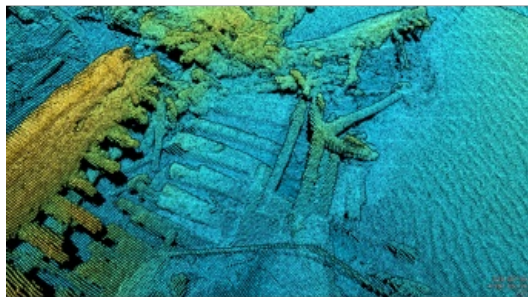


Historical American Shipwrecks Documented in Collaboration



2G Robotics and NOAA, with the assistance of Offshore Analysis & Research Solutions (OARS), recently used 2G Robotics' underwater laser scanning technology to create 3D models of some of America's most nationally significant shipwrecks. They were scanned in the Thunder Bay National Marine Sanctuary, USA.

2G Robotics' underwater inspection system, the ULS-500 PRO laser scanner with stills imaging camera and subsea light, was attached to a frame mounted to NOAA's vessel, the *Storm*. DGPS was used for navigation data and an [Applanix POS MV](#) and [iXBlue PHINS INS](#) were used for positioning. To assist further with positioning, the ULS-500 PRO was integrated with the survey and navigation software, [EIVA NaviSuite](#), provided and operated by OARS.

Underwater Laser Scan Connects as MBES

Kevin Tomanka, senior hydrographer and data processor at OARS, noted that the ULS-500 PRO interfaces just like any other multibeam echo sounder in EIVA NaviScan. The software also supports multi-head systems allowing to run a multibeam and a 2G laser simultaneously.

As the *Storm* traversed the waters above the wrecks, the ULS-500 PRO dynamically captured data. The three high-profile wrecks the team documented were the *Monohansett*, *Ogarita*, and *Haltiner Barge*. The ULS-500 PRO generated detailed, to-scale, dimensional records of these sites, helping to accurately document America's maritime history and heritage.

High-density Data Capture

In particular, detailed dimensional data of the *Ogarita* had never previously been captured due to resolution limitations of traditional sonar and acoustic technologies. The high density data capturing capabilities of the ULS-500 PRO, however, enabled fine-scale dimensional features of the *Ogarita* to finally be resolved.

While the ULS-500 PRO captured laser data, 2G Robotics' SeaShot Imager and SeaShot LED captured and seamlessly interlaced still images between laser profiles. The SeaShot Imager is a scientific stills camera that captures images at ultra HD resolution. With the SeaShot Imager there is no image compression or pixel binning, eliminating reduction in resolution or loss of megapixels. Using the stills captured by the SeaShot Imager, mosaics of the wrecks were able to be assembled.