

# H-10353

Diagram No. 1213-4

NOAA FORM 76-35A

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

## DESCRIPTIVE REPORT

Type of Survey ..... Hydrographic  
Field No. .... AHP-10-12-90  
Office No..... H-10353

### LOCALITY

State ..... New York  
General Locality ..... Long Island Sound  
Sublocality ..... Rocky Point to  
..... Matinecock Point

1990

CHIEF OF PARTY  
LCDR V.D. Ross

### LIBRARY & ARCHIVES

DATE ..... April 16, 1993

H-10353

EC/G

PRODUCTS

12365

12367

12364 'E'

'G'

'C'

12363

CP2

12300-NC

HYDROGRAPHIC TITLE SHEET

H-10353

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 10-12-90

State New York

General locality Long Island Sound

Locality Rocky Point to Forbes Rocks Matinecock Point

Scale 1:10,000

Date of survey Aug. 15 - Sept. 10, 1990

Instructions dated April 30, 1990 \*

Project No. OPR-B285-AHP2

Vessel Launches 517 (0517), 518 (0518), 1292 (1292)

Chief of party LCDR V.Dale Ross

Surveyed by T. Rybarski, B. Link, M. McMann, M. Briscoe, M. Conricote

Soundings taken by echo sounder, ~~HOPEX, SATEX~~

Graphic record scaled by TMR, BAL, MJM, MJB, MPC

Graphic record checked by TMR, BAL, MJM, MJB, MPC

Protracted by \_\_\_\_\_ Automated plot by HDAPS/Bruning Zeta 824A (FIELD) XYNETICS 12phi Plotter (AHS)

Verification by Atlantic Hydrographic Section personnel

Soundings in ~~fathoms~~ Meters at MLLW (Predicted Tides)

REMARKS: \*Change No. 1, dated May 23, 1990

Notes in the original Descriptive Report were made in red during office processing.

AWOIS/SURP ✓ 4/27/93 SJV

SC1-28-97  
KWW 5/23/94

41° 00'

73° 40'

LONG ISLAND SOUND

"G"

H-10353 (AHP-10-12-94)

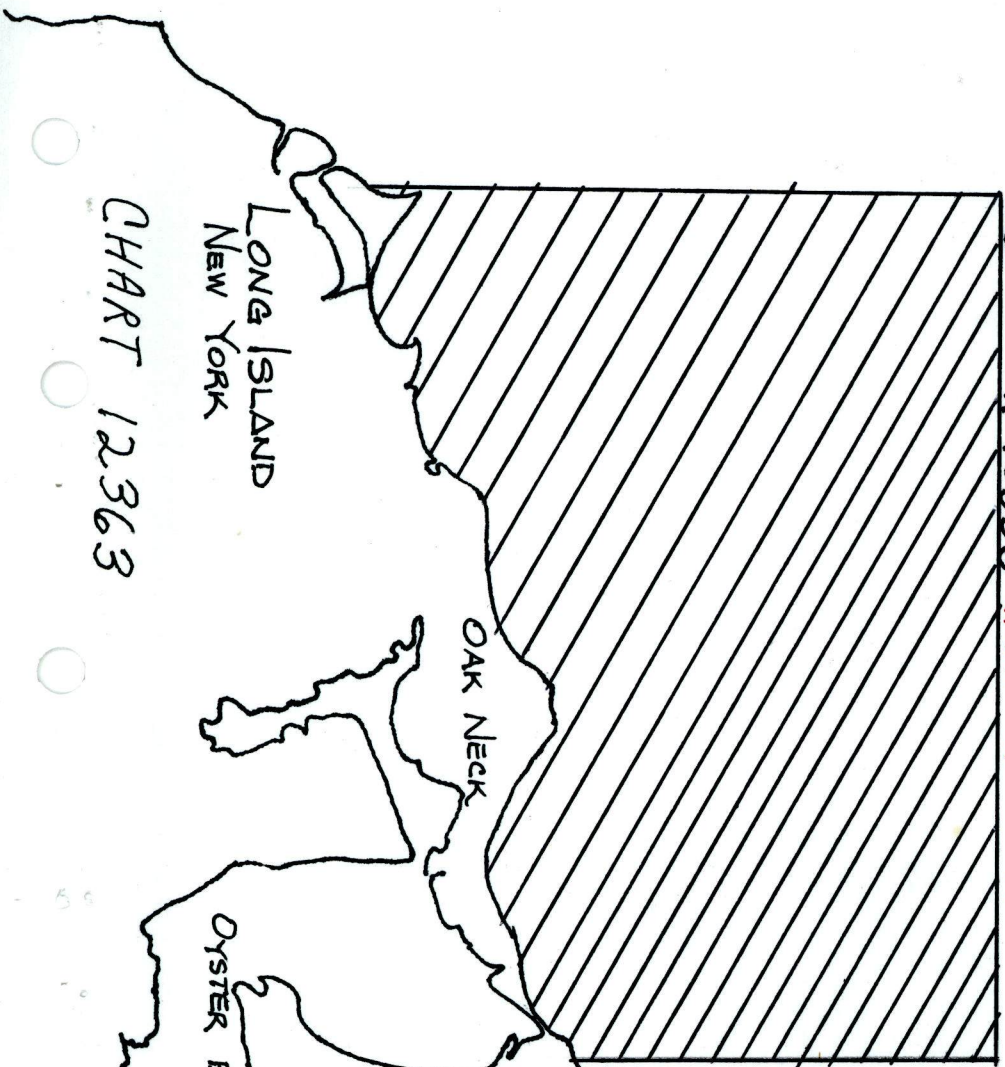


CHART 12363

73° 30'

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10353

Field Number: AHP-10-12-90

OPR-B285-AHP2

Scale: 1:10,000

1990

Atlantic Hydrographic Party Two  
Chief of Party: Lt. Cdr. V. Dale Ross, NOAA

A. PROJECT

This survey was conducted in accordance with the hydrographic project instructions for OPR-B285-AHP2, Western Long Island Sound, New York and Connecticut. The instructions are dated 30 April 1990 and amended by Change No. 1 dated 23 May 1990.

The purpose of this project is to provide contemporary hydrography for the maintenance of existing charts and to satisfy requests from the U.S. Navy and state and local governments for updated hydrographic data of this area.

The sheet letter is "G" as specified in the project instructions.

B. AREA SURVEYED

The area surveyed for H-10353 covers Long Island Sound from Rocky Point to ~~Forbes Rocks~~ *Matinecock Point*.  
The survey limits are as follows:

North - latitude  $40^{\circ} 57' 30''$ N

South - latitude  $40^{\circ} 54' 00''$ N (south shore)

East - latitude  $073^{\circ} 31' 35''$ W

West - latitude  $073^{\circ} 39' 30''$ W

This survey was conducted from 15 August 1990 (DN 227) to 10 September 1990 (DN 253).

C. SURVEY VESSELS

NOAA launch 1292 (EDP No. 1292), NOAA launch 517 (EDP No. 0517), and NOAA launch 518 (EDP No. 0518), all 21-foot MonArks, were used to collect all data for this survey. No problems were encountered with these vessels.

#### D. AUTOMATED DATA ACQUISITION AND PROCESSING

##### Hewlett-Packard HDAPS Programs:

<u>Program</u>	<u>Version</u>	<u>Date</u>
Survey	4.33	5/26/90
Constat	2.02	3/9/90
Postsur	4.14	7/20/90
Printout	2.23	7/12/90
Baseline	1.01	6/15/90
Backup	1.02	3/9/90
Quick	1.01	7/27/90
Conplot	1.02	6/25/90
Diagnostics	2.50	3/9/90
Compute	2.02	3/9/90
Point	1.20	3/9/90
Install	1.20	3/26/90
Plotall	1.74	8/10/90
Oldconvert	2.33	3/12/90
Loadnew	1.00	7/27/90
Convert	2.34	6/20/90
Filesys	4.55	5/26/90
Inverse	1.21	7/27/90
Abst	3.05	5/26/90

PC-DAS program, NOAAEXE directory, Version 3.6 was used for on line data acquisition on the survey vessel.

In addition to the HDAPS, the following non- HDAPS computer programs were used:

VELOCITY (IBM PC)	1.11	3/9/90
MTEN3 with enhancements (IBM PC)		6/88
WordPerfect	5.1	1988

#### E. SONAR EQUIPMENT

Not applicable.

## F. SOUNDING EQUIPMENT

Raytheon DE-719CM Fathometers, modified with Odom Hydrographic Systems, Inc. Digitraces, were used on NOAA launches 517 and 1292. These two launches were only used one day each. NOAA launch 1292 had serial number 7881 on DN 227 and NOAA launch 517 had serial number 8652 on DN 235. An Innerspace 448 echo sounder was used on NOAA launch 518 from DN 228 through DN 253. The only manipulation for this instrument is the gain while operating in the gate setting.

While using 518 throughout this survey, the fix number would inexplicable jump. At various times, usually during a change in the sounding interval, the computer and echo sounder would get out of sequence. The computer would insert a selected sounding that would be on the listing but not on the fathogram. This problem is evident when comparing the fathogram and the listing. The depths and the time labeled on the fathogram would be equal to the selected sounding just before the fix on the listing. This problem would rectify itself at the end of the sounding line. The jumping of the fix number did not effect the quality of the data. -Concur.

No other problems were encountered with the Raytheon nor Innerspace echo sounders.

All soundings were recorded in meters.

The depths of this survey range from 0 to 20 meters.

## G. CORRECTIONS TO SOUNDINGS

The Digitrace readings were closely monitored for comparison with the analogue trace to ensure agreement between the two. Any necessary adjustments to the echo sounders were made and noted on the fathogram.

Weather permitting, lead line comparisons were conducted on each day of hydrography to determine the instrument error and to check the static draft. The average instrument corrector for the Innerspace echo sounder, serial number 175, was 0.0 meters. The average instrument error Raytheon Fathometer 7881 was 0.0 meters. The average instrument error Raytheon Fathometer 8652 was 0.2 meter. No instrument errors were applied to the soundings on the final field sheet. A lead line comparison form can be found in the Separates\* To Be Included With Survey Data.

Survey records were scanned by AHP-2 employees in accordance with the hydrographic manual. With the digital data taking precedence over the analogue trace, significant peeks and deeps which occurred between selected soundings, missed depths, incorrectly digitized soundings, and the effects of sea and swell actions were inserted or corrected while scanning.

The Raytheon DE-<sup>719</sup>917CM and the Innerspace echo sounders were calibrated for a speed of sound through water of 1500 meters/second. Corrections for the speed of sound through water were computed from data obtained with Odom Hydrographic Systems, Inc. Digibar electronic speed

of sound probe serial number 154. Also, an Applied Microsystems Laboratory, model SVP-16, speed of sound profiler, serial number 03003 was used. Data quality assurance tests were performed prior to each cast. Program VELOCITY, version 1.11, was used for the speed of sound corrections computations. The following casts were taken:

<u>Cast</u>	<u>Day</u>	<u>Depth (m)</u>
1	225	31
2	235	17
3	240	30
4	253	16

Complete cast data is included in the cahier for survey H-10353.

A static draft of 0.3 meter was applied on-line for launches 517, 518, and 1292. This was measured from a punch mark on the side of the launches 0.6 meter above the transducer, to the water surface, then the distances were subtracted.

Settlement and squat measurements for vessels 517 and 1292 were performed on 11 June 1990 (DN 162) during slack water. Settlement and squat measurements for vessel 518 were performed on 8 June 1990 (DN 159). The level method was used. Settlement and squat correctors were applied to all survey data. Data from the settlement and squat tests are included in the Separates\* To Be Included With Survey Data. \* Filed with original survey data.

