

H13528

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Service

DESCRIPTIVE REPORT

Type of Survey: Navigable Area

Registry Number: H13528

LOCALITY

State(s): South Carolina

General Locality: Offshore of Charleston, South Carolina

Sub-locality: 110 NM East of Charleston

2021

CHIEF OF PARTY

Jeff Marshall (on behalf of the NOAA Ship Nancy Foster)

LIBRARY & ARCHIVES

Date:

HYDROGRAPHIC TITLE SHEET

H13528

INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

State(s): **South Carolina**

General Locality: **Offshore of Charleston, South Carolina**

Sub-Locality: **110 NM East of Charleston**

Scale: **40000**

Dates of Survey: **06/06/2021 to 06/12/2021**

Instructions Dated: **08/04/2021**

Project Number: **OPR-G301-NF-21**

Field Unit: **NOAA Ship *Nancy Foster***

Chief of Party: **Jeff Marshall (on behalf of the NOAA Ship *Nancy Foster*)**

Soundings by: **Kongsberg Maritime EM 710 (MBES)**

Imagery by: **Kongsberg Maritime EM 710 (MBES Backscatter)**

Verification by: **Atlantic Hydrographic Branch**

Soundings Acquired in: **meters at Mean Lower Low Water**

Remarks:

Any revisions to the Descriptive Report (DR) applied during office processing are shown in red italic text. The DR is maintained as a field unit product, therefore all information and recommendations within this report are considered preliminary unless otherwise noted. The final disposition of survey data is represented in the NOAA nautical chart products. All pertinent records for this survey are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via <https://www.ncei.noaa.gov/>. Products created during office processing were generated in NAD83 UTM 17N, MLLW. All references to other horizontal or vertical datums in this report are applicable to the processed hydrographic data provided by the field unit.

DESCRIPTIVE REPORT SUMMARY

A. Area Surveyed

This hydrographic survey was acquired in accordance with the requirements defined in the Project Instruction OPR-G301-NF-21.

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
32° 50' 0.44" N 78° 32' 41.58" W	32° 7' 41.23" N 77° 9' 34.41" W

