	NOAA Form 76-35A
National	U.S. Department of Commerce Oceanic and Atmospheric Administration National Ocean Survey
]	DESCRIPTIVE REPORT
Type of Survey:	Navigable Area
Registry Number:	F00691
	LOCALITY
State:	Maryland
General Locality:	Chesapeake Bay
Sub-locality:	West and Rhode Rivers
	2018
	CHIEF OF PARTY LTjg Sarah L. Chappel
	LIBRARY & ARCHIVES
Date:	

F00691

NOAA FORM 77-28 (11-72) NA	U.S. DEPARTMENT OF COMMERCE ATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTRY NUMBER:
HYDRO	GRAPHIC TITLE SHEET	F00691
INSTRUCTIONS	The Hydrographic Sheet should be accompanied by this form, filled in as completely as possib	ble, when the sheet is forwarded to the Office.
State:	Maryland	
General Locality:	Chesapeake Bay	
Sub-Locality:	West and Rhode Rivers	
Scale:	1: <b>10,000</b>	
Dates of Survey:	06/25/18 to 07/27/2018	
Instructions Dated:	06/05/2018	
Project Number:	S-E904-BH2-18	
Field Unit:	NOAA R/V Bay Hydro II	
Chief of Party:	LTjg Sarah L. Chappel	
Soundings by:	Multibeam Echo Sounder	
Imagery by:	Side Scan Sonar	
Verification by:	Pacific 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 <u>http://www.ncei.noaa.gov/</u>.

# DESCRIPTIVE REPORT SUMMARY

### A. Area Surveyed

This hydrographic survey was acquired in accordance with the requirements defined in the Project Instruction and the April 2018 NOS Hydrographic Surreys Specifications and Deliverables (HSSD) as shown in Figure 1. Due to the orientations of the survey areas, the North East corner and the South West corner of the survey area was used in the below Survey Limits.

Data were acquired within the following survey limits:

Southeast Limit
38° 52' 54.86" N 76° 28' 44.75" W

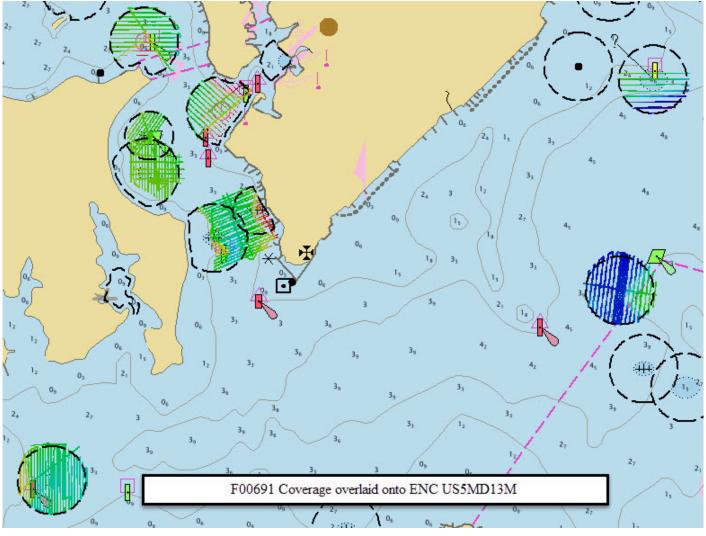


Figure 1: F00691 Coverage overlaid onto ENC US5MD13M

# **B.** Survey Purpose

The United States Coast Guard along with the regional Navigation Manager identified several charted features that needed to be resolved; primarily, the charted wreck PA, marked by green buoy "WR5" in the Rhode River. The Bay Hydro II was assigned to disprove the existence of this wreck PA, along with twenty one other charted "position approximate" or "reported" features in the Rhode River, West River, and near shore in the Chesapeake Bay.

# C. Intended Use of Survey

The survey is partially adequate to supersede previous data.

Survey data in the West River and the Rhode River are adequate and intended to supersede all prior survey data in their common areas, except for the four areas indicated in red in Figure 2. Survey data in Chesapeake Bay near the Green "1A' buoy were intended to supersede previous data, but do not meet HSSD 5.2.2.2 Object Detection Coverage for 200% Side Scan Sonar (SSS) Coverage with Concurrent Multibeam Echosounder (MBES) (See Figure 2).

Data acquired in F00691 meet MBES coverage requirements for set line spacing coverage, or 200% side scan object detection coverage, as required by the HSSD except where described within this report. This includes crosslines, NOAA allowable uncertainty, and density requirements. Additional compliance statistics can be found in the QC Tools folder located in Appendix II of this report.

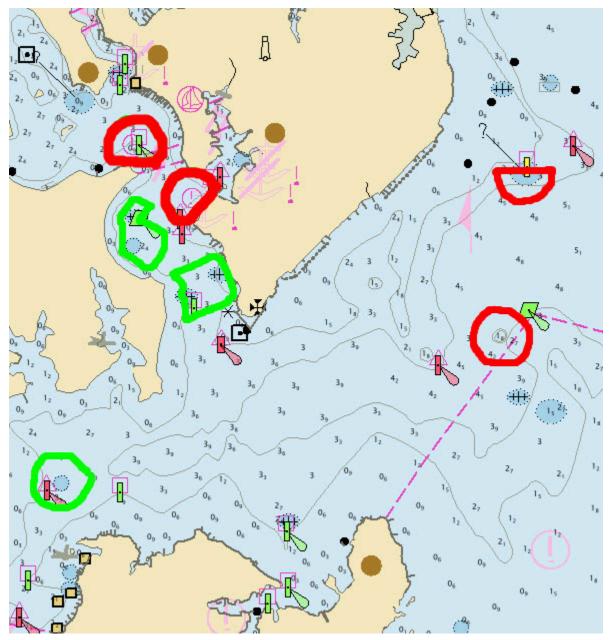


Figure 2: F00691 survey areas adequate to supersede previous data. Survey data that is adequate to supersede previous data is highlighted in green and the survey data this is not adequate to supersede previous data is highlighted in red.

