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# CHANGE IN NORTHERN CANADA

The following excerpts are from a recent address by Mr. Jean Chrétien, Minister of Indian Affairs and Northern Development, to the Executive Conference of the American Gas Association:

... There can be little doubt that the frontier areas of North America hold great potential for the discovery of oil and gas. Off-shore, Alaska, the Yukon, the Northwest Territories mainland, the Arctic Islands and the frozen seas between show promise. More than promise, they have demonstrated their potential for the development and production of oil and gas.

Oil-seeps at what is now known as Norman Wells were first reported in 1789 by Alexander MacKenzie. The first well there was drilled in 1920-21. The first gas discovery in the area was made in 1940. In 1960, an oil and gas discovery was made in the central Yukon. This was followed in the early Sixties by a gas discovery in the Liard River area just north of 60. In 1967 the Pointed Mountain gas-field was found. Since Prudhoe Bay the pace has quickened.

Last year, two major gas discoveries were made in the Arctic Islands, both by Panarctic Oil — one on Melville Island and one on King Christian Island. Just a few days ago gas was located in the Mackenzie Delta.

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Pointed Mountain, in the northwestern corner of the Northwest Territories most likely will be the first producing gas-field in the Canadian North. Most of you probably know that Westcoast Transmission currently has an application before the National Energy Board to build a 30-mile pipeline which would connect this field to their system in northeastern British Columbia by the end of 1972. If approved by the Board and built, this pipeline will be the first to bring northern gas to southern markets. The building of this line will also give us some idea of what pipeline construction will be like north of 60. This project, however, will be undertaken in an environment that isn't greatly different from the adjoining parts of British Columbia, where there have been pipelines in operation for some years.

There is little or no permafrost in that particular place. The bedrock is near the surface. The ecological system there recovers relatively rapidly from man's activities. It cannot be classified as a highly sensitive zone, but it has its own ecological system and we will be looking at ways in which the pipeline can be safely built.

## RULES FOR DEVELOPMENT

Soon after I became Minister responsible for Northern Affairs in 1968, I took steps to ensure that the impact of development would be in harmony with northern needs and realities. The three-point conservation legislative program which resulted provides a northern framework for the Seventies and enables the Government to lay down specific guidelines for development projects such as the one being considered at Pointed Mountain.

The first of these steps was the introduction into Parliament of the Arctic Waters Pollution Prevention Bill, which is designed to protect the Canadian North from pollution at sea. This was followed by the Northern Inland Waters Bill, which makes the fresh-water resources of the North a public property

which must be properly used. Water-users in the North must return waste water to the natural system in a satisfactory condition or they will lose their right to use the water. Finally, a year ago, the Territorial Lands Act was amended to give the Government a measure of control over the types and methods of exploration and production activities north of 60. The land-use regulations, which are to be promulgated under this Act, provide basic operating guidelines or stipulations which must be followed by all persons carrying out land-use operations on public lands in the Yukon and the Northwest Territories.

All these are important measures. They are based on the belief that northern development need not be incompatible with a healthy environment and that resource activity in the Arctic need not lead to a fowling of the air, land or waters. They show the Canadian people's determination to protect their northern heritage and to achieve in the future a more reasonable balance between the human and economic factors in the process of development. They denote the Government's conviction that if northern programs and policies are to be successful in the Seventies, they must be worked out in discussion with all interested parties - northern residents, territorial councils, industry, environmentalists and government representatives. This is the process which was followed with some measure of success during the last year in drafting the land-use regulations.

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# CONSTRUCTION OF PIPELINES

Our concern with the northern land and its values extends naturally into the construction and operation of large diameter pipelines. The land-use regulations, for example, will have an important bearing on any pipeline-construction project. The pipeline route might well be declared a land-management zone which would make it subject to the strictest of controls. The Government recognizes that it must be able to respond intelligently in the event that any proposal is put forward for such a line in the Canadian North. An interdepartmental task force on northern pipelines was established two years ago. This group advises the Government on standards of construction. on possible routes, on ecological impact and on the social and economic implications of any such construction. A gas-line and an oil-line may be much the same during construction, but once built there is a world of difference. A small break in an oil-line could have serious consequences affecting a wide area, but a gas-line carries significantly less risk of this kind.

