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these achievements were the penetration of Nansen Sound to the edge of the permanent ice-pack, following the route from Eureka Sound to Resolute Bay by way of Penny Strait, and the circumnavigation of Prince of Wales and King William Islands.

In the autumn of 1969 and the spring of 1970, the Canadian Coast Guard provided icebreaker escort to the United States tanker *Manhattan*, a large vessel specially reinforced to work in ice. In 1969 the tanker sailed through the Northwest Passage and back to test the feasibility of building huge icebreaking tankers to establish regular oil transportation from the rich new oilfields at Prudhoe Bay, Alaska, to the eastern seaboard. In the spring of 1970, the *Manhattan* conducted tests in the hard winter-ice of Baffin Bay. The CCGS *John A. Macdonald* escorted the tanker in 1969, when she became the first industrial ship to transit the Northwest Passage. The CCGS *Louis S. St. Laurent* provided assistance during the second voyage.

Ocean cable repair The fleet includes the world's only icebreaking cable-repair ship, CCGS *John Cabot*, which entered the service in 1965. The vessel has a number of notable achievements in the Far North, locating and repairing cable breaks under the worse conditions of sub-zero temperatures, blizzards and the pitch darkness of the Arctic winter. The *John Cabot* played a vital role in the rescue of the mini-submarine *Pisces III* in 1973.

Great Lakes studies On the Great Lakes, CCGS *Porte Dauphine* is operated on behalf of a group of research organizations working in the fields of limnology and meteorology.

Search and rescue The Canadian Coast Guard search-and-rescue service provides the marine element in the national air-sea rescue organization in support of the general responsibility of the Canadian Armed Forces.

This phase of operations provides expert marine advice to the Canadian Armed Forces in such undertakings. It also acts as co-ordinator of the marine aspects of search and rescue and organizes both public and private vessels for these tasks.

The first step in strengthening the search-and-rescue capabilities of the fleet was the construction of five 95-foot cutters specially equipped for such work and three 70-foot cutters also designed for this purpose. Two of the larger cutters are posted on the Atlantic coast and two on the Pacific coast. The fifth operates on the Great Lakes in summer and on the Atlantic coast in winter. The three smaller cutters operate on the Great Lakes.

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