H11285

0NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey **Navigable Area**

Registry No. **H11285**

LOCALITY

State North Carolina

General Locality Onslow Bay

Sub-locality Southwest of Cape Lookout Shoals

2003

CHIEF OF PARTY
Steven R. Barnum, CDR, NOAA

LIBRARY & ARCHIVES

DATE

NOAA FORM 77-28
U.S. DEPARTMENT OF COMMERCE
(11-72)
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

REGISTRY NUMBER:

H11285

HYDROGRAPHIC TITLE SHEET

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:	**North Carolina**		
General Locality:	**Onslow Bay**		
Sub-Locality:	**Southwest of Cape Lookout Shoals**		
Scale:	**1:20,000**	Date of Survey:	**06/24/03 to 06/27/03**
Instructions Dated:	**04/16/03**	Project Number:	**S-F906-LH**
Vessel:	**NOAA Ship LITTLEHALES, S-222**		
Chief of Party:	**CDR Steven R. Barnum, NOAA**		
Surveyed by:	**Littlehales Personnel**		
Soundings by:	**Odom Echotrac DF3200 MK II Echosounder** **Klein 5000 Side Scan Sonar** **Kongsberg Simrad EM1002 Multibeam sonar**		
Graphic record scaled by:	**LITTLEHALES Personnel**		
Graphic record checked by:	**LITTLEHALES Personnel**		
Protracted by:	**N/A**	Automated Plot:	**N/A** ***Hewlett Packard Design Jet 2500CP***
Verification by:	**Atlantic Hydrographic Branch *(AHB)***		
Soundings in:	~~**Meters**~~ ***Feet*** **at MLLW**		

Remarks:

1) All Times are UTC.

2) This is a basic Hydrographic Survey.

3) Projection is UTM Zone 18.

Bold italic red notes in the descriptive report were made during office processing.

TABLE OF CONTENTS

A. AREA SURVEYED 1

B. DATA ACQUISITION AND PROCESSING 3
EQUIPMENT 3
QUALITY CONTROL 3
CORRECTIONS TO ECHO SOUNDING 4

C. VERTICAL AND HORIZONTAL CONTROL 5
VERTICAL CONTROL 5
HORIZONTAL CONTROL 5

D. RESULTS AND RECOMMENDATIONS 6
CHART COMPARISON 6
ADDITIONAL RESULTS 7

E. APPROVAL SHEET 8

DESCRIPTIVE REPORT

to accompany

HYDROGRAPHIC SURVEY H11285

Scale of Survey: 1:20,000
Year of Survey: 2003
NOAA Ship LITTLEHALES
CDR Steven R. Barnum, Commanding Officer

