

F00407

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-10-11-94 .....  
*Registry No.* ..... FE-407 .....

### LOCALITY

*State* ..... Maine .....  
*General Locality* ..... Penobscot Bay .....  
*Sublocality* ..... Swans, Vinalhaven and  
North Haven Islands .....

19 94

### CHIEF OF PARTY

..... LCDR. J. E. Waddell .....

### LIBRARY & ARCHIVES

*DATE* ..... January 18, 1996 .....

NOAA FORM 77-28

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

REGISTER NO.

## HYDROGRAPHIC TITLE SHEET

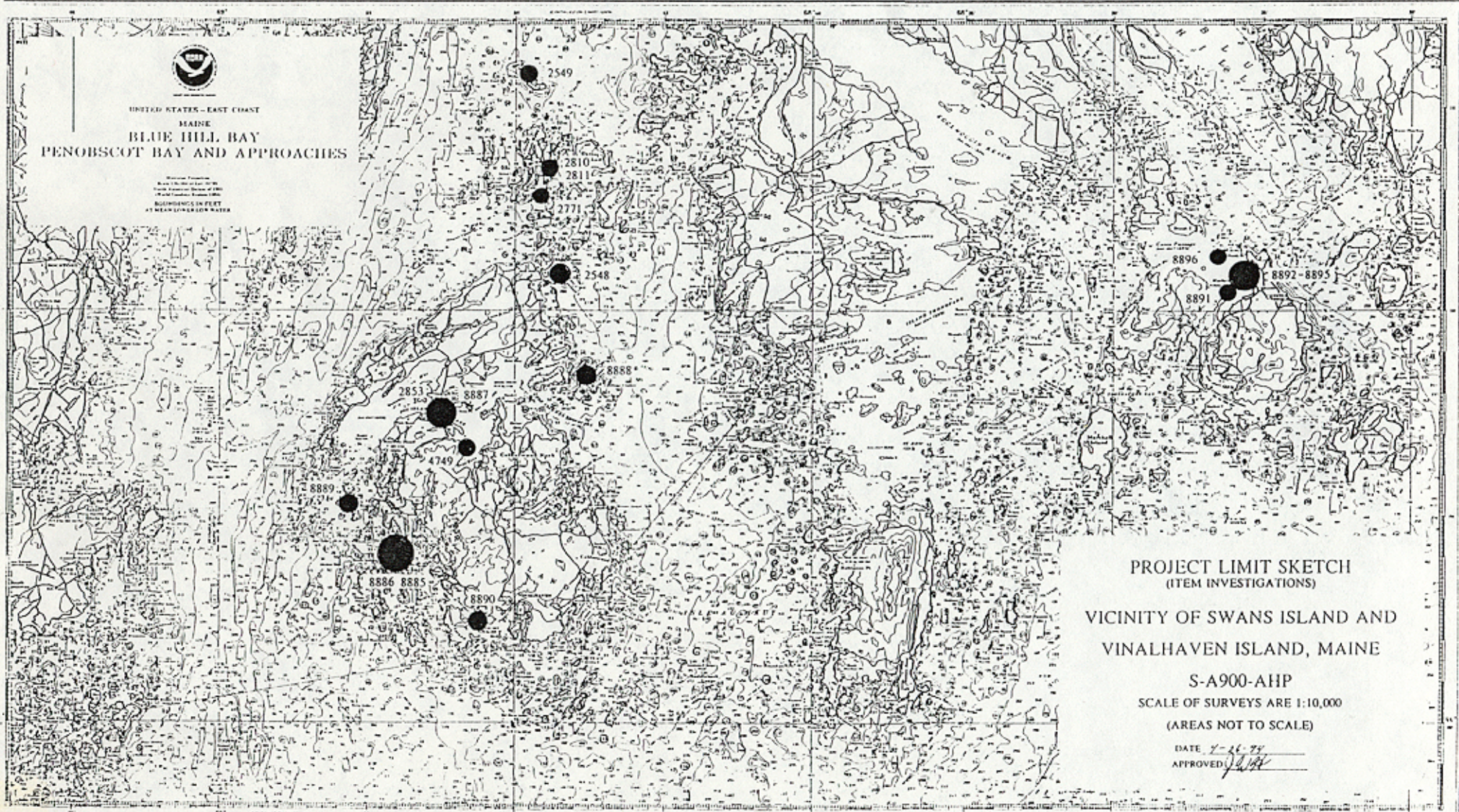
FE-407

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-10-11-94State MaineGeneral Locality Penobscot and Blue Hill Bays <sup>BAV</sup>Locality Swans, Vinalhaven and North Haven IslandsScale 1:10,000 Date of Survey 9/17/94 - 10/11/94Instructions Dated June 22, 1994 Project No. S-A900-AHPVessel NOAA Launch 0518Chief of Party LCDR James E. Waddell, Jr., NOAASurveyed By Atlantic Hydrographic PartySoundings taken by echo sounder, hand lead, pole Innerspace Model 448 echo sounder and hand leadGraphic record scaled by David B. Elliott and Robert W. RamseyGraphic record checked by DBE and RWRProtracted by ENCAD NOVASET III PLOTTER (AHS)  
Automated plot by HDAPS (FIELD)Verification by Atlantic Hydrographic Section BRANCH PERSONNELSoundings in <sup>FEET</sup> ~~meters~~ at MLLWREMARKS: NOTED IN THE ORIGINAL DESCRIPTIVE REPORT WERE MADE IN RED DURING  
OFFICE PROCESSING.DEC 2/18/96AWOIS + SURF ✓ RWD 2/96



UNITED STATES - EAST COAST  
MAINE  
BLUE HILL BAY  
PENOBSCOT BAY AND APPROACHES

HEIGHTS IN FEET  
AT MEAN LOW TIDE WATER



PROJECT LIMIT SKETCH  
(ITEM INVESTIGATIONS)  
VICINITY OF SWANS ISLAND AND  
VINALHAVEN ISLAND, MAINE

S-A900-AHP  
SCALE OF SURVEYS ARE 1:10,000  
(AREAS NOT TO SCALE)

DATE 4-26-75  
APPROVED [Signature]

302  
OVERPRINTED

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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(Penobscot Bay and Approaches)  
SOUNDINGS IN FEET

13312  
OVERPRINTED

SOUNDINGS IN FEET

FE-407 (1994)

DESCRIPTIVE REPORT TO ACCOMPANY  
HYDROGRAPHIC SURVEY

FE-407

S-A900-AHP

AHP-10-11-94

SCALE: 1:10,000

1994

ATLANTIC HYDROGRAPHIC PARTY TWO

CHIEF OF PARTY: LCDR James E. Waddell Jr., NOAA

A. PROJECT

This survey was conducted according to Hydrographic Project Instructions S-A900-AHP, Swans and Vinalhaven Islands, Maine, dated June 22, 1994.

The purpose of this project is to provide contemporary hydrographic data for existing National Ocean Service (NOS) nautical charts and for deep draft ferry boats and fishing vessels transiting the area. This project is in response to requests from the U.S. Coast Guard Marine Safety Office, and State of Maine Department of Transportation, Maine State Ferry Service.

This survey includes nineteen AWOIS items, and was designated as a field examination (FE) as specified by the project instruction.

B. AREA SURVEYED

The area surveyed for FE-407 is located in the vicinity of Vinalhaven Island and North Haven Island in Penobscot Bay and Swans Island in Blue Hill Bay, Maine. The approximate survey limits are as follows:

North: 44°16.0'N  
South: 44°02.0'N  
East: 068°25.0'W  
West: 068°56.0'W

This survey was conducted from September 17, 1994 (DN 260) to October 7, 1994 (DN 280).

C. SURVEY VESSELS

Vessel 0518, a 21-foot MonArk, was used to collect all survey data. There were no unusual vessel configurations nor problems encountered.

D. AUTOMATED DATA ACQUISITION AND PROCESSING - SEE ALSO EVALUATION REPORT.

Version 5.01 the PC-DAS programs was used for on-line data acquisition. A list of all HDAPS programs and versions used for data processing are appended to this report. The NOS program VELOCITY (Ver. 2.10) and WordPerfect (Ver. 6.0) were also used during this survey.

E. SONAR EQUIPMENT

Not Applicable.

F. SOUNDING EQUIPMENT

An Innerspace depth sounder, model 448, serial number 175, was used to collect all echo soundings on this survey.

A standard lead line calibrated in meters, serial number 0518, was used during this survey for comparison readings with the echo sounder. In addition, a five-meter long, wooden sounding pole, constructed according to HSG No. 69, was used to obtain all pole soundings.

No problems were encountered with any of the sounding equipment.

G. CORRECTIONS TO ECHO SOUNDINGS

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</u> <u>DN</u>	<u>Cast</u> <u>Position</u>	<u>Day</u>
1	1	20.8	260-262	44°13'00"N 068°22'00"W	259
2	2	39.0	271-280	44°04'00"N 068°53'36"W	271

Corrections for the speed of sound through the water column were

computed from data obtained with a Digibar Sound Velocity Probe, Model DB-1100, serial number 155. This instrument was calibrated by the manufacturer on May 3, 1993 and data quality assurance tests were performed before each cast. Program VELOCITY was used for computing the speed of sound correctors. Speed of sound corrections were applied to the sounding plot using the HDAPS program REAPPLY. Copies of the tables and support documentation are in the "Survey Separates."\*

Lead line comparisons were taken daily to determine echo sounder error. The lead line comparison logs are in the "Survey Separates." The lead lines were calibrated using a steel tape on May 6, 1994 for launch 0518. No corrections were necessary. A copy of the calibration form is in the "Survey Separates."\*

A static draft of 0.3 meters was applied to the final sounding plot by the HDAPS program REAPPLY. The draft was measured by subtracting the difference from a punch mark on the side of launch 0518, 0.6 meters above the transducer, to the water surface.

Settlement and squat measurements for launch 0518 were determined on May 3, 1994 (DN 123). These measurements were conducted in Milton Harbor at Rye, New York using the level method. Data from this test are included in the "Survey Separates." Settlement and squat correctors were applied to the final sounding plot using the HDAPS program REAPPLY. Data from the settlement and squat test is in the "Survey Separates."\*

Predicted tides for this project were provided on diskette by N/OES231 for the Bar Harbor, Maine reference station, number 841-3320.

All elevations and soundings on survey FE-407 are at the sounding datum of MLLW unless otherwise specified.

The sounding plot used predicted tides determined from Bar Harbor, Maine, with correctors designated in section 5.9 of the project instructions. Approved water levels were requested from the Product and Services Branch, Datums Section, N/OES231, in a letter dated December 5, 1994. A copy is appended to this report.\*

APPROVED TIDES AND ZONING WERE APPLIED DURING OFFICE PROCESSING.

\* DATA FILED WITH FIELD RECORDS.

H. CONTROL STATIONS - SEE ALSO EVALUATION REPORT.

The horizontal control datum for this project is the North American Datum of 1983. The USCG DGPS radio beacon at Portsmouth, New Hampshire, was used for all positioning requirements on FE-407.

The position for this station is 43°04'15.064N, 070°42'36.805W. The calibration points at Bass Harbor Lighthouse and Rockland Breakwater Lighthouse are shown in the "Control Station" list appended to this report.

I. HYDROGRAPHIC POSITION CONTROL

Differential GPS (DGPS) was used for all hydrographic data acquired on this survey. An Ashtech Sensor, serial number 700417A1065, with antenna serial number 700378A0275, was used as the remote station on launch 0518. The CSI MBX-1 DGPS Beacon Receiver was used as the datalink between the reference station and the launch sensor.

Daily DGPS performance checks were conducted in accordance with FPM 3.4.4, by comparing the DGPS position of the vessel to the published NGS third-order positions for Bass Harbor Lighthouse and Rockland Breakwater Lighthouse. To obtain a performance check, the launch was brought alongside the checkpoint, and the easting, northing, number of SVs, HDOP, and time of observation were noted on the echogram. These values were then entered into a Lotus spreadsheet table which would compute the acceptable error margin, based on the HDOP, and also the observed difference between our known and observed position. The table of these comparisons is included in the "Survey Separates." \* All of our observed differences fell well within the allowable limit.

