

H11196

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

DESCRIPTIVE REPORT

Type of Survey **Basic Hydrographic**

Registry No. **H11196**

LOCALITY

State/Territory Maryland

General Locality Potomac River

Sub-locality 1 NM South of Piney Point

2002

CHIEF OF PARTY
LTJG Holly A. DeHart, NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28 U.S. DEPARTMENT OF COMMERCE (11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION <h2 style="text-align: center;">HYDROGRAPHIC TITLE SHEET</h2>	REGISTRY NUMBER: <h2 style="text-align: center;">H11196</h2>																																																																
INSTRUCTIONS: The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.	FIELD NUMBER: N/A																																																																
<table> <tr> <td>State/Territory:</td> <td colspan="3">Maryland</td> </tr> <tr> <td>General Locality:</td> <td colspan="3">Potomac River</td> </tr> <tr> <td>Sub-Locality:</td> <td colspan="3">1 NM South of Piney Point</td> </tr> <tr> <td>Scale:</td> <td>1:10,000</td> <td>Date of Survey:</td> <td>10/17/02 to 12/04/02</td> </tr> <tr> <td>Instructions Dated:</td> <td>03/26/99</td> <td>Project Number:</td> <td>OPR-E346-BH</td> </tr> <tr> <td>Vessel:</td> <td colspan="3">NOAA S/V BAY HYDROGRAPHER, S-5501</td> </tr> <tr> <td>Chief of Party:</td> <td colspan="3">Lieutenant Junior Grade Holly A. DeHart, NOAA</td> </tr> <tr> <td>Surveyed by:</td> <td colspan="3">LTJG Holly. A. DeHart, PS Briann Kidd, PS Peter Holmberg</td> </tr> <tr> <td>Soundings by:</td> <td colspan="3">Knudsen 320M Marine Echosounder</td> </tr> <tr> <td></td> <td colspan="3">Reson SeaBat 8125 multibeam sonar</td> </tr> <tr> <td>Graphic record scaled by:</td> <td colspan="3">LTJG Holly. A. DeHart, PS Briann Kidd, PS Peter Holmberg</td> </tr> <tr> <td>Graphic record checked by:</td> <td colspan="3">LTJG Holly. A. DeHart, PS Briann Kidd, PS Peter Holmberg</td> </tr> <tr> <td></td> <td colspan="3"><i>Hewlett Packard Design Jet 2500 CP (office)</i></td> </tr> <tr> <td>Protracted by:</td> <td>N/A</td> <td>Automated Plot:</td> <td>HP-1055cm plus <i>(field)</i></td> </tr> <tr> <td>Verification by:</td> <td colspan="3">Atlantic Hydrographic Branch <i>Personnel</i></td> </tr> <tr> <td>Soundings in:</td> <td colspan="3">Meters <i>Feet</i> at MLLW</td> </tr> </table>		State/Territory:	Maryland			General Locality:	Potomac River			Sub-Locality:	1 NM South of Piney Point			Scale:	1:10,000	Date of Survey:	10/17/02 to 12/04/02	Instructions Dated:	03/26/99	Project Number:	OPR-E346-BH	Vessel:	NOAA S/V BAY HYDROGRAPHER, S-5501			Chief of Party:	Lieutenant Junior Grade Holly A. DeHart, NOAA			Surveyed by:	LTJG Holly. A. DeHart, PS Briann Kidd, PS Peter Holmberg			Soundings by:	Knudsen 320M Marine Echosounder				Reson SeaBat 8125 multibeam sonar			Graphic record scaled by:	LTJG Holly. A. DeHart, PS Briann Kidd, PS Peter Holmberg			Graphic record checked by:	LTJG Holly. A. DeHart, PS Briann Kidd, PS Peter Holmberg				<i>Hewlett Packard Design Jet 2500 CP (office)</i>			Protracted by:	N/A	Automated Plot:	HP-1055cm plus <i>(field)</i>	Verification by:	Atlantic Hydrographic Branch <i>Personnel</i>			Soundings in:	Meters <i>Feet</i> at MLLW		
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Remarks: <i>Bold, Red, Italic notes in Descriptive Report were made during office processing.</i> <i>1) All Times are UTC.</i> <i>2) This is a basic Hydrographic Survey.</i> <i>3) Projection is UTM Zone 18.</i>																																																																	

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** Data filed with field data.*

DESCRIPTIVE REPORT

to accompany

Hydrographic Survey H11196

Scale of Survey: 1:10,000

Year of Survey: 2002

NOAA S/V BAY HYDROGRAPHER

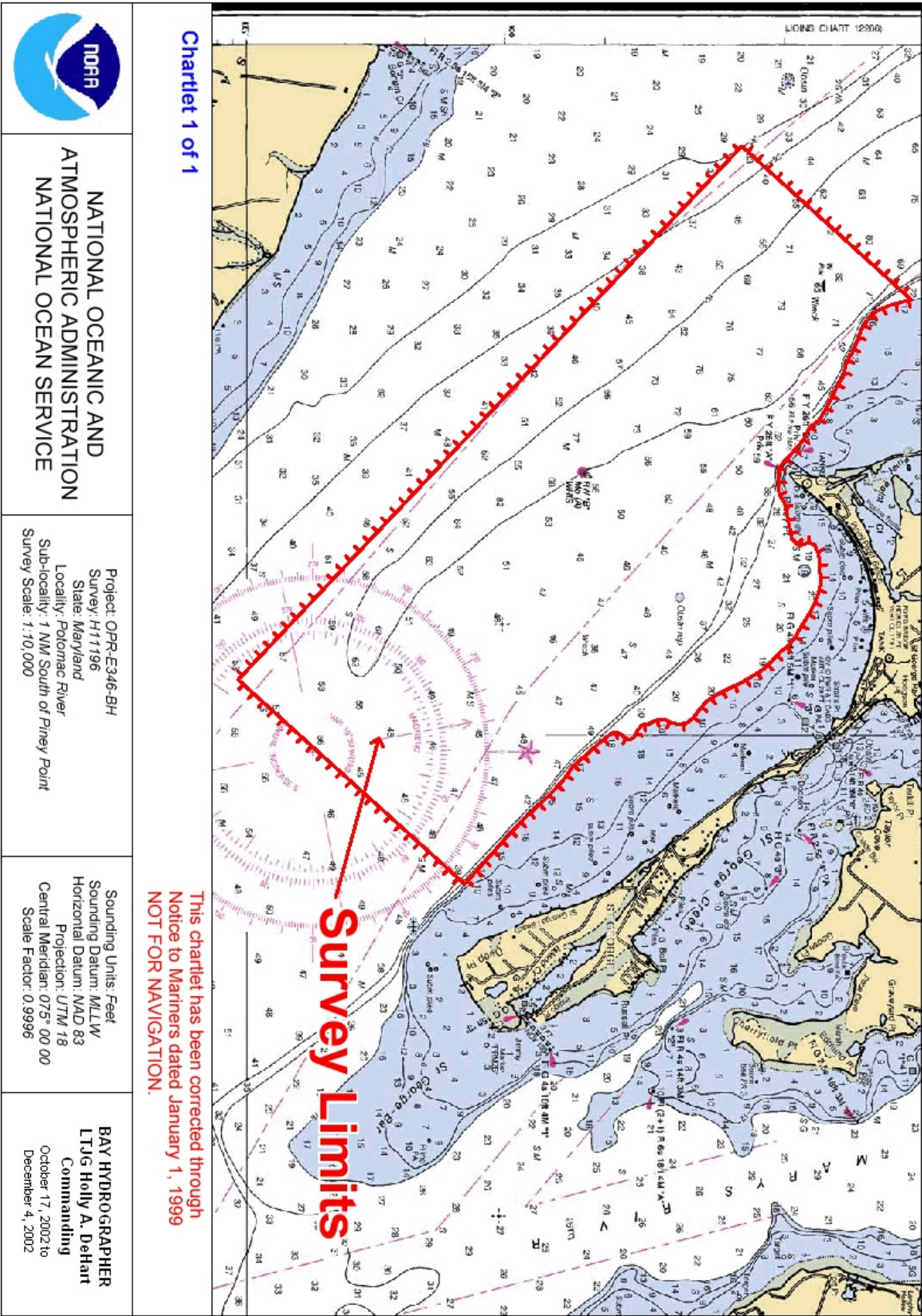
LTJG Holly A. DeHart, Commanding

A. AREA SURVEYED

This Descriptive Report pertains to survey H11196, Piney Point Oil Terminal. Survey H11196 is referenced in the letter instructions as Sheet "E" of project OPR-E346-BH.

