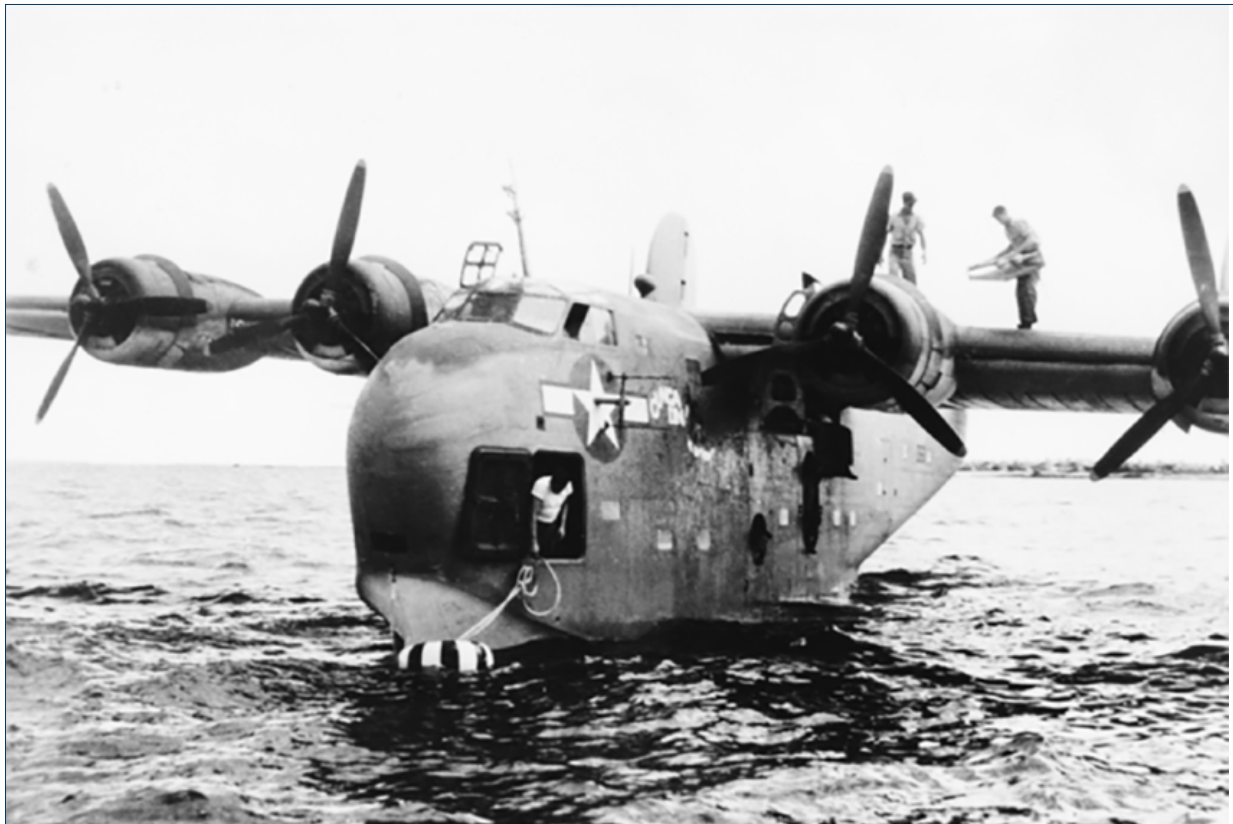




COMMUNITY

Staff Member on Kwajalein Helps Find Missing WWII Wreck



The PB2Y-3 Coronado “Gunga Din” seaplane is pictured here prior to sinking in the Kwajalein Lagoon on 14 September 1944. (Photo credit: KMP/Bill Remick)

On 14 September 1944, a seaplane nicknamed the Gunga Din was practicing touch-and-go landings at Kwajalein Atoll, near the base at Ebeye Island, when the plane crashed and broke apart. There were 13 people on board. All were rescued, except one.

Fred Matson, Pharmacist’s Mate 1st Class, U.S. Navy, was in the bunking compartment in the nose of the plane when it crashed. The nose was badly damaged and became trapped below the surface. Despite rescue attempts, he couldn’t be recovered. Matson sank with the wreckage to the bottom of the lagoon.

Seventy-three years later, the front section of the plane has been found. The plane is one of eight missing World War II wrecks known to contain service members missing-in-action (MIA) in the lagoon. The Kwajalein MIA Project (KMP) has been on a mission to find these wrecks since 2011. The Gunga Din is the fourth they’ve located so far.

KMP is a non-profit organization made up of volunteers who work on Kwajalein with backgrounds spanning engineering, aviation, diving, archeology, and more. The team plans and conducts searches solely on their own time.



Jessica Holland (standing, far right) is among the Kwajalein MIA Project team members that participated in the 25 August dives that confirmed a sonar target was the missing front section of the Gunga Din. (Photo credit: KMP)

Jessica Holland, a staff member at MIT Lincoln Laboratory, was invited to join the KMP team this year. For the past two and half years, she's been working at the Kwajalein field site as a systems engineer, focused on improving the U.S. Army Reagan Test Site sensors for space situational awareness. She's also a commercial pilot. Restricted from piloting aircraft on Kwajalein for personal use, Holland turned to a new activity to fill her spare time: scuba diving. Today, she has logged 176 dives and now has her Divemaster and Master Scuba Diver certificates.

