

H10565

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic.....
Field No. AHP-10-10-94.....
Registry No. H-10565.....

LOCALITY

State Connecticut.....
General Locality Long Island Sound.....
Sublocality Scott Cove to.....
Westcott Cove.....

19 94

CHIEF OF PARTY

LCDR J. E. Waddell, Jr.....

LIBRARY & ARCHIVES

DATE OCT 22 1997.....

NOAA FORM 77-28

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

REGISTER NO.

H-10565

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.

FIELD NO.

AHP 10-10-94

State Connecticut

General Locality Long Island Sound

Locality Scott Cove to Westcott Cove

Scale 1:10,000

Date of Survey August 26, 1994 - October 10, 1994

Instructions Dated March 2 1994

Project No. OPR-8285/AHP

Vessel NOAA Launch 0517

Chief of Party James E Waddell, Jr., LCDR, NOAA

Surveyed By Atlantic Hydrographic Party

Soundings taken by echo sounder, hand lead, pole echo sounder, pole

Graphic record scaled by MJM, JLB **

Graphic record checked by MJM, JLB **

Protracted by HDAPS

Automated plot by ENCad Nova Jet III (AHB)
Bruning ZETA B24A (Field)

Verification by ~~Atlantic Marine Center~~ Atlantic Hydrographic Branch Personnel

Soundings in ~~meters~~ at MLLW

REMARKS: ** MJM - Mark J. McMann

JLB - Jan L. Budlong

Notes in red were made during office processing

AWOIS/SURP ✓ 10/17/97 SJV

DESCRIPTIVE REPORT TO ACCOMPANY
HYDROGRAPHIC SURVEY H-10565
FIELD NO. AHP-10-10-94
SCALE: 1:10,000
1994
ATLANTIC HYDROGRAPHIC PARTY
CHIEF OF PARTY: LCDR James E. Waddell, Jr.

A. PROJECT

This survey was conducted in accordance with Hydrographic Project Instructions OPR-B285-AHP, Western Long Island Sound, New York and Connecticut, dated March 2, 1994. This survey is designated as Sheet "J" on the sheet layout dated December 14, 1993.

The purpose of this project is to provide contemporary hydrography for use in proposed studies and in the construction of new charts. The area was last surveyed in the 1930's by the U. S. Coast and Geodetic Survey using predominately lead line methods.

B. AREA SURVEYED

The area surveyed for H-10565 covers the north side of Long Island Sound from Scott Cove to Westcott Cove. The survey limits are as follows:

North - $41^{\circ}04'00''$ N
South - $41^{\circ}01'15''$ N
East - $073^{\circ}27'30''$ W
West - $073^{\circ}31'30''$ W

This survey was conducted from August 26, 1994 (DN 238) to October 4, 1994 (DN 277).

C. SURVEY VESSELS

Vessel 0517, a 21-foot MonArk, was the sounding vessel used to collect all survey data. There were no unusual vessel configurations nor problems encountered.

D. AUTOMATED DATA ACQUISITION AND PROCESSING

The Hydrographic Data Acquisition and Processing System (HDAPS) was used to process all hydrographic data for this survey. PC-DAS version 4.03 was used for on-line data acquisition. A listing of HDAPS programs used for data processing and their corresponding version numbers is appended to this report.

The following non-HDAPS computer programs were used:

VELOCITY (IBM PC)	Ver. 2.0 (12/18/92)
NADCON (IBM PC)	Ver. 1.01
WORDPERFECT (IBM PC)	Ver. 6.0

E. SONAR EQUIPMENT

Not Applicable.

F. SOUNDING EQUIPMENT

An Innerspace model 448 depth sounder, serial number 241, was used to collect all soundings.

A standard lead line calibrated in meters, serial number 0517, was used during this survey for comparison readings with the echo sounder. A 5-meter wooden sounding pole, marked according to Hydrographic Survey Guideline (HSG) No. 69, was used to obtain pole soundings.

G. CORRECTIONS TO SOUNDINGS

Soundings were recorded using the Innerspace model 448 depth sounder. It was adjusted for an assumed speed of sound through water of 1500 meters/second. Changes to the gain and/or chart speed were noted on the echogram. Digitized soundings agreed with the analog trace within 0.1 meter. Necessary corrections were made while scanning the echogram.

Corrections for the speed of sound through water were computed from data obtained with Odom Hydrographic Systems, Inc., DIGIBAR, electronic probe serial number 154. Data quality assurance tests were performed in accordance with Field Procedures Manual (FPM) 2.1.3.2, prior to each cast. Program VELOCITY, version 2.0, was used to compute speed of sound through water corrections. Copies of the velocity tables and cast data are in the "Survey Separates."*

Correctors for the velocity of sound through water were determined from the casts listed below:

<u>Velocity</u> <u>Table No.</u>	<u>Cast</u> <u>No.</u>	<u>Deepest</u> <u>Depth (m)</u>	<u>Applicable DN</u>	<u>Position</u>	<u>Cast</u> <u>Day</u>
6	1	17.0/22.1	236-243	40°47'00"N 073°36'00"W	236
7	2	17.1/22.2	244-256	41°02'00"N 073°23'00"W	250
8	3	30.3/39.4	257-277	40°59'30"N 073°33'00"W	263

Correctors were applied to the sounding data using the HDAPS program REAPPLY prior to plotting.

Weather permitting, lead line comparisons were conducted each day in accordance with FPM 2.1.3.1. No instrument error was detected from these comparisons. The lead line comparison form is in the "Survey Separates."*

A static draft of 0.3 meter was applied to the on-line data. The draft was measured by subtracting the difference from a punch mark on the side of Launch 0517, 0.6 meter above the transducer, to the water surface.

Settlement and squat measurements were performed on May 20, 1994 (DN 140), at Stamford, Connecticut, using Zeiss level S/N 08754. Settlement and squat correctors and the static draft corrector were applied on-line through the offset table. Copies of the

* Data filed with the ~~on~~ original field records

field data, the graphs of the settlement and squat correctors vs. speed in m/sec., and the offset table are included in the "Survey Separates." *

The Willets Point, NY tide station number 851-6990, served as control for datum determination. This station is also the reference station for the predicted tides which were applied to the final sounding plot. This survey required one tide zone, a -30-minute time correction was applied to the predicted tides. Heights were direct from the Willets Point gauge.

Approved tides were requested from the Sea and Lake Levels Branch, N/OES231, in a letter dated November 30, 1994. A copy of the letter is appended to this report. *Approved tides and zoning were applied during office processing*

H. CONTROL STATIONS *See also the Evaluation Report*

The horizontal control datum for this project is the North American Datum of 1983. One station, the USCG Differential GPS (DGPS) Beacon at Montauk Point, was used to control this survey. The position for the beacon is shown on the "Control Station List" appended to this report.

I. HYDROGRAPHIC POSITION CONTROL

DGPS was used as the method of positioning for all hydrographic data on this survey. The USCG Differential GPS beacon at Montauk Point, New York was used as the reference station in conjunction with beacon receiver serial number X-1086 and antenna serial number MBA-M1039 on launch 0517. An Ashtech sensor, serial number 700417A1065 was used as the remote station on vessel 0517. This equipment met the accuracy standards for this 1:10,000 scale survey.

