H11402

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 Number: **H11402**

LOCALITY

State: Virginia

General Locality: Appr. To Chesapeake Bay, VA

Sub-locality: 2 NM SE of Cape Henry

2004

CHIEF OF PARTY
LCDR Lawrence T. Krepp, NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28
(11-72)

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

REGISTRY No.

HYDROGRAPHIC TITLE SHEET

H11402

FIELD No.

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 VIRGINIA

General Locality APPROACHES to CHESAPEAKE BAY, VA

Sub-Locality 2 NM Southeast of Cape Henry

Scale 1:10000 **Date of Survey** 6/13 – 10/27, 2005

Instructions dated May 13, 2005 **Project No.** OPR-D304-RU/TJ-05

Vessel NOAA Ship RUDE s590

Chief of Party LCDR Lawrence T. Krepp , NOAA

Surveyed by LCDR Krepp, LT Zezula, ENS Blankenship, ENS Christensen, CST Kitt, ST Stephens

Soundings by echo sounder, hand lead, pole ODOM Echotrac MKIV VBES, Reson 8125 MB

Graphic record scaled by RUDE Personnel

Graphic record checked by RUDE Personnel **Automated Plot** N/A ***Hewlett Packard Design Jet 2500 CP (office)***

Verification by Atlantic Hydrographic Branch

Soundings in fathoms feet at MLW MLLW FEET at MLLW

REMARKS: All times in UTC

All soundings corrected with verified tides

Map Projection is UTM zone 18

Red, bold, italic notes in descriptive report were made during office processing.

TABLE OF CONTENTS

DESCRIPTIVE REPORT

To accompany

HYDROGRAPHIC SURVEY H11402

Scale of Survey: 1:10000
Year of Survey: 2005
NOAA Ship RUDE
LCDR Lawrence T. Krepp, Commanding

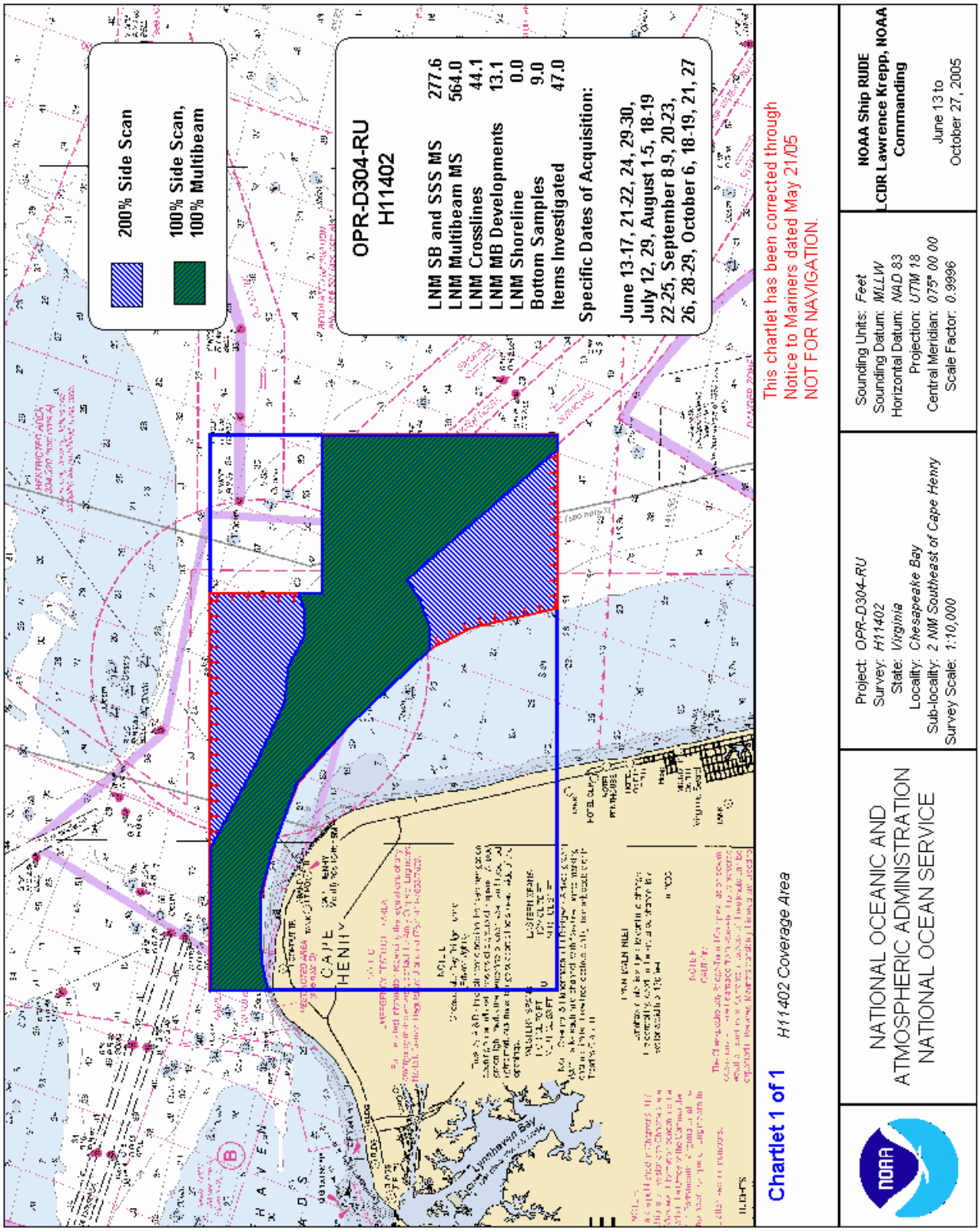
A. AREA SURVEYED

This hydrographic survey was conducted in accordance with Hydrographic Survey Letter of Instructions* for project OPR-D304-RU updated May 13, 2005.

This survey was conducted to provide side scan sonar and/or multibeam data in support of National Ocean Service (NOS) nautical charts in response to requests from the Maryland Pilots Association and the Virginia Pilots Association. Survey H11402 was performed in accordance with NOS requirements for side scan sonar and multibeam data acquisition and processing.

Full bottom coverage of the assigned survey area, consisting of 200% side scan sonar/VBES or 100% side scan sonar and 100% multibeam coverage "P-1 Area" was achieved. Multibeam developments were run on item investigations to provide least depth. For complete survey limits, please see the chartlet on the following page.

Data filed with original field records.


200% Side Scan
100% Side Scan, 100% Multibeam
OPR-D304-RU
H11402
LNM SB and SSS MS 277.6
LNM Multibeam MS 564.0
LNM Crosslines 44.1
LNM MB Developments 13.1
LNM Shoreline 0.0
Bottom Samples 9.0
Items Investigated 47.0
Specific Dates of Acquisition:
June 13-17, 21-22, 24, 29-30,
July 12, 29, August 1-5, 18-19
22-25, September 8-9, 20-23,
26, 28-29, October 6, 18-19, 21, 27
CAPE HENRY
Lynnhaven Bay
This chartlet has been corrected through
Notice to Mariners dated May 21/05
NOT FOR NAVIGATION.
Chartlet 1 of 1
H11402 Coverage Area
NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
Project: OPR-D304-RU
Survey: H11402
State: Virginia
Locality: Chesapeake Bay
Sub-locality: 2 NM Southeast of Cape Henry
Survey Scale: 1:10,000
Sounding Units: Feet
Sounding Datum: MLLW
Horizontal Datum: NAD 83
Projection: UTM 18
Central Meridian: 075° 00 00
Scale Factor: 0.9996
NOAA Ship RUDE
LCDR Lawrence Krepp, NOAA
Commanding
June 13 to
October 27, 2005

B. DATA ACQUISITION and PROCESSING

B.1 EQUIPMENT ***See also the Evaluation Report.***

NOAA Ship RUDE (s-590) was the only platform used for this survey. The RUDE is 90 feet in length with a 22-foot beam and 7-foot draft.

Vertical-beam echo sounding data was acquired on RUDE with an Odom Echotrac DF3200 MKII dual-beam echo sounder (24 and 200 kHz). Vertical-beam data was used in conjunction with Side Scan Sonar to ensonify objects on the bottom not apparent at side scan nadir and also for crossline checks with the mainscheme lines. Vertical beam data was acquired during multibeam operations, yet not processed due to SWMB taking precedence.

RUDE acquired all side scan sonar data using a Klein 5500 towfish set to the 100-meter range scale and with high resolution on 75-meter and 50-meter range scales. Side scan sonar data was recorded digitally using Triton ISIS software and archived in Extended Triton Format (xtf).

For developments and the "P1 Area", single frequency (455 kHz) multi-beam data on RUDE was acquired with a Reson SeaBat 8125 shallow water swath sonar system. Positioning and attitude was determined by a TSS POS/MV and utilizing a Trimble DSM-212L DGPS receiver.

Sound velocity data was acquired using a Sea-Bird SBE 19 SEACAT Conductivity, Temperature and Depth (CTD) Profiler.

The RUDE encountered no equipment discrepancies or anomalies during this survey, nor was any deviation from standard operating procedures or equipment present. However, due to the dynamic nature of the survey area, minor adjustments in operations were needed as outlined below. Please refer to the 2005 DAPR* for detailed equipment and vessel configuration.
**** Filed with original field records.***

B.1.a Frequency of Sound Velocity Casts

Standard Operating Procedure calls for velocity casts to be performed every four hours when running multibeam operations. RUDE determined that it was necessary to perform velocity casts every three hours to coincide with maximum ebb and flood currents due to the migration of the saltwater wedge at the mouth of the bay.

B.1.b Speed Over Ground vs Speed Through Water

RUDE personnel noticed a 0.2m vertical discrepancy in multibeam data-acquired depths during the first week of processing. Although the difference was acceptable in meeting IHO Order 1 obligations, the resulting DTM was not aesthetically pleasing to the eye. After eliminating tides and induced heave as possible causes, focus was turned to dynamic draft. Dynamic draft is based on speed through the water. RUDE is not equipped with a speed-through-water sensor; therefore, post-processing utilizes speed over ground when choosing dynamic draft during the data merge process. Upon further investigation, due to strong currents in the survey area, speed over ground during reciprocal lines run varied as much as 4 knots (6 knots against current, 10 knots following current). RUDE adjusted engine RPMs in order to maintain 7.5 knots speed over ground under any and all current conditions for the remainder of the survey. ***Concur.***

B.2 QUALITY CONTROL ***See also the Evaluation Report.***

Side Scan Sonar Quality Control

Daily confidence checks were made by observing the outer ranges of the side scan sonar images. A good check consisted of distinguishing contacts, i.e. buoy blocks, drag scours, or sand waves across the entire range of the side scan trace. Under conditions of questionable data quality due to high refraction or surface noise, these confidence checks were conducted as often as possible. Side scan data acquisition was suspended when targets approximately one cubic meter in size could not be resolved to the edge of the range scale. ***Concur.***

Shallow Water Multibeam Quality Control

There were no faults with the shallow water multibeam system which affected data integrity in this survey. Please refer to the project's DAPR for detailed discussion of SWMB system calibrations, patch test, data acquisition, and data processing.

Crosslines

The total distance of VBES crosslines is 44 linear nautical miles which equates to 15% of total VBES mainscheme lines. Crossline to mainscheme line comparison was conducted by visual inspection after data was imported into MapInfo 8.0. The comparison is adequate, with the majority of differences being two feet or less. Since sounding data was comprised solely of single-beam data, no computer analysis was available. ***Concur.***

The total distance of SWMB crosslines is 44 linear nautical miles which equates to 7.8% of total SWMB mainscheme lines. Analysis was performed in PYDRO using 25 checkpoints to IHO Order 1 specifications.

Junctions

H11402 is junctioned to the east by H11401, a basic hydrographic survey also conducted by RUDE this field season. Comparison is excellent as soundings agree to within a foot. ***Concur.***

B.3 CORRECTIONS TO ECHO SOUNDINGS

All methods or instruments were implemented as described in the Correction to Echo Sounding section of the DAPR for this project.

C. VERTICAL and HORIZONTAL CONTROL

Vertical Control

The tidal datum for this project is Mean Lower Low Water (MLLW). All soundings are referenced to MLLW. The operating National Water Level Observation Network (NWLON) station at Chesapeake Bay Bridge Tunnel, VA (863-8863) served as datum control for the survey area. All soundings were reduced to Mean Lower Low Water with verified tides. Opening levels were performed by CO-OPS. Closing levels will be completed at the conclusion of OPR-E350. A Request for Smooth Tides letter was emailed to N/OPS1 November 09, 2005 (Appendix III***). Verified tides from the N/OPS1 CO-OPS website were downloaded and applied to all soundings for this sheet. Tide corrections were applied to the soundings using CARIS HIPS and SIPS v5.4. ***Approved tides using final tide zoning were applied during office processing.***

Zoning was provided on the project CD***. No changes to zoning, time correctors, or range ratios were made by field personnel.
****Filed with original field records.***

Horizontal Control

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

Sounding positional control was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon stations. The primary DGPS beacon used for this survey was Driver, VA. The primary signal was strong throughout the survey. No horizontal control stations were established for this survey.