J. SHORELINE - SEE ALSO EVALUATION REPORT.

This project was team processed with the Atlantic Hydrographic Section. Shoreline verification was accomplished during inshore hydrographic data acquisition and by visual inspection. The shoreline for FE-407 was transferred from paper chart enlargements. No gross discrepancies with the charted shoreline were seen.

\* DATA FILED WITH FIELD RECORDS.

#### K. CROSSLINES

A total of 7.0 linear nautical miles of crosslines were run, which represents approximately 10.0% of the main scheme hydrography. Crossline soundings agree with the main scheme soundings within 0.2 to 0.4 meters with the exception of areas where the bottom is irregular.

#### L. JUNCTIONS

The AWOIS investigations for FE-407 have no conventional junctions.

#### M. COMPARISON WITH PRIOR SURVEYS - SEE ALSO EVALUATION REPORT.

All nineteen AWOIS items investigated on this survey appeared on prior surveys of the area. The following prior surveys have areas common with this survey:

H-983	1:10,000 scale	from 1868
H-1029	1:10,000 scale	from 1869
H-1073	1:10,000 scale	from 1870
H-1261	1:10,000 scale	from 1873-74
H-1401	1:10,000 scale	from 1878
H-7834	1:10,000 scale	from 1950
H-8696WD	1:10,000 scale	from 1957
H-10178	1:10,000 scale	from 1985

See the Atlantic Hydrographic Section's "Evaluator's Report for FE-407," for a discussion of the comparison with the surveys listed above.

#### N. ITEM INVESTIGATION REPORTS

There were a total of 19 AWOIS items addressed on this survey. All AWOIS investigation reports are appended to this report.

#### O. COMPARISON WITH THE CHART - SEE ALSO EVALUATION REPORT

Comparison was made with the following charts:

<u>Chart No.</u>	<u>Edition</u>	<u>Edition Date</u>
13302	17th	Jan. 09, 1993



13305	27th	Mar. 21, 1992
13308	11th	Oct. 31, 1992
13312	20th	Oct. 31, 1992
13313	19th	Aug. 28, 1993
13315	9th	Sep. 01, 1990

Sounding data acquired on FE-407 shows agreement with charted soundings within 0.2 to 0.4 meters, with minor inconsistencies attributed to predicted tides usage during field plotting.

There were ten dangers to navigation identified by this survey. They are:

<u>DESCRIPTION</u>	<u>NAD 83 POSITION</u>	<u>DEPTH m/ft</u>	<u>Pn</u>	<u>#AWOIS</u>
Submerged rock	44°15'48.0"N, 068°49'32.9"W	(0.9m/ 2.9ft)	1124	2549
Submerged rock	44°13'36.1"N, 068°48'48.4"W	(0.1m/ 0.3ft)	1126	2811
Submerged rock	44°12'51.4"N, 068°49'08.4"W	(1.1m/ 3.6ft)	1180	2771
Submerged rock	44°07'29.8"N, 068°52'24.9"W	(1.6m/ 5.2ft)	1365	8887
Submerged rock	44°04'03.7"N, 068°54'00.0"W	(4.6m/ 15.1ft)	1000	8886
Submerged rock	44°04'06.2"N, 068°54'09.7"W	(1.1m/ 3.6ft)	1001	
Submerged rock	44°04'05.4"N, 068°54'08.9"W	(2.9m/ 9.5ft)	1002	
Submerged rock	44°04'04.8"N, 068°54'12.2"W	(3.8m/ 12.1ft)	1003	
Submerged rock	44°04'02.4"N, 068°54'11.7"W	(3.7m/ 12.1ft)	1004	
Submerged rock	44°02'28.7"N, 068°51'07.3"W	(3.4m/ 11.1ft)	654	8890

These dangers were reported to the USCG in a letter dated December 6, 1994. A copy of the letter is appended to this report. *SEE ALSO EVALUATION REPORT # REFER TO AWOIS ITEMS BELOW AND APPENDED FORMS*

The following changes should be made to the chart:

Dagger Island 9/9

The rock awash reported in approximate position 44°10'54.28"N, 068°48'28.10"W, AWOIS 2548, should be removed from the chart and an exposed rock, -1.2m (3.9 ft) above the water surface, position 1181, should be charted at 44°10'56.0"N, 068°48'25.8"W. *CONCUR CHART AS SHOWN ON PRESENT SURVEY.*

Barred Island and Beach Island 2/9

The submerged rocks reported in approximate position 44°15'49.28"N, 068°49'42.10"W, AWOIS 2549, should be removed from the chart and rocks awash, position 1124, should be charted at 44°15'48.0"N, 068°49'32.9"W. *DO NOT CONCUR*

*IT IS RECOMMENDED THAT THE CHARTED RKS REPORTED 1966, PA BE DELETED. IT IS ALSO RECOMMEND THAT DANGEROUS SUBMERGED ROCKS WITH A KNOWN DEPTH OF 0.9m (3FT) BE CHARTED IN LATITUDE 44°15'48.02"N, LONGITUDE 68°49'32.991"W.*

*CHART 3RKS*

Channel Rock 8/9

The sounding of 4.5 feet reported in approximate position 44°12'51.28"N, 068°49'08.10"W, AWOIS 2771, should be removed from the chart and a submerged rock, 1.1<sup>0</sup>m (3.6<sup>3</sup> ft) below the water surface, position 1180, should be charted at 44°12'51.4<sup>99</sup>"N, 068°49'08.4<sup>98</sup>"W. CONCUR CHART AS SRK

Great Spruce Head Island 8/9

The submerged rock reported in approximate position 44°13'24.28"N, 068°48'50.10"W, AWOIS 2810, should be removed from the chart and a submerged rock, 1.0<sup>1</sup>m (3.2<sup>6</sup> ft) below the water surface, position 1128, should be charted at 44°13'27.3<sup>80</sup>"N, 068°48'49.5<sup>81</sup>"W. CONCUR CHART AS SRK

The submerged rock reported in approximate position 44°13'36.28"N, 068°48'50.10"W, AWOIS 2811, should be removed from the chart and a rock awash, 0.1<sup>2</sup>m (0.3<sup>6</sup> ft) below the water surface, position 1126, should be charted at 44°13'36.1<sup>94</sup>"N, 068°48'48.4<sup>93</sup>"W. CONCUR CHART AS SHOWN ON PRESENT SURVEY.

North Haven Island 4/9

The submerged wreck reported in approximate position 44°07'36.71"N, 068°52'52.61"W, AWOIS 2853, should be removed from the chart and a submerged wreck, 6.4m (21.0<sup>8</sup> ft) below the water surface, position 1068, should be charted at 44°07'36.7<sup>85</sup>"N, 068°52'52.8<sup>84</sup>"W. CONCUR CHART AS ZIWK

The privately maintained stake reported in approximate position 44°06'48.29"N, 068°51'43.11"W, AWOIS 4749, should be removed from the chart. See the AWOIS report for details of investigation. CONCUR

The submerged obstruction reported in approximate position 44°07'30.00"N, 068°52'30.00"W, AWOIS 8887, should be removed from the chart and a submerged rock, 1.6<sup>8</sup>m (5.2<sup>9</sup> ft) below the water surface, position 1365, should be charted at 44°07'29.8<sup>47</sup>"N, 068°52'24.9<sup>44</sup>"W. CONCUR CHART AS GRK

A 7FT DEPTH IS SHOWN APPROX 35M TO THE NW ON THE LEDGE (POST OFFICE LEDGE)

Lawrys Narrows 6/9

The submerged rock reported in approximate position 44°04'04.29"N, 068°53'48.12"W, AWOIS 8885, charted with an 11 foot sounding, should be removed from the chart and a submerged rock, 3.7<sup>6</sup>m (12.1<sup>8</sup> ft) below the water surface, position 999, should be charted at 44°04'03.0<sup>95</sup>"N, 068°53'48.1<sup>94</sup>"W. CONCUR CHART AS VRK

13309

11 RK  
VRK

The submerged obstruction reported in approximate position <sup>13308</sup> 44°04'05.00"N, 068°54'02.00"W, AWOIS 8886, should be removed from the chart and a submerged rock, 4.6<sup>5</sup> (15.1<sup>14.7</sup> ft) below the water surface, position 1000, should be charted at 44°04'03.7<sup>3.1</sup>"N, 068°54'00.0<sup>1</sup>"W. CONCUR CHART AS 14RK

A submerged rock, 1.1m (3.6 ft) below the water surface, position 1001, should be charted at 44°04'06.2<sup>5</sup>"N, 068°54'09.6<sup>5.0</sup>"W. CONCUR CHART AS 3RK <sup>13308</sup>

A submerged rock, 2.9m (9.5 ft) below the water surface, position 1002, should be charted at 44°04'05.4<sup>10</sup>"N, 068°54'08.9<sup>9.1</sup>"W. DO NOT CHART DUE TO CLOSE PROXIMITY OF ABOVE 3RK. DO NOT CONCUR need sndg <sup>13308</sup>

A submerged rock, 3.8m (12.4<sup>1</sup> ft) below the water surface, position 1003, should be charted at 44°04'04.8<sup>8.8</sup>"N, 068°54'12.2<sup>8.9</sup>"W. CONCUR CHART AS 12RK <sup>13308</sup>

A submerged rock, 3.7<sup>6</sup>m (12.1<sup>11.8</sup> ft) below the water surface, position 1004, should be charted at 44°04'02.4<sup>3.8</sup>"N, 068°54'11.7<sup>5.4</sup>"W. CHART AS 12RK 11RK <sup>13308</sup>

#### Calderwood and Babbidge Islands 3/9

The sounding of 2.0 feet reported in approximate position 44°08'28.79"N, 068°47'39.10"W, AWOIS 8888, should be removed from the chart and a rock awash, 0.1<sup>0.0</sup>m (0.3 ft) below the water surface, position 1212, should be charted at 44°08'28.9<sup>8.7</sup>"N, 068°47'38.3<sup>3.0</sup>"W. CONCUR CHART AS SHOWN ON PRESENT SURVEY. <sup>13308</sup>

#### Dogfish Ledge 5/9

The unsupported sounding of 9.0 feet (mischarted as 6 feet on chart 13305), reported in approximate position 44°05'17.29"N, 068°55'41.62"W, AWOIS 8889, should be removed from the chart and a submerged rock, 2.4<sup>3</sup>m (7.8<sup>5</sup> ft), position 1061, should be charted at 44°05'17.2<sup>2.8</sup>"N, 068°55'41.3<sup>3.6</sup>"W. CONCUR CHART AS TRK <sup>13308</sup>

#### The Reach at Vinalhaven Island 7/9

The submerged obstruction reported in approximate position 44°02'28.00"N, 068°51'08.00"W, AWOIS 8890, should be removed from the chart and a submerged rock, 3.4<sup>1</sup>m (11.1<sup>10.1</sup> ft), position 654, should be charted at 44°02'28.7<sup>1.5</sup>"N, 068°51'07.3<sup>1.4</sup>"W. CONCUR CHART AS 10RK

#### Mackerel Cove at Roderick Head, Swans Island 1/9

The submerged rock reported in approximate position 44°10'25.29"N, 068°26'11.06"W, AWOIS 8891, should be removed from the chart and a submerged rock, 1.2<sup>1</sup>m (3.9<sup>6</sup> ft) below the water

surface, position 431) should be charted at 44°10'24.2<sup>d</sup>"N, 068°26'11.6<sup>d</sup>"W. CONCUR CHART AS 3RK

Mackerel Cove at the Ferry Terminal, Swans Island 1/9

The submerged rock reported in approximate position 44°10'46.00"N, 068°25'35.00"W, AWOIS 8892, should be removed from the chart and a submerged rock, 3.6m (11.8 ft), position 437, should be charted at 44°10'50.0<sup>d</sup>"N, 068°25'34.3<sup>d</sup>"W. CONCUR

~~11 RK~~ CAN NOT BE CHARTED DUE TO CHART SCALE. CHART AS ~~12 RKS~~ 11 RKS TO INCLUDE AWOIS #8894  
~~12 RKS~~ BRK BELAN SHOWN ON CHART.