This hydrographic survey was conducted in accordance with Hydrographic Survey Letter Instructions for project OPR-E346-BH, Potomac River, Maryland. The instructions are dated March 26, 1999. Five subsequent changes have been made to the letter instructions. Only change number five affects Sheet "E" of project OPR-E346-BH. Change five split sheet "D" into two sheets, "D" and "E".

Survey limits are displayed graphically in the chartlet on the following page (Figure 1). A second chartlet, differentiating areas of side scan sonar (SSS), shallow water multibeam (SWMB), and vertical beam echosounder (VBES) data acquisition in the survey area, is included as Appendix III - Progress Sketch.



B. DATA ACQUISITION AND PROCESSING

See also the Evaluation Report

B.1. EQUIPMENT

All data were acquired by NOAA S/V BAY HYDROGRAPHER. BAY HYDROGRAPHER is a 17 meter vessel with average transducer draft of 0.840 meters. The vessel was configured as described in the Data Acquisition and Processing Report (DAPR)* for this project. Major data acquisition systems are summarized below. ** Data filled at the Atlantic Hydrographic Branch*

BAY HYDROGRAPHER acquired High Speed/High Resolution side scan sonar (HSHRSSH), shallow water multibeam (SWMB), and vertical beam echo sounder (VBES) data. HSHRSSH data were acquired with the Klein T-5500 side scan sonar towfish. SWMB data were acquired with the Seabat Reason 8125 shallow water multibeam sonar. VBES data were acquired with a Knudsen 320M marine echosounder. At the time of data acquisition BAY HYDROGRAPHER's positioning system was a Trimble DSM212L integrated differential GPS receiver. Attitude data were determined using a TSS DMS-05 Dynamic Motion Sensor. Diver least depth determinations were acquired using a MOD III Diver Least Depth Gauge. All velocity casts were conducted with Sea-Bird SBE 19 SEACAT Profiler instrument.

No unusual vessel configurations were employed on this project. Refer to the project DAPR * for detailed vessel configuration information. ** Data filled at the Atlantic Hydrographic Branch*

B.2. QUALITY CONTROL

No unusual conditions which would degrade or compromise data integrity were encountered during survey operations.

Side Scan Sonar Quality Control

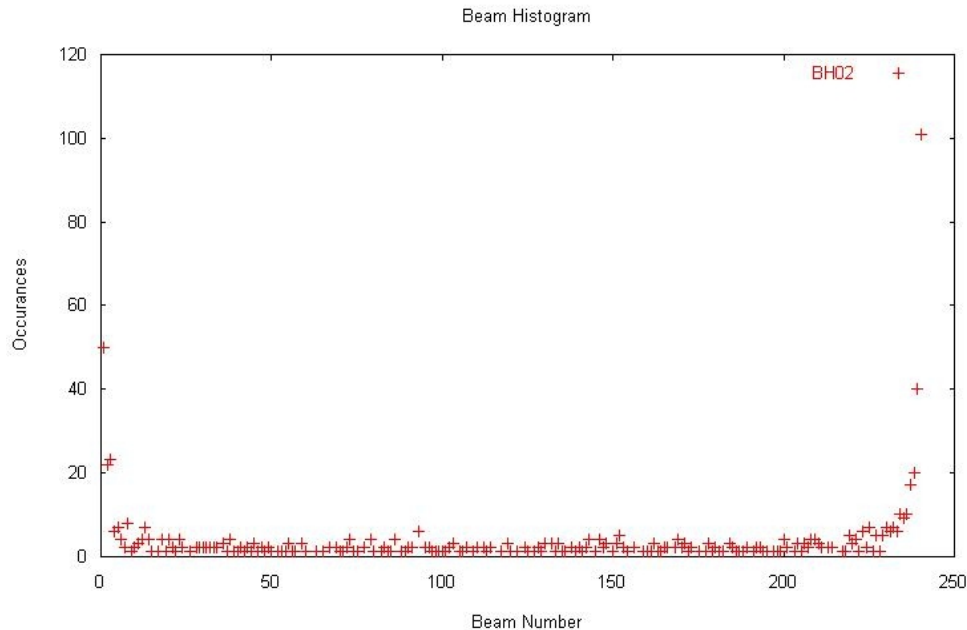
Daily confidence checks were made by observing the outer ranges of the sonar imagery. A satisfactory check was determined by the ability to distinguish contacts or known features across the entire range of the side scan trace.

Shallow Water Multibeam Quality Control

Daily confidence checks were made with the SWMB system by correlating sounding data to the VBES sonar data during simultaneous acquisition. A bathymetry confidence check, performed in ISIS, provided real-time comparison of the VBES data to nadir soundings from the SWMB system. This comparison was monitored for significant discrepancies during data acquisition. Post survey processing identified a slight difference of 0.2 meters or less between some adjacent lines of multibeam data acquired during developments. The exact cause of the discrepancy could not be determined by the hydrographer. Sound velocity and/or local currents are suspected to be responsible. *Concur.*

Multibeam Histogram

The multibeam data histogram is shown on the following page. The horizontal axis "Beam Number" displays each of the 240 beams from the Reson 8125 multibeam. The vertical axis "Occurrences" identifies the number of times each beam has been selected for the shoal biased data set. The outer beams have a higher occurrence due their angles being less perpendicular to the water column than the inner beams, thus producing noisier data. This noise could not be effectively edited using the processing methods in place at the time of survey. *Data edited during office processing.*



Crosslines

Over fifteen linear nautical miles (lnm) of VBES crosslines were run, equivalent to 8% of all lnm of HSHRSSS mainscheme data acquired for this survey. Mainscheme data were defined for this survey to be both the 100% and 200% coverages. Crossline to mainscheme comparisons were made using MapInfo 6.5, with excellent general agreement. A discrepancy of two to four feet was observed in the vicinity of position 38° 07' 28.1" N, 76° 33' 35.05" W. Crossline data agreed with 93% of the mainscheme data, based on the International Hydrographic Organization (IHO) statistical standards used in the Caris Quality Control Report (see Separate V)*. The VBES data in this area was reviewed and no errors in acquisition or processing were identified. This discrepancy has been attributed to the large footprint size and positioning methods utilized by a VBES system. **Concur.**

Junctions

No contemporary surveys were available for junction comparisons.

*** Data filed with field records.**

B.3. CORRECTIONS TO ECHO SOUNDING

All survey methods and instruments were implemented as described in the Corrections to Echo Soundings section of the DAPR for this project.

Data filed at Atlantic Hydrographic Branch.

A table detailing all sound velocity casts is contained in Separates III* - Sound Velocity Profile Data. Sound velocity data has been submitted with the digital data package. Cast data is organized on the digital media as follows: day of cast / cast data.

** Data filed with field records.*

Vertical Control

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating National Water Level Observation Network (NWLON) tide station at Lewisetta, VA (863-5750) served as control for datum determination.