I recently visited the experimental gas-pipeline station located at Sans Sault, near Norman Wells. I was impressed by the effort which the companies backing this project are making to ensure that they know exactly what they are doing before they submit an application to build a gas-line through the North. Pipeline companies will need all the information they can get because proposals will be vigorously exam-

ined. The guidelines which Mr. Greene and I issued last August, clearly impose an obligation on potential applicants to undertake the research needed to defend their proposals. This means that applicants must satisfy the Government that ecological implications have been fully taken into account and that sufficient consideration has been given to ways of involving northern residents in the building and maintenance of any pipeline.

## FEDERAL ENVIRONMENTAL STUDIES

The environmental research being conducted by the Government is designed to assist in asking the right kind of questions and will also provide the Government with a basis for assessing the industry's answers. There are six main thrusts to our current environmental investigations.

- (1) An aquatic environmental study to determine the baseline data of the ecological system and balance in the rivers....
- (2) Additional hydrometric stations are being installed and will include water-quality and silt-content determinations. Together with the aquatic studies, these data will show where a pipeline might interfere with spawning beds and where it might lead to a breakdown and erosion of the bank of a stream or river....
- (3) An extensive program of wildlife studies in part an inventory to determine species, distribution and number of birds and animals in an area which might be proposed for a pipeline. These studies will attempt to determine what effect a pipeline would have on the wildlife populations....
- (4) A detailed terrain-sensitivity study of the northern Yukon and the Mackenzie Valley. The purpose here is to try to determine which are the most sensitive areas and which are the least likely to be disturbed by pipeline construction and operation.... We hope to produce an environmental sensitivity map which companies can use in proposing routes which the Government can then consider in the light of sound data.
- (5) Vegetation studies to determine the distribution of flora in the regions so that we can assess the effect of any proposed pipeline.
- (6) We are conducting studies to determine the effects of land-use activities on the surface, their effect on the environment in general and the way in which various types of vehicles moving over different types of land affect the natural surface. Other studies include an investigation on a small scale to begin with on the manner in which oil-spills will affect vegetation and wildlife and ways of cleaning up spills should they occur.

SOCIAL EFFECTS

We are also deeply concerned with the social implications of pipeline construction. Such major undertakings have important consequences for the confmunities through which they pass and on the lives of

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## CLAIMS PACT WITH ROMANIA

The Secretary of State for External Affairs, Mr. Mitchell Sharp, announced the signature in Ottawa on July 13 by Mr. Edgar J. Benson on behalf of Canada, of an agreement settling outstanding claims of Canadian citizens and the Canadian Government against Romania. The Romanian Minister of Finance, Mr. Florea Dumitrescu, signed the agreement on behalf of his Government. It will come into force on exchange of instruments of ratification in Bucharest, as soon as possible.

Following agreement with the Romanian Government in 1967, Canadian citizens were invited to submit such claims to the Department of External Affairs. Negotiations between officials of the two Governments began in Bucharest in May 1969 and subsequent rounds were held there and in Ottawa.

The claims covered by the agreement arose from postwar nationalization and similar measures of the Romanian Government, Romanian obligations under the Treaty of Peace of February 10, 1947 and Canadian-held bonds of the Romanian external public debt.

A claim under the agreement must have been owned continuously by a Canadian citizen from the time of loss until the date of the agreement. The pact provides for payment of the lump sum of \$1.4 million in quarterly instalments as a percentage of Romanian exports to Canada. In agreeing to these terms, the Canadian Government took into account the circumstances giving rise to the Canadian claims as well as other similar claims settlements.

The Foreign Claims Commission will be authorized to make recommendations to the Secretary of State for External Affairs and the Minister of Finance regarding the distribution of the nationalization portion of the proceeds of the settlement. Persons who have filed claims with the Government will be notified of the settlement.

### ALASKA HIGHWAY DISCUSSIONS

At the request of the United States Government, exploratory discussions were held in Ottawa last month on a proposal to pave the Canadian portion of the Alaska Highway.

