



Bulletin

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MR. TRUDEAU NEXT PRIME MINISTER

Justice Minister Pierre Elliott Trudeau became Prime Minister designate of Canada on April 6, 1968, when delegates to the Liberal Party Convention held in Ottawa elected him on the fourth ballot to succeed Prime Minister Pearson as Leader of the Party. Mr. Pearson will relinquish his duties as Prime Minister within the next two weeks.

Mr. Trudeau will become Canada's fifteenth Prime Minister and will be the third French-speaking Canadian to serve as head of government.

Nine candidates sought the leadership in a contest which was one of the most exciting in Canadian history. Trade Minister Robert H. Winters received 954 of the 2,365 votes cast on the final ballot, as against Mr. Trudeau's winning 1,203. Mr. John Turner, Minister of Consumer Affairs, the only other candidate who then remained in the race, polled 195 on this fourth ballot. Mr. Paul Hellyer, the Minister of Transport, withdrew in favour of Mr. Winters after the third ballot.

Other candidates were the Secretary of State for External Affairs, Mr. Paul Martin, who withdrew after the first ballot, the Agriculture Minister, Mr. J.J. Greene, eliminated on the third ballot, Mr. Eric Kierans, a former member of the Quebec provincial government, eliminated on the first ballot, the Health and Welfare Minister, Mr. Allan J. MacEachen, who withdrew after the first ballot and Rev. Lloyd Henderson, of Manitoba, eliminated on the first ballot. The Minister of Finance, Mr. Mitchell Sharp, withdrew his name a few days before the convention and announced his support for Mr. Trudeau.

A JUST SOCIETY

In his acceptance speech, Mr. Trudeau paid tribute to Mr. Pearson as a source of inspiration. He warned

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of a difficult future as people everywhere sought a "fairer shake". "We know that the future is not for the weak and the timid," he said, "and we know we can meet the challenge."

"The constitution and the law are not a sword but a shield to protect Canadians so that they can work in unity and harmony towards a just society," Mr. Trudeau continued. He was conscious, he said, of the honour bestowed on him and the heavy responsibility he had shouldered. "The only way I can show my appreciation will be to bear this responsibility with all my strength and with all my energy," he declared.

Later in his speech, the new Liberal Leader said that the Government "has to orient the country to progress - economic and social progress - and make the Canadian society a just society".

BIOGRAPHY

Pierre Elliott Trudeau, a bachelor, who had been Minister of Justice and Attorney General of Canada since last April, was elected to the House of Commons as recently as 1965. He was appointed Parliamentary Secretary to Mr. Pearson in January 1966 and reappointed to the same post in January 1967. He was

MUSEUMS ACT PROCLAIMED

The recently-appointed board of trustees for the National Museums of Canada held their first meeting in Ottawa on March 25.

The board, which is chaired by Jean Ostiguy of Montreal, was named after the National Museums Act was passed during the current session of Parliament, creating the National Museums Corporation with proclamation of the Act on April 1.

The National Museums Corporation now comprises the National Gallery of Canada, the National Museum of Man (formerly the Human History Branch of the National Museum), the National Museum of Natural Sciences (formerly the Natural History Branch of the National Museum), and the National Museum of Science and Technology.

SUB-SEARCHING PLANES TO GO

The "phasing-out" by June of this year of Canada's famed *Neptune* anti-submarine aircraft will result in savings of approximately \$8 million a year in personnel, maintenance and operating costs.

Twenty of these aircraft, 12 at Canadian Forces Base Summerside, Prince Edward Island, and eight at CFB Comox, British Columbia, are at present with Maritime Command.

Maritime Command's *Argus* aircraft, which have a longer flight range than the *Neptunes*, will be re-deployed to meet operational commitments. The replacement of eight *Neptunes* by six *Argus* at Comox will increase the maritime operational capability on Canada's West Coast.

The *Neptune*, with a crew of 10, was acquired in March 1955 from Lockheed Aircraft Corporation. The *Argus*, which carries a crew of 15, was brought into operation in May 1958. The aircraft is manufactured by Canadair Ltd.