The final field sheets were plotted using predicted tides determined from the Willets Point, New York permanent tide station and the time and height correctors listed in the 1990 tide tables as stated in the project instructions.

Actual tide heights were requested from the Sea and Lake Levels Branch, N/OMA12, in a letter dated 14 September 1990. A copy of the letter is included in the appendices of this report. Approved tides and zoning were applied during office processing.

#### H. CONTROL STATIONS

The horizontal control datum for this project is the North American Datum of 1983. Stations 159, 165, 189, 194, and 199 were used for control of this survey. A signal listing, as well as a copy of the PC-DAS Control Station Table, is included in the appendices of this report. ✓

The Coastal Surveys Unit from Norfolk, Va. used GPS and third order, class I ground surveying methods to establish the horizontal control for this project. The horizontal control report for OPR-B285-AHP2 was written and submitted by Coastal Surveys Unit employees.

## I. HYDROGRAPHIC POSITION CONTROL

Range/range hydrographic positioning was used during this survey. Multiple lines-of-position (up to four) using the Motorola Mini-Ranger Falcon 484 system provided the ranging data. The following Mini-Ranger Falcon equipment was used:

<u>VESNO</u>	<u>Equipment</u>	<u>S/N</u>
1292	RPU	E0154
	R/T	E2932
517	RPU	F0241
	R/T	F2967
518	RPU	D0017
	R/T	F3411
	R/S Code B	F3237
	R/S Code 5	E2926
	R/S Code 6	C2059
	R/S Code 7	E2906
	R/S Code 8	F3298

Baseline calibrations for launch 1292 were performed on 1 June 1990 and 25 June 1990. Baseline calibrations for launch 517 were performed on 30 May 1990 and 18 July 1990. Baseline calibrations for launch 518 were performed on 4 June 1990. The correctors were applied on-line through the Complex "C - O" tables. Baseline calibration forms and copies of the "C - O" tables are included in the Separates <sup>\*</sup>To Be Included With Survey Data. <sup>\*</sup>Filed with original survey records.

When using three or four lines of position, a critical system check is continuously being obtained by observing the error circle radii and residual values displayed on the Complex screen. When the error circle radii were greater than 15m (1.5mm at the survey scale) or the residuals were greater than 5m (0.5mm at survey scale) for more than 5 minutes, survey operations were suspended in the area until the problem was resolved. Any positions which had high error circle radii or residuals in an otherwise good line, were smoothed during data processing. All positional data met or exceeded the requirements set forth in the hydrographic manual and the field procedures manual.

A closing baseline calibration was not performed since the survey was conducted in less than a six month period from the opening baseline.



J. SHORELINE - See also section 2. b. of the Evaluation Report.

The shoreline shown on the final field sheets was transferred by hand from TP-01270. This shoreline manuscript was compiled on NAD 1927. Corrections to NAD 1983 were made to the grid on this manuscript for transferring the shoreline to the hydrographic sheets.

The shoreline manuscripts were compiled at 1:20,000 scale. They were photographically enlarged to 1:10,000 scale for use during this survey.

Shoreline verification was accomplished by comparison of the main scheme hydrography which junctions at shore or by visual inspections. Verified shoreline is shown in black ink on the final field sheet. There were no shoreline changes identified during this survey.

All field notes regarding the shoreline are recorded on the graphic records for each day of hydrography. No sounding volumes nor notebooks were used. A complete list of all detached positions, generated through the HDAPS Contact File Utility, is included in the Separates To Be Included With Survey Data. The file lists the feature or item number, position, and the elevation corrected to ~~mean low water using predicted tides.~~ Mean lower low water using approved tides and zoning.

K. CROSSLINES - See also section 3. a. of the Evaluation Report.

A total of 51.4 linear nautical miles of crosslines were run during survey H-10353 which is equal to 14.5% of the main scheme hydrography. Crosslines agree to within 0.3 meter throughout the entire survey.

L. JUNCTIONS - See also section 5. of the Evaluation Report.

This survey junctions with three contemporary surveys; H-10347 to the southwest, H-10348 to the northeast, and H-10349 to the southeast. All of these surveys junction very well. All soundings agree to within 0.2 meter and the depth curves continue smoothly from sheet to sheet. No discrepancies were noted.

M. COMPARISON WITH PRIOR SURVEYS - See also section 6. of the Evaluation Report

This survey was compared with the following prior surveys:

<u>Survey</u>	<u>Year</u>	<u>Scale</u>
5544	1934	1:10,000
1732A	1914	1:20,000
1732	1886	1:20,000

These surveys compared very well with the current survey. The prior surveys were in feet or fathoms and the current survey is in meters.

None of the AWOIS and Pre-Survey Review items investigated during this survey originated with any of the aforementioned prior surveys. *- Concur. See also section 6. b. and 6. c. of the Evaluation Report.*

N. COMPARISON WITH THE CHART *- See also section 7. of the Evaluation Report.*

This survey was compared to the 33<sup>rd</sup> edition of chart 12363, dated 1 November 1986; the 20<sup>th</sup> edition of chart 12365, dated 2 September 1989; and the 17<sup>th</sup> edition of chart 12367, dated 1 November 1986.

All seven AWOIS items, from sources other than the prior surveys, were addressed during this survey. These are discussed on the item investigation report forms in the Separates\* To Be Included With Survey Data. *\* Appended to the Descriptive Report.*

No dangers to navigation were identified during this survey.

Most of the charted soundings agree well with this survey. Twenty-one charted soundings were found shoaler than the current survey depths. In each of these cases, the prior survey depths agree with the current survey depths. The origin of these charted soundings is unknown. The following charted survey depths should be changed to the current survey depths:

<u>Chart Depth</u>	<u>Survey Depth</u>	<u>Lat.</u>	<u>Lon.</u>
45' (13.7m)	52 49' (14.9m) 15 <sup>B</sup> m	40° 57.2'N	073° 38.2'W
49' (14.9m)	55 53' (16.2m) 16 <sup>9</sup> -17m	40° 55.9'N	073° 38.0'W
43' (13.1m)	47 52' (15.8m) 14 <sup>4</sup> m	40° 54.7'N	073° 38.0'W
30' (9.1m)	32- 35' (10.7m) 9 <sup>9</sup> -14 <sup>6</sup> m	40° 54.5'N	073° 38.2'W
10' (3.0m)	32-33 26' (7.9m) 9 <sup>9</sup> -14 <sup>2</sup> m	40° 54.5'N	073° 38.1'W
3' (0.9m)	6-11 11' (3.4m) 1 <sup>7</sup> -3 <sup>5</sup> m	40° 54.1'N	073° 38.1'W
9' (2.7m)	18 13' (4.0m) 5 <sup>6</sup> m	40° 54.3'N	073° 37.8'W
10' (3.0m)	14-11 15' (4.6m) 3 <sup>2</sup> -3 <sup>5</sup> m	40° 54.1'N	073° 36.9'W
43' (13.1m)	54 49' (14.9m) 15 <sup>4</sup> m	40° 56.1'N	073° 36.7'W
43' (13.1m)	54 51' (15.5m) 15 <sup>2</sup> m	40° 56.3'N	073° 36.2'W
19' (5.8m)	38 27' (8.2m) 11 <sup>6</sup> m	40° 54.8'N	073° 36.4'W
4' (1.2m)	6 10' (3.0m) 1 <sup>7</sup> -2m	40° 54.3'N	073° 36.0'W
45' (13.7m)	55-56 54' (16.5m) 16 <sup>9</sup> -17 <sup>2</sup> m	40° 56.9'N	073° 34.9'W
41' (12.5m)	47' (13.3m)	40° 54.9'N	073° 34.5'W
3' (0.9m)	11 13' (4.0m) 3 <sup>5</sup> m	40° 55.0'N	073° 34.5'W
5' (1.5m)	8-11 10' (3.0m) 2 <sup>6</sup> -3 <sup>3</sup> m	40° 55.1'N	073° 34.2'W
12' (3.7m)	32 20' (6.1m) 9 <sup>7</sup> m	40° 55.1'N	073° 33.8'W
33' (10.1m)	37 39' (11.9m) 11 <sup>5</sup> m	40° 55.7'N	073° 33.5'W
5' (1.5m)	15-16 11' (3.4m) 4 <sup>8</sup> -5m	40° 54.8'N	073° 33.4'W
9' (2.7m)	22 20' (6.1m) 6 <sup>9</sup> m	40° 55.9'N	073° 31.9'W
9' (2.7m)	17 16' (4.9m) 5 <sup>2</sup> m	40° 55.7'N	073° 31.9'W

*- position in error - no correlation*

Two charted soundings were found shoaler than found during the current survey. The following charted soundings should be changed to the current survey depths.

<u>Chart Depth</u>	<u>Survey Depth</u>	<u>Lat.</u>	<u>Lon.</u>
41' (12.5m)	4 <del>0</del> 38' (11.6m) 12 <sup>2</sup> m	40° 54.9'N	073° 36.6'W
46' (14.0m)	33 42' (12.8m) 1 <del>0</del> m	40° 55.0'N	073° 36.1'W

O. ADEQUACY OF SURVEY - *See also section 3.c., 6., and 7. of the Evaluation Report.*

This survey is a complete basic hydrographic survey and is adequate to supersede all prior survey within the common areas.

P. AIDS TO NAVIGATION - *See also section 7.b. of the Evaluation Report*

Two floating aids to navigation exist within the survey area. Buoy C "19", charted as a black can (40° 55.5'N, 073° 38.4'W), was found on station, but is actually a green can and should be charted as such.

Buoy G "21", charted as a green lighted can (40° 54.5'N, 073° 38.4'W), was found 70 meters south of the charted position. The buoy still serves the apparent purpose of marking the shoals at Matinecock Point. The hydrographer recommends charting the buoys as found during this survey.

There are no bridges, overhead cables, overhead pipelines, submarine cables, submarine pipelines, nor ferry routes within the limits of this survey.

Q. STATISTICS

Description

Total Positions	3087
Detached Positions	2
Duplicate Positions	26
Total Nautical Miles of Hydrography	427
Sq. Nautical Miles of Hydrography	20
Bottom Samples	64
Speed of Sound Casts	4
Days of Production	15

R. MISCELLANEOUS

No anomalous tidal nor current conditions were observed while conducting this survey.

Bottom samples taken during this survey were visually inspected and immediately discarded.

S. RECOMMENDATIONS

Not applicable.

T. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal information</u>
Descriptive Report to Accompany Survey H-10347	Atlantic Hydrographic Section N/CG244 Norfolk, Va. 23510
Descriptive Report to Accompany Survey H-10348	Atlantic Hydrographic Section N/CG244 Norfolk, Va. 23510
Descriptive Report to Accompany Survey H-10349	Atlantic Hydrographic Section N/CG244 Norfolk, Va. 23510
Horizontal Control Report for OPR-B285-AHP2	Field Photogrammetry Section N/CG233 Norfolk, Va. 23510
Chart Sales Agent Report for OPR-B285-AHP2	Chart Distribution Branch N/CG33 Rockville, Md. 20852
User Evaluation Report for OPR-B285-AHP2	Atlantic Hydrographic Section N/CG244 Norfolk, Va. 23510

Title

Transmittal information

Chart Inspection Report  
for OPR-B285-AHP2

Atlantic Hydrographic Section  
N/CG244  
Norfolk, Va. 23510

Coast Pilot Report  
for OPR-B285-AHP2

Coast Pilot Section  
Mapping and Charting Branch  
N/CG22  
Rockville, Md. 20852

Submitted by: Thomas M. Rybarski, Launch Hydrographer in Charge

APPENDIX III

LISTS OF HORIZONTAL CONTROL STATIONS

Station Number ?								
No	T C	Carto	Latitude	Longitude	H	Freq	Vel	Date
159	F 0	250	40:58:57.043	73:37:24.955	0	0.0	0	8/31/90
165	F 0	250	41: 2:29.936	73:26:37.872	0	0.0	0	8/31/90
189	F 0	250	40:55: 5.071	73:43:52.470	0	0.0	0	8/31/90
194	F 0	250	40:56:41.574	73:29:14.430	0	0.0	0	8/31/90
199	F 0	250	40:54: 6.627	73:37:54.301	0	0.0	0	8/31/90

-> Move Field <PgUp-PgDn> Scroll Screen <End> Accept Data <Esc> Exit  
<F1> Paper Copy <F2> List <F3> Find Station <F4> Sort <F10> L/L Toggle

## CONTROL STATIONS

OPR-B285 H-10353

159 - Great Captain Island Lighthouse 1882  
165 - Greens Ledge Lighthouse 1904  
189 - Larchmont Harbor Light  
194 - Lloyd Point 1882  
199 - Matinicock 5 1982

CHART #12367

PRE-SURVEY REVIEW ITEM #6572  
OBSTRUCTION

SOURCE: AIR PHOTO REVISION/1953

INVEST. DATE: 9/1/90 (D.N.244) TIME: 182948 GMT

VESSEL #0518

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10353 (OPR-B285-AHP)

POSITION: 5636

CORRECTORS APPLIED: None

GEODETIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

40° 53' 58.0"

073° 37' 37.0"

OBSERVED:

40° 53' 58.6"

073° 37' 35.4" to

40° 53' 58.49"

073 37' 35.74"

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual inspection was performed along shore in the area of the item. A wood and steel groin was found projecting into the water. The offshore end of the groin was located by detached position #5636. *The offshore end of the groin is awash at MLLW.*

CHARTING RECOMMENDATIONS: The hydrographer recommends a groin be charted as located. *-Concur. Chart as shown on the present survey.* ✓

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COMPILATION USE

CHART:

APPLIED AS:



CHART #12367

PRE-SURVEY REVIEW ITEM #6573  
OBSTRUCTION

SOURCE: AIR PHOTO REVISION/1953

INVEST. DATE: 9/1/90 (D.N.244) TIME: 183537 GMT

VESSEL #0518

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10353 (OPR-B285-AHP)

POSITION: 5638

CORRECTORS APPLIED: None

GEODETTIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

40° 54' 01.0"

073° 37' 43.0"

OBSERVED:

40° 54' 01.2"

073° 37' 41.9"

*to 40° 54' 00.55"*

*073° 37' 42.53"*

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual inspection was performed along shore in the area of the item. A wood and steel groin was located projecting into the water. A detached position (#5638) was taken on the offshore end of the groin. *The offshore end of the groin is awash at MLLW*

CHARTING RECOMMENDATIONS: The hydrographer recommends the groin be charted as located. *- Concur. Chart as shown on the present survey. ✓*

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COMPILATION USE

CHART:

APPLIED AS:

CHART #12367

PRE-SURVEY REVIEW ITEM #6700  
OBSTRUCTION

SOURCE: T5092/35

INVEST. DATE: 9/1/90 (D.N.244) TIME: 172248 GMT VESSEL #0518

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10353 (OPR-B285-AHP)

POSITION: 5625

CORRECTORS APPLIED: PREDICTED TIDES

GEODETIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

40° 54' 35.2"

073° 32' 42.0"

OBSERVED:

40° 54' 35.8<sup>z</sup>

073° 32' 40.7<sup>69</sup>

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: This item was located by visual search and a least depth was taken with a sounding pole. Discussion with a group of local divers indicates this is the offshore end of a pier in ruins. The least depth was taken at detached position #5625 and was reduced to ~~MLW~~ using ~~predicted~~ tides.

<sup>MLLW approved</sup>  
A least depth of -0.5 m (1.6 ft) was obtained in the position listed above.

CHARTING RECOMMENDATIONS: The hydrographer recommends this pier ruins be charted as located. - *Concur. Chart as shown on the present survey.* ✓

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COMPILATION USE

CHART:

APPLIED AS:

CHART #12367

PRE-SURVEY REVIEW ITEM #6702  
OBSTRUCTION

SOURCE: T5092/35

INVEST. DATE: 9/1/90 (D.N.244) TIME: N/A

VESSEL #0518

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10353 (OPR-B285-AHP)

POSITION: N/A

CORRECTORS APPLIED: None

GEODETIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

40° 54' 36.8"

073° 32' 41.2"

OBSERVED: See Method of Item Investigation

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: A visual search was conducted in this area and no evidence of this item was found. A discussion with members of Bayville Divers (Mr. Joey Handlin 516-488-5592) indicates they dive frequently on the pier ruins and wreck in this immediate area (AWOIS #6700 and #6703) and have never encountered this pile.

CHARTING RECOMMENDATIONS: The hydrographer recommends removal of the pile from the chart. Discussion with local divers indicates the pile does not exist. - *This feature is not currently charted. No change in charting status is recommended.* ✓

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COMPILATION USE

CHART:

APPLIED AS:

CHART #12367

PRE-SURVEY REVIEW ITEM #6703  
UNKNOWN

SOURCE: UNKNOWN

INVEST. DATE: 9/1/90 (D.N.244) TIME: 172510 GMT

VESSEL #0518

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10353 (OPR-B285-AHP)

POSITION: 5626

CORRECTORS APPLIED: ~~PREDICTED~~ <sup>APPROVED</sup> TIDES

GEODETIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

40° 54' 37.5"

073° 32' 41.5"

OBSERVED:

40° 54' 37.6<sup>φ</sup>

073° 32' 39.0<sup>φ</sup>

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: This item was located by a visual search and a least depth was taken with a sounding pole. A detached position was taken over the shoalest point of the wreck in the approximate center of the wreckage. A conversation with Bayville Divers, a local dive club, indicates this is a barge wreck in ruins, approximately 100' long by 15' wide laying on a heading of 330° magnetic. The least depth was reduced to ~~MLW~~ using ~~predicted~~ tides.

*A least depth of  $\phi^9$  m (3 ft) was obtained in the location listed above. <sup>MLLW approved</sup>*

CHARTING RECOMMENDATIONS: The hydrographer recommends the wreck be charted as located. *-Concur - Chart as shown on the present survey.* ✓

COMPILATION USE

CHART:

APPLIED AS:

CHART #12367

PRE-SURVEY REVIEW ITEM #6717  
OBSTRUCTION

SOURCE: T5092/35

INVEST. DATE: 9/6/90 (D.N.249) TIME: 175055 GMT

VESSEL #0518

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10353 (OPR-B285-AHP)

POSITION: 5741-5756

CORRECTORS APPLIED: <sup>APPROVED</sup> PREDICTED TIDES, TRA

GEODETIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

40° 54' 37.5"

073° 32' 41.5"

OBSERVED:

See method of item investigation

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Mainscheme hydrography was split to 25 meters in both directions in the area of this item and nothing was found.

*- Do not concur. An obstruction with a echosounder depth of 2<sup>m</sup> (8 ft) was located in latitude 40° 54' 54.36" N, longitude 73° 33' 39.56" W.*

CHARTING RECOMMENDATIONS: The hydrographer recommends this pier be removed from the chart. *- Concur. Chart an obstruction with as shown on the present survey. Additional work has also been requested in this area.*

---

COMPILATION USE

CHART:

APPLIED AS:

CHART #12367

PRE-SURVEY REVIEW ITEM #6730  
SOUNDING

SOURCE: CL332/53

INVEST. DATE: 9/10/90 (D.N.253) TIME: 134626-135713GMT VESSEL #0518

Chief of Party: LCDR V. Dale Ross

REFERENCE: H-10353 (OPR-B285-AHP)

POSITION: 5782-5797

CORRECTORS APPLIED: <sup>Approved</sup> ~~PREDICTED~~ TIDES, TRA

GEODETIC POSITION:

LATITUDE (N)

LONGITUDE (W)

CHARTED:

40° 55' 37.2"

073° 31' 45.0"

OBSERVED: See method of item investigation

POSITION DETERMINED BY: Multiple LOP, Falcon Mini-Rangers

METHOD OF ITEM INVESTIGATION: Mainscheme hydrography was split to 25 meters in both directions in this area and nothing was found. There are numerous rocks in this area, and the ~~the~~ item, which is a 5-foot sounding, may be a rock which was not discovered during the development of this area.

CHARTING RECOMMENDATIONS: The hydrographer recommends the 5-foot sounding remain as charted. *A 1<sup>2</sup>m (4 f) sounding was brought forward from FE-118WD (1953). This sounding is located in latitude 40° 55' 35.62" N, Longitude 73° 31' 48.16" W. Additional work has been recommended for this charted sounding. No change in charting status is recommended pending completion of additional work.*

---

COMPILATION USE

CHART:

APPLIED AS:

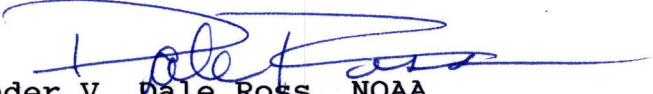


**U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

NATIONAL OCEAN SERVICE

Charting & Geodetic Services  
Atlantic Hydrographic Party Two  
439 W. York St.  
Norfolk, Va. 23510-1114  
22 January 1991

Memorandum For The Record

From:  Lieutenant Commander V. Dale Ross, NOAA  
Chief, Atlantic Hydrographic Party Two

Subject: Survey transmittal

A family emergency necessitated my protracted absence from work.  
Hence, the transmittal of this survey was late.





NATIONAL OCEAN SERVICE  
Coast and Geodetic Survey  
Norfolk, Virginia 23510-1114

Atlantic Hydrographic Section  
439 West York Street

August 27, 1991

MEMORANDUM FOR: Captain Dean R. Seidel, NOAA  
Chief, Hydrographic Surveys Branch

FROM: *Christopher B. Lawrence*  
Commander Christopher B. Lawrence, NOAA  
Chief, Atlantic Hydrographic Section

SUBJECT: Review of Atlantic Hydrographic Party Two  
OPR-B285 CY90 Surveys for Additional Work  
Recommendations

Review of seven AHP2 surveys conducted in Long Island Sound during CY 1990 to identify required additional field work has been completed. All seven surveys require supplemental data to resolve incomplete investigations. These surveys will be fully processed at AHS in their current condition. It is recommended that additional work on each survey be performed as a separate field examination, and the survey data for each area be presented on page-size plots which coincide with each of the area-attachments provided. The page-size plots should be inserted in the descriptive report for each field examination.

A description of recommended work areas (along with a copy of the chart blowup with features highlighted in each area, copy of the field sheet, and copy of the field overlay - each labeled on the reverse-side, lower left corner) for each of the following surveys are attached. Areas are listed from west to east for each survey. Time estimates do not include set-up and tear-down of support equipment.

H-10346	AHP-10-7-90
H-10347	AHP-10-8-91
H-10348	AHP-10-9-90
H-10349	AHP-10-10-90
H-10351	AHP-10-11-90
H-10353	AHP-10-12-90
H-10354	AHP-10-13-90

Time estimated for this field work is approximately 33 days. Also attached is a memorandum from LT Waddington in response to a request for his estimated diving potential for the Long Island Sound Project. Although he anticipates sufficient capability, the feasibility of diving is dependent upon water quality.





It is therefore recommended that project instructions for this additional work, as well as newly assigned items, specify an alternate method of investigation for each item should diving not be feasible.