A. AREA SURVEYED

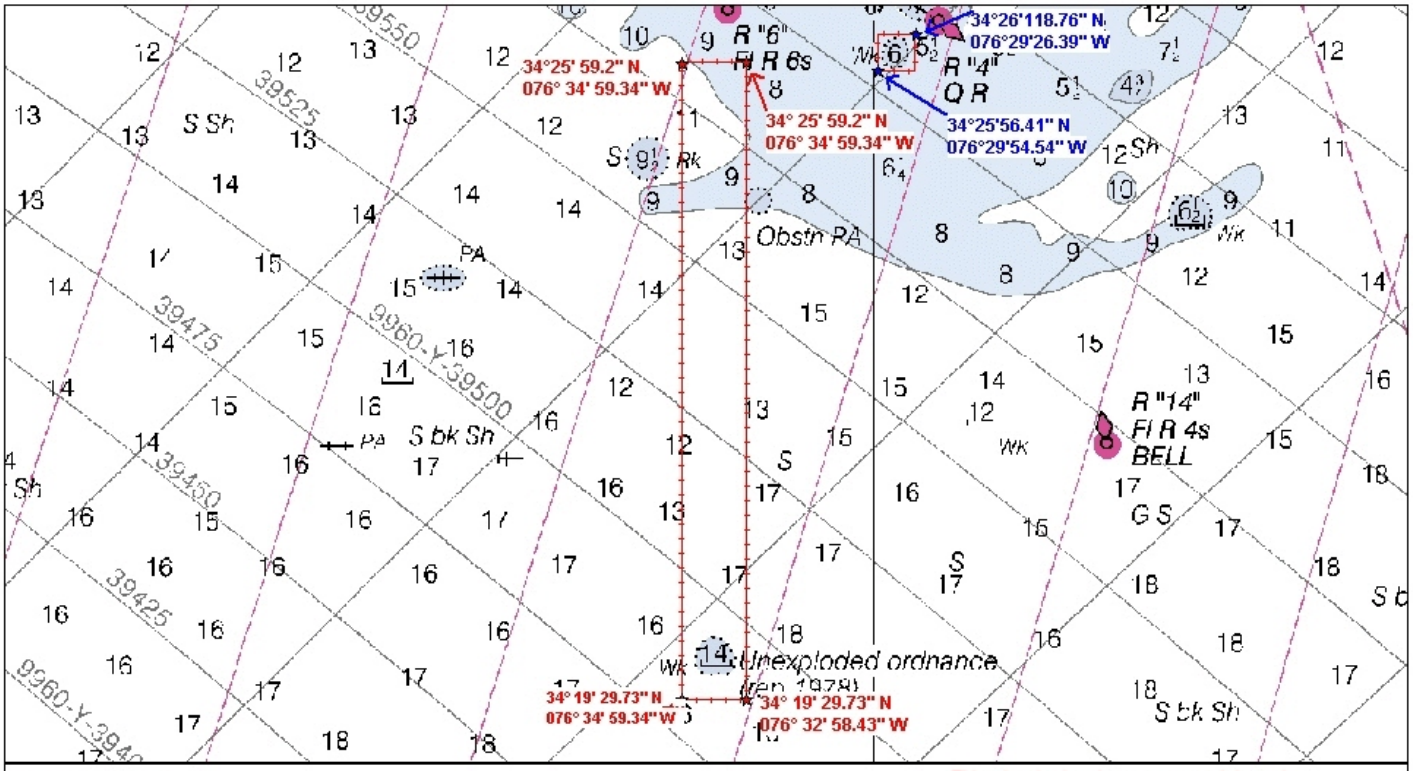
This hydrographic survey was conducted in accordance with Hydrographic Survey Letter Instructions for project S-F906-LH, Onslow Bay, North Carolina. The original instructions are dated April 16, 2003.

This Descriptive Report pertains to sheet "A" of project S-F906-LH. The assigned registry number for this sheet is H11285*, as prescribed in the Letter Instruction.

This project is being conducted to provide side scan sonar and multibeam data in support of the National Oceanic and Atmospheric Administration (NOAA) Beaufort Laboratory requirements and National Ocean Service (NOS) nautical charts. Preference should be given to the use of sidescan sonar as Beaufort Laboratory is primarily interested in bottom type characterization for use of in fish habitat management / analysis.

For complete survey limits, see the chartlet on the following page.

**** This survey was originally registered as H11214, a duplicate number. The registry number was re-assigned H11285 upon arrival and acceptance at the Atlantic Hydrographic Branch. The appropriate digital data was revised as necessary to further process the survey data.***



Chartlet 1 of 1 *Chart 11520,36th Edition, October 20th, 2001, Scale 1:1200000, Cape Hatteras to Straights of Florida*

This chartlet has been corrected through Notice to Mariners dated March 29, 2003
NOT FOR NAVIGATION.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE

Project:	*S-F906-LH*
Survey:	*H11214*
State:	*North Carolina*
Locality:	*Onslow Bay*
Sub-locality:	*Cape Lookout*
Survey Scale:	*1:20,000*

Sounding Units:	*Fathoms*
Sounding Datum:	*MLLW*
Horizontal Datum:	*NAD 83*
Projection:	*UTM 18*
Central Meridian:	*075° 00 00*
Scale Factor:	*0.9996*

NOAA Ship
THOMAS JEFFERSON
LCDR Donald W. Haines
Commanding Officer
June 24 to
June 27, 2003

B. DATA ACQUISITION AND PROCESSING

See also the Evaluation Report

EQUIPMENT

Data was acquired by NOAA Ship LITTLEHALES, a 208' (63.41m) ship with a mean draft of 14' (4.26m).

NOAA Ship LITTLEHALES acquired vertical beam echosounder (VBES), ***(no vertical beam digital data was submitted to AHB)*** shallow-water multibeam (SWMB) data and bottom imagery. An Odom Echotrac DF3200 MK II echosounder was used for VBES hydrography, and a EM 1002 Multibeam system was used for SWMB hydrography. Bottom imagery was conducted with the Klein 5000 Side Scan Sonar (SSS). All positioning and attitude were determined with a TSS POS/MV 320 (version 3.3) GPS-aided inertial navigation system. Sound velocity casts were conducted with a ~~Sea~~ Sea Bird 19 profiler.

