

# MDSU-1 DIVES THE ARCTIC WITH U.S. COAST GUARD



BEAUFORT SEA (August 11, 2023) A military diver swims behind the icebreaker USCGC Healy (WAGB 20) during a scientific mission in the Beaufort Sea with USCG divers of Regional Dive Locker West and Navy divers of Mobile Dive and Salvage Unit (MDSU) 1 Aug. 11, 2023. Together, the Coast Guard and Navy conducted 42 military dives, totaling 656 minutes of bottom time to depths of 40 feet in the Arctic Ocean. As a component of Explosive Ordnance Disposal Group One, MDSU-1 provides ready, expeditionary, rapidly deployable mobile diving and salvage companies to conduct harbor and waterway clearance, salvage, underwater search and recovery, and underwater emergency repairs in any environment. (U.S. Navy Courtesy Photo)

[Release from U.S. Fleet Forces Command](#)

\*\*\*\*\*

BEAUFORT SEA – Navy Divers assigned to Mobile Dive and Salvage Unit (MDSU) 1 trained in one of the most remote parts of the world this summer – under the polar ice cap of the Arctic Circle.

Chief Navy Diver Zachary Hanson, MDSU-1 master diver and his team got underway aboard the icebreaker USCGC Healy (WAGB 20) in Seattle to conduct ice diving operations alongside U.S. Coast Guard divers. During their time aboard, Hanson and his team also provided training on the decompression chamber they brought with them.

“They [the Coast Guard] don’t have a decompression chamber, but they’re getting one,” said Hanson. “We let them use ours for this mission conducted for the Office of Naval Research (ONR), and we helped train the Coastguardsmen divers on the operation, maintenance and transport of a decompression

chamber.”

Joint training operations like this help build interoperability between services in addition to innovating new tactics, techniques and procedures in an environment as challenging as the Arctic Circle.

ONR and Healy’s mission was to observe arctic ice. They used stationary weather buoys equipped with multiple devices to monitor the ocean, weather and the ice to better understand the Arctic environment, its importance to the world, and how to defend it.

During the mission, Hanson learned about the Arctic’s diverse biosphere, which works to sustain life both above and below the massive ice sheet.

“Most people would think the Arctic wouldn’t have any life under the ice, but when we were under there, we saw jellyfish and some kind of shrimp or krill,” said Hanson.

The MDSU-1 team is uniquely qualified to support this type of mission. Hanson and his team used dry suits designed to protect divers against hypothermia while submerged in 30-degree water. The team also used a dual manifold/dual regulator system to ensure they could continue to breathe from their tanks if one of their regulators froze over and a special tool that helped keep everyone safe underwater.

“We’ve got an ice screw we can use if one of us gets lost under the ice,” Hanson said. “Basically, you push it into the ice and hang onto it. With the strobe light on the back of our tanks, it’s easy to see someone because the water under the ice is so clear.”

Looking at polar ice from above the water, it might be easy to forget the ice is floating because it reflects up to 80% of sunlight, according to the National Oceanic Atmospheric Administration. However, the light shining through the ice

causes a brightening effect.

“It’s got to be the clearest water I’ve ever dived in my life,” Hanson said. “This time of year, there’s sunlight 24 hours a day, and from under the ice, the light is a perfect white, like a kind of fluorescent light. This is because the ice is diffusing the sunlight and mixes with the perfect blue of the water, but when you’re looking at deep water, the blue is only in your peripheral vision. Everything you look at straight on turns black. It’s very surreal.”

According to Hanson, most arctic dives are incredibly remote, and while some could argue the Beaufort Sea is as remote as it gets, the MDSU-1 divers had a unique lifeline right at hand.

“We’re trained to call the Coast Guard if a diver gets in trouble,” Hanson said. “But in this case, we were diving right off the side of a Coast Guard cutter, so we might have been in a super remote place, but the exact people we count on for help were right there.”

As a component of Explosive Ordnance Disposal Group (EODGRU) 1, MDSU-1 provides ready, expeditionary, rapidly deployable mobile diving and salvage companies to conduct harbor and waterway clearance, salvage, underwater search and recovery, and underwater emergency repairs in any environment.