Attachments

H-10353  
AHP-10-12-90  
Rocky Point to Matinecock Point

Time Estimate: 5 Days

Attachments: 5

AWOIS Items Not Completed:

AWOIS 6717 - Pier ruins were not found in this survey using 25-meter line-spacing. A bottom drag was required.

(See Attachments 3)

AWOIS 6730 - 5 ft. sounding not found in this survey using 50-meter line-spacing. Echosounder development required to resolve (10-meter line spacing and star-pattern search).

(See Attachments 4)

[1 Day]

Work Area Recommendations:

Charted Features

1. Develop the spit off Matinecock Point using E-W 25-meter line-spacing and investigate shoals and sunken rocks using echosounder development (suggest star-pattern searches).

(See Attachments 1).

[1 Day\*]

2. Investigate the rock awash off Peacock Point and 6 rocks awash offshore of the ledge and near the entrance to Frost Creek at low water to verify or disprove existence. T-sheet rocks verified in this survey correspond with the offshore limit of the charted ledge.

(See Attachments 2).

[\*]

3. Investigate all highlighted rocks (sunken and awash) and shoals off Oak Neck Point using echosounder development (suggest star pattern searches) to verify or disprove existence. Investigate the highlighted ledges and reefs at low water to verify or disprove existence.

(See Attachments 3).

[1 Day]

4. Develop the spit off Rocky Point with E-W 25-meter line-spacing out to 10-meter curve. Survey the entire shoal to encompass additional work for this sheet and the adjoining H-10348. Investigate highlighted shoals and rocks using echosounder development (suggest star-pattern searches) to verify or disprove existence. Investigate Center Island Reef at low tide to verify or disprove existence and determine the seaward limit if found.

(See Attachments 4).

[2 Days\*]

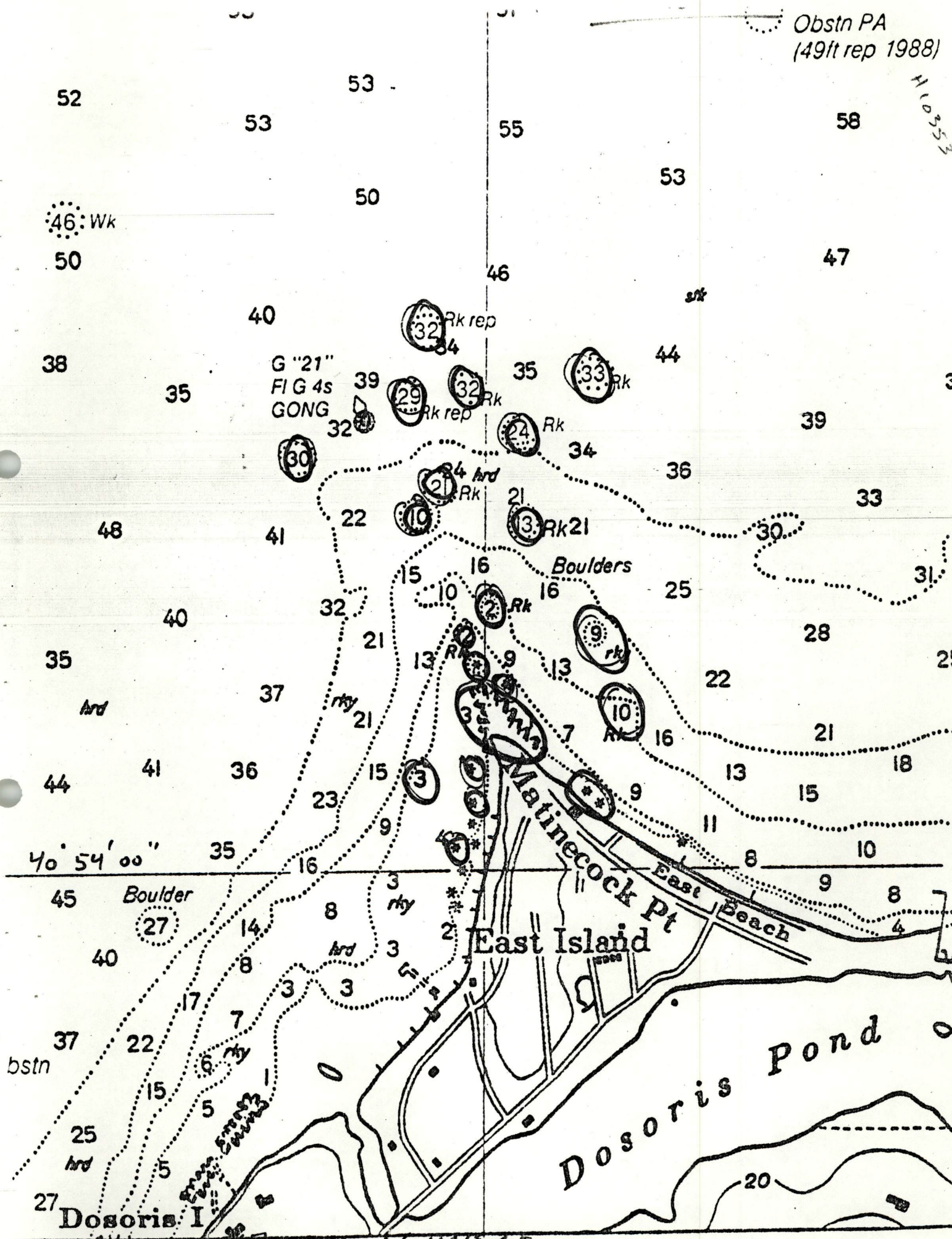
5. Investigate the charted visible wreck (Chart 12365 20 Ed.), at 40-54-37 N/73-32-33 W (NAD 83). This wreck is shown awash on TP-01270 at 40-54-37 N/73-32-36 W (NAD27). This item is not related to nearby AWOIS 6700, 6702, and 6703 which were properly resolved. It was not assigned as an AWOIS item.

(See Attachments 5).

[\*]

Obstn PA  
(49ft rep 1988)

110353





+ 5488 brk Sh, Gra

+ 5485gy M, fn S, brk Sh

40° 54' 30"

+ 5488 G C "21"

40° 54' 00"

199

+ 5484 fn br S, brk Sh

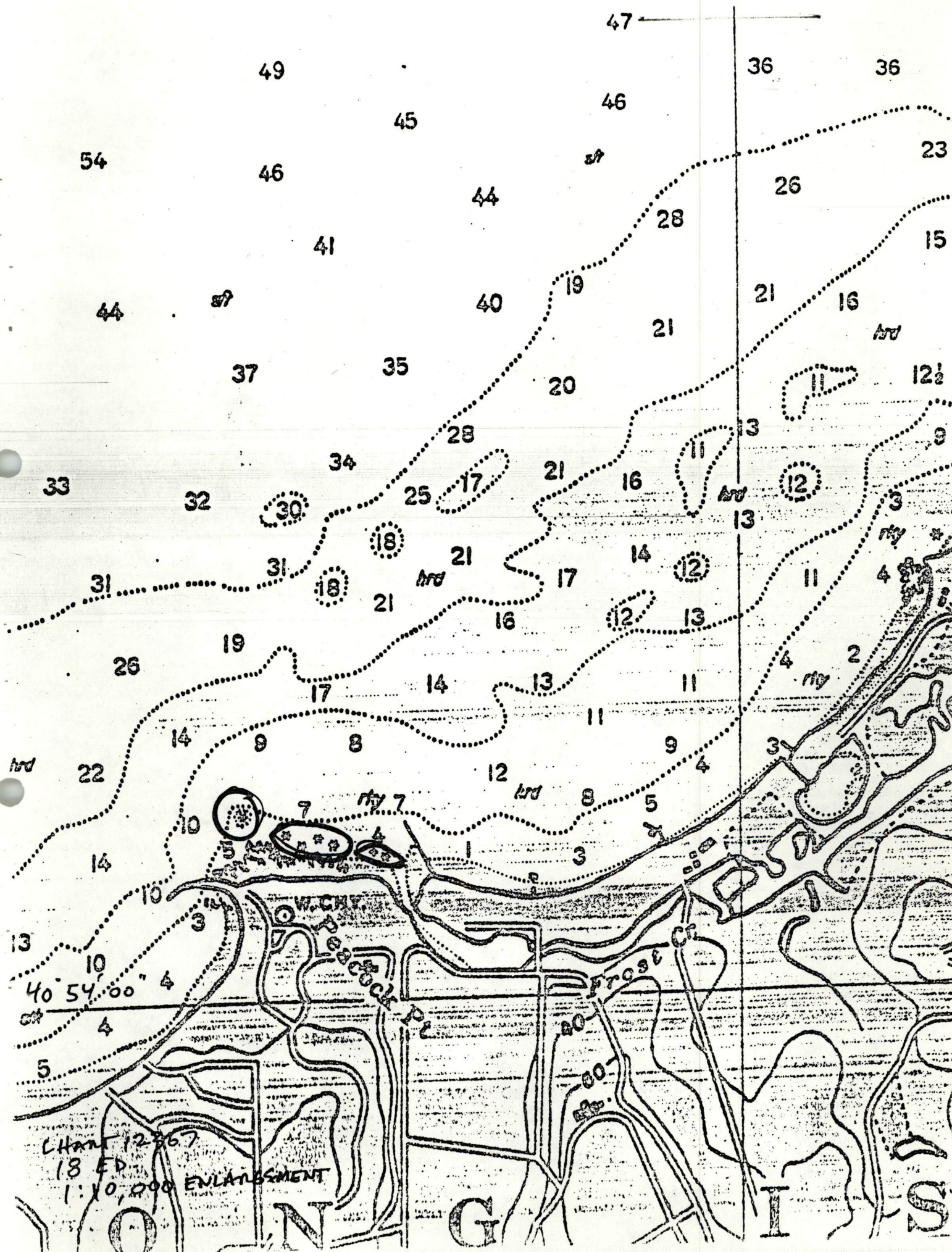
\* 5637 (-1.6 m)  
\* 5638 (-0.3 m) AWOIS #6573

+ 5636 (-0.4 m) AWOIS #6572

73° 38' 30"

73° 38' 00"

73° 37' 00"







+ 5482 gy M, fn S

+ 5481 fn br S, brk Sh

40' 54' 30"