Performance checks were conducted daily by resting the launch alongside station CAL 2 1994. The raw record and the abstract of these checks are included in the "Survey Separates." The calibration point was established by measuring a single GPS baseline, between a third-order, class I station and the calibration point. The computations for CAL 2 1994, are included in the "Survey Separates." *

* *Data filed with The original field records*

Occasionally, a good position misplotted on the raw track plot. This problem was attributed to good DGPS data following a period of questionable DGPS data. These positions were reviewed, then edited or rejected as necessary.

J. SHORELINE *See also The Evaluation Report*

Shoreline shown on the final sounding plot was transferred by hand from TP-01267 and TP-01268. These manuscripts were compiled using NAD 1927 at 1:20,000 scale and enlarged to 1:10,000. Program NADCON was used to calculate the offset of datum ticks applied to the T-sheet for aligning the field sheets. The only shoreline changes noted from the T-maps were the deletion of two piers and the addition of two rock groins, which were located by detached ✓ position numbers 1002 and 1041.

Many rock symbols on the T-map were actually rock islets or islands. Foul limit lines were run around these features at low water to define their size and general shape. These features are charted adequately, and should have been used in the compilation ✓ of the T-map.

Shoreline verification was conducted using main scheme hydrography that junctioned at shore, detached positions, or by visual inspection. Existing piers which agreed with the shoreline manuscript were given reference numbers, while piers not shown were located by detached positions. The hydrographer recommends that details seaward of the HWL from this survey be used to supersede TP-01267 and TP-01268.

A pier shown on the T-map at 41°02'39.53"N, 073°30'12.38"W, was searched for at low water with no evidence of the pier found. *Concur*
Detached position 996 was taken in the center of the search area. Ruins shown on the T-map at 41°02'21.26"N, 073°30'24.40"W, were located by detached position 1002, and found to be a rock groin. This feature is charted as a pier. The hydrographer recommends the rock groin be charted in place of the pier. *Concur*

A complete list of all detached positions by day, is included in the accordion file. It lists the position of each feature and the AWOIS item number when applicable.

The hydrographer recommends that shoreline changes from this survey be used to supersede prior shoreline information.

K. CROSSLINES

A total of 17.2 nautical miles of crosslines were run, representing 14.3% of the main scheme hydrography. Crossline soundings agree to within 0.5 meter of the main scheme soundings.

L. JUNCTIONS *See also Evaluation Report*

This survey junctions to the south with H-10353⁴, a 1:10,000 scale survey from 1990, and to the west with H-10540 a 1:10,000 scale survey from 1994. Junction sounding agreement is fair with H-10353⁴, with differences up to 0.8 meters. Agreement is best inside the 15-meter depth curve, with soundings comparing within 0.4 meter. Junctions with H-10540 are generally good, comparing within 0.5-0.6 meter. These differences are likely caused by the application of predicted tides.

M. COMPARISON WITH PRIOR SURVEYS *See also Evaluation Report*

The prior survey comparison will be performed by AHB. The prior survey covering this area is H-5222, 1:⁴⁰~~20~~,000, 1932. AWOIS item numbers 6414, 6428, and 7764, originated from the prior survey.

The hydrographer recommends that data from the present survey be used to supersede that of H-5222 within their common areas.

N. ITEM INVESTIGATION REPORTS

Nineteen AWOIS items, numbers 6410-6421, 6425-6428, 6431, and 7764, were assigned to this survey. Item investigation reports are appended to this report.

AWOIS NO: 6410

Item Description: OBSTRUCTION (PIER)

Source: UNKNOWN

AWOIS Position: 41° 02' 21.34"N, 73° 30' 55.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Number: 1003 Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A visual search in the area of the AWOIS position at low water revealed a pier in ruins, 30 meters long by 2 meters wide. A detached position (no. 1003) was taken on the offshore end of the pier ruins.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the pier ruins at the position below. *Concur*

Recommended Position: Lat - 41°02'20.36"N, 073°30'55.88"W ✓

Recommended Least Depth: 2.⁷~~0~~ meters above at MLLW (*Approved* ~~predicted~~ tides). (9ft)

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6411

Item Description: OBSTRUCTION (2 PIER RUINS)

Source: UNKNOWN

AWOIS Position: 41° 02' 25.34"N, 73° 30' 24.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 1000-1001 Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: The area of the charted ruins was searched and two rock groins were found. The offshore ends of these groins were located by detached positions 1000 and 1001. These groins cover at high water.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the groins at the positions below.

Recommended Position:

Pos. 1000 Lat - 41° 02' 24.70", 073° 30' 23.65"

Pos. 1001 Lat - 41° 02' 22.06", 073° 30' 21.73"

Recommended Least Depth: 2.⁴ meters above at MLLW (predicted tides). *Approved*

COMPILATION NOTES

Chart

Applied As

Retain charted groin

Add groin (new) at Lat 41°02'22.06" Long 73°30'21.73"

AWOIS NO: 6412

Item Description: OBSTRUCTION (PIER)

Source: UNKNOWN

AWOIS Position: 41° 02' 37.84"N, 73° 30' 14.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 997 Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A visual search at low water revealed no evidence of a pier or ruins at the AWOIS position. A 25 meter radius search was conducted along the rocky shoreline, and in water out to 0.8 meter in depth. The bottom was clearly visible. 10 minutes was spent on the search.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the pier from the chart.

Recommended Position: None

Concur

Recommended Least Depth: None



COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6413

Item Description: OBSTRUCTION (SEWERS)

Source: UNKNOWN

AWOIS Position: 41° 02' 16.34"N, 73° 31' 03.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-20-94 / 263 (OPR-B285-AHP2, H-10565)

Position Numbers: 1633-1636 Launch Number: 0517

Investigation Used: Echo sounder search

Position Determined By: DGPS

Investigation Summary: An echo sounder search was performed according to the AWOIS description by running a line parallel to the line of the charted sewers and a zig-zag line was run across the area. No sign of any irregularity in the bottom was seen. There was no evidence of the sewers on shore.

CHARTING RECOMMENDATION

The Hydrographer recommends removal of the sewers from the chart.

Recommended Position: None

Concur ✓

Recommended Least Depth: None

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6414

Item Description: OBSTRUCTION (UNVERIFIED GROUNDING)

Source: H5142/31WD

AWOIS Position: 41° 00' 52.34"N, 73° 30' 17.43"W

Required Investigation: ES

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-20-94 / 263 (OPR-B285-AHP2, H-10565)

Position Numbers: 1638-1718 Launch Number: 0517

Investigation Used: Echo Sounder

Position Determined By: DGPS

Investigation Summary: A 200 meter radius echo sounder search at 10 meter line spacing was performed in the area of the AWOIS position. A least depth of 5.6² meters (18.4 ft) was found.

