

F00706

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

DESCRIPTIVE REPORT

Type of Survey: Field Examination

Registry Number: F00706

LOCALITY

State(s): Puerto Rico

General Locality: Vieques Island

Sub-locality: Bahia de Mulas

2017

Chief of Party
Christiaan van Westendorp, CDR/NOAA

LIBRARY & ARCHIVES

Date:

HYDROGRAPHIC TITLE SHEET

F00706

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): **Puerto Rico**

General Locality: **Vieques Island**

Sub-Locality: **Bahia de Mulas**

Scale: **1:5,000**

Dates of Survey: **October 5, 2017**

Project Number: **S-I950-TJ-17**

Data Source: **NOAA Ship *Thomas Jefferson***

Chief of Party: **Christiaan van Westendorp, CDR/NOAA**

Soundings by: **multibeam**

Imagery by: **side scan**

Verification by: **Atlantic Hydrographic Branch (AHB)**

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 20N, 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

August 10, 2018

MEMORANDUM FOR: Atlantic Hydrographic Branch

FROM: CDR Christiaan van Westendorp, NOAA
Commanding Officer and Chief of Party, NOAA Ship THOMAS JEFFERSON

SUBJECT: Submission of Survey F00706

Survey F00706 was conducted by Thomas Jefferson as an emergency response to Hurricane Maria in 2017. The area surveyed included the passenger ferry approach to Bahia de Mulas, Vieques Island, Puerto Rico. The survey came at the request of United States Coast Guard (USCG) District 7 to identify dangers to navigation and provide seafloor imagery and bathymetry to assist in reopening ports in Puerto Rico and the US Virgin Islands.

Thomas Jefferson provided a contact report and initial chartlet to USCG District 7 that included Side Scan Sonar (SSS) mosaics and preliminary depths, which are included in the Descriptive Report Appendices.

Soundings were reduced to Mean Lower Low Water (MLLW) using a VDatum processing solution. No NWLON water level station data was referenced for water level corrections.

The area was surveyed using Thomas Jefferson's 28ft hydrographic survey launch (HSL) 2904, equipped with Reson 7125 SV2 400kHz Multibeam Echosounder (MBES), and Edgetech 4200 Side Scan Sonar (SSS). Data was acquired with 200% SSS and concurrent MBES. Some features identified by SSS were not developed with MBES, and therefore do not have measured least depths. Refer to the Data Acquisition and Processing Report (DAPR) S-I950-TJ-17 for a complete description of data acquisition and processing systems, survey vessels, quality control procedures and data processing methods.

Preliminary product reports referencing the survey depths and significant features as submitted to the USCG are included in the appendices of this memo.

All data were acquired by a NOAA Ship Thomas Jefferson.

Findings are summarized in the contact report and chartlet generated for the USCG. See Appendices for more information.

The survey is partially adequate to supersede previous data. This survey generally meets charting specifications and is adequate to supersede prior data, except in cases where features were detected by SSS, but not surveyed with MBES (as mentioned previously). Erroneous outliers and fliers may exist in the submitted depth surfaces. All urgent and time-sensitive chart update recommendations were submitted to the

USCG and NOAA Marine Chart Division as preliminary product reports. These reports are included in the appendices of this memo. The Hydrographer does not recommend additional chart updates from this survey; F00706 is recommended for archival only.

Concur with clarification. AHB edited the bathymetry data rejecting soundings considered as erroneous, transformed the bathymetric grid to horizontal datum of NAD83, and finalized the source grid. The survey data is considered adequate to supersede previous data. F00706 is recommended for NCEI archive and addition to the National Bathymetric Source.

Metadata for Survey F00706	
Project	S-I950-TJ-17
Survey	F00706
State	Puerto Rico
Locality	Vieques Island
Sub-Locality	Bahia de Mulas
Scale of Survey	1:5000
Sonars Used	Edgetech 4200 (Side Scan Sonar) Reson 7125 SV2 400kHz (Multibeam Echosounder)
Horizontal Datum	World Geodetic System (WGS) 1984
Vertical Datum	Mean Lower Low Water
Vertical Datum Correction	VDatum
Projection	UTM Zone 20N
Field Unit	NOAA Ship THOMAS JEFFERSON
Survey Dates	10/05/2017
Chief of Party	Christiaan van Westendorp, CDR/NOAA
Submission Date	08/10/2018