+ 5483 br S, brk Sh, P

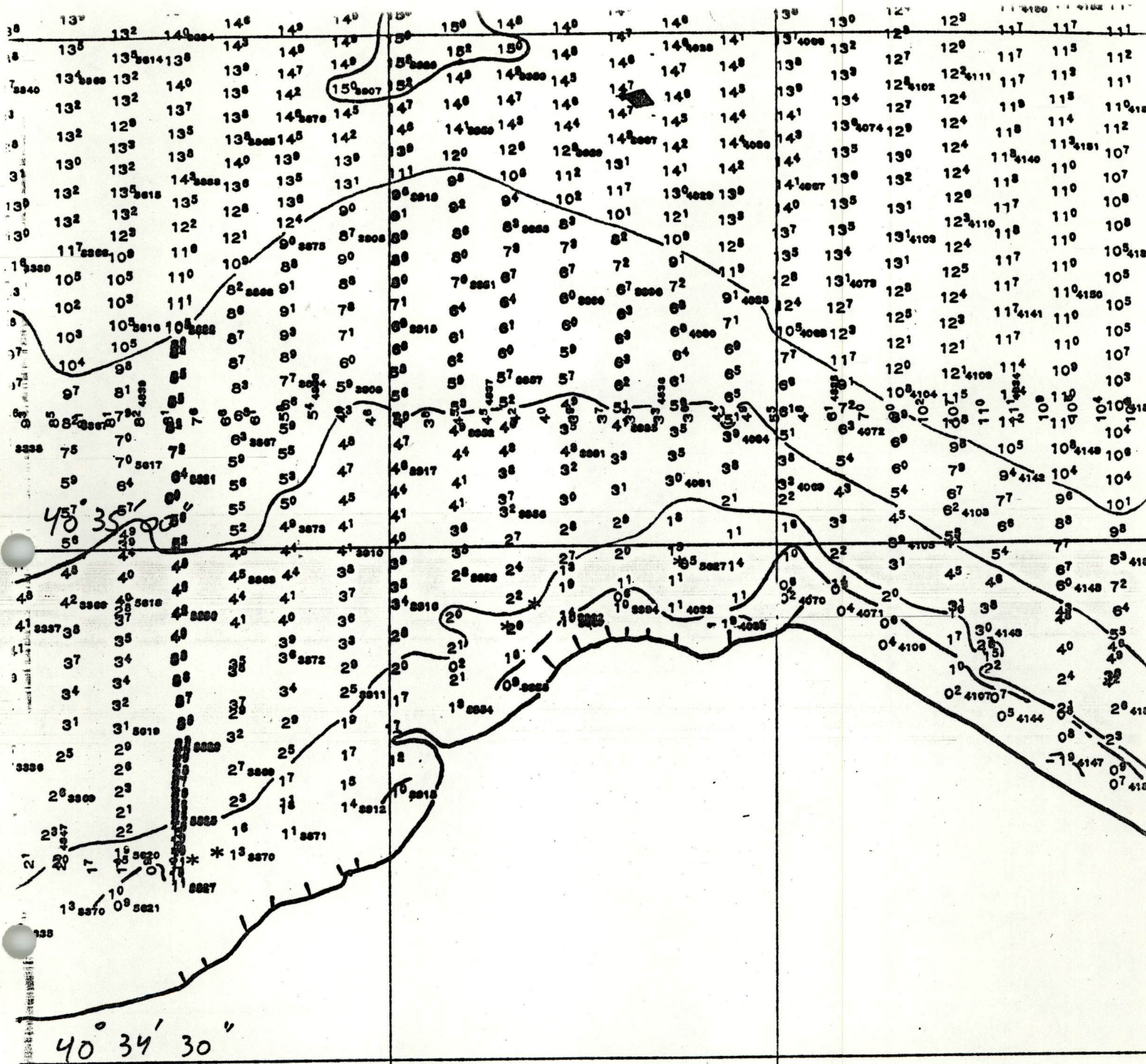
40' 54' 00"

S #6372

73' 37' 00"

73' 36' 30"





40° 35' 00"

40° 34' 30"

73° 34' 30"

73° 34' 00"



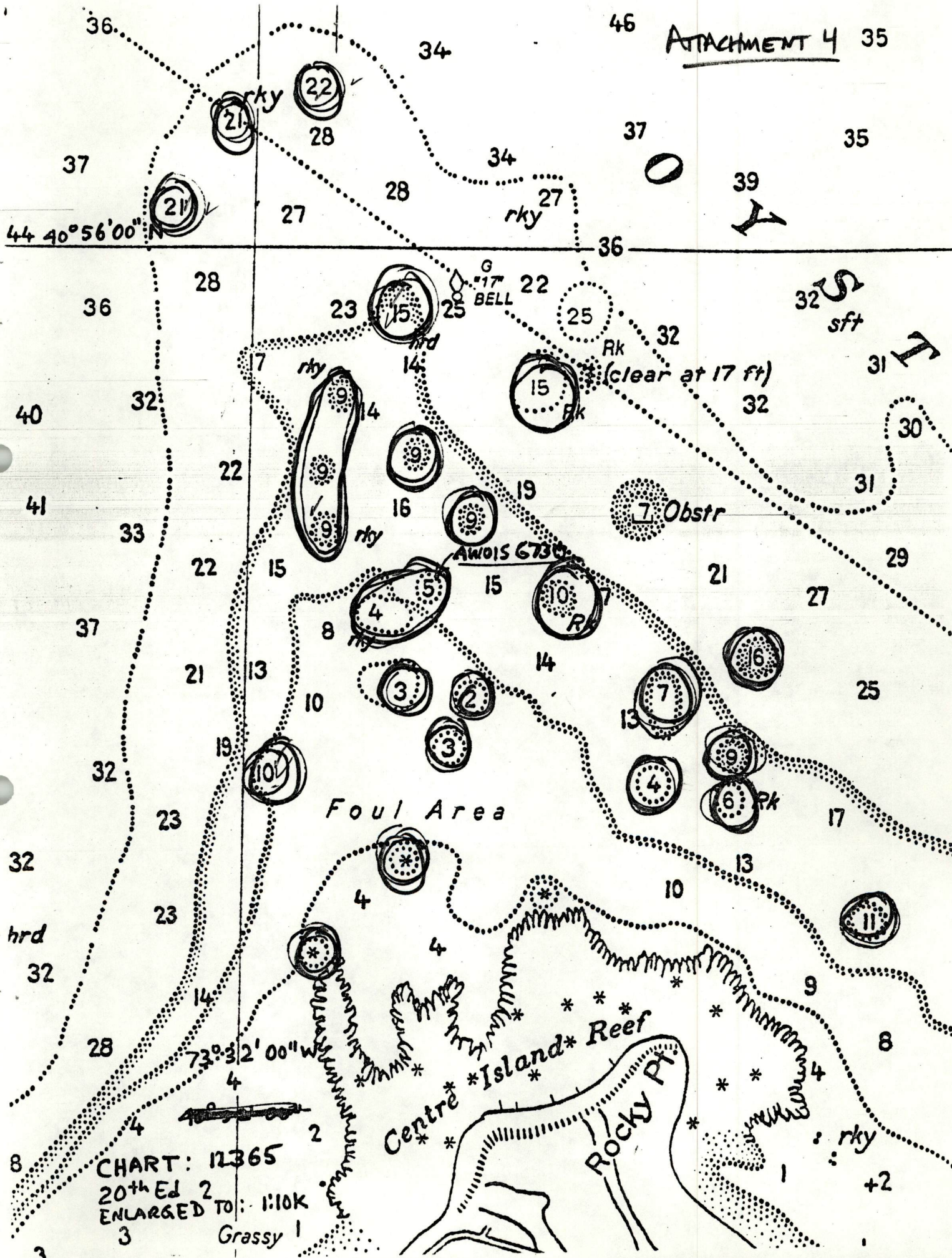


CHART: 12365  
 20th Ed 2  
 ENLARGED TO: 1:10K  
 3  
 Grassy 1

Centre Island Reef  
 Rocky Pt

Foul Area

AWOIS 6730

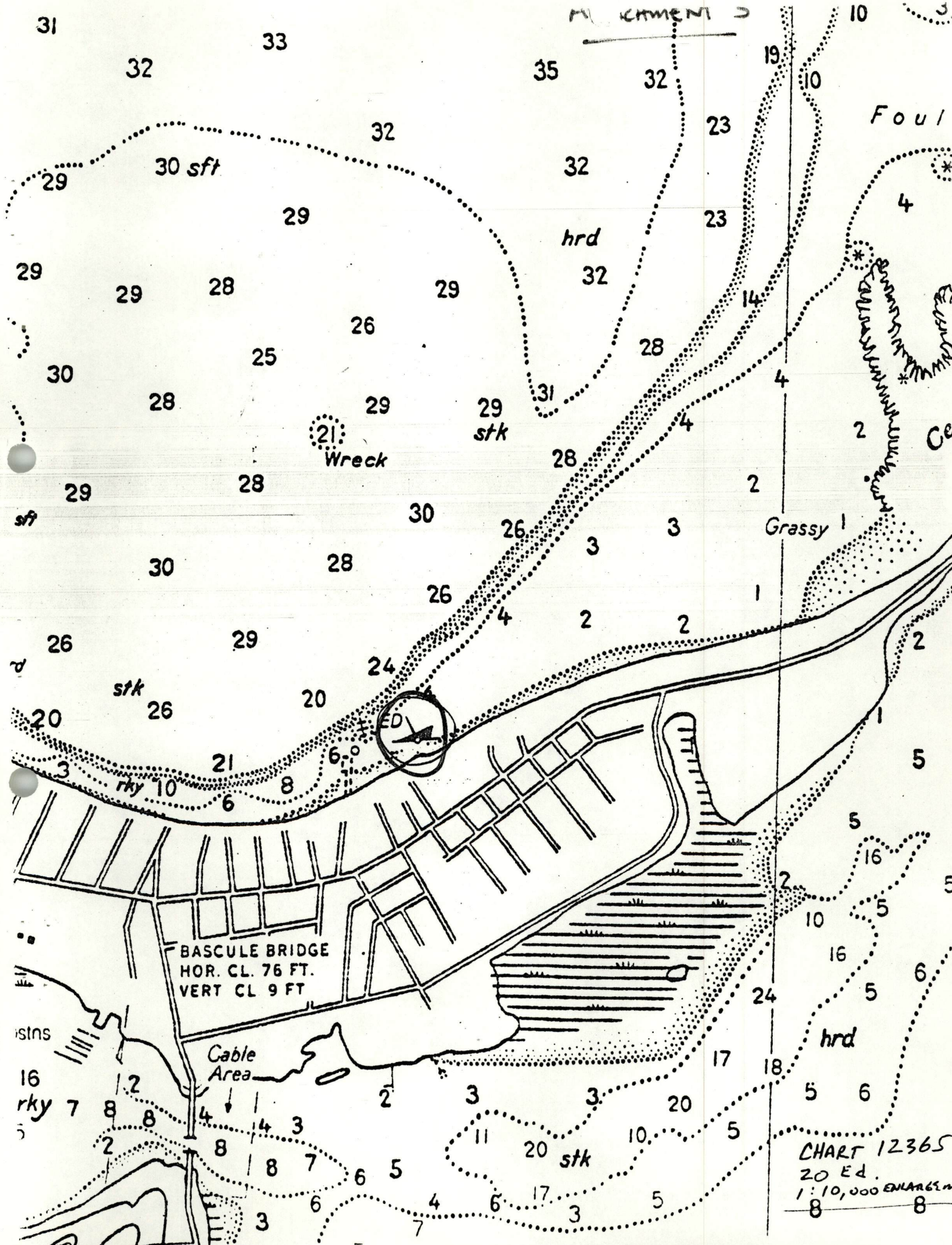
(clear at 17 ft)