Horizontal dilution of precision (HDOP) was monitored daily. Data was to be re-acquired if the HDOP value exceeded 2.5. The TSS POS/MV positioning system was also used to monitor the accuracy of the ship's position and orientation. Data was to be re-acquired if POS M/V's estimated position accuracy exceeded 4 m. Neither of the above cases occurred. Refer to section A.3 of the 2005 field season DAPR for more details regarding RUDE's POS M/V settings and operation. ***See also Evaluation Report.***

D. RESULTS and RECOMMENDATIONS *See also the Evaluation Report.*

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

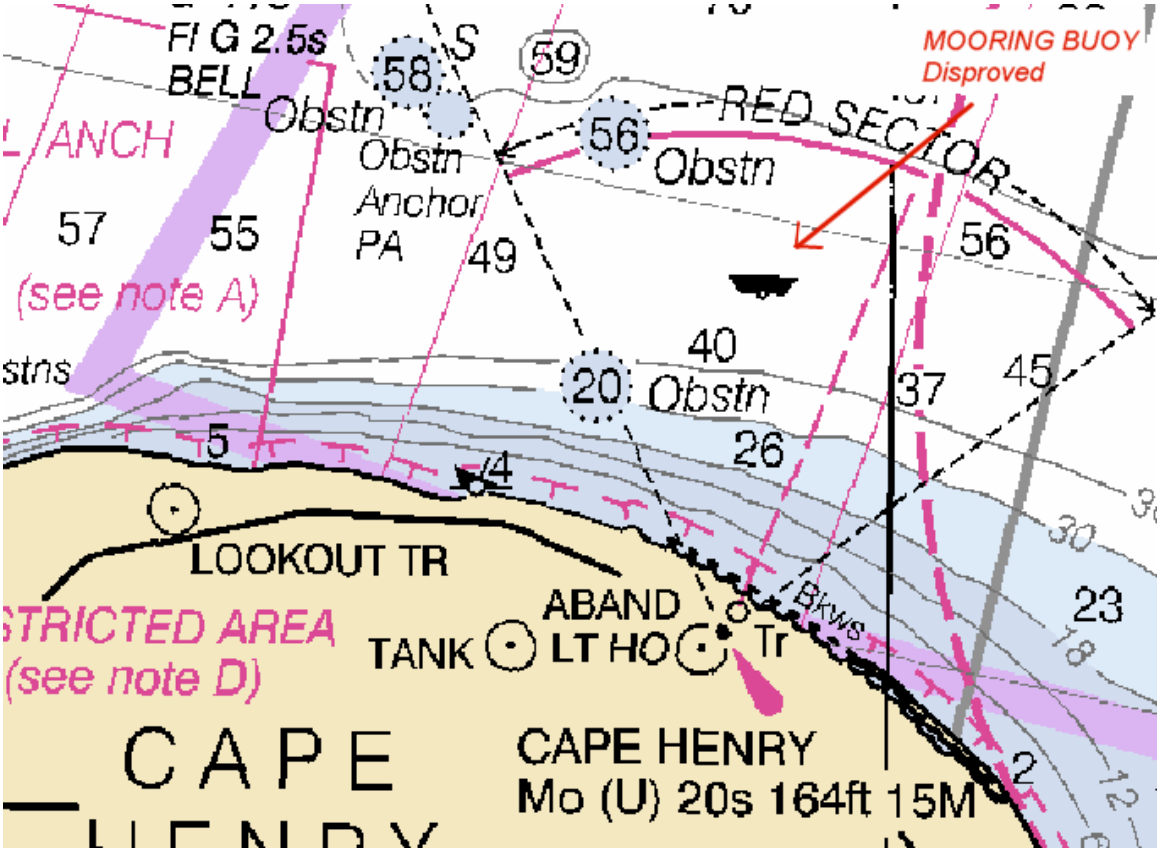
Charts Affected: The following charts contain soundings within the survey limits of H11402:

12221	77th Ed	May/05	NM	May 21/05	LNM	May 17/05	1:80000
12208	11th Ed	May/05	NM	May 14/05	LNM	May 10/05	1:50000
12205	29th Ed	Oct/04	NM	Oct 30/04	LNM	Oct 26/04	1:80000
12207	21st Ed	Mar/04	NM	Mar 13/04	LNM	Mar 02/04	1:80000

Current soundings and features were compared to charted depths and features on NOAA chart 12221.

Chart comparisons were adequate with current soundings within plus or minus 2 feet by visual inspection of soundings overlaid on the chart in the PSS and MapInfo, with the exception of disproved, or updated depths on AWOIS features. This present survey is adequate to supersede all charted depths. ***Concur.*** During the normal course of survey operations, the following charted item is disproved:

Mooring buoy charted at position 36B56'17" N, 076B00'21" W is no longer present. The hydrographer recommends removal from all affected charts. Please see following chartlet. ***Concur.***



There were 23 AWOIS items investigated in H11402. Results and recommendations may be found in the AWOIS Report generated in PYDRO as well as in Appendix I of this report. Non-AWOIS items, "Contacts of Interest," may also be found in Appendix I. To summarize:

AWOIS	Class	Method	Result	Recommendation
3334	Obstn	S2, MB	Found	Remove from Chart
3335	Obstn	S2, MB	Found	Remove from Chart
3418	Obstn	S2, MB	Disproved	Remove from Dbase/Chart
3770	Obstn	S2, MB	Found	Update Chart
7522	"BEAUTY"	S1, MB	Disproved	Remove from Database
8253	Obstn	S2, MB	Found (buoy)	Remove from Chart
8254	Obstn	S2, MB	Found	Update Chart
8255	Obstn	S2, MB	Found	Update Chart
8258	Obstn	S2, MB	Found	Update Chart
8260	Obstn	S2, MB	Found	Remove from Database

AWOIS	Class	Method	Result	Recommendation
8263	Obstn	S2, MB	Found	Remove from Chart
8313	Obstn	S2, MB	Disproved	Remove from Dbase/Chart
8315	Obstn	S1, MB	Disproved	Remove from Database
8319	Obstn	S1, MB	Found	Remove from Chart
8320	Obstn	S1, MB	Found	Remove from Chart
8323	Obstn	S2, MB	Found	Remove from Chart
9344	Obstn	S1, MB	Disproved	Remove from Database
9381	Obstn	S1, MB	Disproved	Remove from Database
12559	Obstn	S2, MB	Found	Remove from Chart
12260	Obstn	S2, MB	Disproved	Remove from Dbase/Chart
12394	Obstn	S2, MB	Found	Remove from Chart
12395	Obstn	S2, MB	Found	Remove from Chart
13353*	Obstn	S2, MB	Disproved	Remove from Dbase/Chart

*AWOIS 13353 was added during the course of this survey. Salvage documentation may be found in Appendix IV entitled, "USCOE_AWOIS13353_Salvage.doc."

Two uncharted side scan contacts were discovered and developed with multibeam. They are fully described in the PYDRO-generated report "Items of Interest.pdf" found in Appendix I. To summarize: ***Concur.***

Contact (MB)	Tides	Position	LD	Recommendation
907_2020 624/82	Verified	36^{B}55'40.78" N, 075^{B}57'04.36" W	56 ft	Add to chart(s)
431_1713 2377/223	Verified	36^{B}55'44.89" N, 075^{B}58'16.17" W	47 ft	Add to chart(s)

Concur, see Feature Report - New Features in Appendix 1.

Dangers to Navigation

There were no Dangers to Navigation items discovered during this survey. ***Concur.***

100% Multibeam "P-1" Area

Survey H11402 includes an area specified for 100% multibeam coverage as shown in section "A. Area Surveyed." At the time of operations there was no definitive directives concerning coverage requirements. However, RUDE decreased its line spacing in order to attain complete coverage for a 2-meter grid. A 0.5-meter BASE surface was generated for object detection resolution. A BASE surface of 5m resolution was generated for VBES data. Significant contacts were designated in order to be included in the surface

data. Insignificant contacts were labeled "outstanding" and GPs of multibeam data to disprove AWOIS items were labeled "examined." The final combined surface was generated at 5-meter resolution with the multibeam data retaining its integrity of 0.5-meter resolution. ~~Sound velocity points and Bottom Sample points are also included.~~***
The smooth sheet was composed using PYDRO v. 5.9.4. A "bug" still existed as of this report in this version of Pydro that will not allow generation of a Checkline report. Therefore, it was necessary to revert back to an earlier version of Pydro for this purpose.
Neither Bottom Samples nor SVP positions were included in the final BASE Surface used in compilation, crossline comparison in office showed good agreement between lines.

Aids to Navigation

All floating aids to navigation denoted on charts appeared to be in their proper positions and functioning as intended, with the exception of the aforementioned mooring buoy. No actual detached positions were acquired. ***Concur.***

D.2 ADDITIONAL RESULTS

Shoreline

No shoreline was required on H11402. ***Concur.***

Bottom Samples

Bottom sediment samples were collected at 9 locations evenly spaced throughout H11402. They consisted of Sticky Mud in all but 3 samples. A shoal area to the northwest showed fine sand and shell while in the deepwater cut along the eastern portion of the sheet samples showed fine sand as well as some sea grass. The hydrographer recommends updating the charts with the given characteristics in …Separates\Logs\Bottom Samples*. ***Concur, refer to Bottom Samples section of Appendix 1.***
****Filed at AHB with original field records.***

E. APPROVAL SHEET

LETTER OF APPROVAL

REGISTRY NO. H11402

Data acquisition, processing, and analysis contributing to the accomplishment of this navigable area survey were conducted under my direct supervision with frequent personal checks of progress and adequacy. All data, field sheets, this Descriptive Report, and accompanying records were reviewed in their entirety and are approved.

This survey is adequate to supersede all prior surveys in common areas and is considered complete and adequate for nautical charting.

Respectfully Submitted:

Wesley G. Kitt
Chief Survey Technician
NOAA Ship RUDE

Thru:

Mark A. Blankenship
Lieutenant (jg), NOAA
Field Operations Officer
NOAA Ship RUDE

Approved:

Lawrence T. Krepp
Lieutenant Commander, NOAA
Commanding Officer
NOAA Ship RUDE

H11402 Descriptive Report Features

Registry Number: H11402

State: Virginia

Locality: Chesapeake Bay

Sub-locality: 2 NM Southeast of Cape Henry

Project Number: OPR-D304-RU

Survey Dates: 06/15/2005 - 10/27/2005

Charts Affected

Number	Version	Date	Scale
12254	44th Ed.	02/01/2004	1:20000
12222	46th Ed.	05/01/2004	1:40000
12208	10th Ed.	05/01/2004	1:50000
12205	29th Ed.	10/01/2004	1:80000
12207	21st Ed.	03/01/2004	1:80000
12221	76th Ed.	02/01/2005	1:80000
12280	5th Ed.	10/01/2004	1:200000
12200	48th Ed.	06/01/2004	1:419706
13003	48th Ed.	10/01/2004	1:1200000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	912/162	Wreck	21.77 m	036° 56' 45.414" N	75° 57' 30.371" W	---
2.1	624/82	Obstruction	17.05 m	036° 55' 40.776" N	75° 57' 04.362" W	---
2.2	2377/223	Obstruction	14.56 m	036° 55' 44.894" N	75° 58' 16.173" W	---
3.1	2274/99 - AWOIS 8319	Obstruction	17.91 m	036° 54' 52.820" N	75° 55' 32.709" W	8319
3.2	2213/36 - AWOIS 8320	Obstruction	16.98 m	036° 54' 45.166" N	75° 55' 32.233" W	8320
3.3	OBSTRUCTION - AWOIS 3416	AWOIS	[no data]	[no data]	[no data]	---
3.4	6268/68 - AWOIS 12395	Obstruction	13.52 m	036° 55' 10.535" N	75° 57' 31.292" W	12395
3.5	541/175 - AWOIS 8253	Obstruction	13.43 m	036° 56' 27.552" N	75° 55' 29.784" W	8253
3.6	1050/143 - AWOIS 8254	Obstruction	17.02 m	036° 56' 06.516" N	75° 57' 17.914" W	8254
3.7	541/225 - AWOIS 8255	Obstruction	18.76 m	036° 55' 57.781" N	75° 57' 34.049" W	8255

Generated by Pydro v7.3 (r2014_TCfix) on Wed May 02 15:12:37 2007 [UTC]

3.8	319/130 - AWOIS 8258	Obstruction	19.52 m	036° 56' 29.732" N	75° 58' 04.960" W	8258
3.9	607/87 - AWOIS 8260	Sounding	15.73 m	036° 55' 32.519" N	75° 57' 47.397" W	8260
3.10	358/214 - AWOIS 12394	Obstruction	19.68 m	036° 56' 10.427" N	75° 57' 43.938" W	12394
3.11	6938/113 - AWOIS 8263	Sounding	17.32 m	036° 56' 36.412" N	76° 00' 47.993" W	8263
3.12	307/59 - AWOIS 3334	Sounding	8.85 m	036° 52' 39.244" N	75° 56' 38.026" W	3334
3.13	296/71 - AWOIS 8323	Sounding	14.96 m	036° 55' 49.323" N	75° 54' 50.547" W	8323
3.14	3299/63 - AWOIS 12259	Sounding	7.71 m	036° 54' 25.307" N	75° 57' 47.962" W	12259
3.15	1485/54 - AWOIS 3335	Sounding	9.53 m	036° 53' 05.366" N	75° 56' 36.811" W	3335
3.16	1280/83 - AWOIS 3418	Sounding	11.86 m	036° 53' 49.098" N	75° 56' 25.239" W	3418
3.17	319/18 - AWOIS 7522	Sounding	17.00 m	036° 54' 43.055" N	75° 53' 58.156" W	7522
3.18	466/2 - AWOIS 8313	Sounding	15.68 m	036° 53' 27.503" N	75° 54' 42.177" W	8313
3.19	1833/44 - AWOIS 8315	Sounding	16.96 m	036° 53' 42.437" N	75° 54' 12.299" W	8315
3.20	5369/145 - AWOIS 9344	Sounding	17.68 m	036° 54' 56.983" N	75° 55' 47.553" W	9344
3.21	5618/145 - AWOIS 9381	Sounding	17.24 m	036° 54' 29.712" N	75° 55' 34.170" W	9381
3.22	7003/80 - AWOIS 12260	Sounding	10.17 m	036° 54' 46.007" N	75° 57' 42.365" W	12260
3.23	4794/39 - AWOIS 13353	Sounding	18.01 m	036° 56' 39.060" N	76° 01' 09.818" W	13353
3.24	3730/209 - AWOIS 3770	Obstruction	6.47 m	036° 56' 04.884" N	76° 00' 45.402" W	3770

1 - Charted Features

1.1) Profile/Beam - 912/162 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 936_2055

Survey Summary

Survey Position: 036° 56' 45.414" N, 75° 57' 30.371" W

Least Depth: 21.77 m

Timestamp: 2005-300.20:57:44.486 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 936_2055

Profile/Beam: 912/162

Charts Affected: 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/936_2055	912/162	0.00	000.0	Primary

Hydrographer Recommendations

[None]

Cartographically-Rounded Depth (Affected Charts):

71ft (12222_1, 12208_1, 12205_1, 12221_1, 12280_2)

12fm (12200_1, 13003_1)

S-57 Data

Geo object 1: Wreck (WRECKS)

Attributes: CATWRK - 1:non-dangerous wreck

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 21.766 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Revise this charted 70 Wk to a Wk with a depth of 71 ft.

2 - New Features

2.1) Profile/Beam - 624/82 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 907_2020

Survey Summary

Survey Position: 036° 55' 40.776" N, 75° 57' 04.362" W

Least Depth: 17.05 m

Timestamp: 2005-300.20:21:27.100 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 907_2020

Profile/Beam: 624/82

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

sunken buoy?

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/907_2020	624/82	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-251/126_1841	0001	8.32	079.3	Secondary
d304_h11402/ru00_sss_5_4/2005-251/205_1819	0002	8.49	090.0	Secondary
d304_h11402/ru00_sss_5_4/2005-175/115_1436	0001	16.61	147.2	Secondary

Hydrographer Recommendations

Chart as Dangerous 56 Obstn

Cartographically-Rounded Depth (Affected Charts):

56ft (12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2)

9 ¼fm (12200_1, 13003_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

TECSOU - 3:found by multi-beam

VALSOU - 17.052 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur, chart a dangerous 56 Obstn.

2.2) Profile/Beam - 2377/223 from d304_h11402 / ru00_mb_5_4 / 2005-216 / 431_1713

Survey Summary

Survey Position: 036° 55' 44.894" N, 75° 58' 16.173" W

Least Depth: 14.56 m

Timestamp: 2005-216.17:18:00.318 (08/04/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-216 / 431_1713

Profile/Beam: 2377/223

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

[None]

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-216/431_1713	2377/223	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-265/104_2020	0001	12.22	131.6	Secondary

Hydrographer Recommendations

Chart as Dangerous 47' Obstn

Cartographically-Rounded Depth (Affected Charts):

47ft (12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2)

8fm (12200_1, 13003_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

TECSOU - 3:found by multi-beam

VALSOU - 14.561 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur, chart a dangerous 47 Obstn in Latitude 36° 55' 44.89" N, Longitude 75° 58' 16.17" W.