Survey F00691 was found to be adequate to supersede previously charted data during review at the Pacific Hydrographic Branch. This includes the areas outlined in red in Figure 2.

#### D. Data Acquisition and Processing

Refer to the S-E904-BH2-18 Data Acquisition and Processing Report (DAPR) for a complete description of data acquisition and processing systems, survey vessels, quality control procedures, and data processing

methods. Additional information to supplement sounding and survey data, and any deviations from the DAPR, are discussed in the following sections.

## E. Uncertainty

In addition to the usual a priori estimates of uncertainty provided via device models for vessel motion and VDATUM, real-time and post-processed uncertainty sources were also incorporated into the depth estimates of survey F00691. Real-time uncertainties were provided via Pico MBES data and Applanix Delayed Heave RMS. Following post processing of the real-time vessel motion, recomputed uncertainties of vessel roll, pitch, gyro, and navigation were applied in CARIS HIPS and SIPS via a Smoothed Best Estimate of Trajectory (SBET) RMS file generated in Applanix POSPac.

To verify that all data meets the accuracy specifications as stated in HSSD 5.1.3, a child layer titled NOAA\_Allowed\_1 was created for the 50cm surface using the equations stated in HSSD 5.1.3. The surface was then analyzed using the Pydro QC Tools Grid QA feature to determine what percentage of the surface meets specifications. Overall, 99.5% of nodes meet or exceed NOAA Allowable Uncertainty specifications for F00691 (See Figure 3). See the QC Tools Folder location in Appendix II for further detail.

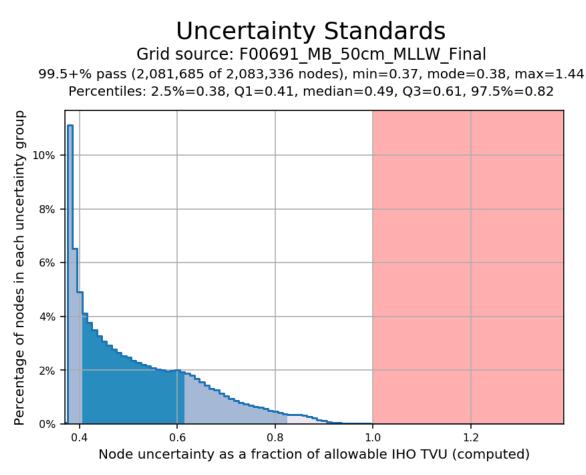


Figure 3: F00691 Total propagated uncertainty statistics.

## F. Results and Recommendations

The following are the largest scale ENCs, which cover the survey area:

ENC	Scale	Edition	Update Application Date	Issue Date	Preliminary?
US5MD13M	1:40000	28	05/28/2019	05/28/2019	NO

The following surfaces and/or BAGs were submitted to the Processing Branch:

Surface Name	Surface Type	Resolution	Depth Range	Surface Parameter	Purpose
F00691_MB_50cm_MLLW	CUBE	0.50 m	0.42 m - 5.20 m	NOAA_0.5m	Full Base Surface
F00691_MB_50cm_MLLW_Final	CUBE	0.5 m	0 m - 20 m	NOAA_0.5m	Finalized Surface
F00691_SSSAB_1m_100	SSS Mosaic	1.0 m	-	Rhode River SSS Beam Pattern.bp	100% Coverage
F00691_SSSAB_1m_200	SSS Mosaic	1.0 m	-	Rhode River SSS Beam Pattern.bp	200% Coverage

Due to the nature of set line spacing surveys, there are areas between lines that are not surveyed using MBES. To compare the data to the charts in their common areas, a 1.0 meter resolution interpolated model was created to approximate the depths between the survey lines. All soundings used for comparison were derived from surveyed data, but the interpolated models were used to create contour lines for comparison.

Soundings from F00691 are in general agreement with charted depths on ENC US5MD13M, with all depths agreeing to 0.4 meters.

Contours from F00691 generally agree with charted contours on ENC US5MD13M, with two exceptions. The first exception is the point on the west side of the Rhode River, east of High Island, see Figure 4 for overview. The 1.8m contour around this point has migrated inshore approximately 20m along the edges of the point and to approximately 50m at the point itself (Figure 5). The second exception is in Chesapeake Bay, east of Saunders Point. In this area, the charted 3.6m contour protrudes east, indicating a submerged point, however, the data shows that this pointed contour is migrating west, and flattening out. The entire area around this contour was not surveyed, so the true extent of this change is unknown, however, in the area that was surveyed, the contour has shifted west up to 105m (See Figure 6).