44 40° 56' 00" N

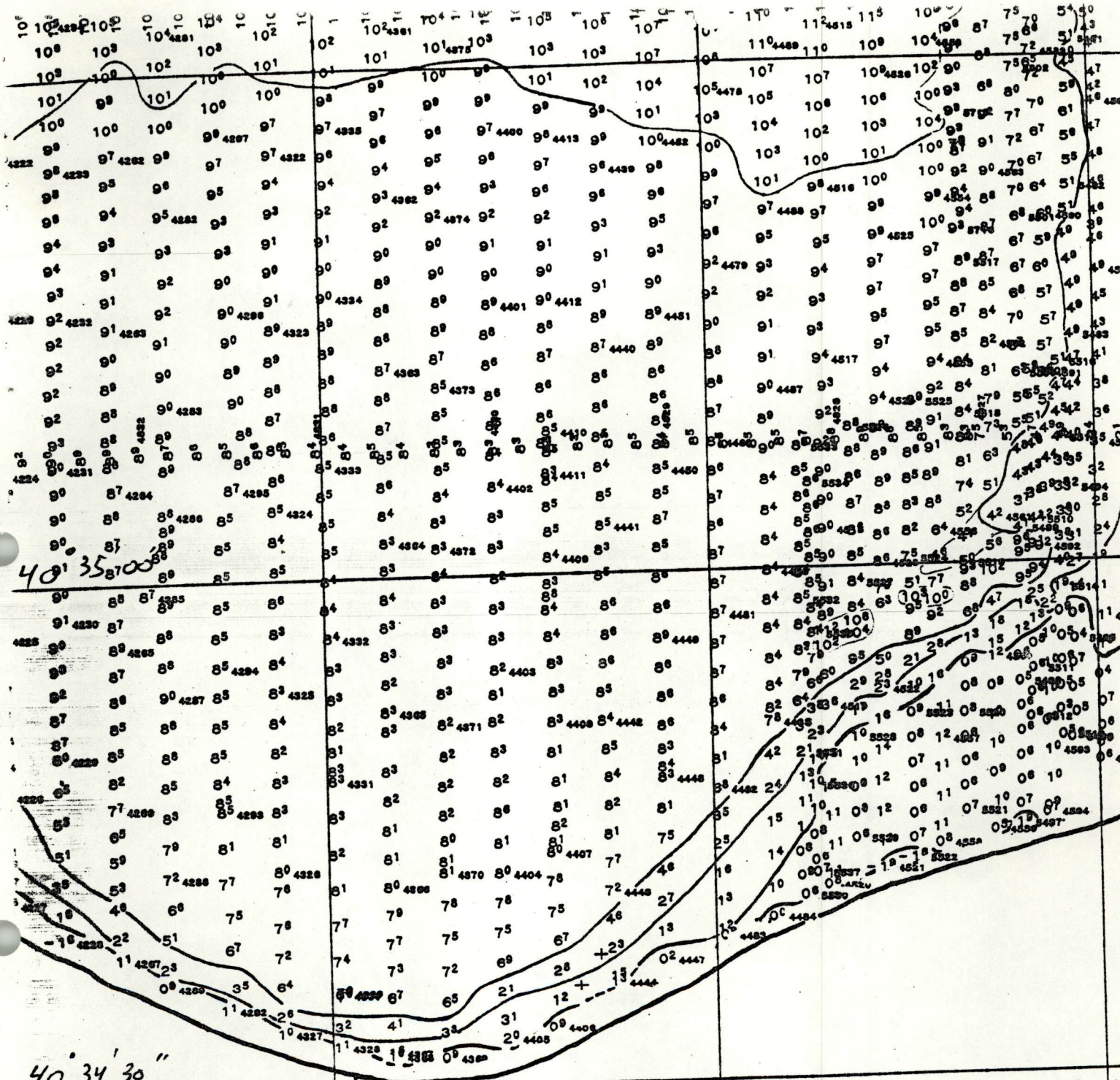
73° 32' 00" W











40° 34' 30"

73° 33' 00"

73° 32' 30"

73° 32'

gy M. brk Sh

+ 24 gy M, fn S, brk Sh

+ 25 fn br

40° 35' 00"

+ 5626 L.D. 0.4 m AWDIS# 6703

+ 26 fn br S, P + 5625 (-0.8 m) AWDIS# 6700

40° 34' 30"

73° 33' 00"

73° 32' 30"

73° 32'

APPENDIX VII  
APPROVAL SHEET

APPROVAL SHEET

BASIC HYDROGRAPHY SURVEY

OPR-B285-AHP2

AHP-10-12-90

H-10353

1990

This basic hydrographic survey was conducted in accordance with the project instructions for OPR-B285-AHP2, the hydrographic manual, the hydrographic survey guidelines, and the field procedures manual. The survey data and this report were completed under frequent supervision. All field sheets were reviewed in their entirety and all supporting records were checked.

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



V. Dale Ross  
Lieutenant Commander, NOAA  
Chief, Atlantic Hydrographic Party Two

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

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: January 7, 1991

MARINE CENTER: ATLANTIC

OPR: B285-AHP-2

HYDROGRAPHIC SHEET: H-10353

LOCALITY: Western Long Island Sound; Rocky Pt. to Forbes Rocks

TIME PERIOD: August 15 to September 10, 1990

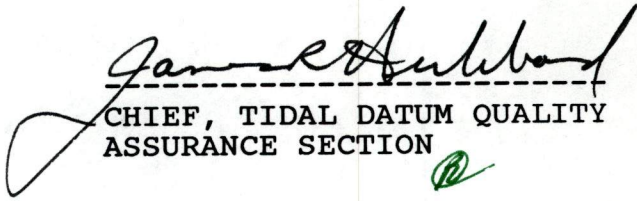
TIDE STATION USED: 851-8490 New Rochelle, N.Y.  
851-6299 Bayville Bridge, N.Y.

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 851-8490 = 1.45 ft. ✓  
851-6299 = 3.92 ft. ✓

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 851-8490 = 7.5 ft. ✓  
851-6299 = 7.6 ft. ✓

REMARKS: RECOMMENDED ZONING

1. - West of 73 31.5'W, east of 73 40.7'W, south of 40 57.8'N and north of 40 53.4'N (excluding Oyster Bay Harbor) - apply a -0 hr 6 min time correction and a X0.99 range ratio.
2. - Inside Oyster Bay Harbor - direct on 851-6299

  
CHIEF, TIDAL DATUM QUALITY  
ASSURANCE SECTION

GEOGRAPHIC NAMES

H-10353

Name on Survey	A ON CHART NO. 12365 B ON PREVIOUS SURVEY NO. 12367 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									
	A	B	C	D	E	F	G	H	K	
BAYVILLE	X									1
CENTRE ISLAND BEACH		X								2
CENTRE ISLAND REEF	X									3
CREEK BEACH, THE		X								4
EAST BEACH	X									5
EAST ISLAND	X									6
FERRY BEACH		X								7
FOX POINT	X									8
LATTINGTON		X								9
LONG ISLAND	X									10
LONG ISLAND SOUND	X									11
MATINECOCK POINT	X									12
NEW YORK (title)	X									13
OAK NECK	X									14
OAK NECK BEACH		X								15
OAK NECK POINT	X									16
PEACOCK POINT	X									17
ROCKY POINT (title)	X									18
STEHLI BEACH		X								19
						Approved:				20
						<i>Charles E. Harrington</i>				21
						Chief Geographer - N/CGR 5				22
										23
						AUG 27 1992				24
										25

N/CG244-47-93

LETTER TRANSMITTING DATA

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

- ORDINARY MAIL  AIR MAIL
- REGISTERED MAIL X  EXPRESS
- GBL (Give number) \_\_\_\_\_

TO:

Chief, Data Control Section, N/CG243  
 NOAA/National Ocean Service  
 Room 151, WSC-2, 6015 Executive Blvd.,  
 Rockville, Maryland 20852

DATE FORWARDED

13 April 1993

NUMBER OF PACKAGES

1 box, 1 tube

**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.

H-10353

New York, Long Island Sound, Rocky Point to Martinecock Point

1 Tube containing:

- Final Smooth Sheet
- Final Smooth Position Overlay
- Excess Overlays
- Smooth Field Plots (4(four) track and 2(two) sounding plots)
- Rough Field Plot

1 Box containing:

- Original Descriptive Report for H-10353
- Envelope containing Miscellaneous Data removed from the original Descriptive Report
- Envelope containing Supplemental data removed from printouts
- Envelope containing miscellaneous field printouts
- Envelope containing sounding correctors ( velocity, tide and TRA data)
- Cahier with final sounding, position, and control listing
- Accordion file containing fathograms and daily printouts for:
  - vessel no. 0517 for JD: 235
  - vessel no. 0518 for JDs: 228, 229, 230, 235, 237, 239, 240, 241, 242, 244, 248, 249 and 253
  - vessel no. 1292 for JD: 227

FROM: (Signature)

Robert R. Hill Jr.

RECEIVED THE ABOVE  
(Name, Division, Date)

D. S. Clark  
4/19/93

Return receipted copy to:

Atlantic Hydrographic Section, N/CG244  
 439 W. York Street  
 Norfolk, VA 23510-1114

04/06/93

HYDROGRAPHIC SURVEY STATISTICS  
REGISTRY NUMBER: H-10353

NUMBER OF CONTROL STATIONS		6
NUMBER OF POSITIONS		2982
NUMBER OF SOUNDINGS		16215
	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	84	12/16/91
VERIFICATION OF FIELD DATA	384	02/03/92
ELECTRONIC DATA PROCESSING	225	
QUALITY CONTROL CHECKS	516	
EVALUATION AND ANALYSIS	580	02/16/93
FINAL INSPECTION	52	04/03/93
TOTAL TIME	1841	
ATLANTIC HYDROGRAPHIC SECTION APPROVAL		04/06/93



**COAST AND GEODETIC SURVEY  
ATLANTIC HYDROGRAPHIC SECTION  
EVALUATION REPORT**

**SURVEY NO.:** H-10353

**FIELD NO.:** AHP2-10-12-90

New York, Long Island Sound, Rocky Point To Matinecock Point

**SURVEYED:** 15 August through 10 September 1990

**SCALE:** 1:10,000

**PROJECT NO.:** OPR-B285-AHP2

**SOUNDINGS:** RAYTHEON DE-719CM Fathometer and INNERSPACE 448  
Echosounder

**CONTROL:** MOTOROLA FALCON 484 Mini-Ranger (Range/Range)

**Chief of Party**.....V. D. Ross

**Surveyed by**.....B. A. Link  
.....T. M. Rybarski  
.....M. J. McMann  
.....M. J. Briscoe  
.....M. P. Conricote

Automated Plot by.....XYNETICS 1201 Plotter (AHS)

**1. INTRODUCTION**

a. No unusual problems were encountered during verification.

b. Notes in the Descriptive Report were made in red during office processing.

**2. CONTROL AND SHORELINE**

a. Horizontal control was adequately discussed in sections H., I, and T. of the Descriptive Report.

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD83). Office processing of this survey is based on these values. The smooth sheets have been annotated with ticks showing the computed mean shift between the survey datum and the North American Datum of 1927 (NAD27). To place this survey on the NAD27 datum, move the projection lines .354 seconds (10.922 meters or 1.09 mm at the scale of the survey) north in latitude, and 1.548 seconds (36.223 meters or 3.62 mm at the scale of the survey) east in longitude.

All geographic positions listed in this report are on the NAD83 datum unless otherwise specified. Items brought

forward from prior sources have been converted to the NAD83 datum.

b. Shoreline was transferred from an enlargement of Final Reviewed Manuscript TP-01270 of 1984-87. It was necessary to adjust the enlargement when transferring this shoreline to compensate for distortion. Portions of the low water line delineated by this shoreline map were adjusted insofar as possible to incorporate present survey results on the smooth sheet.

### 3. HYDROGRAPHY

a. Soundings at crossings agree within the criteria stated in section 6.5 of the Project Instructions.

b. The standard depth curves could be drawn in their entirety. Brown curves were added to further delineate the bottom topography.

c. Development of bottom configuration and determination of least depths is considered adequate, except where noted in this report and the following exceptions:

1) During office processing of the present survey additional work was recommended for two AWOIS items and five significant charted features that are not considered resolved by the present survey and are located within the limits of the present survey. These features have been recommended for additional work and are listed in the memorandum titled "Review of Atlantic Hydrographic Party Two OPR-B285 CY90 Surveys for Additional Work Recommendations", dated August 27, 1991. A copy of the memorandum is appended to the Descriptive Report.

2) In the vicinity of Latitude 40°55'00", Longitude 73°32'26", a holiday exists. This holiday was caused by a loss of the sounding trace while the sounding vessel was on line. This missing data was not detected by the Hydrographer while in the survey area.

### 4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records and reports are adequate and conform to the requirements of the HYDROGRAPHIC MANUAL and FIELD PROCEDURES MANUAL.