3 - AWOIS Features

3.1) Profile/Beam - 2274/99 from d304_h11402 / ru00_mb_5_4 / 2005-168 / 493_1711

Primary Feature for AWOIS Item #8319

Search Position: 036° 54' 52.600" N, 75° 55' 32.610" W

Historical Depth: 16.76 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

FE353SS/90-- OPR-D111-HE; ITEM NO. 19. OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-54-51.46N, LONG. 75-55-31.86W. ASSUMED TO BE A BUOY ANCHOR SINCE SIDE SCAN SONAR IMAGE IS SIMILAR TO THAT OBTAINED ON ITEM NO. 17 (BUOY ANCHOR SALVAGED BY THE COAST GUARD). EVALUATOR RECOMMENDS CHARTING AN OBSTRUCTION WITH AN ECHO SOUNDER DEPTH OF 16.9 METERS (55 FEET) AS SURVEYED. (ENT 7/15/92, SJV) FE412SS/95-- OPR-E696-HE; OBSTRUCTION LOCATED BY SIDE SCAN SONAR. ECHO SOUNDER LD OF 16.7 METERS (55 FEET) IN LAT. 36-54-52.595N, LONG. 75-55-32.613W. EVALUATOR RECOMMENDS DELETING CHARTED OBSTR REP 1990 AND CHARTING A 55 OBSTR AS SURVEYED. (UP 2/15/96, SJV)

Survey Summary

Survey Position: 036° 54' 52.820" N, 75° 55' 32.709" W

Least Depth: 17.91 m

Timestamp: 2005-168.17:28:04.563 (06/17/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-168 / 493_1711

Profile/Beam: 2274/99

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8319 no longer meets criteria for significance.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-168/493_1711	2274/99	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-172/111_1905	0001	1.43	237.8	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 8319	7.25	340.2	Secondary

Hydrographer Recommendations

Remove 55' Obstn from chart.

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	STATUS - 1:permanent
	TECSOU - 3:found by multi-beam
	VALSOU - 17.913 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Do not concur, revise the charted dangerous 55 Obstn to a 59 ft. dangerous Obstn.

3.2) Profile/Beam - 2213/36 from d304_h11402 / ru00_mb_5_4 / 2005-173 / 489_1542

Primary Feature for AWOIS Item #8320

Search Position: 036° 54' 45.100" N, 75° 55' 32.470" W

Historical Depth: 15.85 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

FE353SS/90-- OPR-D111-WH; ITEM NO. 20. OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-54-43.98N, LONG. 75-55-31.28W. EVALUATOR RECOMMENDS CHARTING AN OBSTRUCTION WITH AN ECHO SOUNDER DEPTH OF 16.8 METERS (55 FEET) AS SURVEYED. (ENT 7/17/92, SJV)
FE412SS/95-- OPR-E696-HE; OBSTRUCTION LOCATED BY SIDE SCAN SONAR. ECHO SOUNDER LD OF 16.0 METERS (52 FEET) IN LAT. 36-54-45.097N, LONG. 75-55-32.467W. EVALUATOR RECOMMENDS DELETING OBSTR REP 1990 AND CHARTING 52 OBSTR AS SURVEYED. (UP 2/15/96, SJV)

Survey Summary

Survey Position: 036° 54' 45.166" N, 75° 55' 32.233" W

Least Depth: 16.98 m

Timestamp: 2005-173.15:58:57.401 (06/22/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-173 / 489_1542

Profile/Beam: 2213/36

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8320 no longer significant

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-173/489_1542	2213/36	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 8320	6.21	070.7	Secondary
d304_h11402/ru00_sss_5_4/2005-172/112_1946	0001	17.17	307.9	Secondary

Hydrographer Recommendations

Remove 52' Obstn from chart.

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	STATUS - 1:permanent
	TECSOU - 3:found by multi-beam
	VALSOU - 16.985 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Do not concur, revise the charted dangerous 52 Obstn to a 55 ft. dangerous Obstn.

3.3) AWOIS #3416 - OBSTRUCTION - AWOIS 3416

No Primary Survey Feature for this AWOIS Item

Search Position: 036° 53' 18.530" N, 75° 56' 08.340" W

Historical Depth: [None]

Search Radius: 200

Search Technique: S2, SWMB, DI, SD

Technique Notes: [None]

History Notes:

H9293WD/72-- OBSTRUCTION ORIGINATED FROM THE NAVY WRECK LIST IN POSITION LAT 36-53-18 N, LONG 075-56 09 W. SURVEY COVERAGE OF THIS ITEM (ITEM 18) WAS NOT ABSOLUTELY DISPROVED BY NOS STANDARDS. EVALUATOR RECOMMENDED THAT THE OBSTRUCTION BE RETAINED AS EXISTENCE DOUBTFUL IN POSITION GIVEN ABOVE. [UPDATED JCM, 2/11/2005] CL25/84--DAVE PETERSON (N/CG24X5) TO JEANNETTE O'CONNOR (N/CG221): RECOMMENDS CHARTING A SUBMERGED OBSTUCTION ED WITH A NOTE SAYING "CLEARED TO 36 FEET" ON ALL CHARTS. DESCRIPTION 24 NO. 1333; POS. ACCURACY 1 NM; REPORTED FROM AN UNIDENTIFIED USC SURVEY IN 1947; FIRST CHARTED AS A NON-DANGEROUS SUBMERGED WRECK IN 1958.

Survey Summary

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

Item not seen during normal SSS operations. Subsequent MB development showed no evidence of an object.

Feature Correlation

Address	Feature	Range	Azimuth	Status
OPR-D304-RU-05-AWOIS	AWOIS # 3416	0.00	000.0	Primary

Hydrographer Recommendations

Remove Obstn ED (cleared 36 ft) from chart.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 3416, a charted Obstn ED (cleared 36 ft) has been disproven, update the status of the AWOIS database and remove the Obstn ED from the chart.

3.4) Profile/Beam - 6268/68 from d304_h11402 / ru00_mb_5_4 / 2005-216 / 429_1807

Primary Feature for AWOIS Item #12395

Search Position: 036° 55' 10.480" N, 75° 57' 31.250" W

Historical Depth: 13.11 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

NO REGISTRY NUMBER ASSIGNED; S-E604-RU-02; HLS PROJECT REPORT; SIDE SCAN SONAR CONTACT; SWMB LD OF 43 FEET IN LAT. 36-55-10.48N, LONG. 75-57-31.25W. EVALUATOR RECOMMENDS CHARTING A 43 OBSTN AS SURVEYED. (ENT 4/2/04, SJV)

Survey Summary

Survey Position: 036° 55' 10.535" N, 75° 57' 31.292" W

Least Depth: 13.52 m

Timestamp: 2005-216.18:17:39.420 (08/04/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-216 / 429_1807

Profile/Beam: 6268/68

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 12395 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-216/429_1807	6268/68	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 12395	2.00	328.9	Secondary
d304_h11402/ru00_sss_5_4/2005-265/103_1940	0001	9.88	301.9	Secondary

Hydrographer Recommendations

Remove 43' Obstn from chart.

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 13.518 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur, revise the charted dangerous 43 Obstn to a 44 ft. dangerous Obstn.

3.5) Profile/Beam - 541/175 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 848_1912

Primary Feature for AWOIS Item #8253

Search Position: 036° 56' 27.470" N, 75° 55' 29.860" W

Historical Depth: 12.50 m

Search Radius: 50

Search Technique: SWMB, S2, DI, SD

Technique Notes: INVESTIGATE FOR LEAST DEPTH

History Notes:

H10372/90-- OPR-D111-HE (FORMERLY FE-356SS); OBSTRUCTION LOCATED BY H-10343/90 (WHITING) NOT DISPROVED. IN LAT. 36-56-27.59N, LONG. 75-55-29.61W. ESTIMATED DEPTH OF 11.7 METERS. RECOMMEND CHARTING AND ADDITIONAL WORK AT AN OPPORTUNE TIME. (ENT 4/20/92, SJV) FE412SS/95-- OPR-E696-HE; OBSTRUCTION LOCATED BY SIDE SCAN SONAR. ECHO SOUNDER LD OF 12.5 METERS (41 FEET) IN LAT. 36-56-27.466N, LONG. 75-55-29.856W. EVALUATOR RECOMMENDS DELETING OBSTR REP AND CHARTING A 41 OBSTR AS SURVEYED. (UP 2/15/96, SJV) H11027/01-- OPR-D304-WH; LOCATED DURING MAINSCHEME HYDROGRAPHY. CALCULATED HEIGHT OF OBSTRUCTION APPROX. 1.26 METERS (4.1 FEET) IN SURROUNDING DEPTHS OF 44 TO 45 FEET. THIS IS CONSISTENT WITH CHARTED 41-FOOT LD. DUE TO TIME CONSTRAINTS NO LD WAS DETERMINED. EVALUATOR RECOMMENDS RETAINING AS CHARTED. (UP 2/25/02, SJV)

Survey Summary

Survey Position: 036° 56' 27.552" N, 75° 55' 29.784" W

Least Depth: 13.43 m

Timestamp: 2005-300.19:13:26.850 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 848_1912

Profile/Beam: 541/175

Charts Affected: 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8253 - sunken buoy - No longer significant

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/848_1912	541/175	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 8253	3.15	036.8	Secondary
d304_h11402/ru00_sss_5_4/2005-294/113_1424	0001	7.50	279.7	Secondary

d304_h11402/ru00_sss_5_4/2005-294/111_1435	0001	13.79	277.3	Secondary
d304_h11402/ru00_sss_5_4/2005-294/112_1430	0001	16.15	085.2	Secondary

Hydrographer Recommendations

No longer meets criteria for significance. Remove 41' Obstn from the chart.

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

STATUS - 1:permanent

TECSOU - 3:found by multi-beam

VALSOU - 13.434 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Do not concur, revise the charted dangerous 41 Obstn to a 44 ft. dangerous Obstn.

3.6) Profile/Beam - 1050/143 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 916_1955

Primary Feature for AWOIS Item #8254

Search Position: 036° 56' 06.390" N, 75° 57' 17.860" W

Historical Depth: [None]

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: SALVAGE OF THIS ITEM BY THE 5CGD IS LIKELY. CONTACT WITH 5CGD OR COE SHOULD BE MADE BEFORE ANY HYDROGRAPHIC INVESTIGATION IS INITIATED

History Notes:

H10372/90-- OPR-D111-HE (FORMERLY FE-356SS); UNCHARTED OBSTRUCTION LOCATED IN LAT. 36-56-06.39N, LONG. 75-57-17.86WCOVERED 54.1 FEET. EVALUATOR STATES THIS ITEM IS THE SAME AS THAT DISCUSSED IN A COE REPORT TITLED "ENGINEERING ANALYSIS OF NINE SIDE SCAN SONAR TARGETS FROM THE THIMBLE SHOAL CHANNEL TO THE SOUTH ATLANTIC SEA LANE, CHESAPEAKE BAY ENTRANCE, VIRGINIA", FEB., 1985. THIS IS TARGET ATL #11 WHICH WAS DESCRIBED AS A STEEL CHANNEL BUOY LYING ON ITS SIDE IN AN E-W DIRECTION, UPPER 12 FEET OF STEEL-FRAMED TOWER BENT 90 DEGS. TO THE SOUTH. BASE OF BUOY 9 FEET IN DIA., 8 FEET TALL. SHORT LENGTH OF CHAIN ATTACHED TO WEST END OF BUOY. DENTED ON ONE SIDE, RIPPED OPEN ALONG THE BOTTOM, INDICATING IT WAS POSSIBLY HIT AND SUNK BY A SHIP. IN ABOUT 63 FEET. COAST GUARD WAS NOTIFIED BY COE AND SALVAGE ATTEMPTS WERE LIKELY.

Survey Summary

Survey Position: 036° 56' 06.516" N, 75° 57' 17.914" W

Least Depth: 17.02 m

Timestamp: 2005-300.19:57:58.156 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 916_1955

Profile/Beam: 1050/143

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8254 found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/916_1955	1050/143	0.00	000.0	Primary

OPR-D304-RU-05-AWOIS	AWOIS # 8254	4.13	341.1	Secondary
d304_h11402/ru00_sss_5_4/2005-251/121_1960	0001	10.18	291.4	Secondary
d304_h11402/ru00_sss_5_4/2005-251/200_1651	0004	21.01	282.5	Secondary
d304_h11402/ru00_sss_5_4/2005-251/200_1651	0003	38.80	157.8	Secondary

Hydrographer Recommendations

Replace 54' Obstn with 56' Obstn at surveyed position.

Cartographically-Rounded Depth (Affected Charts):

56ft (12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2)

9 ¼fm (12200_1, 13003_1)

S-57 Data

Geo object 1: Obstruction (OBSTRN)

Attributes: QUASOU - 6:least depth known

TECSOU - 3:found by multi-beam

VALSOU - 17.023 m

VERDAT - 12:Mean lower low water

WATLEV - 3:always under water/submerged

Office Notes

Concur, revise the charted dangerous 54 Obstn to a dangerous 56 Obstn.

3.7) Profile/Beam - 541/225 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 927_2024

Primary Feature for AWOIS Item #8255

Search Position: 036° 55' 57.840" N, 75° 57' 33.890" W

Historical Depth: 18.20 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

H10372/92-- OPR-D111-HE (FORMERLY FE-356SS); OBSTRUCTION LOCATED IN LAT. 36-55-57.84N, LONG. 75-57-33.89W. FATHOMETER DEPTH OF 18.2 METERS. EVALUATOR RECOMMENDS CHARTING AS SURVEYED. (ENT 4/20/92, SJV)

Survey Summary

Survey Position: 036° 55' 57.781" N, 75° 57' 34.049" W

Least Depth: 18.76 m

Timestamp: 2005-300.20:25:49.900 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 927_2024

Profile/Beam: 541/225

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8255

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/927_2024	541/225	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 8255	4.33	245.0	Secondary
d304_h11402/ru00_sss_5_4/2005-251/202_1731	0002	12.76	260.9	Secondary

Hydrographer Recommendations

Chart 61' Obstn at surveyed position.

Cartographically-Rounded Depth (Affected Charts):

61ft (12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2)

10 ¼fm (12200_1, 13003_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	TECSOU - 3:found by multi-beam
	VALSOU - 18.764 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Concur, chart a dangerous 61 Obstn in Latitude 36° 55' 57.78" N, Longitude 75° 57' 34.05" W.