No unusual vessel configurations or problems were encountered. Refer to the Spring Data Acquisition and Processing Report (DAPR)*, dated April to July 2003, for detailed equipment and vessel configuration information.

QUALITY CONTROL

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 or sand waves across the entire range of the side scan trace. No unusual problems were encountered. For a list of SSS contacts, see Separate II*.

**** Data filed with original field records***

Shallow Water Multibeam Quality Control

There were no faults with the SWMB system which affected data integrity. Refer to this project's DAPR* for detailed discussion of SWMB system calibrations, data acquisition, and data processing.

Crosslines

A total of 17.21 linear nautical miles (lnm) of crosslines were run, equivalent to 5.15% of the 334.15 nautical miles of main scheme data. Main scheme data was defined for this survey to be SWMB data in the survey area . Crossline and main scheme sounding data were analyzed in **Pydro**, Check line Stats and **Caris Hip And Sips**. Crossline data agreed from 95-100% on the main scheme data, based on the International Hydrographic Organization (IHO) statistical standards of Order 1, using 3 and 5 meter bins on the Caris report (see Separate V *). For the S-906-LH-03_PydroQC Report (793 pages) see the digitalSeparate V*.

Junctions

No contemporary surveys were available for junction comparisons. ***Concur***

CORRECTIONS TO ECHO SOUNDING

All methods or instruments used were as described in the project DAPR*. A table detailing all sound velocity casts is located in Separate III*.

**** Data filed with original field records***

C. VERTICAL AND HORIZONTAL CONTROL

VERTICAL CONTROL

The tidal datum for this project is Mean Lower Low Water (MLLW). The operating tide station at Cape Hatteras, NC (865-4400) served as control for datum determination..

Tidal zoning for this survey is consistent with the Letter Instructions. The zone used for this survey is as follows:

STATION	CORRECTOR (min)	RATIO	REFERENCE
SA75	-12	x1.09	865-4400
SA76	-12	x1.15	865-4400

A Request for Approved Tides letter was sent to N/OPS1 on October 29, 2003 (Appendix IV*). Observed tide files were e-mailed by TideBot on June 30, 2003 and applied to all sounding data. ***Approved tides were applied at AHB on February 9, 2004.***

HORIZONTAL CONTROL *See also the Evaluation Report*

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

Sounding positional control was determined using the Global Positioning System (GPS) corrected by U.S. Coast Guard differential GPS (DGPS) beacon stations. The primary and only DGPS beacon used for this survey was New Burn, NC (Beacon # 771). No horizontal control stations were established for this survey.

Horizontal dilution of precision (HDOP) was monitored daily. That value did not exceeded 4.00, and adequate satellite coverage was maintained throughout the survey period.

No Vertical and Horizontal Control Report was submitted for this survey, due to all parameters provided in the letter instructions and no additional field work was completed that would change any parameters.

**** Data filed with original field records***

D. RESULTS AND RECOMMENDATIONS

CHART COMPARISON *See also the Evaluation Report*

There are four charts affected by this survey:

11009, 36th edition, Oct. 20, 2001, scale 1:1,200,000
11520, 41st edition, July 1, 2003, scale 1:432,720
11543, 22nd edition, July 7, 2001, scale 1:80,000
11544, 37th edition, June 1, 2002, scale 1:80,000

General Agreement with Charted soundings

Sounding data agreed well with charted depths in most of the areas, with the exception of some contour lines that are not properly charted. For example, on the general location around the AWOIS item ~~11280,~~ the 60ft contour line is charted north from where survey soundings would indicate. 11820 CR 09AUG04

Other discrete differences are addressed in the "AWOIS Item Investigations", below.

AWOIS Items and Significant Contacts

There were eight AWOIS items assigned within the survey limits. Three were investigated and are address in Appendix I *(attached),* by Pydro.

Dangers to Navigation (DtoNs)

No DtoNs were found on this project. *Concur*

Charted Features

All items are addressed in other sections of this report.