## 5. JUNCTIONS

H-10347 (1990) to the west  
 H-10348 (1990) to the east  
H-10349 (1990) to the east

Adequate junctions were effected between the present and the above surveys.

There are no junctional surveys to the north; present survey depths and charted soundings are in harmony in this area.

## 6. COMPARISON WITH PRIOR SURVEYS

### a. Hydrographic

H-1699 (1894) 1:10,000  
 H-1710a (1914-16) 1:10,000  
 H-1732 (1886) 1:20,000  
 H-1732a (1914-16) 1:20,000  
H-5544 (1934) 1:10,000

The prior surveys listed above cover the present survey area in its entirety.

1) Prior survey H-1699 (1894) covers a small portion of the northwest corner of the present survey. The prior survey is in good agreement with the present survey. Prior survey depths are generally 0 to 3 feet (0 to 0<sup>9</sup> m) deeper than prior survey soundings.

2) Prior survey H-1710a (1914-16) covers the southeast portion of the present survey. The prior survey is in good general agreement with the present survey, with prior depths differing plus or minus ( $\pm$ ) one foot (0<sup>3</sup> m). In the vicinity of Latitude 40°54'57"N, Longitude 73°32'12"W significant bottom changes are apparent with prior survey depths being 15 to 28 feet (4<sup>6</sup> to 8<sup>5</sup> m) shoaler than present survey depths. These differences may be attributed to erosion or mining of bottom materials in the area.

The following charted soundings originate with H-1710a (1914-16) and were not disproved by the present survey. These soundings have not been brought forward to supplement the present survey because the datum of the prior survey is not known.

<u>Depth</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
** 21 ft (6 <sup>4</sup> m)	40°56'08.0"	73°32'02.0"
20 ft (6 <sup>1</sup> m)	40°54'40.0"	73°32'44.5"

\*\* This depth has been recommended for additional work.  
(See section 3.c. of this report.)

These soundings should be retained as charted pending additional work.

3) Prior surveys H-1732 (1886) and H-1732a (1914-16) cover the northern portion of the present survey in depths greater than 10 meters. The prior surveys are generally in good agreement with the present survey, with the prior and present survey soundings agreeing within plus or minus ( $\pm$ ) 1 to 2 feet (0<sup>3</sup> to 0<sup>6</sup> m). In the vicinity of Latitude 40°55'10"N, Longitude 73°30'00"W, the prior surveys show soundings 3 to 7 feet (0<sup>9</sup> to 2<sup>1</sup> m) deeper than the present survey. These differences can be attributed to a natural change in the bottom configuration.

a. A charted 51-ft (15<sup>5</sup> m) sounding, in Latitude 40°55'00"N, Longitude 73°38'00"W, originating with prior survey H-1732 (1886) is 6 feet (1<sup>8</sup> m) shoaler than present survey depths. Present survey depths in the area are 57 feet (17<sup>3</sup> to 17<sup>5</sup> m). This sounding is considered disproved by the present survey. It is recommended that the sounding be deleted from the chart and the area be charted as shown on the present survey.

b. A charted 45-ft (13<sup>7</sup> m) sounding, in Latitude 40°56'51"N, Longitude 73°34'59"W, originates with prior survey H-1732 (1886) and is 10 feet (3 m) shoaler than present survey depths. Present survey depths in the vicinity range from 53 to 56 feet (16<sup>2</sup> m 17<sup>2</sup> m). This prior sounding appears to have been transposed when applied to the chart and is considered disproved by the present survey. It is recommended that the area be charted as shown on the present survey.

4) Prior survey H-5544 (1934) covers the southern inshore portion of the present survey. The prior survey agrees well with the present survey. Agreement is generally plus or minus ( $\pm$ ) 2 feet (0<sup>6</sup> m). In some scattered areas the prior survey depths are 3 to 4 feet (0<sup>9</sup> to 1<sup>2</sup> m) deeper than present survey depths. In the vicinity of Latitude 40°54'46"N, Longitude 73°35'15"W significant changes in the bottom configuration were noted with prior survey depths being 15 to 28 feet (4<sup>6</sup> to 8<sup>5</sup> m) deeper than present survey depths. The above differences

maybe attributed to natural change, improved hydrographic surveying methods and the mining of bottom sediments.

a. An uncharted 5 foot ( $1^5$  m) sounding on a rock, in Latitude  $40^{\circ}54'35.66''$ N, Longitude  $73^{\circ}33'05.93''$ W, originates with the prior survey. This rock was neither verified or disproved by the present survey. The rock has been brought forward from the prior survey to supplement present survey. It is recommended that the rock be charted as shown on the present survey.

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

	<u>Feature</u>	<u>Depth</u> (ft/m)	<u>Latitude (N)</u>	<u>Longitude (W)</u>
	rock	2 ft/ $0^6$ m	$40^{\circ}54'18.29''$	$73^{\circ}37'58.74''$
	rock	2 ft/ $0^6$ m	$40^{\circ}54'16.43''$	$73^{\circ}38'01.20''$
	sndg	3 ft/ $0^9$ m	$40^{\circ}54'06.95''$	$73^{\circ}38'06.04''$
**	sndg	10 ft/3 m	$40^{\circ}54'24.83''$	$73^{\circ}38'06.20''$
	rock	-2 ft/ $-0^6$ m	$40^{\circ}54'12.65''$	$73^{\circ}36'45.49''$
	rock	-1 ft/ $-0^3$ m	$40^{\circ}54'14.26''$	$73^{\circ}38'00.93''$
	rock	awash	$40^{\circ}54'05.42''$	$73^{\circ}37'50.76''$
	rock	awash	$40^{\circ}54'04.58''$	$73^{\circ}37'49.35''$
	sndg	3 ft/ $0^9$ m	$40^{\circ}54'04.76''$	$73^{\circ}36'49.80''$
	sndg	5 ft/ $1^5$ m	$40^{\circ}54'54.02''$	$73^{\circ}34'49.05''$
	rock	4 ft/ $1^2$ m	$40^{\circ}55'00.13''$	$73^{\circ}34'22.46''$
	rock	3 ft/ $0^9$ m	$40^{\circ}55'00.31''$	$73^{\circ}34'28.93''$
	rock	5 ft/ $1^5$ m	$40^{\circ}55'04.71''$	$73^{\circ}34'14.09''$
	rock	awash	$40^{\circ}55'04.44''$	$73^{\circ}34'02.59''$
##	rock	12 ft/ $3^7$ m	$40^{\circ}55'05.12''$	$73^{\circ}33'51.90''$
	rock	3 ft/ $0^9$ m	$40^{\circ}54'35.06''$	$73^{\circ}33'06.74''$
	rock	awash	$40^{\circ}55'02.31''$	$73^{\circ}34'00.91''$
	rock	awash	$40^{\circ}55'01.63''$	$73^{\circ}34'03.22''$
	rock	awash	$40^{\circ}55'00.06''$	$73^{\circ}34'03.92''$
	rock	awash	$40^{\circ}54'58.71''$	$73^{\circ}34'02.89''$
	rock	awash	$40^{\circ}54'58.61''$	$73^{\circ}34'06.15''$
	rock	awash	$40^{\circ}54'58.21''$	$73^{\circ}34'07.83''$
	sndg	3 ft/ $0^9$ m	$40^{\circ}54'59.67''$	$73^{\circ}34'14.62''$
	rock	awash	$40^{\circ}54'38.23''$	$73^{\circ}34'48.16''$
	rock	awash	$40^{\circ}54'34.00''$	$73^{\circ}35'12.78''$
	rock	3 ft/ $0^9$ m	$40^{\circ}54'33.37''$	$73^{\circ}35'45.69''$
	ledge	awash	$40^{\circ}54'56.0''$	$73^{\circ}34'00.0''$
			(general location)	

\*\* Originates with prior survey H-5 (1836) and was brought forward to H-5544 (1934).

## Originates with prior survey H-8 (1836) and was brought forward to H-5544 (1934).

These features have been recommended for additional work (see section 3.c. of this report), and have been brought forward from the prior survey to supplement the present survey. It is recommended that these features be retained as charted pending completion of additional work.

c. The following shoreline features originate with the prior survey. These shoreline features are not charted and are not shown on the shoreline manuscript.

<u>Feature</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
pier	40°53'58.2"	73°36'58.5"
pier	40°53'59.3"	73°36'54.0"
pier	40°54'32.6"	73°35'35.5"

No change in charting status is recommended.

Except as noted above the present survey is adequate to supersede the above prior surveys within the common area.

b. Wire Drag

H-5078WD (1930)	1:20,000
H-5142WD (1931)	1:20,000
<u>FE-118WD (1953)</u>	<u>1:20,000</u>

Prior survey H-5078WD (1930) has four hangs or groundings that are common to the present survey. The following should be noted:

a) AWOIS Item #1737, a charted obstruction with a 40-ft (12<sup>2</sup> m) wire drag clearance, in Latitude 40°55'25.80"N, Longitude 73°37'44.90"W (NAD27), originates with the prior survey as a grounding at 40 feet (12<sup>2</sup> m) subsequently cleared by 40 (12<sup>2</sup> m) feet. This AWOIS item was investigated by FE-318SS (1988) and was considered disproved. This obstruction is not shown on the 19<sup>th</sup> edition of chart 12367. No change in charting status is recommended.

b) AWOIS Item #1740, two charted obstructions with 40-ft (12<sup>2</sup> m) wire drag clearance, in Latitude 40°55'47.98"N, Longitude 73°35'29.06"W (NAD27) and Latitude 40°55'54"N, Longitude 73°35'28"W (NAD27), originate with the prior survey as two groundings at 40 feet (12<sup>2</sup> m) subsequently cleared by 40 (12<sup>2</sup> m) feet. This AWOIS item was investigated by FE-318SS (1988) and was considered disproved. These obstructions are

not shown on the 19<sup>th</sup> edition of chart 12367. No change in charting status is recommended.

c) AWOIS Item #1741, a charted wreck with a 31-ft (9<sup>4</sup> m) wire drag clearance, in Latitude 40°55'52.5"N, Longitude 73°36'13.9"W (NAD27) originates with the prior survey as a hang at 32 feet (9<sup>8</sup> m) subsequently cleared by 31-ft (9<sup>4</sup> m). FE-318SS (1988) located a wreck with a least depth of 46-ft (14 m), in Latitude 40°55'53.43"N, Longitude 73°36'13.84"W. This wreck has been brought forward from FE-318SS (1988) to supplement the present survey. The wreck is charted on the 19<sup>th</sup> edition of chart 12367. No change in charting status is recommended.

d) AWOIS Item #6491, a charted 43-ft sounding, in Latitude 40°56'22.0"N, Longitude 73°36'18.9"W (NAD27), originates with the prior survey. This AWOIS item was investigated by FE-318SS (1988) and was considered disproved. This obstruction is not shown on the 19<sup>th</sup> edition of chart 12367. No change in charting status is recommended.

e) The following charted soundings originate with the prior survey and are not considered disproved by the present survey.

<u>Depth</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
35 ft/10 <sup>7</sup> m	40°54'32.71"	73°38'28.85"
35 ft/10 <sup>7</sup> m	40°54'14.29"	73°38'39.42"
** 9 ft/ 2 <sup>7</sup> m	40°54'15.46"	73°37'50.02"
34 ft/10 <sup>4</sup> m	40°54'35.70"	73°38'03.13"
19 ft/ 5 <sup>8</sup> m	40°54'47.42"	73°36'13.57"

\*\* This sounding has been recommended for additional work. (See section 3.c. of this report.)

These soundings have been brought forward from the prior survey to supplement the present survey.

There are no conflicts between the prior survey effective depths and present survey depths.