The submerged rock reported in approximate position 44°10'49.00"N, 068°25'42.00"W, AWOIS 8893, should be removed from the chart and a submerged rock, 2.4m (7.8 ft) below the water surface, position 438, should be charted at 44°10'48.9<sup>d</sup>"N, 068°25'41.4<sup>d</sup>"W. CONCUR CHART AS ~~8RK~~

N/CS31 Recommends to chart as 7RK

The submerged rock reported in approximate position 44°10'52.00"N, 068°25'35.00"W, AWOIS 8894, should be removed from the chart and a submerged rock, 3.6m (11.8 ft) below the water surface, position 439, should be charted at 44°10'50.9"N, 068°25'35.0"W. DO NOT CONCUR IT IS RECOMMENDED THAT THE CHARTED

~~11RK~~ DANGEROUS SUBMERGED ROCK, PA BE DELETED. IT IS ALSO RECOMMENDED THAT THE ~~12 RKS~~ NOT BE CHARTED DUE TO THE CLOSE PROXIMITY OF AWOIS #8892 AND SCALE OF CHART.

The submerged obstruction reported in approximate position 44°11'00.00"N, 068°25'48.00"W, AWOIS 8895, should be removed from the chart. See the AWOIS report for details of investigation. CONCUR

The submerged wreck reported in approximate position 44°11'29.29"N, 068°26'27.06"W, AWOIS 8896, should be removed from the chart and a submerged wreck, 6.7<sup>6</sup>m (22<sup>21.0</sup> ft) below the water surface, position 429, should be charted at 44°11'28.5<sup>d</sup>"N, 068°26'33.5<sup>d</sup>"W. CONCUR CHART AS 21WK

13315

P. ADEQUACY OF SURVEY - SEE ALSO EVALUATION REPORT.

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

Q. AIDS TO NAVIGATION

One fixed aid and nine floating aids were positioned during the course of FE-407. All are maintained by the U.S. Coast Guard and are proximate to the designated search radius of the assigned

items. All of the aids are on their charted stations and serve their intended purpose. The fixed aid was

<u>Description</u>	<u>USCGLL No. and Position</u>	<u>Survey Position</u>
Wreck Point Light 3	3770 44°02.4'N 068°51.2'W	44°02'26.9"N 068°51'09.6"W

Positions and descriptions for all floating aids to navigation can be found on the DP editor printout appended to this report.\*  
\* DATA FILED WITH FIELD RECORDS.

All charted cable and pipeline areas were visually verified within the survey limits and are correctly charted.

#### R. STATISTICS

<u>Description</u>	<u>Quantity</u>
Total Number of Positions	1368
Total Lineal Nautical Miles of Hydrography	70.0
Total Lineal Nautical Miles of Cross Lines	7.0
Square Nautical Miles of Hydrography	1.5
Days of Production	9
Detached Positions	40
Bottom Samples	12
Tide Stations	3
Velocity Casts	2

#### S. MISCELLANEOUS

Bottom samples were taken as directed in Section 6.7 of the Project Instructions. Bottom sample positions and descriptions can be found on the DP editor printout appended to this report.\* Bottom Samples were forwarded to the Smithsonian Institute. The Oceanographic Log Sheet-M (NOAA Form 75-44) is included in the "Survey Separates."\*

Strong currents of two to three knots were noted on several occasions while collecting soundings in Lawrys Narrows and The Reach.

No predicted tidal anomalies were observed during this survey.

T. RECOMMENDATIONS - SEE ALSO SECTION P. OF THE EVALUATION REPORT.

This field examination survey adequately addressed the immediate concerns of the maritime interests in this area with no additional field work identified to make this survey complete. Several area residents, as well as employees of the Maine State Ferry Service and the USCG in the area, expressed a need for a more complete survey of the entire Penobscot and Blue Hill Bay areas of Maine. Survey request forms were distributed to interested parties. Names of people contacted are included in the User Evaluation Report for this project. A copy is appended.\*

\* DATA FILED WITH FIELD RECORDS.

U. REFERRAL TO REPORTS

<u>Title</u>	<u>Transmittal Information</u>
Chart Sales Agent Report	Chart Distribution Branch N/CG33, Riverdale, MD (12/94)
User Evaluation Report	HSB Operations Section N/CG241, Silver Spring, MD (12/94)
Coast Pilot Report	Nautical Data Section N/CG221, Silver Spring, MD (12/94)

Respectfully Submitted,



David B. Elliott  
Hydrographer-In-Charge  
Atlantic Hydrographic Party

AWOIS NO:2548

Item Description: Obstruction

Source: H1261/1873--8ft depth, CL83/80 Rock awash.  
LNM9/80, NM11/80

AWOIS Position: Lat - 44/10/54.28N Lon - 068/48/28.10W

Required Investigation: ES, BD, DI -- 100m radius

Charts Affected: 13302, 13305

**INVESTIGATION**

Date(s)/DN(s): 10/06/94 (DN:279)

Position Numbers: 1181

Launch Number: 0518

Investigation Used: DI

Water Visibility: 24m

Position Determined By: DGPS

Investigation Summary: A dive was conducted at this location and an 8-meter diameter rock was discovered within the 100-meter radius of the search. The least depth by leadline was 1.5 meters which reduces to -1.2<sup>3</sup> meters above at MLLW with ~~predicted~~ tides.  
APPROVED

**CHARTING RECOMMENDATION**

The rock awash should be removed from the chart and an exposed rock should be charted at position 1181. CONCUR

Recommended Position: 44/10/56.02<sup>1</sup>N, 068/48/25.8<sup>09</sup>W

Recommended Least Depth: -1.2<sup>3</sup>m (3.9<sup>4.3</sup>ft) above MLLW.

\* (5)

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**COMPILATION NOTES 8/9**

SEE PAGE 6, OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:2549

**Item Description:** Obstruction

**Source:** H1261/1873--19ft depth, CL1257/66--Six uncharted rocks, NM46/66--Dangerous subm. rocks.

**AWOIS Position:** Lat - 44/15/49.28N Lon - 068/49/42.10W

**Required Investigation:** ES, BD, DI -- 100m radius

**Charts Affected:** 13302, 13305

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**INVESTIGATION**

**Date(s)/DN(s):** 10/06/94 (DN:279)

**Position Numbers:** 1070-1123, 1124

**Launch Number:** 0518

**Investigation Used:** ES, VS

**Water Visibility:** 30m

**Position Determined By:** DGPS

**Investigation Summary:** A five- and ten-meter line spacing echo sounder search was conducted in this area revealing submerged rocks at the edge of the search radius. A dive was conducted upon discovery of this feature. There were six rocks found each approximately three- to four-meters in diameter. The visibility was excellent and the least depth by leadline was 4.4 meters which reduces to 0.9 meters at MLLW with <sup>Approved</sup> predicted tides. With smooth tides or an extreme low tide this rock will most likely be exposed in concurrence with the original reporting from 1966.

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**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted rock reported PA be removed and rocks awash be charted at the following location: DO NOT CONCL

**Recommended Position:** 44/15/48.02N, 068/49/32.99W

**Recommended Least Depth:** 0.9m (2.9ft) at MLLW.

3: Rks

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**COMPILATION NOTES 2/9**

SEE PAGE 6 OF THIS REPORT FOR CHARTING RECOMMENDATION.



AWOIS NO:2771

Item Description: Sounding

Source: H1261/1873--Unsupported 18 ft depth, CL83/80--4.5 ft rep.  
LNM9/80, NM11/80

AWOIS Position: Lat - 44/12/51.28N Lon - 068/49/08.10W

Required Investigation: ES, BD, DI -- 150m radius

Charts Affected: 13302, 13305

INVESTIGATION

Date(s)/DN(s): 10/06/94 (DN:279)

Position Numbers: 1129-1179, 1180

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 35m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted in this area revealing a submerged rock outcrop. A dive was conducted upon discovery of this feature. There was a rock pinnacle found approximately three meters in diameter. The visibility was excellent and the least depth by leadline was 4.4 meters which reduces to 1.1 meters at MLLW with predicted tides.

APPROVED

CHARTING RECOMMENDATION

The sounding of 4.5 feet reported in should be removed from the chart and a submerged rock should be charted at position 1180. CONCUR

Recommended Position: 44°12'51.4<sup>99</sup>"N, 068°49'08.4<sup>96</sup>"W.

Recommended Least Depth: 1.1<sup>φ</sup>m (3.6<sup>2</sup>ft) at MLLW.

3: RK

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COMPILATION NOTES 8/9

SEE PAGE 7 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:2810

Item Description: Obstruction, Subm. Rock

Source: H1261/1873--30depth, CL260/61, NM15/61 subm rock.

AWOIS Position: Lat - 44/13/24.28N Lon - 068/48/50.10W

Required Investigation: ES, BD, DI -- 100m radius

Charts Affected: 13302, 13305

**INVESTIGATION**

Date(s)/DN(s): 10/06/94 (DN:279)

Position Numbers: 1127-1128

Launch Number: 0518

Investigation Used: DI

Water Visibility: 35m

Position Determined By: DGPS

Investigation Summary: A 100-meter radius dive search was conducted at this location and a submerged rock was found. The rock is approximately 10-meters in diameter. The water visibility was excellent and the divers were confident the pinnacle had been located. The least depth by leadline was 4.8 meters which reduces to 1.0 meters with predicted tides at MLLW.  
APPROVED

**CHARTING RECOMMENDATION**

The submerged rock reported in AWOIS 2810, should be removed from the chart and a submerged rock should be charted at position 1128. CONCUR

Recommended Position: 44°13'27.3<sup>86</sup>N, 068°48'49.5<sup>17</sup>W.

Recommended Least Depth: 1.0<sup>1</sup>m (3.2<sup>6</sup>ft) at MLLW.

3: CK

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**COMPILATION NOTES 8/9**

SEE PAGE 7 OF THIS REPORT FOR CHARTING RECOMMENDATION

AWOIS NO:2811

Item Description: Obstruction, Subm. Rock

Source: H1261/1873--81 ft depth, CL260/61, NM15/61--subm. rock

AWOIS Position: Lat - 44/13/36.28N Lon - 068/48/50.10W

Required Investigation: ES, BD, DI -- 100m radius

Charts Affected: 13302, 13305

**INVESTIGATION**

Date(s)/DN(s): 10/06/94 (DN:279)

Position Numbers: 1125-1126

Launch Number: 0518

Investigation Used: DI

Water Visibility: 30m

Position Determined By: DGPS

Investigation Summary: A 100-meter radius dive search was conducted at this location and a submerged rock was found. The rock is approximately 5-meters in diameter. The water visibility was excellent and the divers were confident the pinnacle had been located. The least depth by leadline was 3.9 meters which reduces to 0.4<sup>2</sup> meter with ~~predicted~~ tides at MLLW.

APPROVED

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted 3 ft rock report be removed and a rock wash be charted at the following location: CONCUR

Recommended Position: 44/13/36.19<sup>4</sup>N, 068/48/48.40<sup>3</sup>W

Recommended Least Depth: 0.4<sup>2</sup>m (0.3<sup>6</sup>ft) at MLLW.

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**COMPILATION NOTES 8/9**

SEE PAGE 7 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:2853

Item Description: Michael David, Subm. wreck

Source: NM43/59--65 ft Tug sunk, NM48/59--COE, H-10178/85

AWOIS Position: Lat - 44/07/36.71N Lon - 068/52/52.61W

Required Investigation: ES, S2, DI -- 75m radius

Charts Affected: 13302, 13308

**INVESTIGATION**

Date(s)/DN(s): 10/05/94 (DN:278)

Position Numbers: 1067-1068

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 20m

Position Determined By: DGPS

Investigation Summary: A 75-meter radius dive search was conducted at this geographic location. A wreck was found in poor condition during the course of the dive. The wooden and steel wreckage is approximately 12-meters long and 4-meters wide. The bottom was soft and muddy. The wreck is lying on a northwest to southeast axis. The leadline least depth was 6.9 meters which reduces to 6.4 meters at MLLW with predicted tides.

APPROVED

**CHARTING RECOMMENDATION**

The submerged wreck reported in approximate position for AWOIS 2853, should be removed from the chart and a submerged wreck should be charted at position 1068. CONCUR

Recommended Position: 44°07'36.<sup>68</sup>7<sup>N</sup>, 068°52'52.<sup>84</sup>8<sup>W</sup>

Recommended Least Depth: 6.4m (20.<sup>21.0</sup>9ft) at MLLW.