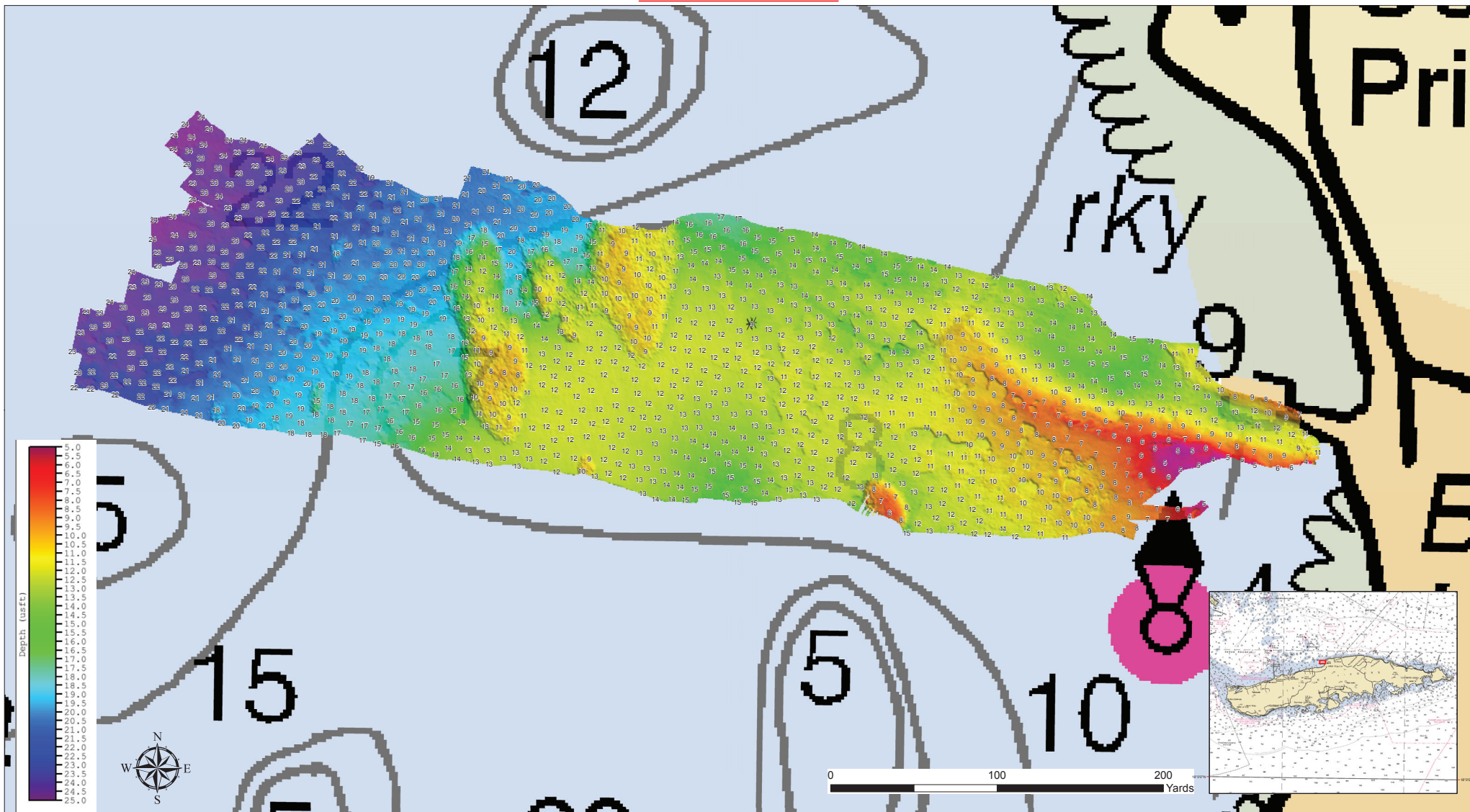


Survey Chartlet of Bahia de Mulas, Isla de Vieques, Puerto Rico - F00706 Hurricane Maria Response

Hydrographic Survey

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE

Data reflect the state of the sea floor in existence on the day and at the time the survey was conducted. The survey and the chart have not been updated for inclusion of the latest Local Notice to Mariners. Preliminary data subject to office review.
NOT FOR USE IN NAVIGATION.



Project: S-1950-TJ-17
Survey: F00706 Hurricane Maria
Locality: Isla de Vieques, Puerto Rico
Sublocality: Bahia de Mulas
Survey Scale: 1:12500

Sounding Units: NOAA Rounded Feet
Sounding Datum: MLLW
Horizontal Datum: WGS84
Chart Number: NOAA Chart 25644
Survey Technique: Multibeam & Side Scan Sonar

NOAA Ship *Thomas Jefferson* S222
CDR Chris van Westendorp, NOAA
co.thomas.jefferson@noaa.gov

Date of Survey
 05 Oct 2017
 Chartlet 1 of 1



NOAA Ship *Thomas Jefferson* (S-222)
Supplemental Contact Information
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE - OFFICE OF COAST SURVEY

Contact:
Commanding Officer / Chief of Party
CDR Chris van Westendorp, NOAA
co.thomas.jefferson@noaa.gov



NOAA Ship *Thomas Jefferson* (S-222)

Supplemental contact information for survey of
Bahia de Mulas, Vieques Island, Puerto Rico
5 Oct 2017



NOAA Ship *Thomas Jefferson* (S-222)
 Supplemental Contact Information
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE - OFFICE OF COAST SURVEY