The discussions are the outcome of the passage last December by the United States Congress of the Federal-Aid Highway Act, which authorized the President, through the Secretaries of State and Transportation, to open negotiations with Canada on the subject of paving and reconstructing the Alaska Highway and to report back to Congress by the end of this year.

#### TRAFFIC SURVEY

One result of the recent discussions will be a survey by Canada during July and August of the origin and destination of traffic over the Highway during the height of the tourist season. It is expected that this information will be of major importance when the government representatives of the two countries resume their discussions in September.

The group which met at the Department of Public Works headquarters was made up of Canadian officials representing the Yukon Territory and the Departments of Public Works, External Affairs, Transport and Indian Affairs and Northern Development, under Mr. G.B. Williams, acting Deputy Minister of Public Works, while the U.S. officials, headed by Mr. Ross W. Krauser, Director of Highway Operations, were from the Federal Highway Administration, Office of the Secretary of Transportation, and the U.S. Embassy.

The meeting heard a review of the present physical condition of the Highway and were introduced to the Canadian Government "in depth" studies already completed on the costs and benefits of Alaska Highway improvement.

Originally known as the "Alcan Highway", the Alaska Highway was built in 1942-43 as a military route. From its Canadian starting-point at Dawson Creek, British Columbia, to its terminus at Fairbanks, Alaska, it is 1,523 miles in length, of which 302 miles are in Alaska. Of the 1,221 miles in Canadian territory, fewer than 110 are paved, the remainder consisting of an all-weather gravel surface. Accommodation, food, fuel and repairs are available along the entire route.

The first 84 miles of the Highway, from Mile 0 at Dawson Creek, are paved and this stretch is maintained by the Province of British Columbia. The remainder of the Canadian portion of the Highway, which is maintained by the federal Department of Public Works, is paved through Fort Nelson and for 25 miles in the vicinity of Whitehorse, Yukon.

Canada spends some \$7 million a year on maintenance of the Alaska Highway and, in addition, has allocated some \$5 million for the replacement of bridges, a program which is continuing.

Included in the current discussions is the Haines Road, generally known as the "Haines Cut-off", which extends 159 miles from tidewater at Haines, Alaska, to Haines Junction at Mile 1,016 of the Alaska Highway, nearly 100 miles west of Whitehorse.

# SASKATCHEWAN AID TO REFUGEES

The Province of Saskatchewan has provided \$100,000 to the Canadian International Development Agency to supply food for the East Pakistani refugees in India. The funds will cover the purchase and shipment of about 650 metric tons of rapeseed that will be processed into oil in India. This is one of the high-priority items in the list of refugee needs provided by the World Food Program.

The food is expected to arrive in Calcutta in mid-August. On the strength of this action, the Government of India has promised to release immediately a similar quantity of rapeseed, drawn from its somewhat depleted buffer stocks.

### B.C. CENTENNIAL STAMP

Thirty million 7-cent stamps commemorating the hundredth anniversary of British Columbia's entry into Confederation were issued by the Canada Post Office on July 20.

The design for the 40-mm-by-24-mm commemorative was created by E.R.C. Bethune of Vancouver, who had been inspired, he said, by memories of boyhood days and parades in which bicycles were decorated by strips of coloured paper. His work represents an abstraction of British Columbia joining the new nation of Canada.



#### HISTORY OF B.C.

When British Columbia entered Confederation on July 20, 1871, little more than 100 years had passed since its coastal waters had been entered for the first time by the ships of European explorers.

Exploration of the British Columbia coast was begun by the Spaniards Juan Perez in 1774 and Bodega y Quadra in 1775. In 1778, the English explorer Captain James Cook, pausing in his search for the Northwest Passage, made the first landing, at Nootka Sound on the west coast of Vancouver Island, and claimed the coastal region for Britain. The claim was disputed by Spain, which still laid claim to the whole area. It was not until after Captain George Vancouver's survey of the coast in 1792-94 that the contentious ownership issue was finally resolved in Britain's favour.