"Joining the KMP has been a way for me to use my new dive skills on Kwaj toward a higher purpose," said Holland. "It is an incredible experience and privilege to be part of KMP. The team members are sincere, dedicated, and generously give their time to the mission of helping find these WWII servicemen," Holland said. Since joining KMP, Holland has learned how to operate the commercial side-scan sonar that the team uses to search the lagoon, which is up to 200 feet deep. (The ocean side of the atoll

drops off sharply to 10,000 feet.)

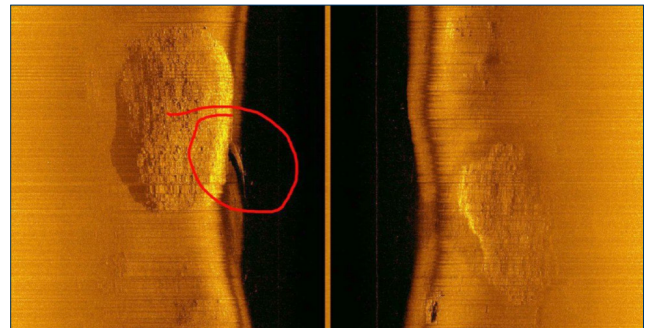
A typical search starts with towing the sonar, called a "tow fish," behind the boat at a depth of around 50 feet. The tow fish is 4 feet long and weighs 59 pounds. Trailing behind the boat, it sends out angled beams of sound waves and measures the echoes that bounce off the seafloor, or objects like the Gunga Din resting on it. A cable connected to the sonar carries data back to a laptop aboard the boat. Software processes the sonar data to create images of the seafloor in real time; the crew takes turns monitoring the laptop and marking targets of interest to assess later.

All of this activity is guided by the boat's GPS-enabled chart plotter, which displays a map of the search area in a grid that helps the driver steer the boat accurately within a certain "lane" on the grid. Driving the boat takes concentration and constant corrections against the wind and current to keep the boat centered in its lane.

This search process is usually conducted in 4-hour stretches, and it can take many trips before a target is found. "There is always a bit of anticipation that we will find a target or two for follow-up dives," Holland said. "But largely, it is just hours on the water, listening to the drone of the boat engines as they chug along at about 1100 RPM, and waiting for something interesting to appear on the laptop screen."

Finally, on August 21, something interesting did appear. Holland was driving the boat over a narrowed search area that seemed likely to contain the front section of the Dunga Gin, given the drift pattern of the tail section discovered in 2015 and a fuselage fragment found one year ago.

"My team members observed a large, man-made target in real-time on the laptop," Holland said. In sonar images, man-made objects like ships and airplanes have more defined edges compared to the rounder, softer features of natural structures like coral. "After reviewing the sonar images later, we were convinced that the target warranted a dive to confirm or deny that it was the missing Gunga Din."



A side-scan sonar image shows a wing section (circled in red) of the Gunga Din. (Photo credit: KMP)

Four days later, Holland found herself diving with three other KMP members at the site of the target for the first descent. "Will we find the wreck? Or is it some piece of garbage down there?" she remembers asking herself on the slow journey down. At a depth of around 90 feet, a large metal object started to come into view. A few moments later, it was undeniable: the front section of the Gunga Din—wing, engines, and nose—lay before them.

"I think the best way to describe this discovery was a mix of both exhilaration and raw emotion. We were the first people to lay eyes on the wreck since it sank during WWII," Holland said. "It was exciting to make this discovery. It was also sobering. We were diving on the grave of a young American naval serviceman who was killed in the service of his country and remained missing for 73 years."



The damaged nose section of the Gunga Din is pictured here on 25 September. (Photo credit: KMP/Todd Emmons)

The Defense POW/MIA Accounting Agency (DPAA) was notified of the find and provided with the team's photo and video footage of the wreck obtained over three dives. Matson's family was also quickly notified of the discovery. "It was a great day when we were able to share that the nose section was finally found," Holland said. The DPAA will dive on the wreck with their team and will recover any remains that are found. Until then, the coordinates of the wreck will be kept secret to ensure the site is not disturbed in any way. The KMP, which is formally a sub-committee under the American Legion Post #44, also reports the findings to the U.S. Army Garrison-Kwajalein Atoll and the Republic of the Marshall Islands government.

Beyond Holland's volunteerism, more collaboration between the KMP and Lincoln Laboratory is expected. A Lincoln Laboratory program will begin high-resolution mapping of the Kwajalein lagoon, which is about 850 square miles, using unmanned underwater vehicles. The mapping is planned to be complete in three years, with the goal of quantifying the scalability of the concept to larger areas and, ultimately, the whole ocean floor. When the lagoon mapping project gets underway, the Laboratory will partner with the KMP to share data on potential targets that could be the other four MIA-related wrecks, and ensure that the known locations, which are WWII graves, continue to be protected, preserved, and undisturbed.

Despite the tedious hours spent scanning the lagoon this summer, Holland is only grateful to be a part of the experience. The image that stays with her is of a giant, vivid rainbow that stretched over the lagoon as the team boated back to the marina the day of the discovery. "It was as if it was a sign of our hard-earned success, and a memorial for Matson. I recall feeling elated and emotional as we finished the dives and the rainbow faded away," Holland said. The KMP has more wrecks ahead of them to find. But, for now, they can revel in the closure of the Gunga Din.