

Space trip for Canadian this year

Science Minister Donald Johnston has announced that he has accepted a surprise offer from the National Aeronautics and Space Administration (NASA) to include a Canadian aboard a flight of the space shuttle to be launched next October — in addition to two already scheduled for late 1985 and early 1986, reports the *Globe and Mail*.

The Canadian scientist will be a payload specialist, trained to look after Canadian-designed experiments carried as payloads on the shuttle.

The astronaut will work on developing Canadian experiments on space adaptation, space motion sickness and disorientation in space, and on development of a machine vision system designed to give eyes to the shuttle manipulator arm known as the Canadarm.

Canada's six candidates for space are beginning their training this month, so the short deadline will "test our strength", said Clive Willis, the National Research Council's director of information.

NASA approached Mr. Johnston a few weeks ago. Canada had developed several experiments that were supposed to have been carried out on the first Spacelab mission, and it was decided that running them would help develop better projects for later Canadian missions, he said.

Mr. Johnston said that the National Research Council was looking at putting additional scientific experiments into space. He estimated that there would be "little incremental cost" over and above the \$4.5 million already slated for the astronaut program.

The October mission will also carry Telesat Canada's *Anik D-2* satellite and an experiment designed by two Canadian high school students will be in a container in the shuttle's cargo bay.

While the first astronaut and a backup for that astronaut will not be chosen until early next month, they will be selected from the Maple Leaf Six team of Roberta Bondar, Marc Garneau, Steve MacLean, Kenneth Money, Robert Thirsk and Bjarni Tryggvason.

The six-day flight in October will be launched from Cape Canaveral, Florida, and will be the third mission of the shuttle *Discovery*. The Canadian astronaut will be the sixth crew member.

The two chosen for the October mission will travel to the Johnson Space Centre in Texas in mid-September for six weeks of pre-flight training.

Oil and gas reserves — estimates revised upwards

Energy, Mines and Resources Minister Jean Chrétien has released the Geological Survey of Canada's (GSC) latest estimates of the country's petroleum resources.

For the country as a whole, GSC now estimates (at a 50 per cent probability rate) that conventional oil resources total 5 893 million cubic metres, compared to a 1976 estimate of 4 770 million cubic metres (one cubic metre of oil equals 6.29 barrels and one cubic metre of gas equals 35.3 cubic feet). Conventional oil resource estimates do not include the western Canadian oil sands, an enormous energy resource with unique development challenges.

"This new information on our oil resources has turned out to be very encouraging," Mr. Chrétien said. "It has confirmed that Canada continues to have a rich and diverse endowment of energy resources."

The estimates appear in *Oil and Natural Gas Resources of Canada 1983*, a 59-page booklet published by GSC, describing the geology and resources of the country's petroleum regions. The last summary of petroleum resources by



Jean Chrétien

Energy, Mines and Resources Canada was compiled in 1976.

The sharpest increase in oil resource estimates is for the Eastern offshore region, and follows the discovery of the Hibernia oil deposit. In 1976, the estimate for the region was 715 million cubic metres (at a 50 per cent probability rate). The latest estimate is 2 102 million cubic metres. The oil estimate in the Beaufort Sea-Mackenzie Delta region is now 1 464 million cubic metres, compared to 1 097 million cubic metres in 1976. In the High Arctic islands, the figures are 762 million cubic metres today, and 604 million cubic metres in 1976.

For the Western Canada Sedimentary Basin, the only major petroleum region now in production, the remaining established reserves and the estimate of undiscovered oil total 1 347 million cubic metres today, down from 1 860 million cubic metres in 1976.

The estimate of natural gas in the Beaufort Sea-Mackenzie Delta region has increased from 1 699 billion cubic metres in 1976 to 2 151 billion cubic metres today. In the Eastern offshore, there was an estimated natural gas increase from 1 130 billion cubic metres to 2 669 billion cubic metres. In western Canada, there is an increase from 2 747 billion cubic metres to 4 615 billion cubic metres.

Assistance for drought victims in Brazil and Honduras

Grants totalling \$756 000 to assist victims of drought in Brazil and Honduras will be directed through the International Humanitarian Assistance (IHA) program of the Canadian International Development Agency (CIDA).

This year several countries of Latin America have experienced the worst floods ever while others recorded their worst droughts. In Brazil, the effects of a five-year drought in the northeastern region have now reached a level beyond the abilities of the regional and national governments to cope. Some 22 million people in an area roughly the size of Quebec have been directly affected.

The federal government of Brazil has responded with an emergency plan that employs 1.5 million people in 20 000 "work fronts", spending over \$500 million (Cdn.) since 1979. Even so, and with

the full assistance of regional governments, the situation remains desperate.

Appeals for funds

Three international Organizations have already launched appeals for funds. In addition, two containers with 33 tonnes of milk powder valued at \$36 000 left Montreal for Brazil on Christmas eve, a result of a grant from CIDA's Non-Governmental Organizations Division. The shipment was consigned to the Canadian Lutheran World Relief.

For Honduras, the Canadian Catholic Organization for Development and Peace has launched an appeal for \$482 000 for food-for-work programs to help victims of that country's year-old drought which has seriously affected 25 municipalities in the department of Choluteca. Canada is responding with a grant of \$45 000.