Tidal zoning for this survey is consistent with the Letter Instructions. The entire survey area is contained within two tidal zones. The zone data applicable for this survey is as follows:

ZONE NAME	TIME CORRECTOR (MIN)	RANGE RATIO	REFERENCE STATION
POTR9	+18	x1.14	863-5750
POTR3	+12	x1.06	863-5750

A Request for Approved Tides was sent to N/OPS1 on July 10 2003 (See Appendix IV *). Verified tides from the N/OPS1 CO-OPS website were periodically downloaded by BAY HYDROGRAPHER personnel. Verified tidal data for this survey were concatenated into one file and applied to all sounding data. *Approved tides were re-applied to survey in CARIS during office processing.*

** Data filed with original field records.*

Horizontal Control *See also Evaluation Report.*

The horizontal datum used for this survey is the North American Datum of 1983 (NAD 83), projected using UTM zone 18.

Sounding positional control was established using the Global Positioning System (GPS) corrected by the nearest U.S. Coast Guard differential GPS reference station. The differential beacon used for this survey was Annapolis, MD. The differential beacon at Cape Henry, VA served as a secondary beacon for this survey area in the event that problems occurred with the Annapolis beacon. No horizontal control stations were established for this survey.

GPS drop-outs were experienced during HSHRSSS data acquisition throughout this survey area. The horizontal dilution of precision (HDOP) was monitored during data acquisition. HDOP values occasionally exceeded 4.00 during these events. Position data was reviewed during post-processing. Data was interpolated for brief drop-outs and rejected for large time periods or areas where navigation could not be accurately interpolated. All positioning equipment was operated in a manner consistent with the manufacturers requirements and as described in the DAPR. *Data filed at Atlantic Hydrographic Branch.*

Detailed information regarding vertical and horizontal control is included in the Vertical and Horizontal Control Report. See Appendix IV *- Tides and Water Levels.

D. RESULTS AND RECOMMENDATIONS

D.1. CHART COMPARISON *See also Evaluation Report.*

Three NOS charts are affected by this survey:

12230, 61st edition, November, 2003, 1:80,000

12233, 35th edition, November, 2002, 1:40,000

12286, 29th edition, November, 2002, 1:40,000

12285, 35th edition, January, 2003, 1:40,000

General Agreement with Charted Soundings

In general, sounding data agreed well with charted depths. Individual features and significant discrepancies with specific charted depths are addressed in the AWOIS Items and Item Investigations, Dangers to Navigation and Charted Features sections which follow.

AWOIS Items and Item Investigations

Three AWOIS items are located within the survey limits. These AWOIS items and all additional item investigations are summarized in the following pages.

AWOIS: 10473

Item Description: Charted Obstruction Reported, two railway flatcars reported sunk in 30-50 feet of water.

Source: LNM48/70

Item Position: 38° 07' 25.50" N, 076° 30' 58.80" W

Required Investigation: SD, S2, SWMB, DI

Radius: 1000 m

Charts Affected: 12233, 12285

INVESTIGATION

Contact No: Not found.

Date(s): 291, 295, 296, 316, 318, 319, 325

Least Depth Position Number: N/A

Investigation Used: 200% SSS

Surveyed Position: N/A

Position Determined By: N/A

Investigation Summary: 200% SSS was completed over 100% of the 1000 meter search radius. One contact was identified with SSS within the assigned radius. This contact was determined to be two buoy blocks by divers, and thus cannot be AWOIS no. 10473. AWOIS no 10473 has been disproved.

CHARTING RECOMMENDATION

The hydrographer recommends deleting "Obstn rep" note at position 38° 07' 25.50" N, 076° 30' 58.80" W and charting present survey soundings in this area.

Concur. Delete Obstn rep w/danger curve.

AWOIS: 10477, Contact: 296/019_1523_0001

Item Description: Sailing sloop wreck with least depth of 65 feet on mast.

Source: NM48/49, H08553/60, H08550/60

Item Position: 38° 08' 10.06" N, 076° 33' 06.04" W

Required Investigation: SD, S2, SWMB, DI

Radius: 250 m

Charts Affected: 12233, 12285

INVESTIGATION

Correlating Contact No: 291/003_1721_0001

Date(s): 291, 296, 309

Least Depth Position Number: DN 2002-309, Line 505_1752, Ping 350, Beam 12

Investigation Used: 200% SSS, SWMB

Surveyed Position: 38° 08' 10.60" N, 076° 33' 06.42" W

Position Determined By: SWMB

Investigation Summary: 200% SSS was completed over 100% of the 250 meter search radius. SWMB coverage was acquired over 25% of the search radius. One sidescan contact, resembling a wreck, was identified within this search radius. A least depth of 67.49 ft (20.57 m), corrected with verified tides, was determined with multibeam.

CHARTING RECOMMENDATION

The hydrographer recommends deleting the wreck with least depth of 65 feet in position 38° 08' 10.06" N, 076° 33' 06.04" W, and charting a wreck with least depth of 67 feet in position 38° 08' 10.60" N, 076° 33' 06.42" W. *Concur. Delete 65Wk. Add 67Wk.*

AWOIS: 10475, Contact: 316/048_1750_0001**Item Description:** Wreck with least depth of 38 feet**Source:** H08553/60**Item Position:** 38° 06' 55.66" N, 076° 30' 36.04" W**Required Investigation:** SD,S2,SWMB,DI**Radius:** 100**Charts Affected:** 12233, 12285

INVESTIGATION

Correlating Contact No: 291/036_1409_0001

Date(s): 291, 309, 316**Least Depth Position Number:** DN 2002-309, Line 532_1644, Ping 311, Beam 169**Investigation:** 200% SSS, SWMB, DI**Surveyed Position:** 38° 06' 55.95" N, 076° 30' 37.22" W**Position Determined By:** SWMB

Investigation Summary: 200% SSS coverage was acquired over the entire 100 meter search radius of AWOIS 10475. Sidescan imagery identified a wreck matching the AWOIS description within the search radius. A least depth of 11.08 m (36.35 ft), corrected with verified tides, was determined with determined with SWMB. The item was confirmed to the wreck of a coal barge by divers. A least depth of 11.46 m (37 ft) was determined by DLDG.

CHARTING RECOMMENDATION

The hydrographer recommends deleting the wreck with a least depth of 38 feet in position 38° 06' 55.66" N, 076° 30' 36.04" W, and charting a wreck with least depth of 36 feet in position 38° 06' 55.95" N, 076° 30' 37.22" W. *Concur. Delete 38Wk w/danger curve. Add 36Wk w/danger curve.*

Dive Investigation Report

Dive No. 1

Survey Information			
AWOIS Item: 10475		Description: Wreck	
Date: November 25, 2002			
Latitude - Longitude		SSS Contacts	
38° 06' 55.95" N 076° 30' 37.22" W		316/048_1750_0001, 291/036_1409_0001	
SWMB day/line/time/ping/beam		VBES Positions	
309 / 532_1644 / 15:41:17.970 / 311 / 169		N/A	
SWMB Depth		VBES Depth	
11.08 m (36.35 ft)		N/A	
Dive Information			
Dive Master: LTJG DeHart		Time In: 1518 GMT	
Dive Tender: LTJG DeHart		Time Out: 1558 GMT	
Diver #1: PS Kidd		Max Depth: 47 ft	
Diver #2: PS Sinson		Visibility/Current: 3 ft / 1 kt	
Diver's Least Depth Gauge Information			
Gauge Number:	68334	CTD Location:	38° 07' 24" N, 076° 31' 24" W
Pre-Dive Surface Pressure:	14.75	CTD Time:	09:22 GMT
Least Depth Pressure:	31.3 NW / 32.5 SE	DLDG Depth:	11.56 m
Post-Dive Deck Pressure:	14.80	Tide Corrector:	-0.101 m
Time of Least Depth:	1350 GMT	Item Least Depth:	11.46 m (37.6 ft)
Narrative Report: Coal barge flat on bottom oriented NW/SE (335 degrees), 100 ft. long, loaded with coal mounded on top approx. 20 ft. in width. Spar on each end SE is 7 ft. tall, NW 11ft. off bottom. A piece of coal was recovered from load and verified at surface.			
<div style="text-align: right;"> Dive #1 B. Kidd D. Sinson 11/25/02 </div> <p>attached line runs from stern to stern</p> <p>100 ft</p> <p>x approx 20 ft across</p> <p>lies 335° from stern to stern in approx 50 ft depth</p> <p>7ft to top of coal</p>			

