

9647

Diagram No. 1210-4

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. PE-10-2-76
Registry No. H-9647

LOCALITY

State Massachusetts
General Locality .. Buzzards Bay
Sublocality Mattapoisett Harbor
..... and South

1976

CHIEF OF PARTY

CDR J.W. Dropp

LIBRARY & ARCHIVES

DATE July 31, 1989

9647

GP
CHY
13272
13273
13274
13279

HYDROGRAPHIC TITLE SHEET

H-9647

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.

PE-10-2-76

State Massachusetts

General locality Buzzards Bay

Locality Mattapoissett Harbor and South

Scale 1:10,000

Date of survey 03 August - ¹¹10 November 1976

Instructions dated January 16, 1976

Project No. OPR-503-PE, WH-76

Vessel NOAA Ship PEIRCE (CSS-28)

Chief of party Joseph W. Dropp, CDR., NOAA

CDR. Joseph W. Dropp, LCDR. Charles Y. Molyneaux, LCDR. Kurt J. Schnebele

Surveyed by LT. G.A. Baisley, LTJG T.I. Lillestolen, LTJG R.L. Parsons, ENS E.S. Varney, ENS D.H. Minkel

Soundings taken by echo sounder, hand lead, pole, ROSS Digital Model 5000

Graphic record scaled by Commissioned officers and ship's personnel

Graphic record checked by Commissioned officers and ship's personnel

Protracted by Hydroplot System

Automated plot by Hydroplot System

Soundings penciled by _____

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~

REMARKS: The Descriptive Report for the additional work done in 1977 has been appended to this report!

ADVIS/SURF Check

Geo. Myers BRP-89

J.W.W. 10/16/91

SHEET LAYOUT
OPR - 503
BUZZARDS BAY
MASSACHUSETTS

PE-10-2-76
H-9647

41°45'00"
70°30'00"