3.8) Profile/Beam - 319/130 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 827_2103

Primary Feature for AWOIS Item #8258

Search Position: 036° 56' 29.520" N, 75° 58' 04.450" W

Historical Depth: 19.29 m

Search Radius: 50

Search Technique: S2, SWMB, DI, SD

Technique Notes: [None]

History Notes:

H10372/90-- OPR-D111-HE (FORMERLY FE-356SS); OBSTRUCTION LOCATED IN LAT. 36-56-29.52N, LONG. 75-58-04.45W. FATHOMETER LD OF 19.3 METERS. EVALUATOR RECOMMENDS CHARTING AS SURVEYED. (ENT 4/20/92, SJV)

Survey Summary

Survey Position: 036° 56' 29.732" N, 75° 58' 04.960" W

Least Depth: 19.52 m

Timestamp: 2005-300.21:03:46.224 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 827_2103

Profile/Beam: 319/130

Charts Affected: 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8258 found.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/827_2103	319/130	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-251/210_1508	0001	3.51	295.6	Secondary
d304_h11402/ru00_sss_5_4/2005-263/130_2118	0001	9.73	105.4	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 8258	14.20	297.5	Secondary

Hydrographer Recommendations

Replace 62' Obstn with 64' Obstn at surveyed position.

Cartographically-Rounded Depth (Affected Charts):

64ft (12222_1, 12208_1, 12205_1, 12221_1, 12280_2)

10 ½fm (12200_1, 13003_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	TECSOU - 3:found by multi-beam
	VALSOU - 19.523 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Concur, revise the charted dangerous 62 Obstn to a dangerous 64 Obstn.

3.9) Profile/Beam - 607/87 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 901_1543

Primary Feature for AWOIS Item #8260

Search Position: 036° 55' 32.100" N, 75° 57' 47.600" W

Historical Depth: 13.50 m

Search Radius: 50

Search Technique: S2, SWMB, DI, SD

Technique Notes: [None]

History Notes:

H10372/90-- OPR-D111-HE (FORMERLY FE-356SS); OBSTRUCTION LOCATED IN LAT. 36-55-32.1N, LONG. 75-57-47.6W. ESTIMATED DEPTH FROM SONARGRAM OF 13.5 METERS. EVALUATOR RECOMMENDS CHARTING AN OBSTR (A) COVERED 13.5 METERS. (ENT 4/20/92, SJV)

Survey Summary

Survey Position: 036° 55' 32.519" N, 75° 57' 47.397" W

Least Depth: 15.73 m

Timestamp: 2005-300.15:44:13.780 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 901_1543

Profile/Beam: 607/87

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8260 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/901_1543	607/87	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 8260	13.90	021.2	Secondary

Hydrographer Recommendations

No longer meets criteria for significance. Do not chart.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 8260 has been disproven, update the status of the AWOIS database.

3.10) Profile/Beam - 358/214 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 921_2035

Primary Feature for AWOIS Item #12394

Search Position: 036° 56' 10.040" N, 75° 57' 45.360" W

Historical Depth: 17.98 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

NO REGISTRY NUMBER ASSIGNED; S-E604-RU-02' HLS PROJECT REPORT; SIDE SCAN SONAR CONTACT. SWMB LD OF 59 FEET IN LAT. 36-56-10.04N, LONG. 75-57-45.36W. EVALUATOR RECOMMENDS CHARTING A 59 OBSTN AS SURVEYED. (ENT 4/2/04, SJV)

Survey Summary

Survey Position: 036° 56' 10.427" N, 75° 57' 43.938" W

Least Depth: 19.68 m

Timestamp: 2005-300.20:36:21.604 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 921_2035

Profile/Beam: 358/214

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 12394 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/921_2035	358/214	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-251/208_1631	0001	10.87	087.8	Secondary
d304_h11402/ru00_sss_5_4/2005-251/200_1650	0001	14.75	273.4	Secondary
d304_h11402/ru00_sss_5_4/2005-251/120_2018	0001	33.20	207.6	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 12394	37.10	071.2	Secondary

Hydrographer Recommendations

Does not meet criteria for significance. Remove 59' Obstn from chart.

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	STATUS - 1:permanent
	TECSOU - 3:found by multi-beam
	VALSOU - 19.682 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Do not concur, revise the charted dangerous 59 Obstn to a 64 ft. Obstn.

3.11) Profile/Beam - 6938/113 from d304_h11402 / ru00_mb_5_4 / 2005-181 / 305_2050

Primary Feature for AWOIS Item #8263

Search Position: 036° 56' 38.300" N, 76° 00' 42.250" W

Historical Depth: 17.00 m

Search Radius: 50

Search Technique: S2, SWMB, DI, SD

Technique Notes: [None]

History Notes:

H10372/90 -- OPR-D111-HE (FORMERLY FE-356SS); OBSTRUCTION LOCATED IN LAT. 36-56-38.30N, LONG. 76-00-42.25W. FATHOMETER LD OF 17 METERS. EVALUATOR RECOMMENDS CHARTING AS SURVEYED. (ENT 4/20/92, SJV)

Survey Summary

Survey Position: 036° 56' 36.412" N, 76° 00' 47.993" W

Least Depth: 17.32 m

Timestamp: 2005-181.21:01:27.018 (06/30/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-181 / 305_2050

Profile/Beam: 6938/113

Charts Affected: 12254_1, 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8263 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-181/305_2050	6938/113	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-265/131_1335	0001	20.27	270.7	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 8263	153.36	247.6	Secondary (grouped)

Hydrographer Recommendations

Remove 56' Obstn from chart. Remove AWOIS 8263 from database.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 8263, a charted dangerous 56 Obstn has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.12) Profile/Beam - 307/59 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 863_1750

Primary Feature for AWOIS Item #3334

Search Position: 036° 52' 40.530" N, 75° 56' 30.740" W

Historical Depth: 8.84 m

Search Radius: 200

Search Technique: SD, S2, SWMB, DI

Technique Notes: [None]

History Notes:

H9871/76WD--AN ANCHOR FLUKE HUNG AT 31FT AND WAS CLEARED BY 29FT IN LAT.36-52-40N, LONG.75-56-32W. (ENTERED, 2/2/84, MJF). H9922/80--OPR-D103-MI-80; THIS OBSTR. WAS CARRIED FWD. FROM H9871WD TO THIS SURVEY. QC INSP. RECOMMENDS CHARTING THIS OBST. AS A 29FT CLEARED DEPTH. (ENTERED, 2/2/84, MJF).

Survey Summary

Survey Position: 036° 52' 39.244" N, 75° 56' 38.026" W

Least Depth: 8.85 m

Timestamp: 2005-300.17:51:17.131 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 863_1750

Profile/Beam: 307/59

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 3334 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/863_1750	307/59	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-279/222_1708	0001	25.57	228.5	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 3334	184.28	257.5	Secondary

Hydrographer Recommendations

Remove 29-ft cleared depth Obstn from chart. Remove AWOIS 3334 from database.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 3334, a charted 29 ft. cleared depth Obstn has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.13) Profile/Beam - 296/71 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 850_1900

Primary Feature for AWOIS Item #8323

Search Position: 036° 55' 49.230" N, 75° 54' 50.330" W

Historical Depth: 13.41 m

Search Radius: 50

Search Technique: SWMB, S2, DI, SD

Technique Notes: INVESTIGATE FOR LEAST DEPTH

History Notes:

H10340/90-- OPR-D111-WH; OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-55-49.64N, LONG. 75-54-50.73W WITH AN ESTIMATED DEPTH OF 14.4 METERS. ADDITIONAL WORK RECOMMENDED. FE353SS/90-- OPR-D111-HE; ITEM NO. 26. OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-55-49.12N, LONG. 75-54-50.55W. DIVERS DESCRIBE SUNKEN BUOY PARTIALLY BURIED. EVALUATOR RECOMMENDS CHARTING AN OBSTRUCTION WITH AN ECHO SOUNDER DEPTH OF 13.8 METERS (45 FEET) AS SURVEYED. (7/15/92, SJV) FE412SS/95-- OPR-E696-HE; LOCATED BY SIDE SCAN SONAR. ECHO SOUNDER LD OF 13.3 METERS (44 FEET) IN LAT. 36-55-49.234N, LONG. 75-54-50.327W. EVALUATOR RECOMMENDS CHARTING A 44 OBSTR AS SURVEYED. (UP 2/15/96, SJV) H11027/01-- OPR-D324-WH; LOCATED DURING MAINSCHEME HYDROGRAPHY. CALCULATED HEIGHT OF OBSTRUCTION APPROX. 0.79 METERS (2.6 FEET) IN SURROUNDING DEPTHS OF 47 FEET. THIS IS CONSISTENT WITH THE CHARTED 44-FOOT LD. DUE TO TIME CONSTRAINTS NO LD WAS DETERMINED. EVALUATOR RECOMMENDS RETAINIG AS CHARTED. (UP 2/25/02, SJV)

Survey Summary

Survey Position: 036° 55' 49.323" N, 75° 54' 50.547" W

Least Depth: 14.96 m

Timestamp: 2005-300.19:01:23.468 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 850_1900

Profile/Beam: 296/71

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8323 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/850_1900	296/71	0.00	000.0	Primary

OPR-D304-RU-05-AWOIS	AWOIS # 8323	6.07	298.2	Secondary
d304_h11402/ru00_sss_5_4/2005-294/107_1504	0001	10.68	281.3	Secondary
d304_h11402/ru00_sss_5_4/2005-294/106_1509	0001	12.90	077.4	Secondary
d304_h11402/ru00_sss_5_4/2005-294/105_1514	0001	15.56	278.6	Secondary

Hydrographer Recommendations

Remove 44' Obstn from the chart.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 8323, a charted dangerous 44 Obstn has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.14) Profile/Beam - 3299/63 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 888_1627

Primary Feature for AWOIS Item #12259

Search Position:	036° 54' 22.530" N, 75° 57' 45.740" W
Historical Depth:	6.10 m
Search Radius:	250
Search Technique:	SD, S2, SWMB, DI
Technique Notes:	[None]

History Notes:

NM44/20-- CHESAPEAKE BAY APPROACHES-WRECK-LIGHT BUOY ESTABLISHED- ON OCTOBER 15, 1920 A LIGHT BUOY, HORIZONTALLY STRIPED, WAS ESTABLISHED ABOUT 2.5 MILES, 129 DEGS. FROM CAPE HENRY LIGHTHOUSE IN 4 FATHOMS OF WATER TO MARK THE WRECK OF THE SUNKEN SCHOONER "T.F. POLLARD. THE LIGHT BUOY WHICH IS CONICAL WITH A SKELETON SUPERSTRUCTURE SHOWING AN OCCULTING RED LIGHT EVERY 10 SEC - LIGHT 5 SEC, ECLIPSE 5 SEC - OF 5 CANDLE POWER 11 FEET ABOVE THE WATER, IS MOORED ON THE BEARINGS: VIRGINIA BEACH, TANK 196 DEG. 30 MIN.; CAPE HENRY LIGHTHOUSE 309 DEG. THE WRECK LIES 100 YARDS, 241 DEG. FROM THE LIGHT BUOY WITH 5 FEET OF WATER OVER IT AT LOW TIDE. (REF. NM43 (1370) BUREAU OF LIGHTHOUSES, 1920). NM1/21-- CHESAPEAKE BAY APPROACHES-WRECK NO LONGER A MENACE-LIGHT BUOY WITHDRAWN- ON DECEMBER 11, 1920, THE LIGHT BUOY MOORED TO MARK THE WRECK OF THE SCHOONER "THOMAS F. POLLARD" WAS WITHDRAWN, THE WRECK BEING NO LONGER A MENACE TO NAVIGATION. CL347/58-- FROM CHIEF, USC CHART DIVISION TO "ALL CARTOGRAPHERS"; SUBJECT: NONDANGEROUS WRECKS, CHARTING OF; DATED MAY,8 1958; CHART ALL KNOWN WRECKS (DANGEROUS AS WELL AS THOSE CONSIDERED NON-DANGEROUS) OUT TO THE 300-FATHOM CURVE. (NOTE: THESE WRECKS ORIGINATED WITH THE NAVY WRECK LIST (24) BELOW). H09293WD/72-- OPR-467-RH-72; ITEM #16. ("T.F. POLLARD") WIRE DRAG INVESTIGATION NEGATIVE FOR WRECK. HOWEVER, A "METAL CLUMP" WAS HUNG IN LAT. 36-54-22N, LONG. 75-57-47W. COVERED WITH TRAWLER NETS (NOTE ON "A PLOT). THE EVALUATOR RECOMMENDS DELETING THE NON-DANGEROUS WRECK ("TF POLLARD") AND CHARTING A DANGEROUS OBSTRUCTION, CLEARED TO 24 FEET AS SURVEYED. CL24/84-- "MINUTE MEMO" DATED JANUARY 10, 1984; FROM DAVE PETERSON (N/CG24X5) TO JEANETTE O'CONNOR ("AREA 2" MCD) RE. FINDINGS OF WIRE DRAG SURVEY H9293; RECOMMENDS CHARTING "ITEM 16", ABOVE AS CLEARED TO 20 FEET VICE 24 FEET. OF THE TWO CLEARANCE STRIPS, 20 FEET WAS THE LEAST EFFECTIVE CLEARED DEPTH. (SEE AWOIS NO. 804) DESCRIPTION 24 NO.1324; SCHOONER; LAT. 36-54-00N, LONG. 55-58-00W. SUNK 1920; POSITION ACCURACY WITHIN 1 MILE. (NOTE: SPELLING IS "TF POLLAND" IN THIS SOURCE). (UP 2/19/04, SJV)

Survey Summary

Survey Position:	036° 54' 25.307" N, 75° 57' 47.962" W
Least Depth:	7.71 m
Timestamp:	2005-300.16:29:54.589 (10/27/2005)
Survey Line:	d304_h11402 / ru00_mb_5_4 / 2005-300 / 888_1627

Profile/Beam: 3299/63

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 12259 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/888_1627	3299/63	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-294/119_1648	0001	27.90	334.6	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 12259	101.91	327.4	Secondary

Hydrographer Recommendations

Remove 20' cleared depth Obstn from chart.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 12259, a charted dangerous 20 ft. cleared depth Obstn has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.15) Profile/Beam - 1485/54 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 865_1704

Primary Feature for AWOIS Item #3335

Search Position: 036° 53' 08.530" N, 75° 56' 37.740" W

Historical Depth: 8.84 m

Search Radius: 200

Search Technique: SD, S2, SWMB, DI

Technique Notes: [None]

History Notes:

H9871/76WD--AN ANCHOR FLUKE HUNG AT 32FT AND WAS CLEARED BY 29FT IN LAT.36-53-08N, LONG.75-56-39W. (ENTERED, 2/2/84, MJF) H9922/80--OPR-D103-MI-80; THIS OBSTR. WAS BROUGHT FWD. TO THIS SURVEY FROM H9871WD. QC INSP. RECOMMENDS CHARTING OBSTR. AS A 29FT CLEARED DEPTH. (ENTERED, 2/2/84, MJF)

Survey Summary

Survey Position: 036° 53' 05.366" N, 75° 56' 36.811" W

Least Depth: 9.53 m

Timestamp: 2005-300.17:06:17.522 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 865_1704

Profile/Beam: 1485/54

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 3335 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/865_1704	1485/54	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 3335	100.48	166.8	Secondary (grouped)

Hydrographer Recommendations

Remove 29' cleared Obstn from chart.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 3335, a charted dangerous 29 ft. cleared depth Obstn has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.16) Profile/Beam - 1280/83 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 877_1656

Primary Feature for AWOIS Item #3418

Search Position: 036° 53' 48.530" N, 75° 56' 24.740" W

Historical Depth: [None]

Search Radius: 200

Search Technique: SD, S2, SWMB, DI

Technique Notes: [None]

History Notes:

H9293/72--OPR-467-R/H-72; TEMPORARY HANG NOT INVESTIGATED IN APPROX. POSITION LAT. 36-53-48N, LONG. 75-56-26W. ITEM NOW CHARTED AS 37-FT WIRE DRAG CLEARANCE DEPTH WITH OBSTN NOTATION. THIS ITEM CAUSED A TEMPORARY WIRE DRAG HANG AT37 FEET AND WAS CLEARED AT 31 FEET. [UPDATED JCM 2/11/2005] CL25/84--DAVE PETERSON (SPECIAL ASSISTANT FOR FIELD OPERATIONS, N/CG24X5) TO JEANNETTE O'CONNOR (N/CG221); RECOMMENDS CHARTING TEMP. HANG AS OBSTR PA (31 FT REP 1972). (SEE AWOIS NO. 03416 AND 03417) DESCRIPTION **** TELECON, 1/30/86, M. HICKSON (MOA2321) AND S. VERRY (N/CG241); RE. TEMPORARY HANG (ABOVE). CHARTNG RECOMMENDATION; OBSTR PA (CLEARED 31 FT 1972).

