

MARINE ARCHAEOLOGY OF GUADALCANAL: IRON BOTTOM SOUND (NA173)

July 2 - July 23, 2025

Geographic Focus: Iron Bottom Sound, Solomon Islands

Main Operations: ROV dives and seafloor mapping using sonars on USV *DriX* and E/V *Nautilus*

Sponsor: NOAA Ocean Exploration via the [Ocean Exploration Cooperative Institute](#)

Expedition Webpage: www.NautilusLive.org/cruise/NA173

-  **21** days at sea
-  **380** hours *DriX* deployed
-  **979** km² of seafloor mapped with *DriX*
-  **5,280** km² of seafloor mapped with E/V *Nautilus*
-  **6** successful ROV dives
-  **138** hours of ROV exploration
-  **56** km of seafloor surveyed via ROV
-  **13** maritime heritage sites surveyed
-  **47** live ship-to-shore interactions
-  **2,150** ship-to-shore participants
-  **307,153** live stream views
-  **285,927** highlight video views
-  **3.84 million** social media impressions

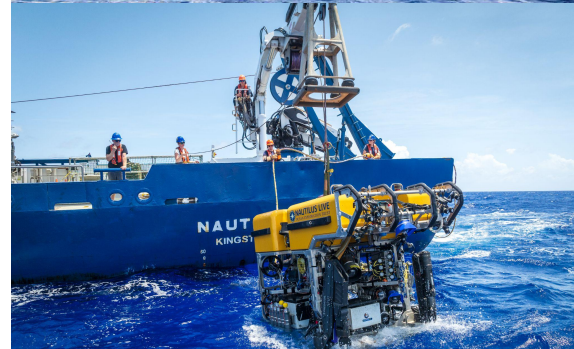


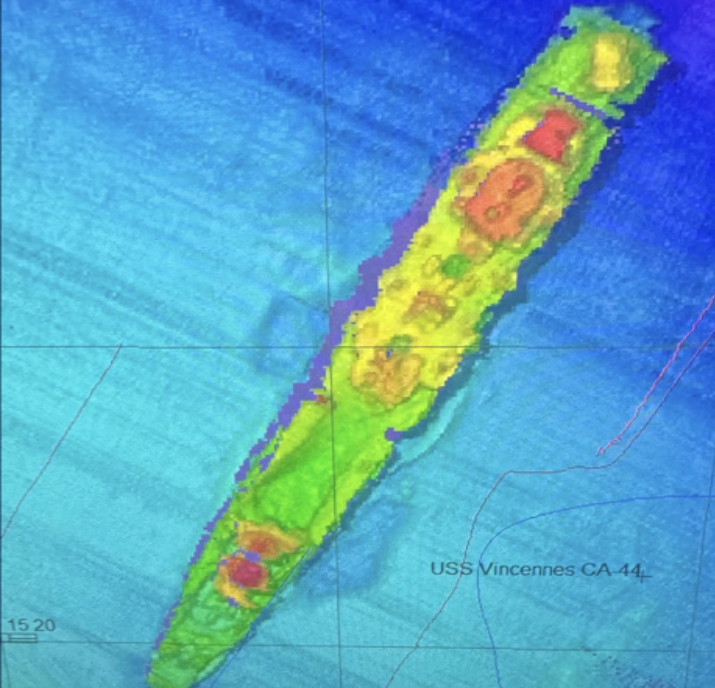
OVERVIEW

Between July 2-23, the Ocean Exploration Trust and partners conducted a telepresence-enabled expedition aboard E/V *Nautilus* to explore historically-significant maritime heritage sites associated with the Naval Battles of Guadalcanal. This 21-day expedition utilized the sonars of [University of New Hampshire's uncrewed surface vehicle *DriX*](#) to locate maritime heritage sites in Iron Bottom Sound, and then deployed [E/V *Nautilus'* remotely operated vehicles \(ROVs\)](#) to conduct comprehensive archaeological surveys of historically-significant sites. Throughout the planning and execution of the mission, the team worked closely with stakeholders from all nations that were involved in the Battles of Guadalcanal to maximize the potential for new scientific discovery, as well as ensure that mission activities honored those that were lost.

MAPPING SUMMARY

The expedition included deployments of *DriX* from a shore-based station in Honiara, with operators controlling the vehicle remotely both from shore, as well as from onboard E/V *Nautilus*. *DriX* was deployed 12 times for a record total of 380 hours over the course of the expedition, during which it mapped 979 square kilometers of seafloor, and recorded 112 potential targets. An additional 5,280 square kilometers of seafloor were mapped using the hull-mounted EM302 multibeam sonar of E/V *Nautilus*.





