those boys out there in days gone by were rather rugged individualists. I can remember when I first came to the coal board, they were selling a kind of coal and their attitude was that the customer had to take that coal or leave it alone. Well, this was their attitude for a long time until they missed the boat, because the oil salesmen were a great deal smarter.

The next thing that comes up is that they will sell coal to the eastern plants on a certain specification. But they may find themselves in a position where their tiple or their men or something will not get the coal out in time to satisfy the customers. So they put in any old thing, with the result that when the coal arrives at the plant it does not meet the specifications.

That happened not just one time or one year. It has been repeated over the years several times.

Mr. KINDT: Was that primarily in regard to underground coal?

Mr. UREN: That is what I am talking about now, underground coal from the Crowsnest Pass.

Mr. ABOUSSAFY: I have heard this before, and it is right. There is no question about it. In the past these things have happened. But quite often, when eastern Canada wanted coal, they wanted it because they did not have any other coal, or they wanted it in a hurry or in wartime.

Naturally the coal operators will push over anything that they could in order to sell it. But I believe that this is a hurdle, and that anyone can get around a hurdle.

We have a hurdle which we must jump, and if we cannot jump it, we may as well call it finished for the coal industry, lay the men off, move them out, and close these towns.

But we can jump that hurdle by means of any order which this committee may recommend. I believe it could be done with approved coal only. Let us see if they cannot furnish it today. I will bet you that they can. They have lots of time and they have lots of good coal, as Mr. Uren has said.

Mr. WOOLLIAMS: Mr. Uren was talking particularly of the Crowsnest Pass area. I do not like to close all doors or merely open a few. But would these same answers apply to the whole province of Alberta?

Mr. UREN: Definitely so. In other areas it was worse than in the Crowsnest Pass. The whole of Alberta got a bad name.

Mr. WOOLLIAMS: If there is any solution at all at the present time to some of the problems you have heard this afternoon and this evening for Alberta coal as far as getting markets are concerned—

Mr. UREN: I do not know what the government is prepared to do in connection with most of the coal. As far as the Drumheller Valley coal is concerned, I will be quite frank with you; I do not think there could be very much of a market for it.

Mr. WOOLLIAMS: And what about Canmore coal?

Mr. UREN: Canmore could continue to operate; it should operate. I think it would be closed unless they could operate it, but as to its market, they would have to find some other market for their slack than making it into briquettes. Briquettes were acceptable to the railroad but most intensive educational and sales campaigns have been put on without success throughout northern Ontario right down into this area as far as the lake front. To sell in the domestic market briquettes were not acceptable to the consumer because they could get other coal that they did not have to fuss with and did not have to have a specialized education to burn it. I do not know how much money was spent for a period of five years. A man in Winnipeg, one of the outstanding coal dealers in Winnipeg, took on Canmore coal because he believed in it and he had every right to believe in it because Canmore coal is good and Canmore briquettes are good. But, are you going to tell the public today what they are going to buy and when they are going to buy it and what they are going to burn in their furnaces. You can't tell them what fuel to burn. Sure, you could tell them, if there was no other kind of fuel to burn but you cannot tell them at the present time. In my opinion, unless there is some deal made by Canmore with the power company, and I say it would be the Calgary Power Company, or that we can further the export of Canmore coal to Japan—that their future is very very unsafe. That is not because of the quality of their coal in cobble form or in any larger size, but more than 50 per cent of their product is fine coal. It can only be sold in briquette form. You cannot sell briquettes anymore.

Mr. MUIR (*Cape Breton North and Victoria*): May I ask a question; I have been sitting here very patiently listening to the western movement of coal, but I understand this discussion affects all of the coal areas. Let us get back to the reference on specifications. It has been suggested, Mr. Uden, that specifications for, say, the Department of Defence Production contracts and so on have been increased to the extent that it is becoming increasingly difficult for the coal companies to apply on fuel tenders. What would you say to that?

Mr. UREN: I do not think so. It is one of the duties of the interdepartmental fuel committee of which Mr. O'Brian acts as chairman on my behalf—I do not tie that in 100 per cent with the coal board because it is a separate committee,—to get the best value for the government that is possible in their coal purchases and in the consumption of coal and the efficient running of their plants. But I have never seen a coal operator who came in with a complaint about a specification that did not get a clear hearing and taken right down the line through the fuels division of the Mines and Technical Surveys and through to the purchasing agent and so forth, and if it was at all possible to get the coal of

that particular operator, or group of operators, included in the tender, it was done. But if it is so far off the approved specification, and those specifications are drawn up by the technical men of the committee. We are talking about the Department of Defence Production, that purchases for the Department of National Defence on the inter-departmental coal committee there is an engineer from the army, from the navy and from the air force, and a representative from the fuels division from the Department of Mines and Technical Surveys, and also Mr. O'Brian who acts as chairman. Mr. O'Brian acts on my behalf. He does not have a vote and he does not tell them what they can or what they cannot have or do. The army, navy and air force say what they have to have and what is necessary for the efficient operation of their plants—and incidentally most of the complaints come as a result of coals that are low in quality and grade whereas most of the Department of National Defence installations are overloaded. How are you going to operate an overloaded boiler plant with under quality coal? They are putting in new boilers and are changing the specifications as rapidly as possible.

Mr. MUIR (*Cape Breton North and Victoria*): I do not have any doubt that the coal dealers have been given a fair hearing. However, over a period of years the specifications have been increased considerably; have they not?

Mr. UREN: Probably they have been tightened up; there is no question about that. I do not know who got rooked more than the government in their purchases.

Mr. O'BRIAN: I might add one thing. The situation is this, that as the existing plants get older they require a better coal. As they put in new plants they are designed for the poorest coal, Gagetown is an example and as the load increases they might step up the specification for the coal as a more economic measure in supplying steam than putting in additional plant.

Mr. MUIR (*Cape Breton North and Victoria*): I am sorry I have not been here all day. I was called back to my constituency and was delayed in Montreal. However, I am wondering if a statement has been made on the immediate or the long term prospects in respect of the maritime coal industry?

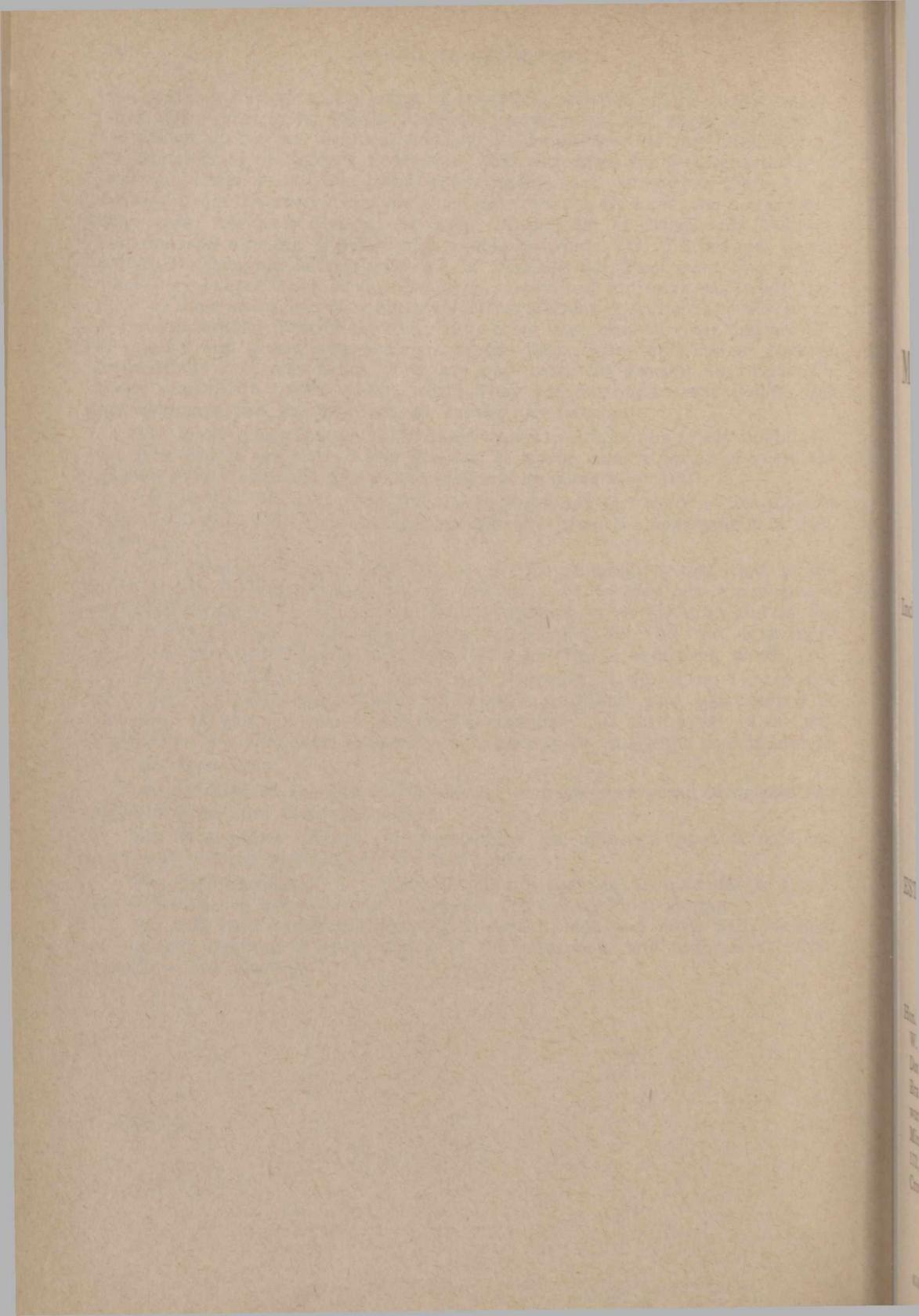
Mr. UREN: No.

Mr. COATES: It was my understanding that we were going to discuss the western phase and then the eastern.

Mr. WOOLLIAMS: Except for mentioning the different types of coal we have not covered anything in the maritimes.

The VICE CHAIRMAN: It is now ten minutes past ten. I would like to thank the witnesses, on behalf of the committee, for coming this evening.

We will meet tomorrow morning at nine o'clock and there will possibly be another meeting at three-thirty in the afternoon, and perhaps at eight o'clock in the evening.



HOUSE OF COMMONS

First Session—Twenty-fourth Parliament
1958



STANDING COMMITTEE

ON

MINES, FORESTS AND WATERS

Chairman: J. W. MURPHY, Esq.

MINUTES OF PROCEEDINGS AND EVIDENCE

No. 17

Including Index of Items considered and Report to the House
thereon regarding both the Department of Mines and
Technical Surveys and the Dominion Coal Board.

TUESDAY, JULY 22, 1958

WEDNESDAY, JULY 30, 1958

ESTIMATES 1958-59 OF THE DOMINION COAL BOARD

WITNESSES:

Hon. Paul Comtois, Minister of Mines and Technical Surveys; Messrs.
W. E. Uren, Chairman, and C. L. O'Brien, Assistant to the Chairman,
Dominion Coal Board; Mr. A. Ignatieff, Chief, Fuels Division, Mines
Branch; Messrs. Edward Boyd, President, District 18, United Mine-
workers of America; Henry Sherwood, Secretary, No. 7297, United
Mineworkers of America; Thomas Mackie, Secretary, Midlandvale No.
172, United Mineworkers of America; and Frank Aboussafy, President,
Crowsnest Pass Industrial Planning Board.

EDMOND CLOUTIER, C.M.G., O.A., D.S.P.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1958

STANDING COMMITTEE ON MINES, FORESTS AND WATERS

Chairman: J. W. Murphy, Esq.

Vice-President: Erik Nielsen, Esq.
and Messrs.

Aiken,
Baldwin,
Baskin,
Bigg,
Cadieu,
Coates,
Doucett,
Drouin,
Dumas,
Fleming (*Okanagan-
Revelstoke*),
Godin,

Granger,
Gundlock,
Hardie,
Kindt,
Korchinski,
Latour,
Leduc,
MacRae,
Martel,
Martin (*Timmins*),
Martineau,
McLennan,

Mitchell,
Muir (*Cape Breton North
and Victoria*),
Payne,
Pugh,
Roberge,
Richard (*St. Maurice-
Lafèche*),
Robichaud,
Stearns,
Villeneuve,
Woolliams—35.

Eric H. Jones,
Clerk of the Committee.

REPORT TO THE HOUSE

THURSDAY, July 31, 1958.

The Standing Committee on Mines, Forests and Waters has the honour to present the following as its

FOURTH REPORT

1. Pursuant to its Order of Reference of July 2, 1958, your Committee has considered and approved Items numbered 193 to 216 inclusive, as listed in the Main Estimates 1958-59; and Items numbered 575 to 577 inclusive, as listed in the Supplementary Estimates for the fiscal year ending March 31, 1959, relating to the Department of Mines and Technical Surveys; and Items numbered 217 and 218 of the Main Estimates 1958-59 relating to the Dominion Coal Board.

2. Your Committee held 4 meetings on the Order of Reference of the House concerning the estimates of the Department of Mines and Technical Surveys, and 4 meetings concerning the estimates of the Dominion Coal Board.

3. Your Committee heard a full statement by the Minister of Mines and Technical Surveys on the duties and responsibilities of his department and of himself as its Minister.

4. The study of the estimates of the department indicated to the Committee that the work of the department consists of technical and research investigations connected with resources basic to the future development of the country's economy. To a varying degree, this department contributes information essential to the planning and development in all phases of the national economy.

5. The Surveys and Mapping Branch provides the topographical information and base maps essential to all phases of our expanding economy. Rapid development during the last decade has severely overtaxed the mapping facilities of the department. In this connection new accommodation, now in the construction stage, and increased staff, should help to relieve the pressure. This branch is faced also with steadily increasing demands for navigational charts and other information on the continental shelves and the adjacent portions of the oceans. This problem is being met, in part at least, by an expanding effort. This trend must be continued so that Canada can meet her rapidly expanding navigational requirements off our coasts and in the Arctic.

6. It was apparent to your Committee that the Geological Survey of Canada is doing an efficient job; it has 77 parties in the field. Evidence submitted indicates that, at the present rate of activity, decades would pass before satisfactory geological maps of the pioneering areas of Canada would be completed. It would be unfortunate if this effort cannot be accelerated so that much-needed geological information can be provided at an earlier date. The Committee was pleased to note that the Geological Survey of Canada will soon occupy new accommodation which will allow a more intensive research effort. The Committee was also gratified that the Geological Survey expects to undertake more research on ground water resources. The scarcity of information on sources of ground water supply is already of grave concern in many parts of Canada.

7. The Mines Branch continues to play an important role in the development of our great wealth of minerals. The branch can be credited with much of the success achieved by Canada's uranium industry. It gives valuable assistance and advice to all parts of the mineral industry. Greater competition in world markets for the products of the mines has intensified the need for greater efficiency at lower costs to the industry. The requests for help to provide cheaper methods of production continue to increase the demands on the facilities of the branch. Here too, better equipment, increased staff, and new accommodation which will be ready in the near future, should help to meet the needs.

8. The Committee was interested to learn of the Minister's intention to expand the Geographical Branch into a program of study on land use. It appeared to the Committee that such information is required to plan the proper utilization of land with regard to such resources as agriculture and forestry. Canada does not have unlimited resources of good land and the proper use of this land is essential to the future development of the country.

9. The Committee was interested in the range of valuable research conducted by the Dominion Observatories. The Committee was also interested in learning that many of the research techniques developed to provide greater knowledge of the earth and the stars can be applied in a practical way to mineral exploration and navigation. The work of this branch is of increasing interest and value as man probes outer space.

10. The Committee noted the important contribution of the Mineral Resources Division which acts as the mineral economics unit of the department. The Committee is aware that the scientific and technical work of the department, in assistance to mineral resources development, must be supplemented by a complete knowledge of all factors, national or international, which have a bearing on the mineral industry. The Committee, therefore, values the important service which can and must be rendered to the government and the mineral industry by a competent mineral economics unit such as the Mineral Resources Division.

11. Your Committee recommends that the government give consideration to the necessity for increasing the department's research program and facilities in order to keep pace with the accelerated tempo of northern development.

12. Your Committee records its appreciation of the high calibre of the technical officials of the department. It noted, however, that the department has found it difficult over the years to recruit and hold good staff. As scientists and engineers become expert in their particular fields, industry attracts large numbers away with higher salaries. The situation has been better during the past year, but the condition will reappear with the return of a buoyant economy. The Committee holds the view that every means should be taken to attract and hold scientists and engineers of ability. This can be done by providing good working conditions and adequate salaries.

13. Your Committee feels that the department is doing a good job with the staff and facilities at its disposal. In the overall picture, however, the efforts of the department fall short of meeting the requirements of the economy. The Committee is of the opinion that an expanded effort is required so that these requirements can be met and that normal national development will not be delayed. It recommends consideration of action to this end by the government.

14. Your Committee heard a statement by the Chairman of the Dominion Coal Board which dealt in considerable detail with the history of governmental policy over the years in relation to the assistance of coal movements by the payment of subventions—still the principal function of the board.

15. During its consideration of the estimates concerning the Dominion Coal Board, your Committee examined the undermentioned witnesses from the Crowsnest Pass region, the Canmore region and the Drumheller region, of Alberta, and a representative of the industry of both the Alberta and British Columbia sides of the Crowsnest Pass, in regard to the problems of the coal industry in western Canada. These witnesses were as follows: Mr. Edward Boyd of Calgary, Alberta, President, District No. 18, United Mineworkers of America; Mr. William Ure of Calgary, Alberta, Secretary Treasurer, District No. 18, United Mineworkers of America; Mr. Henry Sherwood of Canmore, Alberta, Secretary, No. 7297, United Mineworkers of America; Mr. Thomas Mackie of Drumheller, Alberta, Secretary, Midlandvale No. 172, United Mineworkers of America; and Mr. Frank Aboussafy of Coleman, Alberta, President, Crowsnest Pass Industrial Planning Board.

