

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.

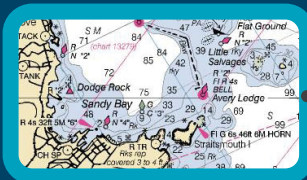
By mapping out water depth, the shape of the seafloor and coastline, the location of possible obstructions, and physical features of water bodies, hydrography helps to keep our maritime transportation system moving safely and efficiently.

HYDROGRAPHERS

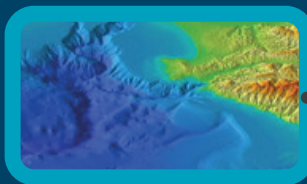
measure water depth, and search for shoals, rocks, & wrecks that could be hazards to navigation. They also collect information on:

- 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.