*13308*  
*13302 - not clear*

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**COMPILATION NOTES 4/9**

SEE PAGE 7 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:4749

Item Description: Obstruction, Priv. maintd. stakes.

Source: CL5/82--USPS, TP01117/82, H10178/85

AWOIS Position: Lat - 44/06/48.29N Lon - 068/51/43.11W

Required Investigation: ES, BD, DI,##-- 100m radius

Charts Affected: 13302, 13308

**INVESTIGATION**

Date(s)/DN(s): 10/05/94 (DN:278)

Position Numbers: 1062

Launch Number: 0518

Investigation Used: DI

Water Visibility: 25m

Position Determined By: DGPS

Investigation Summary: A 75-meter radius dive search was conducted at this geographic location. The sweep of the circle search extended southeast and north to northwest from a submerged rock outcrop. There were no snags or hangs and nothing was found. The bottom was rocky and muddy.

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted stakes reported be removed from the chart. CONCUR

Recommended Position:

Recommended Least Depth:

*13302, 05*  
*13302*  
*Not charted*

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**COMPILATION NOTES 4/9**

SEE PAGE 7 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:8885

Item Description: Obstruction, subm. rock

Source: H1029/1869, CL83/80--CPR, LNM9/80--1st CGD

AWOIS Position: Lat - 44/04/04.29N Lon - 068/53/48.12W

Required Investigation: ES, BD, DI,##-- 100m radius

Charts Affected: 13302, 13305, 13308

**INVESTIGATION**

Date(s)/DN(s): 09/29/94 (DN:272)

10/05/94 (DN:278)

Position Numbers: 655-793, 999

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 20m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted at this geographic location. A large submerged rock outcrop approximately 50-meters long and 75-meters wide was discovered. A dive on this site revealed a submerged rock pinnacle approximately 5-meters in diameter. The water visibility was excellent and the divers were confident the highest point of the rock had been found. The least depth by leadline was 6.7 meters which reduces to 3.7<sup>6</sup> meters at MLLW with predicted tides. This rock is charted as an eleven foot sounding.

**CHARTING RECOMMENDATION**

The hydrographer recommends that the charted 11 foot sounding on a rock be removed and a submerged rock be charted at position 999. CONCUR

Recommended Position: 44/04/03.05<sup>5</sup>N, 068/53/48.13<sup>4</sup>W

Recommended Least Depth: 3.7<sup>6</sup>m (11.8<sup>8</sup>ft) at MLLW.

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**COMPILATION NOTES 6/9**

SEE PAGE 7 OF THIS REPORT FOR CHARTING RECOMMENDATION.

11 RK

AWOIS NO:8886

Item Description: Obstruction

Source: H1029/1869, CL636/93 1st CGD

AWOIS Position: Lat - 44/04/05.00N Lon - 068/54/02.00W

Required Investigation: ES, BD, DI,##-- 100m radius

Charts Affected: 13305,13308

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**INVESTIGATION**

Date (s) /DN (s): 09/29/94 (DN:272)

10/05/94 (DN:278)

Position Numbers: 794-969, 1000

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 22m

Position Determined By: DGPS

**Investigation Summary:** A five- and ten-meter line spacing echo sounder search was conducted at this geographic location. A large submerged rock ridge approximately 50-meters long and 15-meters wide was discovered. A dive on this site revealed a submerged rock ridge on an east to west axis. The water visibility was excellent and the divers were confident the highest point of the rock had been found. The least depth by leadline was 7.9 meters which reduces to 4.6<sup>5</sup> meters at MLLW with predicted tides.

Approved

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**CHARTING RECOMMENDATION**

The submerged obstruction reported in AWOIS 8886, should be removed from the chart and a submerged rock should be charted at position 1000.

**Recommended Position:** 44°04'03.<sup>31</sup><sub>4</sub>"N, 068°54'00.<sup>17</sup><sub>0</sub>"W.

**Recommended Least Depth:** 4.<sup>5</sup><sub>6</sub>m (14.<sup>7</sup><sub>0</sub>ft) at MLLW.

17902  
14:PK

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**COMPILATION NOTES 6/9**

SEE PAGE 8 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:8887

Item Description: Obstruction

Source: H10178/85, CL426/94--1st CGD

AWOIS Position: Lat - 44/07/30.00N Lon - 068/52/30.00W

Required Investigation: ES, BD, DI,## -- 100m radius

Charts Affected: 13302, 13308

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**INVESTIGATION**

Date (s) /DN (s): 10/07/94 (DN:280)

Position Numbers: 1214-1358, 1365

Launch Number: 0519

Investigation Used: ES

Water Visibility: 20m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted at this geographic location. A large submerged rock was discovered. A dive on this site revealed a submerged rock approximately 5-meters in diameter. The water visibility was excellent and the divers were confident the highest point of the rock had been found. The least depth by leadline was 5.4 meters which reduces to 1.6<sup>8</sup> meters at MLLW with predicted tides.

APPROVED

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**CHARTING RECOMMENDATION**

The submerged obstruction reported in AWOIS 8887, should be removed from the chart and a submerged rock should be charted at position 1365. *CONCUR*

Recommended Position: 44°07'29.8<sup>47</sup>"N, 068°52'24.9<sup>41</sup>"W

Recommended Least Depth: 1.6<sup>8</sup>m (5.2<sup>9</sup>ft) at MLLW.

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**COMPILATION NOTES 4/9**

*SEE PAGE 7 OF THIS REPORT FOR CHARTING RECOMMENDATION.*



AWOIS NO:8888

Item Description: Sounding

Source: H983/1868, TP01118/82, CL533/87

AWOIS Position: Lat - 44/08/28.79N Lon - 068/47/39.10W

Required Investigation: ES, BD -- 100m radius

Charts Affected: 13308

**INVESTIGATION**

Date(s) /DN(s): 10/06/94 (DN:279)

Position Numbers: 1182-1211, 1212

Launch Number: 0518

Investigation Used: ES

Water Visibility: 20m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted at this geographic location. A large submerged rock was discovered. A dive on this site revealed a submerged rock approximately 22-meters in diameter. The water visibility was excellent and the divers were confident the highest point of the rock had been found. The least depth by leadline was 1.9 meters which reduces to 0.1<sup>0</sup> meters at MLLW with predicted tides. *The surveyed 22m wide rock falls within 20m of the charted rock*  
*APPROVED*

**CHARTING RECOMMENDATION**

The sounding of 2.0 feet reported in AWOIS 8888, should be removed from the chart and a rock awash should be charted at position 1212. *CONCUR*

Recommended Position: 44°08'28.9<sup>87</sup>N, 068°47'38.3<sup>35</sup>W.

Recommended Least Depth: 0.1<sup>φ</sup>m (0.3<sup>φ</sup>ft) at MLLW.



*13302*

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**COMPILATION NOTES 3/9**

*SEE PAGE 8 OF THIS REPORT FOR CHARTING RECOMMENDATION.*

AWOIS NO:8889

Item Description: Sounding, Unsupported 9ft depth.

Source: H10178/85

AWOIS Position: Lat - 44/05/17.29N Lon - 068/55/41.62W

Required Investigation: ES, ##, DI -- 100m radius

Charts Affected: 13302, 13308

**INVESTIGATION**

Date(s)/DN(s): 10/05/94 (DN:278)

Position Numbers: 1005-1060, 1061

Launch Number: 0518

Investigation Used: ES, DI

Water Visibility: 25m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted at this geographic location. A large submerged rock pinnacle was discovered. A dive on this site revealed a submerged rock approximately 3.6 meters in diameter. The water visibility was excellent and the divers were confident the highest point of the rock had been found. The least depth by leadline was 4.8 meters which reduces to 2.4<sup>3</sup> meters at MLLW with ~~predicted~~<sup>APPROVED</sup> tides. There is a nine foot sounding charted at this location.

**CHARTING RECOMMENDATION**

The unsupported sounding of 9.0 feet (mis-charted as 6 feet on chart 13305), reported in AWOIS 8889, should be removed from the chart and a submerged rock should be charted at position 1061. *correct*

Recommended Position: 44°05'17.2<sup>28</sup>"N, 068°55'41.3<sup>26</sup>"W

Recommended Least Depth: 2.4<sup>3</sup>m (7.8<sup>5</sup>ft) at MLLW.

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**COMPILATION NOTES 5/9**

SEE PAGE 8 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:8890

Item Description: Obstruction, Submerged Rock.

Source: H1073/1870--16-18 ft depths, CL426/94--1st CGD.

AWOIS Position: Lat - 44/02/28.00N Lon - 068/51/08.00W

Required Investigation: ES, BD, DI,##-- 100m radius

Charts Affected: 13305

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**INVESTIGATION**

Date(s)/DN(s): 09/28/94 (DN:271)

Position Numbers: 440-549, 654.

Launch Number: 0518

Investigation Used: ES & DI.

Water Visibility: 15m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted in this area. A bracketed region defined on the PSR chartlet encompassed AWOIS item 8890. This area was sounded extensively and a spike was found near the reported location north of "Wreck Point Light No. 3". A dive was conducted at the end of the day and a boulder was located. The visibility was 15 meters and the divers were confident that the highest point of this feature had been found. The boulder is 1.5 meters in diameter at the channel edge on the red side. The least depth was 5.7 meters which reduces to 3.4 meters at MLLW with predicted tides.

APPROVED

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**CHARTING RECOMMENDATION**

The submerged obstruction reported in AWOIS 8890, should be removed from the chart and a submerged rock should be charted at position 654.

Recommended Position: 44°02'28.<sup>65</sup>7"N, 068°51'07.3<sup>14</sup>W

Recommended Least Depth: 3.4m (11.1ft) @ MLLW.

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**COMPILATION NOTES 7/9**

SEE PAGE 8 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:8891

Item Description: Obstruction, Submerged Rock.

Source: H-1401/1878--19 FT depths, CL925/89

AWOIS Position: Lat - 44/10/25.29N Lon - 068/26/11.06W

Required Investigation: ES, BD, DI. 75m radius

Charts Affected: 13313

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**INVESTIGATION**

Date(s)/DN(s): 09/19/94 (DN:262)

Position Numbers: 430-431

Launch Number: 0518

Investigation Used: ES & DI

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: A five-meter line spacing echo sounder search was conducted at the reported geographic location. The mariner reported the submerged rock 250 feet off the outermost tip of Roderick Head. A spike was found at this location and a buoy was deployed to mark the spot for a dive. The dive was conducted immediately thereafter and a five-meter diameter rock was found. The water visibility was ten meters and the divers were confident that the most prominent spike had been located within a 100-meter radius. The leadline least depth was 4.0 meters at the time of positioning which reduces to 1.2<sup>1</sup> meters at MLLW with ~~predicted~~ tides.  
APPROVED

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**CHARTING RECOMMENDATION**

The submerged rock reported in AWOIS 8891, should be removed from the chart and a submerged rock should be charted at position 431. CONCUR

Recommended Position: 44°10'24.2<sup>4</sup><sub>K</sub>N, 068°26'11.6<sup>4</sup><sub>KW</sub>

Recommended Least Depth: 1.2<sup>1</sup><sub>6</sub>m (3.9<sup>6</sup>ft) @ MLLW.

3: AK  
13313

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**COMPILATION NOTES 19**

SEE PAGE 8 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:8892

Item Description: Obstruction, Submerged Rock.

Source: H1401/1878--20-21 FT Depths, CL636/93--1st CGD.

AWOIS Position: Lat - 44/10/46.00N Lon - 068/25/35.00W

Required Investigation: ES, BD, DI,## -- 100m radius

Charts Affected: 13313 /

INVESTIGATION

Date(s) /DN(s): 09/17/94 (DN:260)

09/19/94 (DN:262)

Position Numbers: 01-149, 437.

Launch Number: 0518

Investigation Used: ES & DI

Water Visibility: 12m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted in this area. A bracketed region defined on the PSR chartlet encompassed AWOIS items 8892-8895. During the course of the investigation it was noted that the AWOIS report stated that the submerged rock was 100 yards from the ferry slip where the grounding occurred on 8/27/92. The scaled geographic position for the investigation was 250 meters from the slip. Due to the difference in these positions a meeting was held on the ferry boat "Captain Henry Lee" with Mr. Steve Harraman, the engineer onboard. Mr. Harraman pointed out the location of the submerged rocks approximately 100 yards off the ferry slip and the rock was found later that day during the continuation of the echo sounder investigation. On 9/19/94 (DN 262), a dive was conducted at this location and a large rock was found. The rock is approximately four meters in diameter. The least depth was 5.7 meters by leadline at the time of positioning which reduces to 3.6 meters at MLLW with predicted tides. A lobster buoy marks this feature.

