#### Order Paper Questions

theoretical analysis followed by model work. In parallel with this, further government trials are planned for the winter of 1973-74, involving the use of five different vehicles, including self-propelled air cushion vehicles to broaden the spectrum of practical knowledge. With the knowledge gained from the 1973-74 series of trials and the theoretical study, the government should be in a position in the spring of 1974 to consider the full implications, which are believed to be very significant, of this new form of icebreaking. Also at that time consideration will be given to the further action which may be necessary to realize, as soon as possible, the full potential of this unexpected application of air cushion technology. This action may include commissioning an independent design study for an air cushion icebreaker, the manufacture of a prototype of such a vehicle and the identification of geographical areas where the technology could be applied.

# NATIONAL DEFENCE—STUDY OF AIR CUSHION VESSELS, MARITIME COMMAND

#### Question No. 2,528-Mr. Forrestall:

Has the government considered the United States defence and transport studies on the utilizations of air cushion vehicles as replacements for fleet units up to the level of light cruiser and, if so, will the government undertake to commission an independent, outside study of the potential of this type of vehicle with particular reference to (a) seagoing abilities in all types of seas, together with strengths and weaknesses and possible solutions to deficiencies (b) the ability to effectively handle various weapon and detection systems (c) the ability to effectively contain attack (d) a cost benefit analysis study in relation to present and anticipated operations (e) the ability to function in various geographic areas such as the Polar areas and the Tropics (f) the feasibility of constructing a prototype in Canada designed specifically to meet Canadian defence requirements and as a possible item for export sale?

Hon. James Richardson (Minister of National Defence): Yes, it is DND policy to continuously monitor studies conducted by other nations regarding all forms of equipment and vehicles that may have a military application. Canada is represented on several NATO and other Information Exchange Groups through which such information is passed. NDHQ staff officers are presently study-

ing the numbers and types of vessels best suited to meet the requirements of Maritime Command within that Command's sphere of responsibility. With regard to the commissioning of an independent, outside study, it is considered that qualified expertise exists within the department to conduct such a study.

# INCO'S SUPER STACK AT COPPER CLIFF, ONTARIO

# Question No. 2,539-Mr. Rodriguez:

- 1. (a) Is the government, through the Department of the Environment, participating in testing the effects of INCO's "super stack" at Copper Cliff, Ontario and if so, with whom is the Department participating in such testing (b) what role is INCO playing in this testing vis à vis facilities, manpower, etc.?
- 2. (a) If the Department is participating with any other agency or agencies in such testing, how was the competency of the participating agency or agencies established (b) will the Department agree to submit its findings for corroboration by analysis of the third sample (c) will the Department permit interim reports on its findings to the public?

Hon. Jack Davis (Minister of the Environment): 1. (a) Yes, with the Ontario Air Management Branch; (b) nil, except providing parking facilities for mobile equipment.

2. (a) The competency of the Ontario Air Management Branch is generally recognized as being the highest of such provincial agencies in Canada; (b) yes; (c) yes, subject to agreement between the federal and provincial control agencies.

# COST OF ICEBREAKING OPERATIONS

#### Question No. 2,544—Mr. McCain:

What were the costs of ice-breaking operations for each fiscal year 1970-71, 1971-72 and 1972-73, in each of the following regions (a) the Maritimes (b) the St. Lawrence River system (c) the Arctic (d) the Pacific coast (e) the Great Lakes?

### Hon. Jean Marchand (Minister of Transport):

	1970-71	1971-72	1972-73 \$
(a) Maritimes	available	available	6,725,609
(b) St. Lawrence River System			2,757,111
(c) The Arctic (Icebreaking and Escorting)			3,887,000
(d) The Pacific	not	not	0
(e) The Great Lakes			550,002

Costs for 1970-71, 1971-72 are not available at this time. It would be necessary to review all ships' logs for this

period in order to arrive at the necessary split and this could take several months.

[Mr. Marchand (Langelier).]