Prior survey H-5142WD (1930) has three hangs or groundings that are common to the present survey. The following should be noted:

a) AWOIS Item #1743, a charted wreck with a 37-ft (11<sup>3</sup> m) wire drag clearance, in Latitude 40°56'21"N, Longitude 73°34'54"W (NAD27), originates with the prior survey. FE-

318SS (1988) located a wreck with a least depth of 47-ft (14<sup>3</sup> m), in Latitude 40°56'21.25"N, Longitude 73°34'52.97"W. The wreck has been brought forward from FE-318SS (1988) to supplement the present survey. The wreck is charted on the 19<sup>th</sup> edition of chart 12367. No change in charting status is recommended.

b) AWOIS #4405, a charted dangerous submerged wreck with a depth of 21 feet (6<sup>4</sup> m), in Latitude 40°54'58.2"N, Longitude 73°32'44.2"W (NAD27), originates with the prior survey. FE-318SS (1988) located a wreck with a least depth of 23-ft (7 m), in Latitude 40°54'58.93"N, Longitude 73°32'42.35"W. The wreck has been brought forward from FE-318SS (1988) to supplement the present survey. The wreck is charted on the 19<sup>th</sup> edition of chart 12367. No change in charting status is recommended.

c) AWOIS Item #4407, a charted wreck with a 37-ft (11<sup>3</sup> m) wire drag clearance, in Latitude 40°56'00.5"N, Longitude 73°34'21.2"W (NAD27), originates with the prior survey. The charted wreck was investigated by FE-318SS (1988) and was considered disproved. This wreck is not charted on the 19<sup>th</sup> edition of chart 12367. No change in charting status is recommended.

d) The following charted soundings originate with the prior survey and are not considered disproved by the present survey. The soundings have been recommended for additional work. (See section 3. c. of this report.)

<u>Depth</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
21 ft/6 <sup>4</sup> m	40°56'02.73"	73°32'06.66"
10 ft/3 m	40°55'23.60"	73°31'57.68"
9 ft/2 <sup>7</sup> m	40°55'40.45"	73°31'52.97"
22 ft/6 <sup>7</sup> m	40°56'11.44"	73°31'54.72"
15 ft/4 <sup>5</sup> m	40°55'55.83"	73°31'46.52"

These soundings have been brought forward from the prior survey to supplement the present survey. No change in charting status is recommended pending additional field work.

e) The following charted soundings originate with the prior survey and are not considered disproved by the present survey.



<u>Depth</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
32 ft/ 9 <sup>8</sup> m	40°55'30.26"	73°33'00.23"
32 ft/ 9 <sup>8</sup> m	40°55'30.49"	73°32'42.43"
25 ft/ 7 <sup>6</sup> m	40°55'02.92"	73°32'49.01"
34 ft/10 <sup>4</sup> m	40°56'21.21"	73°32'05.29"
37 ft/11 <sup>3</sup> m	40°56'05.12"	73°32'15.85"
36 ft/11 m	40°55'55.32"	73°32'14.18"
17 ft/ 5 <sup>2</sup> m	40°55'52.68"	73°31'59.41"
8 ft/ 2 <sup>4</sup> m	40°55'32.95"	73°31'52.47"
34 ft/10 <sup>4</sup> m	40°56'15.29"	73°31'45.66"
39 ft/11 <sup>9</sup> m	40°56'26.00"	73°31'51.22"
14 ft/ 4 <sup>3</sup> m	40°55'51.73"	73°31'45.21"
14 ft/ 4 <sup>3</sup> m	40°55'47.81"	73°31'49.23"
13 ft/ 4 m	40°55'30.50"	73°31'58.96"
22 ft/ 6 <sup>7</sup> m	40°55'58.41"	73°31'34.18"

These soundings have been brought forward from the prior survey to supplement the present survey. Additional field work is recommended for the above soundings. No change in charting status is recommended pending additional field work.

There are no conflicts between the prior survey effective depths and present survey depths.

Prior survey FE-118WD (1930) has one hang that is common to the present survey. The following should be noted:

A charted rock, in Latitude 40°55'29.26"N, Longitude 73°31'45.60"W was hung at 3 feet (0<sup>9</sup> m). The rock was not cleared. This rock is not considered disproved by the present survey. The rock has been brought forward from the prior survey to supplement the present survey. This rock has been recommended for additional work in the memorandum cited in section 3.c. of this report. No change in charting status is recommended pending the completion of additional work.

The following charted features originate with the prior survey and are not considered disproved by the present survey and have been recommended for additional work. (See section 3.c. of this report.)

<u>Feature (ft / m)</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
rock awash	40°55'11.23"	73°31'53.54"
rock awash	40°55'17.32"	73°31'45.16"
sndg 3 ft/0 <sup>9</sup>	40°55'25.31"	73°31'41.10"
sndg 2 ft/0 <sup>6</sup>	40°55'28.87"	73°31'39.39"
sndg 4 ft/1 <sup>2</sup>	40°55'35.02"	73°31'48.16"

These soundings have been brought forward from the prior survey to supplement the present survey. No change in charting status is recommended pending the completion of additional work.

There are no conflicts between the prior survey effective depths and present survey depths.

c. Side Scan Sonar

FE-317SS (1988) 1:10,000  
FE-318SS (1988) 1:10,000

Prior survey FE-317SS (1988) investigated one AWOIS item that is charted within the limits of the present survey. The following should be noted:

AWOIS Item #1736, a charted dangerous sunken wreck, PA, in Latitude 40°54'38.0"N, Longitude 73°38'04.0"W (NAD27), originates with Local Notice To Mariners 36 of 1974 (LNM 36/74). This item was investigated by FE-317SS (1988) and was considered disproved. Eight additional contacts were located during the investigation of the AWOIS item. These items were recommended for charting in the prior survey descriptive and evaluation reports. The charted wreck has been deleted from the 19<sup>th</sup> edition of chart 12367, and the eight additional items have been charted. The following items have been brought forward from the prior survey to supplement the present survey:

	<u>Feature (ft/m)</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
wreck	46 ft/14 m	40°54'44.73"	73°38'39.68"
rock(A)	32 ft/ 9 <sup>8</sup> m	40°54'37.08"	73°38'05.03"
rock(A)	29 ft/ 8 <sup>8</sup> m	40°54'32.84"	73°38'06.74"
rock	32 ft/ 9 <sup>8</sup> m	40°54'33.38"	73°38'01.33"
rock	33 ft/10 <sup>1</sup> m	40°54'34.50"	73°37'49.59"
rock	24 ft/ 7 <sup>3</sup> m	40°54'30.06"	73°37'56.78"
rock	13 ft/ 4 m	40°54'24.21"	73°37'56.45"

No change in charting status is recommended.

Prior survey FE-318SS (1988) investigated two AWOIS items that are charted within the limits of the present survey. The following should be noted:

1) AWOIS Item #1745, a charted dangerous submerged wreck with a least depth of 38 feet (11<sup>6</sup> m), in Latitude 40°57'22.5"N, Longitude 73°37'29.3"W (NAD27), originates with

Chart Letter #1095 of 1986 (CL1095/86). FE-318SS (1988) located a wreck with a least depth of 39-ft (11<sup>9</sup> m) in Latitude 40°57'23.14"N, Longitude 73°37'28.75"W. The wreck has been brought forward from the prior survey to supplement the present survey. The wreck is charted on the 19<sup>th</sup> edition of chart 12367. (1988). No change in charting status is recommended.

2) AWOIS Item #6490, a charted wreck, PA, in Latitude 40°56'12"N, Longitude 73°37'06"W (NAD27), originates with LNM 5/82. This item was investigated by FE-318SS (1988) using side scan sonar and fathometer and was considered disproved. During the investigation by FE-318SS (1988) seven additional contacts were located. Six of these items were recommended for charting in the prior survey descriptive and evaluation reports. AWOIS Item #6490 has been deleted from the 19<sup>th</sup> edition of chart 12367, and the six additional items are charted. The following items have been brought forward from the prior survey to supplement the present survey.

	<u>Feature (ft/m)</u>	<u>Latitude (N)</u>	<u>Longitude (W)</u>
obstr	48 ft/14 <sup>6</sup> m	40°56'07.07"	73°36'49.64"
wreck	41 ft/12 <sup>5</sup> m	40°55'57.08"	73°36'57.80"
wreck	50 ft/15 <sup>2</sup> m	40°56'58.75"	73°37'40.29"
wreck	49 ft/14 <sup>9</sup> m	40°56'50.06"	73°36'10.69"
wreck	56 ft/17 <sup>1</sup> m	40°56'21.38"	73°38'31.68"
wreck	48 ft/14 <sup>6</sup> m	40°57'20.92"	73°36'55.83"

No change in charting status is recommended.

7. COMPARISON WITH CHARTS 12365 (20th Edition, Sept. 2/89)  
12367 (17th Edition, Nov. 1/86)

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys and miscellaneous sources. Attention is directed to the following:

1) A 36-ft (11 m) sounding, in the vicinity of Latitude 40°56'15.0"N, Longitude 73°32'12.0"W, and a 2-ft (0<sup>6</sup> m) sounding in the vicinity of Latitude 40°54'55.5"N, Longitude 73°32'02.5"W are shown on the 20<sup>th</sup> edition of chart 12365. The source for these charted depths was not readily ascertainable. The present survey is considered adequate to supersede these charted depths.

2) AWOIS Item #6730, a charted 5-ft (1<sup>5</sup> m) sounding, in Latitude 40°55'37.2"N, Longitude 73°31'45"W (NAD27), originates with CL332/53. The disposition of this sounding was not determined by the present survey, and it has been recommended for additional work (see section 3.c. of this report). No change in charting status is recommended pending additional field work.

3) The following four charted 9-ft (2<sup>7</sup> m) soundings originate with CL332/53. These soundings are not considered disproved by the present survey and they have been recommended for additional work. (See section 3.c. of this report.)

<u>Latitude (N)</u>	<u>Longitude (W)</u>
40°55'49.8"	73°31'53.0"
40°55'44.5"	73°31'54.5"
40°55'45.6"	73°31'47.2"
40°55'41.2"	73°31'42.8"

No change in charting status is recommended pending additional field work.

Except as noted the present survey is adequate to supersede the charted hydrography within the common area.

**b. Aids To Navigation**

The hydrographer located two floating aids to navigation on the present survey. These aids appear adequate to serve their intended purposes.

**8. COMPLIANCE WITH INSTRUCTIONS**

This survey adequately complies with the Project Instructions except as noted elsewhere in this report.

**9. ADDITIONAL WORK**

This is an adequate basic survey; additional field work is addressed in sections 3.c., 6. and 7. of this report.

Douglas V. Mason  
Douglas V. Mason  
Cartographic Technician  
Verification of Field Data

Robert R. Hill  
Robert R. Hill, Jr.  
Senior Cartographic  
Technician  
Evaluation and Analysis

Robert R. Hill  
Robert R. Hill, Jr.  
Senior Cartographic  
Technician  
Verification Check

APPROVAL SHEET  
H-10353

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 disproval 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 magnetic tape record for this survey. Final control, position, and sounding printouts of the survey have been made. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Robert G. Roberson

Date: 6 April 1993

Robert G. Roberson  
Chief, Evaluation and Analysis Team  
Atlantic Hydrographic 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.

Christopher B. Lawrence

Date: 4-06-93

Christopher B. Lawrence, CDR, NOAA  
Chief, Atlantic Hydrographic Section

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Final Approval:

Approved: J. Austin Yeager

Date: 5/17/94

J. Austin Yeager  
Rear Admiral, NOAA  
Director, Coast and Geodetic  
Survey

DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Ocean Survey  
Rockville, Maryland

Hydrographic Index No. 63 L

