F00803

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

DESCRIPTIVE REPORT

Type of Survey:	Field Examination
Registry Number:	F00803

LOCALITY

State(s):	Florida
General Locality:	Northwest Gulf of Mexico, FL
Sub-locality:	Apalachicola Vicinity UCF

2020

CHIEF OF PARTY
Allison C Stone

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NUMBER:

HYDROGRAPHIC TITLE SHEET

F00803

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:	**Northwest Gulf of Mexico, FL**
Sub-Locality:	**Apalachicola Vicinity UCF**
Scale:	**20000**
Dates of Survey:	**06/09/2020 to 06/28/2020**
Instructions Dated:	**03/25/2020**
Project Number:	**OPR-J359-KR-20**
Field Unit:	**Fugro USA Marine, Inc.**
Chief of Party:	**Dean R Moyles**
Soundings by:	**Teledyne RESON SeaBat 7125 SV2 (MBES)**
Imagery by:	**Teledyne RESON SeaBat 7125 SV2 (MBES Backscatter)**
Verification by:	**Atlantic Hydrographic Branch**
Soundings Acquired in:	**meters at Mean Lower Low Water**

Remarks:

The purpose of this survey is to provide contemporary surveys to update National Ocean Service (NOS) nautical charts. All separates are filed with the hydrographic data. Any revisions to the Descriptive Report (DR) generated during office processing are shown in bold red italic text. The processing branch maintains the DR as a field unit product, therefore, all information and recommendations within the body of the DR are considered preliminary unless otherwise noted. The final disposition of surveyed features is represented in the OCS nautical chart update products. All pertinent records for this survey, including the DR, are archived at the National Centers for Environmental Information (NCEI) and can be retrieved via http://www.ncei.noaa.gov/. Products created during office processing were generated in NAD83 UTM 16N, 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 MEMO

December 14, 2020

MEMORANDUM FOR: Chief, Atlantic Hydrographic Branch

FROM: Allison C Stone
Hydrographer, Fugro USA Marine, Inc.

Allison C Stone Digitally signed by Allison C Stone Date: 2020.12.14 10:13:24 -05'00'

SUBJECT: Submission of Survey F00803

The Offshore Apalachicola project will provide contemporary surveys to update National Ocean Service (NOS) nautical charting products and services. It is offshore of Apalachicola Bay and Joseph Bay, FL. The survey will provide updated bathymetry and feature data to address concerns of migrating shoals, thus reducing the risk to navigation within the project area.

The Apalachicola Surveys delineate the western extent of the Big Bend Mapping project, a Florida Coastal Mapping Program (FCMaP) priority. This multi-year, multi-agency mapping project will fill in an area in which only 2% of the seafloor is mapped to modern standards. Improving the understanding of the bathymetry, geomorphology, bio-diversity and distribution of habitats in this region will support Floridian fisheries, coastal modeling, and resource management.

The 11 assigned feature investigations within survey F00803 will provide the most accurate depiction of bathymetric features currently extant within the assigned search radii. Data from this project will supersede all prior survey data.

Products delivered to the Atlantic Hydrographic Branch will generally follow the guidelines for all other surveys within OPR-J359-KR-20 per Appendix I of the NOAA HSSD 2019. Major products included with the submission of F00803 are: finalized object detection resolution grids, post-processed positioning data; processed sound velocity data, and a Final Feature File.

All soundings were reduced to Mean Lower Low Water using a VDatum separation model provided by NOAA to the field unit. 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 16.

All survey systems and methods utilized during this survey were as described in *OPR-J359-KR-20_DAPR*.

All data were reviewed for DTONs and none were identified in this survey.

Fugro USA Marine, Inc. acquired the data outlined in this report. Additional documentation from the data provider may be attached to this report.

Survey F00803 (Figure 1) was acquired by the M/V GO Freedom, as part of project OPR-J359-KR-20. Eleven features were assigned for investigation, symbolized as anchorage areas in the Project Reference File (PRF). All of the eleven features were fully ensonified to object detection multibeam (ODMBES) specifications as outlined in the HSSD 2019 section 5.2.2.2. Reson backscatter snippets were acquired and are available in the raw MBES files, however no processed backscatter data will be submitted with F00803. One line of backscatter per vessel per day was processed throughout OPR-J359-KR-20 to ensure quality control. No bottom samples were acquired with F00803 data. Two of the eleven assigned search radii yielded evidence of a significant existing feature (Figures 2 and 3). Reference the Final Feature File associated with this survey for further detail.

