

US need for four polar icebreakers 'critical,' warns report

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This 2015 US Coast Guard photo shows the Antarctic Chieftain as the US Coast Guard Cutter Polar Star begins breaking up the ice around the stranded fishing vessel

The rapid pace of global warming and ice melting at the poles have underscored the "critical" need for the United States to build four new polar icebreaker ships, US officials said Tuesday.

The cost for each of the new [ships](#) is estimated to be \$791 million, said the [report](#) from the National Academies of Sciences, Engineering, and Medicine.

Congress called for the report amid concerns about the United States' lack of a fleet—with just three aging icebreakers, one of which is entirely broken down, and another designed mainly for science research.

"For more than 30 years, studies have underscored the need for US icebreakers to maintain presence, sovereignty, leadership, and research capacity, but the nation has failed to make the recommended investments," said an accompanying statement by Richard West, retired rear admiral of the US Department of the Navy and chair of the committee that authored the report.

This has left the United States "ill-equipped to protect its interests, while other nations have mobilized to expand their access to ice-covered regions."

"Given the strong warming and related environmental changes occurring in both the Arctic and Antarctic, the deficiencies in US icebreaking capacity have become more critical," he added.

Three of the ships should patrol the Arctic and one the Antarctic, said the report.

The US Coast Guard currently has three multi-mission polar icebreakers in its inventory: the Polar Star, Polar Sea, and Healy.

The Polar Sea suffered a major engine casualty in 2010 and is being used for parts.

The Healy is a medium-duty polar icebreaker, which is primarily

devoted to science missions in the Arctic, and is expected to operate for another 15 years.

"Only the Polar Star—built in 1976 and nearing the end of its useful life in the next three to seven years—is capable of independently performing the annual breakout and resupply of McMurdo Station in the Antarctic," said the report.

Under the proposed schedule, construction should begin in 2019, with the first ship ready by 2024 and the second by 2025.

The new icebreakers should be "science-ready," with one fully outfitted to replace the Healy, it added.

In recent [years](#), Russia has ramped up its presence in the Arctic, as melting ice opens up shipping lanes and access to hydrocarbon and mineral wealth.

More than 20 percent of the world's hydrocarbon reserves yet to be discovered are situated in the Arctic, the US Geological Survey (USGS) has said.

Last year, Russia floated out a new nuclear-powered icebreaker, said to be the world's biggest and most powerful, to be used for hauling liquefied natural gas from its Arctic terminal.

Arktika, ordered by Russia's Rosatom state nuclear agency and capable of cutting through ice of up to nine feet (2.8 meters) thick, was expected to be ready by the end of 2017.

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