APPROVED

CHARTING RECOMMENDATION

The submerged rock reported in AWOIS 8892, should be removed from the chart and a submerged rock should be charted at position 437

Recommended Position: 44°10'50.0"N, 068°25'34.3"W

Recommended Least Depth: 3.6m (11.8ft) @ MLLW.

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AWOIS 8892 CONCURRED Combined 13313

COMPILATION NOTES 1/9

11 RK

SEE PAGE 9 OR THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:8893

Item Description: Obstruction, Submerged Rock.

Source: H-1401/1878--20ft depths, CL1321/92, LNM10/93--1st CGD.

AWOIS Position: Lat - 44/10/49.00N Lon - 068/25/42.00W

Required Investigation: ES, BD, DI,## 100m radius

Charts Affected: 13313

INVESTIGATION

Date(s)/DN(s): 09/17/94 (DN:260)  
09/19/94 (DN:262)

Position Numbers: 104-174, 438

Launch Number: 0518

Investigation Used: ES & DI

Water Visibility: 10m

Position Determined By: DGPS

Investigation Summary: A five- and ten-meter line spacing echo sounder search was conducted in this area. A bracketed region defined on the PSR chartlet encompassed AWOIS items 8892-8895. A large submerged rock was located at this geographic location near can buoy number 3 (USCGLL# 2490). On 9/19/94, DN 262, a dive was conducted at this location and an extremely large rock was found. The rock is approximately twenty-five meters in diameter. The water visibility was ten meters and the divers were confident that the most prominent spike had been located within a 100 meter radius. The least depth was 4.2 meters by leadline at the time of positioning which reduces to 2.4 meters at MLLW with predicted tides.

APPROVED

CHARTING RECOMMENDATION

The submerged rock reported in AWOIS 8893, should be removed from the chart and a submerged rock should be charted at position 438.

Recommended Position: 44°10'48.9<sup>05</sup>N, 068°25'41.4<sup>22</sup>W

Recommended Least Depth: 2.4m (7.8ft) @ MLLW.

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COMPILATION NOTES 1/9

SEE PAGE 9 OF THIS REPORT FOR CHARTING RECOMMENDATION.

N/CS31 Recommends to chart as 7RK

Handwritten notes on the right margin: 1/23/94

AWOIS NO:8894

**Item Description:** Obstruction, Submerged Rock.

**Source:** H1401/1878--20ft depths, CL1321/92, LNM10/93--1st CGD.

**AWOIS Position:** Lat - 44/10/52.00N Lon - 068/25/35.00W

**Required Investigation:** ES, BD, DI, ## 100m radius

**Charts Affected:** 13313 ✓

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**INVESTIGATION**

**Date(s) /DN(s):** 09/17/94 (DN:260)  
09/19/94 (DN:262)

**Position Numbers:** 149-216, 439. **Launch Number:** 0518

**Investigation Used:** ES & DI. **Water Visibility:** 10m

**Position Determined By:** DGPS

**Investigation Summary:** A five- and ten-meter line spacing echo sounder search was conducted in this area. A bracketed region defined on the PSR chartlet encompassed AWOIS items 8892-8895. A large submerged rock was located at this geographic location. On 9/19/94, DN 262, a dive was conducted at this location and a large rock was found. The rock is approximately three meters in diameter. The water visibility was ten meters and the divers were confident that the most prominent spike had been located within a 100-meter radius. The least depth was 4.9 meters by leadline at the time of positioning which reduces to 3.6 meters at MLLW with predicted tides. A lobster buoy marks this feature.

APPROVED

Note: AWOIS 8892 and 8894 are closely related by proximity and description. Although these are individual spikes they are on the same submerged rock outcrop. This particular rock outcrop is clearly visible on the side scan sonar photo submitted by the Maine Maritime Academy. It should also be noted that the ferry boat "Captain Henry Lee" is transiting outside the channel as noted on DN 262 during the investigation by AHP.

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**CHARTING RECOMMENDATION**

The submerged rock reported in AWOIS 8894, should be removed from the chart and a submerged rock should be charted at position 439. DO NOT CONCUR

**Recommended Position:** 44°10'50.9<sup>97</sup>N, 068°25'35.0<sup>43</sup>W  
**Recommended Least Depth:** 3.6m (11.8ft) @ MLLW.

11 RK  
MARKS

199/13

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**COMPILATION NOTES 1/9**

SEE PAGE 9 OF THIS REPORT FOR CHARTING RECOMMENDATION.

AWOIS NO:8895

Item Description: Obstruction, Submerged Obstruction?

Source: H1401/1878--30ft depths, CL636/93--1st CGD.

AWOIS Position: Lat - 44/11/00.00N Lon - 068/25/48.00W

Required Investigation: ES, BD, DI, ## 100m radius

Charts Affected: 13313 ✓

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**INVESTIGATION**

Date(s)/DN(s): 09/18/94 (DN:261)

09/19/94 (DN:262)

Position Numbers: 217-355, 418.

Launch Number: 0518

Investigation Used: ES & DI.

Water Visibility: 12m

Position Determined By: DGPS

**Investigation Summary:** A five- and ten-meter line spacing echo sounder search was conducted in this area. A bracketed region defined on the PSR chartlet encompassed AWOIS items 8892-8895. There were no signs or evidence of submerged obstructions at this geographic location. On 9/19/94, DN 262, a dive was conducted at this location. The result of this dive was negative. On September 26, 1994, during a conversation with Captain Walter Wotton at the ferry office in Rockland, Maine, it was brought to the hydrographers attention that the actual grounding took place on the charted nine foot ledge at 44°11'0.0"N, 068°25'37"W. Although this is contradictory of Captain George Allen Cole's report Captain Wotton was quite confident that this grounding had not been accurately reported and that it did indeed occur on the charted submerged rock outcrop at Fir Point.

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**CHARTING RECOMMENDATION**

The submerged obstruction reported in AWOIS 8895, should be removed from the chart. CONCUR

**Recommended Position:**

**Recommended Least Depth:** N/A

\*\*\*\*\*

**COMPILATION NOTES 1/9**

SEE PAGE 9 OF THIS REPORT FOR CHARTING RECOMMENDATION.

13313

+



AWOIS NO:8896

Item Description: Unknown, Submerged Wreck PA.

Source: H7834/50--47-53ft depths, H8696WD/57--Cleared to 28 ft,  
LNM4/86--1st CGD.

AWOIS Position: Lat - 44/11/29.29N Lon - 068/26/27.06W

Required Investigation: ES, BD, DI, 200m radius

Charts Affected: 13313, 13315

**INVESTIGATION**

Date(s)/DN(s): 09/19/94 (DN:262)

Position Numbers: 419-428, 429. Launch Number: 0518

Investigation Used: BD, ES & DI. Water Visibility: 15m

Position Determined By: DGPS

Investigation Summary: A ten-meter line spacing bottom drag with a 140-foot towline and 125-foot chain was started near the center of this geographic location. The bottom appeared to be extremely rocky and several snags occurred. Several attempts were made to deploy the drag and each time the drag snagged on rocks. A lobsterman transiting the area became curious and inquired of our search techniques. Mr. Benjamin Minturn pointed out to personnel on board launch 0518 the wreckage which was marked by a lobster trap belonging to the fishermen's co-op. Several unrecorded passes were made at this location revealing an 8- to 10-meter submerged rock outcrop. A dive was conducted at this location approximately 130 meters due west of the reported center of the AWOIS wreck. A wooden wreck was found approximately 20-meters long and 5-meters wide lying in an east to west orientation. The least depth was 9.8 meters by leadline which reduces to 6.76 meters at MLLW with ~~predicted~~ tides.

APPROVED

**CHARTING RECOMMENDATION**

The submerged wreck reported in AWOIS 8896, should be removed from the chart and a submerged wreck should be charted at position 429.

Recommended Position: 44°11'28.5<sup>18</sup>N, 068°26'33.5<sup>47</sup>W  
Recommended Least Depth: 6.7<sup>6</sup>m (22<sup>1</sup>ft) @ MLLW.

\*\*\*\*\*

**COMPILATION NOTES 1/9**

SEE PAGE 9 OF THIS REPORT FOR CHARTING RECOMMENDATION.

✓

0624

21/11/94

21/11/94

CONTROL STATIONS as of 28 Nov 1994

No	Type	Latitude	Longitude	H	Cart	Freq	Vel Code	MM/DD/YY	Station Name
1	0	044:13:19.068	068:20:14.243	0	250	0.0	0.0	10/01/94	Bass Hbr calb. site 1
2	0	044:06:14.555	069:04:39.167	0	250	0.0	0.0	10/01/94	Rockland calb. site 2



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Coast and Geodetic Survey  
Norfolk, Virginia 23510-1114

Atlantic Hydrographic Party  
439 West York St.  
Norfolk, VA 23510-1114

December 6, 1994

Commander  
First U.S. Coast Guard District  
408 Atlantic Avenue  
Boston, MA 02110-3350

**ADVANCE  
INFORMATION**

Dear Sir:

The following items were identified as dangers to navigation while conducting FE-407, a hydrographic survey for NOAA project S-A900-AHP of Swans, Vinalhaven, and North Haven Islands, Maine. They are recommended for inclusion in the Local Notice to Mariners. The positions are based on NAD 83 datum and the soundings have been reduced to Mean Lower Low Water (MLLW) using predicted tides. The features were located using differential GPS.

This information affects the following charts:

<u>CHART NO.</u>	<u>EDITION</u>	<u>DATE</u>
13302	17th	Jan. 9/93
13303	11th	July 6/91
13305	27th	Mar. 21/92
13308	11th	Oct. 31/92

<u>Description</u>	<u>NAD 83 Position</u>	<u>Survey Depth m/ft</u>	<u>Charts Affected</u>
A - Submerged rock	44°15'48.0"N, 068°49'32.9"W	(0.9m/ 2.9ft)	13302, 13305
B - Submerged rock	44°13'36.1"N, 068°48'48.4"W	(0.1m/ 0.3ft)	13302, 13305
C - Submerged rock	44°12'51.4"N, 068°49'08.4"W	(1.1m/ 3.6ft)	13302, 13305
D - Submerged rock	44°07'29.8"N, 068°52'24.9"W	(1.6m/ 5.2ft)	13302, 13305, 13308
E - Submerged rock	44°04'03.7"N, 068°54'00.0"W	(4.6m/ 15.1ft)	13302, 13305, 13308
F - Submerged rock	44°04'06.2"N, 068°54'09.6"W	(1.1m/ 3.6ft)	13302, 13305, 13308
G - Submerged rock	44°04'05.4"N, 068°54'08.9"W	(2.9m/ 9.5ft)	13302, 13305, 13308



**ADVANCE  
INFORMATION**

H - Submerged rock	44°04'04.8"N, 068°54'12.2"W	(3.8m/ 12.4ft)	13302, 13305, 13308
J - Submerged rock	44°04'02.4"N, 068°54'11.7"W	(3.7m/ 12.1ft)	13302, 13305, 13308
K- Submerged rock	44°02'28.7"N, 068°51'07.3"W	(3.4m/ 11.1ft)	13302, 13303, 13305, 13308

This is advance information which is subject to office review and the application of actual tidal heights. Chart sections of the areas, showing the location of these dangers, is also included. Questions concerning this report should be directed to me at 409-737-4219 or to the Atlantic Hydrographic Section at 804-441-6746.