F00803 encompasses 4.36 square nautical miles when individual radius coverage areas are combined. Mainscheme ODMBES data totals 121.72 linear nautical miles (LNM), with an additional 10.77 LNM of crosslines; 99.99% of all nodes compared between mainscheme and crosslines agree within 50cm (Figure 4). Sound velocity casts were acquired at a minimum of once every two hours per area using an AML SV&P probe. ODMBES sounding data ranges from 25.46m to 62.94m within acquired radii of F00803; data was gridded to both 1m and 4m resolutions, per the HSSD 2019. Both the 1m and 4m gridded surfaces adhere to ODMBES density requirements as well as Total Propagated Uncertainty (TPU) allowances set forth in the HSSD 2019 (Figures 5-8).

Standard quality control (QC) measures were followed to ensure the highest quality data met, or exceeded, the expectations set forth in both the Project Instructions (PI) and HSSD 2019. All vessel specifications, equipment, acquisition and processing methods for F00803 are in agreement with information provided within the Descriptive Acquisition and Processing Report (DAPR) submitted with project documentation for project OPR-J359-KR-20.

Charts affected: US3GC05M, US3GC06M, US4FL60M

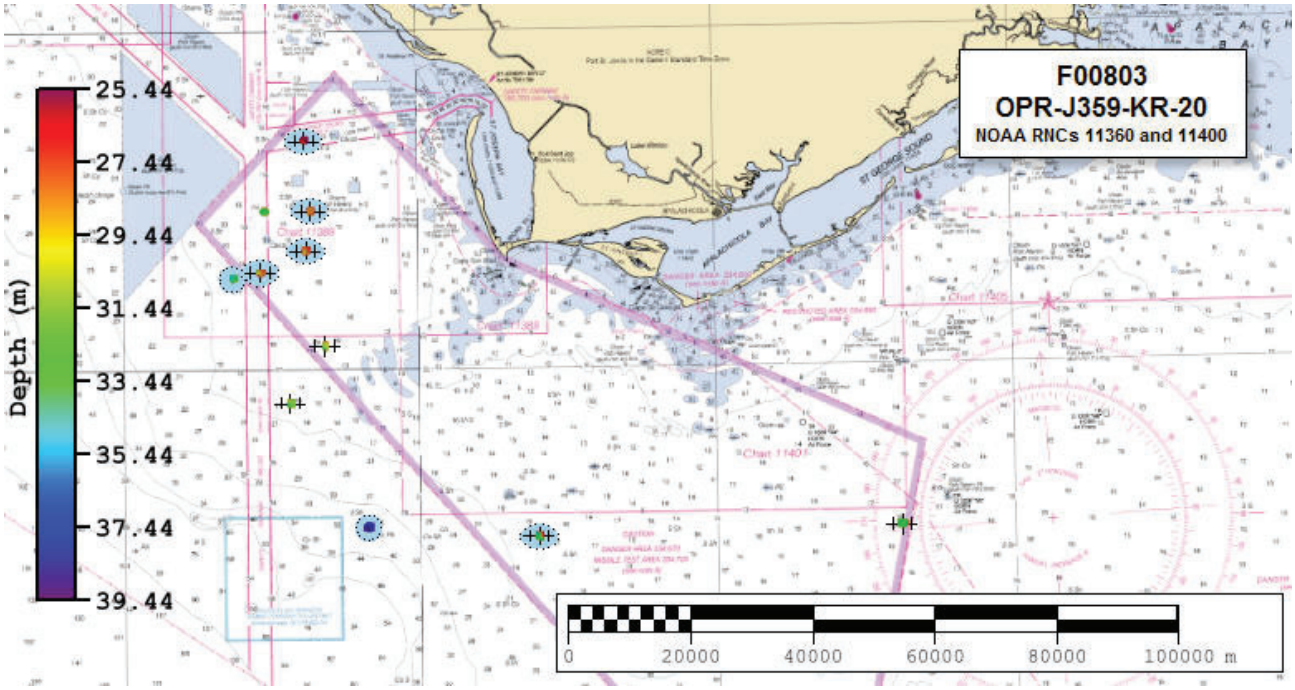

Figure 1: F00803 assigned feature geographic distribution

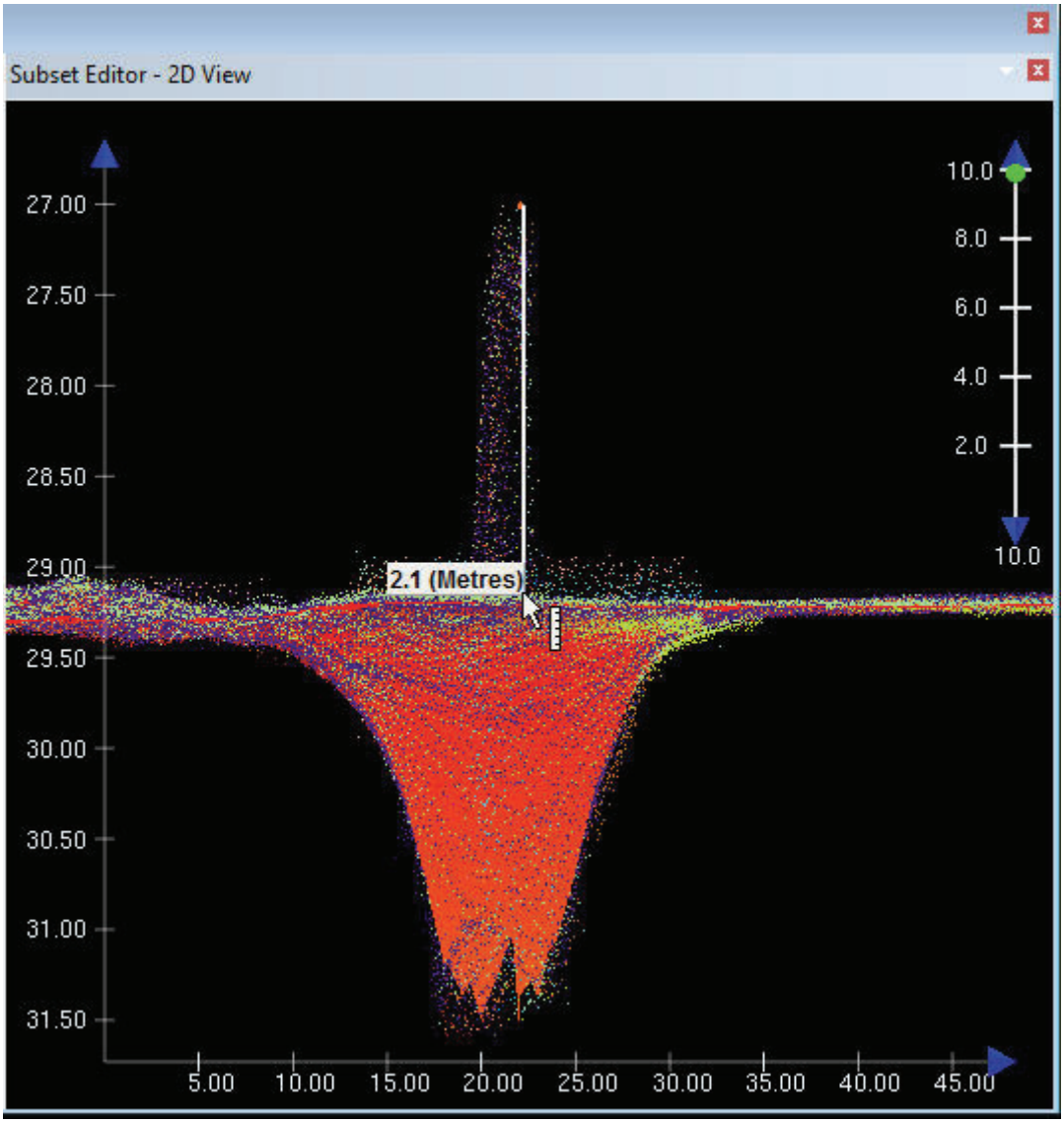

Figure 2: Significant feature located 29-43-56.9016N 085-41-05.0916W

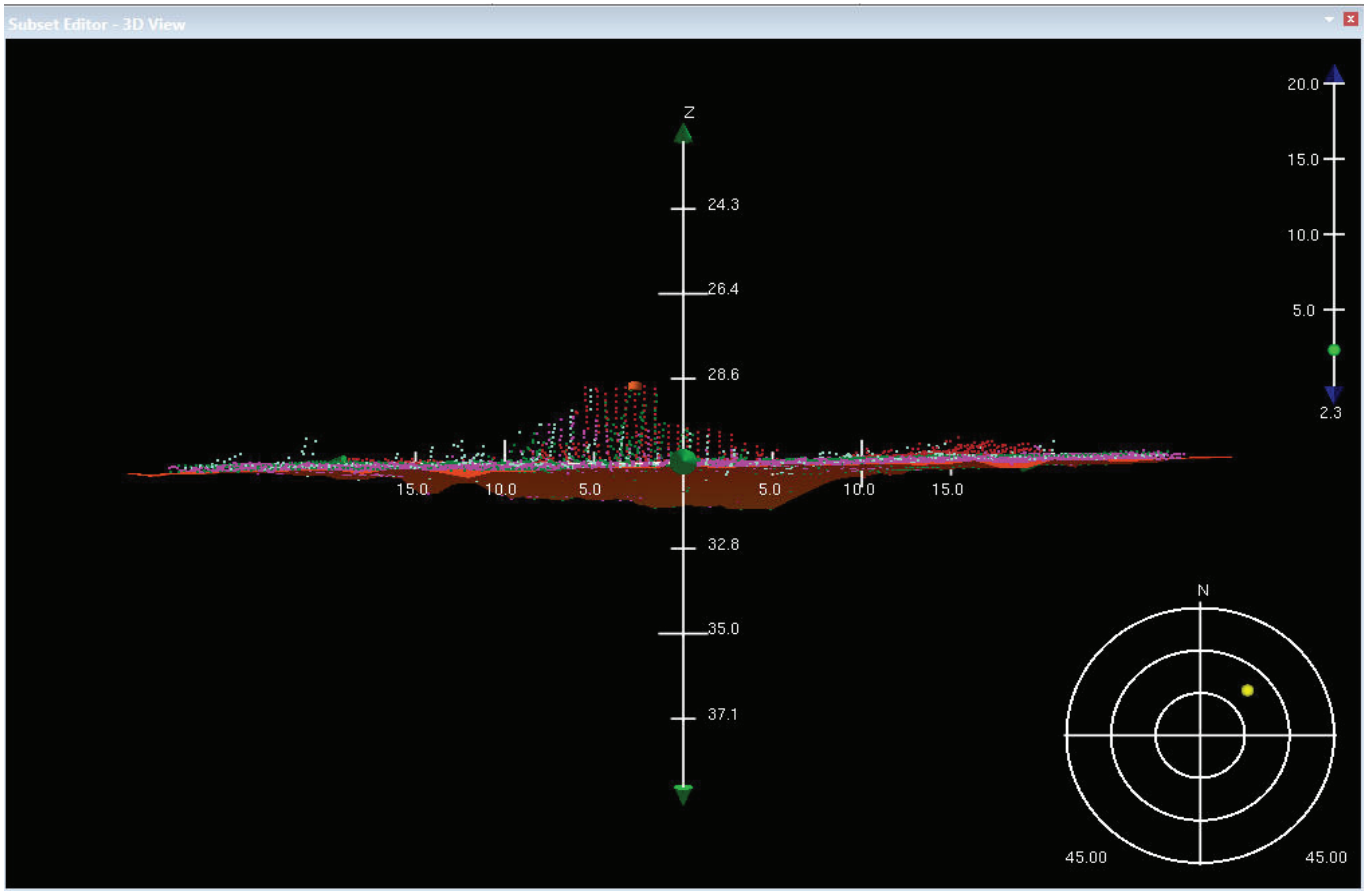

Figure 3: Significant feature located 29-40-31.2741N 085-41-38.3603W

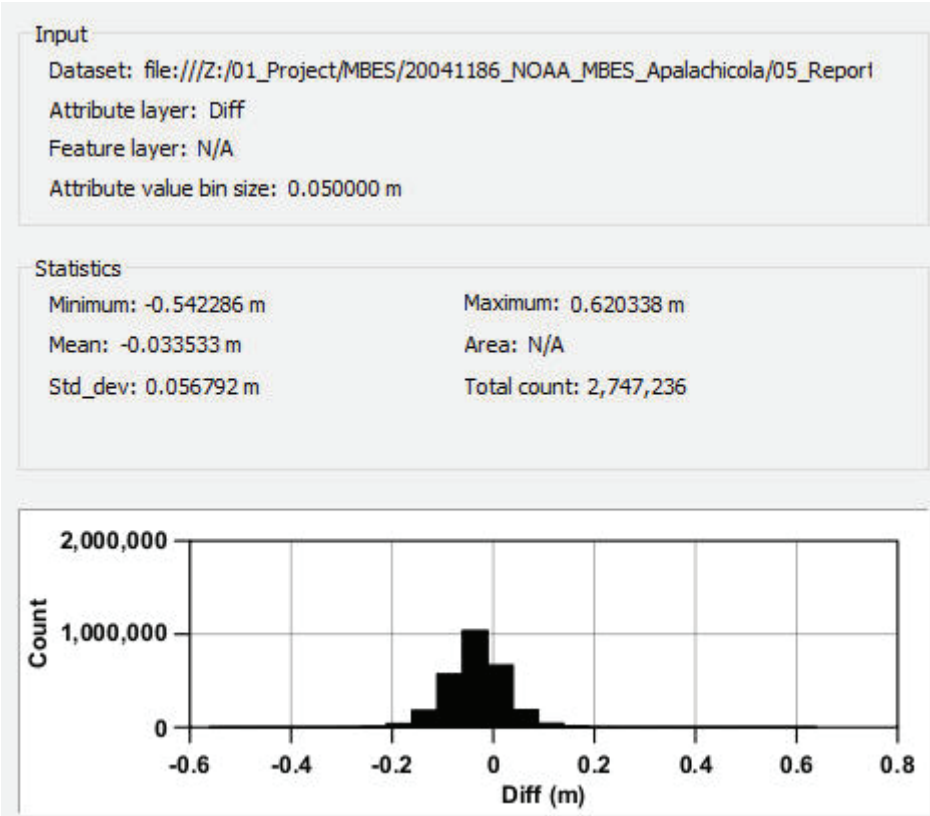

Figure 4:Statistical output of F00803 mainscheme ODMBES differenced with F00803 ODMBES crosslines