Charting Recommendations

Display survey soundings and redraw contour lines to represent the soundings acquired.
Concur

ADDITIONAL RESULTS

Aids to Navigation and Other Detached Positions

There were no Aids to navigation or other detached positions to be verified ***Concur***

Bridges and Overhead Cables

There were no bridges or overhead cables on survey area. ***Concur***

Submarine Cables and Pipelines

There were no submarine cables or pipelines positioned during this survey, nor were any images of these items acquired on SSS. ***Concur***

Item Investigation Report

Registry Number: H11285

State: North Carolina

Locality: Onslow Bay

Sub-locality: Cape Lookout Shoals

Project Number: S-F906-LH-03

Survey Dates: 06/24/2003 - 06/27/2003

Charts Affected

Number	Version	Date	Scale
11543	22nd Ed.	07/07/01	1:80000
11544	37th Ed.	06/01/02	1:80000
11520	40th Ed.	06/01/02	1:432720
11009	36th Ed.	10/20/01	1:1200000

Features

Feature Type	Survey Depth	Survey Latitude	Survey Longitude	AWOIS Item
Sounding	12.90 m	034° 26' 14.526" N	76° 29' 27.017" W	586
Sounding	17.45 m	034° 23' 11.492" N	76° 32' 51.839" W	11820
Sounding	29.27 m	034° 13' 40.968" N	76° 33' 53.583" W	578

1.1) AWOIS 586 42 Wk (primary)

Primary Feature for AWOIS Item #586

Search Position: 34.43711111, -76.48991944

Historical Depth: 10.97 m

Search Radius: 100

Search Technique: ES,S2,MB,DI,SD,VS

Technique Notes: [None]

History Notes:

NM3/69(330)--F/V FENWICK ISLAND, REPORTED SUNK IN LAT 34/27/03N, LONG 76/29/58W. TWO BUOYS ESTABLISHED. CL569/69--USC LTR; REFERENCE NM31/69(4344)--ONE BUOY DISCONTINUED. CL1233/69--USC LTR; REFERENCE NM45/69(6172)--TEMPORARY BUOY MADE PERMANENT, DIRECTLY OVER THE WRECK IN LAT 34/26/05N LONG 76/29/20W. NM23/70(2782)--WK HAS BEEN DETERMINED TO BE LOCATED IN LAT 34/26/16N, LONG 76/29/36W. CL502/70--USC LTR; REFERENCE H9060/69-70--36FT WRECK LOCATED. NM15/75(4/12/75)--36FT WK, POSITION GIVEN IN LAT 34/26/13N, LONG 76/29/25W (NAD27). H9465/74--40FT WK, POSITION GIVEN IN LAT 34/26/14.28N, LONG 76/29/27.31W (NAD27). THE VESSEL IS APPROX 100FT LONG, RESTING UPSIDE DOWN, ENCRUSTED WITH MARINE GROWTH. LEAD LINE LEAST DEPTH TAKEN ON TOP OF THE PORT BILGE KEEL. DESCRIPTION 195 LORAN-C RATES: 9960 CHAIN; 27064.0-X AND 39607.9-Y; STEVEN PFAFF (919-759-9525) PROVIDED THE VERIFIED LORAN NUMBERS. 230 NO.34051 **** AWOIS ITEMS 586 587 HAVE BEEN MERGED; AWOIS ITEM 587 WAS THEN DELETED. (REVISED 5/98 RWD)

Survey Summary

Survey Position: 034° 26' 14.526" N, 76° 29' 27.017" W

Least Depth: 12.90 m

Timestamp: 2003-177.10:52:36.053 (06/26/2003)

Survey Line: h11285_mb / s222_mb / 2003-177 / 0048_20030626_105209_raw

Profile/Beam: 156/28

Charts Affected: 11544_1, 11520_1, 11009_1

Remarks:

SSS and SWMB data were acquired within the AWOIS radius. A contact resembling a wreck was found on the bottom and SWMB indicated a least depth of 45.37ft (13.83 m). The feature was investigated by ship divers and found a wreck resting upside down, with its keel towards the surface. With the least depth gauge (See Appendice V) the measured and calculated depth was 46.11ft (14.06m).

Feature Correlation

Line	Feature	Range	Azimuth	Status
t:/hdcs_data/h11285_mb/s222_mb/2003-177/0048_20030626_105209_raw	156/28	0.00	000.0	Primary
t:/hdcs_data/h11285_mb/s222_mb/2003-177/0048_20030626_105209_raw	156/27	0.68	160.9	Secondary (grouped)
t:/hdcs_data/h11285_100/s222_100/2003-177/047_1014	0001	15.37	357.0	Secondary
S-F906_awois	AWOIS # 586	89.48	288.7	Secondary

Hydrographer Recommendations

Hydrographer recommends removing the 36ft wreck and charting a wreck with a least depth of 45ft.