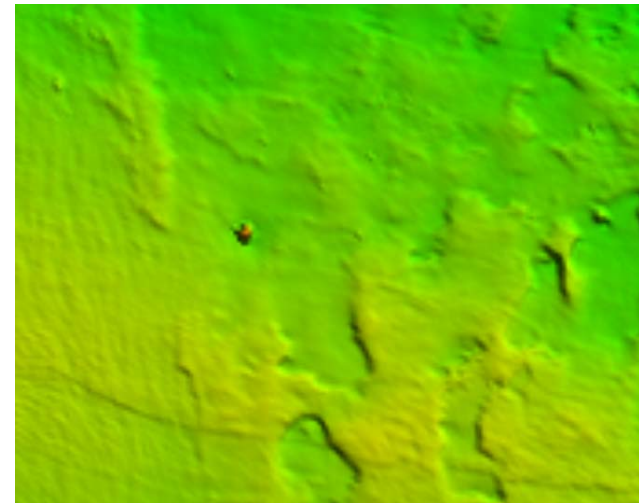
Contact:
 Commanding Officer / Chief of Party
 CDR Chris van Westendorp, NOAA
 co.thomas.jefferson@noaa.gov



Date:	10/5/2017
Latitude:	18.152823 N
Longitude:	65.446257 W
MBES least depth:	9 ft
SSS contact height:	4.65 ft
Contact dimensions:	8.71 ft x 3.00 ft x 4.65 ft

Comments:
 Obstruction located in eastern Bahia de Mulas; least depth 9ft.

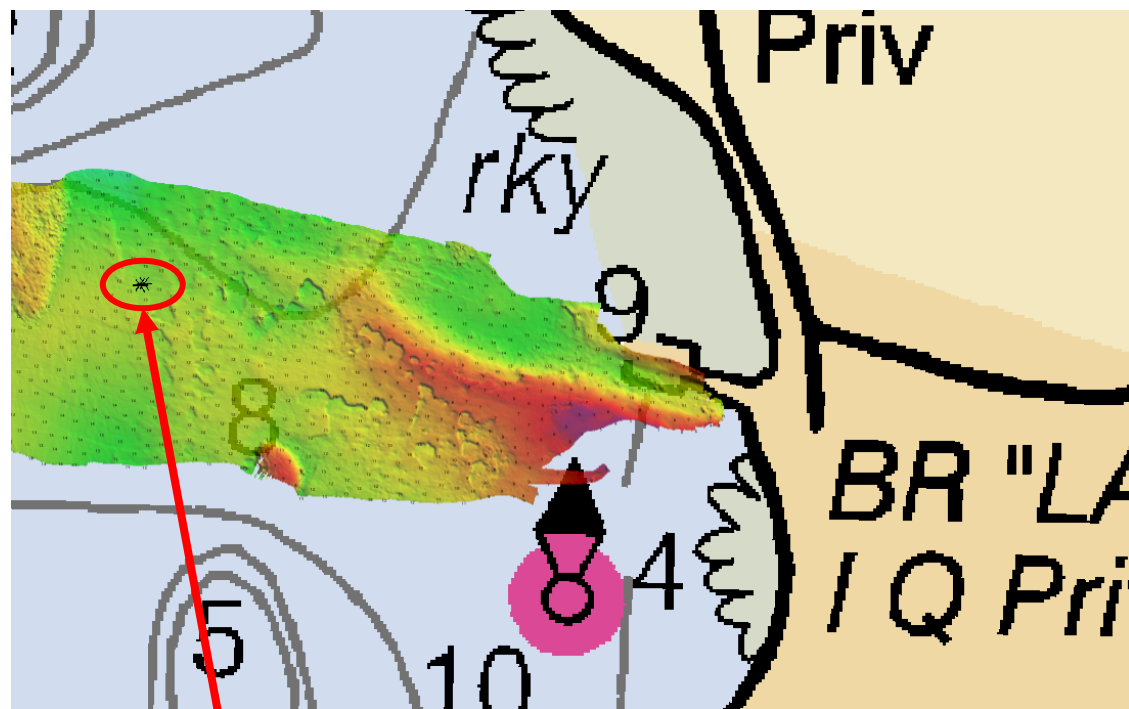
Additional media / information:



MBES coverage of obstruction with least depth of 9 ft.



SSS imagery showing an obstruction, approx. 8.71 ft length, 3.00 ft width, and 4.65ft height.



Obstruction in Bahia de Mulas

Project:	S-I950-TJ-17	Chart Number:	25644
Survey:	F00706	Sounding Units:	Feet (NOAA rounded)
Locality:	Vieques Island	Datum:	MLLW
Sublocality:	Bahia de Mulas	Date of survey:	5 Oct 2017

APPROVAL PAGE

F00706

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
- Data Acquisition and Processing Report
- Collection of Bathymetric Attributed Grids (BAGs)
- Processed survey data and records
- Collection of Backscatter mosaics

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: _____

Commander Meghan McGovern, NOAA
Chief, Atlantic Hydrographic Branch