NEDU Saturation Dive Team Joins DPAA Recovery Mission

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A team of divers from the Naval Sea Systems Command (NAVSEA) Navy Experimental Diving Unit (NEDU) supported a Defense POW/MIA Accounting Agency (DPAA) mission off the coast of Papua New Guinea as part of a recovery mission for service members lost in World War II.

The team of approximately 15 divers from NEDU's Saturation Detachment (NSD), supplemented by two additional Navy divers

from Undersea Rescue Command, joined the DPAA team in their work to recover evidence and remains from the wreckage of a B-24 bomber named “Heaven Can Wait.”

“Our mission objective was to make the fullest possible accounting of 11 U.S. Army Air Force service members lost on March 11, 1944, when their B-24 was shot down by anti-aircraft fire off Awar Point, Papua New Guinea, while on a bombing run as part of WWII Allied operations in the Pacific,” said Army Capt. Weston Iannone, DPAA mission commander.

Planning for the mission began in 2018 as a discussion with DPAA to explain NEDU’s saturation diving capability and how it could contribute to their organization.

“That simple conversation set in motion what became this mission, and the NEDU team began working with DPAA underwater planners to develop a scope of work, timeline, and budget for the ‘Heaven Can Wait’ recovery,” said Navy Capt. Sal Suarez, NAVSEA Supervisor of Salvage and Diving (00C) and Director of Ocean Engineering. “Previously, the water depth and size of this wreck site precluded it from being excavated in any major capacity with traditional surface supplied diving.”

Mission plans were temporarily delayed by unforeseen circumstances including the COVID-19 pandemic and the Category 5 Hurricane Michael, which devastated NEDU and the surrounding Panama City community.

“In early 2022 NEDU reinitiated planning, and in June 2022 we finalized the scheme of maneuver to be executed in February 2023,” Suarez said. “In November 2022 NEDU began deploying our Saturation Fly-away Dive System (SATFADS) to Singapore from Panama City, Florida, with personnel deploying in January and February 2023.”

The SATFADS is a fly-away capable saturation diving system based at NEDU that is designed to accommodate six divers under pressures down to the equivalent of 1,000 feet of seawater for

up to 30 days. The system has a dive bell that is designed to mate with the Dry Deck Chamber (DDC), where the divers live, and transport the divers from the DDC over the side of the ship to their work site on the sea floor. NEDU's saturation fly-away diving system (SATFADS) enables the U.S. Navy to maintain its saturation diving proficiency and future development of equipment and procedures.

"SATFADS, and saturation diving, brings the ability to put a 'human in the loop' for complex deep diving operations that cannot be accomplished effectively by traditional surface supplied mixed-gas diving, or when a remote operated vehicle (ROV) cannot accomplish a necessary task," said Cmdr. Dustin Cunningham, NEDU Commanding Officer. "Saturation diving also provides the capability to work at depth for longer periods more safely, with little to no risk of decompression sickness, oxygen toxicity, or hypothermia."

While all of the divers at NEDU already have extensive diving experience and mechanical aptitude to operate and fix their own equipment on site in remote locations, this mission required approximately 1,200 additional man-hours of specialized training.

"All divers who were going to perform dives and underwater work on this mission went through a two-month training program at NEDU," Cunningham said. "This included diving equipment familiarization; maintenance training; watch supervisor training to control the Launch and Recovery System for deploying the dive bell; simulated dives leaving the bell, or what is referred to as 'locking out;' and simulated seafloor work with hydraulic cutting tools, rigging gear and dredging equipment."

The well-trained team and state-of-the-art equipment enabled NSD to use new techniques during the deployment while also reaching a number of milestone achievements. New techniques included conducting underwater crane and lifting operations on

a large magnitude and performing complex hydraulic cutting operations of the aircraft wreckage on the sea floor.

“In addition to being the longest dives the NEDU Saturation Detachment had ever done, the two dives conducted were the longest working dives that anyone in the Navy has accomplished in the last 20 years,” Suarez said. “This operation became the longest working saturation mission in the last 20 years, completing a total of 37 diving days, accumulating over 367 hours of working ‘bottom time,’ 5,304 total man hours under pressure, and 102 diver excursions, making it the longest consecutive working saturation dive on a U.S. Navy diving platform in history. The amount of recovered evidence also exceeded any terrestrial or underwater mission ever performed for DPAA.”

While the technical achievements of the operation are many, for the divers on the assignment, their experiences focused on their role in supporting DPAA’s mission to provide the fullest possible accounting for missing personnel to their families and the nation.

“It was the most honored I have ever been in my career to get to do this type of mission and hopefully bring the families some sense of closure about their loved ones,” said Navy Diver 1st Class Nathan Fisher, NEDU diver.

The divers from the mission described feeling a sense of brotherhood and connection with the crew of “Heaven Can Wait” that motivated their mission.

“The nature of our job at NEDU is inherently dangerous, so when I think about these guys who gave the ultimate sacrifice while knowingly going into danger, I think we owe it to their legacy to bring them home if possible,” said Navy Diver Chief Nicholas Lee, NEDU diver.

For Master Chief Master Diver Bryan McCurley, NSD Assistant Officer in Charge and Master Diver, it was rewarding to see

his team of divers come together for the effort.

“I got to see the whole team benefit as they worked on this selfless effort in a difficult environment with high temperatures and long work days that did not end with their dives.”

The mission for NEDU concluded with participation in two repatriation ceremonies, one in Papua New Guinea and a second ceremony in Singapore. The focus of these ceremonies is repatriating possible remains found during the mission, while also acknowledging the support of foreign national and local governments in the mission execution. Now the material evidence recovered will return to DPAA labs for analysis.

“NEDU and the Saturation Detachment were indispensable in this pursuit,” Iannone said. “Their efforts also proved the legitimacy of this mission’s groundbreaking concept: recovering evidence from depths DPAA never has before. This blazes the trail for numerous future opportunities where unaccounted for service members were previously considered unrecoverable due to the water depth at their last known location.”