DESCRIPTIVE REPORT MEMO

February 08, 2019

MEMORANDUM FOR: Atlantic Hydrographic Branch

FROM: LTJG Andrew Clos and LTJG Steven Loy
Chiefs of Parties, Navigation Response Team 5 and 2

SUBJECT: Submission of Survey F00623

The purpose of this survey was to respond to US Coast Guard requests to for hydrographic surveys to reopen the ports in New York Harbor due to the effects of Hurricane Sandy. The survey limits and methods were determined by the on-scene United States Coast Guard (USCG) Commander and NOAA Navigation Manager. Data was collected in the most efficient manner to provide critical information to make real-time decisions on channel and/or port closures and openings. 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 (NCDC) and can be retrieved via http://www.ngdc.noaa.gov/.

NRT5 provided processed data to on-scene personnel from NRB, who in-turn, provided X, Y, Z data to the USCG for inclusion in the Environmental Response Management Application (ERMA). Additionally, GeoPDFs were submitted to the USCG after initial response efforts were concluded. These plots contained preliminary depths derived from multibeam and singlebeam echosounder data as well as imagery from side scan echosounder data.

Soundings were reduced to Mean Lower Low Water (MLLW) using observed tides from tide station: 8518750 (The Battery) and 8519483 (Bergen Point). Due to the effects of the hurricane, tide gauge 8518750 (The Battery) suffered intermittent outages. This may have contributed to vertical offsets found in some parts of the multibeam data. A tide zoning file was provided by CO-OPS from a 2012 survey of this area: B935NRT52012.zdf.

All survey systems and methods utilized during this survey were as described in the 2012 Data Acquisition and Processing Report DAPR_S-B935-NRT5-12.pdf and DAPR_S-B395-NRT2-2012.pdf.

There were no DTONs created for this survey.

All data were acquired by a NOAA or NOAA Contractor field unit

The best available data for chart application includes the area from the southern tip of Battery Park through Anchorage Channel and heading towards Lower Bay.

This survey does meet charting specifications and is adequate to supersede prior data.

Initially, a PHB 2015 review of this survey deemed it inadequate to meet current specifications as determined by the OCS survey acceptance review process. The survey did not meet specifications because it was a time sensitive response hydrographic survey (without full correctors applied) was adequate to reopen the channels in New York Harbor. In 2015, the survey was not recommended to be applied to NOAA charting products.

The AHB 2018 National Bathymetric Source (NBS) review of F00623 was reviewed and processed as External Source Data (ESD) for submission to the NBS database. As such, the review included re-processing certain aspects of the data in order to meet charting specifications. Additional processing included application of missing source water level data, sound speed correction, application of delayed heave, edited the bathymetric data rejecting depth fliers and data under piers, created the appropriate resolution grids, conducted quality assurance of the side scan sonar data that included review of attitude and navigation, created the 1m resolution side scan sonar mosaic, conducted bathymetric data verification, and created the Final Feature File (FFF) for chart application. The review deconflicted the survey data to common coverage of contemporary data and included recommendations regarding data supersession. The surveys final products were created to meet the HSD/MCD Direct Deliverables to be sourced during compilation and chart application.

Metadata for Survey F00623	
Project	S-B935-OCS-12
Survey	F00623
State	New York
Locality	New York Harbor
Sub-Locality	New York Harbor
Scale of Survey	1:10000
Sonars Used	Kongsberg Maritime EM 3002 (MBES) Klein Marine Systems System 3000 (SSS) Teledyne Odom Hydrographic Echotrac CV200 (SBES) R2Sonic R2 2024 (MBES)
Horizontal Datum	North American Datum 1983
Vertical Datum	Mean Lower Low Water
Vertical Datum Correction	Discrete Zoning
Projection	Projected UTM 18
Field Unit	Navigation Response Team 5 & Navigation Response Team 2
Survey Dates	10/31/2012 - 11/06/2012
Chief of Party	Steven Loy, Andrew Clos
Submission Date	03/16/2015

APPROVAL PAGE

F00623

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 Memorandum
- Collection of Bathymetric Attributed Grids (BAGs)
- Processed survey data and records
- GeoPDF of survey products
- 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: Digitally signed by PARKER.CASTLE.E.1365864280 Date: 2019.10.24 08:54:03 -04'00'

Castle Eugene Parker
Physical Scientist / Hydrographic Team Lead
Acting Chief, Atlantic Hydrographic Branch