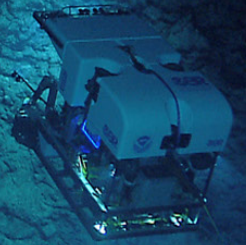


2015 Hohonu Moana: Exploring Deep Waters off Hawai'i



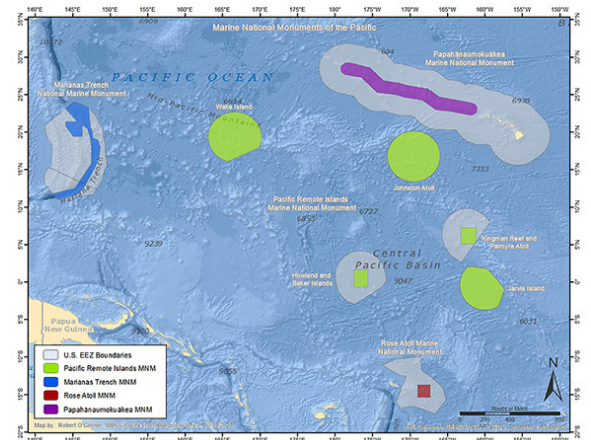
NOAA Ship *Okeanos Explorer*, operated through a partnership between the NOAA Office of Ocean Exploration and Research and the Office of Marine and Aviation Operations, is the nation's only government vessel dedicated to ocean exploration. *Okeanos Explorer* systematically explores the ocean every day while at sea to maximize public benefit from the ship's unique capabilities, which include a state-of-the-art, 6,000-meter-capable, dual-body remotely operated vehicle (ROV) and three mapping sonars that collect high-resolution data about the seafloor and the water column. With 95 percent of the ocean unknown, *Okeanos Explorer* is always exploring, taking every opportunity to survey; identify new habitats, species, and resources; and contribute critical information to enhance our understanding of the ocean.

From July to September 2015, NOAA Ship *Okeanos Explorer* will conduct four telepresence-enabled ocean exploration cruises as part of the Hohonu Moana: Exploring the Deep Waters off Hawai'i expedition. These cruises will explore largely unknown deep-sea ecosystems and collect critical baseline information within the Hawaiian Archipelago and offshore of Johnston Atoll. Operations will be conducted in deep waters in and around Papahānaumokuākea Marine National Monument (PMNM), Johnston Atoll in the Pacific Remote Islands Marine National Monument (PRIMNM), the Geologists Seamounts group, and the Main Hawaiian Islands. Remotely operated vehicle dives conducted during this expedition will provide the first-ever opportunity to investigate deep-water habitats below 400 meters in and around Johnston Atoll and deeper than 2,000 meters within PMNM.

Operations

Priority operating areas and science themes for this 69-day expedition were developed with input from scientists and managers across the broad ocean science community. Themes and objectives for this expedition include:

- Acquire data to support priority marine national monument and national marine sanctuary science and management needs;
- Identification and characterization of vulnerable marine habitats - particularly high-density deep-sea coral and sponge communities;
- Characterization of seamounts within the Prime Crust Zone (PCZ), an area of the Pacific with the highest expected concentration of deep-sea minerals, including rare metals and rare earth elements;
- Collect information on the complex geologic history of Central Pacific Seamounts, particularly those that are or may be relevant to our understanding of plate tectonics; and
- Provide a foundation of publicly accessible data and information products to spur further exploration, research, and management activities.



Map showing all of the Marine National Monuments and Sanctuaries in the Pacific.

The Pacific Marine National Monuments and NOAA National Marine Sanctuaries encompass approximately 742,000 square miles of some of the last relatively pristine marine ecosystems on the planet. They also harbor numerous protected species, as well as undiscovered shipwrecks and maritime landscapes sacred to the indigenous peoples of the Pacific.

Their designation was unprecedented in terms of geographic scope, ecological value, and national symbolism for ocean conservation. However, their remoteness creates substantial challenges. Previous NOAA work in the region helped justify their original establishment. Yet, most deepwater areas within their boundaries remain poorly known and are of high interest to federal and state agencies with research and management responsibilities. Hohonu Moana is the first expedition in a 3 year effort to explore deepwater areas in the Pacific Monuments and Sanctuaries.

Why it Matters

Despite the role that the ocean plays in supporting our well-being, 95 percent of the ocean remains unexplored. Increasing baseline knowledge of ocean habitats is critical to the conservation and management of these remarkable ecosystems. The results of exploration are critical for ocean resource management and to help citizens, businesses, and governments make informed decisions to protect lives, property, and economic wellbeing. This expedition will provide a foundation of baseline information to support science and management needs in and around these central Pacific marine protected areas.

Follow Along Live!

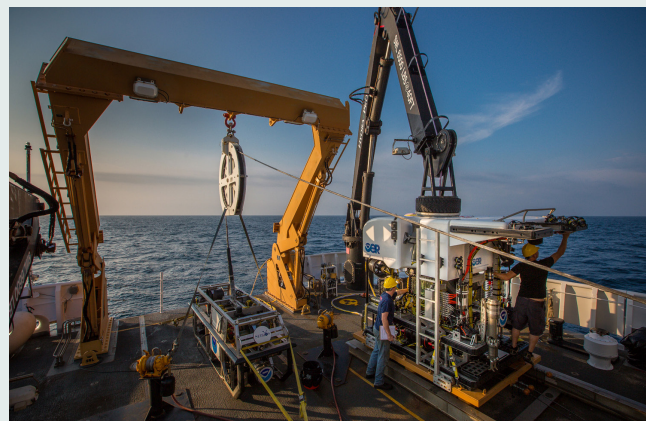
Anyone with an internet connection can follow along with the expedition as high-definition video is streamed live to shore from ROV *Deep Discoverer*. The same technology that allows scientists around the world to participate in the expedition from shore also enables interested members of the public to experience deep-sea exploration, the wonder of discovery, and the fascination of science in real time. Additionally, mission logs, daily updates, and multimedia elements will be added to the Ocean Explorer website throughout the expedition.

Follow along at:

- Website: <http://oceanexplorer.noaa.gov/oceanos/explorations/ex1504/welcome.html>
- Twitter: @oceanexplorer, #Okeanos
- Facebook: NOAA Office of Ocean Exploration and Research



NOAA Ship *Okeanos Explorer* in port on Ford Island, in Pearl Harbor, Hawaii.



The expedition marks the third field season using NOAA's 6,000-meter remotely operated vehicle *Deep Discoverer* and the *Seirios* camera sled and lighting platform on NOAA Ship *Okeanos Explorer*.

