

# Bulletin

Vol. 24, No. 51

December 17, 1969

## CONTENTS

Mr. Sharp Reports on Middle East .....	1
Gold Rush Days Recalled .....	2
New Bighorn Dam .....	3
Educational Jobs for Computers .....	4
Private Schools in Canada .....	4
Business Investment - 1970 .....	5
Franco-Canadian Scientific Subcommittee .....	5
Who's Up There? .....	5
September Forest Fires .....	6

### MR. SHARP REPORTS ON MIDDLE EAST

*Reporting to the House of Commons on November 19 on his recent visit to the Middle East, the Secretary of State for External Affairs, Mr. Mitchell Sharp, made the following statement:*

...Canada has been closely concerned in Middle Eastern affairs since we participated in the activities of the United Nations Special Commission on Palestine, which drew up the Palestine partition plan of 1947. We voted for the United Nations resolution setting up the State of Israel in 1948. Recognition of the right of the State of Israel to exist remains an essential feature of our Middle Eastern policy. At the same time, we try to maintain an objective approach to the current problems of the area. Our essential objective is that all states there should be enabled to live in peace and security, free from threats of war or territorial encroachment.

For two decades, Canada has had military personnel in United Nations peacekeeping operations in the area. Canada is also the third-largest contributor to the United Nations agency working for the relief of the Arab refugees.

Our Middle Eastern policy has found expression largely through the United Nations in New York. It was there that we took part in the steps which led to the birth of the State of Israel; it was there that the United Nations Emergency Force was established. More recently, as a member of the Security Council, it was there that we took part in drafting Resolution 242 of November 1967, the resolution that we feel offers the best available framework for progress toward peace in the area.

My visits were a reflection of our long involvement in the affairs of the Middle East, in response to

invitations from the Foreign Ministers of Iran, Israel and the United Arab Republic, and in return for visits paid to Canada by the Shah of Iran, the President, the late Prime Minister and Foreign Minister of Israel, and the Foreign Minister of the United Arab Republic. More particularly, I wished to learn at first hand the attitudes and policies of the governments concerned with regard at the Arab-Israeli conflict.

### DIRECT CONFRONTATION

I return from my visit both saddened and discouraged. Prime Minister Meir and President Nasser both told me that they seek a peaceful solution to the Arab-Israeli conflict. It is very hard to see how useful negotiations can begin when the preoccupations of the parties are in direct confrontation. Israel is preoccupied with the security of its boundaries and its insistence upon direct negotiations with its neighbors. The United Arab Republic is preoccupied with the withdrawal of Israel to its pre-1967 boundaries and the fate of the Arab refugees. I can see no immediate resolution of this confrontation.

When I went to the Middle East, I had no solution to offer and no proposals to make; I went to inform myself on the situation as seen by Iran, a nation which does not take sides, and by the two main protagonists. In every country visited, we were received with great courtesy by the head of state, the principal minister and the foreign minister. In each country, the heads of state and their ministers devoted many hours to concentrated conversations. The views I expressed in outlining Canadian policy

were given thoughtful consideration and the questions I asked answered fully and forthrightly. Wherever I went, I found a manifest wish to have Canada understand the positions taken. This reminds us of Canada's special standing as a peace-seeking and peace-making nation and is evidence, perhaps, of the need for understanding on the part of the nations in conflict.

#### IRAN, ISRAEL AND EGYPT

My first visit was to Iran, where I saw a nation pre-occupied with the advancement of its economy and the improvement of the conditions of life of its people. Its geographical location requires Iran to be intimately involved in the problems of the Middle East. I found a nation some 6,000 miles from Canada, in the heart of the Middle East, pursuing a Middle Eastern policy closely parallel to our own. In my subsequent visits, I found my discussions in Tehran most useful, both for the information I drew from them and for the political attitudes expressed.