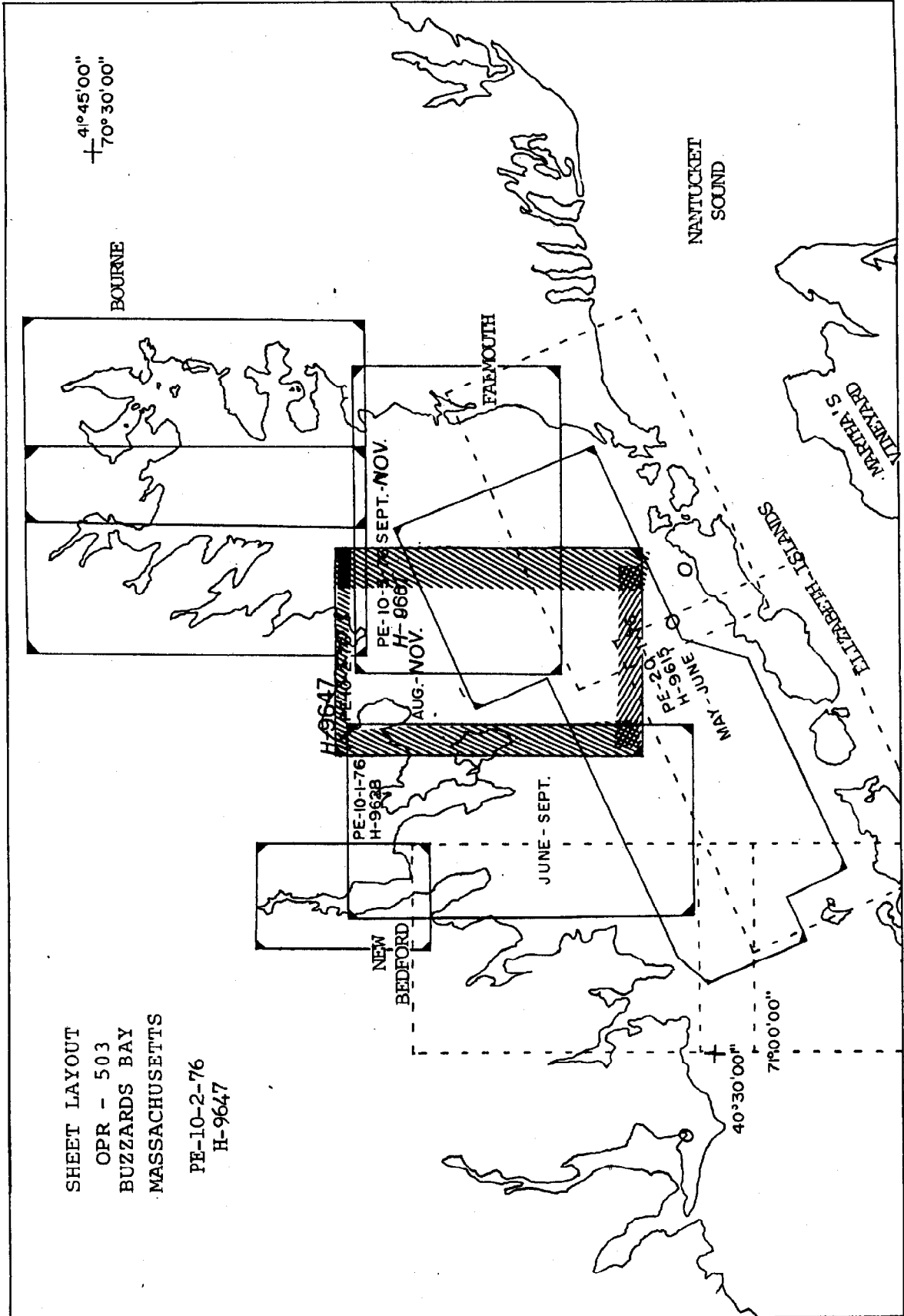


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DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SURVEY H-9647

Field Number PE-10-2-76

A. PROJECT

This survey was conducted in accordance with Project Instructions entitled OPR-503-PE, WH-76, dated January 16, 1976 and amended by changes number 1 dated January 23, 1976, number 2 dated April 12, 1976, and number 3 dated April 19, 1976.

B. AREA SURVEYED

This survey was bounded on the West by Longitude 070/49/⁴⁵30, on the East by Longitude 070/44/15, on the North by Latitude 41/~~39~~/⁴⁵45, and on the South by the line connecting the following coordinates:

<u>Latitude</u>	<u>Longitude</u>
41/32.90	070/49.40
41/33.35	070/48.3550
41/33.85	070/48.70
41/34.40	070/47.40
41/35.50	070/48.25
41/37.20	070/44.20

Survey operations were conducted between 03 August 1976 (J.D. 216) and 10 November 1976 (J.D. ~~315~~), inclusive.

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C. SOUNDING VESSEL

All soundings were obtained by the NOAA Ship PEIRCE's two launches, VESNO 2832 and VESNO 2833, and by the ship's skiff, VESNO 2837.

The following are the positions utilized by each vessel:

VESNO 2931	Pos. 5229 - 5720
VESNO 2832	Pos. 1000 - 2409
VESNO 2833	Pos. 0001 - 0999, 4000 - 4264, 3000 - 3205
VESNO 2837	Pos. 6000 - 7181
VESNO	

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

VESNO 2832 utilized a Ross digital echo sounder, Model 5000, S/N 1053. VESNO 2833 also utilized a Ross digital echo sounder, Model 5000, S/N 1079. All soundings obtained with the skiff, VESNO 2837, were obtained through the use of a sounding pole and leadline. All echo sounders were maintained at zero initial and routine phase checks were performed.

Velocity corrections were obtained through the use of velocity curves constructed with data obtained through frequent bar checks. Velocity corrections were scaled at .2 foot intervals. New velocity curves were constructed for each vessel and echo sounder at approximately two week intervals to ensure accurate velocity corrections. Draft corrections for each vessel are taken into account with each velocity curve. A list of velocity tables follows:

<u>Table</u>	<u>VESNO</u>	<u>Dates Used (inclusive)</u>
1	2833	J.D. 216-238 ²³⁶
2	2832	J.D. 216-238
3	2833	J.D. 244-253 ²⁵¹
4	2832	J.D. 244-253 ²⁴⁷
5	2832	J.D. 301-315
6	2837	J.D. 230-302 ⁴

No problems were observed which would effect the accuracy of the soundings obtained.

