MARINE HYDROGRAPHIC SERVICES

TDI-Brooks International, Inc. provides full arrays of hull-mounted and towed sensor acquisition systems to perform hydrographic and marine geophysical surveys around the world safely, effectively, and economically. We have the global experience, knowledge and resources needed for any marine site survey investigation.

We employ an experienced team that includes hydrographers, geophysicists, geologists, oceanographers, mariners, cartographers, and GIS and CADD specialists working with our own vessels and equipment, producing surveys and deliverables of the highest quality, geochemical and heat flow programs, environmental assessments, metocean, site surveys and seabed surveys.

Areas of Expertise include the following:

- 2DHR Seismic multi channel & site surveys
- Shallow & Deepwater Multibeam (MBES) surveys
- Marine analog & hazard surveys
- Hydrographic mapping
- Hazard surveys
- Rig & Platform siting feasibility studies
- Tow route clearances
- Platform and pipeline damage assessments and inspection
- Pipeline / cable route surveys
- Burial assessments
- Underwater infrastructure inspection
- Fisheries habitat
- Offshore Wind Farm assessments
- LNG and FPSO offloading facilities
- Bureau of Ocean Energy Management (BOEM) surveys
- Academic research

Hydrographic Marine Surveys are critical to any site investigation and/or seabed mapping project. Hydrographic survey is the science of measurement and description of features which affect maritime navigation, marine construction, dredging, offshore oil exploration/offshore oil drilling and related activities. Strong emphasis is placed on soundings, shorelines, tides, currents, seabed and submerged obstructions that relate to the previously mentioned activities.

Each TDI-Brooks vessel uses its multibeam echo sounder to conduct hydrographic surveys. Multibeam sonar measures the depth of the sea floor by analyzing the time it takes for sound waves to travel from a boat to the sea floor and back. In addition to our onboard services, we offer portable tool kits which can be shipped to any vessel of opportunity.
TDI-Brooks has conducted a number of high profile marine surveys (hazard, bathymetry, shallow 2-D seismic, etc). A hydrographic survey is usually focused on obtaining high quality bathymetric data of the seabed. Acquisition of hydrographic and geophysical data primarily uses a range of acoustic-based instruments to characterise the seabed, shallow soils and geology.

Identification of existing pipeline using sub-bottom profiler, sidescan sonar and magnetometer

A geophysical survey involves a number of data requirements including water depths, seabed topography, seabed and sub-seabed obstructions, seabed soils, shallow geology and ground conditions and identification of any man-made and naturally occurring hazards that may adversely impact the objective of the site investigation (geohazards).

TDI-Brooks’ can also provide portable tool kits to include a Geometrics GeoEel 48 channel Digital Streamer system. The GeoEel system is a lightweight fully digital marine seismic streamer system designed for application to a wide range of surveys, including oil and gas exploration, gas hydrates surveys and a variety of special engineering surveys.

The GeoEel streamer and on-board data acquisition system is very portable and easy to mobilize for installation on small shallow draft survey vessels for operation in shallow water less than 10 meters, or on larger reel equipped deep water vessels. The acquisition system can be configured for use with almost any type of marine impulsive source.