In Israel, I was moved, as anyone must be, by the sense of pride in nationhood that characterizes that country, and deeply impressed by what has been achieved in nation-building in 20 years. In Egypt, I saw a nation where the evidences of ancient glory are very much present, contrasting cruelly with the present-day struggle to evolve a better standard of living for its people.

The situation in the Middle East today is tragic. There is so much to be done in that part of the world, and the will and technology are there. The tragedy is that in so many of the countries the resources needed for development are tied up in an arid confrontation which threatens to burst into violent conflict.

#### DEEP DISQUIET

I left the Middle East with a profound sense of disquiet. Effective negotiation is not an immediate prospect. Escalation of the conflict is an immediate danger. In these circumstances, perhaps the best role for Canada to play in the foreseeable future is that of an understanding, compassionate and objective observer, ready to assist if and when there is a specific task for us to undertake at the instance of both sides.

Let us hope that, notwithstanding the present difficulties, counsels of moderation will prevail, and that someday, somehow, peace will come to the Middle East.

It would not be appropriate in a statement of motions to review in detail the bilateral discussions we had in each capital. There are great trading opportunities, particularly with Iran and Israel, and some important possibilities with the United Arab Republic. All three countries are eager for increasing contact with us. Perhaps one of the ways we can help is to be more of a presence in the Middle East, a part of the world that needs friends and cherishes friendship.

#### GOLD RUSH DAYS RECALLED

The Klondike Gold Rush, a chapter of Canadian history still alive in the memory of some Canadians, will be recalled in national historic sites at Dawson City, Bonanza Creek and Whitehorse in the Yukon, and Bennett, British Columbia. Mr. Jean Chrétien, Minister of Indian Affairs and Northern Development, recently announced plans for the \$2-million development commemorating the Gold Rush, Yukon mining days and transportation history.

#### TRAIL OF '98

The starting-point for visitors wishing to visit the "Trail of '98" will be Dawson City, whose old post office will serve as the main interpretation center. Properties that are already or soon will be under the national historic parks system include Robert Service's log cabin, a blacksmith shop, the Yukon Commissioner's residence, the married quarters of the North West Mounted Police and other buildings typical of the Gold Rush period. These, with the Palace Grand Theatre, a national historic site since 1959, will be restored to their appearance between 1898 and 1910.

The history of the mining industry over the past 70 years will be told at Dawson City and Bonanza Creek. Placer, hydraulic and dredge mining techniques will be demonstrated at Dawson. The process of turning mined gold ore into gold bricks will be seen at Bonanza Creek, near Discovery Claim, the site of the first discovery of gold in 1896.

#### PADDLEWHEELERS AND STAMPEDERS

Two sternwheelers, the S.S. *Keno* at Dawson City, which has been a national historic site since 1960, and the S.S. *Klondike* at Whitehorse, will show the importance of river transportation in opening up the Yukon. The *Klondike*, which is to become a transportation museum, will be restored to her original 1930 profile as an ore-carrier.