AID FOR POTATO GROWERS

Agriculture Minister J.J. Greene recently announced a programme of federal assistance to commercial potato-growers in Canada. The Federal Government will pay each grower \$25 for each eligible acre up to a maximum of \$400 for each farmer, based on his 1967 crop. Payments will not be made on crops of one acre or less.

Mr. Greene said that prices received by growers had been extremely low for two consecutive years. "Low prices in the winter of 1966-67 were the direct result of overproduction in Canada in 1966," he added. Low prices during the winter 1967-68 had not, however, been the fault of Canadian farmers. Growers had cut back acreage in 1967, and production was down to the point where reasonable prices could be expected. Exceptionally large U.S. supplies had forced down Canadian prices.

"Growers in Western Canada had requested the Government to place a value-for-duty on potatoes entering their region as a means of improving returns.

After careful consideration, it was felt that, on balance, a support programme applicable across Canada was preferable. This approach will not conflict with Canada's trade obligations and it will provide assistance to growers everywhere. In addition, it means that prices of potatoes to the consumer will not be raised," Mr. Greene said.

PERMAFROST MAP

The Department of Energy, Mines and Resources, in co-operation with the National Research Council, has produced a map which shows the distribution of permafrost in Canada. This full-colour map, charted by EMR's Geological Surveys branch, from data collected over 14 years by NRC's Dr. R.J.E. Brown, has detailed explanatory notes and bibliography, as well as diagrams.

Permafrost conditions occur when the temperature of the earth remains below 32 degrees F continuously for a number of years. Permafrost can be a few inches or hundreds of feet thick and from a year and a half to thousands of years old.

AVALANCHE WARNING SYSTEM

Six trained avalanche observers working with the National Research Council of Canada are testing a system designed to warn road-clearing crews of any sudden snow avalanches.

In 1965, two men were killed by an avalanche at Rogers Pass, British Columbia, while attempting to clear the Trans-Canada Highway of snow from a previous avalanche.

Experience has shown that, in Glacier National Park, British Columbia, there is a maximum of three minutes from the time an avalanche releases until it strikes the highway. This short time is all that road-workers have to abandon their slow-moving "cat" or grader and run out of the avalanche path; to maximize the escape potential of this brief interval, NRC engineers have devised a plan built round modified commercially-available Citizen Band (CB) communications equipment.

A trained avalanche-observer is stationed in a safe location up to a mile away from where road crews are working, from which he is able to observe all the "trigger" areas that may affect that portion of the highway being cleared.

At the first indication of danger, he need only press a button on his modified CB transmitter-receiver to ring an alarm bell in the cab of the snow-clearing vehicle. The operator must then abandon his vehicle and run for his life.

Work began on this project after NRC received a request from the Department of Indian Affairs and Northern Development, which has responsibility for Glacier National Park.

Two vehicles were equipped with the alarm system following an initial testing period in the summer of 1967. Full-scale trials began in mid-October and are to continue until spring.

BILINGUAL ARMED FORCES

National Defence Minister Leo Cadieux, announced recently that, "in accordance with the Government's policy on bilingualism in the Public Service, enunciated by the Prime Minister in the House of Commons on April 6, 1966", and as a means of encouraging French-speaking Canadians to remain longer in the Armed Forces, the Department of National Defence would this summer launch a programme "leading to a substantial improvement in the bilingual character of the Forces".

The programme is based on the conception of two working languages — bases and units predominantly French-speaking to work in French, and bases and units predominantly English-speaking to work in English.

Mr. Cadieux said that the programme provided for the establishment of French-language trades-training, as well as for the designation of a number of units specializing in a variety of military skills, in which the working-language would be French.

To foster the use of a second language, it is proposed ultimately to have at least 20 per cent of the strength of French-speaking and English-speaking bases and units made up of members whose parent tongue is the other official language. This will not be possible however, in the initial stages.

The Defence Minister emphasized that the choice of units and bases for designation as French-

speaking or English-speaking would not be restricted to any particular political or geographic division. The object was to create a force in which both the country's "official languages" were in everyday use and not to divide the force on a language or geographic basis.