Cartographically-Rounded Depth (Affected Charts):

42ft (11544_1)

7fm (11520_1, 11009_1)

Office Notes

Concur with clarification. Delete 36ft wreck and add 42ft wreck. 5/21/04mf

1.2) AWOIS 11820

Primary Feature for AWOIS Item #11820

Search Position: 34.38666667, -76.54833333

Historical Depth: [None]

Search Radius: 400

Search Technique: ES,S2,MB,DI

Technique Notes: [None]

History Notes:

LNM38/00--CGD5(9/19/00); REPORT, "THERE HAS BEEN A REPORT OF AN UNCHARTED SUBMERGED OBSTRUCTION IN APPROXIMATE POSITION LAT 34 23 12, LONG 076 32 54 NAD83." ENTERED RFE 03/03

Survey Summary

Survey Position: 034° 23' 11.492" N, 76° 32' 51.839" W

Least Depth: 17.45 m

Timestamp: 2003-178.11:22:52.112 (06/27/2003)

Survey Line: h11285_mb / s222_mb / 2003-178 / 0509_20030627_112120_raw

Profile/Beam: 438/86

Charts Affected: 11543_1, 11544_1, 11520_1, 11009_1

Remarks:

CS 09AU604

SSS and SWMB was ~~aquired~~ ACQUIRED over the Obstruction PA within the AWOIS search radius and a rocky ledge covering the area was found with a least depth of 57.66ft (17.58m).

Feature Correlation

Line	Feature	Range	Azimuth	Status
t:/hdcs_data/h11285_mb/s222_mb/2003-178/0509_20030627_112120_raw	438/86	0.00	000.0	Primary
S-F906_awois	AWOIS # 11820	57.58	105.8	Secondary

Hydrographer Recommendations

Hydrographer recommends removing the "Obstn PA" and displaying survey soundings.

Office Notes

Concur. Delete charted Obstn PA and danger curve. Chart soundings as shown on present survey. 3/25/04 mf

Feature Images

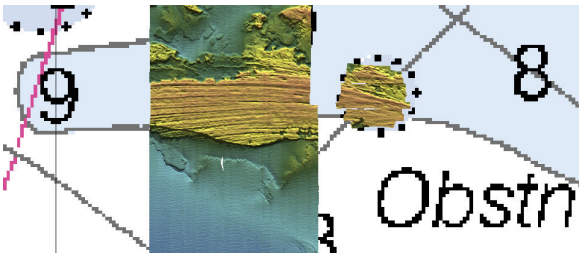


Figure 1.2.1 DTM overview of rocky ledge on the obstruction area.

1.3) AWOIS 578 16 WK (primary)

Primary Feature for AWOIS Item #578

Search Position: 34.22766944, -76.56597500

Historical Depth: [None]

Search Radius: 200

Search Technique: ES,S2,MB,DI,SD,VS

Technique Notes: BE AWARE OF THE UNEXPLODED ORDNANCE IF DIVING THIS WRECK. MINIMUM RADIUS 200M.

History Notes:

F00052WD/43-44--NO.384; U-352 SUBMARINE SUNK IN 107FT OF WATER WITH A LEAST DEPTH OF 92FT OVER IT. POSITION GIVEN IN LAT 34/13/42N, LONG 76/34/06W. ATTACHED DATA INDICATES THAT THE SUBMARINE IS LYING APPROXIMATELY 30DEG ON THE STARBOARD SIDE. NO SEVERE DAMAGE EVIDENT. LITTLE MARINE GROWTH. VISIBLE IN PICTURES ARE THE CONNING TOWER, RAILING, SIDE OF HULL, RIVITS, LIMBER HOLES, AND DRAFT MARKINGS. CL381/55--USC-NO.458; REFERENCE NM44/55(4960D)--10/29/55; REPORTS CL381/55. F00149WD/55-56--NO.458; U-352 HUNG 88FT, CLEARED 85FT, SOUNDED AT 95FT. POSITION SCALED FROM SMOOTH SHEET AT LAT 34/13/39N, LONG 76/33/58.8W (NAD27). H9044/69--WRECK NOT INVESTIGATED, 88FT DEPTH CARRIED FORWARD IN 102FT DEPTHS. LNM37/78--BUOY EST TO MARK WK AT POS.34-12N, 76-35W (TELECON TO CG INDICATES WK IS GERMAN SUB.) LNM39/78(9/26/78)--5TH CGD; UNEXPLODED ORDNANCE FOUND AT CHARTED WK. HULL SEALED TO PREVENT RECREATIONAL DIVERS FROM ACCIDENTALLY DETONATING. DESCRIPTION 24 NO.458; SUBMARINE, 500 GT; SUNK 5/9/42 BY NAVY SUR-CRAFT; LOCATED 8/31/43 27 NO.384; REFERENCE 177 NO.458; LOCATION 34-13-42N, 76-34-06W SOURCE 5TH N. D. 8/31/43 195 LORAN-C RATES: 9960 CHAIN; 27063.4X AND 39491.5Y SUB LIES INTACT IN 115FT DEPTHS IN A NE-SW DIRECTION RESTING ON ITS STARBOARD SIDE AT A 45DEG ANGLE. **** NAVY HISTORY FILE TO INCLUDE ACCOUNT OF SINKING AND EARLY DIVE EXPLORATION BY NAVY **** LORAN-C RATES: 9960 CHAIN; 27063.5-X AND 39491.5-Y; STEVEN PFAFF (919-759-9525) PROVIDED THE VERIFIED LORAN NUMBERS. 223 NO.384; SUBMARINE SUNK 5/9/42 IN 107FT. RISING TO 92FT. 230 NO.35930; (REVISED 6/98 RWD)

Survey Summary

Survey Position: 034° 13' 40.968" N, 76° 33' 53.583" W

Least Depth: 29.27 m

Timestamp: 2003-175.11:09:55.617 (06/24/2003)

Survey Line: h11285_mb / s222_mb / 2003-175 / 0040_20030624_110501_raw

Profile/Beam: 1004/70

Charts Affected: 11520_1, 11009_1

Remarks:

SSS and SWMB data were acquired within the AWOIS radius. A contact resembling a wreck was found on the bottom and SWMB indicated a least depth of 96.24ft (29.33m).

Feature Correlation

Line	Feature	Range	Azimuth	Status
t:/hdcs_data/h11285_mb/s222_mb/2003-175/0040_20030624_110501_raw	1004/70	0.00	000.0	Primary
t:/hdcs_data/h11285_100/s222_100/2003-177/120_0025	0001	2.92	251.3	Secondary
t:/hdcs_data/h11285_100/s222_100/2003-177/121_0216	0001	11.18	171.9	Secondary
t:/hdcs_data/h11285_100/s222_100/2003-177/122_0516	0001	20.71	005.3	Secondary
S-F906_awois	AWOIS # 578	109.08	067.4	Secondary

Hydrographer Recommendations

Hydrographer recommends removing the 14 fathom wire drag clear depth wreck and charting a 16 fathom (29.33 m) submerge wreck symbol.

Cartographically-Rounded Depth (Affected Charts):

16fm (11520_1, 11009_1)

Office Notes

Concur with clarification. Delete the charted dangerous wreck with a wire drag clearance of 14 fathoms, also delete notation "(Rep 1978)". Add dangerous 16 Wk as shown on present survey, retain note "Unexploded ordnance", add ~~survy~~ SURVEY date "(2003)". 3/26/04 mf

CR 09AUG04

Feature Images

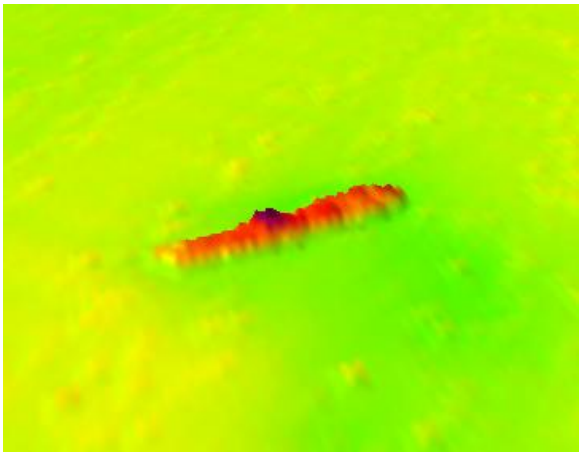


Figure 1.3.1 DTM for U-352, Rathke (AWOIS #578)