Survey Summary

Survey Position: 036° 53' 49.098" N, 75° 56' 25.239" W

Least Depth: 11.86 m

Timestamp: 2005-300.16:57:56.574 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 877_1656

Profile/Beam: 1280/83

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 3418 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/877_1656	1280/83	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 3418	21.47	324.9	Secondary

Hydrographer Recommendations

Remove AWOIS 3418 from AWOIS database. Remove "37' cleared Obstn" from chart.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 3418, a charted dangerous 37 ft. cleared depth Obstn has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.17) Profile/Beam - 319/18 from d304_h11402 / ru00_mb_5_4 / 2005-166 / 539_2100

Primary Feature for AWOIS Item #7522

Search Position:	036° 54' 42.530" N, 75° 53' 58.730" W
Historical Depth:	14.33 m
Search Radius:	0
Search Technique:	[None]
Technique Notes:	[None]

History Notes:

NM8/31-- COAST GUARD REPORTS F/V BEAUTY SUNK 5.25 MILES, 100 DEGS. FROM CAPE HENRY LIGHT HOUSE IN LAT. 36-54-42N, LONG. 75-54-00W. H6976WD/45-47-- CS-326-WA/HI; CLEARED IN ONE DIRECTION BY 47 FEET WHILE INVESTIGATING ITEM 3 (AWOIS NO. 808). THIS WRECK WAS NOT CHARTED AT TIME OF SURVEY. CL347/58-- ITEM CHARTED VIA H.O. WRECK LIST AS A 47-FOOT CLEARED DEPTH. H9922/80-- OPR-D103-MI-80; NO WIRE DRAG SURVEY HAS FURTHER INVESTIGATED THIS ITEM. H10340/90-- OPR-D111-WH; TWO SIGNIFICANT CONTACTS FOUND WITHIN THE 2000-METER SEARCH RADIUS AND SEVERAL CONTACTS WERE FOUND OUTSIDE THE RADIUS (WITHIN 700 METERS). APPROX. 10% OF SEARCH RADIUS WAS NOT COVERED BY SIDE SCAN SONAR (NORTHEASTERN AREA). ADDITIONAL WORK WAS REQUESTED ON ALL SIGNIFICANT CONTACTS. EVALUATOR RECOMMENDS THAT THE ITEM BE RETAINED AS CHARTED AND THAT FURTHER DISCUSSION AND CHARTING RECOMMENDATION BE DEFERRED UNTIL THE COMPLETION OF OFFICE PROCESSING OF SURVEY FE-353SS/90, AND A FINAL DISPOSITION OF THE ITEM IS MADE. (UP 10/29/91, SJV) FE353SS/90-- OPR-D111-HE; ITEM NOT DISPROVED. APPROXIMATELY 15% OF THE SEARCH RADIUS NOT COMPLETED. EVALUATOR RECOMMENDS RETAINING AS CHARTED. SEE AWOIS NOS. 8313, 8314, 8315, AND 8316 FOR ADDITIONAL INFO. REGARDING CONTACTS WITHIN SEARCH RADIUS FOR THIS ITEM. (UP 7/14/92, SJV) FE412SS/95-- OPR-E696-HE; 200% SIDE SCAN SONAR OVER REMAINING 15% SEARCH RADIUS NEGATIVE. EVALUATOR RECOMMENDS DELETING. (UP 2/15/96, SJV) DESCRIPTION 24 NO.1332; POSITION ACCURACY WITHIN 1 MILE

Survey Summary

Survey Position:	036° 54' 43.055" N, 75° 53' 58.156" W
Least Depth:	17.00 m
Timestamp:	2005-166.21:00:34.177 (06/15/2005)
Survey Line:	d304_h11402 / ru00_mb_5_4 / 2005-166 / 539_2100
Profile/Beam:	319/18
Charts Affected:	12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 7522 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-166/539_2100	319/18	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 7522	21.54	041.1	Secondary

Hydrographer Recommendations

Remove AWOIS 7522 from database.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 7522 has been disproven, update the status of the AWOIS database.

3.18) Profile/Beam - 466/2 from d304_h11402 / ru00_mb_5_4 / 2005-300 / 853_1820

Primary Feature for AWOIS Item #8313

Search Position: 036° 53' 27.230" N, 75° 54' 42.640" W

Historical Depth: 15.60 m

Search Radius: 50

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

H10340/90-- OPR-D111-WH; OBSTRUCTION LOCATED BY SIDE SCAN SONAR WITH AN ESTIMATED DEPTH OF 15.6 METERS IN POSITION LAT. 36-53-26.89N, LONG. 75-54-42.99W. LOCATED WHILE SEARCHING FOR AWOIS NO. 7522. SEE ADDITIONAL WORK BY HECK, BELOW. FE353SS/90--OPR-D111-HE; ITEM NO. 1 (BUOY ANCHOR) LOCATED IN LAT. 36-53-27.23N, LONG. 75-54-42.64W. WAS NOT SALVAGED BY COAST GUARD AS PLANNED. EVALUATOR RECOMMENDS CHARTING A DANGEROUS SUBMERGED OBSTRUCTION WITH A DIVER LD OF 47 FEET (14.5 METERS) AS SURVEYED. (ENT 7/14/92, SJV)

Survey Summary

Survey Position: 036° 53' 27.503" N, 75° 54' 42.177" W

Least Depth: 15.68 m

Timestamp: 2005-300.18:20:51.295 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 853_1820

Profile/Beam: 466/2

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8313 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/853_1820	466/2	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 8313	14.23	053.6	Secondary

Hydrographer Recommendations

Remove 47' Obstn from chart. Remove AWOIS 8313 from database.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 8313, a charted dangerous 47 Obstn, has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.19) Profile/Beam - 1833/44 from d304_h11402 / ru00_mb_5_4 / 2005-168 / 495_1618

Primary Feature for AWOIS Item #8315

Search Position:	036° 53' 41.880" N, 75° 54' 11.600" W
Historical Depth:	[None]
Search Radius:	0
Search Technique:	I
Technique Notes:	[None]

History Notes:

H10340/90-- OPR-D111-WH; OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-53-43.78N, LONG. 75-54-10.80W WHILE SEARCHING FOR AWOIS ITEM 7522. ESTIMATED DEPTH OF 13.3 METERS (44 FEET). ADDITIONAL WORK RECOMMENDED. (UP 3/17/95, SJV) FE353SS/90-- OPR-D111-HE; ITEM NO. 10 (BUOY ANCHOR). LOCATED BY SIDE SCAN SONAR IN LAT. 36-53-41.88N, LONG. 75-54-11.60W. EVALUATOR RECOMMENDS CHARTING AN OBSTRUCTION WITH AN ECHO SOUNDER DEPTH OF 15.4 METERS (50.0 FEET) AS SURVEYED. (ENT 7/14/92, SJV) FE412SS/95-- OPR-E696-HE; 400% SIDE SCAN SONAR NEGATIVE. EVALUATOR RECOMMENDS DELETING. (UP 2/15/96, SJV) DESCRIPTION **** MEMO TO CAPT. DEAN SEIDEL (N/CG241) FROM CDR. CHRISTOPHER LAWRENCE (N/CG244) DATED 9/16/92. RE. EXCHANGE OF INFO. BETWEEN NOS, USCG, AND USACE. ATTACHMENTS DOCUMENT UCCG SALVAGE OF THREE OBJECTS APPROXIMATELY 430 FEET NORTHEAST OF NOS LOCATED LOCATED OBSTRUCTION ABOVE. TWO 12,700 LB. CONCRETE SINKERS AND A BUNDLE OF 1 1/2 " DIA. CHAIN APPROXIMATELY 180 FEET LONG IN BETWEEN THE TWO SINKERS WERE REMOVED BY USCGC COWSLIP ON 8/26/92. ALL ITEMS LOCATED WITHIN 12- FOOT DIA. CIRCLE AND COMPLETELY ENTANGLED IN A DETERIORATED FISHING NET. DEPTH OVER THESE SALVAGED ITEMS WAS 50.2 FEET (MLLW). DUE TO POSITION DIFFERENCE, USACE RECOMMENDS RETAINING CHARTED OBSTRUCTION AT THE NOS POSITION BUT REVISING THE DEPTH FROM 44 FEET TO 50 FEET. NOTE: THIS ENTIRE PACKAGE WAS "FAXED" TO N/CG241 (STEVE VERRY) BY USCAE, NORFOLK (CHRIS ROWLEY) ON 3/17/95. (ENT 3/17/95, SJV)

Survey Summary

Survey Position:	036° 53' 42.437" N, 75° 54' 12.299" W
Least Depth:	16.96 m
Timestamp:	2005-168.16:21:27.966 (06/17/2005)
Survey Line:	d304_h11402 / ru00_mb_5_4 / 2005-168 / 495_1618
Profile/Beam:	1833/44
Charts Affected:	12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8315 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-168/495_1618	1833/44	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 8315	24.38	315.0	Secondary

Hydrographer Recommendations

Remove AWOIS 8315 from database.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 8315 has been disproven, update the status of the AWOIS database.

3.20) Profile/Beam - 5369/145 from d304_h11402 / ru00_mb_5_4 / 2005-173 / 487_1639

Primary Feature for AWOIS Item #9344

Search Position: 036° 54' 57.390" N, 75° 55' 46.960" W

Historical Depth: [None]

Search Radius: 0

Search Technique: [None]

Technique Notes: [None]

History Notes:

H10340/90-- OPR-D111-WH; SIDE SCAN SONAR CONTACT IDENTIFIED DURING OFFICE PROCESSING IN LAT. 36-54-57.39N, LONG. 75-55-46.96W. ESTIMATED DEPTH OF 14.4 METERS (47.0 FEET). FE353SS/90-- OPR-D111-HE; DISPROVED. EVALUATOR RECOMMENDS NOT CHARTING. (UP 1/17/95, SJV)

Survey Summary

Survey Position: 036° 54' 56.983" N, 75° 55' 47.553" W

Least Depth: 17.68 m

Timestamp: 2005-173.16:59:34.581 (06/22/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-173 / 487_1639

Profile/Beam: 5369/145

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 9344 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-173/487_1639	5369/145	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 9344	19.32	229.3	Secondary

Hydrographer Recommendations

Remove AWOIS 9344 from database.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 9344 has been disproven, update the status of the AWOIS database.

3.21) Profile/Beam - 5618/145 from d304_h11402 / ru00_mb_5_4 / 2005-180 / 478_1346

Primary Feature for AWOIS Item #9381

Search Position: 036° 54' 29.320" N, 75° 55' 34.220" W

Historical Depth: [None]

Search Radius: 0

Search Technique: [None]

Technique Notes: [None]

History Notes:

H10340/90-- OPR-D111-WH; SIDE SCAN SONAR CONTACT IDENTIFIED DURING OFFICE PROCESSING IN LAT. 36-54-29.32N, LONG. 75-55-34.22W. ESTIMATED DEPTH OF 15.4 METERS (50.5 FEET). NOT SUBSEQUENTLY INVESTIGATED BY HECK. (ENT 3/17/95, SJV) FE412SS/95-- OPR-E696-HE; 400% SIDE SCAN SONAR SEARCH NEGATIVE. EVALUATROR RECOMMENDS DELETING. (UP 2/15/96, SJV)

Survey Summary

Survey Position: 036° 54' 29.712" N, 75° 55' 34.170" W

Least Depth: 17.24 m

Timestamp: 2005-180.13:56:18.774 (06/29/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-180 / 478_1346

Profile/Beam: 5618/145

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 9381 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-180/478_1346	5618/145	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 9381	12.19	005.8	Secondary

Hydrographer Recommendations

Remove AWOIS 9381 from database.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 9381 has been disproven, update the status of the AWOIS database.

3.22) Profile/Beam - 7003/80 from d304_h11402 / ru00_mb_5_4 / 2005-263 / 399_1616

Primary Feature for AWOIS Item #12260

Search Position: 036° 54' 46.530" N, 75° 57' 41.740" W

Historical Depth: 11.28 m

Search Radius: 200

Search Technique: SD, S2, SWMB, DI

Technique Notes: [None]

History Notes:

H09293/72WD-- OPR-467-RU/HE; TEMPORARY HANG IN LAT. 36-54-46N, LONG. 75-57-43W. EFFECTIVE CLEARED DEPTH OF 23 FEET. NOT INVESTIGATED. H09905/80-- OPR-D103-MI/PE; 24-FOOT DEPTH OBTAINED AT ABOVE LOCATION. 23-FOOT CLEARED DEPTH BROUGHT FORWARD TO PRESENT SURVEY. CL25/84-- MEMO DATED JANUARY 10 1984 FROM DAVE PETERSON (N/CG24X5) TO JEANETTE O'CONNOR (MARINE CHART DIVISION) RE. CHARTING OF ABOVE INFORMATION. RECOMMENDS CHARTING AN OBSTN, (23 REP 1972) AS FOUND ON H09293WD. (NOTE: REVISED TO A 37-FOOT CLEARED DEPTH IN 1990. SOURCE OF THIS REVISION NOT READILY ASCERTAINABLE). (ENT 2/25/04, SJV)

Survey Summary

Survey Position: 036° 54' 46.007" N, 75° 57' 42.365" W

Least Depth: 10.17 m

Timestamp: 2005-263.16:25:14.541 (09/20/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-263 / 399_1616

Profile/Beam: 7003/80

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 12260 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-263/399_1616	7003/80	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 12260	22.35	223.7	Secondary

Hydrographer Recommendations

Remove AWOIS 12260 from database. Remove 37' cleared depth Obstn from chart.