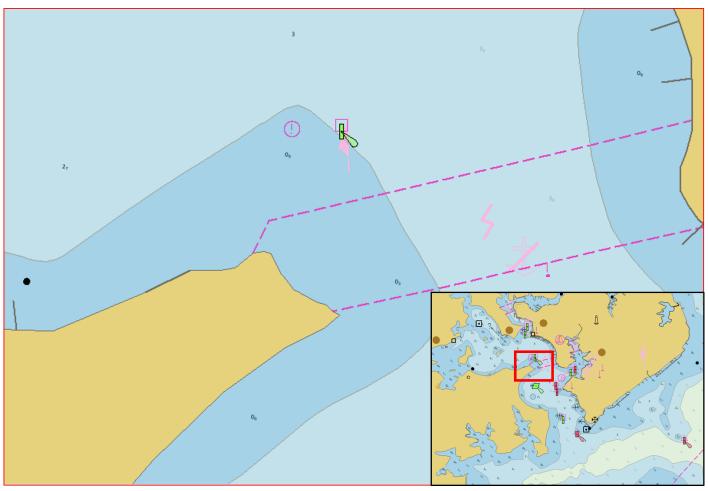
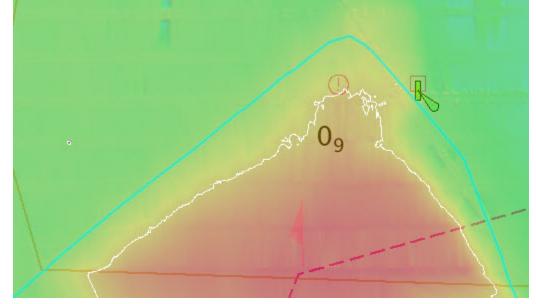
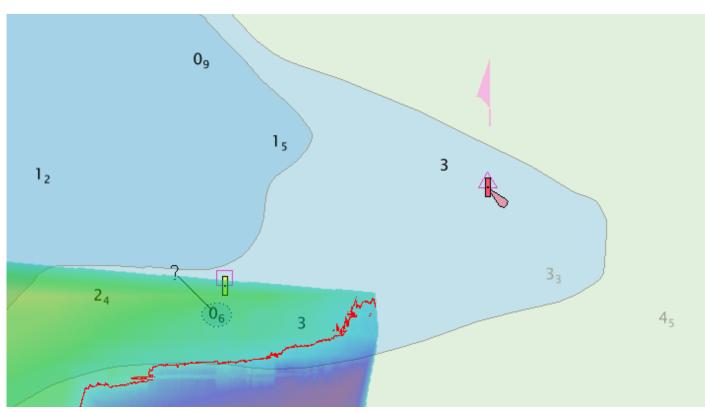


Figure 4: General location of the point with the migrating 1.8m contour. Inset shows overview.



*Figure 5: Western shift of 1.8m contour along the point east of High Island in the Rhode River. With the charted ENC US5MD13M 1.8m contour in blue and the surveyed 1.8m contour in white.* 



*Figure 6: F00691 3.6m contour shift in Chesapeake Bay. With the charted ENC US5MD13M 3.80M contour in blue and the surveyed 3.6m contour in red.* 

The depth range of the surface 'F00691\_MB\_50cm\_MLLW\_Final' is 0.42m to 5.2m

# G. Vertical and Horizontal Control

The vertical datum for this project is Mean Lower Low Water. The vertical control method used was VDatum.

ERS methods were used as the final means of reducing F00691 to MLLW for submission. Data were reduced using the VDATUM model S-E904-BH2-18\_ProjectLimits\_xyNAD83-MLLW\_geoid12b.csar provided by the project manager.

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 18.

Vessel kinematic data were post-processed using Applanix POSPac processing software and Single Base Positioning methods described in the DAPR. Smoothed Best Estimate of Trajectory (SBET) and associated error (RMS) data were applied to all MBES data in CARIS HIPS and SIPS. For further details regarding the processing and quality control checks performed, see the F00691 POSPAC Processing Logs spreadsheet located in the Separates folder.

During real-time acquisition, ASV007 received correctors from the Wide Area Augmentation System (WAAS) for increased accuracies similar to USCG DGPS stations. WAAS and SBETs were the sole methods of positioning for F00691.

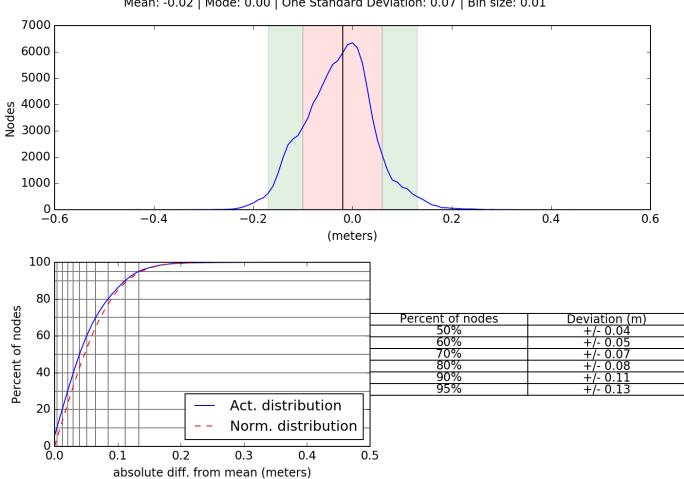
#### H. Additional Results

#### System Acceptance

At the time that S-E904-BH2-18 was conducted, ASV007's PicoMBES and Tritech sonars were not on the Approved Systems List released in Hydrographic Technical Directive 2018-2 by the Hydrographic Surveys Division. These systems were the best available to Bay Hydro II at the time of survey. The Navigation Response Branch and the Hydrographic Systems and Technology Branch were in the process of testing data from the ASV systems to ensure they meet the standards to make the Approved Systems List. On August 22nd, 2019, NOAA's Board of Hydrographers approved the ASV007's PicoMBES and Tritech sonars to be on the Approved Systems List. Based on the data collected in this project and the ability to find known objects in a known location, the hydrographer believes the data collected for F00691 is adequate to supersede all data in common areas as stated earlier in this report.