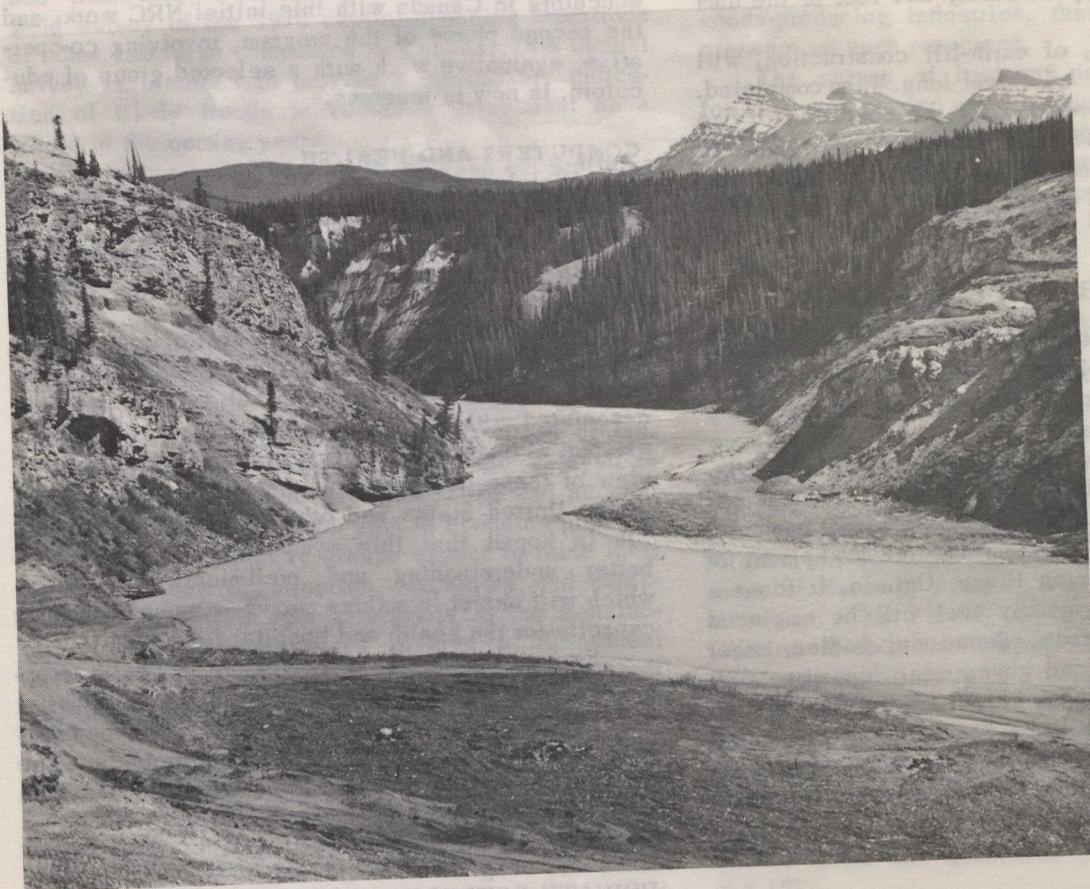
The eccentricities and heroism of the "Stampeders" in the trek north to Whitehorse can be relived in an historical interpretation center at Bennett, B.C. The famous wintering at Bennett, the Gold Rush routes, the building of boats for transportation, and the coming of the railway to the North will illustrate the social history of this period.

Mr. Chrétien said officials from the Canadian and U.S. national parks services are discussing the possibility of a joint program to make the Skagway-Whitehorse route more accessible to the increasing number of hikers wishing to retrace the footsteps of the Stampeders. Recently, a team from both services completed the crossing of the Chilkoot Pass.

---

Canadian coal production in September amounted to 862,682 tons, an increase of 11.7 per cent from the September 1968 production of 772,518 tons, while landed imports were 1,545,755 tons, compared to 2,332,441 tons for September 1968.

## NEW BIGHORN DAM



*Site of the Bighorn Dam, Alberta*

The key to the future distribution of Alberta's water resources between the northern and southern sections of the province is the \$32-million Bighorn Dam, the construction of which will begin early next year at a site 80 miles west of Rocky Mountain House.

The dam will make economically feasible the construction of engineering works needed to divert some of the North Saskatchewan River water into the Red Deer River system, making additional water available to the southeastern part of the province. Without the water control provided by the Bighorn, more costly diversion works would have to be installed downstream at future dam sites to divert the river from its bed.

Water diverted from the North Saskatchewan to the South Saskatchewan River system will help meet Alberta's commitment to Saskatchewan under the proposed Inter-Provincial Apportionment Agreement. This will release an equivalent amount of South Saskatchewan water for future irrigation development.

The Bighorn project and the water diversion works, which it makes possible, are vital parts of PRIME — a blueprint for water-development in Alberta based on the fact that most of the province's water is located in the north, while present and future needs are chiefly in the south.