Mr. Cadieux added: "This programme will make the Armed Forces more attractive for Canadian youth whose parent language is French. They can expect to take a substantial part of their training in French and serve for a good portion of their careers in units where French is the working language. At the same time, this programme will open the doors for both English- and French-speaking servicemen to learn a second language." The new programme has the immediate aim of increasing the number of units functioning on a predominantly French-speaking basis. English however, will continue to be the operational language of the Forces above unit level, and predominantly French-speaking air units will operate in the air in English, the air-communication language throughout most of the world by international agreement.

Mr. Cadieux stressed that the programme would be introduced gradually into the Forces and in such a way that military efficiency and career progression would not be prejudiced and with due regard for the rights and privileges of individuals.

VIETNAM BOMBING HALT

In a statement on April 1, Mr. Paul Martin, Secretary of State for External Affairs, said that he had been heartened to learn President Johnson of the United States had suspended most of the bombing of North Vietnam and, at the same time, renewed his plea for peace talks. "I know that the decision could not have been an easy one for him to take," Mr. Martin said. "It is an act of courage on his part to take that gamble for peace." The Secretary of State for External Affairs continued as follows:

Last September, at the United Nations General Assembly, I urged that there be a halt to the bombing as a necessary first step on the road to de-escalation. I now urge the leaders of North Vietnam, and all those who have any influence in their counsels, to seize this opportunity swiftly so that the next steps can be taken which may quickly end the tragedy and the suffering of all the people of Vietnam, and allow them and all of us to turn our hands to the works of peace.

Canada, for its part, stands ready to do anything within its power which may contribute to the prompt initiation of serious talks. The possibilities include Commission contact with the North Vietnamese Government and action in the Security Council, perhaps with a view to reconvening the Geneva Conference itself. If it should appear that it would advance the prospect for peace, our Commissioner will proceed promptly to Hanoi.

NUCLEAR DESIGN MERGER

Agreement has been reached by Canadian General Electric Company Limited and Atomic Energy of Canada Limited to the merger of the nuclear-power system design and engineering groups of the two organizations, under the direction of AECL.

The object of the merger, which was announced on March 21 by Canadian General Electric President J. Herbert Smith, and Atomic Energy President J. Lorne Gray, is to consolidate and streamline nuclear design and engineering capability in Canada, in anticipation of the heavy volume of domestic orders for nuclear power plants forecast for the next ten years. A further aim is to strengthen Canada's position in competing for sales of nuclear-power systems overseas.

The five-year agreement is an example of co-operation between government and industry in an area where it is advantageous to use the resources of both to expand Canada's programme both nationally and internationally.

CGE TEAM

Canadian General Electric has built up an experienced group of nuclear designers at Peterborough who designed for AECL Canada's first nuclear-power plant, the reactor of the Nuclear Power Demonstration station at Rolphton, Ontario. CGE also designed and supplied the WR-1 test reactor for AECL's Whiteshell Nuclear Research Establishment at Pinawa, Manitoba.

This reactor, moderated by heavy water and cooled by organic liquid, is reported to be the most advanced in the world. The 137-megawatt KANUPP station in Pakistan was designed and is being built by CGE, and the company has been bidding for nuclear-power stations in Finland and Argentina.

AECL TEAM

For its part, Atomic Energy of Canada has a large and experienced team of nuclear designers in its Power Projects group at Sheridan Park, near Toronto. Power Projects designed and managed the construction of the 200-megawatt Douglas Point nuclear power station now successfully in operation and incorporated into the Ontario Hydro grid. The group is designing the 250-megawatt prototype nuclear power station which the company is building near Gentilly, Quebec, for incorporation into the Hydro-Quebec system. Power Projects is providing nuclear engineering services to the Indian Department of Atomic Energy for the two 200-megawatt units under construction in India's Rajasthan Province. They are also designing the nuclear portion of the four-unit 2,160-megawatt station being built by Ontario Hydro near Pickering.