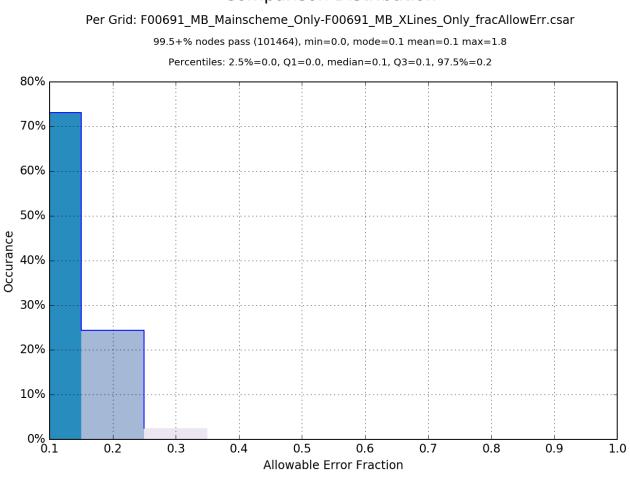
#### Crossline Comparison

Crosslines were collected, processed, and compared in accordance with HSSD 5.2.4.3. To evaluate crosslines, a 0.5 meter CUBE surface using strictly mainscheme lines and a 0.5 meter CUBE surface using strictly crosslines were created. From these surfaces a difference surface (mainscheme - crosslines =difference surface) was generated using Pydro's Compare Surfaces tool at a 0.5 meter resolution, and are submitted in the Separates II Digital Data folder. Statistics show the mean difference between the depths derived from mainscheme and crosslines was -0.02 meters and 95% of nodes falling within 0.13 meters (Figure 7). For the respective depths, the difference surface was compared to the allowable NOAA uncertainty standards using Compare Surfaces. In total, 99.5% of the depth differences between F00691 mainscheme and crossline data were within allowable NOAA uncertainties (Figure 8).



F00691\_MB\_Mainscheme\_Only-F00691\_MB\_XLines\_Only Mean: -0.02 | Mode: 0.00 | One Standard Deviation: 0.07 | Bin size: 0.01

Figure 7: F00691 Crossline statistics.



# Comparison Distribution

Figure 8: F00691 Crossline allowable uncertainty statistics.

#### **Density Requirements**

The finalized surface was analyzed using the Pydro QC Tools Grid QA feature. Density requirements for F00691 were achieved with at least 98% of finalized surface nodes containing five or more soundings as required by HSSD 5.2.2.3 (See Figure 9). For individual graphs, see the QC Tools folder located in Appendix II.

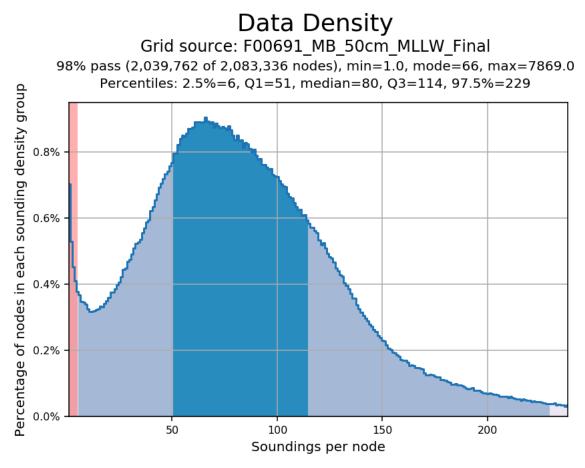


Figure 9: F00691 Density Statistics.

# <u>Holidays</u>

Holidays were analyzed using the Pydro QC Tools Holiday finder tool. Many holidays were flagged, but all were at the junction of cross lines and mainscheme lines, as is expected with a set line spacing survey. Therefore, no holidays are present for F00691. For information on the QC Tools settings and the results, see the QC Tools folder located in Appendix II.

#### Sound Velocity Casts

Casts were conducted at a minimum of one every four hours during acquisition. Casts were conducted more frequently in areas where the influx of freshwater affected the speed of sound in the water column and when there was a change in surface sound speed greater than two meters per second. All sound speed methods used are detailed in the DAPR.

#### Processing Logs

Processing notes are included in the processing logs, and additional processing such as final tide and sound speed application are noted in the F00691 Data Log spreadsheet. All data processing logs are submitted digitally in the Separates I folder.

**Features** 

F00691 contains one designated sounding in accordance with HSSD 5.2.1.2.3. The designated sounding is included in the FFF, as it is associated with the wreck located by Buoy "WR5" in Rhode River (See Figure 10). On November 7th, 2019, the wreck associated with the designated sounding and Green Buoy "WR5" was removed by a Maryland DNR contractor (Figure 11). In the folder "II\_Supplemental\_Survey\_Records\_Correspondence," see correspondence for more information regarding the wreck removal.

All assigned features were addressed where time allowed and are included in the F00691 Final Feature File.