The fur trade, which began soon after Cook's account of his trading with the native Indians, was flourishing by this time. British and American trading ships plied along the coast, while traders and explorers from the North West Company and the Hudson's Bay Company approached B.C. over land to establish new posts and trade routes. It was during this period that Alexander Mackenzie completed his epic journey from the East to the Pacific Ocean in 1793, that Simon Fraser, in 1808, followed to the sea the great river that now bears his name, and that David Thompson, in 1807 and 1811, explored the upper and lower reaches of the Columbia River.

By the mid-1800s American trade competition and the growing influx of American settlers prompted Britain to consolidate its holdings in the West. In 1846 the 49th Parallel was established as the official boundary between British and American territory from the Rocky Mountains to the Pacific Ocean. In 1849,

Vancouver Island, with Victoria as its capital, became the first Crown colony to be established in British territory west of the Great Lakes. In 1858 the mainland territory was proclaimed the Crown Colony of British Columbia with New Westminster as its capital.

#### GOLD RUSH

That same year gold discoveries brought prospectors to the Fraser River and thence to the great Cariboo Gold Rush of 1860. In 1862, the gold-seekers were aided in their quest by the construction of the famous Cariboo Road. Built by a force of Royal Engineers at a cost of over \$1 million, the road provided easier access to the gold-fields of the northern interior. In 1866, one year after the road was completed, the Crown colonies of Vancouver Island and British Columbia were united. In 1869, the capital of the united colony was moved from New Westminster to Victoria, which remains the provincial capital to this day.

Union with Canada in 1871 came with the promise of a transcontinental railway to be built to the Pacific Coast. In 1881 the Canadian Pacific Railway was incorporated and, in 1885, the long line to the coast was complete. With the construction of the railway and the discovery of important mineral deposits the province's economy realized a much-needed boost in industrial development.

#### B.C. TODAY

Today, British Columbia's principal industries are fishing, forestry, mining and manufacturing. Ranking second among the provinces in value of fish landed, B.C. is also a large producer of metals and forest products. In addition to its wealth of natural resources the land supports flourishing fruit and dairy farming in the southern regions of the province and beef-cattle raising in the northern interior, where some of the largest ranches in the country are found.

British Columbia ranks third in size among Canada's ten provinces, with a total area of 366,255 square miles. Of this, inland waters occupy 6,976 square miles, and over 73 per cent of the land area is forested. It is dominated by vast mountain ranges. Traversing the province from south to north are the Coast Mountains on the west and the Rocky Mountains on the east. Between these two ranges are the Columbia Mountains, comprising the Purcell, Selkirk, Monashee and Cariboo ranges. Further plateaux and ranges extend to and beyond the northern borders.

An estimated 61.5 per cent of the full-time academic staff of 111 Canadian universities and colleges held Canadian citizenship in September 1970. Another 15.3 per cent held American citizenship and 10.1 per cent British. Among major fields of study Canadian citizenship varied from 70.3 per cent in the biological sciences to 50.5 per cent in languages.

## FRENCH PORCELAIN IN TORONTO

Anyone who has ever admired or purchased a piece of fine 'china' will want to see the exciting display of French ceramics at Toronto's Royal Ontario Museum, before it closes on August 22. The exhibition, "Céramiques de France", illustrates the diversity and quality of French pottery and porcelain from the Middle Ages to the Revolution.



Late seventeenth century bust of a Roman Emperor.

Pottery of the thirteenth century is represented by pavement tiles in simple colours which made floor decorations in Gothic churches; their beauty was enhanced by sunlight shining through the multicoloured stained-glass windows. The tradition of tile manufacturing prevailed in France to the sixteenth century. On some tiles, for instance, the whole fifteenth century society seems to pass in procession — from hunters to artisans, from clowns to knights in full heraldic splendour.

Other ceramic forms also reflect aspects of French life. There are whimsical objects such as an eighteenth century tureen in the shape of a turkey cock or the dish decorated with bunches of asparagus in relief.

In addition to the sumptuous pieces destined for the homes of the wealthy, there are equally lavish pieces illustrating the lives of the less fortunate. Providing this contrast are figurines of a seventeenth century hurdy-gurdy player dressed in cape and broad-brimmed hat and of a beggar-woman suckling her child.

