

commercial fishing boats. The more significant developments of the 1960 programme were the processing of statistics and research-vessel data on IBM cards, new studies of halibut and pollock stocks, winter fishing by the Board's research vessel, the "A.T. Cameron", in the Gulf of St. Lawrence, and the assessment of the effects of various otter-trawl mesh sizes on total landings.

SEASONAL VARIATIONS

Tagging and survey operations conducted by the station's scientists showed that there are seasonal and annual differences in the distribution of cod, haddock, plaice, and pollock. Studies of small-fish abundance have assisted scientists in forecasting trends in cod and haddock landings.

The report pointed out that greater fishing effort by Canadian and foreign fishing fleets in the Western Gulf of St. Lawrence had resulted in increased cod landings but that this had also reduced the abundance of large fish and that, as a result, Canadian line-fishing catches were on the decline.

The station also reported that the landings of all pelagic fishes, such as herring, swordfish, mackerel and tuna, had totalled 213 million pounds as of the end of September 1960. This was an increase of 11 per cent over the yield for the same period of 1959. Herring landings had increased by 22 million pounds and mackerel landings by four million pounds. However, the swordfish catch was down from 6.6 to 3.9 million pounds.

USE OF DDT

The station continued its long-term study of the Atlantic salmon in 1960. In this connection, considerable emphasis was placed on efforts to determine the effects of a 1960 DDT spraying of two million acres of budworm-infested woodland in central New Brunswick on salmon stocks. DDT concentration at half-strength caused only half as much immediate mortality to native young salmon as application of full-strength DDT in other areas. Laboratory experiments have shown that late-season mortalities of young salmon from areas sprayed with full-strength DDT may be heavy (around 80 per cent), while samples from half-strength areas have shown no unusual mortality to date.

RCMP POLICE FIVE AIRPORTS

Because of the tremendous growth of air travel and the vast increase in the volume of the travelling public using airport facilities round the clock, the Department of Transport will turn over policing and securing at Toronto, Montreal, Ottawa, Edmonton, and the Halifax airports to the Royal Canadian Mounted Police on April 1, 1961.

Announcement of the decision was made by Transport Minister Léon Balcer. It was

pointed out that the question of airport security, including the handling of a steadily-increasing flow of automobile traffic, had been under study for some time. It had been decided that the matter could be managed best by a specialized agency and, since the RCMP were already responsible for the security of other federal property, they were asked to handle the policing at the airports in question as well.

SIZE OF JOB

Some idea of the magnitude of the task can be gained from the fact that in 1959, at Montreal International Airport (Dorval), a total of 902,084 persons arrived at the airport by plane and 904,388 departed by air. It is estimated that, for each air traveller, there were 2.7 other persons at the airport to see him off, welcome him, or just to look round.

The decision to have the Mounted Police take charge of policing at Toronto, Montreal and Ottawa airports will affect a total of 32 men, at present employed by the Department as airport constables or security guards. The Department will seek the concurrence of the Civil Service Commission in trying to place the men affected in suitable alternate employment.

The RCMP will employ a number of men from the Corps of Commissionaires under the new scheme. It is expected that about 49 members of the force and 57 commissionaires will be in service at the five airports.

FISHY NAVIGATION

Early sea captains and desert wanderers may have been the first humans to discover celestial navigation, but apparently the fish beat them to it. Evidence that sockeye salmon use the skies and the stars to orient themselves while migrating has been found by scientists of the Fisheries Research Board of Canada and was contained in a report to the Board's recent annual meeting in Ottawa by its Biological Station at Nanaimo, British Columbia.

Observations on adult salmon have produced evidence that migration is limited to particular pathways at particular times, and the influences of daily, lunar and seasonal cycles in activity or behaviour, of weather changes and of hydrodynamic forces have been substantiated.

Experimental studies on orientation in sockeye smolts has indicated consistent directional tendencies when vision of only the sky is permitted; overcast skies or artificial covering has resulted in the fish pointing in random directions.

Moonlight, sunset after-glow or city lights may interfere to some extent, but the studies indicate that celestial orientation is an essential component for the successful migration of the sockeye out of lakes and towards the sea.