CHARTING RECOMMENDATION

The Hydrographer recommends removing the 14 ft. sounding from the chart. *Retain as charted* *Do not concur*

The echo sounder search is not considered adequate for disapproval
Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As ✓

AWOIS NO: 6415

Item Description: OBSTRUCTION (PIER RUINS)

Source: UNKNOWN

AWOIS Position: 41° 02' 55.84"N, 73° 29' 40.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 993

Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A rock groin approx 3 meters wide by 20 meters long was located by detached position 993 at the site of the AWOIS position.

CHARTING RECOMMENDATION

The Hydrographer recommends charting a rock groin at the position below, and removing the pier from the chart.

Also chart groin at Lat 41°02'56.201"N, Long 73°29'42.197"W Concur

Recommended Position: 41°02'53.93", 073°29'41.29"

Recommended Least Depth: 1.6 meters above MLLW (predicted tides)

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6416

Item Description: SOUNDING (18 FT REP)

Source: CL1688/65--USPS

AWOIS Position: 41° 02' 42.34"N 073° 29' 34.43"W

Required Investigation: ES

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-03-94 / 246 (OPR-B285-AHP2, H-10565)

Position Numbers: 751-764 Launch Number: 0517

Investigation Used: Echo sounder development

Position Determined By: DGPS

Investigation Summary: Sounding lines were reduced to 50 meter line spacing in the area of the 18 ft rep note. A maximum depth of 2.8 meters (9.2 ft) was found. Part of the search area is within a roped off swimming area along the east shore. No soundings were taken inside this swim area.

CHARTING RECOMMENDATION

The Hydrographer recommends removal of the 18 ft rep note from the chart.

Concur

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6417

Item Description: OBSTRUCTION (PIER)

Source: UNKNOWN

AWOIS Position: 41° 02' 45.34"N 073° 29' 31.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 994 Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A visual search in the area of the charted pier revealed a rock groin approx. 3 meters wide by 30 meters long.

CHARTING RECOMMENDATION

The Hydrographer recommends charting a groin instead of a pier as located below.

Concur

Recommended Position: 41° 02'43.77", 073°29'31.02"

Recommended Least Depth: 1.⁵~~8~~ meters above MLLW (^{Approved}~~predicted~~ tides)
(5ft)

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6418

Item Description: OBSTRUCTION (PIER)

Source: UNKNOWN

AWOIS Position: 41° 02' 42.84"N 073° 29' 27.93"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 995 Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A visual search in the area of the charted pier revealed a rock groin approx. 4 meters wide by 20 meters long.

CHARTING RECOMMENDATION

The Hydrographer recommends charting a groin insted of a pier as located below. *Concur*

Recommended Position: 41° 02' 42.42", 073° 29' 28.59"

Recommended Least Depth: 2.⁰ meters above MLLW (~~predicted~~ ^{Approved} tides)
(6 ft)

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6419

Item Description: OBSTRUCTION (SEWER)

Source: CL1191/79--USPS

AWOIS Position: 41° 02' 33.34"N 073° 29' 24.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-20-94 / 263 (OPR-B285-AHP2, H-10565)

Position Numbers: 1632

Launch Number: 0517

Investigation Used: Echo sounder search

Position Determined By: DGPS

Investigation Summary: An axis line (pos. 1633-1634) was run over the charted sewer and at the inshore end of the line a rock groin was found. The end of the groin was located by detached position 1632. No evidence of the sewer was seen on the axis line.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the groin at the position below. *Also remove charted sewer line* *Concar*

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6420

Item Description: OBSTRUCTION (SUBMERGED ROCKS)

Source: CL1993/777--USPS

AWOIS Position: 41° 02' 37.84"N 073° 29' 11.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 1007 Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: DGPS

Investigation Summary: A visual search was conducted in the area of the charted rock and a detached position (1007) was taken on the top of a large boulder.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the rock symbol as located below. *Also, delete charted rock & note "rep"* *Concor*

Recommended Position: 41° 02' 38.02", 073° 29' 10.68"

Recommended Least Depth: 0.³ meter above MLLW (^{*Approved*} predicted tides)
(1ft)

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6421

Item Description: SOUNDING (6 FT REP)

Source: CL302/74--COE PERMIT

AWOIS Position: 41° 02' 52.34"N 073° 29' 01.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-03-94 / 246 (OPR-B285-AHP2, H-10565)

Position Numbers: 685-686 Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: DGPS

Investigation Summary: A sounding line was run into the marina where the 6 ft rep note is located. Least depth along the pier faces was 1.8 meters (5.9 ft).

CHARTING RECOMMENDATION

The Hydrographer recommends charting representative soundings from H-10565 in the area of the 6 ft rep note. *Concur*
And re move charted

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6425

Item Description: OBSTRUCTION (PIER)

Source: UNKNOWN

AWOIS Position: 41° 02' 29.34"N 073° 28' 34.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-10-94 / 253 (OPR-B285-AHP2, H-10565)

Position Numbers: 1045 Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A visual search was conducted in the area of the pier at low water and a rock jetty approx 5 meters wide by 25 meters long was found. The offshore end of the jetty was located by detached position 1045.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the ~~jetty~~ as located below.

Recommended Position: 41°02'28.15", 073°28'33.14"

Concur

Recommended Least Depth: ^{1.7}~~2.0~~ meters above MLLW (predicted tides)

Approved

(5ft)

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6426

Item Description: OBSTRUCTION (2 PILES)

Source: UNKNOWN

AWOIS Position: 41° 03' 20.84"N 073° 28' 14.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 1008 Launch Number: 0517

Investigation Used: Visual search

Position Determined By: DGPS

Investigation Summary: A visual search was conducted in the area of the AWOIS position and nothing was found. This area is charted as baring at MLLW, and a brief discussion with the homeowner at the site revealed no first hand knowledge of any piles in this area.

CHARTING RECOMMENDATION

The Hydrographer recommends removal of the piles from the chart.

Concur

Recommended Position:

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6427 *not in 55*

Item Description: OBSTRUCTION (5 FT ROCK)

Source: CL1347/64--USPS

AWOIS Position: 41° 02' 55.84"N 073° 28' 08.93"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 6-02-94 / 153 (OPR-B285-AHP2, H-10542)

Position Numbers: 1590-1629 Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: DGPS

Investigation Summary: A 50 meter radius echo sounder search was conducted at 10 meter line spacing. A rock was found on 3 consecutive sounding lines. The least depth was 1.5 meters (4.9 ft).

CHARTING RECOMMENDATION

The Hydrographer recommends charting the rock as located by the hydrography. *Concur*
Chart 4 RK at Lat 41° 02' 56.814", Long 73° 28' 09.134"W

Recommended Position: *Delete charted rock & note "rep 1964"*

Recommended Least Depth:

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6428

Item Description: UNKNOWN (WRECK)

Source: H5219/32WD

AWOIS Position: 41° 02' 24.64"N 073° 27' 59.73"W

Required Investigation: S2, ES, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-20-94 / 263 (OPR-B285-AHP2, H-10565)

Position Numbers: 1560-1589 Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: DGPS

Investigation Summary: A 50 meter radius echo sounder search was conducted at 10 meter line spacing and nothing was found. Discussions with a representative of Tallmudge Fisheries, which operates clam and oyster dredges in the area, indicate no knowledge of any snags or obstructions in the area.