### POLLUTION AND FLOOD CONTROL

Besides the long-term benefits, immediate results will be felt by the City of Edmonton in the form of pollution-abatement and flood-protection. The winter flow of the North Saskatchewan will be doubled from 2,000 to 4,000 cubic feet a second releasing water stored during the summer peak-flow period. This same storage capacity will permit the peak flow to be reduced providing flood-control.

Clearing of the 13,700-acre, 20-mile reservoir area is being conducted under the supervision of the Alberta Department of Lands and Forests. Work started last February and is expected to be completed by March 1, 1970. The entire area is being completely cleared of trees and brush to the high-water line established by provincial survey crews. Salvageable timber is cut by a saw mill operator before clearing-crews move in. It is expected that one million board feet of usable timber will be salvaged. Brush and trees remaining are burned. Clearing is being handled with a view to creating a recreational area around the newly-created lake.

The only buildings on the reservoir site, with the exception of a few derelict log huts, are at the Alberta Forest Service Ranger Station, near the south end of the valley. These will be moved before the area is flooded.

When flooded, the reservoir will contain 1.165 million acre-feet of water, with a usable storage depth of 120 feet when full. The maximum depth of the water will be approximately 280 feet at the dam face.

The dam itself, of earth-fill construction, will be 300 feet high and 1,400 feet long. When completed, it will provide water-power for the operation of two 54,000-kilowatt generators. Construction must be finished by the autumn of 1973, but it is hoped that work will be finished a year earlier.

## EDUCATIONAL JOBS FOR COMPUTERS

The National Research Council of Canada has entered the second phase of a long-range program of research and development in the field of computer-aided learning systems.

The main tool to be used in this effort to increase the productivity of Canada's educational systems is a new PDP-10 time-sharing computer purchased for \$431,000 from Digital Equipment of Canada Ltd., of Carleton Place, Ontario. It forms a centralized research facility that will be employed jointly by NRC, various educational bodies, other research institutions and government departments to develop methods by which computers can be used as learning aids. This will be done by storing course material, in either English or French, in computers and making it accessible to students, teachers and others at remote "on-line" terminals.

## JOINT PROGRAM

System design, development of specialized terminal facilities and system programming have been undertaken by the Information Science Section of NRC's Division of Radio and Electrical Engineering, under the direction of J.W. Brahan. Universities and provincial educational bodies will develop and evaluate course material, test terminal equipment through actual use and provide programming assistance to NRC.

According to W.C. Brown, Head of the Section, "it should be clearly understood that our plans include no work on curriculum content — that is strictly a matter for educational authorities". Similarly, he adds, "the evaluation of the system as it evolves will be under the direction of competent educators".

Mr. Brown explains that each collaborating sector — education, industry and governments — will contribute "in the field appropriate to its professional competence". "An Associate Committee on Instructional Technology", he says, "has also been formed by the Council with national membership to develop guide-lines, to encourage and channel co-operative effort and to provide a forum for professional discussion."

The first phase of the project covered some 18 months of research. It involved the use of two small computers and three time-shared on-line terminals —

teletypes connected to the computer containing the course material. Lectures and conference papers have acquainted a large audience of professional educators in Canada with this initial NRC work, and the second phase of the program, involving co-operative, evaluative work with a selected group of educators, is now in progress.

## COMPUTERS AND HEALTH

The Minister of National Health and Welfare, Mr. John Munro, recently announced approval of a \$9,050 federal grant for the Canadian Hospital Association to help finance a national symposium on computer applications in the health field.

"Considerable knowledge is available at present on computer application in the health field," Mr. Munro said. "It is important that persons who are associated with making policy decisions, as well as persons who are implementing projects, get an overall view of these developments, not only in Canada but in the United States and other parts of the world." "It is hoped that this symposium will provide a better understanding and preliminary guide-lines which will assist in making maximum use of computer capacity for the health and hospital field."

Experts on the use of computers in health treatment and services will take part in the symposium and will provide reports on computer developments and applications to health-related projects. The symposium speakers will come from Canada, the United States and European countries.