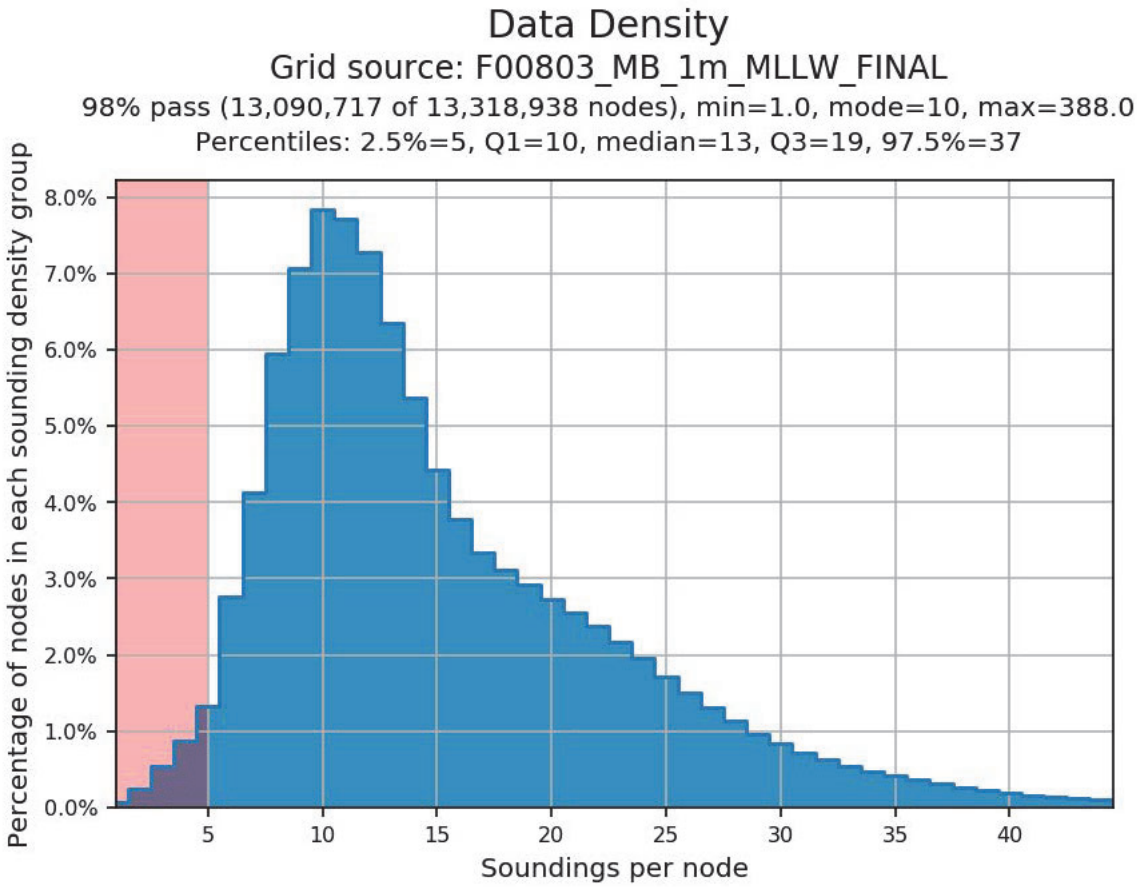

Figure 5: F00803 ODMBES 1m grid density

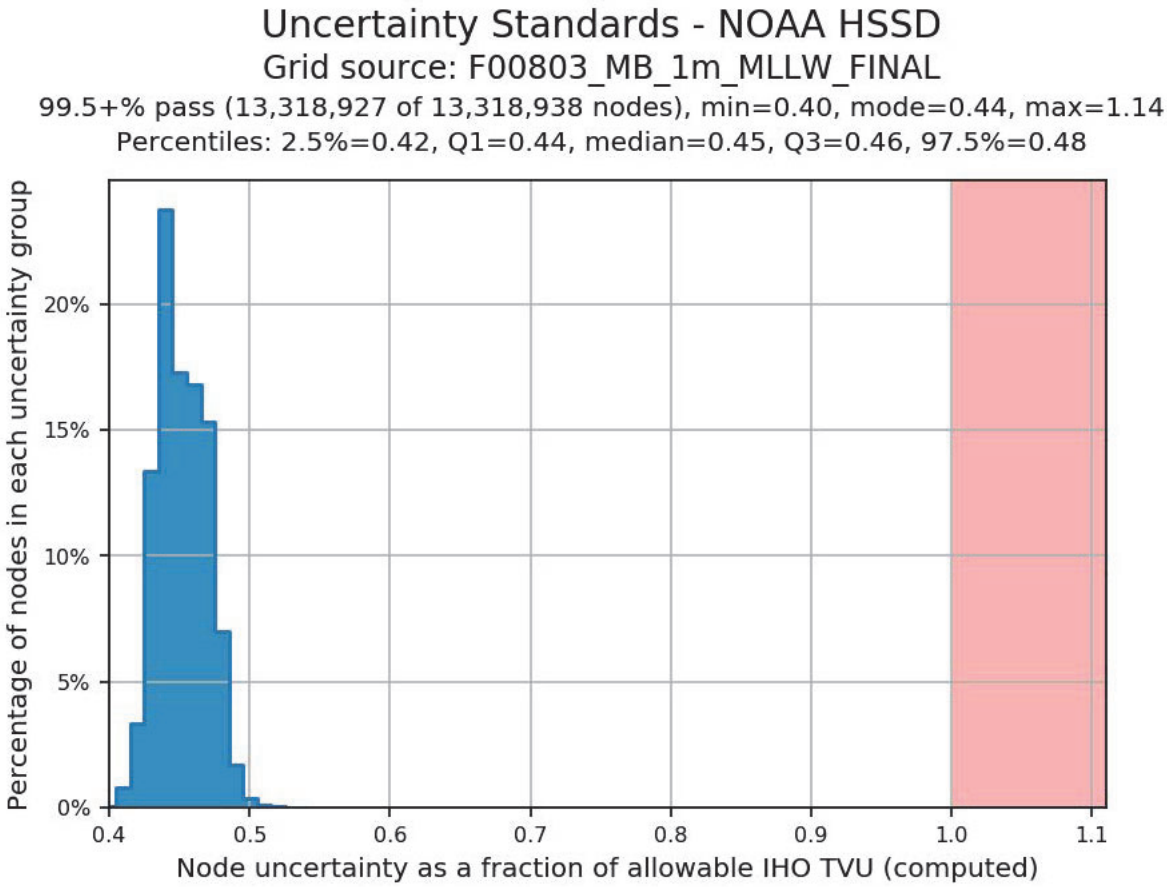