S-57 Data

[None]

Office Notes

Concur, AWOIS Item 12260, a charted dangerous 37 ft. cleared depth Obstn has been disproven, update the status of the AWOIS database and remove the Obstn from the chart.

3.23) Profile/Beam - 4794/39 from d304_h11402 / ru00_mb_5_4 / 2005-181 / 303_2010

Primary Feature for AWOIS Item #13353

Search Position: 036° 56' 39.600" N, 76° 01' 10.020" W

Historical Depth: [None]

Search Radius: 150

Search Technique: S2, MB

Technique Notes: [None]

History Notes:

LNM 06/05 (2/8/05) -- AN ANCHOR AND 6 SHOTS OF CHAIN HAVE BEEN REPORTED LOST IN APPROXIMATE POSITION 36-56-39.6N, 076-01-10.02W IN 48-56 FEET OF WATER IN THE VICINITY OF THE LYNNHAVEN ANCHORAGE. UPDATED 10/12/2005.

Survey Summary

Survey Position: 036° 56' 39.060" N, 76° 01' 09.818" W

Least Depth: 18.01 m

Timestamp: 2005-181.20:18:12.948 (06/30/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-181 / 303_2010

Profile/Beam: 4794/39

Charts Affected: 12254_1, 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 13353 disproved.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-181/303_2010	4794/39	0.00	000.0	Primary
OPR-D304-RU-05-additional	AWOIS # 13353	17.43	163.4	Secondary

Hydrographer Recommendations

Concur, AWOIS Item 3418, a charted dangerous Obstn PA (anchor) has been disproven, update the status of the AWOIS database and remove the Obstn PA from the chart.

S-57 Data

[None]

Office Notes

Concur, remove the charted dangerous Obstn Anchor PA from the chart.

3.24) Profile/Beam - 3730/209 from d304_h11402 / ru00_mb_5_4 / 2005-235 / 354_2038

Primary Feature for AWOIS Item #3770

Search Position: 036° 56' 04.600" N, 76° 00' 45.180" W

Historical Depth: 6.10 m

Search Radius: 200

Search Technique: S2, SWMB, DI

Technique Notes: [None]

History Notes:

H9814/80--OPR-D103-PE-80; 1:10,000 SCALE; ARGO (R/R), SEXTANT FIXES; ECHO SOUNDER; IRREGULAR SNDGS ON FATHOMETER, DEVELOPMENT INDICATED OBSTR; DIVER INVESTIGATION; WOODEN AND STEEL DEBRIS EXTENDING 85 FT IN AN E-W DIRECTION; LEAST DEPTH OF 20 FT; HYDROGRAPHER RECOMMENDED CHARTING SUBM OBSTR W/ LEAST DEPTH OF 20 FT. (ENTERED 11/19/84 MSM) EVALUATOR RECOMMENDS WD OR SSS FOR LD AND EXTENT.

Survey Summary

Survey Position: 036° 56' 04.884" N, 76° 00' 45.402" W

Least Depth: 6.47 m

Timestamp: 2005-235.20:42:37.046 (08/23/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-235 / 354_2038

Profile/Beam: 3730/209

Charts Affected: 12254_1, 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 3770 found. During 30 day review this feature's least depth was updated to include previously rejected data.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-235/354_2038	3730/209	0.00	000.0	Primary
d304_h11402/ru00_mb_5_4/2005-230/355_1351	832/1	0.44	119.2	Secondary
d304_h11402/ru00_sss_5_4/2005-291/102_1535	0001	9.74	150.8	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 3770	10.34	328.0	Secondary

Hydrographer Recommendations

Revise the charted dangerous 20 Obstn to a dangerous Obstn with a depth of 21 feet.

Cartographically-Rounded Depth (Affected Charts):

21ft (12254_1, 12222_1, 12208_1, 12205_1, 12221_1, 12280_2)

3 ½fm (12200_1, 13003_1)

S-57 Data

Geo object 1:	Obstruction (OBSTRN)
Attributes:	QUASOU - 6:least depth known
	STATUS - 1:permanent
	TECSOU - 3:found by multi-beam
	VALSOU - 6.473 m
	VERDAT - 12:Mean lower low water
	WATLEV - 3:always under water/submerged

Office Notes

Concur, revise the charted dangerous 20 Obstn to a dangerous 21 Obstn.

H11402 Bottom Samples

Registry Number: H11402

State: Virginia

Locality: Chesapeake Bay

Sub-locality: 2 NM Southeast of Cape Henry

Project Number: OPR-D304-RU

Survey Date: 10/19/2005

Charts Affected

Number	Version	Date	Scale
12254	44th Ed.	02/01/2004	1:20000
12222	46th Ed.	05/01/2004	1:40000
12208	10th Ed.	05/01/2004	1:50000
12205	29th Ed.	10/01/2004	1:80000
12207	21st Ed.	03/01/2004	1:80000
12221	76th Ed.	02/01/2005	1:80000
12280	5th Ed.	10/01/2004	1:200000
12200	48th Ed.	06/01/2004	1:419706
13003	48th Ed.	10/01/2004	1:1200000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	BS_9	Bottom Sample	9.48 m	036° 53' 22.576" N	75° 56' 13.142" W	---
1.2	BS_8	Bottom Sample	13.41 m	036° 53' 24.873" N	75° 54' 52.177" W	---
1.3	BS_7	Bottom Sample	16.56 m	036° 54' 29.156" N	75° 54' 53.767" W	---
1.4	BS_6	Bottom Sample	12.85 m	036° 54' 27.631" N	75° 56' 13.977" W	---
1.5	BS_5	Bottom Sample	14.76 m	036° 55' 30.274" N	75° 57' 34.142" W	---
1.6	BS_4	Bottom Sample	18.95 m	036° 56' 25.453" N	75° 57' 35.669" W	---
1.7	BS_3	Bottom Sample	18.21 m	036° 56' 24.503" N	75° 58' 56.124" W	---
1.8	BS_2	Bottom Sample	13.62 m	036° 56' 23.976" N	76° 00' 15.663" W	---
1.9	BS_1	Bottom Sample	14.72 m	036° 56' 26.274" N	76° 01' 32.836" W	---

1 - Bottom Samples

1.1) GP No. - 1 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 53' 22.576" N, 75° 56' 13.142" W

Least Depth: 9.48 m

Timestamp: 2005-292.17:42:15.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 1

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

br stk M

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	1	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 5:sticky

NATSUR - 1:mud

Office Notes

Concur.

1.2) GP No. - 2 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 53' 24.873" N, 75° 54' 52.177" W

Least Depth: 13.41 m

Timestamp: 2005-292.17:54:27.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 2

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

crs br S

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	2	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 3:coarse

NATSUR - 4:sand

Office Notes

Concur.

1.3) GP No. - 3 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 54' 29.156" N, 75° 54' 53.767" W

Least Depth: 16.56 m

Timestamp: 2005-292.18:03:50.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 3

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

br stk M

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	3	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 5:sticky

NATSUR - 1:mud

Office Notes

Concur.

1.4) GP No. - 4 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 54' 27.631" N, 75° 56' 13.977" W

Least Depth: 12.85 m

Timestamp: 2005-292.18:14:22.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 4

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

m br S brk Sh

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	4	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 2,4:medium,broken

NATSUR - 4,17:sand,shells

Office Notes

Concur.

1.5) GP No. - 5 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 55' 30.274" N, 75° 57' 34.142" W

Least Depth: 14.76 m

Timestamp: 2005-292.18:27:33.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 5

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

stk M brk Sh

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	5	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 4,5:broken,sticky

NATSUR - 1,17:mud,shells

Office Notes

Concur.

1.6) GP No. - 6 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 56' 25.453" N, 75° 57' 35.669" W

Least Depth: 18.95 m

Timestamp: 2005-292.18:38:23.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 6

Charts Affected: 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

stk br S brk Sh P

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	6	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 4,5,:broken,sticky,

NATSUR - 4,17,7:sand,shells,pebbles

Office Notes

Concur.

1.7) GP No. - 7 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 56' 24.503" N, 75° 58' 56.124" W

Least Depth: 18.21 m

Timestamp: 2005-292.18:53:56.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 7

Charts Affected: 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

m S brk Sh G

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	7	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - ,4,:,broken,

NATSUR - 4,17,6:sand,shells,gravel

Office Notes

Concur.

1.8) GP No. - 8 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 56' 23.976" N, 76° 00' 15.663" W

Least Depth: 13.62 m

Timestamp: 2005-292.19:04:50.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 8

Charts Affected: 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

bk stk M

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	8	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 5:sticky

NATSUR - 1:mud

Office Notes

Concur.

1.9) GP No. - 9 from H11402_Bottom_Samples.TGT

Survey Summary

Survey Position: 036° 56' 26.274" N, 76° 01' 32.836" W

Least Depth: 14.72 m

Timestamp: 2005-292.19:19:34.000 (10/19/2005)

GP Dataset: H11402_Bottom_Samples.TGT

GP No.: 9

Charts Affected: 12254_1, 12222_1, 12208_1, 12205_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

bk stk M

Feature Correlation

Address	Feature	Range	Azimuth	Status
H11402_Bottom_Samples.TGT	9	0.00	000.0	Primary

Hydrographer Recommendations

Update charts with the given characteristics under Remarks. Depths are uncorrected.

S-57 Data

Geo object 1: Seabed area (SBDARE)

Attributes: NATQUA - 5:sticky

NATSUR - 1:mud

Office Notes

Concur.

UNITED STATES DEPARMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE : March 8, 2006

HYDROGRAPHIC BRANCH: Atlantic hydrographic Branch
HYDROGRAPHIC PROJECT: OPR-D304-RU-2005
HYDROGRAPHIC SHEET: H11402

LOCALITY: 2 NM Southeast of Cape Henry, Approaches to Chesapeake Bay, VA
TIME PERIOD: June 13 - October 19, 2005

TIDE STATION USED: 863-9207 Rudee Inlet, VA
Lat. 36 49.9' N Long. 075 58.4' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 1.044 meters

TIDE STATION USED: 863-8863 Chesapeake Bay Bridge Tunnel, VA
Lat. 36 58.0' N Long. 076 06.8' W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.814 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: SCB1, SCB4, SCB5, SA50D, SA50E & SA51

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 1983-2001 National Tidal Datum Epoch (NTDE).

Note 2: Use tide data from the appropriate station with applicable zoning correctors for each zone according to the order in which they are listed in the Tidezone corrector file (*.ZDF). For example, tide station one (TS1) would be the first choice for an applicable zone followed by TS2, etc. when data are not available.

CHIEF, PRODUCTS AND SERVICES DIVISION

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11402 (2004)

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

B.1 EQUIPMENT

The following software was used to process and review data at the Atlantic Hydrographic Branch (AHB):

CARIS HIPS/SIPS version 6.0 service pack 2
CARIS BASE Editor 1.0
CARIS HOM 3.3 service pack 3
PYDRO, version 6.4.9-HF 11
dKart Inspector 5.0 build 732

B.2 PROCESSING

Chart compilation was done by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

H-Cells

One H-cell was created covering the entire survey area based on the smallest scale chart 12254, with a 1:20,000 chart scale.

H-cell layers in CARIS HOM are organized as follows:

Layer 100	Sounding Objects, survey scale
Layer 200	Skin of the Earth
Layer 300	Wreck
Layer 310	Obstruction
Layer 500	Seabed area (Bottom Descriptions or Characteristics)
Layer 600	Metadata Objects

Attributes:
Inform: H11402, S-B304-RU-05, NOAA Ship RUDE, LCDR Lawrence T. Krepp
SorDat: 20051027
SorInd: US,US,surve,H11402 or US,US,nsurf,H11402

Office processing began using CARIS BASE Editor was used to create the preliminary contours for this survey, which were then finalized. In CARIS HIPS a 5m combined finalized BASE surface was created from the 2m multibeam and 5m singlebeam field-generated BASE surfaces at 1:10000 scale. Survey scale sounding data set was extracted from the multibeam and singlebeam data at 5mm @ 1:10000 scale. Contours were generated at 1:50000 scale.

Seabed classified areas were detailed as obtained by the field. Bottom samples that were classified as seabed area with the acronym NATSUR (nature of surface, i.e. - mud, sand, rock) were annotated with the acronym NATQUA (nature of surface – qualifying terms, i.e. – hard, soft, sticky) in areas where the field included such details.

Contours

Contours were generated in BASE Editor using the values in the following table to define the contour depth values:

H-Cell Depth Contours		(standard metric curve values)	(NOAA chart contour values)
Depth Curve	Created at:	(m =*.75 ft)	(m =*.0 ft)
0	0.75	0.229	0.000
6	6.75	2.057	1.829
12	12.75	3.886	3.658
18	18.75	5.715	5.486
30	30.75	9.373	9.144
60	60.75	18.517	18.288
120	120.75	36.805	36.576

These values are the metric equivalent of the standard NOAA chart contour values. The 120 ft depth curve was only used as a deep closing curve value to define depth areas, there is no 120 ft. contour on the chart or in the ENC.

Before the HOM file was exported to S-57 format, the file was converted from metric to NOAA chart values. This conversion renames the DRVAL1 and DRVAL2 attributes (for depth areas) and VALDCO attributes (for the contours) from the metric equivalent values to the standard NOAA chart contour values to accommodate NOAA traditional rounding standards on charts. This renaming convention assures all soundings fall on the shoal side of the properly charted contour.

Soundings during HOM processing were selected with the CARIS GIS Environmental Variable set to a metric scale (-1,-1,T) to accommodate millimeter precision of the sounding value. This environmental variable was reset to NOAA standard charting values (0,0,N) to convert the metric sounding values to whole feet.

The completed H-Cell was exported as a Base Cell File (ENC.000) in S-57 format with all values in metric units. The metric equivalent ENC.000 file was then converted to NOAA chart values (ENC_CU.000) with all values measured in feet.

dKart Inspector

The final ENC_CU.000 file was examined using dKart Inspector. Warnings received were all inconsequential. The DSPM.HUNI and DSPM.DUNI were reported to have illegal values, but these errors were expected as originating during ENC conversion to NOAA chart values, so they also can be ignored.

C. VERTICAL AND HORIZONTAL CONTROL

Office processing of this survey as an ENC required translating the datum to meet S-57 ENC requirements. During CARIS HOM processing the horizontal geodetic datum was translated from the survey datum (NAD83, UTM Zone 19) to Latitude and Longitude (LLDG) World Geodetic System-84 (WGS-84). The S-57 ENC format serves as the exchange file submitted to the Marine Chart Division.

Final tides were received at AHB in March, 2006 and reapplied to the survey during office processing.