H11196

NOAA S/V BAY HYDROGRAPHER

April 16, 2004

Contact: 318/052_1632_0001 - (DTON # 2)

Item Description: Two concrete buoy blocks

Source: H11196 SSS

Item Position: 38° 07' 42.96" N, 076° 31' 03.70" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 12230, 12233, 12285, 12286

INVESTIGATION

Correlating Contacts: 318/039_1824_0001, 319/071_1928_0002

Date(s): 318, 319, 325

Least Depth Position Number: DN 2002-325, Line 657_1743, Ping 205, Beam 169

Investigation Used: 200% SSS, 100% SWMB, Dive

Surveyed Position: 38° 07' 42.94" N, 076° 31' 03.56" W

Position Determined By: Differential GPS

Investigation Summary: Contact 318/052_1632 was identified during SSS operations. A dive performed on this contact identified two concrete buoy blocks. A least depth of 8.09 m (26.54 ft), corrected with verified tides, was determined by SWMB. A depth of 7.92m (26 ft) was confirmed by DLDG.

CHARTING RECOMMENDATION

The hydrographer recommends charting an obstruction with least depth of 26 ft at position 38° 07' 42.94" N, 076° 31' 03.56" W. *Concur. Retain 26 Obstn w/danger curve as charted.*

NOAA S/V BAY HYDROGRAPHER
Dive Investigation Report
Dive No. 2

Survey Information			
AWOIS Item: N/A		Description: Two concrete buoy blocks	
		Date: November 25, 2002	
Latitude - Longitude		SSS Contacts	
38° 07' 42.94" N 076° 31' 03.56" W		319/071_1928_0002, 318/052_1632_0001, 318/039_1824_0001	
SWMB day/line/time/ping/beam		VBES Positions	
2002-325 / 657_1743 / 17:43:34.036 / 205 / 169		N/A	
SWMB Depth		VBES Depth	
8.09 m (26.54 ft)		N/A	
Dive Information			
Dive Master: LTJG DeHart		Time In: 1445 GMT	
Dive Tender: LTJG DeHart		Time Out: 1510 GMT	
Diver #1: PS Kidd		Max Depth: 35 ft	
Diver #2: PS Sinson		Visibility/Current: 5 ft / no current	
Diver's Least Depth Gauge Information			
Gauge Number:	68334	CTD Location:	38° 07' 24" N, 076° 31' 24" W
Pre-Dive Surface Pressure:	14.75	CTD Time:	09:22 GMT
Least Depth Pressure:	26.26/30.08	DLDG Depth:	8.06m
Post-Dive Deck Pressure:	14.80	Tide Corrector:	-0.141 m
Time of Least Depth:	1455 GMT	Item Least Depth:	7.92m (26 ft)
<p>Narrative Report:</p> <p>(2) concrete blocks with chains attached measuring 6ft L x 6ftW x 9-11 ft H.</p> <div style="text-align: center; margin-top: 20px;"> </div>			

H11196

NOAA S/V BAY HYDROGRAPHER

April 16, 2004

Contact: 316/048_1749_0001 - (DTON #1)

Item Description: Obstruction 250 m SW of petroleum pier face.

Source: H11196 SSS

Item Position: 38° 07' 57.14" N, 076° 32' 07.55" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 12230, 12233, 12285, 12286

INVESTIGATION

Correlating Contacts: 16/047_1822_0002

Date(s): 16, 325

Least Depth Position Number: DN 2002-325, Line 650_1618, Ping 84, Beam 119

Investigation Used: 200% SSS, SWMB

Surveyed Position: 38° 07' 57.30" N, 076° 32' 07.84" W

Position Determined By: Differential GPS

Investigation Summary: Contact 316/047_1822 was identified during SSS operations. A least depth of 12.72 m (41.74 ft), corrected with verified tides, was determined in position 38° 07' 57.30" N, 076° 32' 07.84" W by SWMB. This item was submitted as a DTON.

CHARTING RECOMMENDATION

The hydrographer recommends charting an obstruction with least depth of 41 ft at position 38° 07' 57.30" N, 076° 32' 07.84" W. *Concur. Retain 41 Obstn w/danger curve as charted.*

Contact: 338_smbarge/002_1410 - (DTON #3)

Item Description: Barge wreck

Source: SWMB at Maryland Pilots' request

Item Position: 38° 04' 01.45" N, 076° 26' 46.99" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 12230, 12233, 12285

INVESTIGATION

Correlating Contacts: None

Date(s): 338

Least Depth Position Number: DN 2002-338, Line 002_1410, Ping 244, Beam 162

Investigation Used: 100% SWMB

Surveyed Position 38° 04' 01.45" N, 076° 26' 46.99" W

Position Determined By: Differential GPS

Investigation Summary: Contact 338_smbarge/002_1410 lies 2.75 NM southeast of H11196 survey limits. In response to a request from the Maryland Pilots Association, BAY HYDROGRAPHER ran SWMB over the sunken barge. A least depth of 16.14 m (52.95 ft), corrected with verified tides, was determined in position 38° 04' 01.45" N, 076° 26' 46.99" W by SWMB. This item was submitted as a DTON.

CHARTING RECOMMENDATION

The hydrographer recommends charting a submerged wreck with least depth of 53 ft at position 38° 04' 01.45" N, 076° 26' 46.99" W. *Concur. Retain 53Wk w/danger curve as charted.*

H11196

NOAA S/V BAY HYDROGRAPHER

April 16, 2004

Contact: 319/068_1709_0001

Item Description: Obstruction

Source: H11196 SSS

Item Position: 38° 08' 00.55" N, 076° 30' 45.86" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 12230, 12233, 12285

INVESTIGATION

Correlating Contacts: 319/080_1720_0002, 319/067_1656_0002

Date(s): 319, 325

Least Depth Position Number: DN 2002-325, Line 085_1737, Ping 162, Beam 219

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position 38° 08' 00.53" N, 076° 30' 45.82" W

Position Determined By: Differential GPS

Investigation Summary: Contact 319/068_1709_0001 was identified as an obstruction during SSS operations. A least depth of 4.55 m (14.93 ft), corrected with verified tides, was determined by SWMB.

CHARTING RECOMMENDATION

The hydrographer recommends charting an obstruction with least depth of 15 ft at position 38° 08' 00.53" N, 076° 30' 45.82" W. *Concur. Add 15 Obstn w/danger curve.*

H11196

NOAA S/V BAY HYDROGRAPHER

April 16, 2004

Contact: 290/042_1817_0002

Item Description: Wreck

Source: H11196 SSS

Item Position: 38° 07' 22.43" N, 076° 33' 28.87" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 12230, 12233, 12285, 12286

INVESTIGATION

Correlating Contacts: 290/043_1831_0001

Date(s): 290, 325

Least Depth Position Number: DN 2002-325, Line 514_1539, Ping 188, Beam 13

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position 38° 07' 22.26" N, 076° 33' 28.58" W

Position Determined By: Differential GPS

Investigation Summary: Contact 290/042_1817_0002 was identified as a wreck during SSS operations. A least depth of 10.52 m (34.51 ft), corrected with verified tides, was determined by SWMB.

