

CANADA SURVEYS THE SEAS

The first world-wide oceanographic project in which Canada has taken part will be launched next November when the Canadian scientific ship *Hudson* sets sail from Halifax on a voyage of 41,000 nautical miles round North and South America.

Energy, Mines and Resources Minister J.J. Greene, who announced the programme in a statement to the House of Commons recently, described the expedition as of one great value to the development of Canada's undersea resources and those of the entire world. The programme, he said, carried global implications that could be of direct benefit to all nations in meeting the scientific and economic challenges of the day.

"Apart from domestic interest," Mr. Greene declared, "all mankind has a great interest in the development of undersea resources, if the challenge of meeting the needs for food and economic progress ... is to be met."

The project, to be known as *Hudson 70*, will involve a 12-month expedition through the Atlantic, Antarctic, Pacific, and Arctic Oceans. Aboard the survey vessel will be scientists from the federal Department of Energy, Mines and Resources and other federal departments, Canadian universities and American oceanographic institutes and universities. Investigations will range from ocean circulation studies to geological surveys of Canada's continental shelf on its east, west and northern coasts, and will include biological, geophysical, chemical and other oceanographic studies.

The expedition is viewed as evidence of Canada's increasing competence in oceanographic research and of this nation's growing contribution to international studies of oceans. The expedition is of a kind strongly urged by various international bodies, among them the United Nations which has endorsed the designation of the period, 1970 to 1980, as the International Decade of World Ocean Exploration.

The *Hudson 70* project also provides an indication of Canada's continuing involvement in the development of scientific techniques for the further development of its resources and those of the world.

In his statement to the House, Mr. Greene acknowledged that "in this age of science, a country of Canada's size must deploy her scientific resources wisely". He said Canada could "not afford to be in the vanguard in all aspects of science and must choose wisely the disciplines wherein we have the capacity and which will be of greatest benefit to Canadians". Oceanography was an area, the Minister continued, "where Canada does have the capacity and where research can be of great benefit in Canada's future".

LATIN AMERICAN INTEREST

Stressing the global context of the project, Mr. Greene said that the study and development of undersea re-

sources throughout the world would aid in alleviating problems arising from increasing population and food shortages. He also noted the likelihood that the project would serve as an area of common endeavour for both Canada and the countries of Latin and South America - a development that would, he said, be "in keeping with the Government's intent to achieve closer ties" with those nations.

Mr. Greene said that Latin American countries with an interest in these studies and themselves possessing facilities in this sphere would be asked to participate "to the extent that is possible in keeping with the objectives of the mission". He added that Canadian scientists had already begun discussions with Chilean scientists regarding a possible programme off the coast of Chile.

While the international implications of the project are evident, the national impact is equally significant. Canada's resources in this regard belong to all the people of Canada, irrespective of geographical location. Development of these resources is seen as a direct benefit to the entire nation.

Mr. Greene compared the exploration of the world's oceans to the exploration of outer space. "It may well be that underwater research in the realm of the oceans will be as important to the future of mankind as the exciting developments in the realm of space," he said.

"It is our belief," Mr. Greene concluded, "that Canada can play a full and worthy part in this realm of science."

The potential economic benefits of the project can be exemplified by resulting knowledge of the mineral wealth of Canada's continental shelves on the Pacific, Arctic and Atlantic coasts.

The programme is all the more urgent in view of the major oil discovery on the Arctic coast of Alaska near the Yukon border.

In addition to economic advantages, experience has shown that scientific advances resulting from such expeditions can be expected to lead eventually to practical applications.

A study of the geological and geophysical features of Canada's continental shelves is the prime objective of the northern part of the voyage.

The geological and geophysical studies planned for the Arctic will help assess the mineral and other resources of the area, extend understanding of the evolution of continents and ocean basins, such as Baffin Bay, and test the theory of continental drift.

The surveys will form part of the extensive programme of geological and geophysical exploration in Canada by the Department of Energy, Mines and Resources; scientists from the Observatories Branch and the Geological Survey of Canada will be involved in the operations and planning.

The *Hudson* will return to Halifax in October 1970.