CHARTING RECOMMENDATION

The Hydrographer recommends removal of the 12 wreckage from the chart.

Recommended Position:

Recommended Least Depth:

*Do not concur
M. 2. b. 2.
See section ~~A. 6. 2.~~ in the
Evaluation Report*

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6430

Item Description: OBSTRUCTION (PIER)

Source: UNKNOWN

AWOIS Position: 41° 03' 36.34"N 073° 27' 47.93"W

Required Investigation: VS, BD, DI

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-28-94 / 271 (OPR-B285-AHP2, H-10565)

Position Numbers: 1757 Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A visual search in the area of the charted pier found a wood pier which was located by detached position 1757.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the pier as located below.

Concur

Recommended Position: 41° 03'37.98", 073° 27"48.01

Recommended Least Depth: ^{2.9}~~1.9~~ meters above MLLW (^{Approved}~~predicted~~ tides)
(7 ft)

COMPILATION NOTES

Chart

Applied As

AWOIS NO: 6431

Item Description: OBSTRUCTION (PIER)

Source: UNKNOWN

AWOIS Position: 41° 03' 20.84"N 073° 27' 30.43"W

Required Investigation: VS, BD, DI

Charts Affected: 12367

INVESTIGATION

Date(s)/DN(s): 9-09-94 / 252 (OPR-B285-AHP2, H-10565)

Position Numbers: 1009

Launch Number: 0517

Investigation Used: Visual Search

Position Determined By: DGPS

Investigation Summary: A visual search performed in the area of the AWOIS position at low water located a wood pier approx. 2 meters wide by 15 meters long.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the pier as located below.

Concur

Recommended Position: 41°03'20.61"N, 073°27'30.96"W

Recommended Least Depth: ^{3.9}~~4.1~~ meters above MLLW (^{Approved}~~predicted~~ tides)
(13ft)

COMPILATION NOTES

Chart

Applied As

AWOIS NO. 7764

Item Description: OBSTRUCTION

Source: FE320SS/88--OPR-B660-RU-88

AWOIS Position: 41° 02' 05.99"N 073° 28' 13.11"W

Required Investigation: ES, DI, SD

Charts Affected: 12368

INVESTIGATION

Date(s)/DN(s): 9-20-94 / 263 (OPR-B285-AHP2, H-10565)

Position Numbers: 1537-1559 Launch Number: 0517

Investigation Used: Echo sounder

Position Determined By: DGPS

Investigation Summary: A 50-meter radius echo sounder search was conducted at 10 meter line spacing in the area of the AWOIS position and a spike was found. Repeated drifts were made over the spike until the least depth was recorded at detached position 1559.

CHARTING RECOMMENDATION

The Hydrographer recommends charting the spike as located below. ^{Concur}
Retain 25 Obsth w/danger curve and remove charted note "rep"

Recommended Position:

Recommended Least Depth:

*Telcom - R. Hill and S. Kerry
Retain at AWOIS position above
and remove "rep" note. (26 feet
shoalest depth on*

COMPILATION NOTES

Chart

Applied As

*present Survey)
10/17/97*

O. COMPARISON WITH THE CHART

Comparisons were made with Chart No. 12368, 21st Edition, Dec 12, 1992. Survey soundings compared well with those charted, being generally within 0.5 meter.

There were no dangers to navigation identified on this survey.

Discrepancies with the chart are as follows:

<u>Charted Depth</u>	<u>Location</u>	<u>Survey Least Depth</u>	<u>Charting Recommendation</u>
16 <i>RK</i>	41°00' ² 48" 073°30' ⁵⁴ 54"	¹⁸ 17.4 ft 5.2 m	Remain as charted * ✓ ✓ <i>Concur</i>
18	41°00' ^{49.2} 48" 073°30' ^{52.34} 12"	³ 20.9 ft 6.4 m	Remain as charted * ✓ ✓ <i>Concur</i>
14 <i>AWOIS 6414</i>	41°00' ^{11.5} 54" 073°30' ^{17.43} 15"	⁰ 18.4 ft 5.6 m	Remain as charted * ✓ ✓ <i>Concur</i>
18	41°00' ^{53.2} 57" 073°30' ⁹ 08"	21.9 ft 6.7 m	Chart survey depths * ✓ ✓ <i>Do not concur Retain Chart 19 ft</i>
10	41°00' ⁶ 54" 073°30' ²⁹ 30"	¹¹ 14.7 ft 4.5 m	Remain as charted * ✓ ✓ <i>Concur</i>
8	41°01' ¹⁴ 03" 073°30' ¹⁴ 27"	13.1 ft 4.2 m	Remain as charted * ✓ ✓ <i>Concur</i>
10	41°01' ^{7.5} 06" 073°30' ⁴⁴ 48"	¹² 18.1 ft 4.5 m	Remove charted depth * ✓ ✓ <i>Do not concur Retain chart 10ft</i>
9	41°01' ³ 12" 073°30' ³ 39"	9.2 ft 2.8 m	Remain as charted <i>Do not concur</i> ✓ ✓ <i>Chart present survey depths</i>
8	41°01' ³ 21" 073°30' ³ 42"	7.5 ft 2.3 m	Chart survey depths <i>Concur</i> ✓
9 ✓	41°01' ³ 24" 073°30' ³ 51"	8.8 ft 2.7 m	Remain as charted <i>Do not concur</i> ✓ ✓ <i>Chart present survey depths</i>

* The depths and features were brought forward from the prior surveys to supplement the present survey.

8	41°01'09" 073°31'01"	⁸ 7.5 ft 2.8 ₆ m	Chart survey depths CONCUR ✓
32 RK	^{10.2} 41°01'12" 073°28'54" ^{56.2}	36.4 ft 11.1 m	Chart survey depths Do not Retain chart 32 RK * CONCUR ✓ see also E&A Report
11	41°01'30" ^{30.8} 073°30'00" ^{3.1} ³⁹ ⁴	11.5 ft 3.5 m	Remain as charted * ✓ Do not CONCUR Chart present survey depths
11	41°01'40" 073°30'08" ^{7.5} ²	13.1 ft 4.0 m	Remain as charted * ✓ CONCUR
8 RK	41°01'38" 073°30'18" ^{20.2} ^{41.5}	15.4 ft 4.7 ₈ m	Remain as charted * ✓ CONCUR
4	41°01'42" 073°30'39" ⁴⁰ ^{60.8}	6.6 ft 2.0 m	Remain as charted * ✓ CONCUR
4 RK	41°01'51" 073°30'24" ^{24.8} ^{4.5}	⁹ 7.5 ft 2.4 ₇ m	Remain as charted * ✓ CONCUR
2	41°01'58" 073°30'24" ^{59.4} ¹	⁷ 4.9 ft 1.5 m	Remain as charted * ✓ CONCUR
2 RK	41°02'00" 073°29'30" ^{30.5}	^{2.2} 3.3 ft 1.0 ₃ m	Remain as charted * ✓ CONCUR
3 RK	41°02'09" 073°29'30" ^{31.4}	⁴ 3.6 ft 1.1 ₄ m	Remain as charted * ✓ CONCUR
2 RK	41°02'15" 073°29'03" ^{15.4}	4.8 ft 1.5 ₃ m	Remain as charted * ✓ CONCUR
5	41°02'06" 073°29'26" ^{6.6} ^{25.6}	⁸ 9.2 ft 2.8 ₆ m	Remain as charted * ✓ CONCUR
21	41°01'57" 073°28'24"	20.8 ft 6.4 m	Remain as charted Do not Chart present survey CONCUR ✓ depths
10	41°02'21" 073°28'14" ^{18.5}	^{12.3} 11.8 ft 3.6 ₇ m	Remain as charted * ✓ CONCUR

* The depths and features were brought forward from the prior survey to supplement the present survey.