## PRIVATE SCHOOLS IN CANADA

Enrolment in private elementary and secondary schools in 1968-69 came to 153,967. The number of schools (outside Quebec) was 490; teachers numbered 5,589. There were 74,481 day pupils and 10,030 boarders in the nine provinces, which had 41,924 male pupils and 42,587 female pupils, for a total of 84,511. Enrolment in Quebec private schools in 1966-67, the last year for which data are available, came to 80,070. This figure covers enrolment in a number of special schools in addition to the regular private schools. These include: private kindergarten and infant-care schools, family institutes and schools of family arts, classical colleges, art schools and nursing-aid schools. Enrolment in private schools has been decreasing steadily since 1963-64, when a high of approximately 198,000 was reached. Decreases have been most noticeable in Quebec, where a large number of private institutions have come to operate under the public regional school boards. Decreases observed for Ontario for 1967-68 and 1968-69 reflect the change in status from private to public of many of the province's French-language high schools.

Canada's export trade in agricultural products was \$1.4 billion last year — or about 11 per cent of total exports.

## BUSINESS INVESTMENT - 1970

Mr. Jean-Luc Pepin, Minister of Industry, Trade and Commerce, recently released the results of a field survey of the 1970 capital-spending intentions of some 150 large companies in Canada. This annual survey is intended to provide a preliminary indication of likely trends in business investment as a whole in the coming year.

The firms surveyed plan to increase expenditures on new construction, machinery and equipment from \$5,328 million in 1969 to \$6,064 million in 1970 - a gain of 14 per cent. In 1969 the same companies raised their spending by about five per cent, compared to the 1968 figure. The increase indicated for 1969 is somewhat less than these firms had planned earlier in the year. To a considerable extent this shortfall resulted from delays caused by work stoppages in the construction industry and others. For the most part, programs that were delayed in 1969 have been carried over into 1970 and account for a significant part of the gain in spending planned.

Most major industry groups expect to raise their outlays on new construction, machinery and equipment in 1970, with special activity in the manufacturing sector, where plans involve a 30 percent advance. Only mining companies expect that their outlays on new capital will be lower in 1970 than in 1969.

### THE REGIONAL PICTURE

Since the coverage of the survey varied considerably by geographic regions, it is impossible to provide any precise measure of the regional changes. The available information suggests that much the sharpest increase in the value of plant and equipment put in place by business in 1970 will occur in Ontario, with smaller but still significant advances in the Atlantic Provinces and Quebec. There are indications that business investment in the Prairie Provinces may be a little greater than in 1969, whereas in British Columbia, as well as the Yukon and Northwest Territories, it may fall below this year's levels.

The 150 large companies covered by the survey account for about three-fifths of Canada's total non-agricultural business investment. Past experience shows that their investment plans reflect very closely the intentions of Canadian business as a whole.

### OTHER TYPES OF INVESTMENT

The capital-spending plans outlined relate to major sectors of private business investment only. Consideration of investment by agriculture, fishing, house-builders, governments and institutions is excluded. Preliminary indications are that any increases in 1970 capital programs in these sectors will be moderate, reflecting, in the main, the prevailing conditions of restraint. On this basis, expenditure on new construction, machinery and equipment for 1970 for the economy as a whole is likely to advance at a much more moderate rate than that now indicated for large business firms.

Under these circumstances, the sharp gains in business-expansion programs now foreseen is more likely to result in a shift of available investment resources toward business expansion, particularly in goods-producing industries, than in excessive new pressure on such resources.

The survey of business investment intentions for 1970 was carried out in conjunction with a survey by the Economic Council of Canada covering investment plans of large companies over the next five years. These results will appear in a subsequent report to be published by the Economic Council of Canada.

## FRANCO-CANADIAN SCIENTIFIC SUBCOMMITTEE

In accordance with a recommendation by the Franco-Canadian Cultural Commission at its third session on February 18, 1969, a scientific subcommittee held meetings in Ottawa on November 17 and 18.

