

F00868

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

DESCRIPTIVE REPORT

Type of Survey: Natural Disaster Response

Registry Number: F00868

LOCALITY

State(s): Florida

General Locality: Tampa Bay, FL

Sub-locality: Tampa Bay

2022

CHIEF OF PARTY
James L. Kirkpatrick

LIBRARY & ARCHIVES

Date:

HYDROGRAPHIC TITLE SHEET

F00868

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): **Florida**

General Locality: **Tampa Bay, FL**

Sub-Locality: **Tampa Bay**

Scale: **10000**

Dates of Survey: **09/30/2022 to 09/30/2022**

Instructions Dated: **09/28/2022**

Project Number: **S-J928-NRTFB-22**

Field Unit: **NOAA Navigation Response Team - Fernandina**

Chief of Party: **James L. Kirkpatrick**

Soundings by: **Kongsberg Maritime EM 2040C (MBES)**

Imagery by: **EdgeTech 4125 (SSS)
Kongsberg Maritime EM 2040C (MBES Backscatter)**

Verification by: **Pacific 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 S-J929-NRTFB-22.

Data were acquired within the following survey limits:

Northwest Limit	Southeast Limit
27° 46' 22.86" N 82° 38' 12.51" W	27° 39' 9.93" N 82° 36' 18.3" W