A rock island charted at 41°01'06"N, 073°31'18"W, was investigated by reducing line spacing to 25 meters. A least depth of 0.7 meter was found. The hydrographer recommends removal of the island from the chart. *Concur Chart fowl delineation from present survey ✓*

The area around a rock awash charted near the entrance to Scott Cove at 41°02'45"N, 073°27'54"W, was developed using 25-meter line spacing and a least depth of 1.6 meters (5.2 ft) was found. Discussions with local fishermen revealed the rocks in this area are not as shallow as charted. The hydrographer recommends removal of the rock awash from the chart. *Concur*

Also delete charted note "awash at MLLW" and chart fowl delineation from present survey ✓

A centerline was run in the dredged channel leading into a private marina in Westcott Cove. A charted note indicates a depth of "4 feet for a mid width of 50 feet June 1985." Survey soundings show deeper depths from the offshore end of the channel to the marina entrance, then negative soundings were found continuing towards shore for approximately 50 meters. The survey launch was apparently out of the channel due to the lack of channel markers. The centerline was run at high water which made visual location of the deepest water impossible. Inside the harbor, survey depths were slightly shoaler than the 4 feet noted. The shoalest sounding in this area was 1.1 meters (3.6 ft). This could constitute a danger to navigation, however it was decided to delay the decision to report this depth until smooth tides are applied at AHB, to avoid possible negative economic impact on the marina located in the harbor. *Concur No change in charting status is recommended ✓*

A mooring buoy charted at 41°02'20"N, 073°27'40"W, was searched for and not found. The hydrographer recommends removal of the buoy from the chart. *Concur ✓*

The hydrographer recommends sounding data from this survey be used to update the chart. *Concur ✓*

P. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede all prior surveys within the common area.

Q. AIDS TO NAVIGATION

There are twenty-five aids to navigation in the survey area. Fifteen are buoys, one is a daybeacon on a pile, one is a privately maintained lighted mooring buoy, four are privately maintained lights, and four are privately maintained spar buoys. Three of the aids have a published position in the USCG Light List, Volume I, Atlantic Coast, 1994.

Detached positions were taken on all aids to navigation. The comparison of the surveyed position with the charted location was:

Goodwives River Approach Buoy 2 (Light List #25105)

Light List Published Position - None

Surveyed Position (No. 966) - 41°02'19.12"N, 073°28'56.38"W

Surveyed position agrees with the charted position

Goodwives River Approach Lighted Buoy 1 (Light List #25100)

Light List Published Position - 41°02.2', 073°29.0'

Surveyed Position (No. 967) - 41°02'14.84"N, 073°29'00.39"W

Surveyed position agrees with the charted position

Goodwives River Approach Orange Spar Buoy (Light List #25110)

Light List Published Position - None

Surveyed Position (No. 1050) - 41°02'21.38"N, 073°29'08.06"W

Surveyed position is 50 meters SW of the charted position

Smith Reef Lighted Buoy 30 (Light List #21355)

Light List Published Position - None

Surveyed Position (No. 968) - 41°01'29.47"N, 073°29'30.89"W

Surveyed position agrees with the charted position

Westcott Cove West Entrance Buoy 2 (Light List #25145)

Light List Published Position - None ^{40.867}

Surveyed Position (No. 973⁵) - 41°01'~~46.26~~^{44.002}"N, 073°30'~~24.72~~"W

Surveyed position agrees with charted position

Westcott Cove East Entrance Lighted Buoy 1 (Light List #25135)

Light List Published Position - 41°01.7', 073°30.6'

Surveyed Position (No. 974) - 41°01'40.38"N, 073°30'36.42"W

Surveyed position agrees with charted position

Wescott Cove West Entrance Danger Buoy (Light List #25140)

Light List Published Position - None
Surveyed Position (No. 97~~5~~³) - 41°01'~~40.87~~^{44.263}"W, 073°30'~~44.00~~^{24.722}"W
Surveyed position agrees with charted position

Wescott Cove Lighted Buoy 4 (Light List #25155)

Light List Published Position - None
Surveyed Position (No. 976) - 41°01'53.58"N, 073°30'54.22"W
Surveyed position agrees with charted position

Westcott Cove Buoy 3 (Light List #25150)

Light List Published Position - None
Surveyed Position (No. 977) - 41°01'51.72"N, 073°30'55.99"W
Surveyed Position agrees with charted position

Westcott Cove Buoy 5 (Light List #25160)

Light List Published Position - None
Surveyed Position (No. 978) - 41°01'56.29"N, 073°31'05.20"W
Surveyed position agrees with charted position

Westcott Cove Buoy 6 (Light List #25165)

Light List Published Position - None
Surveyed Position (No. 979) - 41°01'57.53"N, 073°31'04.87"W
Surveyed position agrees with charted position

Westcott Cove Buoy 8 (Light List #25175)

Light List Published Position - None
Surveyed Position (No. 980) - 41°02'00.69"N, 073°31'08.53"W
Surveyed position agrees with charted position

Westcott Cove Buoy 7 (Light List #25170)

Light List Published Position - None
Surveyed Position (No. 981) - 41°02'00.71"N, 073°31'10.54"W
Surveyed position agrees with charted position

Westcott Cove Buoy 9 (Light List #25180)

Light List Published Position - None
Surveyed Position (No. 982) - 41°02'09.97"N, 073°31'14.45"W
Surveyed position agrees with charted position

Westcott Cove Buoy 10 (Light List #25185)

Light List Published Position - None

Surveyed Position (No. 983) - 41°02'10.44"N, 073°31'13.03"W

Surveyed position agrees with charted position

The aids serve their intended purpose, though should be re-charted using current surveyed positions.

The privately maintained aids to navigation were located by detached position and are recommended for charting as follows:

<u>Position No.</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>	<u>Description</u>
964	41°02'40.73"	073°29'10.33"	Noroton Range Rear Lt
965	41°02'38.63"	073°29'09.00"	Noroton Range Front Lt
1783	41°02'24.88"	073°28'33.98"	Long Neck Pt Pier Lt
969	41°02'28.31"	073°30'12.04"	Cove Mills G spar
970	41°02'28.57"	073°30'09.72"	Cove Mills R spar
971	41°02'31.71"	073°30'11.44"	Cove Mills R spar
972	41°02'36.86"	073°30'13.43"	Cove Mills G spar
1010	41°02'27.28"	073°27'34.92"	Mooring buoy Y lt

The breakwater light located by detached position 984 at 41°02'16.02"N, 073°31'14.84"W was not lighted because it was in disrepair. Mr. Doug Hamilton, City of Stamford, Marina Supervisor, phone (203)977-4688, was contacted for information on the status of this light. Mr. Hamilton said the breakwater the light was on was to be rebuilt soon, and the light would be repaired as well. The hydrographer recommends this light remain as charted.

