

## 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 F00710

Survey F00710 was collected by Thomas Jefferson as an emergency response to Hurricane Maria in 2017. The area surveyed included selected commercial piers in San Juan Harbor, 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 stations were used.

The area was surveyed using Thomas Jefferson's 28ft hydrographic survey launch (HSL) 2903, equipped with Reson 7125 SV2 400kHz Multibeam Echosounder (MBES) and Klein 5000 Side Scan Sonar (SSS). Data were 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.

Danger to Navigation Reports 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 DTON Reports. These reports are included in the appendices

*\*The Preliminary Products Reports as submitted to the OCS Navigation Manager and USCG are included in the appendix of this memo. The USCG submitted Dangers to Navigation were not submitted to Office of Coast Survey Nautical Data Branch and Marine Chart Division.*

of this memo. The Hydrographer does not recommend additional chart updates from this survey; F00710 is recommended for archival only.

Survey data should be archived at NCEI and the DR memo forwarded to HSD.

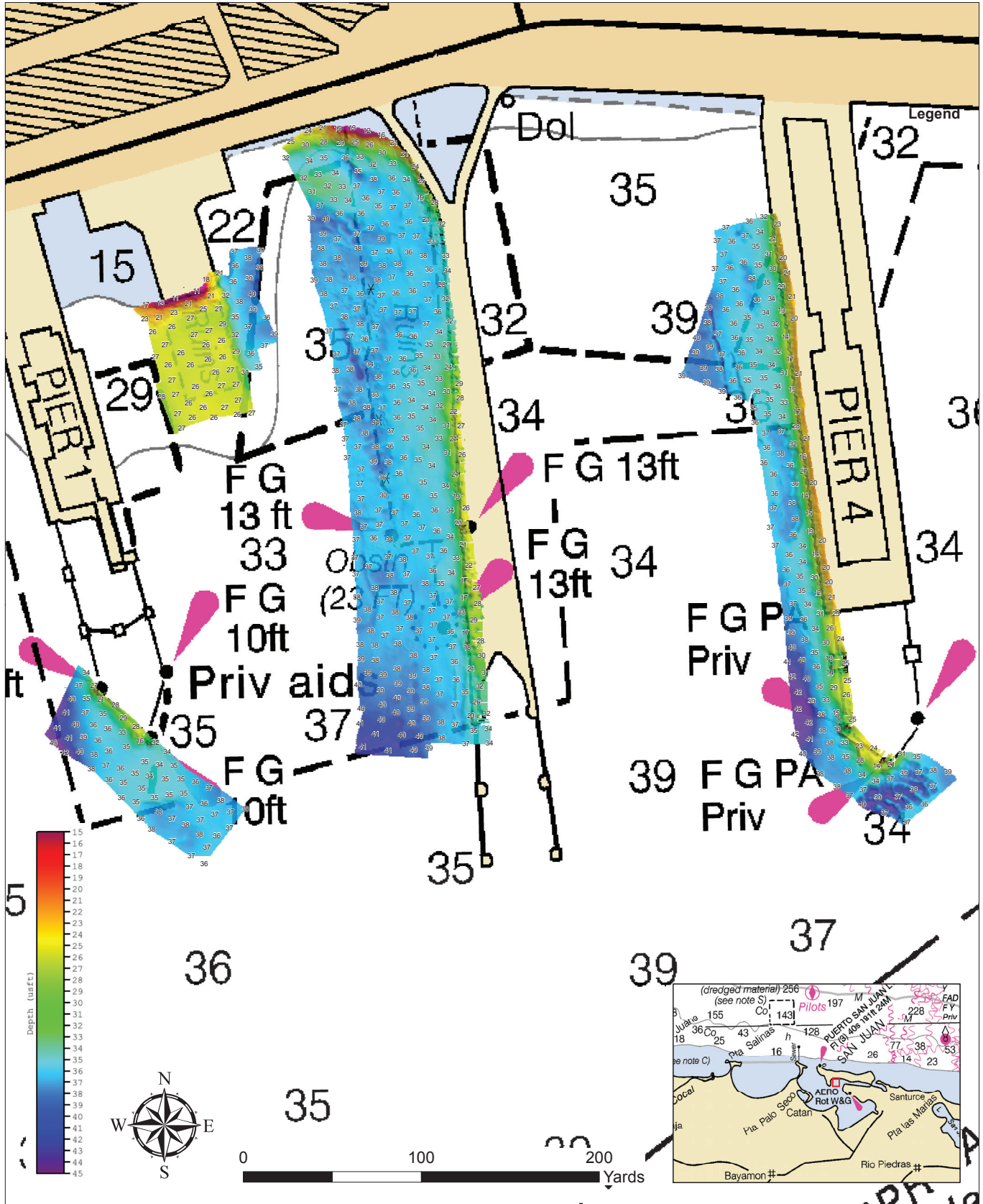
***Concur with clarification. AHB edited the bathymetry data rejecting soundings considered as erroneous, transformed the bathymetric grid to horizontal datum of NAD83, and finalized the source grid. F00710 is not intended for chart application as it is superseded by survey H13140 (2018) and is intended only for NCEI archive and addition to the National Bathymetric Source.***