16. Your Committee was concerned by the apparent necessity of importing foreign coal to fill Canadian orders due to export orders for Canadian coal exceeding expectations. Your Committee emphasizes the necessity for increased production of Canadian coal when export sales and Canadian requirements exceed the production of coal in Canada.

17. Your Committee expresses the hope that ways may be found through research and other avenues whereby more Canadian coal may be used. Your Committee was impressed with the necessity for Canadian operators to ensure that their deliveries of coal conform to the quality requirements of the purchasers.

18. Your Committee recommends that the government give consideration to the advisability of sending a mission to the oriental market for Canadian coal, there to study the economic possibilities of increasing sales of Canadian coal to that market.

19. Members of your Committee took full advantage of the invitations of the Minister and witnesses to question them without restriction.

20. Your Committee records its appreciation of the great assistance given to it by the Minister of Mines and Technical Surveys and the officials of his department and by the Chairman and the officials of the Dominion Coal Board.

21. A copy of the Minutes of Proceedings and Evidence in respect of the said estimates is appended.

Respectfully submitted.

J. W. MURPHY,
Chairman.

MINUTES OF PROCEEDINGS

TUESDAY, July 22, 1958.

(21)

The Standing Committee on Mines, Forests and Waters met at 9:00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baldwin, Bigg, Coates, Doucett, Dumas, Kindt, Korchinski, MacRae, Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Roberge, Stearns, Villeneuve and Woolliams.—(17)

In attendance, of the Dominion Coal Board: Messrs. W. E. Uren, Chairman; C. L. O'Brian, Assistant to the Chairman; and D. A. Edgar, Financial Officer; *and of the Department of Mines and Technical Surveys:* The Honourable Paul Comtois, Minister; Dr. J. Convey, Director, Mines Branch, and Mr. A. Ignatieff, Chief, Fuels Division, Mines Branch; *and the following witnesses from the coal industry in Alberta:* Messrs. Edward Boyd of Calgary, Alberta, President, and William Ure of Calgary, Alberta, Secretary Treasurer, both of District 18, United Mineworkers of America; Henry Sherwood of Canmore, Alberta, Secretary, No. 7297, United Mineworkers of America; Thomas Mackie of Drumheller, Alberta, Secretary, Midlandvale No. 172, United Mineworkers of America; and Frank Aboussafy of Coleman, Alberta, President, Crowsnest Pass Industrial Planning Board.

The Committee resumed its consideration of Items 217 and 218 of the Main Estimates 1958-59 concerning the Dominion Coal Board.

Messrs. Sherwood and Mackie were severally called and questioned.

Messrs. Boyd, Aboussafy, Ignatieff and O'Brian were further examined, and Mr. Uren was further questioned at length.

Following discussion, on motion of Mr. Dumas, seconded by Mr. Kindt,

Resolved,—That the following of the witnesses who were summoned to appear before the Committee to give evidence on the coal mining industry in Alberta, and who were questioned by the Committee on July 21st and 22nd, namely, Messrs. Thomas Mackie of Drumheller, Alberta, and Henry Sherwood of Canmore, Alberta, be paid an additional per diem allowance of \$15, over and above their out-of-pocket expenses, for the number of days that they were absent from their normal occupation by reason of their having been summoned.

The Committee expressed its appreciation for the assistance which had been given to it during the past two days by the following witnesses, namely Messrs. Boyd, Ure, Sherwood, Mackie and Aboussafy; the said witnesses were retired.

At 10:55 o'clock a.m. the Committee adjourned until 3:30 o'clock p.m. this day.

AFTERNOON SITTING

TUESDAY, July 22, 1958.

(22)

The Standing Committee on Mines, Forests and Waters met at 3:30 o'clock p.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Coates, Drouin, Dumas, Fleming (*Okanagan-Revelstoke*), Gundlock, Kindt, Latour, MacRae, Martel, Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Nielsen, Roberge, Stearns, Ville-neuve and Woolliams.—(18)

In Attendance, of the Dominion Coal Board: Messrs. W. E. Uren, Chairman; C. L. O'Brian, Assistant to the Chairman; and D. A. Edgar, financial officer; and of the *Department of Mines and Technical Surveys:* The Honourable Paul Comtois, Minister; Dr. J. Convey, Director, Mines Branch; and Mr. A. Ignatieff, Chief, Fuel Division, Mines Branch.

The Committee resumed its consideration of Items 217 and 218 of the Main Estimates 1958-59 concerning the Dominion Coal Board.

Following further lengthy questioning of the chairman and officials of the Dominion Coal Board and certain departmental officials, the said Items 217 and 218 were approved.

During the proceedings Messrs. M. L. McFarlane, M.P., and Donald MacInnis, M.P., being present but not members of the Committee, by unanimous consent, questioned certain of the witnesses.

On behalf of the Committee, Mr. Dumas expressed the appreciation of the Committee to the Minister and his officials of the Department of Mines and Technical Surveys and to the Chairman and his officials of the Dominion Coal Board for their assistance in the consideration of the estimates of the board.

At 5.15 o'clock p.m. the Committee adjourned to the call of the Chair.

WEDNESDAY, July 30, 1958

(23)

The Standing Committee on Mines, Forests and Waters met *in camera* at 10:00 o'clock a.m. this day, the Chairman, Mr. J. W. Murphy, presiding.

Members present: Messrs. Aiken, Baskin, Bigg, Coates, Doucett, Drouin, Dumas, Fleming (*Okanagan-Revelstoke*), Korchinski, Latour, MacRae, Martel, Martin (*Timmins*), Martineau, McLennan, Mitchell, Muir (*Cape Breton North and Victoria*), Murphy, Pugh, Roberge, Stearn and Villeneuve—22.

The Chairman presented a draft of a Report to the House on the Estimates of the Department of Mines and Technical Surveys and the Dominion Coal Board, which had been considered by the Subcommittee on Agenda and Procedure on July 29th, and which they had unanimously recommended for the approval of the Committee. The Committee considered the draft report and, on motion of Mr. Dumas, seconded by Mr. McLennan,

Resolved, unanimously,—That the draft report be approved without amendment and that the Chairman present the said report to the House.

On motion of Mr. Doucett, seconded by Mr. Dumas,

Resolved,—That the Committee record its great appreciation to the Chairman for his very able guidance of the Committee, to the Steering Subcommittee who had assisted so effectively in the drafting of the Reports to the House, and to the Clerk of the Committee for his efficient work.

At 10:25 o'clock a.m. the Committee adjourned to the call of the Chair.

Eric H. Jones
Clerk of the Committee.

EVIDENCE

TUESDAY, July 22, 1958.
9:00 a.m.

The CHAIRMAN: Gentlemen, I see a quorum. We will carry on from where we left off last night. Now whom would you like to have called first?

Mr. WOOLLIAMS: I would like to have Mr. Sherwood from Canmore called.

The CHAIRMAN: Are you through with the technical information you want from the chairman of the coal board and his assistants?

Mr. WOOLLIAMS: I just wanted to ask Mr. O'Brian one question about costs; otherwise I am finished.

The CHAIRMAN: It will be available from your witnesses from the west. It is up to the committee as to what you want to do. You may want to call Mr. Uren and Mr. O'Brian, after you have heard the witnesses from the west. You will be at liberty to do so.

Mr. WOOLLIAMS: Thank you, Mr. Chairman.

Mr. Sherwood, you are from Canmore, Alberta?

Mr. Henry SHERWOOD (*Secretary, No. 7297 United Mineworkers of America*): That is right.

Mr. WOOLLIAMS: How many coal mines are there in Canmore?

Mr. SHERWOOD: One.

The CHAIRMAN: Maybe, Mr. Woolliams, you would like to have the committee know who Mr. Sherwood is.

Mr. WOOLLIAMS: What is your present position with the union?

Mr. SHERWOOD: I am secretary of the local union.

Mr. WOOLLIAMS: At Canmore?

Mr. SHERWOOD: Yes.

Mr. WOOLLIAMS: How many members have you in the local unions there?

Mr. SHERWOOD: We have approximately 135 to 140, at present since the lay-off in February.

Mr. WOOLLIAMS: What is the largest size the union has been in Canmore?

Mr. SHERWOOD: The largest membership during the war years was 310 members.

Mr. WOOLLIAMS: What is the name of the mine that operates in Canmore?

Mr. SHERWOOD: Canmore Mines Limited.

Mr. WOOLLIAMS: I understand that last year coal was shipped from Canmore to Japan.

Mr. SHERWOOD: That is right.

Mr. WOOLLIAMS: Approximately how many tons?

Mr. SHERWOOD: About 35,000 to 40,000 tons, I would imagine.

Mr. WOOLLIAMS: Do you know what subvention was paid on that coal out of Canmore?

Mr. SHERWOOD: I would say, similar to the subvention rate.

The CHAIRMAN: That evidence has already been given by other members of the coal board.

Mr. WOOLLIAMS: Could you tell me the number of men in Canmore that are unemployed today who have been coal miners?

Mr. SHERWOOD: I would say that there are approximately 45 to 50 men who have not any jobs who are coal miners, and are unemployed.

Mr. WOOLLIAMS: There was a big lay-off, I believe about February of this year. How many men were laid off at that time?

Mr. SHERWOOD: Ninety.

Mr. WOOLLIAMS: Have some of those men been taken back?

Mr. SHERWOOD: Ten men have been rehired.

Mr. WOOLLIAMS: Where did the other men go? Have they found other employment?

Mr. SHERWOOD: Forty-five of them are still in the town with no place to go and about 35 are working on projects in the national park at Banff. They can get a job there for a week or so.

Mr. WOOLLIAMS: Would you mind telling the committee what part the union plays in the laying-off of men?

Mr. SHERWOOD: The only part we play in the lay-off of men is that the company has the right to direct the forces. It is on a seniority basis, so that if 90 men are laid off, the last 90 men hired by the company are the first to go.

Mr. WOOLLIAMS: Could you tell me how many that you know in Canmore who are unemployed are coal miners who have no benefits left under the unemployment insurance?

Mr. SHERWOOD: I would say that since the end of October to the present the benefits to about 25 are so low—\$9, \$10 or \$11 per week—this situation is pitiful.

Mr. WOOLLIAMS: Do you know how many homes have been vacated in Canmore that used to be owned by miners?

Mr. SHERWOOD: No homes have been vacated because there is no place for them to go.

Mr. WOOLLIAMS: I do not think there is anything else I want to ask you at the present time.

The CHAIRMAN: Would anyone else like to question the witness? The next witness, please.

Mr. WOOLLIAMS: I will call Mr. Thomas Mackie. Mr. Mackie, what is your position with the union?

Mr. THOMAS MACKIE (*Secretary, Midlandvale No. 172, United Mineworkers of America*): I am secretary of the Midlandvale No. 172, United Mineworkers of America, and have been so for the last 24 years.

Mr. WOOLLIAMS: And that of course is a branch of district 18 union which Mr. Boyd covered yesterday?

Mr. MACKIE: Correct.

Mr. WOOLLIAMS: How many coal mines are in operation today in the Drumheller valley?

Mr. MACKIE: About six.

Mr. WOOLLIAMS: How many have been closed up in the last five or ten years?

Mr. MACKIE: Two or three have closed up at Rosedale.

Mr. WOOLLIAMS: During the war years how many men were employed in the coal mining industry at Drumheller?

Mr. MACKIE: Approximately eight mines, and there would be an approximation of 150 men to each mine—somewhere about that.

Mr. WOOLLIAMS: One hundred and fifty to each of the eight mines, that would be 1,200 men?

Mr. MACKIE: That may be out a little one way or another.

Mr. WOOLLIAMS: How large is the city of Drumheller?

Mr. MACKIE: It is just a small city.

Mr. WOOLLIAMS: Approximately how many?

Mr. MACKIE: I do not know the population.

Mr. WOOLLIAMS: It does not matter. What about East Coulee and the Midlandvale mines and those places? Could you give some estimates of the number of houses vacated in those places?

Mr. MACKIE: Vacated?

Mr. WOOLLIAMS: Yes, homes no one is living in?

Mr. MACKIE: There are quite a few. I do not know the number. When a slack period comes along, some of the people move out to other places.

Mr. WOOLLIAMS: Is there anything unique in the effect on the coal miner? Would you give us a little detail? The coal miner puts his savings in his house and the mine closes. What happens then?

Mr. MACKIE: It is very true, Mr. Chairman; there are people in the Drumheller area, like people in other places, who have spent their lives—practically all their lives in Drumheller in the coal mines, and all their earnings went into a home. They do not like moving away. They are not old people, they are not young people, they are in between. They feel that this is their home. They have built their homes which they have worked for, and they do not like starting life again after they have worked for so many years there. Coal mining is their business. They put coal mining before anything else. However, they are like other people; they are adaptable; and if there was a proposition where some other kind of industry was inaugurated into the community, I am sure they would be quite prepared to start in on something else.

Mr. WOOLLIAMS: What is your job as a miner, besides being in the union?

Mr. MACKIE: You mean in the mine? I am a timberman and brusher. I have been a coal miner for 46 years.

Mr. WOOLLIAMS: In your opinion, how long does it take, approximately, to train an underground miner?

Mr. MACKIE: It all depends on the individual himself. It depends on his understanding in regard to coal mining, and his understanding in regard to safety.

Mr. WOOLLIAMS: On the average could a man learn the business in a year?

Mr. MACKIE: No, I would not say that.

Mr. WOOLLIAMS: Would you like to give a statement on that, or would you rather leave it?

Mr. MACKIE: I can give you my own life on it because I have been working in the coalfields since 1912. I was then 13 years of age. At that time I was back in Scotland—it is all over a period of time. First of all, you go in as a young boy and you rely on the older men to give you a lead—I got it the hard way. If I did not do as I was told, I got a cuff on the ear and was shown how to do it the right way.

Mr. WOOLLIAMS: Could you tell us how many men are unemployed at the present time in the Drumheller district—that is the whole valley—and, of the men who are working, how many hours a week they work?

Mr. MACKIE: The unemployed may be about one-third. The others are working one, two, or perhaps, three days a week.

Mr. WOOLLIAMS: And those fellows who are working one, two or three days a week depend on what they are getting from the unemployment insurance? What do they collect approximately on the average?

Mr. MACKIE: Well, Mr. Chairman and members of the committee, that is funny, too, in a way, because some of the miners get more work than others, and some of them have their total benefits. The maximum benefit is 30 hours a week. There are a few who have the maximum benefits—but only a few. I am generally working fairly steadily, more steadily than some of them, and I am in the \$28 bracket now. As the years go by, and time goes on, I can see where we will be entirely cut off. Some members are down to \$9, \$10, \$11 or \$12 a week, for the simple reason that they had not worked the year before, and that cuts down their benefits and unemployment insurance.

Mr. WOOLLIAMS: This question was raised yesterday. During the war the mines were in full operation in the Drumheller district?

Mr. MACKIE: During the war, yes.

Mr. WOOLLIAMS: And were men brought in at that time from other parts of Canada?

Mr. MACKIE: Yes.

Mr. WOOLLIAMS: Who paid their expenses to get into the mines at that time?

Mr. MACKIE: From information I have, I believe that the federal government paid their expenses—for the individual man, his wife and children—and shipped his furniture back to the place of operation.

The CHAIRMAN: Was that during the war?

Mr. WOOLLIAMS: Yes. Was anything done, in the mines when they began to get slack after the war, to remove those men and place them in other centres to get employment?

Mr. MACKIE: Nothing was done.

Mr. WOOLLIAMS: Do you know how many of these men went into the Drumheller district?

Mr. MACKIE: I do not know how many. I should like to quote the simple case of a man I know who went to Kirkland Lake. He was a good miner and safety-first-man and was housed at Kirkland Lake as a safety-first-man.

Mr. WOOLLIAMS: What mine are you working in at the present time?

Mr. MACKIE: Midlandvale mine.

Mr. WOOLLIAMS: Atlas mine has just spent at least \$2 million on new equipment?

Mr. MACKIE: Yes, that is the East Coulee.

Mr. WOOLLIAMS: Do you know how many men that new equipment would throw out of work there?

Mr. MACKIE: That would displace quite a number of men.

Mr. WOOLLIAMS: Have you ever been down that mine?

Mr. MACKIE: No, I have not.

Mr. WOOLLIAMS: I do not think there is anything more I want to ask this witness.

The CHAIRMAN: All right; next witness.

Mr. KINDT: Can we get into the question of the competition between strip coal and mine coal? It seems to me that the development of new industry in the west to a certain extent hinges on the competition between those two. Would Mr. Aboussafy care to make a statement on that—either he or Mr. Boyd.

Mr. BOYD: What is your question, sir?

Mr. KINDT: The competition between strip coal and mine coal in relation to the development of industry.

Mr. BOYD: My understanding is that the mines in western Canada opened during the war period were opened more or less as an emergency. It was also our understanding that it was only during the period of that emergency that these strip mines would remain open. It has now developed to the extent that some of them are still operating, but we claim that there is no emergency at the moment. As far as underground coal is concerned, per-man-day, the output would be somewhere in the vicinity of four-and-a-half to five tons from underground mines. From strip mines from various areas the per-man-day output could be 24, 25 or 26 tons. It would mean that in the matter of competition it would naturally follow that strip coal could be sold at less than one-quarter of the price of underground coal. Does that answer your question?

Mr. KINDT: I have a supplementary question. What do you think is the future of strip mining for the production of thermal electric power in the west?