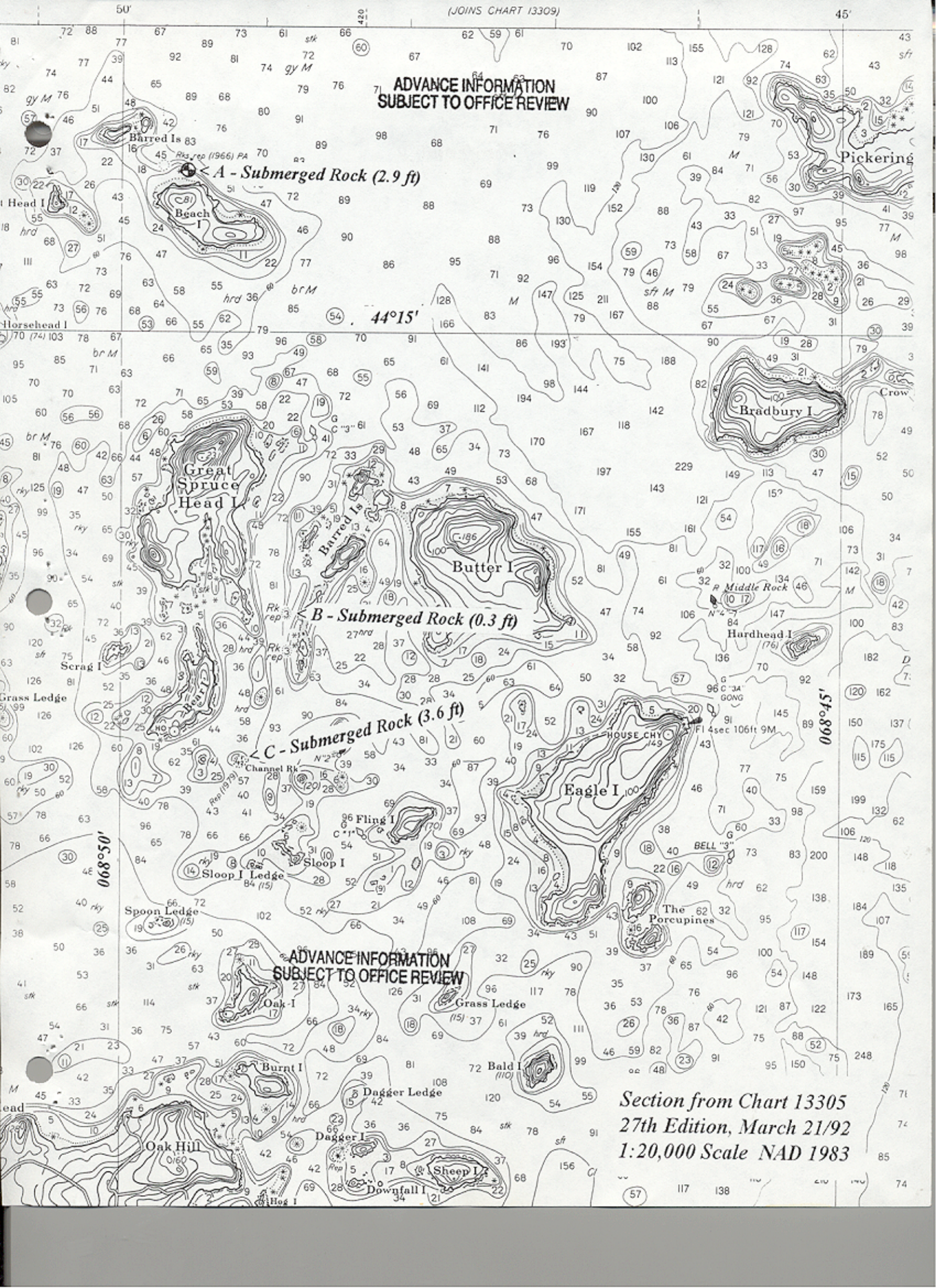
Sincerely,



LCDR James E. Waddell, Jr., NOAA  
Chief, Atlantic Hydrographic Party

Attachment

cc: N/CG221  
N/CG244  
DMAHTC



ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW

A - Submerged Rock (2.9 ft)

44°15'

B - Submerged Rock (0.3 ft)

C - Submerged Rock (3.6 ft)

ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW

Section from Chart 13305  
27th Edition, March 21/92  
1:20,000 Scale NAD 1983

068°50'

068°45'

57

117

138

74



ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW

ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW

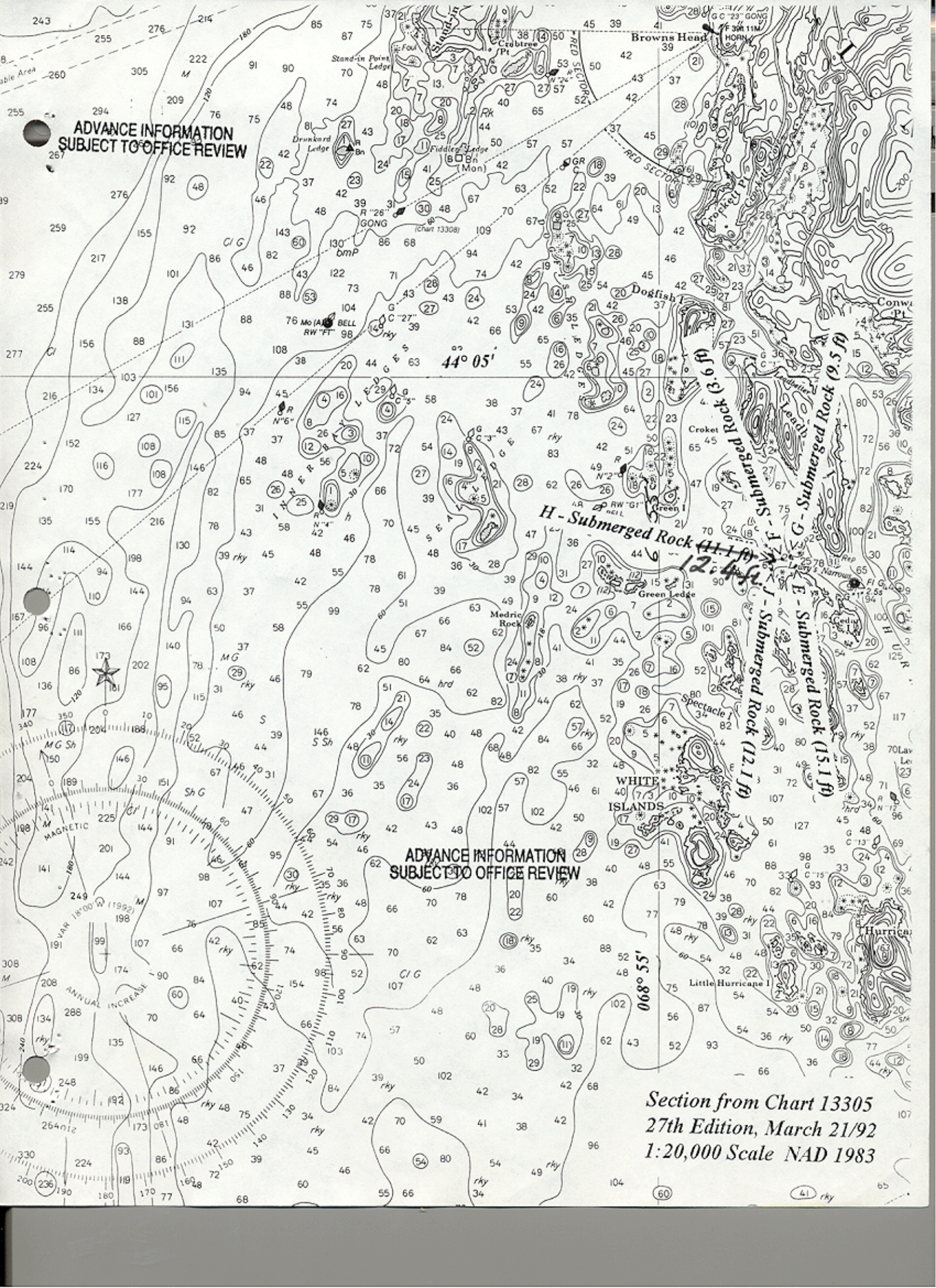
Section from Chart 13305  
27th Edition, March 21/92  
1:20,000 Scale NAD 1983



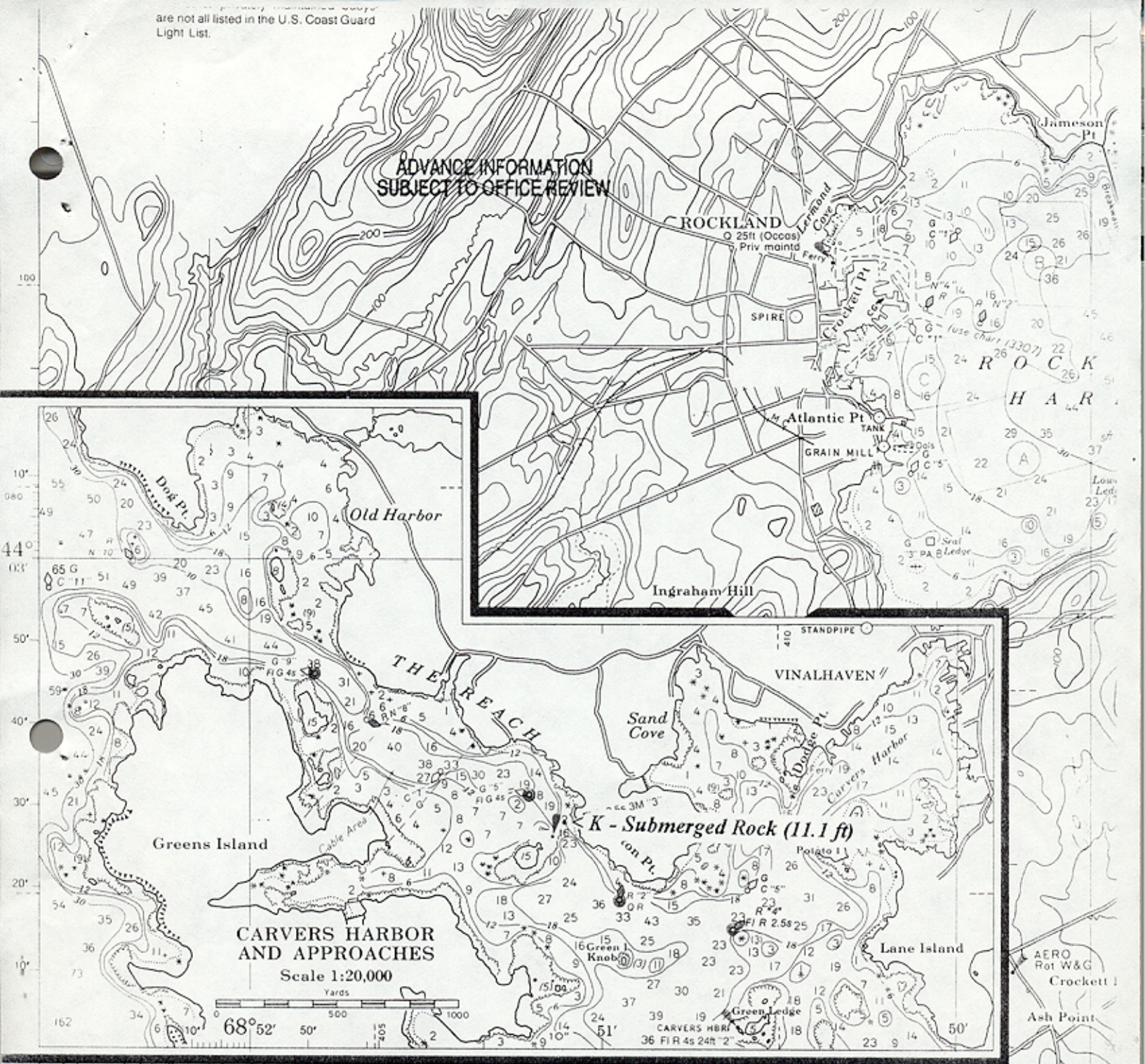
ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW

ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW

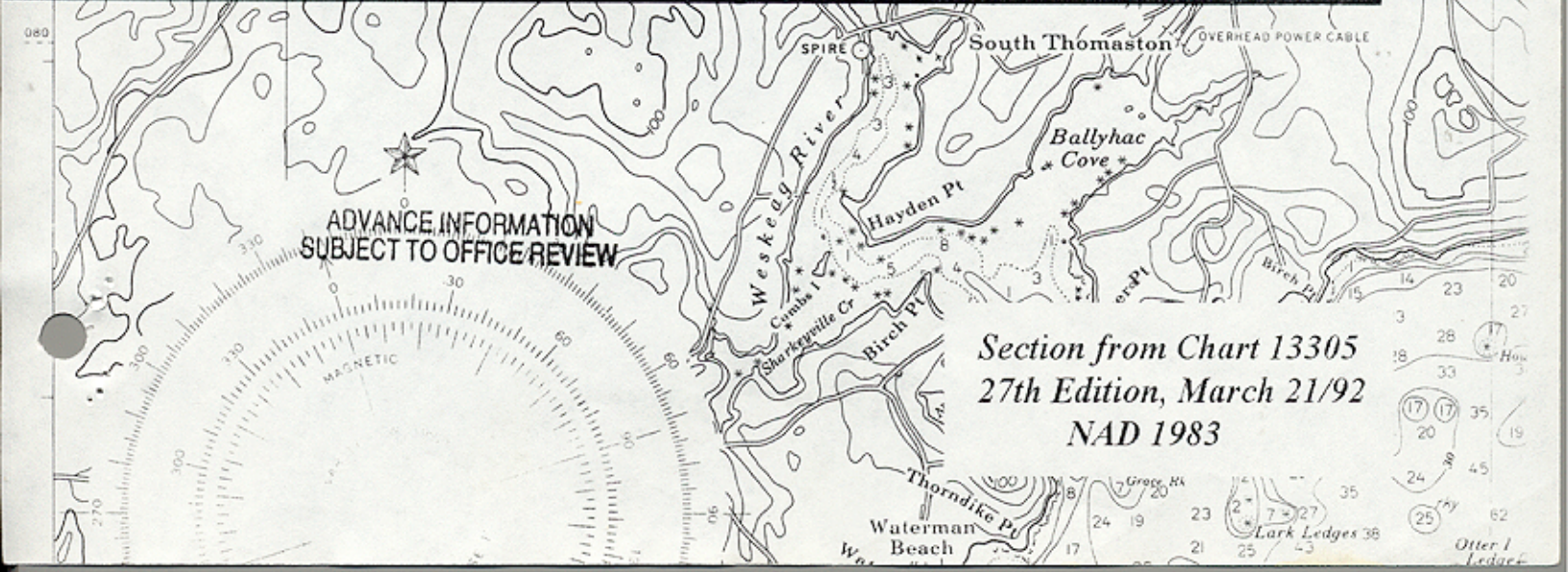
Section from Chart 13305  
27th Edition, March 21/92  
1:20,000 Scale NAD 1983



ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW



ADVANCE INFORMATION  
SUBJECT TO OFFICE REVIEW



Section from Chart 13305  
27th Edition, March 21/92  
NAD 1983



APPROVAL SHEET

FIELD EXAMINATION SURVEY

S-A900-AHP

AHP-10-11-94

FE-407

1994

This field examination survey was conducted in accordance with the project instructions for S-A900-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 Section 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 31, 1995

HYDROGRAPHIC SECTION: Atlantic

HYDROGRAPHIC PROJECT: S-A900

HYDROGRAPHIC SHEET: FE-407

LOCALITY: Swans, Vinalhaven and North Haven Islands, Maine

TIME PERIOD: September 17 - October 11, 1994

TIDE STATION USED: 841-3320 Bar Harbor, Me.  
Lat.  $44^{\circ} 23.5'N$  Lon.  $68^{\circ} 12.3'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.35 ft.  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 11.0 ft.

TIDE STATION USED: 841-3825 Mackerel Cove, Swans Island, Me.  
Lat.  $44^{\circ} 10.2'N$  Lon.  $68^{\circ} 26.0'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.78 ft.  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 10.6 ft.

TIDE STATION USED: 841-4776 Vinalhaven Island, Me.  
Lat.  $44^{\circ} 2.6'N$  Lon.  $68^{\circ} 50.4'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 0.47 ft.  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 10.0 ft.

TIDE STATION USED: 841-4856 North Haven Island, Me.  
Lat.  $44^{\circ} 7.6'N$  Lon.  $68^{\circ} 52.4'W$

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 2.95 ft.  
HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 10.2 ft.



REMARKS: RECOMMENDED ZONING

1. For AWOS items 2853, 4749, 8887, and 8888, times and heights are direct on North Haven Island, Me. (841-4856).
2. For AWOS items 2548, 2549, 2771, 2810, and 2811, times are direct, and apply a X1.01 range ratio to heights using North Haven Island, Me. (841-4856).
3. For AWOS items 8885, 8886, and 8889, times are direct, and apply a X1.01 range ratio to heights using Vinalhaven Island, Me. (841-4776).
4. For AWOS item 8890, times and heights are direct on Vinalhaven Island, Me. (841-4776).
5. For AWOS items 8891, 8892, 8893, 8894, 8895, and 8896, times and heights are direct on Mackerel Cove, Swans Island, Me. (841-3825). Where data are not available for Mackerel Cove, apply a -10 time correction, and a X0.96 range ratio to heights using Bar Harbor, Me. (841-3320).

Note: Times are tabulated in Eastern Standard Time.

*William M. Hester*  
CHIEF, DATUMS SECTION

GEOGRAPHIC NAMES

Name on Survey

Page 1 of 2

A ON CHART NO. 13305, 13309, 13316  
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
BABBIDGE ISLAND	X		X						1
BARRED ISLAND	X		X						2
BEACH ISLAND	X		X						3
BEAR ISLAND	X		X						4
BURNT ISLAND	X		X						5
CALDERWOOD ISLAND	X		X						6
CHAIN LINKS, THE (isl)			X						7
COLT HEAD ISLAND	X		X						8
CROW ISLAND	X		X						9
DAGGER ISLAND	X		X						10
DAGGER LEDGE (bar)	X		X						11
DOWNFALL ISLAND	X		X						12
FIR POINT	X		X						13
FOX ISLANDS THOROFARE	X		X						14
GREENS ISLAND	X		X						15
LAWRYS ISLAND	X		X						16
LAWRYS NARROWS	X		X						17
LEADBETTER ISLAND	X		X						18
MACKEREL COVE	X		X						19
MAINE (title)	X		X						20
NORTH HAVEN (pp1)	X		X						21
NORTH HAVEN ISLAND (title)	X		X						22
NORTH POINT	X		X						23
NORTON POINT	X		X						24
PENOBSCOT BAY (title)	X		X						25

GEOGRAPHIC NAMES

FE-407

Name on Survey

Page 2 of 2

A ON CHART NO. 13305, 13300, 13716  
 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
REACH, THE (bay)	X		X						1
SHEEP ISLAND	X		X						2
SWANS ISLAND (title)	X		X						3
VINALHAVEN ISLAND (title)	X		X						4
									5
									6
									7
									8
									9
									10
									11
									12
									13
									14
									15
									16
									17
									18
									19
						Approved			20
						<i>Clara C. Cox</i>			21
						Chief Geographer			22
									23
						NOV 16 1995			24
									25

12/20/95

HYDROGRAPHIC SURVEY STATISTICS  
REGISTRY NUMBER: FE-407

NUMBER OF CONTROL STATIONS		2
NUMBER OF POSITIONS		1368
NUMBER OF SOUNDINGS		4888
	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	58	02/10/95
VERIFICATION OF FIELD DATA	244	11/29/95
QUALITY CONTROL CHECKS	39	
EVALUATION AND ANALYSIS	18	
FINAL INSPECTION	40	11/09/95
COMPILATION	27	12/16/95
TOTAL TIME	426	
ATLANTIC HYDROGRAPHIC BRANCH APPROVAL		11/29/95

**ATLANTIC HYDROGRAPHIC BRANCH  
EVALUATION REPORT FOR FE-407 (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 (HPS)  
AutoCAD, Release 12  
NADCON, version 2.10

Nine 1:10,000 scale page size smooth plots were generated during office processing and are attached to this report. The page size smooth plots were plotted using an ENCAD NovaJet III plotter.

**H. CONTROL**

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

To place this survey on the NAD 27, move the projection lines 0.291 seconds (8.98 meters or 0.90 mm at the scale of the survey) north in latitude, and 1.908 seconds (42.39 meters or 4.23 mm at the scale of the survey) east in longitude.

**J. SHORELINE**

Shoreline on the smooth plots originates with the following charts:

13305 27<sup>th</sup> Edition, Mar. 21/92  
13308 11<sup>th</sup> Edition, Oct. 31/92  
13313 19<sup>th</sup> Edition, Aug. 28/93

Shoreline is shown in brown on the smooth plots and is for orientation purposes only.

**M. COMPARISON WITH PRIOR SURVEYS**

H-983 (1868)  
 H-1029 (1869-1903)  
 H-1073 (1870)  
 H-1261 (1873-1905)  
 H-1401 (1878)  
H-10178 (1985)

1) Depths from H-983 (1868) cover the area surveyed during the investigation of Automated Wreck and Obstruction Information System (AWOIS) item #8888. Prior survey depths compare favorably and show a general trend of being 1 foot ( $0^3$  m) deeper than present survey depths.

2) Depths from H-1029 (1869-1903) cover the area surveyed during the investigation of AWOIS items #8885 and #8886. Prior survey depths compare favorably and show a general trend of being 1 to 3 feet ( $0^3$  to  $0^9$  m) deeper than present survey depths. There are some scattered depths that are 8 to 12 feet ( $2^4$  to  $3^6$  m) deeper than present survey depths.

3) Depths from H-1073 (1870) cover the area surveyed during the investigation of AWOIS item #8890. Prior survey depths compare favorably with present survey depths, and show little or no change.

4) Depths from H-1261 (1873-1905) cover the area surveyed during the investigation of AWOIS items #2548, #2549, #2771, #2810 and #2811. Prior survey depths compare favorably with present survey depths, and show little or no change.

5) Depths from H-1401 (1878) cover the area surveyed during the investigation of AWOIS items #8891, #8892, #8893, #8894, #8895, and #8896. Prior survey depths compare favorably and show a general trend of being 1 foot ( $0^3$  m) deeper than present survey depths.

6) Prior survey depths from H-10178 (1985) cover the area surveyed during the investigation of AWOIS items #2853, #4749, #8887 and 8889. Prior survey depths compare favorably with present survey depths, and show no change.

The differences between the prior surveys and the present survey may be attributed to natural changes and improved hydrographic surveying methods and equipment.



The present survey is adequate to supersede the prior surveys within the common areas.

- O. COMPARISON WITH CHARTS 13305 (27<sup>th</sup> Edition, Mar. 21/92)  
13308 (11<sup>th</sup> Edition, Oct. 31/92)  
13313 (19<sup>th</sup> Edition, Aug. 28/92)  
13315 ( 9<sup>th</sup> Edition, Sept. 1/90)  
13316 (20<sup>th</sup> Edition, Jun. 12/93)

The charted hydrography originates with the previously discussed prior surveys and requires no further consideration. The hydrographer makes an adequate chart comparison in section O. of the Descriptive Report. The following should be noted:

A dangerous submerged rock with a known depth of 2 ft, (0<sup>o</sup> m), in Latitude 44°10'39.05"N, Longitude 68°25'18.30"W, was noted during office processing. It is recommended that the dangerous submerged rock with a known depth of 2 ft, (0<sup>o</sup> m), (2 Rk) be charted in above present survey location. *Sheet 1/9*

The present survey is adequate to supersede the charted hydrography in the common areas.

#### Dangers to Navigation

One Danger to Navigation report was submitted to Commander (oan), First Coast Guard District, Boston, Massachusetts for inclusion in the Local Notice to Mariners, and to the Marine Chart Division, N/CS3x1, Silver Spring, Maryland. A copy of the report is appended to this the report.

#### P. ADEQUACY OF SURVEY

This is an adequate hydrographic survey; no additional work is recommended.