The Canadian delegation was led by Mr. Jacques Gignac, Director of Cultural Affairs in the Department of External Affairs, who was chairman of the meetings. The French delegation was led by Mr. Charles Maisonnier, Deputy Director of Scientific Affairs in the Ministry of Foreign Affairs.

The Committee noted that the objectives of the scientific exchange program for the present year had been achieved in a very satisfactory way. After listening to descriptions of the scientific research structures in both countries, the Committee decided on the terms and quantities of exchanges for 1970 and 1971.

In view of the increasing interest on both sides in expanded scientific co-operation, the Committee gave consideration to the possibilities of its future development.

## WHO'S UP THERE?

Ever since Prime Minister Trudeau stressed Canadian sovereignty in his defence policy statement of April 3, Canadian Forces planners have been paying more attention to the Arctic and Canada's northern territories.

As a minor indication of this shift of attention, two small military detachments are being opened at Whitehorse in the Yukon and Yellowknife, Northwest Territories, in February 1970, to provide a link between the Canadian Forces and territorial authorities. These detachments, each consisting of a major and a staff of three, will provide close liaison with the territorial commissioners in the development of future military plans for the North.

At present, roughly half the 397 servicemen stationed permanently in the Far North are concentrated at Inuvik, 1,150 miles north of Edmonton, near the mouth of the Mackenzie River. Five men are stationed at each of four main DEW line stations.

The remainder occupy Alert, 900 miles north of the Arctic circle.

Air Transport Command runs scheduled flights into Alert weekly and into Inuvik every two weeks. Bulk supplies are airlifted to Alert during the year in three concentrated efforts of about 50 flights each. ATC records an additional 176 special flights in the past year to Whitehorse, Yellowknife or points north of the 60th Parallel.

Last year saw no major military exercises north of 60, but this year there have been three—"airlanded" operations at Watson Lake and Inuvik, involving about 800 members of the Canadian Airborne Regiment, in March and October, plus a smaller exercise at Mount Worthington, Yukon, in June.

Next year's schedule will be heavier still, including a projected series of small monthly exercises for all-season training.

Sovereignty flights 1,000 feet over the Arctic ice and snow follow various routes across the Arctic islands and the barrens, from Thule in Greenland to Yellowknife. The big *Argus* patrol aircraft flew 39 scheduled surveillance missions this year, 421 lonely hours, and almost as many again chasing down reported sightings.

#### ARCTIC MILITIA

Some of these reports have sifted back from the 1,683-man unpaid force of Eskimos and Indians known as the Canadian Rangers. These northern militiamen, who are issued with a .303 rifle and 100 rounds of ammunition annually, gather information or serve as guides in the areas they know best. There are two outposts in Labrador, and four in

Baffin Island, as well as sub-stations at Frobisher Bay, Destruction Bay, Alexis Creek, Sugluk, Rupert House, Pond Inlet and Port Radium.

Two *Tracker* aircraft and crews flew ice reconnaissance from Cape Dyer, Resolute Bay and Inuvik from September 1 to 19 during the *Manhattan* project. Two Canadian naval officers aboard the coast guard vessel *John A. Macdonald* escorted the American tanker through the Arctic to Point Barrow, Alaska, and back.

Communications research, mapping and engineering projects also take servicemen into the North. Military surveyors and aerial photographers have mapped the entire Western Arctic. The Mapping and Charting Establishment in Ottawa still carries out small projects; one is planned for the Cambridge Bay area in 1970 and another for the region between Coppermine and the Melville Coast in 1971.

#### SEPTEMBER FOREST FIRES

During September there were 515 forest fires throughout Canada, which damaged some 15,000 acres of woodland, according to estimates released recently by the Canadian Forestry Service.

In September 1968 there were 449 fires, which damaged 70,000 acres.

During the current forest-fire season, to the end of September, there have been an estimated 6,335 fires, damaging 1,643,000 acres of forest. By comparison, in the period April 1 to September 30, 1968, there were 6,658 fires, which damaged 2,111,000 acres.