Figure 1.3.2

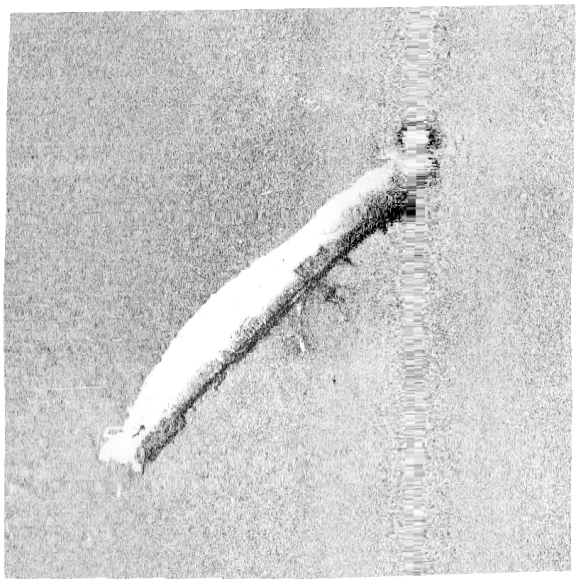


Figure 1.3.3

E. APPROVAL SHEET

S-F906-LH-03
Onslow Bay
North Carolina

Cape Lookout Shoals
Survey Registry No. H11214

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

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

Respectfully,

Submitted:

ENS Héctor L. Casanova
Junior Officer

Approved and Forwarded:

FOR

LCDR Douglas D. Baird Jr., NOAA
Field Operations Officer

for LCDR/NOAA

CDR Steven R. Barnum, NOAA
Commanding Officer

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: December 9, 2003

HYDROGRAPHIC BRANCH: Atlantic
HYDROGRAPHIC PROJECT: S-F906-LH-2003
HYDROGRAPHIC SHEET: H11285

LOCALITY: Onslow Bay, North Carolina
TIME PERIOD: June 24 - 28, 2003

TIDE STATION USED: 865-4400 Cape Hatteras Fishing Pier, NC
Lat. 35° 13.4'N Lon. 75° 38.1'W
PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.000 meters
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 0.947 meters

REMARKS: RECOMMENDED ZONING
Use zone(s) identified as: SA75 & SA76.

Refer to attachments for zoning information.

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

Edward N. Neu 12/10/03

CHIEF, REQUIREMENTS AND DEVELOPMENT DIVISION

Printed on Recycled Paper

NOAA FORM 61-29
(12-71)

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

LETTER TRANSMITTING DATA

REFERENCE NO.
N/CS 33- 19 -03

DATA AS LISTED BELOW WERE FORWARDED TO YOU BY (Check)

☐ ORDINARY MAIL ☐ AIR MAIL
☐ REGISTERED MAIL ☒ EXPRESS
☐ GBL (Give number)_____

DATE FORWARDED
07/28/2004

NUMBER OF PACKAGES
1

TO:

NOAA / National Ocean Service
Chief, Data Control Group, N/CS 3x1
SSMC3, Station 6815
1315 East-West Hwy.
Silver Spring, MD 20910-3282

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

H11285

North Carolina
Onslow Bay

Descriptive Report
Evaluation Report
Record of Application to charts for Nos charts 11520, 11543, 11544

H-Drawings for NOS charts 11520, 11543, 11544
Mylar Smooth Sheet

ATTN: Chief, Data Acquisition and Control Branch 301-713-2698 ext. 110

FROM: (Signature) Maxine Fetterly

RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

Maxine Fetterly
Atlantic Hydrographic Branch
439 W. York St.
Norfolk, VA 23510

NOAA FORM 61-29 SUPERCEDES FORM C AND GS 413 WHICH MAY BE USED.

• U.S. GOVERNMENT PRINTING OFFICE: 1988 - 554-006-61309

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H11285 (2003)

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

B. DATA ACQUISITION AND PROCESSING

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

MicroStation J, version 07.01.04.16
I/RAS B, version 07.01.000.18
MapInfo, version 6.5
CARIS HIPS/SIPS 2000 version 5.3
PYDRO, version 3.7.1

C. HORIZONTAL CONTROL

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

D. CHART COMPARISON

11543	**22nd edition, July 2001**
11544	**38th edition, March 2004**
11520	**41st edition, July 2003**

Hydrography

The charted hydrography originates with the prior surveys and requires no further consideration. The hydrographer makes adequate chart comparisons in the Descriptive Report sections D. and the Item Investigation Report.