CHARTING RECOMMENDATION

The hydrographer recommends charting a wreck with least depth of 34 ft at position 38° 07' 22.26" N, 076° 33' 28.58" W. *Concur. Add 34 Wk w/danger curve.*

H11196

NOAA S/V BAY HYDROGRAPHER

April 16, 2004

Contact: 318/031_1432_0001

Item Description: Obstruction

Source: H11196 SSS

Item Position: 38° 05' 07.94" N, 076° 30' 20.10" W

Required Investigation: N/A

Radius: N/A

Charts Affected: 12230, 12233, 12285, 12286

INVESTIGATION

Correlating Contacts: None

Date(s): 318, 325

Least Depth Position Number: DN 2002-325, Line 686_1912, Ping 168, Beam 102

Investigation Used: 200% SSS, 100% SWMB

Surveyed Position 38° 05' 07.71" N , 076° 30' 19.79" W

Position Determined By: Differential GPS

Investigation Summary: Contact 318/031_1432_0001 was identified as an obstruction during SSS. operations. A least depth of 15.61 m (51.21 ft), corrected with verified tides, was determined by SWMB.

CHARTING RECOMMENDATION

The hydrographer recommends charting an obstruction with least depth of 51 ft at position 38° 05' 07.71" N , 076° 30' 19.79" W. *Concur. Add 51 Obstn w/danger curve.*

Dangers to Navigation

Three items associated with this survey were submitted to N/CS33 as Dangers to Navigation (DTON). These items are summarized in the following table. A copy of the DTON reports submitted by BAY HYDROGRAPHER have been included as Appendix I.

Data Appended to this report.

DANGERS TO NAVIGATION AFFECTING NOAA CHARTS 12230, 12233, 12285, 12286				
DTON #	LEAST DEPTH (FEET)	LEAST DEPTH LATITUDE	LEAST DEPTH LONGITUDE	DESCRIPTION
1	41.74	38° 07' 57.30"	076° 32' 07.84"	Obstruction
2	26.57	38° 07' 42.94"	076° 31' 03.56"	Obstruction
3	52.96	38° 04' 01.45"	076° 26' 46.99"	Wreck

See pages 13, 15, and 16 for charting recommendation.

Charted Features

The following is a list of significant charted features within the survey limits which have not been previously addressed in this report.

ITEM	CHARTED POSITION	REMARKS/RECOMMENDATIONS
"Approx 38 ft rep 2000"	38° 08' 0.5" N 076° 31' 57.6" W	100% SWMB data were acquired in the vicinity of this note. The hydrographer recommends deleting this note and charting present survey soundings. <i>Concur.</i>

*Delete "Approx 38 ft rep 2000" Present survey depths range from 18 to 45ft
Add 30 ft 2004 in Lat 38 08' 02.44" Long 76 31' 59.84"*

D.2. ADDITIONAL RESULTS

Aids to Navigation (ATON's)

The federally maintained aid to navigation positioned during this survey is on station, as charted. Three privately maintained aids to navigation fell within the survey boundaries, two along the pier face and one dive buoy. BAY HYDROGRAPHER acquired DPs near the end of survey operations at which time the pier was constantly occupied, therefore unable to DP the two ATONs at the ends of the pier. The dive buoy was not present at the time DPs were collected. As noted by USCG light list the dive buoy is maintained from April 1 to December 1. All four buoys are noted in the table on the following page.

ATON	LIGHT LIST NUMBER	LATITUDE / LONGITUDE (SURVEYED POSITION)
RW "B" Mo (A) WHIS	16855	38° 06' 53.84" N, 076° 31' 51.00" W
Priv 65' Wk	16912	unavailable to DP
FY 26ft "A" Priv	16860	unable to DP
FY 26ft "D" Priv	16875	unable to DP

Prior Survey Comparisons

No prior survey comparisons were conducted by BAY HYDROGRAPHER personnel.

Bridges, Overhead Cables and Overhead Pipelines

No bridges or overhead cables are located within the survey limits.

Ferry Routes

No ferry routes or ferry terminals are located within the survey limits.

Submarine Cables and Pipelines

No submarine cables or pipelines were charted or identified within the survey limits.

Drilling Structures, Platforms and Well Heads

No drilling structures, platforms or well heads were charted or observed within the survey area.

E. APPROVAL SHEET

OPR-E346-BH

Piney Point

Maryland

Survey Registry No. H11196

Field operations for this basic hydrographic survey were conducted under my daily supervision with frequent checks of progress and adequacy. All field sheets, this Descriptive Report, and all accompanying records and data are approved.

This survey is adequate to supersede all prior surveys in common areas, and for application to the relevant NOS nautical charts.

Submitted:



Peter Holmberg, NOAA

Physical Scientist

Approved and Forwarded:

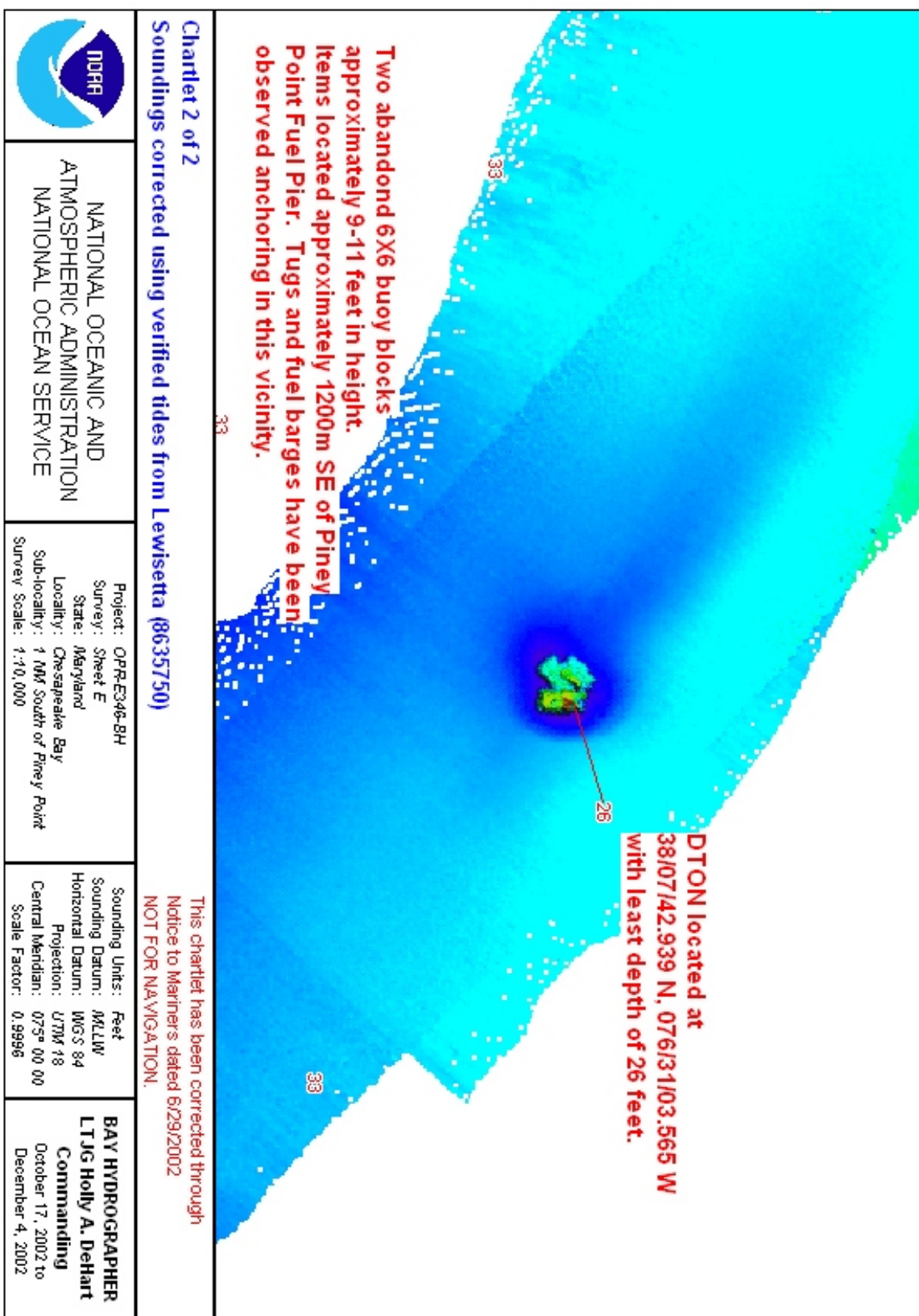


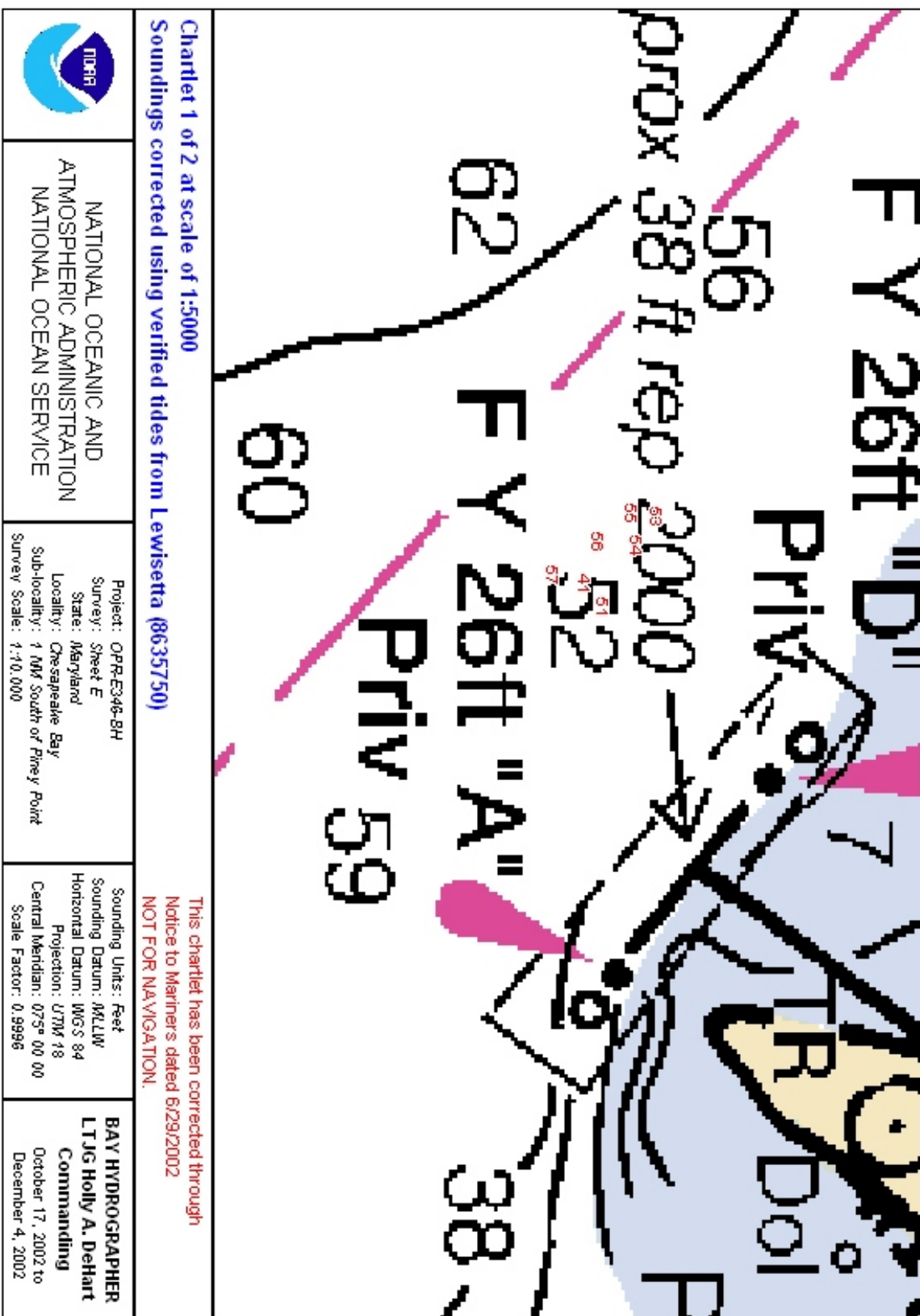
LTJG Holly A. DeHart, NOAA

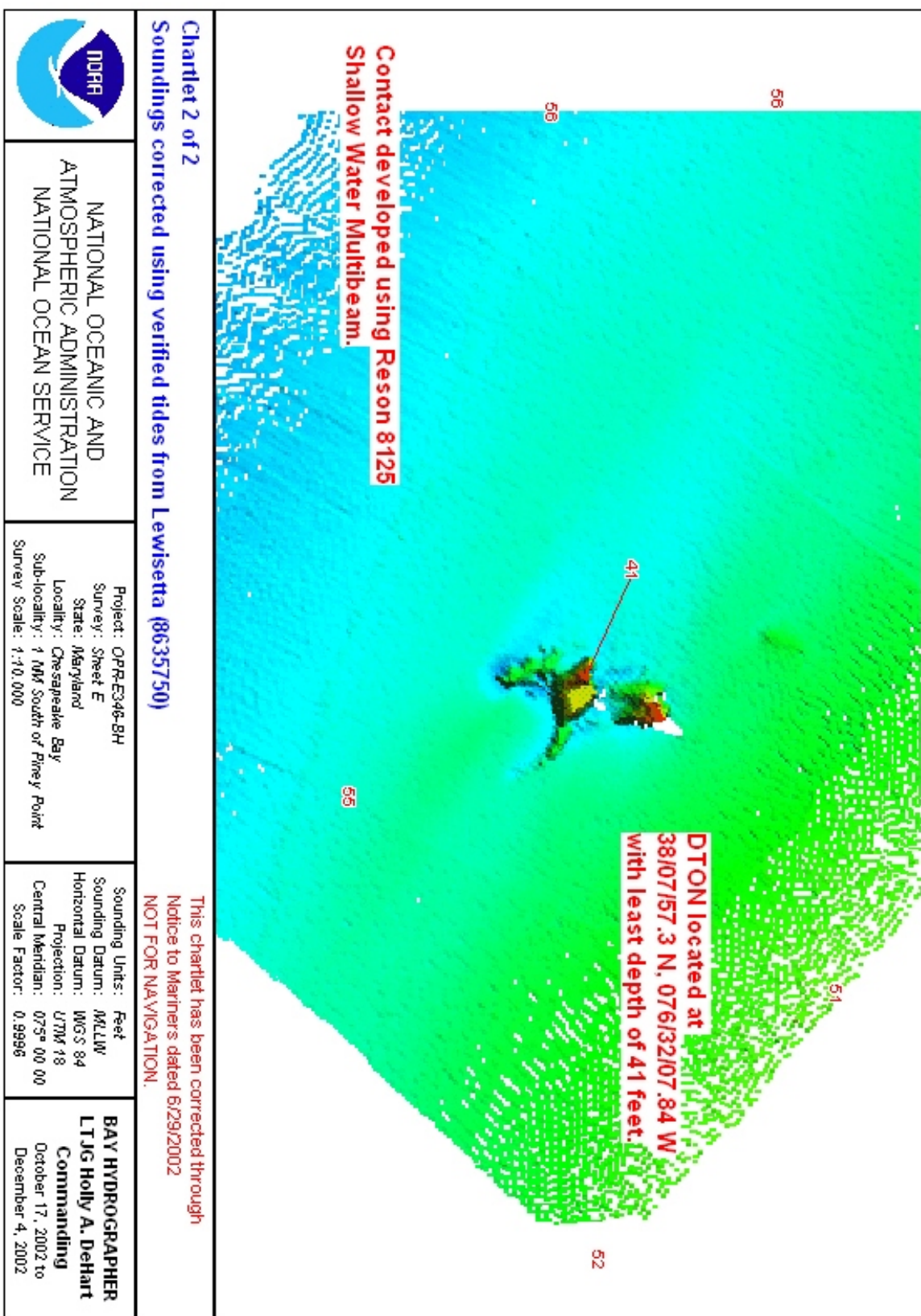
Officer-In-Charge

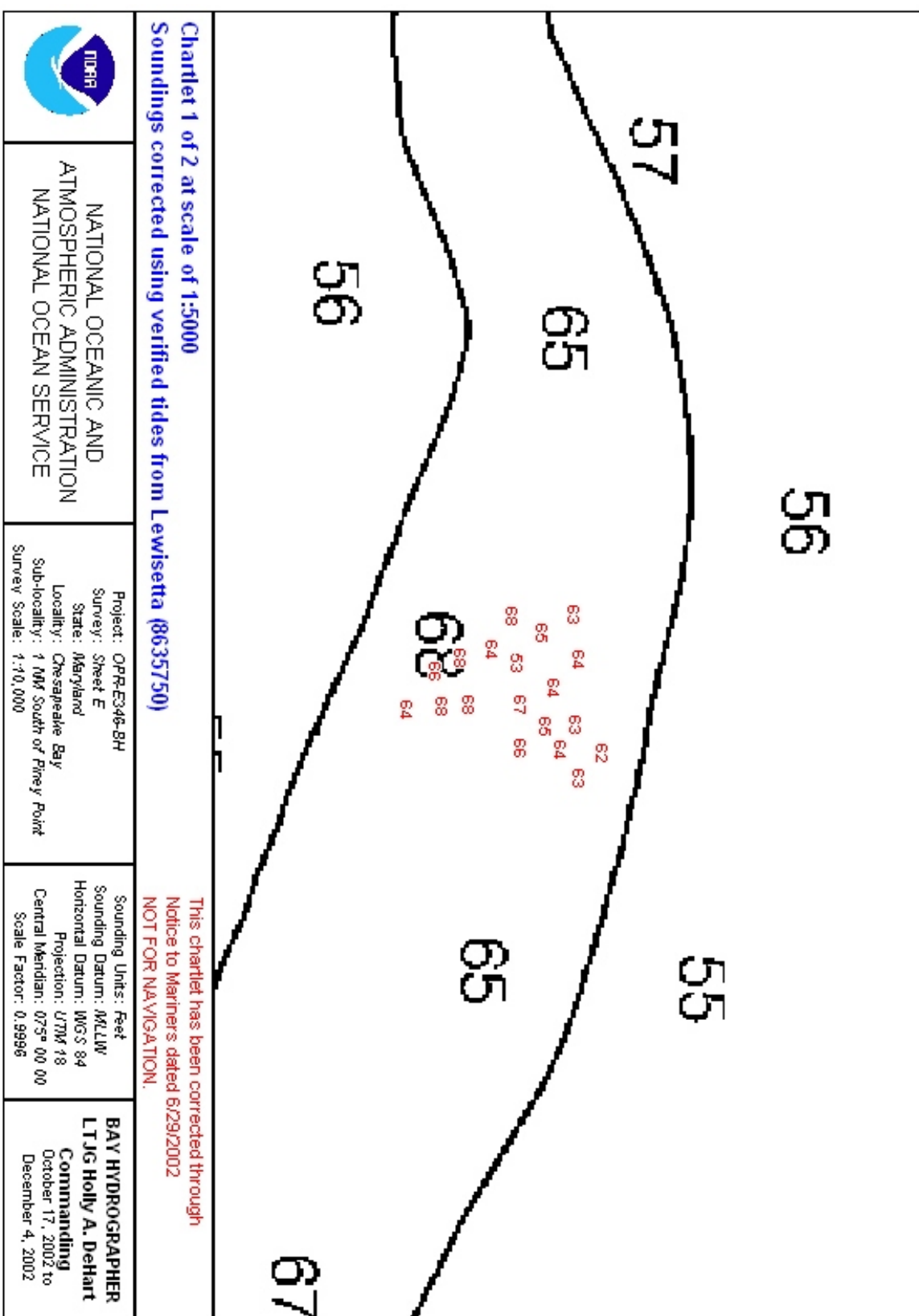
APPENDIX I**DANGERS TO NAVIGATION REPORTS**