ROV SUMMARY

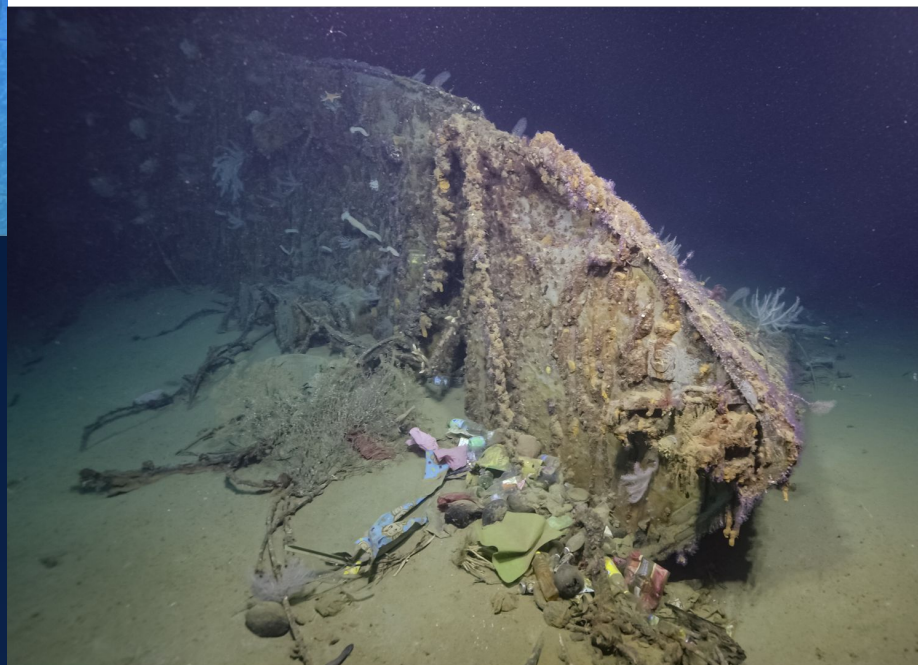
The expedition completed 6 successful ROV dives for a total dive time of 138 hours, during which the ROVs surveyed a linear distance of over 56 kilometers at depths between 15-1,030 meters. ROV dives focused on surveying seafloor targets suspected of being maritime heritage sites. Thirteen maritime heritage sites were documented via ROV surveys, including two that were found for the first time ([USS New Orleans](#) and [IIN Teruzuki](#)), one that was imaged for the first time ([USS Walke](#)), and ten that had only partially been imaged prior to this expedition ([USS Vincennes](#), [USS Astoria](#), [USS Quincy](#), [USS Northampton](#), [USS DeHaven](#), [USS Laffey](#), [USS Preston](#), [IIN Yudachi](#), [HMAS Canberra](#), and an unidentified small pontoon boat). All maritime heritage sites were comprehensively surveyed, including by creating a high-resolution map using multibeam data collected by a Norbit wideband sonar mounted on ROV *Hercules*, followed by a systematic close-up visual survey to image the main wreck features, diagnostic features, and the debris field.

ACKNOWLEDGEMENTS

Special thanks to the captain and crew of E/V *Nautilus*, the Nautilus Corps of Exploration, and all who supported the expedition from shore. Expedition shiptime was funded by NOAA Ocean Exploration via the Ocean Exploration Cooperative Institute; the Office of Naval Research provided additional support for the field testing of acoustic and imaging systems, as well as the educational programs. The accomplishments of the mission were made possible thanks to the expertise and collaboration by any partners, including NOAA Ocean Exploration, US Naval History and Heritage Command, Solomon Islands National Museum, University of New Hampshire, University of Rhode Island, and Japanese, Australian, New Zealand, and Solomon Islands colleagues. The expedition was executed under permit Research Permit MEHRD/RU/25/24 authorized by the Solomon Islands Ministry of Education and Human Resources Development.

EDUCATION & OUTREACH

Over the course of the expedition, live-stream video feeds received 307,153 views, and highlight videos garnered 285,927 views. Expedition content on OET's social media channels attracted over 3.84 million impressions. While at sea, the team created 22 new [education and outreach products](#) and hosted 47 live ship-to-shore interactions with schools, community events, and professional meetings, reaching over 2,150 people across the Solomon Islands, 13 US States, and four other countries. As of August 14, 2025, early expedition results were featured in 499 media stories published in 51 countries, with a combined reach of 3.73 billion.



DATA ACCESS

With the exception of datasets that include position information of maritime heritage sites and are protected by federal regulations, expedition data will be sent to repositories for archiving and public distribution. Full ROV dive recordings will be made available via the [Nautilus dive recording channel on YouTube](#). Background information, highlight images, and educational materials are also available via the [expedition website](#). These datasets are also available from OET upon request. These datasets are also available from [OET upon request](#).