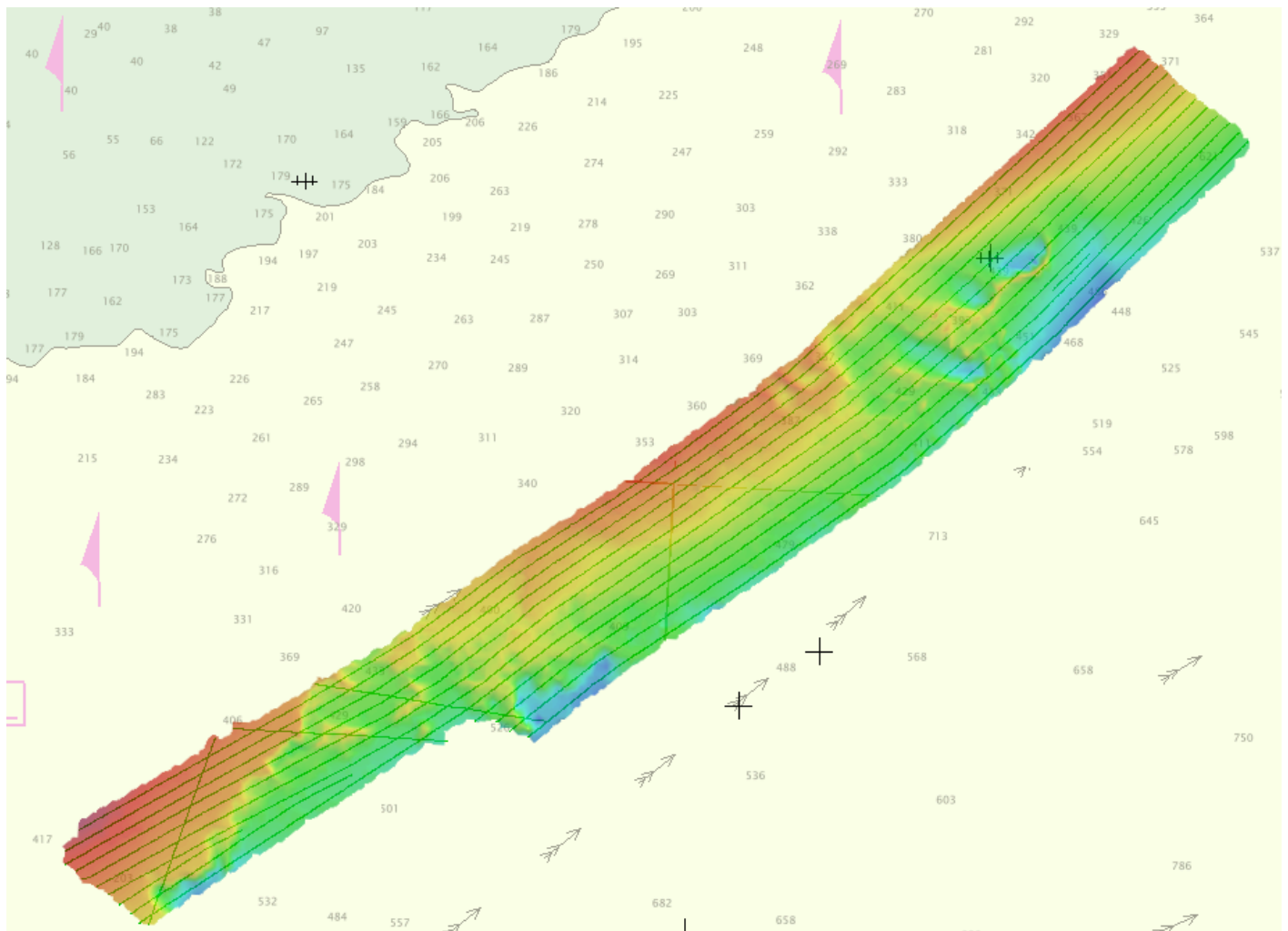


Figure 1: H13528 Coverage Extents

B. Survey Purpose

This project was conducted in collaboration with NOAA's Office of Coast Survey (OCS) and Office of Ocean Exploration and Research to map several large priority areas offshore of South Carolina on the Blake Plateau. The primary objective of this seafloor mapping project was to acquire multibeam bathymetry, acoustic backscatter data, and water column data to provide contemporary hydrographic data to update nautical charting products. This project also addresses NOAA's requirements to meet the needs of continued multibeam coverage within the US EEZ. The surveyed data is intended to supersede all prior survey data in the Blake Plateau.

C. Intended Use of Survey

The entire survey is adequate to supersede previous data.

D. Data Acquisition and Processing

No Data Acquisition and Processing Report (DAPR) is provided with this survey.

E. Uncertainty

Survey specific uncertainty parameters were used for computing TPU within HIPS as specified in 2021 HSSD and guidance provided in the NOAA Field Procedures Manual (FPM). During surface finalization in HIPS, the "uncertainty" option was selected. Grid QA Uncertainty Standard results on the finalized surface pass with 99.5% of grid nodes meeting or exceeding the maximum allowable total vertical uncertainty (TVU).