<b>Metadata for Survey F00710</b>	
Project	S-I950-TJ-17
Survey	F00710
State	Puerto Rico
Locality	Northern Puerto Rico
Sub-Locality	San Juan Harbor
Scale of Survey	1:5000
Sonars Used	Reson 7125 SV2 400kHz (Multibeam Echosounder) Klein 5000 (Side Scan Sonar)
Horizontal Datum	World Geodetic System (WGS) 1984
Vertical Datum	Mean Lower Low Water
Vertical Datum Correction	VDatum
Projection	UTM Zone 19N
Field Unit	NOAA Ship THOMAS JEFFERSON
Survey Dates	10/06/2017
Chief of Party	Christiaan van Westendorp, CDR/NOAA
Submission Date	08/10/2018

*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 <https://www.ncei.noaa.gov/>.*



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:** F00710 Hurricane Maria  
**Locality:** Puerto Rico  
**Sublocality:** San Juan Harbor  
**Survey Scale:** 1:5,000

**Sounding Units:** NOAA Rounded Feet  
**Sounding Datum:** MLLW  
**Horizontal Datum:** WGS84  
**Chart Number:** NOAA Chart 25670  
**Survey Technique:** Multibeam & Side Scan Sonar

**NOAA Ship Thomas Jefferson S222**  
**CDR Chris van Westendorp, NOAA**  
 co.thomas.jefferson@noaa.gov  
 Chartlet 1 of 1  
 Date of Survey  
 06 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](mailto:co.thomas.jefferson@noaa.gov)



# NOAA Ship *Thomas Jefferson* (S-222)

Supplemental contact information for survey of  
San Juan Harbor, Puerto Rico

06 Oct 2017

**PRELIMINARY PRODUCT - FOR USCG & NOAA DECISIONAL USE ONLY - NOT FOR USE IN NAVIGATION**



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

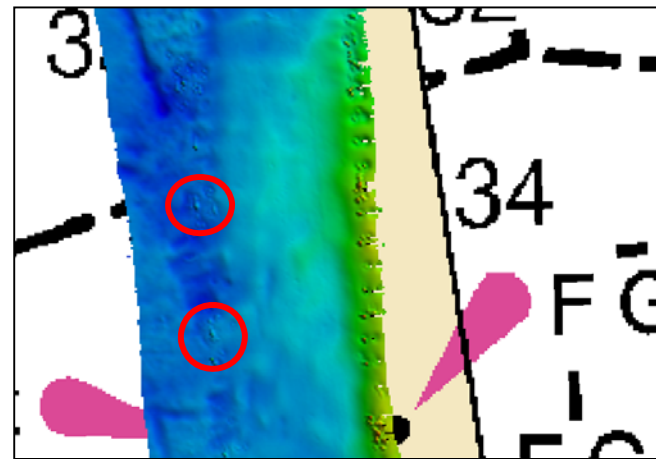
**Contact:**  
 Commanding Officer / Chief of Party  
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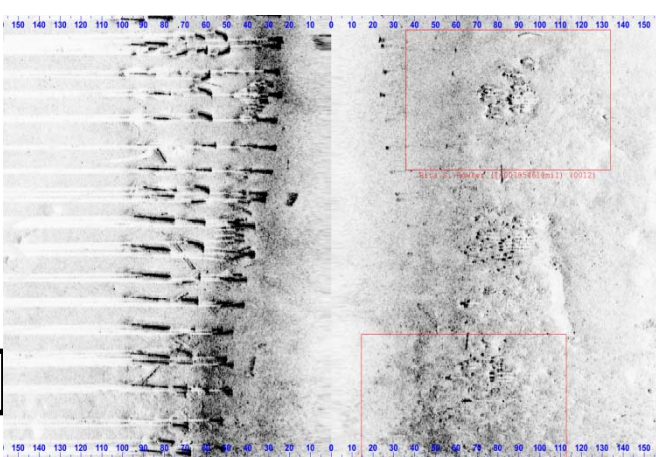
<b>Date:</b>	10/06/2017
<b>Latitude:</b>	18.461867 N
<b>Longitude:</b>	66.112100 W
<b>MBES least depth:</b>	30 ft
<b>SSS contact height:</b>	7 ft
<b>Contact dimensions:</b>	various

**Comments:**  
 Several submerged obstructions (30-34 ft depths) found west of Pier 3; probable submerged pilings. Latitude and longitude are for MBES least depth of 30 ft obstruction.