Figure 6: F00803 ODMBES 1m grid TPU allowance

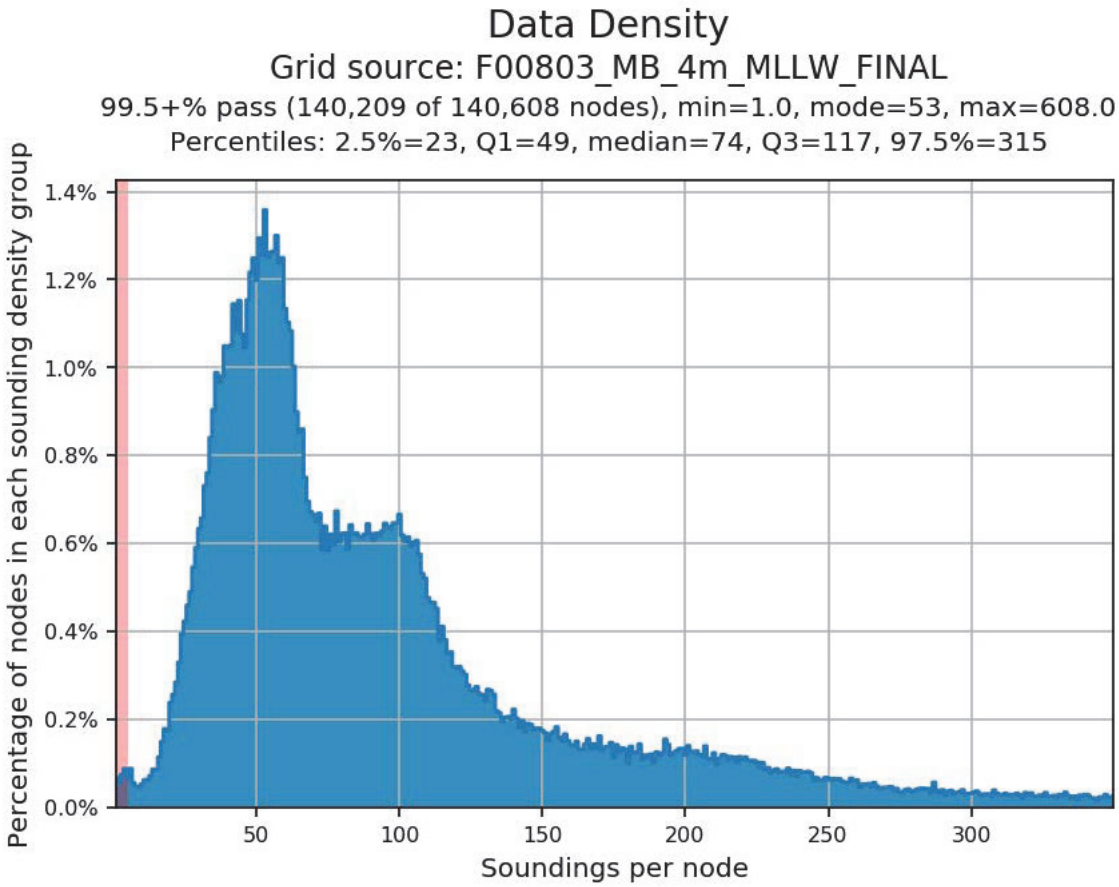

Figure 7: F00803 ODMBES 4m grid density

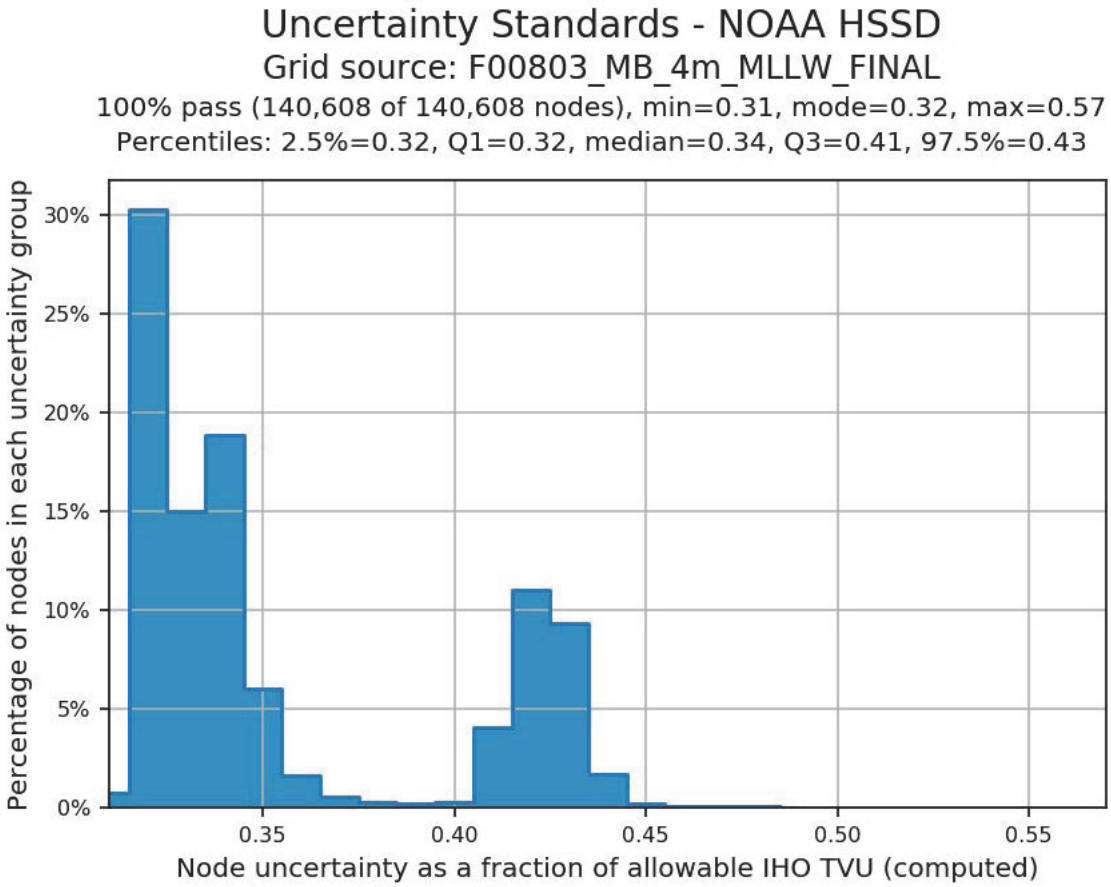

Figure 8: F00803 ODMBES 4m grid TPU allowance

Survey F00803 meets charting specifications and is adequate to supersede prior data.

