

SALARIES PAID TO NATIONAL DEFENCE
PERSONNEL

Question No. 771—**Mr. Ormiston:**

What was the gross annual salary paid to (a) civilian and (b) military personnel employed either temporarily or permanently in the Ottawa area at National Defence Headquarters, Canadian Forces Headquarters, Materiel Command, Defence Research Board, Canadian Forces Base at Rockcliffe, Canadian Forces Communications System, Canadian Forces Base at Uplands, as of December 1, 1966, and as of December 1, 1967?

Hon. Léo Cadieux (Minister of National Defence): Information is not now available to provide an accurate answer to this question and the necessary expert staff is not available to undertake the large amount of work which would be required to gather the necessary information.

ST. LAWRENCE RIVER ICEBREAKING SERVICE

Question No. 775—**Mr. McCleave:**

1. Is it the policy of the Department of Transport to carry out icebreaking between Quebec City and Newfoundland for the purpose of flood control in the Gulf of St. Lawrence?

2. If not, for what purpose is such icebreaking carried on?

3. What has been the mileage for each year since 1962, including the projected program for 1967, covered by icebreakers in the waters east of Quebec City?

4. What has been the annual cost of such icebreaking operations since 1962, by year, including the projected program for 1967?

5. What studies have been carried out with regard to flood control for St. Lawrence River communities, and what were the recommendations?

6. Have studies been carried out by the Department with regard to the effect that flood control or other icebreaking measures on the St. Lawrence River will have (a) west of Quebec City (b) east of Quebec City?

7. If the answer to part 6 is yes, what were the results and what, if any, the recommendations?

8. Has the Department considered whether such icebreaking operations have had an adverse effect on the port business of Halifax, Saint John and other ports in Atlantic Canada and, if so, what steps has it proposed to overcome such effects?

Mr. J. A. Byrne (Parliamentary Secretary to Minister of Transport): 1. No.

2. Between Newfoundland and Quebec, Department of Transport icebreakers are employed in support of shipping when ice conditions in shipping routes and in approach channels to harbours make it necessary.

3. 1962, 56,802 nautical miles; 1963, 56,812 nautical miles; 1964, 73,786 nautical miles; 1965, 86,464 nautical miles; 1966, 56,809 nautical miles; 1967, 80,850 nautical miles.

Questions

Estimated mileage for 1967-68 season, 75,000.

4. 1962, \$1,394,000; 1963, \$1,384,000; 1964, \$1,608,000; 1965, \$1,545,000; 1966, \$2,157,000; 1967, \$1,707,000.

Estimated cost for 1967-68 season, \$1,750,000.

5. Ice control for flood prevention in the St. Lawrence river at Montreal and downstream is under continuing study by the department.

In recent years the problem has become somewhat more complex because of man made changes such as development of the world's fair site, and the presence of commercial shipping in the channel opened by icebreakers for flood control. In recognition of this the department last year initiated an intensive investigation of ice problems, including an expanded program of systematic data collection and observance of ice conditions. As a result of preliminary studies, recommendations were made regarding the use of floating ice booms as an ice control measure and an experimental installation has now been completed in Lake St. Peter. The booms are designed to facilitate icebreaking operations by helping to prevent the ice cover breaking up and drifting into the open channel, due to wind action and ship generated waves. As an additional ice control measure, dredged material is being used to construct several artificial islands in the general area of the ice booms. The performance of the booms and the islands will be carefully observed during the winter months.

The operation of the Laprairie Basin ice control structure is being studied in conjunction with other control measures to obtain the most efficient control of the ice in that area.

The phenomena of ice formation and movement are also being studied on the department's scale model of the St. Lawrence river at Lasalle. These studies are preliminary in nature but it is hoped they will eventually provide a useful link in advancing the knowledge of ice formation and methods of control in the river downstream of Montreal.

6. No.

7. Not applicable.

8. The icebreaking operations have facilitated winter navigation to ports of the Atlantic region and the Gulf of St. Lawrence and to ports on the St. Lawrence river as well as providing flood control.