

National Oceanic and Atmospheric Administration (NOAA) celebrates World Hydrography Day 2015

This year's observation of World Hydrography Day was a noteworthy one for NOAA, as the lost crew members of the [U.S. Coast Survey Steamer Robert J. Walker](#), were honored in a memorial dedication ceremony at the [Absecon Lighthouse](#) in New Jersey.

On June 21, 1860, the *Robert J. Walker* was hit by a commercial schooner while transiting from Norfolk to New York after months of surveying in the Gulf of Mexico. The ship sank 12 miles offshore, as they were heading to the Absecon Lighthouse after they were hit. Coast Survey lost twenty crew members that night, and another man died from his injuries the next day, in the largest single loss of life in Coast Survey and NOAA history.

[Rear Admiral Gerd Glang](#), director of NOAA's Office of Coast Survey, dedicated the memorial. A historic hydrographer's bell rang for every crew member that lost their life, similar to the [memorial service held two years ago](#).



Rear Admiral Gerd Glang dedicated the Walker memorial, with James Delgado and Cheryl Oliver. *Photo by Dawn Forsythe*

On the grounds of the Absecon Lighthouse you will now find a memorial consisting of a NOAA commemorative geodetic marker, as well as a plaque honoring the lost crew members, placed in a compass rose on the grounds outside the lighthouse entrance. The plaque is an iconic image that was proposed by NOAA Corps Basic Officer Training Class 102, in a design project headed by Lt. Cmdr. Jeff Shoup.

The [Robert J. Walker was positively identified](#) in 2013 after [NOAA Ship Thomas Jefferson](#) set aside a day to survey the site while it was in the area conducting operations after post tropical storm Sandy. The ship's physical scientists were guided

by historical accounts in the [1860 Coast Survey Annual Report](#). Then, using the Thomas Jefferson data and armed with additional information from researchers and archaeological advisers, divers pinpointed the exact location and confirmed the ship's identity.

This story was shared on [NOAA's Office of Coast Survey's blog](#).

Also in recognition of World Hydrography Day, NOAA's Office of Coast Survey developed an infographic describing the [basics of hydrography](#) and shared it on their homepage [nauticalcharts.noaa.gov](#) as well over social media. See infographic below.



HYDROGRAPHY

Hydrographic surveys are conducted using multibeam echo sounders.

multibeam echo sounder beams sweep the seafloor as the ship passes over the survey area



multibeam echo sounder beams bounce off the seafloor and return to the ship where the depth is recorded

Hydrography is the science that measures and describes the physical features of bodies of water and the land areas adjacent to those bodies of water.

Surveying with multibeam echo sounders is the primary method of obtaining hydrographic data.

By mapping out water depth, the shape of the seafloor and coastline, the location of possible obstructions, and physical features of water bodies, hydrography helps to keep our maritime transportation system moving safely and efficiently.

HYDROGRAPHERS

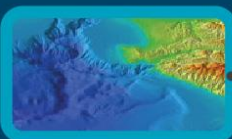
measure water depth, and search for shoals, rocks, & wrecks that could be hazards to navigation. They also collect information on:

- water levels & tides
- currents
- temperature
- salinity

What products are made from hydrographic survey data?



nautical charts
essential maps for safe marine navigation



hydrographic models
baseline data for research and marine geospatial products and services



Did you know?

In 1807, President Thomas Jefferson signed a mandate ordering a survey of the nation's coast.



Who conducts hydrographic surveys?

NOAA's Office of Coast Survey conducts hydrographic surveys and creates nautical charts of U.S. waters.

43,000

square nautical miles of U.S. waters considered critical to navigation.

2,000-3,000

square nautical miles of U.S. waters surveyed by NOAA and commercial contractors annually.

>1,000

nautical charts cover 95,000 miles of shoreline and 3.4 million square nautical miles of U.S. waters.