From: Brian Mohr - NOAA Federal
To: Stone, Allison
Subject: Re: Fugro Survey Outline 2of8 OPR-J359-KR-20 F00803
Date: Monday, November 30, 2020 10:03:22 AM

Thank you, I will get survey outline **F00803** appended into SURDEX shortly.

Brian Mohr
Data Manager
Hydrographic Surveys Division
brian.mohr@noaa.gov

On Fri, Nov 6, 2020 at 7:46 AM 'Stone, Allison' via _NOS OCS Survey Outlines <survey.outlines@noaa.gov> wrote:

> Good day All,
>
> Please find attached the survey outline for **F00803** of project number OPR-J359-KR-20.
>
> Please note the estimated area for survey F00803 was 2 SNM, however data acquired = 4.36 SNM. The HSSD 2019 requires this note, as acquired data area exceeds estimate by greater than 10%.
>
> If there are any questions or comments, please do not hesitate to reach out to me.
>
> Kind regards,
>
> **Allison Stone**
>
> *Hydrographer*
>
> Fugro
>
> **T** +1 713 346 4084 | **C** +1 843 607 9980 | **E** al.stone@fugro.com | **W** https://www.fugro.com/
>
> **A** 6100 Hillcroft St Houston, TX 77081

From:	Moyles, Dean
To:	"Chris Paver - NOAA Federal"
Cc:	NODC.submissions@noaa.gov; Starla Robinson - NOAA Federal
Subject:	RE: OPR-J359-KR-20 Sound Speed Data
Date:	Thursday, December 3, 2020 2:13:00 PM
Attachments:	OPR-J359-KR-20_20201203.zip

Here is the revised sound speed data, I had to use the Velocipy and a Fugro software to get these in the NCEI format. Let me know if there are any other changes required.

Dean Moyles
*Marine Hydrographic Manager (*NSPS/THSOA *cert. No. 226)*
Fugro

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A 25 Pippy Place, St. John's, NL Canada A1B 3X2

Together we create a safe and liveable world.

From: Chris Paver - NOAA Federal <christopher.paver@noaa.gov>
Sent: Tuesday, December 1, 2020 1:38 PM
To: Moyles, Dean <dmoyles@fugro.com>
Cc: NODC.submissions@noaa.gov; Starla Robinson - NOAA Federal <Starla.Robinson@noaa.gov>
Subject: Re: OPR-J359-KR-20 Sound Speed Data

Dear Dean,
Thanks for the recent submission. While processing the data files for the archive, we ran across a couple of metadata issues that need to be resolved.

1. One or more of the submitted files identify the instrument type in the global attributes section as "Varies". It would be preferable if the instrument used per deployment was documented in this field using a standard format, e.g. Castaway CTD, Valeport SVP, etc. If the name of the instrument used is not known, then report as "Not Available" or "Unknown".

2. One or more of the submitted files identify the platform type in the global attributes section as "Furgo". Is this the name of a ship/boat/vessel or the name of the company? This field should contain the name of a valid ship. If the name of the platform is Furgo, please provide ship specific information such as MMSI, callsign, hull number, and/or other unique information so that we can properly document this vessel in our database. If the name of the ship is not known, then please report as "Not Available" or "Unknown".

Once these issues are resolved, please resubmit the package and we will attempt to archive.

Regards,
Chris

On Tue, Nov 24, 2020 at 2:36 PM 'Moyles, Dean' via _NODC Submissions <nodc.submissions@noaa.gov> wrote:

Please find the attached sound speed data for Fugro on project OPRJ359-KR-20. Please let me know if you have any questions or comments.

Dean Moyles
*Marine Hydrographic Manager (*NSPS/THSOA *cert. No. 226)*
Fugro

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Together we create a safe and liveable world.

--

Chris Paver, Oceanographer
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Silver Spring MD 20910
Phone: 301-713-4910
www.ncei.noaa.gov

APPROVAL PAGE

F00803

Data meet or exceed current specifications as certified by the OCS survey acceptance review process. Descriptive Report and survey data except where noted are adequate to supersede prior surveys and nautical charts in the common area.

The following products will be sent to NCEI for archive

- Descriptive Report
- Collection of Bathymetric Attributed Grids (BAGs)
- Collection of backscatter mosaics
- Processed survey data and records
- GeoPDF of survey products

The survey evaluation and verification has been conducted according current OCS Specifications, and the survey has been approved for dissemination and usage of updating NOAA's suite of nautical charts.

Approved: Meghan McGovern Digitally signed by MCGOVERN.MEGHAN.ELIZABETH .1284020495 Date: 2021.07.26 08:42:28 -04'00'

Commander Meghan McGovern, NOAA
Chief, Atlantic Hydrographic Branch