Mr. BOYD: As far as strip mining is concerned and having regard to the fact that the Wabamun thermal power plant is built on one of the largest strip coal mining areas in the province, the future for that type of coal, provided the equipment is built to suit the coal, has a big future ahead of it.

Mr. KINDT: Yesterday we were told by Mr. Uren that the outlook for getting western Ontario coal, that is the market there, was not too good. Do you agree with that?

Mr. BOYD: I never have agreed, having regard to the fact of coal being imported from the United States when coal miners in the Canadian west cannot get work.

We feel, and I am talking now as far as the coal miners in western Canada are concerned, that the position taken by the coal board is one of pessimism and gloom and it should not exist.

Mr. KINDT: What was that last word?

Mr. BOYD: Pessimism, and of a gloomy nature, that such a position should not exist.

Mr. KINDT: In what way, gloomy?

Mr. BOYD: If I may explain myself; any time we have dealt with the Dominion Coal Board, there has been nothing else, in our opinion, but gloom expressed so far as western coal is concerned. We have throughout the years of representation felt that we were entitled to at least a fair share of the Ontario market, for Drumheller.

Mr. WOOLLIAMS: Have you ever asked your representative to have your union represented on the coal board?

Mr. BOYD: In the fall of last year, I was the one of that delegation which suggested to the minister that the time was probably overdue that the United Mine workers should have representation on the Coal Board, believing, in all sincerity, that there is statistical information, which took most of yesterday's session to express, that we should have some of that information for the benefit of our membership.

I can recall the minister intimating that there should be no objection to that; but the chairman of the coal board did say that after all there was certain information that could not be divulged. I do know that I reported the situation in the Canadian west to the coal miners. Their reply to that was that, if there had been any secret information up to the moment, more mines closed down, there would be no more secret information one of these days to give even to a committee such as this. We have certainly requested representation on the coal board.

Mr. WOOLLIAMS: What were the questions that were asked yesterday? I do not know whether I can understand your answer. You might be able to summarize it. May I be given this in full? This is what we are trying to get across. The American miners and yourselves are associated with the whole picture of one union, and if you were to cut off the production and export of American coal you would likely turn out a member of the same union, although they live in the United States. Now what is the reaction of the Canadian miners to that sort of thing?

Mr. BOYD: Canadian miners love their work as coal miners and as I intimated to you yesterday, in the policy of our international organization, they do not interfere with the Canadian picture. In other words we have complete autonomy to make our own decisions in Canada.

Mr. WOOLLIAMS: Why was there amalgamation with the United Mine-workers—that is the American unions and the Canadian unions? I have not heard that answered yet.

Mr. BOYD: The United Mine Workers of America have always been an international organization. There was never such a thing as an amalgamation of Canadian miners with American miners.

Mr. BIGG: I think that is relevant to the coal issue, if there is any obstruction to the digging of coal in Canada, due to the union.

The CHAIRMAN: Mr. Woolliams did not indicate that?

Mr. BIGG: He was asking that. I think that was the idea of the question.

Mr. WOOLLIAMS: That is all I wanted, Mr. Chairman, thank you.

Mr. KINDT: May I ask Mr. Aboussafy a question on the industrial development in the Crowsnest Pass?

Yesterday we went into the question of thermal-electric development. It was said for the next 30 years it is expected—at least, the Electrical Power Commission of Alberta expects—that coal will occupy 42 per cent of the energy source used for the generation of electricity. In the next 30 years it is expected there will be five times as much electricity developed. That was a statement made by the Electrical Power Commission of Alberta to the Gordon Royal Commission.

Now, with that in prospect what is your thought on the development of a thermal-electric plant in the Crowsnest Pass?

It was also said yesterday that the policy of the federal government, which is now in effect in eastern Canada, applies equally well in western Canada. Therefore it is a question of simply finding a solution or development which would bring into being the Crowsnest Pass as a thermal-electric area.

Have you any thoughts on that, Mr. Aboussafy, since you are president of a planning organization, the industrial planning organization of the Crowsnest Pass? I thought you would like to make a statement on that before closing your testimony, or closing your testimony on that area.

Mr. ABOUSSAFY: Mr. Chairman and gentlemen, as I mentioned yesterday, the prospects for thermal-electric power in the Crowsnest Pass are excellent. We have the coal, we have the water and, at the present time, I think we have enough electricity. But, as the articles and the study of the industry show, some of these days we are going to need more power and, therefore, the thermal-electric power could be started successfully in the Crowsnest Pass, and it would be quite a solution to the coal industry there.

I do not want to mislead this body; the fact is that there is an emergency so far as the coal industry is concerned today. The Thermal-electric power is a future project. It would take two or three years to develop that and make it beneficial to the coal industry. By that time we will not have a coal industry; we will have strip mining, which does not employ men.

If we have a lot of energy of all sorts, which we have now in Alberta, the next thing is to find employment for the people. Employment of the people should be the main thing. In four or five years we may be able to utilize men in that field but at the present time—and, gentlemen, if I am going a little farther than the question requires, I would like to say that I am not experienced; this is my first time before a body of this type.

I have noticed, after having listened all day yesterday, that the coal industry, the Canadian coal industry, is on the defensive. It seems Canadian coal has to be better and has to be cheaper to find a market in its own country. Mind you, that may be just my impression; it may not be true.

If we are going to make a healthy country—and the country, as someone mentioned yesterday, does not have too many miners—but, a country is just like a body; you cannot use all the cells to make the heart, the liver and the kidneys; you have to have some to make skin and bone. If those cells are continually dying the others must be healthy, if we are to live. If one has a cancerous sore on his arm and does not pay any attention to it, the whole body will be sick; and that is what will happen to the economy of the country if we do not look at the sore on the coal industry. That is a national sore. That is what I wanted this committee to go into,—that we must find something for the coal industry to do today.

We should look toward thermal-electric power in a year or two, and I appreciate your efforts, Mr. Kindt for trying to bring this forward. However, it is a final solution; we need something more urgent; we need something today; we need something for this market, the 195,000 tons of coal which the railways used in northwestern Ontario, which was coming from across the line.

Mr. BIGG: Mr. Chairman, I would like to ask a question. The problem is plain, but what positive solution can you offer? What can we do to help you fellows out?

Mr. ABOUSSAFY: The help should come from here; it will have to be directed from here. For instance, I do not know whether this is done in the east or not, but in western Canada there are places where you cannot sell certain kinds of beer. I am just skimming the top, I am not a coal man. I got into this because I felt there was a need for bringing the attention of the people to this coal problem. There are places in western Canada where one type of beer cannot be sold; they cannot compete with one another.

Mr. BIGG: Do you know any specific thing which can be done now to improve the coal sale or the marketing of coal?

Mr. ABOUSSAFY: Subvention is good enough but it has not been used. Let the government look into ways and means whereby subvention can be used.

I was talking to a coal man—I believe he was telling me the truth—about the \$4 subvention for coal into Ontario. The price of competitive coal within the country becomes a little lower than western coal can be landed, and it becomes nullified. I would like to know how many dollars of that \$4 was used from that subvention.

Mr. WOOLLIAMS: That is a good question. Could we have the number of dollars of subvention paid to the maritimes and to western Ontario? Who can answer that?

Mr. UREN: We can.

Mr. WOOLLIAMS: Would you let us have that?

Mr. ABOUSSAFY: If I may continue, Mr. Chairman.

There are about 20 million, 22 million—

Mr. UREN: It is available in the book.

Mr. ABOUSSAFY: —tons of American coal come in at 50 cents a ton—that is, \$10 million, \$11 million which is earned by the tariff board. While I am not trying to say you should increase it, I do not think you should, there is no reason why this \$10 million or \$11 million cannot be taken and used to develop western coal, to bring it into the market. It is no cost to the taxpayer, that 50 cents added on there, it is not stiff enough, therefore take it and use it.

Mr. WOOLLIAMS: Mr. Chairman—

The CHAIRMAN: The witness said he is not in favour of increasing the 50 cents. Now he says it is not high enough.

Mr. ABOUSSAFY: I know what will happen in Ontario and that will happen in Quebec; the people, the consumers, are going to complain. If we were to ask you to raise it to more than 50 cents we would be putting you in a very difficult position. That is not what we are trying to do. That is why, in these figures brought in yesterday, they were brought in f.o.b. Toronto.

We are not interested in the Toronto market, we cannot be; but we are interested in the northwestern Ontario market. I am told from a very good coal man that there are two million tons come in across the line, across the lake, and at a very low freight rate; it is dumped in there at a lower price than the western coal can be landed with the subvention.

Something can be done about that, I am sure; there are brains enough here to look into the matter and get over that problem. Anyone can go around a hurdle if it is the easy way but there is no easy way this time, you have to jump over the hurdle.

Mr. WOOLLIAMS: In 1956 we imported into Canada, of all types of coal, \$128,736,670 worth. You say that wherever possible and wherever there is a type of coal in western Canada which will fit the picture we should explore all avenues to get some of that market, without doing any harm to the consumer?

Mr. ABOUSSAFY: We do not want to harm the consumer.

Mr. BIGG: I gather the miners in western Canada are against this mechanization of the mines. Is that right?

Mr. ABOUSSAFY: Well, I am not going to answer this from the other point of view: but in our coal mines mechanization cannot go too far.

Mr. BIGG: Should it not reduce the price of coal at the pithead?

Mr. ABOUSSAFY: You cannot reduce it any more than the strips are producing it today. Some of the strips are producing very low priced coal.

Mr. BIGG: Surely it would mean it would be cheaper to produce coal at Drumheller at the pits than in pits without mechanization?

Mr. ABOUSSAFY: I do not know. All I know, our seams are not adaptable to electric picks. They cannot use the same machinery that the Americans do because they have a fat seam.

Mr. BOYD: The united mine workers of America have never been against the mechanization of coal. We in the Canadian west welcome the mechanization of coal to the highest degree, knowing that we could create a better standard of living through mechanization of this type of mine. It increases the tonnage at the pithead greatly over the old hand-pick method.

In the last years, since the end of the war, the remaining mines in Drumheller, in the domestic areas in general, have been mechanized to a great extent. That is not so true as far as the seam coal mines are concerned, because there is a limit in the seam coal mines, having regard to the severe pitches and incidence. There is a limit to mechanization.

Given the mechanization we could bring the industry up to the top.

Mr. BIGG: I am only asking for information; there is no bite in that question.

Mr. KINDT: We do not want to deviate too far from the Crowsnest Pass and the western Ontario market; we have got away from that, Mr. Chairman. Yesterday we were told that there was in the neighbourhood of 1½ million tons to 2 million tons coming into the western Ontario market.

Mr. WOOLLIAMS: Two million.

Mr. KINDT: In northwestern Ontario?

Mr. ABOUSSAFY: There is two million tons comes into the area, which the western mines are capable of reaching.

The CHAIRMAN: You are speaking of the Lakehead?

Mr. ABOUSSAFY: Yes, and up north.

Mr. COMTOIS: You said, "up north"?

Mr. KINDT: Two million. I stand corrected—In western Ontario?

Mr. WOOLLIAMS: That is right.

Mr. KINDT: That is the issue and the market that the Crowsnest Pass producers desire to have reserved for the Crowsnest Pass and other producing areas of western Canada.

Mr. UREN: Where did you get your figures? Two million tons?

Mr. KINDT: Two million tons; that is right.

Mr. UREN: They are not our figures; we did not give two million tons.

Mr. ABOUSSAFY: May I come in here?

I got those figures myself from a coal man. As I say again, I respect this coal man very much; he knows his coal possibly better than—

The CHAIRMAN: The figures are published, Mr. Uren?

Mr. ABOUSSAFY: We are not so sure about the area this particular person talks about. I should have got that.

Mr. BIGG: Could the coal board enlighten us on that?

Mr. ABOUSSAFY: They do not know the area.

The area the western coal can reach, there is two million tons of American coal coming into it. If you had the American tons that would be enough to cure all the ills of western Canadian coal. The 150,000 tons that comes into Winnipeg could cure some of the mines' ills in western Canada.

We do not need to argue about a few hundred thousand tons.

Mr. BIGG: There is so much of it coming in here it is ridiculous.

Mr. WOOLLIAMS: Mr. Chairman, I wonder if Mr. Uren would set out what the figures are in that particular area?

Mr. UREN: It all depends on the area. If you are talking about the western and the northwestern area you are probably talking about the intake at Duluth and Fort William, which includes all the coal for the Algoma Steel Corporation. The coal for the pulp and paper industry plants is spread out through there.

Mr. MITCHELL: Inco?

Mr. UREN: International Nickel Company.

Mr. BIGG: As far east as Sudbury?

Mr. MITCHELL: Farther east than that.

Mr. BIGG: The figures that we want are where it would be economical to use this coal by rail from the western mines.

Mr. UREN: We have always figured it was economical to move it, and it does move, to Kapuskasing, and some is moved into Terrace Bay.

Mr. BIGG: So perhaps two million tons is not an exaggeration?

Mr. UREN: Covering the whole area, covering International Nickel and the Sault, all that coal comes in through Duluth, Port Arthur, Fort William at Sault Ste Marie and Michipicoten.

Mr. BIGG: Would this coal satisfy this market in thermal capacity?

Mr. ABOUSSAFY: I am not a coal man; I think these mines should be given the chance. I believe they have the coal there and I would not doubt a bit that that coal is good enough to be shipped and used in Canadian industry. It produces between 1,200° and 1,400° B.T.U.'s.

Mr. KINDT: May I ask Mr. Uren that question in view of the Crowsnest Pass coal having 1,350° B.T.U.'s?

Mr. UREN: Crowsnest Pass coal would satisfy that, the individual company, the Crowsnest Pass Coal Company, if it is carefully selected, which they do.

I will name the collieries: Coleman, West Canadian Collieries. They have had the opportunity year after year. However, they have failed to satisfy the engineers, who in turn go to their companies and purchasing agents, and say, "We will not use this coal because we cannot keep our steam heads".

In the pulp and paper mills, if you lose one batch of paper it makes a great deal of difference. That is the history of it.

I said yesterday that I thought there was some coal in one of these areas, which, if they mined it, would equal Crowsnest Pass coal in consumer acceptance. Mr. Ignatieff will confirm that.

Mr. IGNATIEFF: What is that?

Mr. UREN: I said if West Canadian Collieries would mine some of the seams of the coal of known quality there is no reason why it should not have the same consumer acceptance that Crowsnest Pass coal has.

Mr. IGNATIEFF: Subject to cleaning.

Mr. BIGG: That is apart from price; that is just the quality of the coal.

Mr. UREN: The quality of the coal, provided it is given the same selectiveness which is given in their mining.

Mr. IGNATIEFF: I must say, on the Alberta side of the Crowsnest area the seams inherently are more impure than on the Crowsnest-B.C. side.

Mr. BIGG: Am I to gather there is no Alberta coal which can satisfy the market as to quality, even if you get the price range?

Mr. UREN: No, I wouldn't go that far.

Mr. BIGG: As I get it you have to go to British Columbia to get the coal. Is there Alberta coal which would satisfy this need in the industry? Let us leave the price out of it.

Mr. UREN: As Mr. Ignatieff says, if properly prepared.

Mr. BIGG: It is limited in the industry at the present time?

Mr. UREN: All I can say is that it has been tried and tried and tried, and found wanting, and they will not purchase it any more.

Mr. KINDT: That is,—

Mr. UREN: The outlets that we have.

Mr. KINDT: In western Ontario?

Mr. UREN: In northern and western Ontario which could be with subvention economically serviced.

Mr. KINDT: Is that true, in the light of the \$4 additional subvention which was put on?

Mr. UREN: That is true in the light of the raising of the subvention to the maximum of \$4.

Mr. KINDT: Do you think that there is a market that these Crowsnest Pass operators could capture with the help of that \$4, if they went after it?

Mr. UREN: I think they have gone after it.

Mr. KINDT: They have gone after it?

Mr. UREN: Yes.

Mr. KINDT: Would you agree with that, Mr. Aboussafy?

Mr. ABOUSSAFY: Yes, but there is the technical point; the Canadian coal has to be better and cheaper to get markets. That is the impression I have.

Mr. BIGG: Surely it is as good.

Mr. UREN: It has to be as good and at the same price.

Mr. ABOUSSAFY: You see, gentlemen, when the \$4 is applied to the Canadian coal the American coal comes in and undercuts that \$4.95 or \$3.95.

Mr. BIGG: That is a matter of price rather than quality, I gather?

Mr. ABOUSSAFY: Yes. Mr. Ignatieff says that there is British Columbia coal which is suitable and could be used in this market. Let that British Columbia coal come in, we are not fighting just for Alberta coal. British Columbia coal can come into this market, which would leave other coal for the Alberta side. As long as it is Canadian coal, well, let it come in. If they admit British Columbia coal can come in and capture this market, let us develop that, bring British Columbia coal in here.

Mr. KINDT: Mr. Chairman,— we are not talking of British Columbia and Alberta coal competing; we are talking about American coal: I want Mr. Uren to come out and say what the competition is between U.S. and Alberta coal; and we have not got a clarification of that point. It is not being answered; it is being evaded. Mr. Uren is the man who is evading it. I want a clear-cut answer from Mr. Uren on that point.

Mr. UREN: I am not evading anything.

The CHAIRMAN: Ask a direct question, Mr. Kindt.

Mr. UREN: Yes, what is it?

Mr. KINDT: Is there any possibility of the Crowsnest Pass coal having a chance, or being given an opportunity, to provide the energy source for those concerns in western and northwestern Ontario for which the American producer is now providing the coal?

Mr. ABOUSSAFY: Under more favourable conditions.

Mr. UREN: At the present time?

Mr. KINDT: At present.

Mr. UREN: No.

Mr. WOOLLIAMS: What could be done, then, to create that market, if anything?

Mr. UREN: Perhaps better preparation and living up to the specification of the coal that they sell.