CGE proposed and AECL agreed that it would be preferable if Canada's two nuclear-design groups were integrated to form one powerful team to undertake the design work required for the expanding nuclear power programme in Canada. This would also enable Canada to have one organization rather than two in the export market. In the past, AECL provided design services to overseas clients seeking nuclear consulting engineering assistance, while CGE has offered design and supply services. By combining the two, Canada will have greater strength to meet the competition from the mammoth organizations of other countries.

CAR-CORROSION TESTS

Alberta motorists seem to be among the most favoured in Canada when it comes to the effects of atmospheric corrosion on automobiles. The same seems true of the corrosive effects of salt applied in winter to roads and highways.

The Alberta Department of Highways co-operated with its Ontario counterpart in various tests to gauge the effects of corrosion on automobiles in various parts of Canada. One group of vehicles was tested at Edmonton, another at Fredericton, and a third at Halifax. In Ontario, vehicles were tested at Toronto, Ottawa, Chatham, North Bay and Cochrane.

The testing covered 19 months, including two winters and one summer. To determine the extent of corrosion of auto-bodies by salt applied to roads, the vehicles were fitted with plates of auto-body steel mounted under the rear fenders above the wheels. Some of the plates were smooth metal surface and others were creviced.

The results showed that the test plates on Nova Scotia vehicles suffered most, while those in the Edmonton area suffered least. The wind-blown salt

spray from the Atlantic, which falls on every part of the Maritime province, is blamed for the faster rate of corrosion.

The results of the tests were expressed in relative numbers which have no special meaning other than their value as comparative figures. For the smooth plates, Edmonton had a corrosion rate of 8. This compared to 10 at Chatham, 10 at Ottawa, 12 at Cochrane, 16 at Fredericton, 18 at North Bay, 23 at Toronto, and total destruction at Halifax. The results on the creviced plates were just as varied: Edmonton 9, Fredericton 14, Cochrane 15, Ottawa 17, Chatham 18, Toronto 30 and Halifax, again, total destruction.

Other groups of plates of auto-body steel were exposed only to atmospheric corrosion, free of the effects of added salt and constant splashing. The resulting loss of material owing to corrosion, measured in milligrams a square centimeter, ranged from 12.5 at Edmonton to 22 at Cochrane, 25 at North Bay, 43 at Chatham, 51 at Toronto, 40 at Ottawa, 40 at Fredericton and 50 at Halifax.

The Alberta Department of Highways uses about 15,000 tons of salt a year on provincial roads. The City of Toronto alone uses about 80,000 tons of salt a year.

METROPOLITAN POPULATIONS

Dominion Bureau of Statistics population estimates at June 1, 1967, for 19 metropolitan areas show that, in the five years between the 1961 census and the 1966 census Kitchener had shown the largest percentage increase (23.9 per cent); Saskatoon was next with 20.8 per cent; and Calgary and Edmonton had identical increases of 18.6 per cent; Toronto had increased by 18.2 per cent; Regina by 17.0 per cent; and Montreal, Ottawa and Quebec had increased by over 15 per cent. From June 1, 1966 to June 1, 1967, Calgary showed the largest percentage increase at 4.8; London increased by 3.9 per cent; Toronto and Vancouver increased by 3.5 per cent each; and Hamilton had increased by 3.1 per cent.

During the 1966-67 census year the largest numerical increases were in the following areas: Toronto, 75,000; Montreal, 52,000; Vancouver 31,000; Calgary, 16,000; Hamilton, 14,000; and Ottawa, 13,000. The gain in the Ottawa area raised the population past 500,000. The large gains for these areas was partly due to the increase in immigration during the year.

As in the preparation of the post-census population estimates for the provinces, births occurring in these areas between June 1, 1966 and June 1, 1967, are added to the population at the census date and deaths are subtracted. Immigrants in this period, reporting these metropolitan areas as places of destination, were also added, while allowance was made for losses in population owing to emigration. Finally, the net in- or out-movement due to internal migration was calculated from Family Allowance figures and other data. These estimates will be revised when data from the 1971 census become available.

UNIT TRAINS FOR CN

Canada's first pre-designed unit train completed its maiden run at Hamilton, Ontario, on March 27, carrying the first iron pellets from Ontario's newest mine.

