

U.S. Coast Guard Cutter Healy, scientists deploy ice stations



[Release from U.S. Coast Guard Pacific Area](#)

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BEAUFORT SEA – U.S. Coast Guard Cutter Healy (WAGB 20) crew and embarked researchers ventured onto a floe of multi-year ice for the first of three multi-instrument ice stations in the Arctic Ocean Basin late July and early August.

As the Healy carefully approached and maintained position alongside an ice floe above 77 degrees north, the crew and a team of scientists, working in cooperation with the Office of Naval Research, (ONR) offloaded a diverse collection of equipment on to the floe carefully selected for its size and

composition of multi-year ice.

The objectives included the installation of two major instruments: the Waves, Weather, Ice Mass, Balance, and Ocean (WIMBO) device, a massive weather buoy destined to remain at sea; and a Dynamic Ocean Topography device, collecting sea surface data. Science instruments like the WIMBO are individual components of a greater project, the Arctic Mobile Observing System (AMOS), a network of robotic oceanographic instruments making years-long autonomous observations of ocean and sea ice physics.

The science party, headed by Dr. Craig Lee of the University of Washington's Applied Physics Laboratory is comprised of the foremost leaders in the field of oceanographic science.

"The ONR AMOS program focuses on developing technologies for making continuous, long-term scientific observations of the Arctic marine environment," said Lee. "The partnership between the U.S. Coast Guard and science is critical to these endeavors, as are the unique capabilities of Healy and the skill of its crew."

Healy is the Coast Guard's only icebreaker specifically designed for Arctic research, as well as the nation's sole surface presence routinely operating in the Arctic Ocean. The platform is ideal for projects like AMOS; providing access to the most remote reaches of the Arctic Ocean; areas barricaded by pack ice and insurmountable by most research vessels.

Its normal operations revolve around over-the-side science instrument deployments and Conductivity, Temperature, and Depth casts; both of which have been the focus during its month-long trip with ONR.

Healy proved capable of further support to the science party, precisely locating and keeping station along an ice floe, preserving its structural integrity for on-ice activity. The ability to delicately maneuver the 16,000 ton (displacement)

ship while coordinating on-ice activities speaks to the crew's familiarity with the region. The unity of effort between the Coast Guard, the U.S. Navy, and the National Ice Center representatives that guided them there; further solidifies Healy as a permanent and experienced steward of the Arctic Ocean.

Healy is 1-month into a 5-month deployment in support of science missions across the Arctic region. Following the work in support of the Office of Naval Research, Healy embarks a team of international scientists to recover and redeploy oceanographic instruments as part of the Nansen and Amundsen Basin Observational System (NABOS). The NABOS instruments have collected Arctic data for more than 20 years, contributing to an international body of knowledge through the U.S. National Science Foundation's Arctic Observing Network.

Commissioned in 1999, the Healy is one of two active polar icebreakers and is the largest and most technologically advanced icebreaker in the Coast Guard. The crew compliment of 84 supports the primary mission of scientific support.