Uncertainty Standards - NOAA HSSD

Grid source: H13528_MB_VR_MLLW_Final

99.5+% pass (13,894,248 of 13,895,139 nodes), min=0.02, mode=0.05, max=1.96

Percentiles: 2.5%=0.04, Q1=0.06, median=0.09, Q3=0.13, 97.5%=0.22

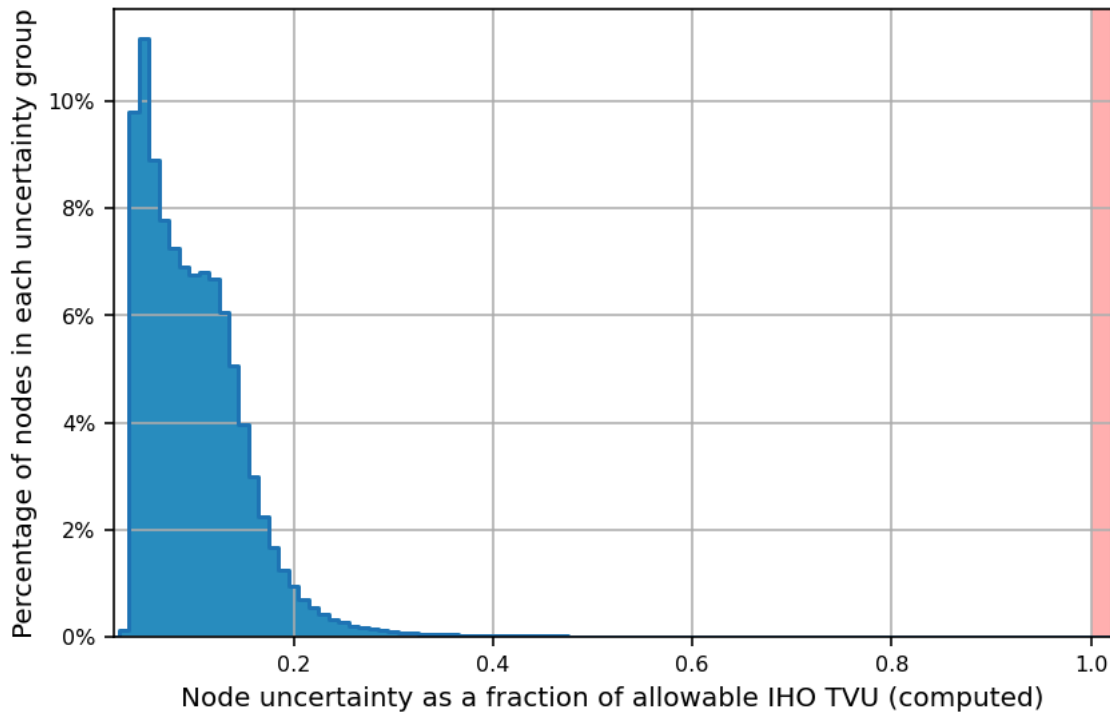


Figure 2: Uncertainty requirements met for the H13528 VR Finalized grid.

F. Results and Recommendations

The following are the largest scale ENC's, which cover the survey area:

ENC	Scale	Edition	Update Application Date	Issue Date
US2EC02M	1:1200000	41	12/23/2022	02/08/2023
US3GA10M	1:449659	65	01/19/2023	02/16/2023
US3SC10M	1:432720	37	07/28/2022	02/08/2023

The following surfaces and/or BAGs were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
H13528_MB_VR_MLLW_Final.csar	CARIS VR Surface (CUBE)	Variable Resolution m	334.39 m - 530.61 m	NOAA_VR	Complete MBES

The final variable resolution grid was generated in accordance with 2021 HSSD requirements using the Calder-Rice Density CUBE algorithm.

G. Vertical and Horizontal Control

The vertical datum for this project is Mean Lower Low Water. The vertical control method used was VDatum.

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Tidal data was applied with a MLLW Separation Model (File: OPR-G301-NF-21_NAD83_MLLW.csar) supplied by HSD Operations Branch.

The horizontal datum for this project is North American Datum of 1983 (NAD 83). The projection used for this project is Universal Transverse Mercator (UTM) Zone 11.

The horizontal datum for this project is North American Datum of 1983 (NAD 83). The projection used for this project is Universal Transverse Mercator (UTM) Zone 17.

H. Additional Results

There are no additional results for this survey.

I. Approval

As Chief of Party, field operations for this hydrographic survey were conducted under my direct supervision, with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports.

All field sheets, this Survey Summary Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to the Processing Branch.

The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys Specifications and Deliverables, Field Procedures Manual, Standing and Letter Instructions, and all HSD Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required with the exception of deficiencies noted in the Survey Summary Report.

Approver Name	Title	Date	Signature
Jeff Marshall (on behalf of the NOAA Ship Nancy Foster)	Sheet Manager	03/06/2023	