

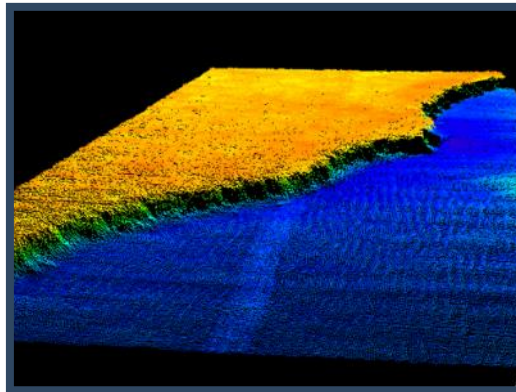
Holden Beach Geophysical Survey

Project Highlights

- MBES used to identify seafloor elevations and identify areas of complex seafloor morphology in concert with SSS data.
- An Innomar Med-100 and Edgetech 512 was utilized to characterize the sub bottom, discerning four discrete seismic horizons.
- Data acquisition, processing, reporting and deliverables completed within the 70 days stipulated in the contract.

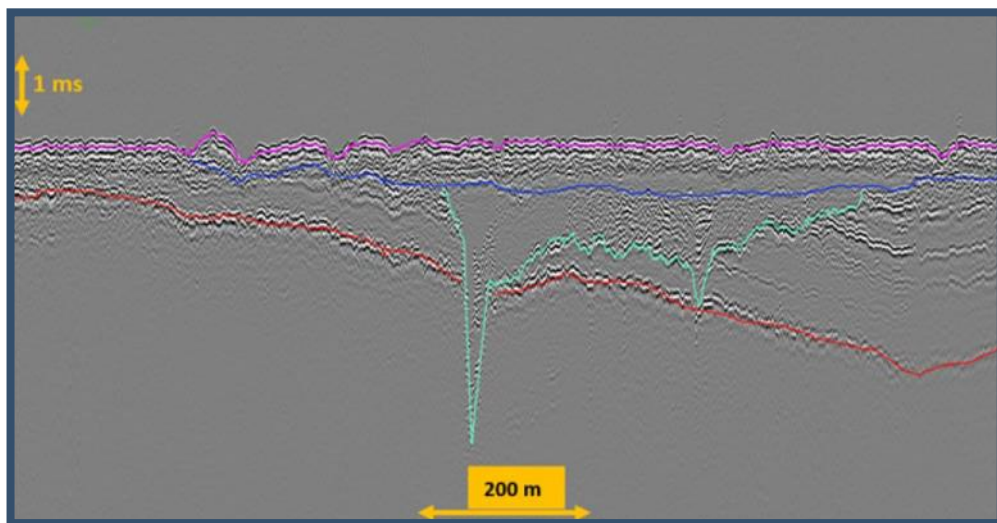
Project Description

Geodynamics was contracted by the USACE, Wilmington District (T.O. W912PM-22-F0023) to provide hydrographic services to assess two discrete areas collectively representing an approximate 13 square mile footprint offshore and adjacent to Holden Beach, North Carolina. A High Resolution Geophysical nearshore survey was conducted using multibeam echosounder (MBES), sub-bottom profiling (SBP), and side scan sonar (SSS) sensors for seafloor and subseafloor investigations along a 250ft spaced main line survey scheme with three intersecting quality control crosslines.



MBES data processed in CARIS depicting an expansive area of hardbottom (0.85m relief).

Although the survey was reconnaissance in nature, the MBES data provided sufficient information to report water depths throughout the survey area at 5 ft resolution, and revealed a series of shore perpendicular ridge and runnel features and multiple areas of relief. SSS complemented the MBES dataset and demonstrated excellent agreement of the features observed in the bathymetry with exposures of outcrops and ledges identified in various areas flanking the ridge and runnel features. Use of high resolution SBP helped discriminate four subsurface horizons that were mapped across both of the survey areas.



Example of the four interpreted sub-bottom horizons represented on Innomar processed data .

Project Location

Holden Beach, N.C.

Client

USACE Wilmington District