Mr. WOOLLIAMS: You think there has been a problem of the coal operators in these various districts who have not lived up to what they held out their coal to be?

Mr. UREN: Certainly.

Mr. BIGG: Is it a question of the quality of coal, or fixing the price properly? If you cannot make the quality of the coal consistent you cannot sell it; but if the quality is there we can do something about subvention, freight rates, mine conditions, and so forth. If the quality of the coal is not satisfactory we have to do something about that.

Mr. UREN: Well, it is not satisfactory; it has been tried out in many plants.

Of course, there are many plants in northwestern Ontario, the equipment of which has been surveyed by the Fuels Division of the Department of Mines and Technical Surveys and it will not take the coal; the equipment is not suitable for that type of coal.

Mr. WOOLLIAMS: Dealing with the western Ontario market, when the gas pipe line is completed—and this is a problem we will all have to face—will that make it a greater competitive market, not only for American coal but for the coal we have been discussing?

Mr. UREN: It has already made a considerable difference. They had taken the Spruce Falls plant at Kapuskasing away from American coal several years ago. Now with gas going through there the gas is taking 50 per cent of the tonnage of Canadian coal away this year.

Mr. WOOLLIAMS: Will such places as International Nickel and other companies change their whole equipment over to the use of gas rather than coal?

Mr. UREN: Not necessarily so.

Mr. WOOLLIAMS: Have you heard anything in that regard?

Mr. UREN: No, and neither did Kapuskasing. They just took half of their equipment and put it on gas and put the other half on coal.

Mr. WOOLLIAMS: Has the board ever approached these companies to see if they would convert from gas? I have some information that they would and I was wondering if your board ever made any research in that regard?

Mr. UREN: No, we have not. We are not a marketing board.

Mr. WOOLLIAMS: But this is information for coal marketing. It is a competitive fuel for the future.

Mr. KINDT: Mr. Uren says his agency is not a marketing board, but he does administer the policies of the government, out of which emerge the conditions which these people are hoping to alleviate in the Crowsnest Pass.

One other question. Have you any policies in mind, or have you any thoughts in mind, which will help to solve the present coal problem of the Crowsnest Pass and get hold of these western Ontario markets that we are now talking about?

Mr. UREN: Nothing immediate, with the competition which exists at the present time with all types of fuel energy.

But, as the operators and the union know, I have just recently been through the west and told them to concentrate their efforts in their mining, and their costs, on capturing the thermal power market.

Mr. KINDT: At the Crowsnest Pass did you make that statement to them—at the Crowsnest Pass?

Mr. UREN: I have made it to all the operators of the Crowsnest Pass and to the president of the union and his council in Calgary in April.

Mr. COATES: I wonder, Mr. Chairman, if Mr. Uren might be able to give us some idea of the estimated reserve of this American coal, and what the possibility of this coal increasing in price might be in the future?

Mr. UREN: The total reserves of United States coal were given by Mr. O'Brian yesterday. He will look them up and repeat them, but you can get them from the written record.

Mr. COATES: What is the possibility of this coal increasing in price?

Mr. UREN: You mean American coal increasing in price?

Mr. COATES: Yes.

Mr. UREN: There is every possibility that the American coal will increase in price with the resumption of better business conditions. But there is no possible hope of United States coal increasing in price under present depressed conditions, because I do not think that the United States will mine 400 million tons this year.

Mr. DUMAS: Is that an increase?

Mr. UREN: No, a decrease—a very heavy decrease.

Mr. MUIR (*Cape Breton North and Victoria*): What percentage of western mines are fully mechanized at the present time?

Mr. BOYD: Practically all the mines in the domestic field with the exception of the Murray mine are mechanized to a high degree.

Mr. MUIR (*Cape Breton North and Victoria*): Do any of them still using the old hand pick method?

Mr. BOYD: Not with the old hand picks.

Mr. MUIR (*Cape Breton North and Victoria*): Do they have automatic cutters and loaders?

Mr. BOYD: All of the domestic mines have automatic cutters with the exception of the Murray mine; and they have automatic loaders too.

Mr. MUIR (*Cape Breton North and Victoria*): Have they gone into cleaning methods thoroughly in western Canada?

Mr. BOYD: There are not too many cleaning plants at the western mines.

Mr. MUIR (*Cape Breton North and Victoria*): What type of cleaning plants are they, sand or water?

Mr. BOYD: Most of them are what are known as dry cleaning plants as far as the Crowsnest Pass area is concerned.

Mr. MUIR (*Cape Breton North and Victoria*): Do you feel they are doing a good job in cleaning their coal?

Mr. BOYD: There is no doubt about it that the coal on the Alberta side of the Crowsnest Pass is not as good as the coal from the British Columbia side, but I am sure with modern mechanization it could be better prepared than it is.

Mr. BIGG: Perhaps that is one of the troubles.

Mr. BOYD: It could be. But I am not saying whether it is or not.

Mr. MUIR (*Cape Breton North and Victoria*): You realize that mechanization of course makes a dirtier coal?

Mr. BOYD: That is quite true.

Mr. MUIR (*Cape Breton North and Victoria*): Therefore we should have better cleaning plants; there is more necessity for having up to date cleaning plants.

Mr. BIGG: What are the terms of reference of the Dominion Coal Board? Are they in the marketing business?

Mr. UREN: Yes.

Mr. BIGG: Do you seek for further markets for all coal in Canada?

Mr. UREN: In an unofficial way.

Mr. BIGG: So we are not wasting your time in discussing this matter with you?

Mr. UREN: No. I am very interested.

Mr. KINDT: We are not wasting your time in talking about western Ontario markets to which the boys at the Crowsnest Pass have been looking for a number of years but now feel they are not able to get or to gain a foothold in despite the fact that we have this \$4 subvention?

Mr. UREN: Some of them are a little late in mending their fences, because now they have additional competition which they did not have before. They now have gas which probably will be going through there at a very low price.

This is not the first time this year that the same conversations have gone on, or the same warnings have been issued by the Dominion Coal Board to some of the western operators.

It goes back for six or seven years; it goes back as long as I have been there, which is eleven years. That was one of the first things we found out in their marketing practice. I am not confining it to the Crowsnest Pass area; it can go for Alberta coal.

I told you in the beginning that for too many years they said: "This is what we mine and this is what you will take."

But with the oil people—there is no question about it—they employ more astute salesmen, and they take the first bite of it and the gas people are now coming around and taking another bite of it.

If the coal operators can prove to some of the consumers in western and in northwestern Ontario that they can live up to their specifications and can deliver coal of good quality, then they will get a chance.

These consumers are patriotic. They have not all gone over to gas.

There are pulp and paper companies, the presidents of which are most patriotic Canadians, who went out of their way to instruct their purchasing departments to try western Canadian coal. But what did they get?

Mr. WOOLLIAMS: Are you suggestion that American operators have done a better job than Canadian operators?

Mr. UREN: In preparing their coal? Certainly.

Mr. WOOLLIAMS: Is there any suggestion—just as there is in western Canada that you have to have good quality wheat to meet the market—has there ever been any machinery set up in respect to coal in order to make sure that the coal which leaves any part of Canada is graded so that purchasers are protected?

Mr. UREN: There was an attempt made several years ago by means of the Alberta Coal Sales Act.

Mr. WOOLLIAMS: Was it effective?

Mr. UREN: It helped some, but it was never brought into full operation. The reason it was done was this: we were continually telling them that it was not just coal from John Jones' operation that was muddying the waters, and that the people in northern Ontario did not pin it down to one operator, but that it was western or Alberta coal, and that the good boys would have to take medicine that the bad boys should have taken.

Mr. WOOLLIAMS: I had a conversation with a Japanese representative from the "Dias" firm. He said that at one stage they got some coal which bore no similarity whatsoever to the coal that they thought they were buying.

Mr. UREN: I am trying to emphasize the fact that I am being labelled as a pessimist and a peddler of gloom because I am realistic and telling the truth.

Mr. ABOUSSAFY: Before I sit down, Mr. Chairman, I would like to say a further word. That may be all true of the past, but during wartime there was pressure put on to produce coal.

However, today when coal is needed they have not the facilities, the money, or the market in order to clean this coal better. That is why I think a chance should be given to these people in order to capture this market again.

As I have said before, Canadian coal still has to be as cheap and as good—if not better—in order to get a market.

Mr. UREN: I do not subscribe to that.

Mr. ABOUSSAFY: It has to be just as good and it has to be just as cheap.

Mr. UREN: We are making it just as cheap.

Mr. ABOUSSAFY: The American people are very interested, and if they find they have to cut the price 50 cents, they do it.

Mr. UREN: Where is that being done and where have we missed the boat?

Mr. ABOUSSAFY: I think American coal is coming in and underselling western coal over and above this subvention.

Mr. UREN: Unofficially we have acted as a marketing board. In several instances in the past two or three years the chairman of the coal board has carried on negotiations with the purchasing agents of large pulp and paper industries in northwestern Canada.

As a result we have succeeded in getting Canadian coal into those plants, and we have got some Canadian coal into those plants which should never have got in there, although we were told that they would be good boys and do what they could.

This year the vice-presidents of several plants have told me what the United States price was. They wanted to be patriotic and buy Canadian coal, but at the same time they require coal which does the job. However, they are not asking that Canadian coal be brought in at a lower price. They are not asking for any great quality differential.

That is why I say we are unofficially a marketing board, but not in the total sense of a marketing board.

Mr. Aboussafy can go back to the operators of the mines and he will find that out for himself.

Mr. ABOUSSAFY: I think that Canadian coal should have the preference.

Mr. UREN: In a free enterprise, as in a free economy, I do not see how the coal board can force consumers to take something they do not want to take.

Mr. COATES: In the Saturday, July 19, issue of the Halifax Chronicle Herald there is a statement that indicates that Dosco since April, with the increase in subventions, has put into new markets in Ontario 440,000 tons of coal.

Could the chairman tell us whether all that coal has been on the same level, and the same price as American coal? Or have some of those firms purchased Canadian coal even at a little higher price than American coal just because it was Canadian coal?

Mr. UREN: No. They are very patriotic, but I do not think they are patriotic to the extent that they would pay a very much higher price for Canadian coal than they would pay for American coal.

Let me tell you one thing: there has been a complete flip-flop and change in attitude, as I understand it, in respect to the orders which have been placed by the Canadian National Railways. They have been very obstinate in their purchases of coal, as everyone knows. In the first place, in western Canada they turned their steam locomotives over to oil because they ran directly across the Lloydminster field, and it did not cost them very much.

Then they put in diesels, and they did this and that. They had a coal mine in the United States for many years and they brought in their own coal. But this year instructions have been passed on to the vice-president of purchases that to the widest possible extent they should purchase Canadian coal.

A sizeable portion of what we are talking about—Eric Dennis seems to have better figures than we have—a sizeable percentage of that is Canadian National Railways coal going into Belleville for the first time in my experience with the coal board.

I think it is the first time since before the war that it has gone in. Another tonnage has gone in there, and tonnages at other Ontario points.

Mr. WOOLLIAMS: How much coal do we export to the United States from western Canada if any?

Mr. UREN: Crowsnest pass ships a fair tonnage to Geneva, the steel plant in California and some over to Spokane, as well as little dribs and drabs here and there.

Mr. WOOLLIAMS: Do they not have the same problem with the Americans because their mines are on opposite sides?

Mr. UREN: The coking properties of Crowsnest coal suit Geneva's process of manufacturing steel.

Mr. MUIR (*Cape Breton North and Victoria*): You have said that this new market which has been opened by Dosco is an indication of better things to come; that is, more coal will be sold in that area. Would it be as a result of the change in the subvention policy to a great extent?

Mr. UREN: Well, slightly. There has been a slight change in the extension of the subvention policy in order to take care of what we might call a package deal when we think, and the government think, there is some continuity to it.

As far as getting back into the Ontario market is concerned, a great deal depends on the tonnage of good quality which can be mined or will be mined one way or another. It would require the experience of several years in order to see what the development will be.

But we feel—and I have not been too optimistic—that there is a future, or a greater future, for obtaining some of the market for maritime coal. However, several factors are attached to that.

With mechanized mining the coal is coming out with a great proportion of "fines". Unfortunately it is coming out dirtier coal, and in some cases with a lot of extraneous material in it.

So if the Dominion Coal Company or any of the maritime companies in any of their operations can go into the Ontario market and give them an improved quality of coal, they not only will get that market but they are less apt to lose some of the markets which they already have.

Another factor is that they cannot recover some of the Ontario markets at their present production costs even with a lowering of their production costs of \$1 to \$1.50 which, in my opinion, and the opinion of those who have followed mechanization and have followed the whole operation down there, is not beyond the bounds of realism.

Mr. KINDT: I think we might as well come to the point of this whole issue, Mr. Chairman. I do not think that the function which the Coal Board of this Dominion is performing is solving the problems in the coal industry.

We are faced with the problem of passing on the estimates of the coal board. But I have grave doubts that the function which is now being performed by the coal board is producing a solution of the problem and approaching it in a manner which will solve the problems of the coal industry.

I do not know that I have the answer. I do not know that I have the suggestions, but it seems to me that we are not far from the position where we ought to take a strong and a hard look at what the coal board is doing and is attempting to do with respect to keeping the Canadian market for Canadian producers. That is one thing.

Another thing is this: we ought to have more concrete policies advanced by the coal board for the solution of the Canadian coal problem. Now these have not been forthcoming from the Dominion Coal Board. So I criticize them from that point of view.

I wonder if Mr. Uren and his officials can come forward with a concrete solution for keeping the Canadian market—and especially the western Canadian market—for Canadian producers, before we pass these estimates of the Dominion Coal Board.

Mr. MUIR (*Cape Breton North and Victoria*): I disagree entirely with Dr. Kindt. I think the Dominion Coal Board has been doing a very good job. I hope they will continue and do a better job and that their marketing powers and others will be extended to a greater degree.

Mr. Uren says they are not actually a marketing board, but I think it would be a very good idea if they were given a few more workers on it. We might as well face the facts.

Mr. Uren said a few minutes ago that you just cannot go to a purchaser of coal and push it down his throat, telling him that he must buy something even if it is going to cost him a couple of dollars more.

By sitting here and condemning the Dominion Coal Board, and saying that they are not doing anything and that they are no good, we are not getting anywhere.

I feel that we must cooperate with the Dominion Coal Board to the extent that we must get them to do a better job in the future than they have been doing in the past, which has not been too bad.

Mr. COATES: The Dominion Coal Board is presently operating under an act?

The CHAIRMAN: It is statutory.

Mr. COATES: Yes. I appreciate that observation.

The CHAIRMAN: I said we would allow plenty of latitude, not only to the members of the committee but to the witnesses who are here, especially to those who have come from the west. You might wish to take a look at the act. I suggest that to those who have raised some question about it, that might or might not be done. You might consider other evidence. You might consider other questions that you would like to delve into with respect to the statutory provisions.

The Dominion Coal Board is constituted under the Dominion Coal Board Act of 1947, as Mr. Coates has pointed out, but their powers are limited. That does not mean perhaps that something might not eventually take place which would give them greater power.

So, as has been indicated, perhaps on the suggestions you have heard in this committee today, or from observations by members of the coal board, I appreciate the concern of members from Alberta and British Columbia about their problems. Otherwise they would not have brought witnesses here before this committee.

We would not prevent your asking questions if you wanted to go into the latitude and the restrictions of the coal board. That would be quite all right. I do not see any objection. Do you, Mr. Dumas?

Mr. DUMAS: No, Mr. Chairman.

Mr. WOOLLIAMS: Section seven of the act sets out the powers of the board but might I change the subject a little?

I was interested in the figures from the reports. I have seen them, but I wonder if we might have the amount of subvention which has been paid out in the last two years to western coal, and also to maritime coal, or wherever the coal comes from. I think it would be valuable to have that on the record.

Mr. UREN: The figures may be found in our annual reports going back to 1928-29.

Mr. WOOLLIAMS: Would you mind giving us the last two years or the last two or three years? It might be of some help if you would read it into the record.

Mr. UREN: How many years do you want?

Mr. WOOLLIAMS: Oh, two or three years.

Mr. UREN:

Fiscal year	Total tonnage moved under subvention	Cost of the Subvention	Average cost per ton.
1954-55	2,680,270	\$8,689,018	\$3.41
1955-56	2,680,270	\$8,395,952	\$3.13
1956-57	2,474,481	\$7,043,378	\$2.85
That is just for Nova Scotia. That is what I have given you to start with.			
1957-58	2,148,341	\$6,526,660	\$3.04

Now for New Brunswick:

1955-56	32,904	\$56,757	\$1.72
1956-57	28,193	\$40,408	\$2.
1957-58	73,095	\$120,664	\$1.65

Now for Saskatchewan:

Fiscal year	Total tonnage moved under subvention	Cost of the Subvention	Average cost per ton.
1955-56	284,080	\$242,323	.85 cents
1956-57	231,606	\$203,330	.88 cents
1957-58	336,489	\$299,462	.89 cents

Alberta and British Columbia, Crowsnest coal:

1955-56	626,122	\$1,873,755	\$2.99
1956-57	594,069	\$1,826,769	\$3.08
1957-58	402,031	\$1,280,136	\$3.18

British Columbia and Alberta for export and for ships bunkers:

1955-56	180	\$135	.75 cents
1956-57	1,264	\$1,197	.95 cents
1957-58	43,833	\$93,221	\$2.13

Total tonnages and costs of Canadian coal—do you want that?

Mr. MUIR (*Cape Breton North and Victoria*): Why not just give the 1957-58 figures? You have the others in the last annual report.

Mr. UREN: 1957-58, 3,300,789 tons; \$8,320,143; cost per ton \$2.77.

