

W00620

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

DESCRIPTIVE REPORT

Type of Survey: Basic Hydrographic Survey

Registry Number: W00620

LOCALITY

State(s): Florida

General Locality: Florida Keys

Sub-locality: Crocker Reef

2018

CHIEF OF PARTY
Jake J. Fredericks

LIBRARY & ARCHIVES

Date:

HYDROGRAPHIC TITLE SHEET

W00620

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: **Florida Keys**

Sub-Locality: **Crocker Reef**

Scale: **20000**

Dates of Survey: **03/08/2018 to 03/15/2018**

Instructions Dated: **06/09/2022**

Project Number: **ESD-PHB-22**

Field Unit: **US Geological Survey**

Chief of Party: **Jake J. Fredericks**

Soundings by: **Teledyne RESON SeaBat T50-P (MBES)**

Imagery by: **N/A**

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 MEMO

June 09, 2022

MEMORANDUM FOR: Pacific Hydrographic Branch

FROM: Report prepared by PHB on behalf of field unit
Jake J. Fredericks
Coastal Geologist/Geophysicist, U.S. Geological Survey - St.
Petersburg Coastal and Marine Science Center

SUBJECT: Submission of Survey W00620

Scientists from the U.S. Geological Survey St. Petersburg Coastal and Marine Science Center (USGS SPCMSC) in St. Petersburg, Florida, conducted a bathymetric survey of Crocker Reef in the Florida Keys from March 8 -15, 2018. The purpose of the survey was to collect high density multibeam bathymetry data of Crocker Reef in an effort to assess sediment accumulation within the survey area. Data were collected during USGS field activity number (FAN) 2018-313-FA.

The Ellipsoidally Referenced Survey (ERS) used two Teledyne Reson SeaBat T50-P multibeam echosounders, in dual-head configuration. The dataset, Crocker_2018_MBB_xyz.zip, includes the processed elevation point data (x,y,z), as derived from a 1-meter (m) bathymetric grid. The processed sonar data are provided as an American Standard Code for Information Interchange (ASCII) x,y,z point data file. These values are not the individual soundings, but nodes from a 1-m bathymetric grid. The Z value for the node is generated by utilizing a Combined Uncertainty and Bathymetry Estimator (CUBE) surface and has an estimated total value of uncertainty (Calder and Wells, 2007).

All soundings were reduced to Mean Lower Low Water using VDatum. 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.

Upon data ingestion at the Processing Branch, the NOAA's VDatum v4.4.2 was used to transform the data points (xyz data) from World Geodetic System of 1984 (WGS84) G1762 datum to North American Datum of 1983 (NAD83) reference frame and MLLW. The xyz file was then gridded into a 1-meter surface using CARIS Base Editor 5.5.

All survey systems and methods utilized during this survey were as described in the Crocker_2018_MBB_xyz_metadata.txt.

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

The USGS Coastal and Marine Geoscience Data System (CMGDS) acquired the data outlined in this report. Data are available at <https://doi.org/10.5066/P93PPPHU>. Additional documentation from the data provider may be attached to this report.

Survey W00620 shows very good agreement with the chart and with junctioning surveys.

This survey does meet charting specifications and is adequate to supersede prior data. This survey does not meet feature detection standards, therefore is not adequate to update or disprove features.