Concur

No pipelines, ferry routes, bridges or overhead cables exist within the survey area.

Concur

R. STATISTICS

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	1783
Total Lineal Nautical Miles of Hydrography	177.1
Square Nautical Miles of Hydrography	9.8
Days of Production	16
Detached Positions	39
Bottom Samples	22
Tide Stations	3
Velocity Casts	3

S. MISCELLANEOUS

No anomalous currents or tides were observed during this survey.

Twenty-two bottom samples were taken and compared to the charted bottom characteristics. All surveyed characteristics agreed with those charted. Bottom sample positions are plotted on the overlay and are listed on the Oceanographic Log Sheet-M, NOAA Form 75-44, which is in the "Survey Separates."

The "assign fix" function of the program QUICK EDIT, was used to assign position numbers to the beginning or ending of a line as needed.

T. RECOMMENDATIONS

No additional field work was identified after field office processing was completed. Specific recommendations are made on the Item Investigation Reports appended, and in sections J., O., and Q. of this report.

U. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal Information</u>
Descriptive Report to Accompany Survey H-10353	Atlantic Hydrographic Branch N/CG244, Norfolk, Va 23510 (1990)
Descriptive Report to Accompany Survey H-10540	Atlantic Hydrographic Branch N/CG244, Norfolk, Va 23510 (2/1995)
Coast Pilot for OPR-B285-AHP	Atlantic Hydrographic Branch N/CG244, Norfolk, Va 23510 (11/1994)
User Evaluation for OPR-B285-AHP	Atlantic Hydrographic Branch N/CG244, Norfolk, Va 23510 (11/1994)

Submitted by:



Mark J. McMann
Launch Hydrographer In Charge

CONTROL STATION as of 8 Oct 1984

No	Type	Latitude	Longitude	R. Cent	Freq	Vel Code	MMDDYY	Station Name
001		041143.16 S	178171.00 E	0.00	0.0	0.0	00 01 84	THAMES NECK LIGHT 1894
002		041157.17 S	178161.00 E	0.00	0.0	0.0	00 01 84	04 1 1984
003		041158.00 S	178151.00 E	0.00	0.0	0.0	00 01 84	04 1 1984
004		041158.00 S	178151.00 E	0.00	0.0	0.0	00 01 84	04 1 1984

APPROVAL SHEET

BASIC HYDROGRAPHIC SURVEY

OPR-B285-AHP

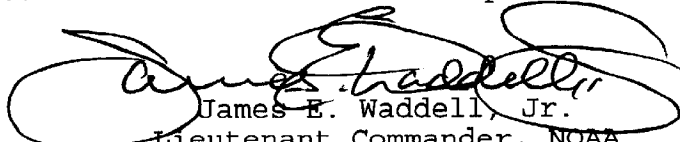
AHP-10-10-94

H-10565

1994

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-B285-AHP, the Hydrographic Manual, the Hydrographic Survey Guidelines, and the Field Procedures Manual. All reports were reviewed by Mr. Brian Link, Assistant Chief of Party. The descriptive report was reviewed and approved by LCDR James E. Waddell, Jr., Chief of Party. All supporting data and records were approved through Team Processing with the Atlantic Hydrographic Branch in Norfolk, Virginia.

This survey is a complete basic hydrographic survey for the area described in Section B of this report.


James E. Waddell, Jr.
Lieutenant Commander, NOAA
Chief, Atlantic Hydrographic Party



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: March 30, 1995

HYDROGRAPHIC SECTION: Atlantic

HYDROGRAPHIC PROJECT: OPR-B285

HYDROGRAPHIC SHEET: H-10565

LOCALITY: Connecticut, Long Island Sound, Scott Cove to
Westcott Cove

TIME PERIOD: August 26 - October 4, 1994

TIDE STATION USED: 846-8799 Long Neck Point, Ct.
Lat. $41^{\circ} 2.3'N$ Lon. $73^{\circ} 28.8'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.64 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 7.4 ft.

REMARKS: RECOMMENDED ZONING

Times and heights are direct on Long Neck Point, Ct. (846-8799).

Photo ID Time 0

Note: Times are tabulated in Greenwich Mean Time.

William M. Huber

CHIEF, DATUMS SECTION



GEOGRAPHIC NAMES

H-10565

Name on Survey	ON CHART NO. 12368											
	ON PREVIOUS SURVEY NO.											
Page 1 of 2	CON U.S. QUADRANGLE MAPS			FROM LOCAL INFORMATION			ON LOCAL MAPS		P.O. GUIDE OR MAP		RAND McNALLY ATLAS	U.S. LIGHT LIST
	A	B	C	D	E	F	G	H	I		K	

BOLD ROCK (is1)	X		X									1
BUTLERS ISLAND	X		X									2
CONTENTMENT ISLAND	X		X									3
CONNECTICUT (title)	X		X									4
COVE HARBOR	X		X									5
COVE ROCKS	X		X									6
COWS, THE	X		X									7
CUMMINGS PARK	X		X									8
EAST BRANCH	X		X									9
FISH ISLANDS	X		X									10
FIVEMILE RIVER	X		X									11
GOODWIVES RIVER	X		X									12
GORHAMS POND	X		X									13
GREAT ISLAND	X		X									14
GUT, THE	X											15
HARBOR LEDGE	X		X									16
HAY ISLAND	X		X									17
HOLLY POND	X		X									18
LONG ISLAND SOUND	X		X									19
LONG NECK POINT	X		X									20
NASH ISLAND	X		X									21
NAT CLOCKS ROCK	X		X									22
NOROTON (pp1)	X		X									23
NOROTON HEIGHTS	X		X									24
NOROTON NECK	X		X									25

GEOGRAPHIC NAMES

Name on Survey

Page 2 of 2

A ON CHART NO. 12368
B ON PREVIOUS SURVEY NO.
C ON U.S. QUADRANGLE MAPS
D FROM LOCAL INFORMATION
E ON LOCAL MAPS
F P.O. GUIDE OR MAP
G RAND McNALLY ATLAS
H U.S. LIGHT LIST
K

Name on Survey	A	B	C	D	E	F	G	H	K
NOROTON RIVER	X		X						1
PEARTREE POINT	X		X						2
PRATT ISLAND ONE	X		X						3
PRATT ISLAND TWO	X		X						4
SCOTT COVE	X		X						5
SHIPPAN POINT	X		X						6
SMITH REEF	X		X						7
STAMFORD HARBOR	X		X						8
STAMFORD YACHT CLUB (locale)	X		X						9
STONY BROOK	X		X						10
TOKENEKE CREEK	X								11
TOKENEKE	X		X						12
VINCENT ISLAND	X		X						13
WESTCOTT COVE	X		X						14
ZIEGLERS COVE	X		X						15
									16
									17
									18
						Approved:			19
						<i>Arthur Coley</i>			20
						Chief Geographer			21
						NOV 20 1995			22
									23
									24
									25

08/19/97

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER: H-10565

NUMBER OF CONTROL STATIONS	2
NUMBER OF POSITIONS	1783
NUMBER OF SOUNDINGS	8937

	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	61	05/02/95
VERIFICATION OF FIELD DATA	264.50	03/06/97
QUALITY CONTROL CHECKS	8	
EVALUATION AND ANALYSIS	108.50	
FINAL INSPECTION	21	02/05/97
COMPILATION	108	08/15/97
TOTAL TIME	571	
ATLANTIC HYDROGRAPHIC BRANCH APPROVAL		03/14/97

**ATLANTIC HYDROGRAPHIC SECTION
EVALUATION REPORT FOR H-10565 (1994)**

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.