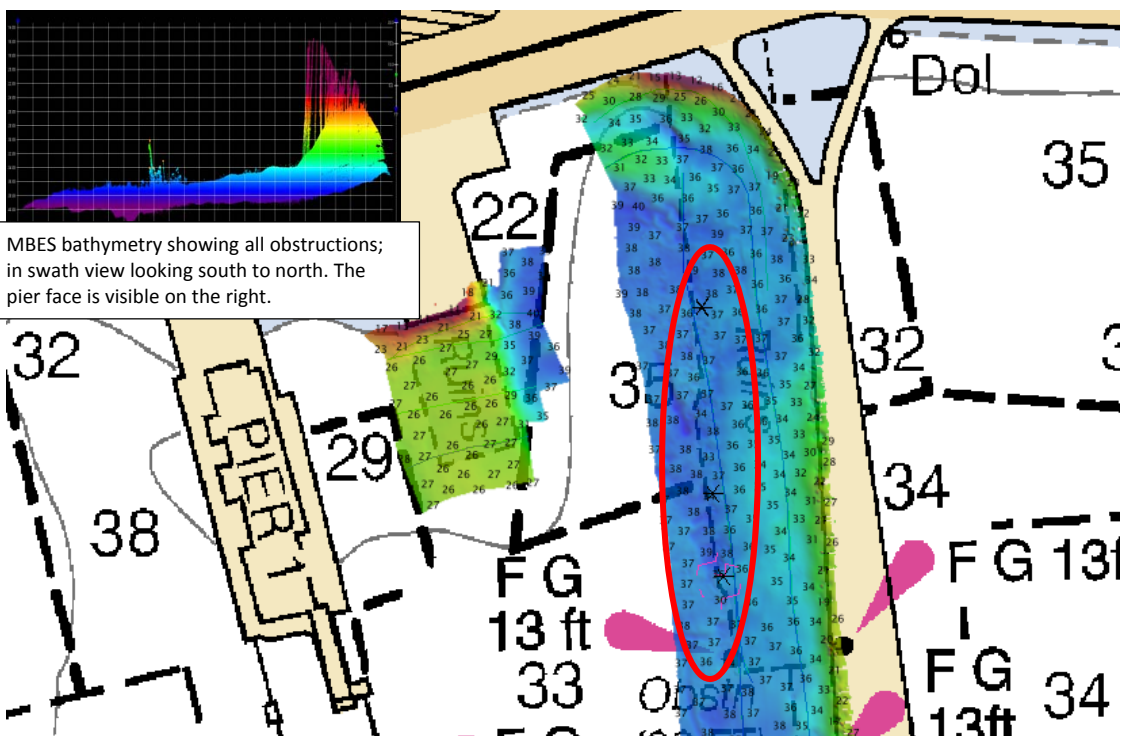
**Additional media / information:**



MBES coverage of obstructions with least depth of 30 ft.



Obstructions (probable submerged pilings) about 50-75 ft west of existing pier structure.; approx. 7 ft contact height in SSS.



MBES bathymetry showing all obstructions; in swath view looking south to north. The pier face is visible on the right.

**Obstructions near charted *Ruins* boundary west of Pier 3**

<b>Project:</b>	S-I950-TJ-17	<b>Chart Number:</b>	12670
<b>Survey:</b>	F00710	<b>Sounding Units:</b>	Feet (NOAA rounded)
<b>Locality:</b>	Puerto Rico	<b>Datum:</b>	MLLW
<b>Sublocality:</b>	San Juan Harbor	<b>Date of survey:</b>	06 Oct 2017

APPROVAL PAGE

F00710

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. Survey F00710 is not intended for chart application as it is superseded by survey H13140 (2018) and is intended only for NCEI archive and addition to the National Bathymetric Source.

The following products will be sent to NCEI for archive

- Descriptive Report
- Collection of Bathymetric Attributed Grids (BAG)
- Processed survey data and records
- Collection of backscatter mosaics
- Geospatial PDF 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: \_\_\_\_\_

**Commander Meghan McGovern, NOAA**  
Chief, Atlantic Hydrographic Branch