Mr. MUIR (*Cape Breton North and Victoria*): Getting back to the point I was discussing with Mr. Uren a few moments ago in regard to the possibility of further expanding the markets for coal in Ontario, I was surprised when he expressed the view that the companies would be fortunate to hold on to the markets that they have. I was surprised because of the fact that, in later years from my own observations, the coal companies in the east have expanded their facilities for cleaning and preparing coal to a very great extent.

Mr. UREN: In one area only.

Mr. MUIR (*Cape Breton North and Victoria*): More so than they have done in prior years. You are, I think, well acquainted with the fact that there has been a program of building wash plants, and so on, especially with Dominion Coal.

Mr. UREN: That is right.

Mr. MUIR (*Cape Breton North and Victoria*): And would that not assist in keeping the coal cleaner than it was?

Mr. UREN: Definitely.

Mr. MUIR (*Cape Breton North and Victoria*): Therefore expanding the market?

Mr. UREN: Definitely.

Mr. MUIR (*Cape Breton North and Victoria*): Why would you say that they will have a difficult job in keeping—

Mr. UREN: Unless they put in better preparation? Perhaps I should qualify my statement by saying, unless their coal was better prepared.

Mr. MUIR (*Cape Breton North and Victoria*): You do not feel that the companies all cooperate to the extent of preparing cleaner coal?

Mr. UREN: Yes, they are endeavouring to do everything they can within the limits of their finances.

Mr. MUIR (*Cape Breton North and Victoria*): Do you not think that these modern plants that they have installed are doing the job properly?

Mr. UREN: The only modern plant is the one on the north side.

Mr. MUIR (*Cape Breton North and Victoria*): That is one of them, and they have plans, I understand, to construct another on the south side.

Mr. UREN: That is right, they plan to do that.

Mr. MUIR (*Cape Breton North and Victoria*): Do you think that the one on the north side at Princess Colliery is doing a proper job?

Mr. UREN: I think so, yes.

Mr. COATES: I have a question supplementary to this. In regard to obtaining greater markets in Ontario, would it not be a fact that they will have to lower their cost of production?

Mr. UREN: Yes.

Mr. COATES: I notice, especially in my own constituency, that a great deal of concern is shown by the company with regard to absenteeism. I was wondering if you could indicate whether this has a great effect on the cost of coal.

Mr. UREN: It always has, and more particularly so in the mechanized operations where they have teams, or a team operating their mechanical miners. If there is absenteeism—maybe one or two men of the team do not show up—it pretty well “shoots” the operation in there, because naturally while they have some spares now with a little more idle time than they normally would, it still takes time to train a crew for the operation; and if they do not all show up, it adds to the cost and delays the operation. There is a stoppage there. I would rather have someone more technical, and a better miner than I am to explain the whole thing. What I have said is roughly the idea.

Mr. MUIR (*Cape Breton North and Victoria*): Further to that, has the Dominion Coal Company throughout Nova Scotia been confronted with quite a problem in this regard?

Mr. UREN: Yes. Mining in the maritimes, and more particularly the Dominion, Nova Scotia group, is always beset with problems.

Mr. MUIR (*Cape Breton North and Victoria*): Regarding absenteeism?

Mr. UREN: Absenteeism there goes back as far as I can remember. I do not know whether the index is as high now as it used to be.

Mr. MUIR (*Cape Breton North and Victoria*): Definitely not. Absenteeism is not as bad now as it was. I think the miners are doing an excellent job, as is shown by the increased production over the past two or three years. I would say that it is a fallacy to say anything about increased absenteeism in the last two or three years.

Mr. UREN: Good! You are from down there. All I can go by is what the management told me, and they still talk about absenteeism. I do not often get an opportunity to talk to an individual miner.

Mr. MUIR (*Cape Breton North and Victoria*): I do not agree with that, because absenteeism is not a problem today. During the war years it was. But I am quite sure that—

Mr. UREN: Within the last five years it certainly was.

Mr. MUIR (*Cape Breton North and Victoria*): It was? Not to any great extent, compared with what it was a number of years ago.

Mr. UREN: Probably not.

Mr. MUIR (*Cape Breton North and Victoria*): There are cases where men are being sent home.

Mr. COATES: There is a problem in Cumberland.

Mr. MUIR (*Cape Breton North and Victoria*): That is a little different situation. It is rather hard to get a miner to be anxious to go back into a hell hole that he has come out of, or been blown out of. That is a different situation. I do not blame him one bit. I have been in an explosion myself, but it was only a trival thing compared with what those men there have gone through. You would want a few silver dollars or gold pieces to go down into that mine.

Mr. DUMAS: Mr. Uren, maybe you could give us some figures on the tonnage production per man-day in Nova Scotia for 1955, 1956 and say 1957; that is production per day per man. I see you have it in your report for 1955 as 2.41. In 1956, what was it?

Mr. UREN: We will see if we can get it.

Mr. MUIR (*Cape Breton North and Victoria*): That is a very important question.

The CHAIRMAN: We have been waiting for it for a long time.

Mr. WOOLLIAMS: I notice by reading the terms of reference of the powers of your board that there has not been a branch to date—and I may be wrong—that has been used to explore the channels of starting industry in such places as Drumheller, Canmore and the Crowsnest Pass.

Mr. UREN: No.

Mr. WOOLLIAMS: So that that is outside of the terms and conditions of your reference set up by the act?

Mr. UREN: Absolutely, we would be clipped by the Department of Trade and Commerce.

Mr. WOOLLIAMS: In other words you say that some felt you were a little pessimistic about the future of Drumheller, Canmore and Crowsnest Pass. Do you feel that the time has now come for either enlarged powers of the coal board, or for a new body to explore such channels as would be of help to the coal industry?

The CHAIRMAN: Do you mean for new industry in these areas?

Mr. UREN: Perhaps I am treading on another department's toes.

The CHAIRMAN: Part of that is provincialism, Mr. Woolliams. We have a planning board in Ontario as well as municipal authorities anxious to obtain industries. I think we can appreciate your question.

Mr. WOOLLIAMS: I think there is a possibility of working together, though. Maybe the energy board could go a little further.

The CHAIRMAN: Mr. Uren has an answer to Mr. Dumas' question.

Mr. UREN: The average production per man-day in Nova Scotia in 1955 was 2.32 tons. In 1956 it was 2.41 in round figures per man-day, and in 1957 it was 2.605. We have not the figures for 1958 but it is over 3 tons.

Mr. DUMAS: In the report for last year—the last report we have—for 1955, we have 2.41. There has been a correction for 1955?

Mr. O'BRIAN: That, Mr. Dumas, is a different year. The year referred to in that "cost survey" is made up from the companies whose annual cost year ends in that year. That is not a calendar year, such as these figures are here.

Mr. DUMAS: May we have the figures for the United Kingdom coal mines?

Mr. O'BRIAN: The United Kingdom?

Mr. DUMAS: That is for 1955.

Mr. UREN: I think so.

Mr. DUMAS: And maybe for the French coal mines?

Mr. UREN: I do not think we have the figures for the French coal mines.

Mr. O'BRIAN: Yes, we have. The figure for 1957 in the United Kingdom was 1.78.

Mr. KINDT: Mr. Chairman, it seems to me we have listened and had the benefit of these witnesses from western Canada. There is a thought or two that I have in the back of my mind, concerning the coal problems of the west which have not been discussed as yet, and that is this; that if we are to solve the problems of the Crowsnest Pass we cannot tie our wagon to the coal board. It is one of those boards which has functioned very admirably in the past but what we urgently require in the future, Mr. Chairman, is a new department of energy, which can look at the full scope of this broad picture and have the powers to act for the development of new industry. It must be a department of energy; it must be something other than the coal board. I think there is no question or doubt about that. I do not want to say any more about it. It certainly has been made clear in discussing the estimates of the coal board. I will support the coal board as it now stands, but we have outgrown it, and we need a new department of energy. We need something new to get new industry started in the west, to take up where the coal board has left off, and get into the development of new industry.

Mr. DUMAS: I think if we were to have a department of energy, we would still need a coal board. We would still need a coal board, because coal is a very important natural resource, and I think that it should be administered by a separate branch of whatever department is chosen to put it in.

Mr. WOOLLIAMS: I think we may have reached the point where we should consider whether we need to keep the witnesses from western Canada. I notice it is ten minutes to eleven and I assume we will be adjourning at 11:00 a.m.

The CHAIRMAN: I appreciate the remarks recently made. There is an energy commission now hearing evidence from coast to coast and a report will likely be forwarded within a year or so. On the basis of that report no doubt there will be some government legislation, and I think they will welcome the statements made this morning.

Mr. AIKEN: May I add one thought to the view expressed by Dr. Kindt. There would be a possibility if an energy board were established that the reverse result would come about—that the interests of the coal industry might, to some extent, be sacrificed in the over-all picture of energy. I would think that the coal industry must still have this special interest in the energy picture. I would be afraid that if an energy commission were set up and they started to weigh the values of oil and gas as against coal, they might find against coal, rather than for it; and might not carry the benefit to the coal industry.

Mr. KINDT: I have a further footnote to what you have said. One of the terms of reference of the new energy commission functioning is to define the duties, to define the terms of reference and to define what the new energy board should be, so I am inclined not to discuss that question any further until the board has made its decision.

The CHAIRMAN: I think you are justified. I want the witness to know—having come from Alberta—that we welcome them and if there is any observation they wish to make to this committee, they are free to do so. We do not want them to go home feeling that they have left something unsaid. I think that is the feeling of this committee. If there is any observations that you want to make, or any suggestions, we shall welcome them, gentlemen.

Mr. BOYD: We are glad to be here, and I wish to thank the members of the committee for having the opportunity of appearing before you. We have been advised that this is the first time that this committee has functioned for quite a number of years. We people from western Canada honestly believe that an attempt is now being made to solve our problems in western Canada. It is the opinion of the coal miners that the long-term solution to our difficulties is in the matter of thermal power. However, that is something for the future and we realize that in such an instance it may be anything from three to four or five years before we get such a thing going.

In the meantime we feel that in order to save the industry we should, by hook or crook, get a slice of that American coal coming in to keep us going through the interim period. It might come in the future. So far as the domestic section of our industry is concerned it has now been proved through that power plant in the Drumheller valley that that type of coal might also be used for power purposes. We feel, as a last resort, that after all, we are coal men and we are representatives of the union. We feel that coal is No. 1 as far as our men are concerned. Keeping them employed at the occupation at which they have spent their whole lives and made all their earnings is the primary consideration before consideration is given to any such thing as a subsidiary industry. The number one consideration should be coal first, in the interim period, while waiting for this power development, which naturally must come, in the light of the great natural resources of the western provinces, not only of Alberta but of British Columbia as well. One of these days there will be an influx of population and that population might solve the problems of the coal business. It will be of some assistance as far as the farmer is concerned, and all the way through it could work that way. We feel, however, we are entitled to some consideration. We are entitled to some assistance in the interim period. We know the days are difficult; we know we are going through a sick period as far as the industry is concerned.

We wish to thank you, sir, for having given us this opportunity, and express the hope that by being here we have answered all the questions to your satisfaction.

Mr. WOOLLIAMS: I would like to take this opportunity of thanking Mr. Thomas Mackie from Drumheller, Mr. Boyd, president of District 18 of the United Mine Workers of America from Calgary, his secretary, Mr. Ure, Mr. Henry Sherwood from Canmore and Mr. Frank Aboussafy from Coleman, Alberta. I am happy that they have come to the committee because now gentlemen who are members of the unions will see that we have a very fine chairman in Mr. Murphy. Sometimes we westerners say "What about these easterners?" Now you can see an easterner at work and you can see him guiding the functions of this committee. I am sure you will go away feeling that you have had a very good hearing. As you gentlemen have said, this is the first time this committee has met for a number of years—I think 20 years. I think we have a good chairman and we are getting to the facts of this situation. We will have a record which will enable us to analyse some of these facts and eventually come up with a solution.

I should like also to thank Mr. Uren and Mr. O'Brian and the other officials who have come here to give evidence, to assist us, and also Mr. Jones, the clerk of the Committee, who has worked with us and assisted us in getting the witnesses from Alberta. Thank you very much, and thank you, Mr. Chairman, for your courtesy.

Mr. KINDT: I would just like to add a footnote to what Mr. Woolliams has said. I want to thank those from the Crowsnest pass area and other miners unions for coming here and helping us with the problems—the great problems, may I say—which we have heard here in this committee and in this work we have undertaken. I want just to add that word to what already has been said.

The CHAIRMAN: Thank you Mr. Woolliams and Mr. Kindt. Gentlemen, these two aggressive members certainly presented the views of our whole committee and I think the minister and his associates here also appreciate your having come down to Ottawa to give evidence which has been very, very valuable to us. I know it has been an eyeopener to me to hear about the conditions. That is what you are here for, to present your problems, and you have made a very splendid job of it. I thank you.

Before we adjourn, gentlemen, before you approve items 217 and 218, there is an item which Mr. Dumas wishes to bring up.

I hope, Mr. Kindt, that at the next session you will extend your remarks to section 7, because I appreciated it and I know the committee did. In your case there may be some limitations or restrictions on the board, it is not certainly, the efficiency of the board you are criticizing.

Mr. KINDT: No, that is right.

Mr. MUIR (*Cape Breton North and Victoria*): Mr. Chairman, if we approve items 217 and 218, do you mean to say we are through with the Dominion Coal Board estimates?

The CHAIRMAN: If that is the wish of the committee. It is up to you.

Mr. MUIR (*Cape Breton North and Victoria*): But we have just started—we have not done anything. As far as eastern coal is concerned. I have certain pertinent points to make.

Mr. DUMAS: I think Mr. Muir is right. We have been discussing western coal, and as far as I am concerned I do not want to put a burden on the board. I know they are busy, but we did not have a chance to discuss the eastern coal situation.

Mr. UREN: The board is at your convenience.

Mr. DUMAS: And as Mr. Uren is agreeable, perhaps we might have another session this afternoon.

Mr. UREN: Have it this afternoon.

Mr. MUIR (*Cape Breton North and Victoria*): I most certainly think we should have another session. This has been a very important question—the question of the coal problem. I have been sitting here and listening to a lot about the western phase. Now we want to start discussing the eastern phase.

The CHAIRMAN: Shall we meet this afternoon, gentlemen, at 3:30?

Mr. DUMAS: Before we adjourn—I understand that those witnesses coming from Alberta will be paid for their expenses. But they are workers and I wondered if the committee could consider paying them so much per day for their time. I just bring that up. They are not ordinary witnesses, they are miners and they have come here and we have to pay their expenses. Should not we pay them a per diem allowance for the time they have been here?

Mr. MUIR (*Cape Breton North and Victoria*): If there is any possible way at all, it should be definitely taken under consideration.

Mr. DUMAS: I have already discussed that with the Chairman. I do know about the expenses being repaid to those who were summoned but the loss of wages is an additional matter. I would so move, if the committee would approve it, because I know that two of these men did leave their work and will lose wages by coming here.

Mr. KINDT: I would second that.

Mr. MITCHELL: I would like to add that it was intended that they would have a per diem arrangement while they were here. I would like to go further than that, and include their travelling expenses to and from Ottawa.

The CHAIRMAN: That is understood, it is from door to door, portal to portal.

Mr. MITCHELL: Or minehead to minehead!

The CHAIRMAN: Would \$15 per day be satisfactory? Is that agreed for those to whom it applies, namely Mr. Sherwood and Mr. Mackie? Agreed.

We meet this afternoon at 3:30 p.m. to give you a chance to go into eastern coal.

AFTERNOON SITTING

TUESDAY, July 22, 1958.

3:30 p.m.

The CHAIRMAN: Gentlemen, I see a quorum, we will get started.

At the conclusion of this morning's meeting the committee was kind enough to consider the suggestion made by three of the members of our committee that the witnesses from the west who were summoned get a per diem allowance of \$15 per day over and above their expenses, understanding that they all were losing wages, and the committee approved of that. I would like it to go on record on your behalf that two of the witnesses are on salary, and those two declined any per diem allowance; I know you will be glad to hear that.

We have had the west, and we are now on the east. Who wants to start?

Mr. DUMAS: Before we go east, there are some figures which I would like to have on the record. I did not get them this morning because I thought they might have been recorded last night when I was not here. Could Mr. O'Brian supply those figures? I would like to have on record the figures relating to the cost of western coal at a point in northwestern Ontario.

Mr. O'BRIAN: Would Fort William do?

Mr. DUMAS: Yes, the cost per ton.

Mr. O'BRIAN: The present price of American bituminous steam slack coal for industrial use alongside the dock at Fort William is about \$8.10 per net ton.

Mr. DUMAS: And what would be the price per million b.t.u. of this coal?

Mr. O'BRIAN: That would be about 30 cents.

Mr. DUMAS: What is the cost of the Drumheller coal to the same point?

Mr. O'BRIAN: Drumheller is a domestic coal; it is not competing with this. Coal that would compete would be Crowsnest Pass bituminous coal. That is the same coal they are moving into the same market. That would cost, after subvention on railway cars at the plant,—

Mr. DUMAS: Including the subvention?

Mr. O'BRIAN: Yes, \$10.75.

Mr. DUMAS: Per million b.t.u.'s?

Mr. O'BRIAN: About 41 cents.

Mr. DUMAS: Thank you.

Mr. O'BRIAN: Let me make it clear those are not comparative costs because the American coal has to be unloaded and moved over the dock, and delivered, which might add \$1.50 to \$2 to the figure I gave.

Mr. MUIR (*Cape Breton North and Victoria*): We have been discussing principally, as you stated, the problems of the western coal industry. Now we are coming to the problems of the east.