D. AUTOMATED DATA ACQUISITION AND PROCESSING

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

Hydrographic Processing System
AutoCAD, Release 12
QUICKSURF, version 5.1
NADCON, version 2.10
MicroStation 95, version 5.05
I/RAS B, version 5.01

The smooth sheet was plotted using an ENCAD NovaJet III plotter.

H. CONTROL STATIONS

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). The smooth sheet has been annotated with ticks showing the computed mean shift between the North American Datum of 1983 (NAD 83) and the North American Datum of 1927 (NAD 27).

To place this survey on the NAD 27 datum, move the projection lines 0.35 seconds (10.784 meters or 1.08 mm at the scale of the survey) north in latitude and 1.565 seconds (36.557 meters or 3.66 mm at the scale of the survey) east in longitude.

All geographic positions listed in this report are on the NAD 83 unless stated otherwise.

J. SHORELINE

The shoreline originates with photogrammetric manuscripts TP-01267 (1984-87) and TP-01268 (1984-87). The manuscripts were digitized by Atlantic Hydrographic Branch personnel. The digitized file has been inserted into the smooth sheet drawing file.

Shoreline revisions originating with the present survey are shown in red on the smooth sheet.

The zero depth contour was not completely delineated on

this survey due to the hazardous foul areas along the shoreline.

L. JUNCTIONS

H-10540	(1994)	1:10,000	to the west
H-10354	(1990)	1:10,000	to the south

A standard junction was effected between H-10540 (1994) and the present survey.

A standard junction could not be effected between the present survey and H-10354 (1990). The junctional survey is archived at National Ocean Service (NOS) headquarters, Silver Spring, Maryland. In this case, the note "ADJOINS" is shown on the present survey. Any adjustments to the depth curves will have to be made during chart compilation.

There are no junctional surveys to the east. Present survey depths are in harmony with the charted hydrography in this area.

M. COMPARISON WITH PRIOR SURVEYS

1. Hydrographic

H-5222	(1932)	1:10,000
--------	--------	----------

The prior survey listed above covers the present survey area in its entirety. The prior survey is in good general agreement with the present survey, with prior survey depths differing plus or minus (\pm) 2 feet (0⁶ m). In the vicinity of Latitude 41°02'42.5"N, Longitude 73°29'07.5"W prior survey depths are 10-12 feet (3-3⁷ m) deeper than present survey depths. The differences between the present and prior surveys can be attributed to natural changes in the bottom configuration, cultural change, and/or improved hydrographic surveying methods. Attention is directed to the following:

The following charted depths and features originate with prior survey H-5222 (1932) and are not considered disproved by the present survey:

<u>DEPTH/FEATURE</u> (ft/m)	<u>LATITUDE (N)</u>	<u>LONGITUDE (W)</u>
12/3 ⁷	41°02'31.5"	73°28'09.0" ✓
4/1 ²	41°02'33.2"	73°28'28.2" ✓
13/4	41°02'34.5"	73°27'57.0" ✓

8/2 ⁴	41°02'39.8"	73°27'59.3" ✓
3/0 ⁹ rock	41°02'42.0"	73°27'52.5" ✓
2/0 ⁶ rock	41°02'55.6"	73°27'41.0" ✓
6/1 ⁸ rock	41°02'18.8"	73°29'03.1" ✓
3/0 ⁹ rock	41°02'22.3"	73°29'13.4" ✓
12/3 ⁴	41°02'11.8"	73°29'24.0" ✓
9/2 ⁷	41°02'05.2"	73°29'34.0" ✓
12/3 ⁴	41°01'59.6"	73°29'34.2" ✓
4/1 ²	41°02'19.8"	73°30'06.0" ✓
5/1 ⁵	41°02'22.0"	73°30'09.0" ✓
4/1 ² rock	41°01'58.5"	73°29'47.5" ✓
5/1 ⁵ rock	41°01'50.0"	73°29'41.5" ✓
3/0 ⁹	41°01'55.0"	73°30'25.4" ✓
9/2 ⁷	41°01'34.0"	73°30'24.8" ✓
12/3 ⁷	41°01'30.8"	73°29'57.6" ✓
11/3 ⁴	41°01'27.8"	73°30'11.0" ✓
12/3 ⁷	41°01'25.5"	73°30'07.0" ✓
23/7	41°00'44.8"	73°30'21.0" ✓
5/1 ⁵	41°01'28.0"	73°31'06.5" ✓
3/0 ⁹	41°01'16.2"	73°31'16.2" ✓
8/2 ⁴	41°02'48.2"	73°30'11.2" ✓
7/2 ¹	41°02'44.9"	73°30'12.0" ✓
2/0 ⁶	41°02'21.5"	73°29'27.5" ✓
rk awash	41°02'05.2"	73°30'32.9" ✓

These depths and features were brought forward from the prior survey to supplement the present survey. It is recommended that these features be retained as charted.

The present survey is considered adequate to supersede the prior survey within the common area, except as noted in this report.

2. Prior Wire Drag Surveys

H-5142WD	(1931)	1:20,000
<u>H-5219WD</u>	<u>(1932)</u>	<u>1:20,000</u>

a. H-5142WD (1931) covers the present survey except in the inshore areas where wire drag could not be accomplished. There are nine hangs or groundings that originate with the prior survey that fall within the present survey limits. There are no conflicts between the present survey depths and the prior survey effective clearance depths. Attention is directed to the following:

The following charted depths and features originate with the prior survey and are not considered disproved by the present survey:

<u>DEPTH/FEATURE</u> <u>(ft/m)</u>	<u>LATITUDE (N)</u>	<u>LONGITUDE (W)</u>
28/8 ⁵ rock	41°01'50.6"	73°28'27.0" ✓
11/3 ⁴	41°01'55.0"	73°28'42.4" ✓
18/5 ⁵	41°01'48.0"	73°28'45.0" ✓
34/10 ⁴	41°01'31.3"	73°28'40.5" ✓
36/11 ⁰	41°01'13.5"	73°28'44.9" ✓
28/8 ⁵	41°00'56.0"	73°29'58.5" ✓
30/9 ¹	41°00'52.8"	73°29'52.8" ✓
12/3 ⁷	41°00'55.5"	73°31'11.0" ✓

These depths and features were brought forward from the prior survey to supplement the present survey. It is recommended that these features be retained as charted.

b. H-5219WD (1932) has five hangs or groundings that fall within the present survey limits. There are no conflicts between the present survey depths and the prior survey effective clearance depths. Attention is directed to the following:

1. Automated Wreck and Obstruction Information System (AWOIS) Item #6406, charted dangerous submerged wreckage with a depth of 5 feet (1⁵ m), in Latitude 41°00'34.5"N, Longitude 73°31'27.5"W, originates with the prior survey. This AWOIS item was neither assigned to nor investigated by the field unit. No change in charting status is recommended.