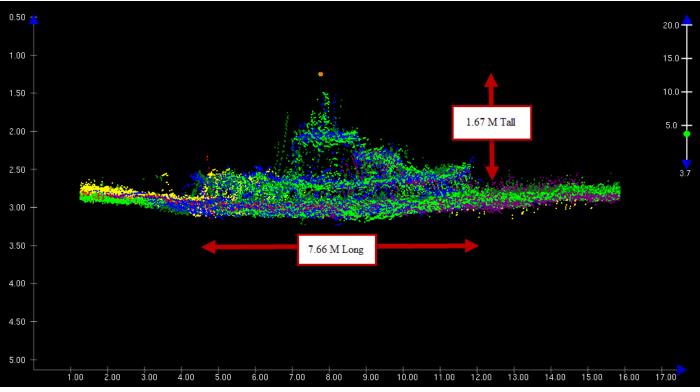


Figure 10: Designated sounding on wreck.

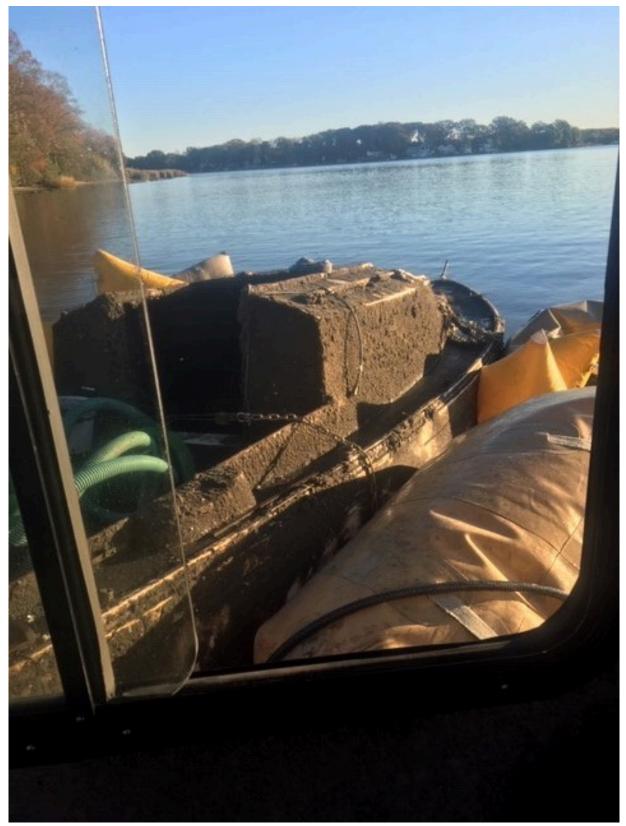


Figure 11: Vessel after a Maryland DNR contractor floated and removed the wreck.

#### Sound Speed Issues

Multibeam data on F00691 contains some evident outer beam spreading (Figure 12). This is caused by sound speed variations in the area, as well as areas of soft mud and silt seafloor. In areas, such as the eastern bay side assigned locations, the beam spreading was obvious, rather than a true seafloor feature, the spurious soundings were rejected and surfaces recomputed. These sounding were either rejected manually or by filtering the lines to 50 degrees from nadir, or filtering the data deeper than 6 meters and shallower than 0.25 meters. In some area, the blowouts were egregious and data was removed down to within a few meters on either side of nadir.

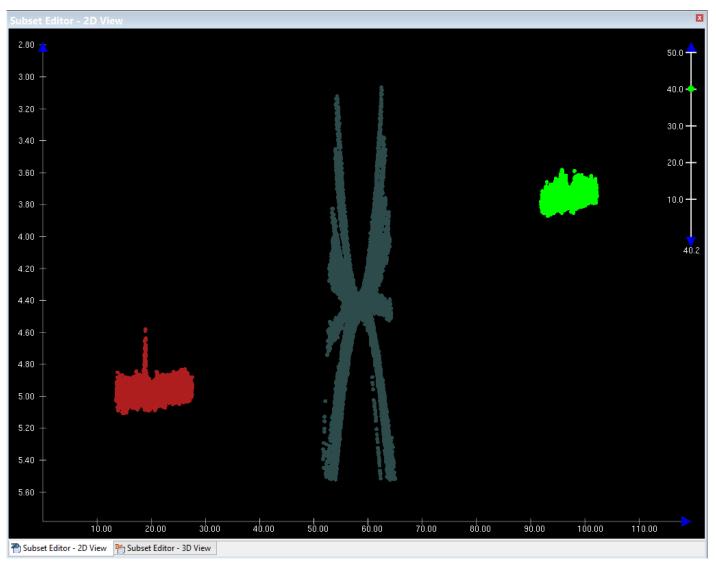


Figure 12: Example of sound speed blowout from F00691.

Sidescan Sonar Interference

Due to the mounting configuration of the SSS control module relative to the propulsion controls within the ASV, some interference is evident in the SSS data (See Figure 13). This interference does not obscure objects from being found by the hydrographer and does not degrade the data beyond use.

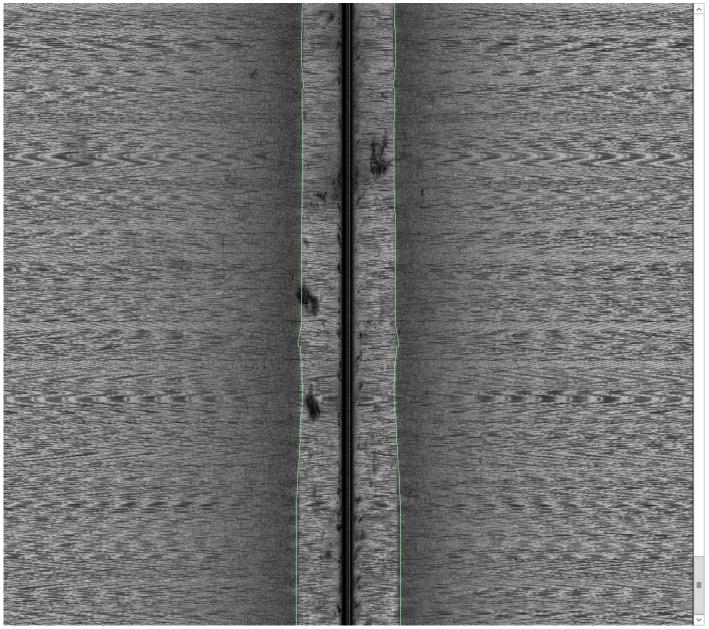


Figure 13: Example of side scan sonar interference.