One question I would like to ask the chairman of the Dominion Coal Board is this: what is the viewpoint of the Dominion Coal Board with regard to the future of the coal industry in the maritimes? We have newspaper reports from experts—and so-called experts—economists, coal operators and union men, as to the future of the industry. We have had different viewpoints. Just what is the long-range and short-range viewpoint of the Dominion Coal Board?

Mr. UREN: The long-range viewpoint of the Dominion Coal Board is one almost as opposite in colour as the one I gave this morning. Perhaps I had better say that I gave it reluctantly, because it is my opinion, and the opinion of the coal board and the permanent staff of the coal board, that the future picture for Nova Scotia coal or maritime coal of the better qualities—let us say 85 to 90 per cent of the coal that is mined over a long period of time—is quite rosy. In the shorter period of the next five years it is very bright, taking into consideration of course that there will be additional mechanization—I mean by that a preparation plant. And of course everyone is doing a certain amount of estimate guessing on what the traffic charges will be, the cost of moving the coal from Nova Scotia to the consuming centres, as opposed to the cost of moving the coal from the present centrally located regions in the United States, with the shorter-distance hauls to the big consuming points in Ontario. The completion of the mechanization, and if you want to take a little time, I will explain it in my own language, and in not too technical language. If not, I will call on Mr. Ignatieff who examines, once a year, the progress of the mechanization and what is done. Incidentally his report for last year is very favourable. It is right to the point and is encouraging. They are about two-thirds mechanized, but they do not get two-thirds of the value out of that mechanization. The last third of mechanization will tell the real story on what they have originally aimed to do. Perhaps I could make it clear by using an example. You might get 50 per cent now out of 60 per cent mechanization, but they ought to get 80 to 90 per cent out of 95 or 100 per cent mechanization. So that the big jump in efficiency will come in the next third of mechanization which includes the preparation plants, and other operating ideas that they have just recently put into effect.

Now you, Mr. Muir, you have been a coal miner; you have been down, and you know. But I am not certain if you know that they have started in some of their collieries a totally different method of mining. It is still longwall mining, but there is a retreat mining that is going on. You know that they have gone to proper propping and you know that they use diesel locomotives and their haulage is improving all the time. It is a shame that they did not go on or could not go on with their rock tunnel because in my opinion and from what I can learn from experts the rock tunnel as a man-way and haulage-way would have added immeasurably. However, with all that, I think that, given full time and with the present energy that is being shown by the miners down there on the per-man-day production, we will undoubtedly, even if the business conditions remain in the trough that we are in now, continue to improve the present position—and I am one who does not believe that we are going to get out of our present trough for some time, and certainly it is quite possible that we will not get back to where we were a year and a half ago, for another year and a half or two years. If they can hold their own, which I think they can, in the neighbourhood of five to five-and-a-half million tons for the next year or so, there is no reason that, with further mechanization and the same zeal on the part of the miner, that they cannot reach above the 6 million mark in production and reach above the 6 million mark in sales. Because,

there has been a considerable increase in their man-day production which unfortunately has not reflected itself in the cost per ton at the pithead. There has been something that so far has not been clearly defined by the present staff, and we cannot fathom it because there has been a decided increase in man-day production. But also the production costs continue to go up month after month until they are now considerably higher than they were at this time last year.

I do not think we will get out of this present situation as far as their stockpile is concerned until some time next year. In other words, you say "Well you ship one-and-a-half million tons up the river, every year, and it is supposed to come out of stockpiling." It cannot all come out of the stockpile because there are several large-sized customers of dominion coal who will not take stock-piled coal.

When I say "sizeable customers", the one I have in mind has been for many years supplied with 350,000 tons a year of freshly mined—what I probably misname as "green"—coal, and they insist on having it. There are efforts being made by the company with these really careful customers, as we call them, to include some of their stockpiled coal. I do not think there has been undue disintegration in the stockpiled coal, and if it was not that the customers are a little picayune, they probably could see no reason why they could not use it, the same as any other.

One of their great complaints is that the longer it stays in the stockpile, the easier it blows away. They do not lose any in bringing it up the river in bulk carriers, but they claim they lose a lot in unloading it from the bulk carriers to their own stockpile and they carry a stockpile of perhaps 250,000 to 350,000 tons in the vicinity of their plants. That is subject to blowing day and night. So they want the greenest coal they can get.

That is another explanation; but you asked me what the future is. We think the future is safe at about 5 million tons for the next few years at the price level before the idle time, but which is much safer and can expand if they can attain the goal that they have been talking about during the past four or five years, and that is at \$1 or \$1.50 less than their pre-idle time production costs.

Mr. MUIR (*Cape Breton North and Victoria*): The reason I asked the question is that there was an air of uncertainty over the coal mining towns. The people are uncertain of their future. They do not know what to do and that is why I wanted to have your viewpoint and that of the coal board.

Mr. UREN: They have every reason, Mr. Muir, to feel a sense of uncertainty. It is not for me to sit here and criticize what people put in newspapers. A great deal of what I learn I get out of newspapers, but I think there was too much said and too little done before they went on idle time. Whether they said it or whether it was the figment of a newspaper reporter's imagination, it came out in box-car letters that there would not be any lay-offs. We could not subscribe to that in the coal board, in studying their position, because I want to tell you that the people down there are forthright. They want to do everything that is possible. We have the same figures to work on in the coal board but they are purely confidential. There are only three people on my staff who have had available what the president of the company gets, and we get it about the same time he does. So we know what their costs are and we get pretty close to their financial position.

The next thing is that there were several alternatives proposed to the government. I think the government acted very wisely, and took one of the submissions that was available. In other words, I am trying to say that the coal board does not settle matters of the cabinet, you know that; but they took a very wise move in what they did. I do not want to put any damper on them,

but show you that the government is quite willing to give them the time, more particularly to the new management which has gone in there. A number of changes that they have told us they are going to make have already been announced in the newspapers. The government is giving them from now until perhaps December 31, 1959, to try to put their house in order. Personally I am of the opinion—and there may be some people who do not agree with me 100 per cent—but I think they can get their house in pretty good order by December 31, 1959.

Mr. COATES: Along that line, it appears to me that since this merger has taken place, the management of Dosco has indicated a far greater interest in selling coal than was before apparent.

Mr. UREN: Oh, there is no doubt about it.

Mr. COATES: I have noticed full-page ads in the Toronto Globe and Mail, and things of that sort.

Mr. UREN: There is not any question about it.

Mr. MUIR (*Cape Breton North and Victoria*): We hear that the coal companies are going all out in an aggressive manner to try to solve their problems.

Mr. UREN: Definitely. For instance, I happen to know—perhaps you felt that they covered the field only in the province of Quebec—they did not keep the Quebec salesmen they had down there just beating all over their territories; they recruited them and sent them into Ontario beating the bushes there in an effort to get everything they can. There has been certainly a revival in their selling organization and in the quality of their selling.

Mr. COATES: Is it not correct that some of the problems created last year were something over which the company did not have control?

Mr. UREN: I do not know. All I know is what I hear in the corridors or on the street corner.

Mr. MUIR (*Cape Breton North and Victoria*): Getting back to the newspaper reports, and so on, public opinion is formulated to a great extent by newspapers. I think that if a clearer policy had been stated by the company, or companies, to the miners, and there is no one more reasonable than a miner; he is a good hard-working, clear thinking, sensible individual; but when statements come out to the effect that there will be no lay-offs, or that no lay-offs are contemplated, and immediately following those statements the reverse actually happens, that is what creates a bad taste in the mouth of the coal miner.

You mentioned, despite the increase in man-day production, that the cost of production went up.

Mr. UREN: Yes.

Mr. MUIR (*Cape Breton North and Victoria*): What would be the explanation for that?

Mr. UREN: I wish I knew. From anything we can see, the miners were very fine in the attitude they had taken to everybody concerned in respect of wages, keeping wages at the same level while the steel people were getting increases. When the steel man's wife and the coal man's wife speak, one says that her husband gets more, and that her husband bought her this and that; they were very patient. They were given an increase a few years ago.

Mr. MUIR (*Cape Breton North and Victoria*): Partly based on production.

Mr. UREN: First a flat increase, a dollar, then another eighty cents a year after, and then they have the incentive bonus. There is not any question but that the dollar two years ago and the eighty cents this past year, plus the incentive bonus, have made a considerable difference in the production costs.

The CHAIRMAN: Would you explain the dollar and the eighty cent items? They apply to what?

Mr. UREN: \$1 a day and 80 cents a day.

Mr. DUMAS: That was within the last few years?

Mr. UREN: Yes. \$1 one year and 80 cents the next year. The dollar went in in December 1956, and the 80 cents went in in December 1957. The incentive bonus went in in between that.

Mr. MUIR (*Cape Breton North and Victoria*): In other words, there was a certain target; if they reach the production target they would get the additional bonus?

Mr. UREN: Yes.

Mr. MUIR (*Cape Breton North and Victoria*): Those targets have been set at what we consider to be high targets.

Mr. UREN: I would think, after we analyzed them, that they put it at 92½ per cent, which is very fair in most cases. Where it was not proven to be fair, they changed it from time to time.

Mr. DUMAS: At this point could we have the operating costs in Nova Scotia for one ton of coal in Nova Scotia for 1955, 1956 and 1957?

Mr. UREN: You may have them but we cannot give them for an individual mine.

Mr. DUMAS: No; the average cost as in your report.

Mr. UREN: Do you mean at the pithead of the mine?

Mr. DUMAS: The operating cost.

Mr. O'BRIAN: On page 42, of the coal board's annual report you have the 1955 cost. The operating cost for 1955 in Nova Scotia is \$9.96 per ton; for 1956 it is \$9.98 per ton. The cost for 1957 is not yet available as we have not yet secured the financial returns from the companies.

Mr. DUMAS: The difference between 1955 and 1956 is very small?

Mr. O'BRIAN: Two cents.

The CHAIRMAN: Do you want a breakdown of that?

Mr. DUMAS: I would like the total mine cost, the total cost and the final cost?

Mr. O'BRIAN: The total mine cost in 1955 is \$8.14, and in 1956 \$8.20.

Mr. DUMAS: Again there is a small increase?

Mr. O'BRIAN: The total f.o.b. cost was \$8.15 in 1955, and \$8.33 in 1956.

Mr. DUMAS: What was the total production in 1956? We have it for 1955.

Mr. O'BRIAN: It is 5,695,481 tons for 1956. For 1955 it was 5,663,614 tons.

I repeat again that that is not a calendar year; it is the year made up of the financial years of all companies reporting.

Mr. DUMAS: Mr. UREN, is that your opinion for 1957, that the production will be less?

Mr. UREN: Not much different.

Mr. DUMAS: We all have at heart this question of coal, whether it is in the eastern or in the western part of the country; but now we are speaking of the eastern part. Where is the Nova Scotia coal sold; I means the bulk of it? Is it in Quebec?

Mr. UREN: Quebec, the maritime provinces and Ontario.

Mr. DUMAS: May we have a breakdown of the sale in 1955 for the maritime provinces, Quebec and Ontario? Could we have a breakdown of the total?

Mr. UREN: Yes.

Mr. O'BRIAN: The source of this information is the Dominion Bureau of Statistics.

Mr. UREN: We could not give you the whole of the information, because all we get is the coal under subvention. The Dominion Bureau of Statistics have all the figures.

Mr. O'BRIAN: I only have the information for 1956. Sales in tons in Nova Scotia were 1,924,435; in New Brunswick 478,073; in Newfoundland 184,138; in Prince Edward Island 627,033; in Quebec 2,244,721. There were exports in that year. To Great Britain 231,180; St. Pierre et Miquelon 10,599; Germany 4,050. There was some supplied to the railways but there was no evidence here as to where it was consumed. For locomotive use in Canada 401,404; sold for bunkering in steamships 39,175. A total for 1956 of 5,580,498.

Mr. DUMAS: Was none sold in Ontario?

Mr. O'BRIAN: In 1956 there is none shown for Ontario as a shipment. It may have been shipped on from Quebec under subvention.

Mr. UREN: It could have gone to Windmill Point at Montreal and have been trans-shipped to Ontario. I know positively in 1956—

Mr. O'BRIAN: There was subvention paid on 164,301 tons moving from Quebec to Ontario.

Mr. UREN: I know that they supplied the central heating plant here and other government buildings. If that coal had not gone to export it would have gone to the province of Quebec, because the Dominion Coal Company in that year greatly oversold its production and had to supply the pulp and paper mills, for instance, with United States coal. So it is still a factor in distribution, although they have not sold any more. That coal would have been absorbed in this country rather than in the export market.

Mr. COATES: I noticed an article in the Financial Post of a couple of weeks ago which stated the possibility of the maritime and Nova Scotia coal going to Great Britain or European markets was slight, because of the sulphur content which they describe as being 3 or 4 per cent, whereas the European coal buyers want coal with a sulphur content of less than 1 per cent. What are your views on that?

Mr. UREN: Any coal which goes to the United Kingdom from the maritimes is only what we call single-purpose coal. It can only be used for steam raising and not for the manufacture of steel, because of the inherent contents of the coal. They do not make steel over there in the same way as it is made here by Dosco. They are fully aware of the chemical contents of the coal. It is a highly selective market, apart from the matter of the sulphur content. The coal is taken to Rotterdam and put on bulk piles there. If they were to take Dominion coal to Rotterdam they have to put it on smaller boats to move it to Great Britain. It is a strange thing that Great Britain, after all these years, do not have the boats to bring the coal in. It is transported by 10,000-tonners across the ocean and then into smaller vessels and distributed along the coast.

Mr. COATES: What is the possibility of extending the market in Europe for Nova Scotia coal?

Mr. UREN: From the efforts which the new company has made—and you must remember their associations are the very highest in foreign countries now—up to the last conversation I had with them which was yesterday, they had had no success. We did not expect that they would have any success in England, because England now has taken the embargo off and are now able to ship more coal. They thought that perhaps they had a break-even chance in Germany, but so far they have had no success. They have not given up.

The CHAIRMAN: Mr. Uren, you mentioned a while ago the amount imported was because of the exports. Was the amount imported to fill orders equivalent to the amount exported?

Mr. UREN: More. They misjudged their production that year to a considerable extent, whereas the sales organization was very vigorous that year and sold a tonnage far more than they exported. What did hurt them a little bit was that 350,000 tons of sized coal, and that did not leave them enough egg-size coal for their customers here.

The CHAIRMAN: Where does the Polymer Corporation get its coal from?

Mr. UREN: The United States.

The CHAIRMAN: How much do they use in a year?

Mr. UREN: I really do not know.

Mr. O'BRIAN: I think in the nature of 500,000 tons.

Mr. COATES: What alteration would have to be made in the present subvention in order to place Nova Scotia coal in the Polymer Corporation?

Mr. UREN: At present prices? I have them right here. This question has been coming up from time to time; it was brought up by Mr. MacDonald, the executive vice-president and chairman of the management committee, at the dominion's required return at the mine. They would require an additional \$9.12 to compete with Ohio coal, and \$10.95 to compete with West Virginia coal, or an average of \$9.95 to compete with an average of the Ohio and West Virginia coals.

Polymer buys both Ohio and West Virginia coal.

Mr. COATES: That is over and above the present subvention paid on coal, or is the cost of subvention on top of it?

Mr. WOOLLIAMS: Reading recently—

The CHAIRMAN: Please wait until we have an answer, Mr. Woolliams.

Mr. UREN: No; that would be the total.

Mr. COATES: The total subvention, but also with the 20 per cent preference?

Mr. UREN: No. That is the thing we are working on now, trying to bring this down.

Polymer is a crown company, and undoubtedly it could be prevailed upon to extend the 20 per cent which is given by the government for their purchases.

The CHAIRMAN: What difference would that make?

Mr. COATES: Would there be a possibility—I am sort of philosophizing here—but would there be a possibility that tolls might be set up by the St. Lawrence Seaway which might work in favour of Nova Scotia coal entering the Ontario area?

Would such a thing assist, if tolls were set up?

Mr. UREN: I think that some of our thinking is based on the toll set up, and the probable or at least the possible tolls on the Welland canal. But none of the tolls have been finally agreed upon, so by the time we are into this, I think we will have done as much as we can. We have tried to get as much information as we can from the army of economists that we have around here. The St. Lawrence Seaway toll situation is such an important factor, I have been told, and as you will shortly be told, that an economist and a staff have been retained and specially assigned to that job. Isn't that correct, Mr. Minister?

Hon. PAUL COMTOIS (*Minister of Mines and Technical Surveys*): I believe so.

Mr. MUIR (*Cape Breton North and Victoria*): All things being equal despite what you said about tolls, does the board feel that the St. Lawrence Seaway will have a beneficial or a detrimental effect on the Nova Scotia coal industry?

Mr. UREN: Like everybody else today, they are in a state of flux. I think that they do, but it is too nebulous yet.

Mr. COATES: Something else along this line: is it a fact that ore carriers from Seven Islands could quite probably carry coal on the return journey to markets which are now so-called Nova Scotia coal markets? What would you have to say about that?

Mr. UREN: There has been a statement made in connection with it. I think a great deal would depend on the size of the carrier, and whether it would be advantageous or a break even point, or profitable to have large bulk carriers stop off and be delayed in their unloading or in their loading, unless there is some sizeable dock—and I mean sizeable enough to take care of it—constructed in the St. Lawrence area, or a marshalling dock on the St. Lawrence. So far anyone I have talked to does not consider that there is a hazard to the marketing of Nova Scotia coal.

Mr. COATES: What about the possibility when an industrial gas pipe line is completed into Montreal? There is certainly the possibility of a spur line being built into the industrialized areas in Quebec?

Mr. UREN: There is no doubt about that.

Mr. COATES: What about that possibility?

Mr. UREN: I know what you are going to say, Mr. Coates. Temporarily, there is every possibility that they will lose business. But even temporarily they might not lose, because by the time it gets to the end of the line some of the boys that are switching over all the way from Alberta to Montreal will have had some experience in burning gas and with the continuity of the service of gas.