2. AWOIS Item #6428, charted wreckage with a depth of 12 feet (3⁷ m), in Latitude 41°02'24.64"N, Longitude 73°27'59.73"W, originates with the prior survey. This AWOIS item was subsequently investigated by FE-320SS (1988); however, it was not considered disproved. The investigation of this AWOIS item by the field unit is not considered adequate for disapproval. The feature has been brought forward from the prior survey to supplement the present survey. No change in charting status is recommended. Additional work is recommended.

3. The following features and depths are not considered disproved by the present survey:

<u>DEPTH (ft/m)</u>	<u>LATITUDE (N)</u>	<u>LONGITUDE (W)</u>
4/1 ⁷	41°02'03.0"	73°28'45.0" ✓
13/4	41°01'53.5"	73°28'39.1" ✓
28/8 ⁵	41°01'55.5"	73°27'38.0" ✓
10/3	41°02'21.0"	73°28'14.0" ✓
41/12 ⁵	41°01'29.5"	73°28'04.4" ✓

These features were brought forward from the prior survey to supplement the present survey. It is recommended that these features be retained as charted.

3. Side Scan Sonar

FE-320SS (1988) 1:10,000

The present survey is common to FE-320SS (1988) in the investigated areas of AWOIS Item #6422 and #6429. Attention is directed to the following:

a. AWOIS Item #6422, a charted dangerous submerged rock with a depth of 32 feet (9^8 m) and a danger curve, in Latitude $41^{\circ}01'10.22''N$, Longitude $73^{\circ}28'55.69''W$, originates with H-5142WD (1931). The prior survey located the presently charted feature. The disposition of this feature was not addressed by the present survey. This feature has been brought forward from the prior survey to supplement the present survey and should be retained as charted. ✓

b. AWOIS Item #6429, a charted dangerous sunken wreck, PA, with a danger curve, in Latitude $41^{\circ}01'56''N$, Longitude $73^{\circ}28'08''W$ (NAD 27), originates with Local Notice to Mariners 37 of 1971 (LNM37/71) and was investigated by the prior survey. A wreck with a least depth of 33 feet (10^1 m) was located in Latitude $41^{\circ}01'54.14''N$, Longitude $73^{\circ}27'57.36''W$. The latest edition of chart 12368 continues to show the wreck, PA and a wreck with a depth of 38 feet (11^6 m) in the position determined by the prior survey. It is recommended that the charted wreck, PA be deleted from the chart as recommended in the Evaluation Report for FE-320SS (1988) and the currently charted 38 foot (11^6 m) depth on the charted wreck be revised to 33 feet (10^1 m) as recommended in the Evaluation report for FE-320SS (1988). ✓

c. A charted dangerous sunken wreck with a depth of 47 feet (14^3 m) and a danger curve, in Latitude $41^{\circ}01'41.6''N$, Longitude $73^{\circ}27'44.69''W$, originates with the prior survey. The disposition of this feature was not addressed by the present survey. This feature has been brought forward from the prior survey to supplement the present survey and should be retained as charted. ✓

The present survey is considered adequate to supersede the prior side scan sonar surveys within the common area, except as noted in this report.

AWOIS
7763
(55V)

O. COMPARISON WITH CHART 12368 (22nd Edition, July 16/94)

1. Hydrography

The charted hydrography within the common area originates with the previously discussed prior surveys and from sources not readily available. The previously addressed prior surveys require no further consideration. Attention is directed to the following:

The following charted depths originate with an unknown source. These depths were neither verified or disproved of the present survey. It is recommended that these features be retained as charted.

<u>DEPTH (ft/m)</u>	<u>LATITUDE (N)</u>	<u>LONGITUDE (W)</u>
1/0 ³	41°02'14.5"	73°31'16.95" ✓
~1/0 ³	41°02'41.6"	73°30'12.7" ✓
2/0 ⁶	41°02'14.5"	73°31'14.2" ✓
~3/0 ⁹	41°02'07.2"	73°31'11.2" ✓
~2/0 ⁶	41°02'02.8"	73°31'08.5" ✓
~6/1 ⁸	41°01'58.0"	73°31'09.0" ✓
~6/1 ⁸	41°01'54.5"	73°31'07.5" ✓
1/0 ³	41°01'51.5"	73°31'03.8" ✓
12/3 ⁷	41°01'47.5"	73°30'47.0" ✓
23/7	41°01'45.1"	73°28'43.5" ✓

2. Controlling Depths

The charted note 4-ft (June 1985), in the vicinity of Latitude 41°02'12"N, Longitude 73°31'15"W, was not resolved by the present survey. No change in charting status is recommended.

The present survey is adequate to supersede the charted hydrography in the common area, except as noted in this report.

P. ADEQUACY OF SURVEY

This is an adequate hydrographic survey and should supersede all prior surveys within the common area, except as noted in the Descriptive Report or this report.

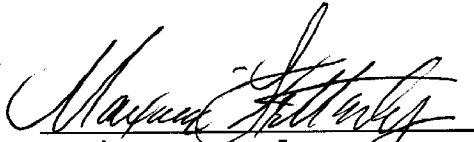
S. MISCELLANEOUS

Chart compilation using the present survey data was done by Atlantic Hydrographic Branch personnel in Norfolk,

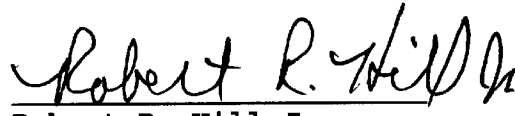
H-10565

Virginia. Compiled data will be forwarded to Nautical Chart Division, Silver Springs, Maryland upon completion of the project.

RUDE Processing Team



Maxine Fetterly
Cartographic Technician
Verification of Field Data



Robert R. Hill Jr.
Cartographer
Evaluation and Analysis

APPROVAL SHEET
H-10565

Initial Approvals:

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproof of charted data. The digital data have been completed and 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.

Robert G. Roberson Date: 14 March 1997
Robert G. Roberson
Chief, Cartographic Section

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.

Nicholas E. Perugini Date: 14 March 1997
Nicholas E. Perugini
Commander, NOAA
Chief, Atlantic Hydrographic Branch

Final Approval:

Approved: Andrew A. Armstrong, III Date: Oct 23, 1997
Andrew A. Armstrong, III
Captain, NOAA
Chief, Hydrographic Surveys Division