D. RESULTS AND RECOMMENDATIONS

D.1. CHART COMPARISONS

12254 46th Ed., Feb/06
Corrected through NM Feb 11/06
Corrected through LNM Feb 7/06

CHART COMPARISONS (cont'd)

12222 48th Ed., Mar/07
Corrected through NM Mar 24/07
Corrected through LNM Mar 20/07
12208 11th Ed., May/05
Corrected through NM May 14/05
Corrected through LNM May 10/05

HYDROGRAPHY

The charted hydrography originates with prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in Section D. for chart 12208 of the Descriptive Report, however the field did not conduct chart comparisons of charts 12222 or 12254. The following should be noted:

CHARTED AND UNCHARTED FEATURES

1) A charted 70 Wk located in 36° 56' 45.41" N Latitude, 75° 57' 30.37" W Longitude was not reviewed by the hydrographer. Upon office review the charted 70 Wk was confirmed in this location and it is recommended this feature be revised to a 71 Wk.

2) After application of final tides and office processing the proper depth of AWOIS Item 3770, a charted dangerous 20 Obstn located in 36°56'04.88" N Latitude, 76°00'45.40" W Longitude, was identified being deeper than charted. It is recommended this dangerous 20 Obstn be revised to a dangerous 21 Obstn.

3) In the vicinity of 36° 56' 05.41" N Latitude, 76° 01' 53.37" W Longitude the 18 and 30 ft. contours have migrated offshore, update contours with current survey data.

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.

Junctions

There were no surveys to junction with H11402.

Adequacy of Survey

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area. This is an adequate hydrographic/multibeam/side scan sonar survey. No additional field work is recommended.

Bryan Chauveau
Physical Scientist
Verification of Data
Evaluation and Analysis Report

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT ADDENDUM #1 FOR
H11402 (2004)
Approaches to Chesapeake Bay, VA

Evaluation Report Addendum #1 has been written to supplement and/or clarify the original Evaluation Report and submitted BASE Cell File. Sections in this report refer to the corresponding sections of the Descriptive Report.

D. RESULTS AND RECOMMENDATIONS

D.1. CHART COMPARISONS

12254 46th Ed., Feb/06
Corrected through NM Feb 11/06
Corrected through LNM Feb 7/06

12222 48th Ed., Mar/07
Corrected through NM Mar 24/07
Corrected through LNM Mar 20/07

12208 11th Ed., May/05
Corrected through NM May 14/05
Corrected through LNM May 10/05

D.1.2 CHARTED AND UNCHARTED FEATURES

On October 19, 2007 Marine Chart Division inquired about AWOIS Item #8324 during chart compilation production and review. The inquiry concerned inconsistencies within the AHB deliverables submitted the previous month. Upon investigation of the item, AHB was able to clarify the inconsistencies that remained within the submitted deliverables. Clarification is documented in the following Item Investigation forms for AWOIS #8324 and #8323.

Approved:

_____ Date: 10/23/07
Castle Eugene Parker
Physical Scientist
Atlantic Hydrographic Branch
for
Shep Smith
Commander, NOAA
Chief, Atlantic Hydrographic Branch

Registry Number: H11402

State: Virginia

Locality: Chesapeake Bay

Sub-locality: 2 NM Southeast of Cape Henry

Project Number: OPR-D304-RU

Survey Date: 10/27/2005

Charts Affected

Number	Version	Date	Scale
12222	46th Ed.	05/01/2004	1:40000
12208	10th Ed.	05/01/2004	1:50000
12205	29th Ed.	10/01/2004	1:80000
12207	21st Ed.	03/01/2004	1:80000
12221	76th Ed.	02/01/2005	1:80000
12280	5th Ed.	10/01/2004	1:200000
12200	48th Ed.	06/01/2004	1:419706
13003	48th Ed.	10/01/2004	1:1200000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	AWOIS # 8324 489/89	Sounding	13.67 m	36° 55' 58.448" N	075° 54' 56.481" W	8324

1.1) AWOIS # 8324 489/89

Primary Feature for AWOIS Item #8324

Search Position:	36° 56' 01.590" N, 075° 54' 58.690" W
Historical Depth:	12.80 m
Search Radius:	50
Search Technique:	SWMB, S2, DI, SD
Technique Notes:	INVESTIGATE FOR LEAST DEPTH

History Notes:

H10340/90-- OPR-D111-WH; OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-55-58.55N, LONG. 75-54-56.84W WITH AN ESTIMATED DEPTH OF 14.5 METERS. ADDITIONAL WORK RECOMMENDED. FE353SS/90-- OPR-D111-HE; ITEM NO. 28. OBSTRUCTION LOCATED IN LAT. 36-55-59.08N, LONG. 75-54-55.19W. DIVERS DESCRIBE AN OLD BUOY RISING 1.3 METERS OFF THE BOTTOM. EVALUATOR RECOMMENDS CHARTING AN OBSTRUCTION WITH AN ECHO SOUNDER DEPTH OF 12.5 METERS (41.0 FEET) AS SURVEYED. FE412SS/95-- OPR-E696-HE; LOCATED BY SIDE SCAN SONAR. EVALUATOR RECOMMENDS DELETING OBSTR REP 1990 AND CHARTING A 42 OBSTR (12.9 METERS) AS SURVEYED IN LAT. 36-56-01.593N, LONG. 75-54-58.690W. (UP 2/15/96, SJV) H11027/01-- OPR-D324-WH; LOCATED DURING MAINSCHEME SIDE SCAN OPS. CALCULATED HEIGHT APPROX. 0.94 METERS (3.1 FEET) IN SURROUNDING DEPTHS OF 44 TO 46 FEET. THIS IS CONSISTENT WITH CHARTED 42-FOOT LD. DUE TO TIME CONSTRAINTS NO LD WAS DETERMINED. EVALUATOR RECOMMENDS RETAINING AS CHARTED. (UP 2/25/02, SJV)

Survey Summary

Survey Position:	36° 55' 58.448" N, 075° 54' 56.481" W
Least Depth:	13.67 m
Timestamp:	2005-300.19:05:49.384 (10/27/2005)
Survey Line:	d304_h11402 / ru00_mb_5_4 / 2005-300 / 849_1905
Profile/Beam:	489/89
Charts Affected:	12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8324

AHB: MCD made an inquiry concering AWOIS #8324 after compiled products were submitted from AHB to MCD; neither the field nor AHB personnel addressed this feature. The item has been identified within the survey data. Based upon the depth and height above the seafloor, the feature is considered insignificant. The chart scale deliverable contains a 45-ft sounding with the common area. AWOIS data base should be updated with depth and feature existence.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/849_1905	489/89	0.00	000.0	Primary
d304_h11402/ru00_sss_5_4/2005-294/108_1454	0001	13.44	282.4	Secondary
d304_h11402/ru00_sss_5_4/2005-294/108_1459	0001	17.01	083.0	Secondary
OPR-D304-RU-05-AWOIS	AWOIS # 8324	111.42	150.7	Secondary (grouped)

Hydrographer Recommendations

Update AWOIS database with new survey information. Do not recommend to chart; the AHB Chart Unit deliverable contains a 45-ft sounding within the common area.

Cartographically-Rounded Depth (Affected Charts):

45ft (12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2)

7 ½fm (12200_1, 13003_1)

S-57 Data

[None]

Office Notes

Concur with clarification. AWOIS Item 8324, a 42-ft Obstruction that is portrayed on the current edition of the chart and is located within the survey area. Current survey data documents an insignificant feature rising above the seafloor 0.51-ft, with a least depth of 44.85-ft. Due to existing H11402 shoaler depths within the common area, it is recommended to update the status of the AWOIS database to insignificant. It is recommended that the charted 42-ft Obstruction be deleted from the chart and that the common area be updated with present survey soundings.

