Coast Guard's Only Heavy Icebreaker Arrives at Antarctica

ALAMEDA, Calif. – The 150 crew members of the U.S. Coast Guard Cutter Polar Star arrived Jan. 17 in Antarctica along with a resupply vessel during Operation Deep Freeze – a joint military service mission to resupply U.S. interests in Antarctica, the Coast Guard Pacific Area said in a release.

Homeported in Seattle, the 42-year-old cutter is the United States' only operational heavy icebreaker, and the crew is making their sixth deployment in as many years to directly support the resupply of McMurdo Station – the United States' main logistics hub in Antarctica.

Operation Deep Freeze is a joint military service mission in support of the National Science Foundation – the lead agency for the United States Antarctic Program. Since 1955, U.S. Indo-Pacific Command has assisted in providing air and maritime support throughout the Antarctic continent. This year marks the 63rd iteration of the annual operation.

Each year, the Polar Star crew creates a navigable path through seasonal and multiyear ice, sometimes as much as 21-feet thick, to allow a resupply vessel to reach McMurdo Station. The supply delivery allows Antarctic stations to stay operational year-round, including during the dark and tumultuous winter.

The 399-foot, 13,000-ton Polar Star arrived after completing an 18-mile trip through the ice to McMurdo Sound, where 400 containers will be offloaded from the supply ship Ocean Giant.

Presently, the U.S. Coast Guard maintains two icebreakers –Healy, which is a medium icebreaker, and Polar Star.

Protecting national interests in the polar regions is essential to ensure the Coast Guard’s national defense strategy and search-and-rescue capabilities are ready for action, but in order to do so, the icebreaker fleet requires modernization.

Commissioned in 1976, the Polar Star is showing its age. Reserved for Operation Deep Freeze each year, Polar Star spends the winter breaking ice near Antarctica, and when the mission is complete, it returns to dry dock in order to complete critical maintenance and repairs in preparation for the next Operation Deep Freeze mission. Once out of dry dock, the ship returns to Antarctica, and the cycle repeats itself.

During this year’s deployment, one of the ship’s electrical systems began to smoke, causing damage to wiring in an electrical switchboard, and one of the ship’s two evaporators used to make drinkable water failed.

The ship also experienced a leak from the shaft that drives the ship’s propeller, which halted icebreaking operations in order to send scuba divers in the water to repair the seal around the shaft. A hyperbaric chamber on loan from the U.S. Navy aboard the ship allows Coast Guard divers to make external emergency repairs and inspections of the ship’s hull.