You may remember that the people in Montreal are at the end of the line. If it does not work out too well intermediately, how is it going to work out at the end of the line unless they have some storage facilities which they have not got, to compare with western Ontario where they can put gas back into wells which have been depleted, or which are being depleted, for storage.

Mr. COATES: How would natural gas stack up from the B.T.U. standpoint with coal production of thermo power?

Mr. UREN: Natural gas runs about 900 B.T.U.'s.

Mr. IGNATIEFF (*Chief, Fuels Division, Mines Branch, Department of Mines and Technical Surveys*): It runs from 900 to 1,000 B.T.U.'s per cubic foot.

Mr. MUIR (*Cape Breton North and Victoria*): On several occasions there have been shipments of coal to South America; I mean Cape Breton coal.

Mr. UREN: When?

Mr. MUIR (*Cape Breton North and Victoria*): Once again I have to rely on newspapers. They were loading the ships about half a mile from where I live. I understand it was for by-products and so on.

Mr. UREN: It was for nylon.

Mr. MUIR (*Cape Breton North and Victoria*): That is right.

Mr. UREN: It was old Sydney Collieries coal.

Mr. MUIR (*Cape Breton North and Victoria*): Yes, old Sydney Collieries, the very best.

Mr. UREN: I am not saying it is. You were there mining it, and you know it was a very high specialized selection of coal that went down there. I do not think any has gone in the last two or three years.

Mr. MUIR (*Cape Breton North and Victoria*): Have you any information as to what prospects there might be for future sales?

Mr. UREN: I can tell you the prospects and tell you the reason. It is the cost price both for Princess and for Florence coal. They have gone up so high

that perhaps they are no longer anywhere near competitive, even in that specialized field, or, someone with a much lower priced coal has evidently been able to satisfy that operation. But that is only a guess.

Mr. WOOLLIAMS: What is the effect of this announcement in the Financial Post recently that Russia would sell coal at any price?

Mr. UREN: Anybody in the coal business I have talked to would give them a big laugh.

Mr. MUIR (*Cape Breton North and Victoria*): Has your board or any governmental agency carried out any research with the object in mind of using coal for chemicals?

Mr. UREN: Yes. Yesterday Mr. Convey gave a very fine talk on that subject I do not think you will want him to repeat it because you will find it in the written record.

Mr. MUIR (*Cape Breton North and Victoria*): No, I will read it, and scold Donald Gordon permitting my train to be delayed, so that I could not be here in time yesterday! Have you any idea how much coal, or how many tons of coal they would use annually, for example, in a proposed thermal plant?

Mr. UREN: As it stands at the present time, and given a normal year's run—not like they had this year with high water every place—they would not use any more coal than they used two years ago.

Mr. COATES: I asked you that question a while ago, and you said that you did not know.

Mr. UREN: I am sorry; I am awfully sorry. I did not understand.

Mr. COATES: Probably you did not. I asked you if it was a fact that part of the problem facing them—that part of the reason we had a stock pile in Cape Breton was due to the fact that we had high water hydro production which is not ordinary.

Mr. UREN: That is one reason, yes indeed, but there are several factors in it which we pointed out.

For instance, in a statement which we prepared for the minister in connection with the submission that the Dominion Coal Company made in connection with their stockpile, there was the mild winter, with high water, not only in New Brunswick but throughout Quebec, and in all the power regions the consumers used secondary power which you never use for that purpose when the mills and industry are working full time, or when the water flow is normal.

Mr. COATES: I guess we should pray for cold weather and low water!

The CHAIRMAN: Do you want to pursue the question you asked a few minutes ago about the new figures which might be related to Polymer, to take advantage of this new benefit?

Mr. UREN: We will have them for you in a minute. Mr. O'Brian has got them worked out, three different ways.

Mr. KINDT: While Mr. O'Brian is preparing that, could he give us a figure on the yearly coal requirement for a thermal plant of given capacity?

Mr. UREN: Maybe Mr. O'Brian could do it.

Mr. MUIR (*Cape Breton North and Victoria*): If I was hearing properly and understand correctly, you said that when these proposed plants are constructed—

Mr. UREN: I did not say "constructed"; I said, "at the present time".

Mr. MUIR (*Cape Breton North and Victoria*): I mean the proposed plants when they are constructed. I thought you said they would not use any more coal than they are using now.

Mr. UREN: No, no, no. Each plant that is constructed and burns coal will burn the quantity of coal that is required to keep that plant at whatever level

of operation is necessary. First of all you must know the size of the plant; secondly, you must know at what level of operation it is going to perform.

The only plant that is coming into being in any of the maritimes is the new plant at St. John, New Brunswick. There are no new plants envisaged for some time in Nova Scotia, and no further plants in New Brunswick for a considerable time.

There might be an addition to existing plants or rehabilitation of these plants from time to time.

I think that as far as increasing the sale of dominion coal or maritime coal is concerned—let me put it as maritime coal—for the next few years for thermo power, it just is not going to happen.

There is one thing we are all in hopes of. It is a factor which is quite variable in operating a company. It is to know that their output can be sold on a stable basis.

Mr. KINDT: You would not be in a position to give us a round figure for the actual requirements at a thermal plant?

Mr. UREN: No. We know from our calculations that we make to arrive at what subvention should be paid. We know the size of the various plants and we know the coal that they are consuming, or the coal plus oil that they are consuming but we have not got those figures here.

That was done for another department altogether and of course we were told that the power plant section or item 219 or whatever it is would not be brought up at the committee meeting so we did not bring any figures to match it. But they are available, we have them in the office.

Mr. MUIR (*Cape Breton North and Victoria*): You no doubt have the information on hand as to the increased consumption of coal in the United States for thermo plants. Is there any way you could give to the committee a generalized idea of how the consumption of coal has increased tremendously?

Mr. UREN: Oh, indeed it has. I do not know if any of the books we have here deal with the increase in consumption of coal in the United States.

Mr. O'BRIAN: I can give you these.

Mr. UREN: Mr. Comtois is prompting me here. Perhaps I did not understand.

You understand, of course, all the new thermal plants which will be constructed will be on coal?

Mr. MUIR (*Cape Breton North and Victoria*): Yes, definitely; that is my understanding.

Mr. UREN: What you want me to say is what they might consume? I do not know the size yet.

Mr. MUIR (*Cape Breton North and Victoria*): I want to get to the other which Mr. O'Brien is looking up for us now.

Mr. O'BRIAN: What years would you like for the United States?

Mr. MUIR (*Cape Breton North and Victoria*): I would like a quick comparison.

Mr. O'BRIAN: For 1956 the coal consumption by steam electric plants was 153 million 490 thousand tons in the United States.

Mr. UREN: In that same year their total production would be somewhere a little over 500 million tons. So, out of 500 million total production, 153 of it was used, more than a quarter of all the coal produced.

Mr. MUIR (*Cape Breton North and Victoria*): That was 1956. Would you have it for 1955?

Mr. O'BRIAN: 1955, yes. 136 million.

Mr. MUIR (*Cape Breton North and Victoria*): That is what I am trying to point out to the committee, to show how it has continued on the upgrade.

Mr. O'BRIAN: That is right.

Mr. KINDT: Do you know the number of plants, Mr. O'Brian?

Mr. COATES: That follows along in the same line.

Mr. O'BRIAN: The number of plants in 1956 was 764.

Mr. KINDT: 764 plants?

Mr. O'BRIAN: Yes.

Mr. DUMAS: Mr. Uren, is it possible that the plant at St. John may use oil instead of coal?

Mr. UREN: My only answer to that is that if they do they do not receive subvention.

Mr. COMTOIS: I think that is well understood; they will not use anything else but coal.

Mr. DUMAS: We want to make sure about that.

Mr. COMTOIS: I want to be exact on that.

Mr. STEARNS: Mr. Chairman, along the lines of the discussion of a moment ago, in the Canadian Oxford atlas it says that of all the electricity used in the world today 3/5ths is provided by thermal plants. That is a lot more. That is the 1957 atlas.

Mr. VILLENEUVE: Throughout the world?

Mr. STEARNS: Throughout the world.

Mr. UREN: Mr. Coates, or was it you, doctor, who asked about what would be necessary to compete with the United States Coal in polymer?

Mr. MUIR (*Cape Breton North and Victoria*): Yes.

Mr. UREN: With the 20 per cent, but without the rail subvention, it would require \$7.52 rail subvention.

Mr. COATES: With the 20 per cent?

Mr. UREN: With the 20 per cent it would require \$7.52.

Mr. COATES: And with the subvention what would the present gap be?

Mr. UREN: \$3.02.

Mr. DUMAS: At which point?

Mr. UREN: At Polymer, Sarnia.

Mr. MUIR (*Cape Breton North and Victoria*): It has been said the coal companies have not tried to develop the coal market in Newfoundland. It has been suggested coal terminals should be located in several parts of that province. Could you shed any light on that?

Mr. UREN: I would not say the coal companies have not endeavoured to develop the coal market in Newfoundland.

The distribution of coal in Newfoundland is pretty well in the hands of one large company. There was a difference in finances and in the methods of marketing and the methods of acceptance between the Dominion Coal Company and this company for a period of three or four years, at which time the big purchasing company in Newfoundland switched over to United States coal and brought in United States coal instead of dominion coal. That has now been cleared up, there has been a compromise and they are back in business. They are good fellows again and we do not hear anything more about Newfoundland.

Mr. COATES: Mr. Chairman, going somewhat off-shoot from this present discussion, Mr. Uren said this morning the Dominion Coal Board had at times acted in the capacity of a coal marketing board.

Mr. UREN: That is right.

Mr. COATES: Would you mind explaining how the situation comes about and what you did in that instance?

Mr. UREN: In the first place, we have been after the government itself. We always start at home, with the idea that if you want an example set by industry in general, or industry in particular, you should start at home; the example should be there. So, for several years we worked on the governments here to see that all of their purchasing was from Canadian coal companies. That is, not importers but operators. We sought to see that all the coal burned in all our installations was Canadian coal.

Now, we have been successful. First of all, we got a 10 per cent leeway. This year we got a 20 per cent leeway, but that is not final. You cannot control it exactly the same as they do in the States where they have a buy America Act—I think it is punctured in many spots—because the installations in some of the plants are such, and I am not talking necessarily about our own, although you will find a few in our own, that they cannot use Canadian coal.

However, wherever there is a new installation we go to the people, we talk to the people, we write to the people and ask them please to put in an installation which will take all kinds of coal. Actually, as Mr. Ignatieff said, and he is far more expert than I am, the new installations are such that they can burn any kind of coal.

We will get down to specific cases. I mentioned this yesterday and I will mention it today because it strikes right at home. A great number of the plants that are in existence have been rebuilt a little bit, some of them have been added to, and, more particularly, in the Department of National Defence they are greatly overloaded. Greatly overloaded. Now, it may be that in some of these, a few of them, they may be of such a nature that they cannot burn any kind of Canadian coal, but most of them can. They cannot burn all kinds of Canadian coal which is where the pinch often comes in, more particularly with an independent operator. We are trying to reconcile that and are making tremendous headway but it takes a long time.

Mr. COATES: Do you feel if legislation under which you operate was brought in to allow you to seek more markets that this would in any way alleviate the problems that exist today, or do you feel you are able to operate under the present system?

Mr. UREN: No, we are not able to operate in the broad sense. Of course not.

Mr. COATES: Do you feel if legislation were brought in—

Mr. UREN: I really would have to be very careful about legislation because you must remember that the government has at least two other forms of fuel energy that they have to look after; there is oil and gas, you know, produced to a very great extent in this country now.

So that I do not think even wishful thinking would ever bring any greater powers to the Dominion coal board in that respect. I may add my own opinion, having been in this since 1915, that unless you have a controlled economy it is going to be difficult for any board, whether it is an energy board or what it is, to channel one fuel against another into any spot.

What I have hopes of, and I will give you this in perhaps somewhat of my dying days, that the provinces must come into this picture, there must be close cooperation between the provinces. After all, the natural resources are vested in the provinces, not the dominion government. Each province has its own ideas about what they will do or should do with their own natural resources.

Mr. MUIR (*Cape Breton North and Victoria*): Mr. Chairman at the present time the subvention policy is carried on from year to year and adjustments

are made accordingly. There is some thinking in the coal industry that they should be on a guaranteed period of time, say 5 years, and adjustments still could be made if necessary thus allowing companies to go into a longer term contract with the consumer.

Mr. UREN: I think in most cases we have dispelled that idea.

Up until a few years ago our subvention regulations were open ended, they only changed when we changed them. We did not have to change them and resubmit them before the 1st of April every year. That did not suit the government that was in power at that time, although it had until about four or five years ago. They had carried that on but now they wanted us to change them every year. There have been certain statements made that they should be for five years. Well, we saw last June that sometimes they do not stay in for five years. How are you going to commit another government to something that you have done?

Mr. MUIR (*Cape Breton North and Victoria*): That has happened before.

Mr. UREN: I am not qualified from a legal standpoint, but it was studied very carefully by lawyers and an astute economist who used to be down in the Maritime provinces. He searched with all our legal people and said, "No, you cannot have it open ended forever indefinitely".

What we tried to do, and I think we have gotten it over to most of the operators—certainly we have gotten it over to those that draw the biggest amount from the government—that it is alright. I have not found one yet who wants us to make it statutory. With all due deference to the speed or rapidity of the members of parliament, the operators do not want every change in the regulations of the coal board to go through parliament, they are perfectly satisfied with the speed with which we get them through the council of the cabinet.

Mr. COATES: Mr. Chairman, I wonder if Mr. Uren could tell us how the increased subventions have assisted the independent coal operators, we have to a large degree concentrated on Dosco, and what it has been able to do under the increased subvention setup? Have these increased subventions assisted the independent operator to the same degree?

Mr. UREN: Only those who can put out a coal acceptable to industry.

There are a number of independents who were kept in business for 35 or 40 years by the railroads. When I talk about the railroads, I do not necessarily mean those that were running stoker fired locomotives, they were running hand fired locomotives or after they took off the hand fired locomotives they were running stoker fired locomotives on short runs. But, you cannot sell very much of the independent coal output to the railroad. Therefore, it is necessary for them to depend on power plants in their vicinity or, for the winter season, sell it for domestic purposes. We have not found a way out of it, although we have kept a great number of them breathing for a long period of time.

Mr. MUIR (*Cape Breton North and Victoria*): One of the problems affecting the coal industry to a great extent is the importation of oil, a lot of it from Venezuela and some from the United States.

Mr. UREN: That is right.

Mr. MUIR (*Cape Breton North and Victoria*): Have you, in your tenure with the coal board, suggested or recommended to the government of the day that there should be a tariff on this foreign oil?

Mr. UREN: No, we have not necessarily said that there should be a tariff on oil. We have gone to the government and asked them to allow us to pay subventions against oil; and we were refused.

The CHAIRMAN: You are skating on thin ice there; it is just on the verge of being ruled out.

Mr. UREN: That is right.

Mr. DUMAS: Mr. Uren, would you care to comment on an article in the Financial Post on March 31 that southern Ontario is using 1,600,000 tons of coal for thermal power? You must have seen the article.

Mr. UREN: I do not think I read the article in the financial post but I do know that the Dominion Coal, if it could capture the two plants in Toronto of the Ontario Hydro Electric Power Commission and the Polymer plant that they would not be very far away from it right now. We also now have prior information as to where the hydro commission is going to build two more plants which would be in the same range or reach of Maritime coal as the plants are—approximately so as the plants are in Toronto. So, when those get into effect it would be even more than 1,600,000.

Mr. O'BRIAN: Yes, if they got those two hydro plants alone.

Mr. DUMAS: What is the actual differential that would have to be met in price?

Mr. UREN: Well, I think—

Mr. O'BRIAN: All this is based, Mr. Uren, on the freight rates which would be in effect for coal being shipped by ship direct from Sydney to Toronto.

Mr. DUMAS: The price mentioned was \$1.50 a ton, including subvention.

Mr. UREN: Including subvention. That might be so. But, it is a very far reaching guess—estimate. You see, as Mr. O'Brian says it depends on the bulk carriage. The Ontario Hydro is not building any hydro plant where there is not water transportation. Anything that goes into any of the hydro plants including the two new ones I have in mind in and around Toronto and another one at the head of the lakes, they will all be serviced by water. Polymer is also serviced by water.

Mr. O'BRIAN: That is correct, Mr. Uren.

I would add one thing to that: At the present the Polymer and the Hydro plants are served by self unloading vessels, which is a special type of vessel running only on the great lakes.

Mr. DUMAS: This is one of the many factors?

Mr. O'BRIAN: That is right.

Mr. COATES: Dosco does not own any of these self unloading bulk carriers?

Mr. UREN: No.

Mr. COATES: Those are American ships?

Mr. UREN: No, some of them are owned by Canadians.

Mr. O'BRIAN: There are Canadian self unloaders operating into Toronto.

Mr. MUIR (*Cape Breton North and Victoria*): Under the Maritime Coal Assistance Act there is a fund in the amount of \$10 million available for loans.

Mr. UREN: Correct.

Mr. MUIR (*Cape Breton North and Victoria*): What I would like to know, sir, is: Of the companies which are able to participate under this act, how much was loaned to the companies and what would be the balance in this fund at the present time?

Mr. UREN: There is not very much left.

Mr. MUIR (*Cape Breton North and Victoria*): That is what I am trying to get at.

Mr. UREN: There is not very much left and what is left—

Mr. COMTOIS: I noted last week that there were three loans made—this last week—to three different companies.

Mr. MUIR (*Cape Breton North and Victoria*): I see.

Mr. UREN: We will have one up from the office in about 10 minutes.

