

# Ice-busting ship preps for trip amid push to replace fleet

15 December 2016, by Audrey Mcavoy



In this Monday, Dec. 12, 2016 photo, the U.S. Coast Guard Cutter Polar Star rests by a dock in Pearl Harbor, Hawaii. The only U.S. ship capable of breaking through Antarctica's thick ice is undergoing repairs in balmy Hawaii this week as it prepares to head south. (AP Photo/Audrey McAvoy)

The only U.S. ship capable of breaking through Antarctica's thick ice is getting scrubbed down, fixed up and loaded with goods in balmy Hawaii this week as it prepares to head to the frigid south.

The voyage by Coast Guard Cutter Polar Star comes as the U.S. looks to replace and expand its aging fleet of polar icebreakers so it can maintain a presence in the most remote corners of the world. The demand for icebreaking ships is expected to grow as climate change melts sea ice and lures more traffic to northern Arctic waters.

"The specter in the future is more marine use in the Arctic, more shipping, more offshore development, more tourism," said Lawson Brigham, a professor of geography and Arctic policy at the University of Alaska Fairbanks.

The Coast Guard needs to be able to enforce U.S.

laws as well as search for and rescue people in the Arctic like it does in other waters, Brigham said. Though sea ice is melting faster than before, the Arctic Ocean is fully or partially covered by ice for about three-quarters of the year.

The Seattle-based ship has stopped in Pearl Harbor to stock up on food and fuel. It was scheduled to leave Monday to carve a channel through 30 miles of ice in Antarctica so ships can resupply a U.S. research center, but it was delayed by last-minute repairs.



In this Monday, Dec. 12, 2016 photo, the U.S. Coast Guard Cutter Polar Star's bell is show on board the ship in Pearl Harbor, Hawaii. The only U.S. ship capable of breaking through Antarctica's thick ice is undergoing repairs in balmy Hawaii this week as it prepares to head south. (AP Photo/Audrey McAvoy)

The Polar Star specializes in the Antarctic mission because it can handle the thicker ice, leaving the jobs in the Arctic to a medium icebreaker called the Cutter Healy.

The 40-year-old Polar Star was built to last only three decades of grinding through thick sheets of

ice. It forces its way through by riding up on ice and crushing it. When it can't break through, it backs up and rams the ice.

Brigham, a retired Coast Guard captain who commanded a heavy icebreaker in the Arctic and Antarctic in the 1990s, said policymakers have debated boosting the icebreaker fleet for decades. Climate change adds a new element to the discussion.

More cargo ships already have been taking Arctic routes as the planet warms. Last summer, a luxury cruise liner sailed to Nome, Alaska, then farther north to become the largest ship to ever traverse the Northwest Passage. Melting ice also will attract those seeking to extract oil, metals and other natural resources.

The U.S. should be present in the northern and southern reaches of the planet as a global power, Brigham said.

much larger stretch of icy seas. Russia's fleet is primarily used to escort commercial ships, while Coast Guard icebreakers only do so in emergencies, Brigham said.

The Obama administration proposed spending \$150 million this fiscal year for early work on a new heavy icebreaker. The Senate Appropriations Committee instead voted to spend \$1 billion, the estimated cost of one ship.

Neither proposal was adopted because the sides could not agree on a new federal budget, maintaining last year's spending levels through April.

Coast Guard Capt. Michael Davanzo, the Polar Star's commanding officer, told reporters Monday that the agency needs additional icebreakers partly in case something goes wrong.

"If we go down there on this trip and we run into problems, there's nobody down there who can come and help us," he said.



In this Monday, Dec. 12, 2016 photo, Capt. Michael Davanzo, commanding officer of U.S. Coast Guard Cutter Polar Star, speaks to reporters on board his ship in Pearl Harbor, Hawaii. The only U.S. ship capable of breaking through Antarctica's thick ice is soaking up Hawaii's warm weather this week during a stop on its voyage south. (AP Photo/Audrey McAvoy)



In this Aug. 21, 2016, file photo people prepare to take a polar plunge in the Bering Sea in front of the luxury cruise ship Crystal Serenity, which anchored just outside Nome, Alaska. The Seattle-based Coast Guard Cutter Polar Star is in Pearl Harbor stocking up on food and other supplies on its way to Antarctica where it is expected to carve a channel through 30 miles of Antarctic ice to create a path for ships resupplying a U.S. research center. This summer, Crystal Serenity became the largest ship to ever traverse the Northwest Passage. (AP Photo/Mark Thiessen, File)

Russia has 40 icebreakers but owns more than half of the Arctic Ocean coastline and operates over a

The Coast Guard has only one other heavy icebreaker, the Polar Sea, that also was built in the 1970s and isn't operational. The agency is using some of its parts to keep the Polar Star running.

The Coast Guard has said it needs three total heavy icebreakers, which can bust through ice 6 feet thick. It also wants three other icebreakers that can break slightly thinner ice, up to 4½ feet thick, like the Healy.

On the Polar Star's upcoming journey to Antarctica, 14 months' worth of food will be aboard for the crew in case the ship gets stuck and it needs to wait until next year's thaw to get out.

If that happens, some of the crew would be flown off the ship, while others would stay behind until the vessel is able to break its way out or get a tow when the weather warms.

© 2016 The Associated Press. All rights reserved.

APA citation: Ice-busting ship preps for trip amid push to replace fleet (2016, December 15) retrieved 25 October 2021 from <https://phys.org/news/2016-12-ice-busting-ship-preps-fleet.html>

*This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.*