# Navigation Data Issues

The navigation data for both MBES and SSS data collected by the ASV was reviewed by the hydrographer. Data was occasionally collected through turns if current or wind forces kept the ASV from hitting the end

gates of the programmed line plan. In order to ensure high quality data, large turns at the ends of track lines were rejected from the navigation data.

### Coverages Differing from Project Instructions

The Bay Hydro II crew made every attempt to collect full object detection side scan with concurrent MBES over all assigned areas. Unfortunately, due to time restraints only eight of the assigned areas were investigated, and of them only four investigation areas were able to receive 200% side scan ensonification. The area in the Chesapeake Bay, east of Saunders Point, was not fully investigated nor did it receive 200% SSS; and therefore, the charted Wreck PA could not be disproved. In the other three areas that only received 100% SSS, the areas were intended to disprove reported shoaling. The hydrographer believes that these areas have enough SSS and MBES data coverage to disprove these shoals.

## Differing Dynamic Draft Values from Acceptance Report

At the time of this survey, ASV 007 had different loading characteristics than the updated ASV used for the acceptance testing. Differences include: manufacturer of batteries, battery placement inside vessel, addition of the winch and CTD on the bow, and different thruster control units. As a result, original dynamic draft values found during 2018 HSRR were used in the HVF for this survey. See DAPR and HVF for details.

# I. Approval

As Chief of Party, field operations for this hydrographic survey were conducted under my direct supervision, with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports.

All field sheets, this Survey Summary Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to the Processing Branch.

The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys and Specifications Deliverables, Field Procedures Manual, Standing and Letter Instructions, and all HSD Technical Directives. These data are adequate to supersede charted data in their common areas except where stated above. This survey is complete and no additional work is required with the exception of deficiencies noted in the Survey Summary Report.

Approver Name	Title	Date	Signature
LTJG Sarah L. Chappel	Chief of Party	12/03/2019	Bot Dates DEBROISSE.PATRICK JOSEPH.150124867 0
Robert W. Mowery	Sheet Manager	12/03/2019	MOWERY.ROBERT.W ILLIAM.1379754488 Juliam.1279754488
LTJG Patrick T. Lawler	Sheet Manager	12/03/2019	Patrick Lawler 2019,12:03 15:48:30 -05'00'



# Amendment to Coverage Requirements for S-E904

1 message

#### Christopher Hare - NOAA Federal <christopher.hare@noaa.gov>

Mon, Jul 16, 2018 at 2:55 PM

To: OCS BHII - NOAA Service Account <ocs.bhii@noaa.gov>

Cc: Patrick Debroisse - NOAA Federal <patrick.j.debroisse@noaa.gov>, Chief NRB OCS - NOAA Service Account <chief.nrb.ocs@noaa.gov>

Sarah,

For project S-E904-BH2-18, the coverage requirements is Object Detection Coverage, except for areas and points of reported shoals. The required coverage for these reported shoal areas is set line spacing MBES and the line spacing will be determined by OIC of the Bay Hydro II.

Chris Hare Project Manager Navigation Response Branch NOAA's Office of Coast Survey 240-533-0065



UNITED STATES DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL OCEAN SERVICE Office of Coast Survey Silver Spring, Maryland 20910-3282

November 25, 2019

MEMORANDUM FOR:	Lorraine Robidoux Acting Chief, Hydrographic Surveys Division (N/CS3)
FROM:	LCDR Damian C. Manda, NOAA Chief, Hydrographic Systems and Technologies Branch (N/CS11)
SUBJECT:	Acceptance of Seafloor Systems Echoboat with PicoMBES 120 and Starfish 453 for Hydrographic Use

Based on review of acceptance testing conducted by *Bay Hydrographer II* personnel, I recommend the Hydrographic Survey Division, following consultation with the Board of Hydrographers as appropriate, accept the Seafloor Systems Echoboat equipped with the following equipment for hydrographic survey applications:

- PicoMBES-120SF Multibeam Echosounder with integrated Applanix POS M/V SurfMaster IMU
- Tritech Starfish 453 SSS

Some operational limitations of the systems and integration were observed during acceptance testing, and are fully detailed in the report "EchoBoat ASV Acceptance Testing". The significant findings that have a potential of affecting the ability to meet HSSD requirements are summarized below:

- 1. The transducers for both sonars are not submerged very deep in the water column, therefore sound speed fluctuations near the surface may have increased effects relative to other platforms and sea state operational ability is limited.
- 2. The Pico MB-120 is a low powered system restricting the depth at which it can survey. However, the sonar continued to meet NOAA specifications for allowable uncertainty at depths of 60 m during testing and the platform is intended to survey in waters shallower than 50 m, so this should not restrict operations.
- 3. Thruster electromagnetic interference is visible in the SSS imagery. Ongoing mitigation efforts continue with the manufacturer. Even with low interference, the 25 m range scale is the largest usable for object detection.
- 4. Practical operational distance from shore or an accompanying support vessel is limited to 800 meters or less due to the range of the radio system.
- 5. A beam angle based uncertainty analysis based on collected data was not performed



Based on these characteristics and observed performance of similarly sized platforms, the following operational limitations are proposed:

- 1. Seas not to exceed 0.5 meters for MBES or 0.3 m for SSS operations.
- 2. Survey depths with MBES not to exceed 60 meters, or 20 m for object detection requirements.
- 3. The system cannot acquire backscatter data, and therefore cannot be used on survey projects with a backscatter delivery requirement.
- 4. Survey depths w/SSS not to exceed 5.5 meters.
- 5. SSS swath width not to exceed 20 meters, and quality continually monitored for effects that may further reduce the usable range.