Feature Images

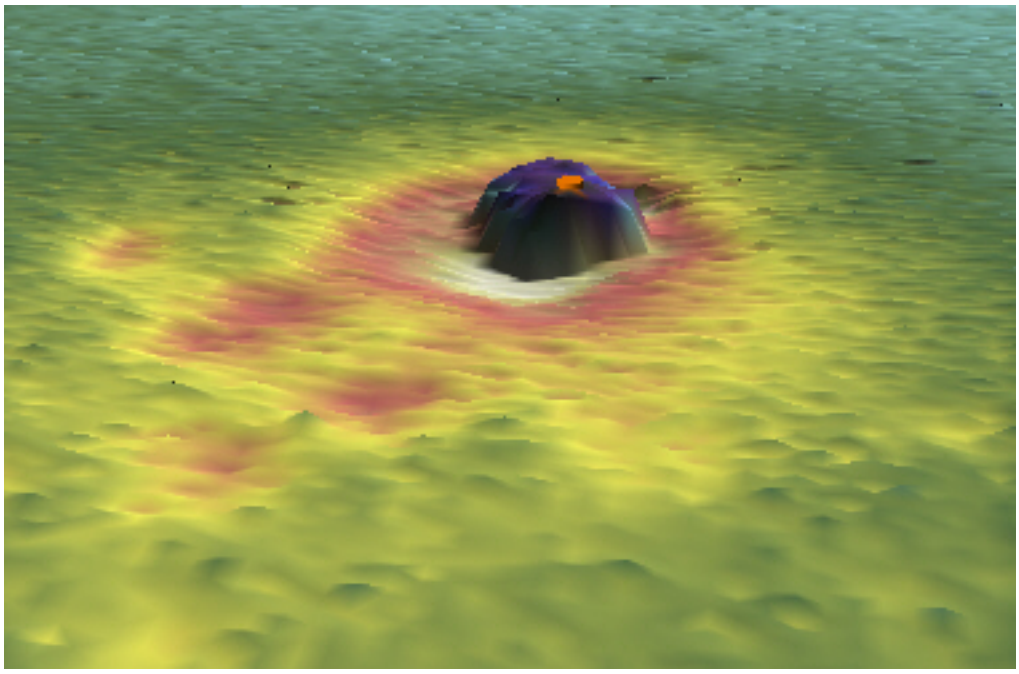


Figure 1.1.1

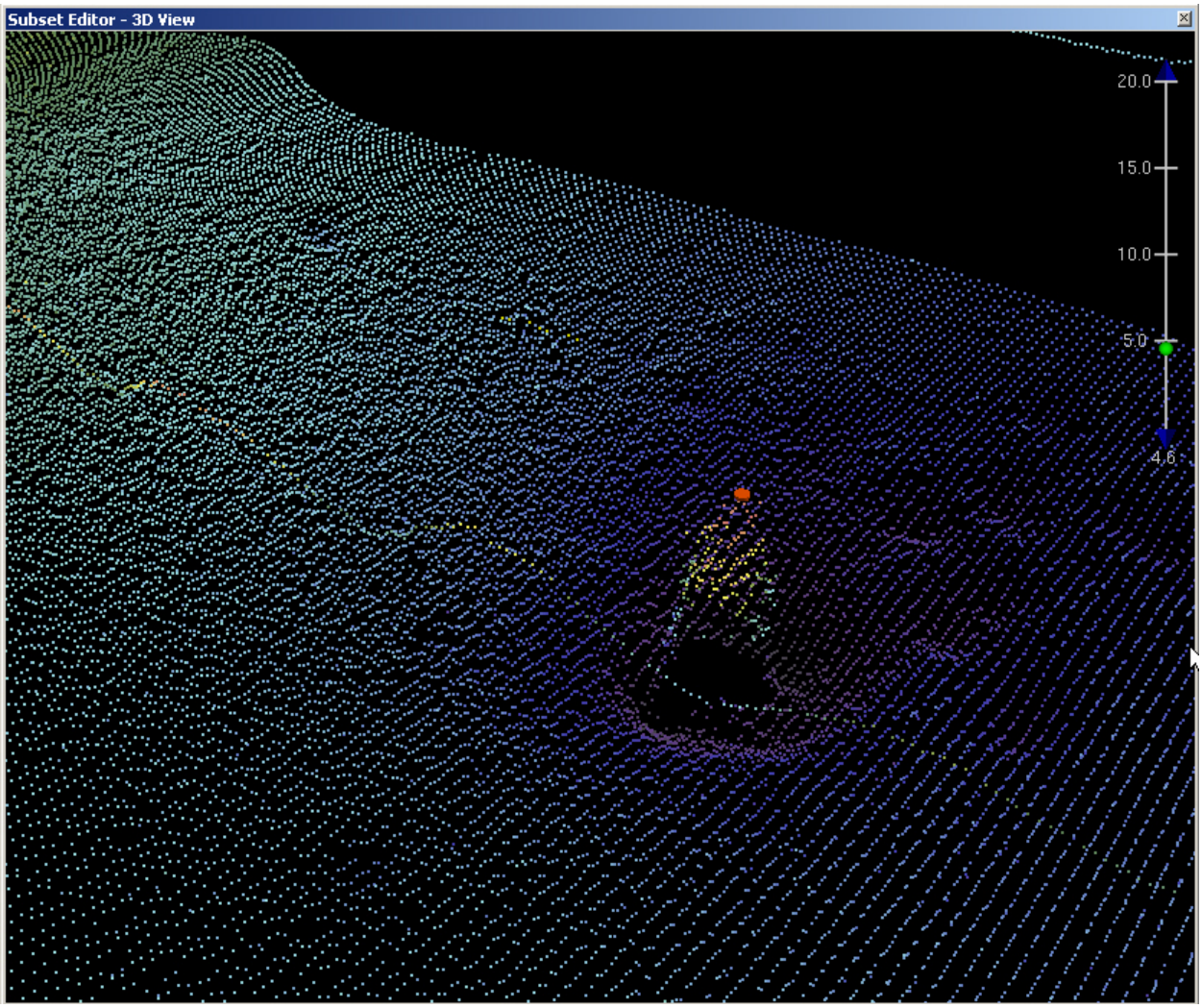


Figure 1.1.2

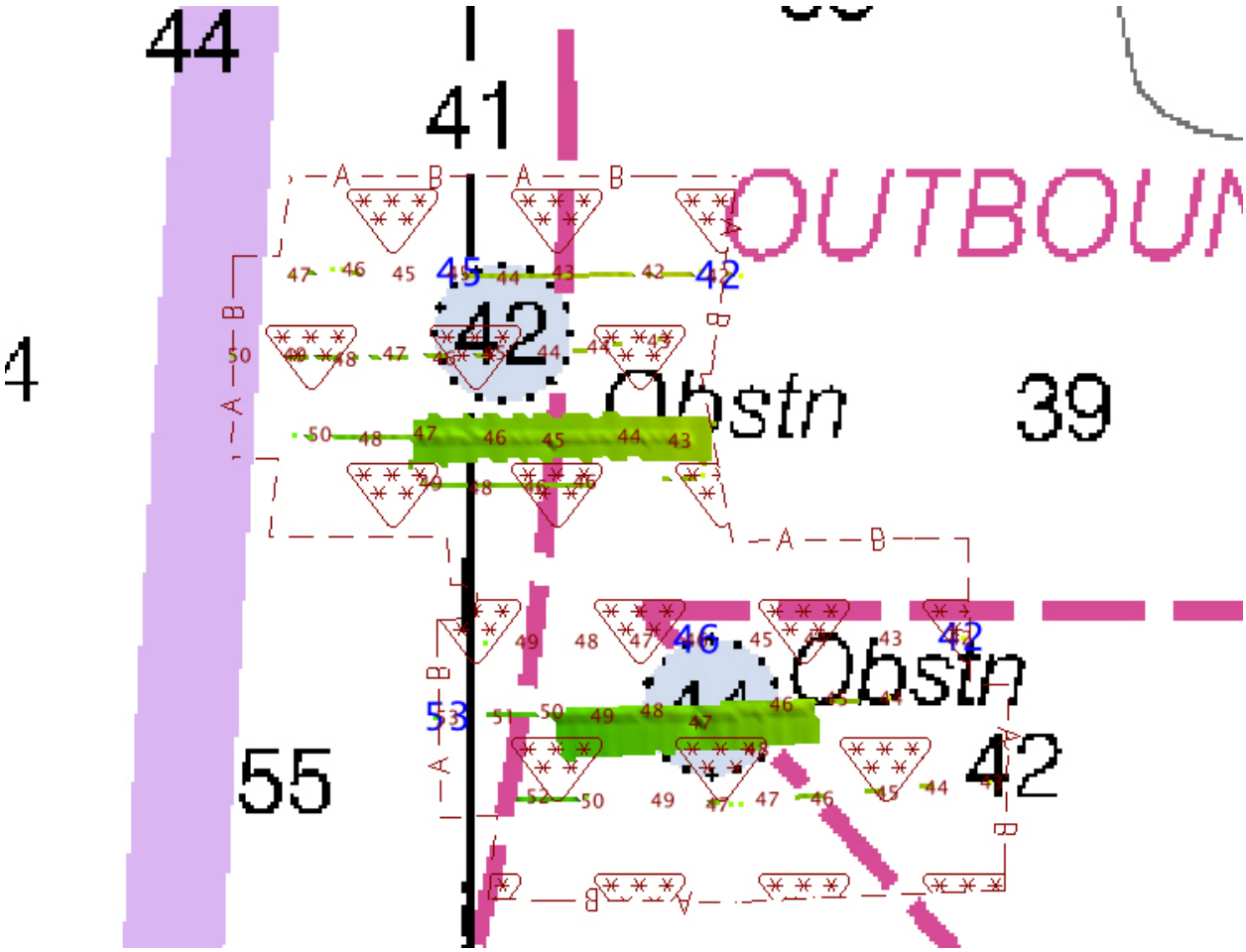


Figure 1.1.3

Registry Number: H11402

State: Virginia

Locality: Chesapeake Bay

Sub-locality: 2 NM Southeast of Cape Henry

Project Number: OPR-D304-RU

Survey Date: 10/27/2005

Charts Affected

Number	Version	Date	Scale
12222	46th Ed.	05/01/2004	1:40000
12208	10th Ed.	05/01/2004	1:50000
12205	29th Ed.	10/01/2004	1:80000
12207	21st Ed.	03/01/2004	1:80000
12221	76th Ed.	02/01/2005	1:80000
12280	5th Ed.	10/01/2004	1:200000
12200	48th Ed.	06/01/2004	1:419706
13003	48th Ed.	10/01/2004	1:1200000

Features

No.	Name	Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
1.1	296/71 - AWOIS 8323	Sounding	14.96 m	36° 55' 49.323" N	075° 54' 50.547" W	8323

1.1) 296/71 - AWOIS 8323

Primary Feature for AWOIS Item #8323

Search Position: 36° 55' 49.230" N, 075° 54' 50.330" W

Historical Depth: 13.41 m

Search Radius: 50

Search Technique: SWMB, S2, DI, SD

Technique Notes: INVESTIGATE FOR LEAST DEPTH

History Notes:

H10340/90-- OPR-D111-WH; OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-55-49.64N, LONG. 75-54-50.73W WITH AN ESTIMATED DEPTH OF 14.4 METERS. ADDITIONAL WORK RECOMMENDED. FE353SS/90-- OPR-D111-HE; ITEM NO. 26. OBSTRUCTION LOCATED BY SIDE SCAN SONAR IN LAT. 36-55-49.12N, LONG. 75-54-50.55W. DIVERS DESCRIBE SUNKEN BUOY PARTIALLY BURIED. EVALUATOR RECOMMENDS CHARTING AN OBSTRUCTION WITH AN ECHO SOUNDER DEPTH OF 13.8 METERS (45 FEET) AS SURVEYED. (7/15/92, SJV) FE412SS/95-- OPR-E696-HE; LOCATED BY SIDE SCAN SONAR. ECHO SOUNDER LD OF 13.3 METERS (44 FEET) IN LAT. 36-55-49.234N, LONG. 75-54-50.327W. EVALUATOR RECOMMENDS CHARTING A 44 OBSTR AS SURVEYED. (UP 2/15/96, SJV) H11027/01-- OPR-D324-WH; LOCATED DURING MAINSCHEME HYDROGRAPHY. CALCULATED HEIGHT OF OBSTRUCTION APPROX. 0.79 METERS (2.6 FEET) IN SURROUNDING DEPTHS OF 47 FEET. THIS IS CONSISTENT WITH THE CHARTED 44-FOOT LD. DUE TO TIME CONSTRAINTS NO LD WAS DETERMINED. EVALUATOR RECOMMENDS RETAINIG AS CHARTED. (UP 2/25/02, SJV)

Survey Summary

Survey Position: 36° 55' 49.323" N, 075° 54' 50.547" W

Least Depth: 14.96 m

Timestamp: 2005-300.19:01:23.468 (10/27/2005)

Survey Line: d304_h11402 / ru00_mb_5_4 / 2005-300 / 850_1900

Profile/Beam: 296/71

Charts Affected: 12222_1, 12208_1, 12205_1, 12207_1, 12221_1, 12280_2, 12200_1, 13003_1

Remarks:

AWOIS 8323 no longer significant.

Feature Correlation

Address	Feature	Range	Azimuth	Status
d304_h11402/ru00_mb_5_4/2005-300/850_1900	296/71	0.00	000.0	Primary
OPR-D304-RU-05-AWOIS	AWOIS # 8323	6.07	298.2	Secondary

d304_h11402/ru00_sss_5_4/2005-294/107_1504	0001	10.68	281.3	Secondary
d304_h11402/ru00_sss_5_4/2005-294/106_1509	0001	12.90	077.4	Secondary
d304_h11402/ru00_sss_5_4/2005-294/105_1514	0001	15.56	278.6	Secondary

Hydrographer Recommendations

Remove 44' Obstn from the chart.

S-57 Data

[None]

Office Notes

Concur with clarification. AWOIS Item 8323, a charted 44-ft Obstruction was located within the survey data. The charted feature's least depth was not verified; current survey data indicates a least depth of 14.264m (46.79-ft). Due to existing H11402 shoaler depths within the common area, it is recommended to update the status of the AWOIS database to insignificant. It is recommended to delete the 44-ft Obstruction from the chart and update the common area with present survey soundings.

Feature Images

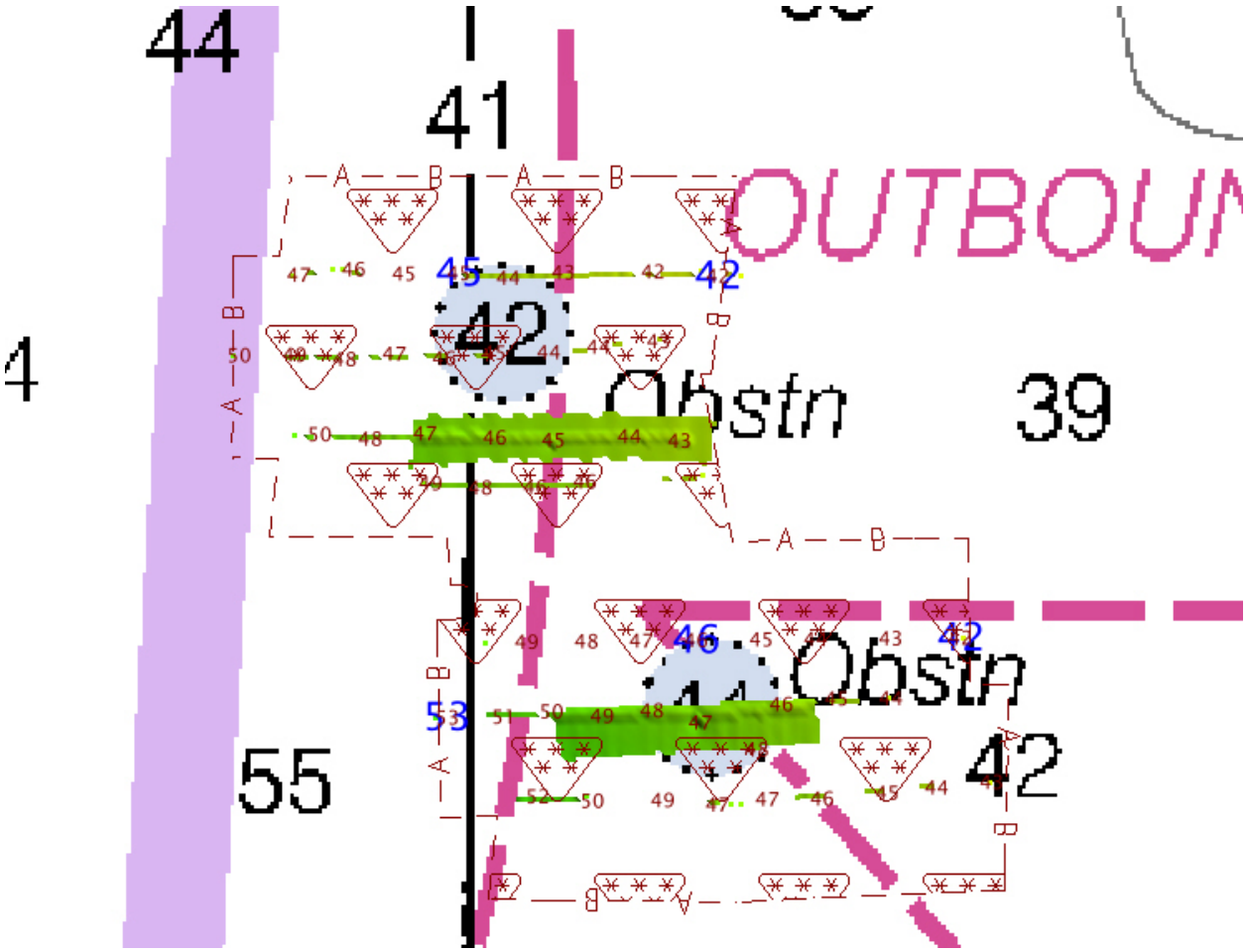


Figure 1.1.1

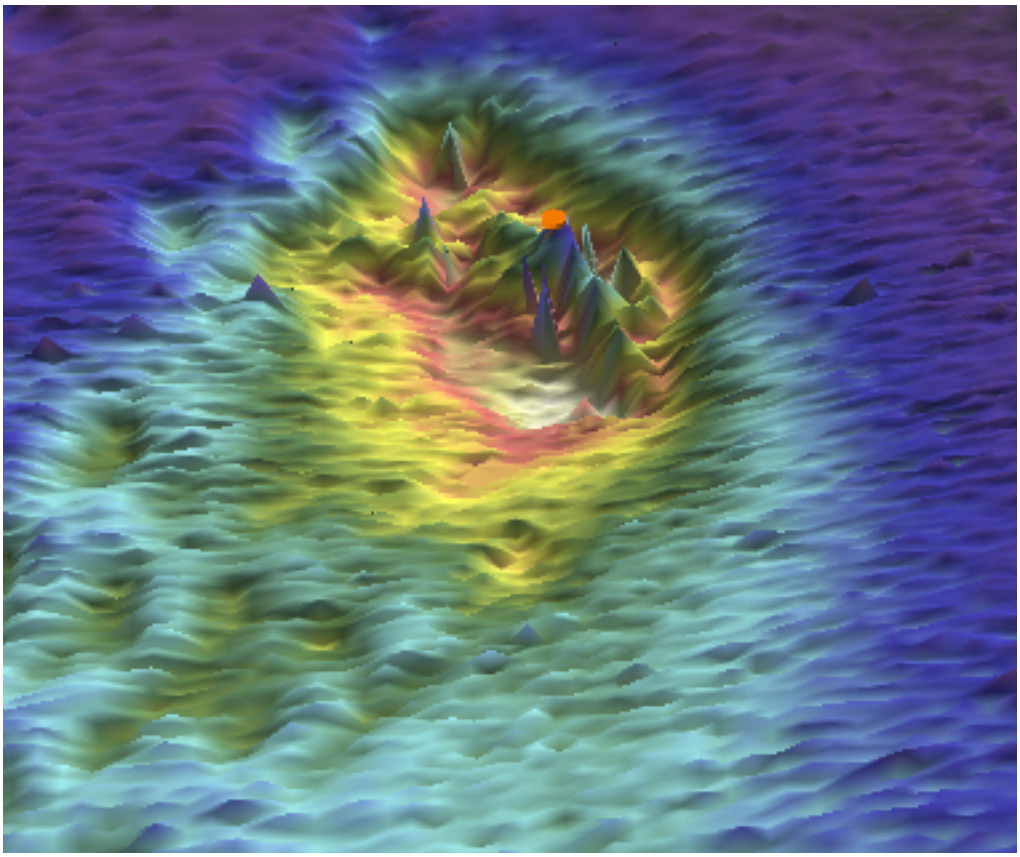


Figure 1.1.2

APPROVAL SHEET
H11402

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. All revisions and additions made to the H-Cell files 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.

Digitally signed by Bryan Chauveau
DN: cn=Bryan Chauveau, c=US, o=NOAA - National Ocean Service, ou=Office of Coast Survey - Atlantic Hydrographic Branch, email=bryan.chauveau@noaa.gov
Date: 2007.06.01 10:55:15 -04'00'

Bryan Chauveau
Physical Scientist or Cartographer,
Atlantic Hydrographic Branch

All final products have undergone a comprehensive review as per the Atlantic Hydrographic Branch Processing Manual and are verified to be accurate and complete except where noted in the Evaluation Report.

Castle Eugene Parker
2007.09.28 10:43:38 -04'00'

Castle Parker
Physical Scientist
Atlantic Hydrographic Branch

I have reviewed the Base Cell files, accompanying data, and reports. This survey and accompanying Marine Chart Division deliverables meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Approved:

Shepard Smith
I am approving this document
2007.09.28 12:49:35 -04'00'

Commander Shep Smith, NOAA
Chief, Atlantic Hydrographic Branch

Rachel Soraruf

Digitally signed by Rachel Soraruf
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Date: 2007.10.29 11:49:25 -04'00'

Rachel Soraruf

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DN: cn=Rachel Soraruf, c=US, o=NOAA/NOS/OCS/HSD, ou=Operations Branch, email=Rachel.Sorasuf@noaa.gov
Date: 2007.10.04 11:10:57 -04'00'