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

ADEQUACY OF SURVEY

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

MISCELLANEOUS

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

The following NOS charts were used for compilation of the present survey:

11543 22nd edition, July 7, 2001

11544 38th edition, March 13 2004
Corrected through NM March 13, 2004
Corrected through LNM March 02, 2004

11520 41st edition, July, 2003
Corrected through NM July 5, 2003
Corrected through LNM June 24, 2003

Subject: **Re: H11285 AWOIS 586 - Onslow Bay, North Carolina**
Date: Tue, 18 May 2004 12:26:17 -0500
From: "Marc Moser" <marc.s.moser@noaa.gov>
Organization: NOAA/Thomas Jefferson
To: Maxine Fetterly <Maxine.Fetterly@noaa.gov>
CC: Don Haines <Don.Haines@noaa.gov>,
Emily B Christman <Emily.B.Christman@noaa.gov>

Maxine,

Sorry, kept in my draft folder and forgot to send out. See reply below:

TJ no longer has these processed HDCS aboard but I have discussed with ENS Casanova and looked at the ancillary files (Pydro PSS, svp files, etc.).
Yes, the divers performed a search for the entire ship.
Yes, the divers swam the keel line from one end to the other.
No, the divers did not notice a vertical relief near the middle of the hull extending 10-13 feet.

The data re-accepted at AHB was considered a flyer by ship personnel. There was a series of pings up a vertical line from one swath. These pings were flagged as Rejected at the discretion of the Sheet OIC. Before re-accepting these pings, I suggest you check in subset mode, sounds like there are at two swaths in the area (one E-W one N-S).

I'm not sure if we will make a stop to re-acquire data over this area again, every diversion for the ship = $.

Maxine Fetterly wrote:

> Marc,
> I need some help on this survey located in Onslow Bay, NC. The ship collected the data in June 2003, under the registry number H11214, which upon entering AHB we found it to be a duplicate number and was renamed H11285. I'll attach snapshots to refresh memories, as well as the dive report.
>
> AWOIS 586 - 36 ft charted wreck - F/V Fenwick
> NM3/69 34/26/14.557N 76/29/27.073 W
>
> My concern is multibeam vs. diver's least depth (surrounding depths are shoaler than diver's LD).
>
> Diver's least depth - 45.37 ft. (13.83 meters) Visibility was 10 feet.
> - I would like to know whether the diver's performed a complete search of the entire ship?
> - Did they swim the keel line from one end to the other?
> - Did they notice any vertical relief near the middle of the hull of the ship extending approx 10-13 feet?
>
> - Was the correct velocity cast applied to this dive? The dive report indicates that the Velocity cast was taken 6 hours prior to dive time. The location of the cast was 12.3 nm / azimuth 191 degrees from the dive site. Bearing this in mind, the correct field procedures were not

followed.

- Why was the following multibeam data rejected?

Multibeam depth - 32 ft. (9.93 m)
This data point was rejected by the field and re-accepted at AHB.
2003-177.10:52:35 (06/26/03)
2003-177 / 0048_20030626_105209_raw
155/12

I would appreciate all help in recalling this investigation. I am not convinced it would be prudent to reduce the wreck to 45 feet. Hopefully, Jasper and Hector, the divers that day, can shed some light on the problem, their help would be greatly appreciated.

I would also like to recommend - that if memory/records are inconclusive, on the return trip from the Gulf of Mexico, would it be possible to run 3-4 additional development lines - so that the data collected is within the nadir swath region? Additional sounding data could clearly help resolve the problem.

Thank You All for your help and consideration.
Maxine Fetterly

APPROVAL SHEET
H11285

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 smooth sheet during survey processing have been entered in the digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Maxine Fetterly
Cartographer,
Atlantic Hydrographic Branch

Date: 7/28/04

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

Approved: _____

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

Date: 7/28/04

AWOIS and SURF checked 09 AUG 04 CJL

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H11285

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
11543	4/28/04	Marian Fetterly	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. FULL APPLICATION OF SOUNDINGS AND CURVES
11544	4/29/04	Marian Fetterly	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. FULL APPLICATION OF SOUNDINGS AND CURVES THROUGH 11543
11520	4/29/04	Marian Fetterly	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. FULL APPLICATION OF SOUNDINGS AND CURVES THROUGH 11544
11543	8/27/04	Frank L Powers	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No.
11544	8/27/04	Frank L Powers	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No.
11520	8/27/04	Frank L Powers	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No.
11009	8/27/04	Frank L Powers	~~Full Part Before~~ After Marine Center Approval Signed Via
			Drawing No. Examined. No corrections.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.