This acceptance is intended to reflect the capabilities of the specific installation on the Seafloor Systems Echoboat. The limited capabilities of the sidescan sonar do not merit adding the system independently to the list of approved systems. If the PicoMBES is desired to be used in other applications, a more comprehensive assessment of its capabilities and uncertainties is recommended across a wider range of depths. Additionally, the lack of acoustic backscatter acquisition precludes use on HSD supported field platforms at this time.

I recommend the approved system be added to the system configuration list as follows: **ASV** 

ASV Seafloor Systems Echoboat equipped with PicoMBES-120SF and Tritech Starfish 453

Field units utilizing this ASV platform will need to constrain use of this system to conditions that have been demonstrated to meet specification. Since this is a new tool for NOAA acquisition, it is expected that the field unit will continue to assess performance in continued operations and inform NRB and HSTB about issues compromising the ability to meet project requirements that require revision to the limitations stated in this memo.

cc: N/CS1 – Dr. Neil D. Weston N/CS53 – CDR John "Jay" Lomnicky, Chief, NRB



# Fwd: Rhode River Buoy WR5

1 message

**Officer in Charge - BHII** <ocs.bhii@noaa.gov> To: Patrick Lawler - NOAA Federal <patrick.lawler@noaa.gov> Tue, Nov 19, 2019 at 8:13 AM

------ Forwarded message ------From: John Gallagher -DNR- <john.gallagher1@maryland.gov> Date: Tue, Nov 19, 2019 at 8:08 AM Subject: Re: Rhode River Buoy WR5 To: Steve Soherr - NOAA Federal <steve.soherr@noaa.gov> Cc: Runt, Christopher B BOSN4 <Christopher.B.Runt@uscg.mil>, Kopp, John E BMCS <John.E.Kopp@uscg.mil>, Mazyck, Benjamin D LCDR <Benjamin.D.Mazyck@uscg.mil>, Samms, Evelynn B CDR <Evelynn.B.Samms@uscg.mil>, Houck, Ronald L CIV <Ronald.L.Houck@uscg.mil>, Barnes, Jerry R CIV <Jerry.R.Barnes@uscg.mil>, <edward.owens@noaa.gov>, John Lomnicky <John.Lomnicky@noaa.gov>, Michael Davidson <Michael.Davidson@noaa.gov>, <ocs.bhii@noaa.gov>





Steve,

On or about Nov 7th, 2019. DNR"s Contractor "Pristine Marine Inc" refloated the wreck marked by WR"5" Rhode River.

The vessel was removed in its entirety, and was towed away. Fiberglass is a durable material.

Regards,

John



John Gallagher Director, Hydrographic Operations Fishing and Boating Services Department of Natural Resources 303 Marine Academy Drive Stevensville, Maryland 21666 410-643-1179 (office) 443-534-9610(cell) john.gallagher1@maryland.gov <u>Click here</u> to complete a three question customer experience survey.

On Mon, Nov 18, 2019 at 5:51 PM Steve Soherr - NOAA Federal <<u>steve.soherr@noaa.gov</u>> wrote: | Hey Chris,

Thanks - great to hear. We can remove the wreck with a brief email from DNR indicating that the wreck was removed in its entirety.

John - if you provide that to me - I can take care of it.

I'm cc'ing Mr. Ed Owens who is now acting as navigation manager for the region (just to keep him in the loop). Also letting our. Nav Response team members know that their work, in conjunction with DNR's, resulted in desired outcome.

Agree with you Chris -great collaboration and work by DNR and by our Nav Response Team (and of course USCG!).

Thanks all! Steve

Sent from my iPhone

On Nov 18, 2019, at 5:15 PM, Runt, Christopher B BOSN4 <<u>Christopher.B.Runt@uscg.mil</u>> wrote:

Good evening Steve, John;

First I want to apologize for being late, I was out of the office for about a month to deploy to the GOLDEN RAY in St. Simon Sound GA for the car carrier that capsized. I would have sent this to you sooner if I was here.

I would like to thank NOAA for their efforts to find the wreck for us and confirm that it was still there. I also want to thank DNR for also locating it and removing the wreck for us! Because of the both of you we were able to discontinue the buoy after removing the hazard. The buoy has been down there since Oct 2006, so I'm sure the vessel was not in great condition.

Steve, besides the LNM article for disestablishing the buoy, do you need anything from us to be able to remove the wreck symbol from the chart?

Thanks again guys! The partnerships we all have are great, I truly appreciate it!

