

Case Study:

OCEANOGRAPHIC EQUIPMENT RECOVERY WITH MOHAWK ROV AND ISS360



Location: Georges Bank, United States

Depth: 65 meters

Sensor user: University of North Carolina Wilmington – Undersea Vehicles Program (UVP)

Equipment: ISS360 Imaging Sonar integrated on Mohawk ROV

Challenge

In June 2025, the Undersea Vehicles Program (UVP) at the University of North Carolina Wilmington was tasked by the US federal government to recover a lost piece of oceanographic equipment.

Valued at over \$1 million, the 1,500kg instrument had become snagged on an uncharted shipwreck in 65 meters of water on Georges Bank, off the coast of Massachusetts.

The recovery team faced two key challenges:

- **Poor visibility** made visual detection extremely difficult.
- **Uncharted wreck site** meant precise navigation and location tools were essential.

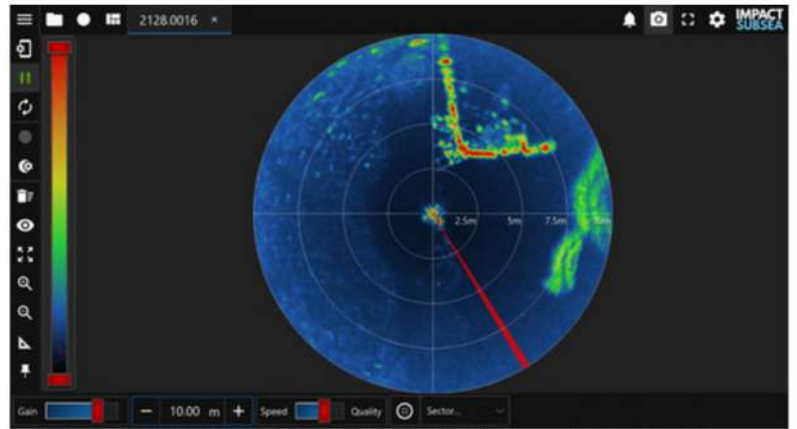
Solution

UVP mobilized aboard the NOAA Ship Henry Bigelow and deployed their Mohawk ROV, equipped with the ISS360 Imaging Sonar from Impact Subsea.

Using the ISS360's high-performance imaging capability, the pilots first located the shipwreck at a 30-meter range.

Once the wreck was confirmed, the sonar range was reduced to 10 meters, enabling detailed navigation to the exact location of the lost equipment on the wreck's port aft corner.

Despite near-zero visibility, the ISS360 provided excellent image clarity, guiding the ROV pilots with confidence throughout the operation.



ISS360 seaView Software screen at 10m range enabling detailed navigation



Recovery hook placed on lost oceanographic equipment in poor visibility

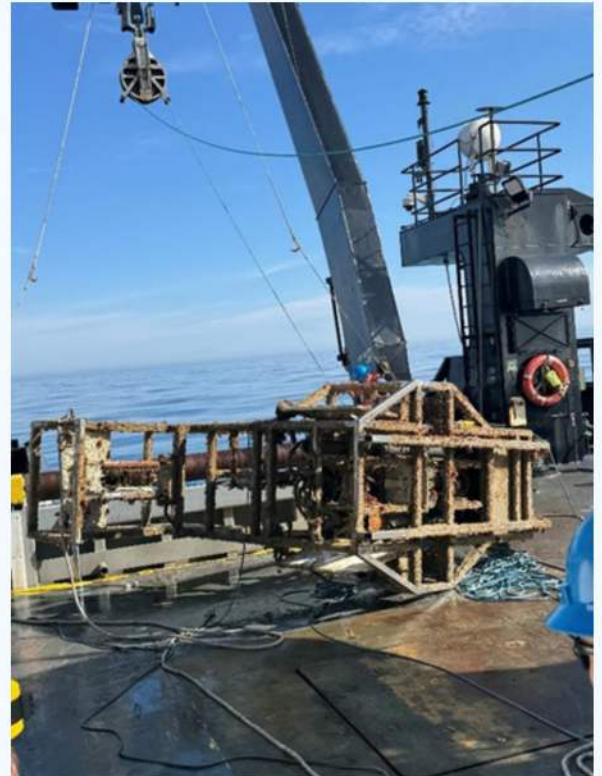
APPLICATIONS INCLUDE:

ROV & AUV Navigation | Target Identification | Diver Navigation |
Port Surveillance | Motion Reference | Search & Recovery |



Results

- **Successful Recovery** – The ISS360 enabled precise location of both the wreck and the lost oceanographic instrument, ensuring the safe recovery of the equipment.
- **Operational Confidence** – The sonar gave the ROV pilots the ability to navigate and operate effectively in extremely poor visibility.
- **High Value Protected** – The recovery prevented the loss of a critical asset worth more than \$1 million.



Recovered oceanographic equipment.

"Visibility was extremely poor during the entire dive and the ISS360 was instrumental in finding the wreck and the lost oceanographic equipment. The sonar gave our pilots confidence throughout the operation.

The sonar performed flawlessly and was critical in our operations."

Jason White, Operations Field Manager, Undersea Vehicles Program, UNC Wilmington

Featured Technology

- **ISS360 Imaging Sonar** – Mounted on the port side of the Mohawk ROV, providing long-range detection (90m) and close-range detail.
- **Mohawk ROV** – Deployed from NOAA Ship Henry Bigelow for subsea intervention and recovery.