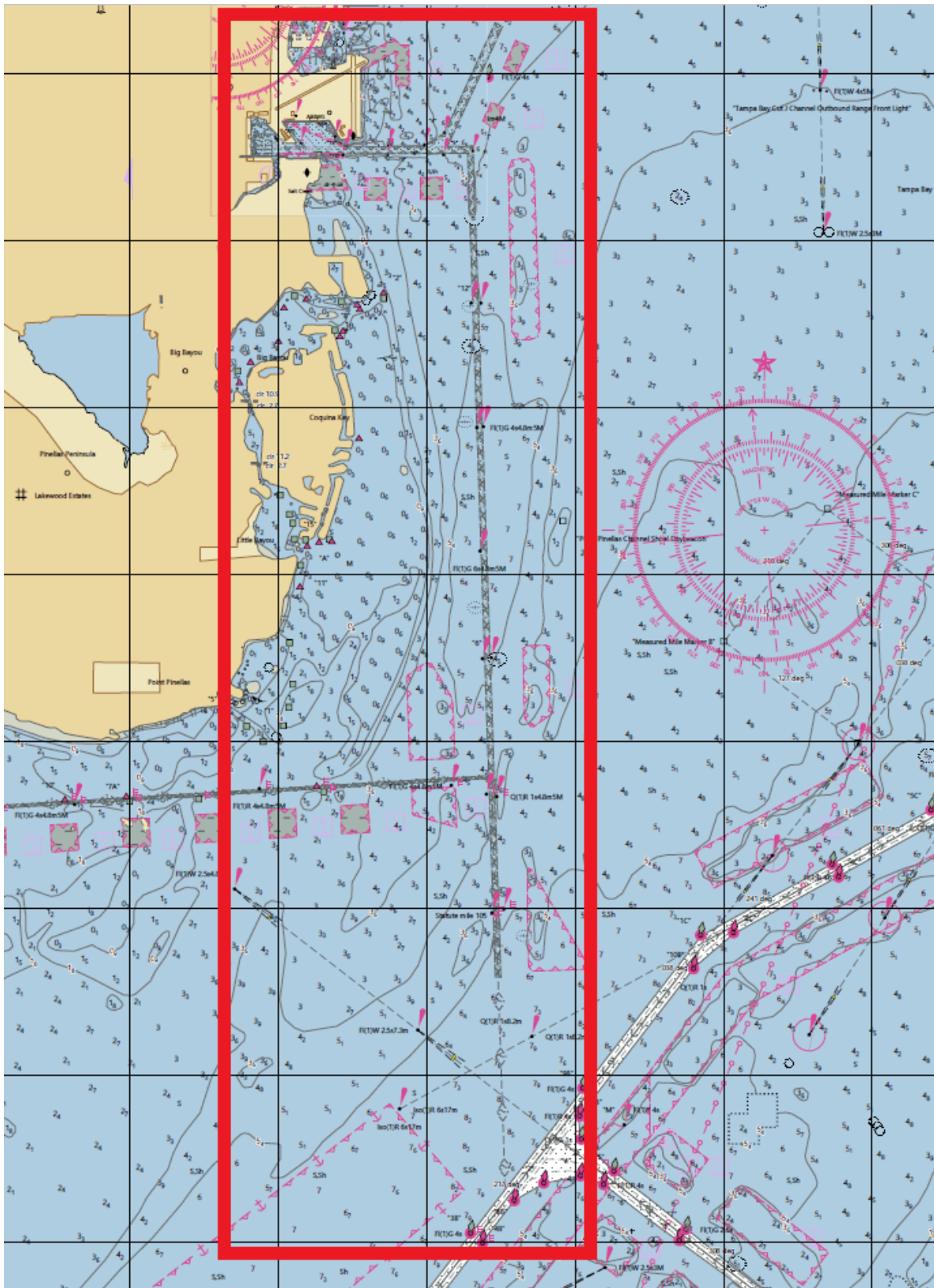


Figure 1: F00868 Survey Area

B. Survey Purpose

The purpose of this survey is in response to a USACE request for an emergency hydrographic surveys for the channel to St Petersburg and the channel from the Gulf to Sunshine Skyway Bridge , due to the effects of Hurricane Ian. Survey data from this project is intended to supersede all prior survey data in the common area.

C. Intended Use of Survey

The entire survey is adequate to supersede previous data.

F00868 data is adequate to supersede previous data.

D. Data Acquisition and Processing

Please reference Data Acquisition and Processing Report NRTFB_S3009_DAPR_2022_Signed for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods.

E. Uncertainty

Uncertainty thresholds were met in accordance with 2022 HSSD standards. Vertical uncertainty values were provided with the VDatum Separation model in project instructions. Sound speed uncertainty values were provided from the manufacturer.

Uncertainty Standards - NOAA HSSD

Grid source: F00868_MB_50cm_MLLW

100% pass (4,173,000 of 4,173,000 nodes), min=0.04, mode=0.06, max=0.85

Percentiles: 2.5%=0.05, Q1=0.06, median=0.07, Q3=0.09, 97.5%=0.12

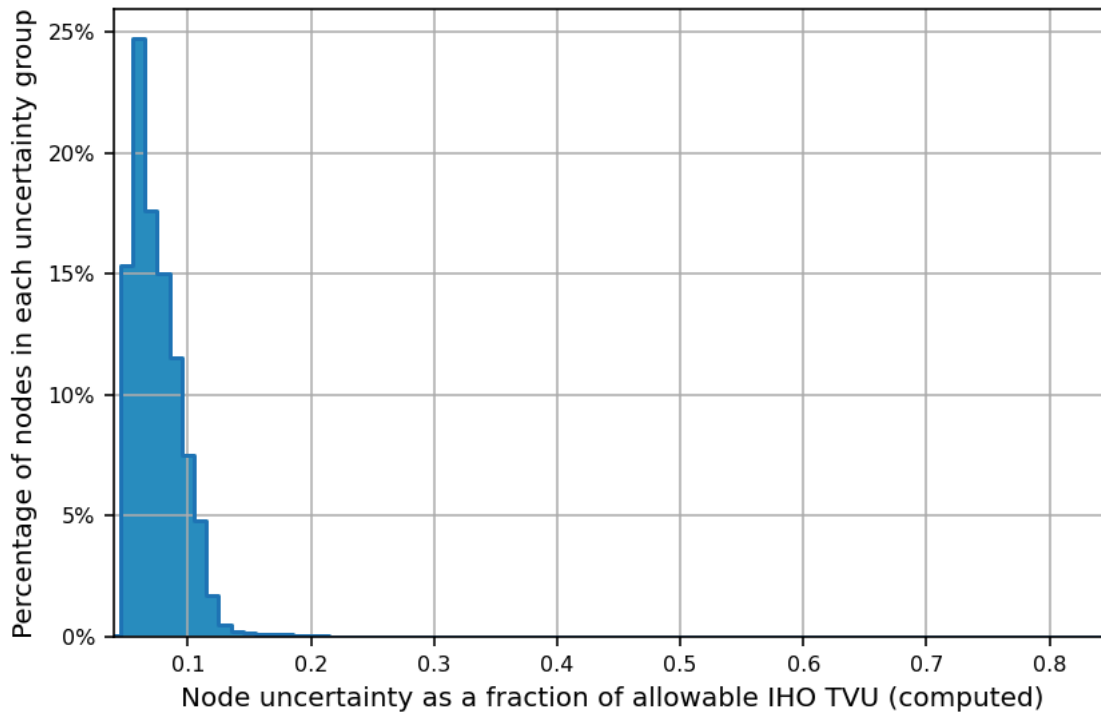


Figure 2: F00868 Grid Uncertainty.