Mr. MUIR (*Cape Breton North and Victoria*): All right.

Mr. UREN: I thought we had it.

Mr. MUIR (*Cape Breton North and Victoria*): While we are waiting, Mr. Chairman, I would like to direct a question to the minister: What are the prospects, sir, of possibly adding to this fund in the future? Have you anything in mind?

Mr. COMTOIS: I do not know how much is left in that.

Mr. UREN: Approximately a half a million dollars.

Mr. COMTOIS: Left?

Mr. UREN: Approximately half a million.

Mr. COMTOIS: Available?

Mr. UREN: Yes.

Mr. COMTOIS: That may last for a while, judging by the loans granted this year.

Mr. MUIR (*Cape Breton North and Victoria*): I see; how are the loans being repaid?

Mr. UREN: With the one exception, every one is up to date. This one exception has been given an extension, which the cabinet has recommended. This extension will come up in legislation during this session.

Mr. COATES: On the same line, Mr. Uren, you made a statement with regard to mechanization in which you said that they are two-thirds mechanized now and another third would probably give them almost the same amount of extra efficiency as the two-thirds did. I was wondering how the Dominion Coal Company was situated financially for the completing of their mechanization.

Mr. UREN: I can tell you, but am I supposed to?

Mr. COATES: Maybe I could put in another way. Are they continuing their mechanization?

Mr. UREN: In a very small way. No major work is being done.

Mr. COATES: And this one-third would mean a great deal in the lowering of their costs. Is that correct?

The CHAIRMAN: The witness has said that.

Mr. UREN: It is forecast, yes.

Mr. MUIR (*Cape Breton North and Victoria*): Would you know, Mr. Uren, if this new corporation has any further plan to further mechanize any of their mines? Have they discussed it with you?

Mr. UREN: Yes, they have discussed it with me. They expect to put in a submission—They cannot mechanize any further without government assistance.

Mr. MUIR (*Cape Breton North and Victoria*): So if you have only $\frac{1}{2}$ million left in your fund, you are not going to be able to do it?

Mr. UREN: It cannot be covered in the present act because their maximum has already been reached. Out of the \$10 million, not more than \$7,500,00 could go to any one company.

Mr. COATES: They have already got \$7,500,00.

Mr. UREN: They have not taken all the money, but they have been granted the loan and still have money coming to them. In addition to that the loan expires on December 31, 1959, which is just around the corner.

The CHAIRMAN: Are there any further questions, gentlemen?

Mr. MUIR (*Cape Breton North and Victoria*): I have one or two questions, but I do not know if Mr. Uren can answer me. I would like to repeat that there is a great feeling of uncertainty, especially in one section of my constitu-

ency. Probably I should direct this question to the corporation, but I will ask it of you today. It concerns Florence colliery. What do you think the prospects are for the life of the Florence colliery and, I may also add, the Princess colliery at Sydney Mines?

Mr. UREN: I did not work there, but I have been down in it. You must ask the corporation that question, because they have given an answer to the government that there will not be any more idle time, than already designated and there will be no collieries closed this year. They have indicated to the government that after the first of the year, which gives them another six months,—more than six months from the time they came to the government, and gives the new crowd another six months; and actually they did not have much more than six months after they unravelled this to see what they propose to do to put their house in order for the next year. It also gives them that additional six months or more to see whether there will be any change in the trend of general business.

The CHAIRMAN: You understand that Mr. Uren can only make observations. Actually the question should be directed to the company.

Mr. MUIR (*Cape Breton North and Victoria*): The reason I asked your, sir, is because Princess colliery, as you know, has increased production tremendously in their mechanization program. The Florence colliery is not mechanized in the manner that Princess is; nevertheless there has been a substantial increase in production. So, I was wondering if all the rumours and newspaper talk regarding closures were true. Once again I say that I may be unfair to you in asking these questions, but it is very important to the people who are dependent on these mines for a living and who are in the process of building homes.

The CHAIRMAN: You are only making observations.

Mr. MUIR (*Cape Breton North and Victoria*): I guess I have to at this point.

Mr. MACINNIS: On the \$7,500,000 submitted to the Dominion Coal Company on mechanization, is it not rather odd that there was no supervision on plans they undertook in this mechanization?

Mr. UREN: Not in the least.

The CHAIRMAN: Gentlemen, I assume that you are all agreed that this member, who is interested in the coal industry, will be permitted to ask questions. Is it unanimously agreed that he should?

Mr. UREN: No, there was nothing peculiar about it at all.

Mr. MACINNIS: I would say it is a rather peculiar situation when government money is poured into a mechanization program, whereby a great amount of it is spent on a tunnel. As I said, this great amount of money was poured into it, and they decided to close the tunnel. They did not proceed with anything. There was \$7½ million thrown into mechanization. It has been thrown away.

Mr. UREN: No, it has not been thrown away.

Mr. MACINNIS: Perhaps not the \$7½ million, but a great deal of it.

Mr. UREN: Mr. MacInnis, no portion of the money spent on the tunnel has been lost. It is cemented in and may carry on some day. We hope it will. The roof has not fallen in and the floor has not come up, as far as they have gone into the tunnel.

Mr. MACINNIS: I would say the water pressure prevents that.

Mr. UREN: Well, good; I am glad that something prevented it. But, in making the loan it is only supervised in the terms with which we are charged, that is to see that all the money that is present has been spent in the mechanization and to see that all the equipment that they bought is properly marked and is appropriately placed, and that if it is transferred, it is so

transferred and registered. Ever since the loan was made Mr. Ignatieff, our mining engineer, goes down once a year with Mr. Edgar, our financial adviser, and goes through everything from top to bottom. The first year they went down they instituted a procedure that permits them to see everything that is done. As far as the supervision and telling the Dominion Coal Company what they are to do—you have been with them for many years and know that there is no one from outside of Cape Breton who can go into the Dominion Coal Company and tell them to do anything. They have never had outside engineers come in. If they did, they did not pay any attention to them. If we in the government, or any engineer went in and said, "Do this" or "please do that", and something went wrong,—well, whether it was the fault of that or not, the whole mechanization scheme would be balled up, according to them, from interference from the government. So, our instructions were from the start: "See that the money is properly spent; see that the equipment is there; see that they have done everything they say they will do when you are down there each year, in connection with your annual report; but do not tell them what to do."

Mr. MACINNIS: I would like to make my apologies to the committee for coming and asking questions. I would like to stay and throw quite a few more questions around, but I will go.

The CHAIRMAN: It is all right, Mr. MacInnis. You will recognize, before you go, that a member of the House who is not a member of the committee must have permission from members of the committee to ask questions. However, you are welcome to ask questions.

Mr. MACINNIS: I am sorry I did not ask for permission in advance.

The CHAIRMAN: I am not excusing anybody. He had the opportunity of asking questions, by permission of the committee. That was very plainly stated; and if he chooses to leave the committee without asking questions, it is up to him, not to us.

Mr. DUMAS: This was a loan that could have been made by a bank or by a trust company?

Mr. UREN: No. As far as Mr. MacInnis' question is concerned, you cannot go there and tell them what to do because they are taking the responsibility of spending that money.

Mr. COMTOIS: And accepting their responsibility.

Mr. UREN: If the government accepted the responsibility for anything and everything went wrong, they are no different from anyone else. If anything went wrong, who is to blame? Who is always to blame?—The government.

Mr. KINDT: In the end you would get greater efficiency handling it the way you did?

Mr. UREN: Definitely so. I do not say that we haven't some members of the board who are very close to the Dominion Coal Company, both with respect to personnel and in their operations; and I do not say that from time to time unofficially the engineers of our board—and they are very astute and very smart—I would not for a minute say that our men did not drop a few hints.

Mr. DUMAS: You cooperate with them?

Mr. UREN: Yes, but we do not tell them. We might say: this thing is good. Why don't you go and take a look at it?

Mr. COMTOIS: In other words, you do not interfere.

Mr. UREN: No, we do not interfere.

Now, here is a study of loans. The total amount authorized was \$10 million; granted and authorized, \$8,606,075. The balance not committed is \$622,899,33 which must be taken up before December 31, 1959 when the act goes out of existence.

Mr. MUIR (*Cape Breton North and Victoria*): There was \$8 million odd granted?

Mr. UREN: \$8,606,075.67. Oh, I am sorry. Add to the \$8,606,075.67, \$771,025, repaid loans.

I said \$771.025; and if you add that to the \$8,606,075.67 you will have a balance to be committed of \$622,899.33.

Mr. MUIR (*Cape Breton North and Victoria*): Only \$771,000 repaid?

Mr. UREN: This is all loans; I am talking about all loans. You asked for all loans by all companies.

Mr. COATES: I am not aware of the operation of this act. Is this a fund whereby the money is paid back, and it can again be loaned out?

Mr. UREN: No, it is not a revolving fund. It all comes out of the Consolidated Revenue Fund, and it is not revolving.

The CHAIRMAN: Are there any other questions?

Mr. McFARLANE: With your permission, Mr. Chairman, I would like to ask two questions. I am not a member of the committee, as you know.

The CHAIRMAN: The committee has agreed. You may proceed.

Mr. McFARLANE: I would like to ask if any Crowsnest Pass coal has been used in the operation of a thermo unit?

Mr. UREN: Yes, just a minute; at Sentinel, the Kootenay Power at Sentinel.

Mr. McFARLANE: The Sentinel plant at the present time is closed down?

Mr. UREN: That is right.

Mr. McFARLANE: My second question is this: what percentage of power is lost from a ton of coal by handling it through a thermo unit?

Mr. O'BRIAN: In a modern plant you will recover generally speaking about 30 per cent of the B.T.U.'s which are in the coal, in the form of B.T.U.'s in the electrical energy.

Mr. McFARLANE: Out of a ton of coal used for power producing, we receive the value of about 30 per cent?

Mr. O'BRIAN: I will merely say "about 30 per cent of the B.T.U.'s." In a ton of coal there are about 26 million B.T.U.'s; and the electrical energy produced from that ton works out to about 30 per cent of the B.T.U.'s; about 7,800,000 B.T.U.'s. That does not say what it will do in terms of power or movement.

Mr. McFARLANE: That is the information I wanted. Thank you very much.

Mr. MUIR (*Cape Breton North and Victoria*): Would it be possible to have incorporated in the record that information in regard to loans?

Mr. UREN: Yes, certainly.

Mr. MUIR (*Cape Breton North and Victoria*): I would like to have it for these different companies.

Mr. UREN: That is right, and their present position.

The CHAIRMAN: Some arrangement is being made.

Mr. UREN: It is actually in default at the present time and we hope—we are sure that, with the cabinet recommending it, you will probably go along with it.

Mr. COMTOIS: We would have to pass an act to amend the statute so that the period could be extended.

Mr. DUMAS: After 1959?

Mr. COMTOIS: A bill is already under preparation. There will be a motion made in the house at some time during the current session.

Mr. KINDT: I have a letter here from the West Canadian Collieries at the Crowsnest pass. They refer to the point as to whether it would be possible to get part of the market of the hydro electric or power generating plants in Ontario for their coal or other similar coal in the Crowsnest pass. Can you, off hand, throw any light on that? The point was partly covered this morning, but this is a specific question.

Mr. UREN: By the way, let me explain that this is authentic, because Mr. O'Brien, as you know, has written several articles about energy. Mr. O'Brien has spent the past several months working very closely with the Department of Northern Affairs and National Resources in the power field.

He works very closely with the Ontario Hydro Power Commission in that area, and with the manager and general manager.

He has just thrown a pretty good one here. They are putting in a plant at Fort William. That might be just a cog that fits into the Crowsnest pass coal field.

Mr. KINDT: Have you any idea when that plant might be started?

Mr. O'BRIAN: I believe preliminary tenders are out for the construction. I do not think it has gone much further than that. But I understand the program is to have it in operation about 1960 to 1961 under present thinking.

That was based on the power situation as it was at the time the plans were made. If there should be an increase in power demand, it may be speeded up, and if there is a slowing down, then it will be slowed down. But certainly by 1963 it should be in operation under present thinking.

It will be designed to use from 300,000 to 325,000 tons of coal in a year and will produce 100,000 kilowatts by way of capacity.

Mr. UREN: It will be vaster than any we envisage such as at the Calgary Power Company.

Mr. KINDT: The Calgary power plant would probably use in the neighbourhood of 200,000 to 250,000 tons a year.

Mr. UREN: I am afraid you will find it will be pretty well exclusive for strip mine coal or coal which can sell at that price.

Mr. MUIR (*Cape Breton North and Victoria*): Would it be possible to incorporate in the record for the past two fiscal years that is the years ending March 31, the number of meetings that the coal board has held, together with the names of those who have been present at those meetings, for that period of two years?

Mr. UREN: Yes; I will provide it.

MEETINGS OF THE DOMINION COAL BOARD
DURING THE LAST TWO FISCAL YEARS ENDING MARCH 31st

In 1956-57—

30th Meeting—April 16-18, 1956

Present: Mr. W. E. Uren—Chairman

Mr. D. O. Hartigan

Mr. Ian MacLaren

Mr. P. Streeter

Mr. G. A. Vissac

Mr. W. C. Whittaker

31st Meeting—November 20-23, 1956

Present: Mr. W. E. Uren—Chairman

Mrs. D. O. Hartigan

Mr. Ian MacLaren

Major General E. J. Renaud

Mr. P. Streeter

Mr. G. A. Vissac

32nd Meeting—January 22-23, 1957

Present: Mr. W. E. Uren—Chairman
 Mr. D. O. Hartigan
 Mr. Ian MacLaren
 Major General E. J. Renaud
 Mr. P. Streeter
 Mr. G. A. Vissac
 Mr. W. C. Whittaker

33rd Meeting—March 26-27, 1957

Present: Mr. W. E. Uren—Chairman
 Mr. D. O. Hartigan
 Mr. Ian MacLaren
 Mr. G. A. Vissac

In 1957-58—

34th Meeting—May 13-15, 1957

Present: Mr. W. E. Uren—Chairman
 Mr. Ian MacLaren
 Mr. G. A. Vissac
 Mr. W. C. Whittaker

Note: Mr. P. Streeter was present before the meeting opened but was called away on urgent business.

35th Meeting—September 23-24, 1957

Present: Mr. W. E. Uren—Chairman
 Mr. D. O. Hartigan
 Mr. Ian MacLaren
 Major General E. J. Renaud
 Mr. P. Streeter
 Mr. G. A. Vissac
 Mr. W. C. Whittaker

36th Meeting—January 28-29, 1958

Present: Mr. W. E. Uren—Chairman
 Mr. D. O. Hartigan
 Mr. Ian MacLaren
 Major General E. J. Renaud
 Mr. P. Streeter
 Mr. G. A. Vissac
 Mr. W. C. Whittaker

In 1958-59—

37th Meeting—May 20-21, 1958

Present: Mr. W. E. Uren—Chairman
 Mr. D. O. Hartigan
 Mr. Ian MacLaren
 Major General E. J. Renaud
 Mr. P. Streeter
 Mr. G. A. Vissac
 Mr. W. C. Whittaker

The CHAIRMAN: Shall we approve of items 217 and 218? There are no supplementary estimates for the Dominion Coal Board.

Approved?

Items agreed to.

Now, gentlemen, the next meeting will be, if you agree, at the call of the Chair to consider the report to the House. Is that satisfactory? That meeting will be *in camera*.

Maybe someone would like to express appreciation to the witnesses, as this ends our consideration of their estimates.

Mr. DUMAS: I would be very pleased, Mr. Chairman, to express our sincere thanks to the chairman of the coal board and his officers, and also to those of the Department of Mines and Technical Surveys who have been very patient in sitting with us in case we had any questions to ask.

We wish to thank you most sincerely, Mr. Uren, and your officers, for the very clear explanations you have given to us and for your good work on behalf of the coal miners.

Mr. UREN: Thank you.

Mr. MUIR (*Cape Breton North and Victoria*): I would like to be associated with the remarks that were made by Mr. Dumas. I know we have caused you trouble today, but it is all for good cause. There are other questions, and you no doubt will be hearing from the maritime members at your office and through the minister.

Once again I wish to thank you for your very fine cooperation.

Mr. UREN: Anyone who has any interest in coal will always find my door open. That green cloth door is something that they put on there to keep things secret—I never use it. I do not even know if the hinges work, it has been so long since it was closed.

The CHAIRMAN: Mr. Minister, you have heard the expressions of thanks by the members of the committee. I know they appreciate the evidence given before this committee, not only by your department, but by your associate the Minister of Northern Affairs.

I can say on behalf of every member of this committee that it has been a most interesting committee, the most interesting committee we have had for many years in the house. We are grateful to the two ministers and to your very capable and efficient staffs.

INDEX

ESTIMATES—DEPARTMENT OF MINES AND TECHNICAL SURVEYS
AND
THE DOMINION COAL BOARD

PROCEEDINGS Nos. 14 to 17 inclusive.
PAGES NUMBERED 371 to 538 inclusive.

<i>Main Estimates</i>	<i>Supplementary Estimates</i>		<i>Pages</i>
<i>Item No.</i>	<i>Item No.</i>		
DEPARTMENT OF MINES AND TECHNICAL SURVEYS			
193-195		Administrative Services.....	373-397 404-406
		STATEMENT OF MINISTER	373-386
106-206		Surveys and Mapping Branch.....	405-413
	575	Polar Continental Shelf.....	413-414
207-208	576-578	Geological Survey of Canada.....	406-413
209-210		Mines Branch.....	414-421
211		Geographical Branch.....	426-429
212-215		Dominion Observatories.....	421-426
216		Interdepartmental Committee on Air Surveys.....	429-435
		Report to the House.....	489-491
217-218		DOMINION COAL BOARD	401-404 439-488 495-538
		Report to the House.....	489-491