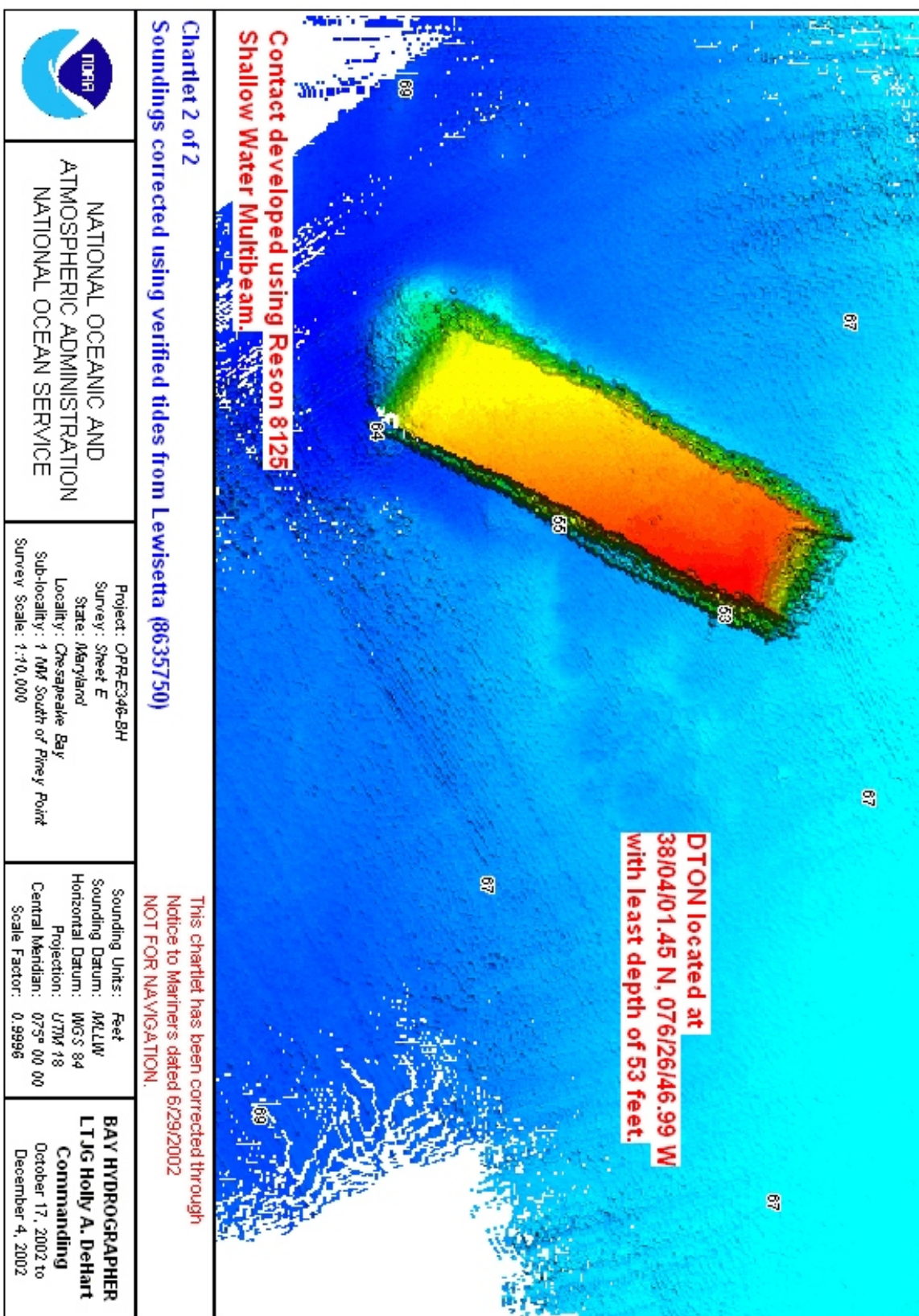
Copies of the three dangers to navigation reports associated with this survey are included in the following six pages. Each DTON report includes a sounding plot and a weighted grid.