The functional pieces include a male figure holding his hat in one hand and a candle socket in the other. The purpose of a seventeenth century bowl containing the figurine of a reclining female nude is more difficult to determine.

Of special interest to Canadians are French ceramics unearthed during archaeological excavations at the Fortress of Louisbourg in Nova Scotia.

#### CANADA-FRANCE CO-OPERATION

This exhibition, the result of a joint effort by both the Canadian and French Governments, was organized by the Musée National de Céramique in Sèvres and co-ordinated by the National Gallery in Ottawa.

"Céramiques de France" opened to the public on July 15. For the official preview on July 14, there was a joint French and Canadian celebration in honour of Bastille Day at the Royal Ontario Museum. The party was a "Bal Populaire", featuring dancing, free champagne, strolling musicians in the garden and the opportunity to sample French foods and wines. Tickets were limited to 800, and cost \$5 each. Officiating at the opening ceremonies was Canada's Secretary of State for External Affairs Mr. Mitchell Sharp. Co-hosts of the "Bal Populaire" were the Royal Ontario Museum and the Consul General of France.



Tureen and tray, about 1798.

Photos courtesy of the Royal Ontario Museum, Toronto.

# DND MEDICAL RESEARCH MERGER

Mr. Donald S. Macdonald, the Minister of National Defence, has announced that the medical research facilities of his Department in Toronto will be combined later this year.

The new establishment, the Defence and Civil Institute of Environmental Medicine, is the result of an amalagamation of the Armed Forces Institute of Environmental Medicine and the Defence Research Establishment, in Toronto. It will be operated by the Defence Research Board.

With the addition of extra employees and resources, other government departments and the civil aviation sector represented by industry will also participate.

The head of the new Institute will be Dr. R.H. Lowry, a native of Toronto and a wartime RCAF pilot and navigator who studied medicine after the Second World War.

In discussing the function of the Institute, Dr. Lowry said: "One of my prime responsibilities in managing the program at DCIEM will be to ensure that the Canadian taxpayers' money is used in the most efficient manner in the production of scientific information applicable to the effective integration of men and machines in the national growth of Canada."

The existing skills of defence scientists and Armed Forces specialist officers in the fields of aviation medicine, human engineering, underwater physiology and associated behavourial and biosciences, are now being integrated to form the basic components of the new Institute.

The two organizations that are being amalgamated to form the new establishment have already attained international reputations for their research and development activities. The civilian groups concerned will make appropriate staff and financial contributions.

The professional staff of about 65 defence scientists and specialized Armed Forces officers will be supported by about 165 technicians, administrative and other support personnel.

### CHANGE IN NORTHERN CANADA

(Contined from P. 2)

people in the region. We must try to assess the benefits and the disadvantages for them. We must seek their views. Many of the people of the North depend upon the natural land for hunting and trapping and for the real satisfaction that comes from being on the land and being the master of a familiar environment. This is why I believe so strongly that northerners must be involved at every stage of development proposals and in evolving the regulations.

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Northern development must proceed without the North deteriorating into an inhuman complex in which systems are the master and people the victims. People in the North have stated repeatedly that they do not want to see their lands destroyed and their waters polluted by precipitate action as has been the case in much of the South. But northerners do want to share in the wealth being produced from their region. They do want jobs and improved living conditions. These will come if northern development is carefully planned, properly co-ordinated and if all interested parties are brought peters. Old fashioned approaches to the North must also be discarded.

The fur traders, whalers, miners and fishermen who invaded northern regions in the nineteenth and early twentieth century exploited and often exhausted resources for the benefit of distant, non-resident interests with little or no thought for the well-being and survival of the people already there and no concern for what happened to the environment. This traditional narrow orientation is no longer acceptable. Today, we see the North as a place in which people can live permanently. We seek development which serves people. We want neither exploitation nor a moratorium. We do not want to rush nor to hold back development. We seek balanced progress where full consideration is given to all the dimensions of northern development - political, cultural, ecological and economic....

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