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
US4FL1PQ	1:40000	9	01/11/2023	01/19/2023
US5FL09M	1:20000	22	09/27/2022	09/27/2022

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

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
F00868_MB_50cm_MLLW	CARIS Raster Surface (CUBE)	0.5 m	2.1 m - 16.9 m	NOAA_0.5m	Object Detection
F00868_MB_50cm_MLLW_Final	CARIS Raster Surface (CUBE)	0.5 m	2.1 m - 16.9 m	NOAA_0.5m	Object Detection
F00868_SSSAB_1m_900kHz_1of2	SSS Mosaic	1 m	N/A	N/A	100% SSS
F00868_SSSAB_1m_900kHz_2of2	SSS Mosaic	1 m	N/A	N/A	200% SSS
F00868_MBAB_2m_S3009_300kHz_1of1	MB Backscatter Mosaic	2 m	N/A	N/A	Object Detection

All surface parameters and naming conventions adhere to guidance from the 2022 HSSD.

G. Vertical and Horizontal Control

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

The vertical datum for this project is Mean Lower Low Water. The vertical control method used was VDatum. Vertical control was established through ERS via VDatum Separation model provided with the Project Instructions.

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.

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. Vessel kinematic data were post-processed using Applanix POSPac processing software and RTX positioning methods described in the DAPR. Smoothed Best Estimate of Trajectory (SBET) and associated error (RMS) data were applied to all MBES data in CARIS HIPS and SIPS. The Wide Area Augmentation System (WAAS) was used for real-time horizontal control during data acquisition.

H. Additional Results

Soft bottom sediment data artifacts.

In the St. Petersburg Harbor very soft bottom sediment caused some minor data quality issues at Nadir. A spike at nadir averages 10-15 cm in these areas.

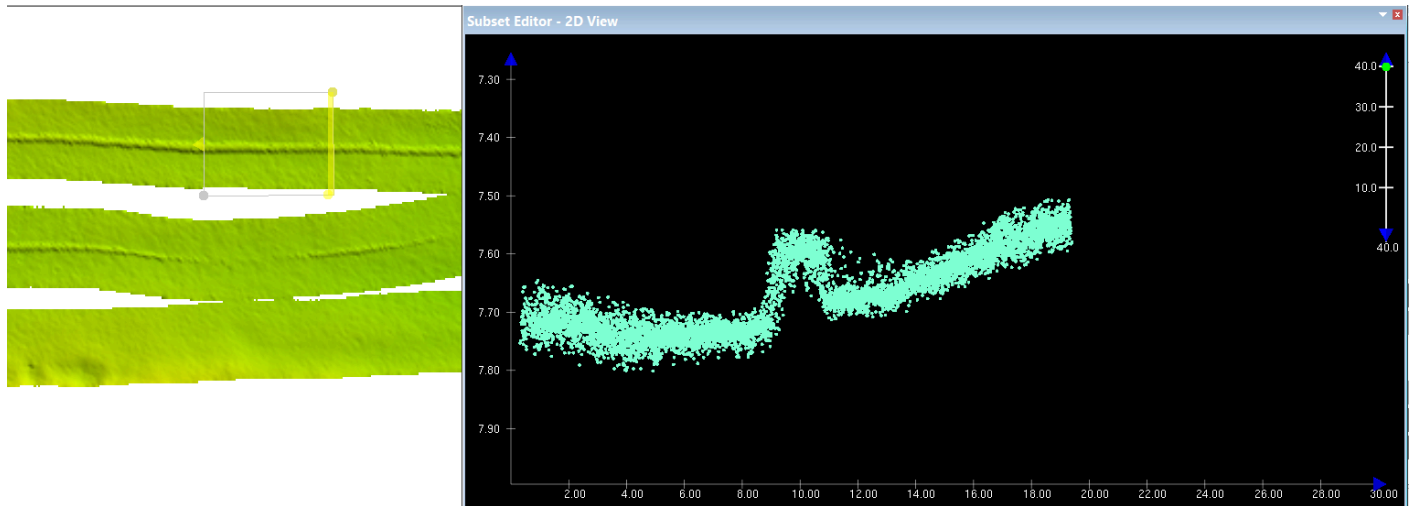


Figure 3: Soft bottom sediment data quality.

Response Survey Results

No significant contacts nor shoal areas were found during F00868. USCG and ACOE were provided preliminary products and results for decision making.

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
James L. Kirkpatrick	Chief of Party	02/08/2023	KIRKPATRICK.JAMES .LEROY.IV.14004873 98 Digitally signed by KIRKPATRICK.JAMES.LEROY.IV.14 00487398 Date: 2023.02.08 10:31:31 -05'00'