H11196

NOAA S/V BAY HYDROGRAPHER

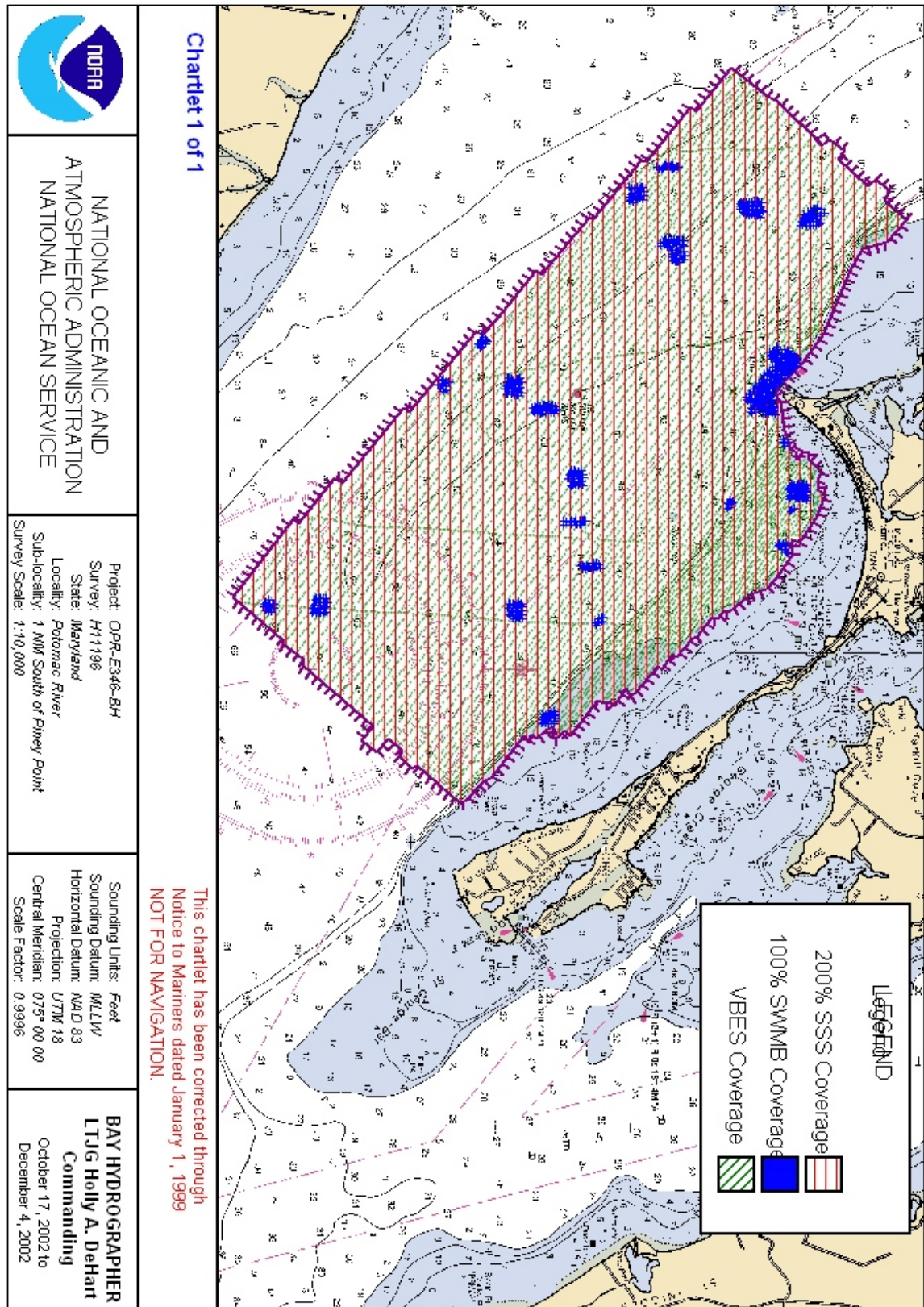
April 16, 2004

APPENDIX II

GEOGRAPHIC NAMES

No new geographic names were identified within the survey area of H11196.

APPENDIX III FINAL PROGRESS SKETCH



APPENDIX IV

TIDES AND WATER LEVELS

A copy of the Request for Verified Tides, dated July 9, 2003 and the Vertical and Horizontal Control Report is contained within this digital package.

APPENDIX V**SUPPLEMENTAL SURVEY RECORDS AND CORRESPONDENCES**

The following supplemental records and correspondences have been included within this appendix:

V.1. COAST PILOT REPORT

The Coast Pilot was reviewed for the survey area and no discrepancies were noted.

V.2. AIDS TO NAVIGATION

No new or mischarted ATONs were observed during this survey.

V.3. CORRESPONDENCE

No formal correspondence was conducted in conjunction with this survey.

V.4. BOTTOM SAMPLES

No bottom samples were collected during survey H11196. The sidescan mosaic was reviewed and compared to charted bottom types. No discrepancies were noted.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: July 12, 2003 (Revised)

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: OPR-E346-BH-2002

HYDROGRAPHIC SHEET: H11196

LOCALITY: Potomac River, MD

TIME PERIOD: November 17 - December 4, 2002

TIDE STATION USED: 863-5750 Lewisetta, VA

Lat. 37° 59.7'N Lon. 76° 27.9'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.416 meters

REMARKS: RECOMMENDED ZONING

Use zone(s) identified as: POTR1, POTR3 & POTR9

Refer to attachments for zoning information.

Note 1: Provided time series data are tabulated in metric units (meters), relative to MLLW and on Greenwich Mean Time on the new 1983-2001 National Tidal Datum Epoch (NTDE).

Thomas V. Mero 7/11/04

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION



Printed on Recycled Paper



**ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11196 (2002)**

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

B. DATA ACQUISITION AND PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

Hydrographic Processing System
MicroStation J, version 07.1
I/RAS B, version 07.1
NADCON, version 2.10
MapInfo, version 6.5
CARIS HIPS/SIPS 2000
PYDRO, version 2.5.3

The smooth sheet was plotted using a Hewlett Packard Design Jet 2500CP plotter.

C. HORIZONTAL CONTROL

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). Office processing of this survey is based on these values.

**D. COMPARISON WITH CHARTS 12230 (61st Edition, NOV 00/03)
 12233 (36th Edition, NOV 00/02)
 12286 (29th Edition, NOV 00/02)
 12285 (36th Edition, JAN 00/04)**

Hydrography

The charted hydrography originates with the prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in section D. of the Descriptive Report. Attention is directed to the following:

The present survey is adequate to supersede the charted hydrography within the common area.

Comparison with Prior Surveys

A comparison with prior surveys was not done during office processing in accordance with section 4. of the memorandum titled "Changes to Hydrographic Survey Processing", dated May 24, 1995.

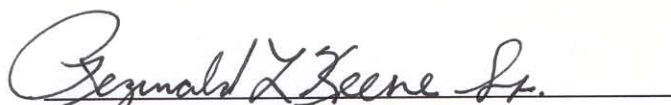
Miscellaneous

Chart compilation was done by Atlantic Hydrographic Branch personnel, in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland. The following NOS Charts were used for compilation of the present survey:

12233 (36th Edition, JAN 00/04)

Adequacy of Survey

This is an adequate hydrographic/side scan sonar/multibeam survey. No additional field work is recommended.



Reginald L. Keene Sr.

Cartographer

Verification of Field Data

Evaluation and Analysis

APPROVAL SHEET
H11196 (2002)

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproof of charted data. All revisions and additions made to the smooth sheet during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.



Reginald L. Keene Sr.
Cartographer
Atlantic Hydrographic Branch

Date: 12-22-05

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Approved: 



P. Tod Schattgen
Commander, NOAA
Chief, Atlantic Hydrographic Branch

Date: 22 DECEMBER 2005