#### S. MISCELLANEOUS

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

**WHITING Processing Team**

*Robert Snow*

Robert Snow  
Cartographic Technician

*Norris A. Wike*

Norris A. Wike  
Cartographer

**APPROVAL SHEET**

**FE-407**

**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. A final sounding printouts of the survey has been made. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Deborah A. Bland Date: 11/29/95

Deborah A. Bland  
Cartographer  
Atlantic Hydrographic Branch

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: Nov 29, 1995

Nicholas E. Perugini  
Commander, NOAA  
Chief, Atlantic Hydrographic Branch

\*\*\*\*\*

**Final Approval:**

Approved: Andrew A. Armstrong, III Date: Jan 18, 1996

Andrew A. Armstrong, III  
Captain, NOAA  
Chief, Hydrographic Surveys Division

68° 26' 30"

68° 26' 00"

68° 25' 30"

GONG "1"

68/25/30W

NAD 27 44/11/30N

CHECKED BY: RS  
9/05/95

8 8 5 15 29 45 48 62  
21 W 49 58 62 55 53 54

CROW ISLAND

NORTH POINT

N "2"

44° 11' 00"

FIR POINT

FE407  
MAINE  
PENOBSCOT BAY  
SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS  
SEP 17 - OCT 11, 1994  
1:10,000  
SOUNDINGS IN FEET AT MLLW  
HORIZONTAL DATUM: NAD 83  
1 OF 9  
AWOIS NO. 8891,8892,8893,8894 8895,8896

Shoreline in brown is for orientation purposes only  
and originates with NOS Chart 13313, 19th Ed., Aug. 28/93

44° 10' 30"

44° 10' 30"

MACKEREL COVE

3 Rk

RODERICK HEAD

68° 26' 30"

68° 26' 00"

68° 25' 30"

68° 50' 00"

68° 49' 30"

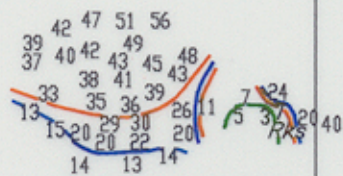
68° 49' 00"

44° 16' 00"

68/49/00W

NAD 27 44/16/00N

CHECKED BY: RS  
9/05/95



44° 15' 30"

44° 15' 30"

**FE407**  
**MAINE**  
**PENOBSCOT BAY**  
**SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS**  
**SEP 17 - OCT 11, 1994**  
**1:10,000**  
**SOUNDINGS IN FEET AT MLLW**  
**HORIZONTAL DATUM: NAD 83**  
**2 OF 9**  
**AWOIS NO. 2549**

Shoreline in brown is for orientation purposes only  
 and originates with NOS Chart 13305, 27th Ed., Mar 21/92

44° 15' 00"

44° 15' 00"

68° 50' 00"

68° 49' 30"

68° 49' 00"

68° 48' 00"

68° 47' 30"

68° 47' 00"

44° 09' 00"

68/47/30W

NAD 27 44/09/00N

44° 09' 00"

CHECKED BY: RS  
9/05/95

44° 08' 30"

CALDERWOOD ISLAND



44° 08' 30"

BABBIDGE ISLAND

FE407  
 MAINE  
 PENOBSCOT BAY  
 SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS  
 SEP 17 - OCT 11, 1994  
 1:10,000  
 SOUNDINGS IN FEET AT MLLW  
 HORIZONTAL DATUM: NAD 83  
 3 OF 9  
 AWOIS NO. 8888

Shoreline in brown is for orientation purposes only  
and originates with NOS Chart 13308, 11th Ed., Oct 31/92

44° 08' 00"

44° 08' 00"

68° 48' 00"

68° 47' 30"

68° 47' 00"

68° 53' 00"

68° 52' 30"

68° 52' 00"

44° 08' 00"

68/52/30W

NAD 27 44/08/00N

44° 08' 00"

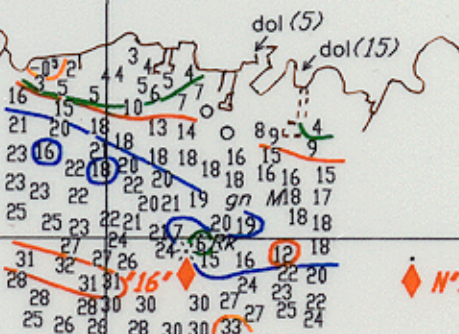
CHECKED BY: RS  
9/05/95

**NORTH HAVEN**

21 Wk

44° 07' 30"

44° 07' 30"



**FE407  
MAINE  
PENOBSCOT BAY  
SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS  
SEP 17 - OCT 11, 1994  
1:10,000  
SOUNDINGS IN FEET AT MLLW  
HORIZONTAL DATUM: NAD 83  
4 OF 9  
AWOIS NO. 2853, 4749, 8887**

Shoreline in brown is for orientation purposes only  
and originates with NOS Chart 13308, 11th Ed., Oct 31/92

44° 07' 00"

44° 07' 00"

68° 53' 00"

68° 52' 30"

68° 52' 00"

68° 56' 00"

68° 55' 30"

68° 55' 00"

44° 06' 00"

44° 06' 00"

44° 05' 30"

68/55/30W

NAD 27

44/05/30N

44° 05' 30"

CHECKED BY: RS  
9/05/95

**DOG FISH LEDGE**

	43	37	39	
55	47	37	39	40
63	49	15	33	37
60	48	7	33	40
59	48	16	36	
60	42	34	44	
52		45		

44° 05' 00"

44° 05' 00"

**FE407  
MAINE  
PENOBSCOT BAY  
SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS  
SEP 17 - OCT 11, 1994  
1:10,000  
SOUNDINGS IN FEET AT MLLW  
HORIZONTAL DATUM: NAD 83  
5 OF 9  
AWOIS NO. 8889**

Shoreline in brown is for orientation purposes only  
and originates with NOS Chart 13308, 11th Ed., Oct 31/92

68° 56' 00"

68° 55' 30"

68° 55' 00"



68° 54' 30"

68° 54' 00"

68° 53' 30"

44° 04' 30"

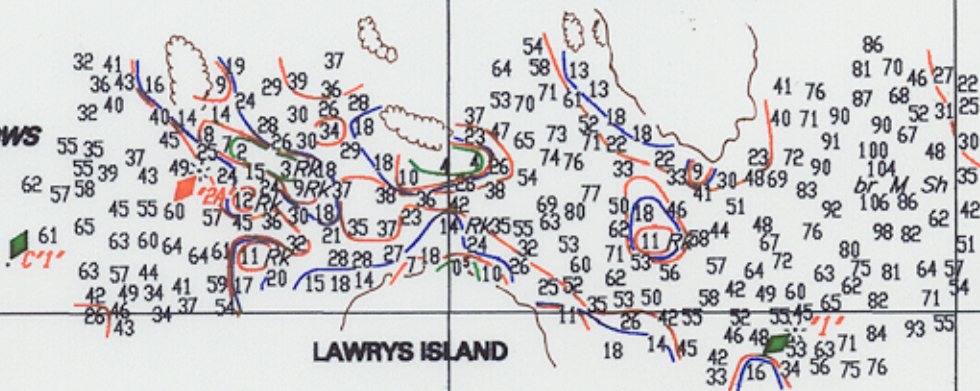
68/53/30W

NAD 27 44/04/30N

CHECKED BY: RS  
9/05/95

**LEADBETTER ISLAND**

**LAWRYS NARROWS**



44° 04' 00"

**FE407  
MAINE  
PENOBSCOT BAY  
SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS  
SEP 17 - OCT 11, 1994  
1:10,000  
SOUNDINGS IN FEET AT MLLW  
HORIZONTAL DATUM: NAD 83  
6 OF 9  
AWOIS NO. 8885, 8886**

Shoreline in brown is for orientation purposes only  
and originates with NOS Chart 1330B, 11th Ed., Oct 31/92

44° 03' 30"

44° 03' 30"

68° 54' 30"

68° 54' 00"

68° 53' 30"

68° 52' 00"

68° 51' 30"

68° 51' 00"

44° 03' 00"

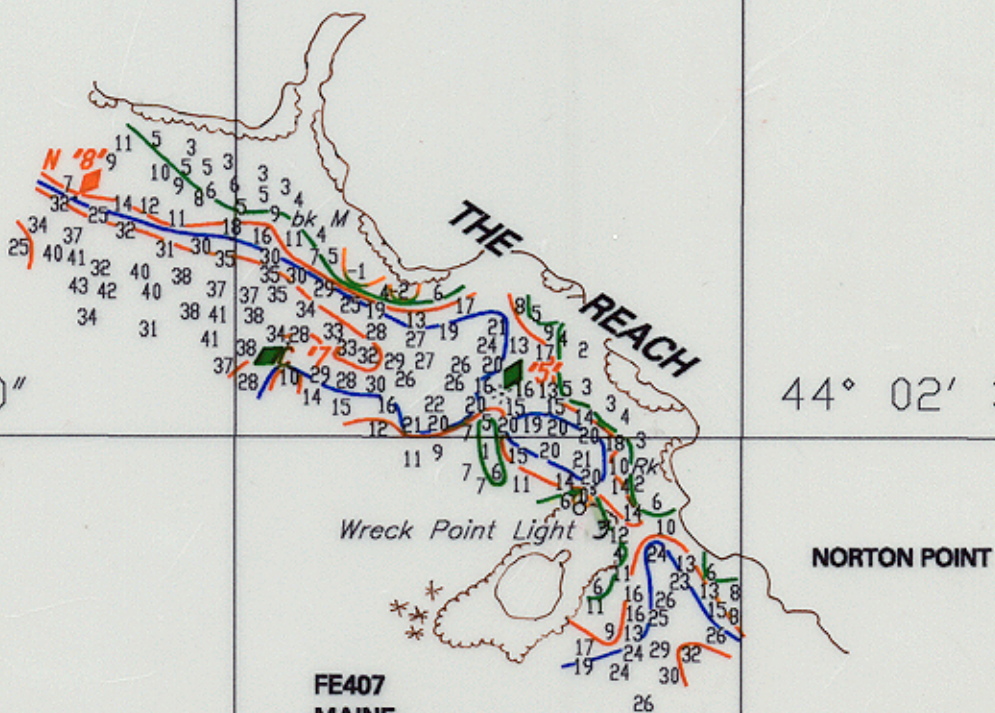
68/51/00W

NAD 27 44/03/00N

CHECKED BY: RS  
9/05/95

44° 02' 30"

44° 02' 30"



**FE407**  
**MAINE**  
**PENOBSCOT BAY**  
**SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS**  
**SEP 17 - OCT 11, 1994**  
**1:10,000**  
**SOUNDINGS IN FEET AT MLLW**  
**HORIZONTAL DATUM: NAD 83**  
**7 OF 9**  
**AWOIS NO. 8890**

Shoreline in brown is for orientation purposes only  
 and originates with NOS Chart 13305, 27th Ed., Mar 21/92

44° 02' 00"

44° 02' 00"

68° 52' 00"

68° 51' 30"

68° 51' 00"

68° 49' 30"

68° 49' 00"

68° 48' 30"

44° 13' 30"

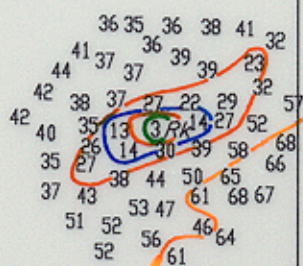


68/48/30W  
 NAT 27  
 44/13/30N  
 CHECKED BY: RS  
 9/05/95



44° 13' 00"

44° 13' 00"



**FE407**  
**MAINE**  
**PENOBSCOT BAY**  
**SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS**  
**SEP 17 - OCT 11, 1994**  
**1:10,000**  
**SOUNDINGS IN FEET AT MLLW**  
**HORIZONTAL DATUM: NAD 83**  
**8 OF 9**  
**AWOIS NO. 2771, 2810, 2811**

Shoreline in brown is for orientation purposes only  
 and originates with NOS Chart 13305, 27th Ed., Mar 21/92

44° 12' 30"

44° 12' 30"

68° 49' 30"

68° 49' 00"

68° 48' 30"

68° 49' 00"

68° 48' 30"

68° 48' 00"

44° 11' 30"

68/48/00W

NAD 27 44/11/30N

CHECKED BY: RS  
9/05/95

44° 11' 00"

44° 11' 00"

\* DAGGER ISLAND  
\* (5)

FE407  
MAINE  
PENOBSCOT BAY  
SWANS, VINALHAVEN AND NORTH HAVEN ISLANDS  
SEP 17 - OCT 11, 1994  
1:10,000  
SOUNDINGS IN FEET AT MLLW  
HORIZONTAL DATUM: NAD 83  
9 OF 9  
AWOIS NO. 2548

44° 10' 30"

44° 10' 30"

Shoreline in brown is for orientation purposes only  
and originates with NOS Chart 13305, 27th Ed., Mar 21/92

68° 49' 00"

68° 48' 30"

68° 48' 00"