V/r,

Chris

R 141949Z NOV 19 MID110000188973U

FM COGARD ANT BALTIMORE MD

TO CCGDFIVE PORTSMOUTH VA

COMCOGARD SECTOR MARYLAND NATIONAL CAPITAL REGION MD

INFO USCGC SLEDGE

USCGC CHOCK

COGARD STA ANNAPOLIS MD

ΒT

UNCLAS

PASS TO OFFICE CODES:

TO CCGDFIVE PORTSMOUTH VA//DP/DPW/DRMC//

SUBJ/ ATON OPERATIONS - RHODE RIVER

1. RHODE RIVER LIGHTED WRECK BUOY WR5 (LLNR 19527).

A. DISCONTINUED. RECOVERED BUOY (5CI-93-16-OG) AND MOORING. IN COORDINATION WITH MARYLAND DNR SUNKEN SAIL BOAT WRECKAGE WAS REMOVED AFTER LOCATION BY NOAA. PICTURES OF RECOVERY HAVE BEEN FORWARDED TO DPW.

B. REQUEST D5 ISSUE BNM.

ΒT

#0001

NNNN

LT Patrick Debroisse Officer in Charge R/V *Bay Hydro II* 14485 Dowell Road Solomons, MD 20688 Work cell: 240.638.6637 OCS.BHII@noaa.gov



## F00691 wreck removal

2 messages

Kurt Mueller - NOAA Federal <kurt.mueller@noaa.gov> To: Peter Holmberg <peter.holmberg@noaa.gov> Tue, Dec 31, 2019 at 9:49 AM

Hi Pete,

Please see attached picture and correspondence for the wreck that has been removed. Images are the wreck viewed in subset mode (pre-removal), and then the wreck when it was removed. Thanks for advising on this.

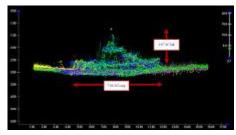
Kurt M.

--Kurt Mueller Physical Scientist NOAA's National Ocean Service Office of Coast Survey Pacific Hydrographic Branch 206-526-6853

#### 3 attachments



F00691\_00000683500001\_b.JPG 107K



F00691\_000000683500001\_a.jpg 150K

MD DNR Rhode River Buoy WR5 Wreck Removal Email Correspondance.pdf 206K

**Peter Holmberg - NOAA Federal** peter.holmberg@noaa.gov>
To: Kurt Mueller <kurt.mueller@noaa.gov>

Tue, Dec 31, 2019 at 12:14 PM

Kurt,

It can be removed with reference to the correspondence that you have from Maryland DNR being deemed an a removal report from an authoritative source. Which is in compliance with NCM (nautical chart manual) section 4.10.4a.

------ Forwarded message ------From: **Megan Bartlett - NOAA Federal** <<u>megan.bartlett@noaa.gov</u>> Date: Tue, Dec 31, 2019 at 11:40 AM Subject: Re: F00691 wreck removal To: Peter Holmberg - NOAA Federal <<u>peter.holmberg@noaa.gov</u>>

#### Hey Pete,

Thanks for this additional information. I believe complete removal of the wreck is justified based on the information you have from the Maryland Department of Natural Resources.

#### See this section in the NCM: NCM Vol 1 Section 4.10.4 Deletion of Charted Wrecks

427 / 888	
HSD shall consult with the Office of National Marine Sanctuaries archaeologists regarding potential charting options. For sunken military craft, HSD shall also contact the U.S. Naval Historical Center regarding potential charting options. HSD shall then present the recommended charting action to NDB for approval. Upon approval, the charting action is then forwarded to the Office of the General Counsel, Oceans and Coasts Section for review.	
4.10.4 Deletion of Charted Wreeks	
A charted wreck shall not be deleted until there is conclusive evidence that it does not exist or no longer exists in the charted position. Conclusive evidence of a wreck's nonexistence may be furnished in one of three ways:	
a. When a removal report is received from the USACE, the USCG, a harbormaster, or an equally authoritative source. If the LNM is used as the basis for chart action, the source of the report must be stated in the LNM. When the words "destroyed" or "demolished" are used by a reporting source, the wreck shall continue to be charted until its status is proved by a survey, although the symbolization could be changed, e.g., a dangerous sunken wreck could be recharted as a nondangerous sunken wreck.	
b. When a HSD hydrographer recommends its deletion in the DR of a survey. These recommendations shall be based on the results of a side scan sonar survey disproving the charted wreck, or other conclusive determination and must be confirmed during final processing and approval.	
c. When a source document from the Remote Sensing Division or the Navigation Services Division recommends deletion of a charted stranded (visible) wreck located at or above chart datum.	
Wrecks must not be removed from charts on the basis of NOS preliminary data or reports or on the basis of any other NOS data which has not undergone final processing and approval. These reports may be used to add information to the charts if, for example, an older charted wreck is not deleted in favor of a new reported position without conclusive approved survey evidence that the older wreck or other obstruction does not exist.	

#### Hope this helps! Megan

On Tue, Dec 31, 2019 at 1:03 PM Peter Holmberg - NOAA Federal peter.holmberg@noaa.gov> wrote:

This is what I'm looking at. Perhaps depending on what you send me, the documentation from Maryland DNR is adequate? Not that I'm passing the buck on making the decision, but giving you context for what I'm looking at.

[Quoted text hidden]

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Peter Holmberg Acting Chief / Products Team Lead Pacific Hydrographic Branch 7600 Sand Point Way N.E. Room 1001B Seattle, WA 98115 206-526-6843

--Cartographer Marine Chart Division Production Branch D

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#### APPROVAL PAGE

#### F00691

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)
- 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:\_\_\_\_\_

**Peter Holmberg, NOAA** Acting Chief, Pacific Hydrographic Branch