

the contributions to knowledge of the fisheries made by Canadian scientists and economists.

Professor Anthony Scott of the University of British Columbia, Vancouver, was the author of the first paper under review, on the economics of regulating fisheries; Dr. L.M. Dickie of the St. Andrews, New Brunswick, biological station of the Fisheries Research Board of Canada was the author of another paper on the effects of fishery regulation on the catch of fish. Other authorities who prepared papers, and their subjects, were Noriaki Oka, of the Fisheries Agency of Japan, together with Hirohiko Watanabe and Akira Hasegawa of the Japanese Fisheries Research Institute, on the Japanese trawl fishery; Professor G. Pontecorvo of Bowdoin College, Brunswick, Maine, on the Atlantic lobster fishery; Professor Sol Sinclair of the University of Manitoba, Winnipeg, on the Pacific-coast salmon fisheries; Professor J.A. Crutchfield of the University of Washington, Seattle, Washington, on the Pacific coast halibut fishery; and L.P.D. Gertenbach, of FAO, Rome on regulation of the South African west-coast shoal fisheries.

ST. LAWRENCE TEST MODEL

A hydraulic test model of the St. Lawrence River, from Nun's Island at Montreal eastward to Lake St. Peter, and including the Sorel Islands, is to be built by the Department of Transport to study control of the river levels. Preparatory work for the project will get under way shortly.

The model, which will be constructed of concrete, will reproduce all natural features of 54 miles of the river, such as bottom contours, shoreline and islands. Engineers will be able to run water through the model to study all aspects of water-level control relative to maintenance of adequate depth for shipping, flood control and movement of ice in winter.

The model will be built to a scale of one foot to 600 feet, horizontally, and one foot to 150 feet vertically, and will occupy an area of about 16,000 square feet. In order to house such a large undertaking, the Department of Transport has a building in the Montreal suburb of Ville La Salle, which formerly housed models required in the planning of the St. Lawrence Seaway.

The St. Lawrence River model will be approximately 500 feet long and will be built in two sections, placed side by side. Before construction begins, extensive work will be undertaken by the department's Ship Channel Division, in co-operation with the Department of Mines and Technical Surveys, to prepare aerial photographs of the river, as well as complete details of the entire river bottom and the flow of water, through soundings, metering of the flow in various channels, and other studies.

The project is being undertaken because of the fact that in recent years, with continuing improvement and deepening of the ship channel, the river level has been lowered appreciably in the area under study. The model will provide the information needed

to control the flow in a manner that will permit a desirable level to be maintained.

Construction of the model is expected to begin in the fall and testing of proposed control measures is to commence in the early spring of 1962.

BALANCE OF PAYMENTS

Canada's current payments to other countries in the first quarter of 1961 exceeded current receipts by \$361 million, compared with \$328 million in the same period of 1960; this is less than in the first quarters of 1956, 1957 and 1959. Virtually all the deficit, \$353 million, originated in non-merchandise transactions that were in greater imbalance than in any preceding quarter, with unusually large payments of dividends and rising interest payments coinciding with a seasonally large payments balance on travel account. In contrast, merchandise trade was close to balance, the import balance of \$8 million comparing with \$44 million last year and much larger deficits from this source in the first quarters of the recent preceding years.

Direct investment capital continued to flow into Canada at a rate which was high by historical comparison, while there were renewed inflows from transactions in portfolio Canadian securities. Capital in short-term forms made up a substantial part of the net capital movement into Canada in the quarter. Official holdings of gold and foreign exchange were substantially increased, but reductions in other holdings were a significant offset.

PROBE OF UNTRAVELLED ARCTIC

It was recently announced by the Minister of Transport, Mr. Balcer, that further consideration had been given to the possibility of carrying out a probe of areas in the Arctic archipelago not previously traversed by ships. As a result, it is now intended to employ CMS "John A. Macdonald" on the usual supply trip to Eureka, after which the ship will explore areas to the westward of its usual route and attempt to return to Melville Sound and Barrow Strait through channels north and west of Cornwallis and Bathurst Islands.

This operation will be dependent upon ice conditions at the time and the availability of icebreakers that can be spared from their normal duties of ensuring the safety of the regular supply convoys.

The purpose of the exploration will be to test the ability of the Canadian Marine Service to operate in these areas, in view of the possibility that commercial developments may occur that will depend on this knowledge. For this purpose the Department of Transport needs to learn more about ice conditions from the point of view of navigation and to determine the hydrography of the unexplored channels.

The work has the support and participation of the Hydrographic Service, and other scientific agen-