



Did anyone identify this barge?



Canada's Icebreakers

Canada has had an icebreaker capability for over 100 years. Indeed, one of the promises of Confederation - a guaranteed year-round ferry service between Prince Edward Island and the mainland - resulted between 1876 and 1899 in the construction of three small icebreaking ferries. At the turn of the century Canada's first full icebreakers, the **CHAMPLAIN** and **MONTCALM**, were built to break up ice barriers and dams that caused annual flooding at narrow points along the St. Lawrence River.

Icebreakers were first used in the Canadian Arctic in the 1920s to deliver supplies and services to Native and isolated settlements during the short summer season, and to back up claims of Canadian sovereignty over the Northwest Passage and Arctic Archipelago. In the 1930s the port of Churchill was opened for grain shipments, and in 1957 the government undertook the annual supply of Distant Early Warning (DEW) line sites across the Arctic.

Canada operates 21 of the world's estimated 110 icebreakers: 19 owned by the Canadian Coast Guard (CCG) as part of Transport Canada and two by private firms. An icebreaker's chief function is to break, separate or divert ice in ice-covered waters, and the CCG icebreaker fleet has been designed and built for specified Canadian needs: to assist shipping in lakes, oceans and river mouths; to keep channels open through the St. Lawrence Seaway system; and to support government supply and economic development operations in the Arctic. The

CCG icebreakers are classified as heavy (two vessels), medium (six vessels), and light (11 vessels). Canada's most powerful icebreaker, the **LOUIS S. ST. LAURENT** of 13 500 tons displacement (dwt), is smaller than Russia's four 13,300 dwt nuclear-powered icebreakers of the **ROSSIYA**-class in service. The **CANMAR KIGORIAK** (7200 dwt) owned by Canadian Marine Drilling Ltd, though now mainly inactive, was used to convoy other kinds of marine units working in Arctic ice, such as drilling rigs; it was basically experimental, the prototype for the gigantic 200,000 dwt icebreaker-tanker of the future.

Canada, like all nations with icebreakers (Argentina, Finland, Sweden, Japan, Germany, the US and Russia), operates many other kinds of ships built to function in ice conditions. These ice-strengthened marine units range from experimental cargo ships, such as the **M.V. ARCTIC**, to the mobile arctic caissons owned by large private companies involved in

offshore oil drilling in the Beaufort Sea.

Heavy icebreakers in the CCG fleet generally operate in southern waters in the winter months and the Arctic during the summer. Though the **LOUIS S. ST. LAURENT** has worked in Hudson Bay in Dec, no serving Canadian icebreaker is able to penetrate Canadian Arctic water during the severe winter season from November to May.



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