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Multi-purpose satellite program

Canada will participate in a program to develop a large multi-purpose satellite (L-SAT) being planned by the European Space Agency, the Department of Communications has announced.

The Government may spend up to $2 million or about 10 per cent of the total cost of the definition phase of the program. The European Space Agency (ESA) is planning the L-SAT for a variety of future applications, principally for telecommunications missions. British Aerospace is the prime contractor for the L-SAT program. When ESA approves the implementation phase of the program, L-SAT would likely be launched aboard ESA's *Arianne III* rocket in 1983.

Participation in the L-SAT program would help ensure availability to Canadian industry of a heavy satellite to carry payloads for future communications missions such as direct broadcasting by satellite. As well, the commercial exploitation of L-SAT by Europe could result in significant follow-on sales of Canadian subsystems and support services.

Fish sales policy outlined

Direct sales of fish to foreign vessels will be permitted in 1980 where potential catches are surplus to the processing and marketing capability of Canadian industry, the Department of Fisheries and Oceans has announced.

Arrangements of this sort may be made by both processors' associations and fishermen's association. Species and quantities would be established by departmental consultations involving provincial governments, fishermen and processors, said the Department.

In the past several years, similar arrangements, known as "over-the-side sales", have been permitted in cases where additional market outlets were considered necessary to accommodate catches.

It was intended that the 1980 policy would permit the advantages and benefits of direct sales to foreign vessels to be realized in cases where catches were surplus to the ability of the Canadian industry to deal with them. At the same time, the arrangements should avoid the disruptions which direct sales have occasioned in the past two years.

Rules for businessmen relaxed

Changes in immigration regulations encouraging entrepreneurs to immigrate to Canada have been announced by the Department of Employment and Immigration.

The changes deal only with the selection process and criteria. Entrepreneurs, who previously had to have a "controlling" financial interest in the proposed undertakings in Canada, are now only required to have "substantial" interest.

The new criteria place greater emphasis on the entrepreneur's potential contribution to the Canadian economy and labour market – the number of new jobs that will be created, and the business expertise and creativity that will be injected.

The Department said that many potentially good entrepreneurs with productive ideas were being eliminated during the selection process just because they did not have the required "51 per cent" controlling interest. This change should result in an increased flow of entrepreneurs, which will help to generate more new jobs for Canadians.

Space shuttle to carry Canadian inventor's creation

A Toronto university professor's invention will fly aboard the next series of flights by the U.S. space shuttle to study the weather high in the earth's atmosphere, reports Agnes Kruchio in the *Globe and Mail,* January 25.

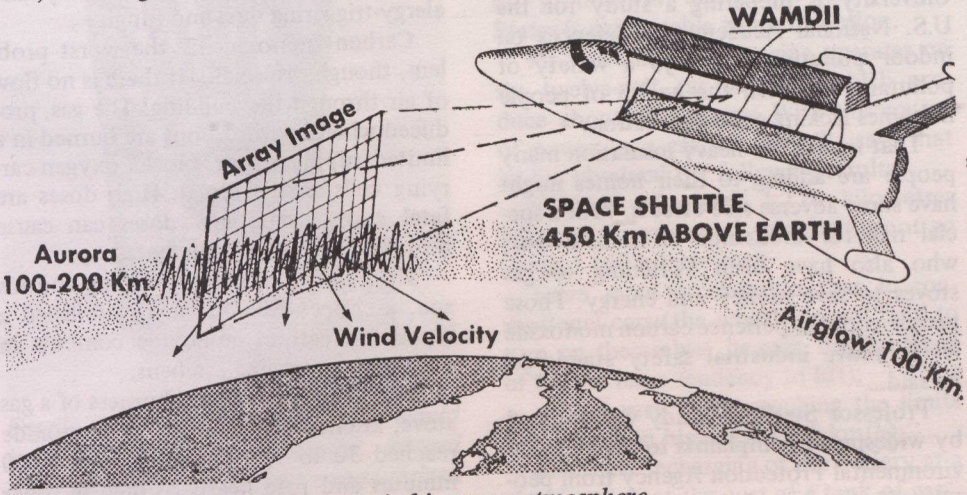
Professor Gordon Shepherd, of York University's Centre for Research in Experimental Space Science, was one of more than 200 applicants from all over the world who competed for 40 places for scientific instruments aboard the third series of space shuttle flights planned by the U.S. National Aeronautics and Space Administration in 1984. Only seven candidates were accepted from outside the United States and only three Canadians.

The instrument, called a Wide Angle Michelson Doppler Imaging Interferometer, will, in effect, be able to see the wind, Professor Shepherd said. The instrument will be housed in the space laboratory portion of the space shuttle and, scanning in different directions, it will be able to detect light from atoms and molecules in a part of the atmosphere. If there is a wind in the upper layers of the atmosphere, the wavelength of the light from the particles changes. This will be detected by the instrument devised by Professor Shepherd and his team.

The instrument will be made up of 10,000 tiny light detectors which work as a tiny television camera to form a wind picture of the upper atmosphere. During a week-long shuttle flight, it is expected to collect as many as 250 million pieces of information about the winds.

"We will need a very sophisticated way of analyzing the information," Professor Shepherd said, adding that it will take about 10 years to complete the project.

"Up until now there has been no study of the weather at such high altitudes," he noted. "In the past, we have assumed that this region is very quiet, but it is very likely that the meteorology of these levels is connected to that at lower levels."



Globe and Mail, Bernard Bennell

Canadian invention will measure wind in upper atmosphere.