

A number of ice research programs have been conducted and are being planned by marine proponents that will improve the present predictive capability in such aspects as the incursion of multi-year ice in the Beaufort Sea. Studies of tanker tracks conducted over the winter period 1981/82 attempted to establish that ship tracks will not impede the passage of hunters and wildlife in their travels across the ice from island to island.

The evidence presented at the hearings confirmed that the companies are obviously making great strides in conducting research and building preventive measures into the design and operation of their transportation systems suited to the arctic environment. While the sponsors must assume a major responsibility for operating reliably and safely under arctic conditions, it is the Federal Government's function to provide essential marine support services, provision of emergency assistance, and enforcement of standards and regulations. Such activities as ice monitoring, weather forecasting, hydrography, navigation, communications, research, search and rescue, and marine escort and aid are all government responsibilities.

At least half a dozen departments participate in operating these programs although the Canadian Government's principal marine presence is the Canadian Coast Guard of the Department of Transport. Even within the Coast Guard itself, navigation, ship safety, ice-breaking and search and rescue-related responsibilities are all handled by different groups organized along functional lines. Functional separation of responsibilities inhibits a cohesive approach to provision of services, especially critical in marine distress emergencies. Year-round activities will require expansion of existing programs, especially to handle the unexpected contingency or unforeseen error.

The Department of Transport is presently preparing a five-year plan to implement the necessary shipping support services for projected year-round activity in the Arctic. Included in the development objectives of this plan are organizational arrangements and research efforts that will improve the Canadian Government's response capability. A newly formed Arctic Shipping Control Authority will regulate ship movements in the Arctic. A Canadian Coast Guard unit located in the Arctic will develop the support services necessary for year-round activity. Work will be continued on the design of a Polar Class icebreaker even though no approval has yet been gained to proceed with actual construction. R and D in ship safety will concentrate on developing knowledge of ship structures and manning requirements as well as of navigation aids and communications systems. The question still remains whether the Federal Government is moving fast enough. The Committee stresses that the emplacement of support services essential to safe and reliable transit of tankers on a year-round basis must be expedited.

The Committee recommends:

That all support systems relating to such marine services as ice monitoring, weather forecasting, navigation, search and rescue, and marine escort which are necessary to ensure the reliability and the safety of production and transportation systems be in place before production commences.

Moreover, unless government research and planning programs keep up with the pace of industry in introducing innovative designs and practices, government is not in a favourable position to assess the effects of the introduction of new technologies or promulgate effective