

1909. In contrast, 1.3 billion hours were flown by 5,318 aircraft of Canadian registry in 1960, which doubled to 2.6 billion hours by 11,315 Canadian aircraft in 1970. A further doubling of flying hours is suggested by Ministry of Transport forecasts, which indicate that the Canadian civil fleet, which flew 2.4 billion hours in 1970, will probably log about 4.5 billion in 1980.

Although McCurdy's *Silver Dart* was built in the United States, much of the research and development were carried out by the Canadian "Aerial Experiment Association", headed by Dr. Alexander Graham Bell, and the venture was financed to a total of \$35,000 by Mrs. Bell. (The first flight was made near the Bell's summer home at Baddeck on Cape Breton Island.) By 1959, Canada was one of the top seven aircraft and parts-producers in the world as 78 Canadian manufacturers sold \$372.5-million worth of aircraft and parts - exporting \$25-million worth - and paid \$142.5 million to their 28,516 employees. But even these figures were small compared to those of 1969, when 96 Canadian firms sold \$649.5-million worth of aircraft and parts - \$324.5 million in exports - and paid \$273.5 million to their 34,174 employees.

Paying passengers and freight were far beyond the capacity of the *Silver Dart's* 50-horsepower engine, but by 1960 Canadian air-carriers grossed \$243 million in operating revenues, and by 1969, \$721 million.

The final chapter of the publication details the best available forecasts to the year 1990.

DND HELPS ATHLETES

A special co-ordinating staff has been set up by the Armed Forces to help in the training and development of Canadians in international sports competitions.

Under Brigadier-General James C. Gardner, Director-General Operations Land at Canadian Forces Headquarters, the co-ordinating staff will deal with all major requests for Department of National Defence support for major sports events. Requests will be screened by the Fitness and Amateur Sports Directorate of the Department of National Health and Welfare before being passed to Canadian Forces Headquarters.

The Minister of National Defence, Donald Macdonald, has attached special importance to the provision of DND facilities and logistic support for Canadian athletes preparing for the 1972 and 1976 Olympic Games, the 1975 Pan-American Games and other associated sports events and activities.

Airlifts will probably be made to the 1972 Summer Olympics in West Germany, the 1974 Commonwealth Games in Christchurch, New Zealand, and the 1975 Pan-American Games, in Santiago, Chile.

Other possibilities include Canadian Forces commitments to support the 1976 Olympics, to be held in Montreal, and the 1978 Commonwealth Games, tentatively set for Canada.

DND has already helped transport personnel to Sapporo, Japan, the site of this year's Winter Olympics and, last month, delivered 830 beds, with bedding, for use by athletes taking part in the Arctic Winter Games at Whitehorse in the Yukon. The Defence Department has also been asked to supply communications equipment and transport for the 1972 Gold Cup Competition ski race to be held at Banff after the Arctic Winter Games.

GLOBAL WEATHER PREDICTION

The Canadian Government has agreed to "active Canadian participation" in the Global Atmospheric Research Program (GARP), an international co-operative research project to improve weather forecasting.

The program, which was announced by the Department of the Environment and the National Research Council of Canada, is sponsored jointly by the World Meteorological Organization (WMO) and the International Council for Scientific Unions (ICSU). Its principal aim is to establish a physically sound basis for extended-range weather prediction that can result in increased forecasting accuracy over periods of from a single day to several weeks.

The benefits of better weather forecasting would be widespread, both geographically and in the variety of activities (such as aviation, shipping, agriculture, water-resources management, construction, urban-pollution control) that would be affected.

International planning and co-ordination for GARP is the responsibility of a joint organizing committee appointed by WMO and ICSU, supported by a small secretariat based in Geneva.

Canada is already participating to a limited extent in GARP through the Atmospheric Environment and NRC. However, if GARP is to attain its goals, a greater research commitment will be required of participating nations. An expansion of the activities of research groups in the Federal Government and in Canadian universities will permit Canada to make an effective contribution.

Federal Government expenditures in government and university laboratories specifically related to GARP are estimated at \$1,250,000 for the 1971-72 fiscal year. Future funding is still under consideration.

Unlike a number of recent international research programs, such as the International Geophysical Year, GARP does not have a fixed duration. It will continue as long as participating countries believe it to be justified.