Railway, steel company, mine, and government officials marked the arrival of the stubby Canadian National and Ontario Northland cars from Temagami, 340 miles to the north, with a trackside ceremony.

A CN official who called the run a transportation milestone said that the cars were the first to operate as fixed-unit trains locked into a pre-determined load-to-unload operating cycle. They were also the first designed specifically to handle ore pellets.

Three train sets will run continuously on 72-hour cycles between an automatic loading-dock at the unfinished Sherman Mine near Temagami and an elevated railway-line over blast-furnace bins at the Dominion Foundries and Steel Ltd. (Dofasco) plant in Hamilton.

INDIVIDUAL CUSTOMER SERVICE

The operation of the unit train is simple. Like all unit trains, it moves a single product from a single loading-point to a single destination. The number and type of cars in the train does not change during the movement. The switching and yard stops that face conventional freight-trains are by-passed and more efficient operation is achieved. It provides the customer with his own train on his own schedule.

The cars have special hatches that open and close automatically during the loading. At Temagami, they are unhooked from the engines and fed by gravity down an inclined spur under loading silos. Their

speed is monitored from trackside by a man at a control-panel, who operates brakes on the cars from the panel.

As the cars pass under the silos, a trip-lever opens hatches on their roofs. The control-panel operator triggers the flow of pellets, which are weighed automatically, from the silos into the cars. It takes two hours to load a 35-car train.

At Hamilton, the cars move six at a time over blast-furnace bins. They unload from the bottom and can be drained of pellets in 60 seconds each. The Dofasco mill will consume 12 car-loads a shift, emptying a train-load each 24 hours, seven days a week.

The development of such trains got a boost last year when new transport legislation freed railways to merchandise them as a package instead of having to quote rates for each carload.

The cars have load-adjusting brakes, another unusual feature. When a full load is aboard, an auxiliary set of brakes operate so that stopping distance for a full train remains nearly the same as that for a train-load of empties returning to the mine.

There will be 35 cars in each train set. The remaining 15 will be used to replace cars taken out of service under a planned maintenance programme.

Sherman Mine is a joint venture of Dofasco and the Tetapaga Mining Company Limited, a wholly-owned subsidiary of Cleveland-Cliffs Iron Company of Cleveland, Ohio. When in full operation, it will produce one million tons annually and will permit Dofasco to obtain almost all its ore from Canadian sources.

AIRCRAFT TO MALAYSIA

Canada will provide \$7.7 million to finance the sale of aircraft to the Malaysian Government. The agreement was signed on March 20, by His Excellency Tan Sri Ong Yoke Lin, Malaysian High Commissioner for Canada, and H.T. Aitken, president, and T. Chase-Casgrain, secretary, of the Export Credits Insurance Corporation, which administers the Canadian Government's long-term export-financing programme.

The loan covers 90 per cent of the purchase price of nine de Havilland THC-4A *Caribou*. It is the first sale to Malaysia that has been financed by the ECIC. The loan, which will be repaid in 32 quarterly instalments, will carry interest at the rate of six per cent *per annum*.

Malaysia will use the Canadian aircraft to augment its present civil support services, and for disaster relief, air evacuations, rotation of security and operations personnel and government transportation services.

At the signing, Mr. C.M. Drury, Minister of Industry, said that the sale offered "gratifying confirmation of the general acceptance of a product

in which Canadian industry has invested a great deal in terms of research and development". He congratulated de Havilland, and added that he hoped that the sale augured well for the expansion of relations between Canada and Malaysia.

Including this agreement, export financing contracts totalling \$395 million have been concluded under the Export Credits Insurance Act since the first contract was signed in 1961.

NORAD PACT RENEWED

Canada and the United States agreed on March 30 to renew the NORAD agreement for a period of five years when it expires on May 12. The renewed agreement may be reviewed at any time at the request of either party and may be terminated by either Government after such review following notice of a year.

The U.S. note renewing the agreement said, in part:

"...The discussions recently held between the representatives of our two Governments have con-