Settlement and squat corrections were derived for each launch from observations conducted on 16 March 1976 in Florida, and are applied on the TC/TI tapes for each vessel.

Velocity table printouts, TC/TI tape printouts, and TRA correction abstracts are appended to this report.

E. HYDROGRAPHIC SHEETS

All field sheets were plotted using the ship's PDP/8E computer and Complot Rom-Bed Plotter. The field sheet was divided into two plotter sheets. Both plotter sheets were oriented such that the long axis of the sheet conformed with the 000°-180° axis. For purposes of clarity, two field sheets are included with this survey. One sheet depicts the main scheme hydro and crosslines and the second sheet depicts detached positions, bottom samples, and developments. Various colored soundings are indexed in the legend which is contained on each plotter sheet.

Plotter sheet parameters and projection parameters are appended to this report.

Verification of all field records and final smooth plotting will be accomplished at the Atlantic Marine Center.

F. CONTROL STATIONS

Control stations for this survey were obtained from three sources. They were established by Photo Party 62, established by NOAA Ship PEIRCE personnel, and existing control documented in Volume II of Horizontal Control, Massachusetts, were utilized. All control stations for this survey are based on the North American Datum of 1927. A signal tape printout with Geodetic positions and a signal name list with the source of each signal is appended to this report.

All electronic control sites were either existing stations or were located by third order procedures. No stations that were established were monumented.

Field data used to compute the position of the stations are included in the supplemental data envelope. Those stations located by Photo Party 62 are included in that party's records.

Note that elevations of signals are not used. Calculations show that the magnitude of the slope corrections due to elevation of the Del Norte equipment is negligible. Typical elevations were less than 10 meters above sea level and observed ranges were greater than 500 meters, hence the slope correction is less than one meter. The maximum elevation encountered was 15 meters above sea level at West Island Tower, signal number 032.

G. HYDROGRAPHIC POSITION CONTROL

All hydrography for this survey was controlled by Del Norte in the Range/Range mode. The following electronic control equipment was utilized at some time during the survey. The piece of equipment used on a particular day is documented on the Master Tape listing header for that day and in the sounding volume.

<u>ITEM</u>	<u>MANUFACTURER</u>	<u>MODEL #</u>	<u>S/N</u>
DMU	D.T.I.	202	179
DMU	D.T.I.	202	188
DMU	D.T.I.	202	199
DMU	D.T.I.	202	172
DMU	D.T.I.	202	180
DMU	D.T.I.	202	181
Master Unit	D.T.I.	212	277
Master Unit	D.T.I.	212	219
Master Unit	D.T.I.	212	263
Master Unit	D.T.I.	212	250
Master Unit	D.T.I.	212	270
Remote Unit	D.T.I.	212	253
Remote Unit	D.T.I.	212	217
Remote Unit	D.T.I.	212	262
Remote Unit	D.T.I.	212	221
Remote Unit	D.T.I.	212	927
Remote Unit	D.T.I.	212	251
Remote Unit	D.T.I.	212	222
Remote Unit	D.T.I.	212	245

Del Norte ranges were typically kept over 500 meters and under 5000 meters. The greatest range utilized was approximately 7600 8090 meters on J.D. 305. The angle of intersection while utilizing the Range/Range mode was usually maintained at 45° or greater.

The Del Norte equipment was calibrated every two weeks over a measured baseline of 3316 meters and checked at 426 meters, following the procedure outlined in Appendix A, Section 5.1.3, of the Provisional Hydrographic Manual. Daily Del Norte checks were taken at calibration sites in the working area in order to obtain correction to be applied to the ranges. A description of the calibration sites follows:

<u>NAME</u>	<u>LOCATION</u>	<u>HOW LOCATED</u>
Connet Pt. Calibration Pipe	Lat. 41/38/50.7 Long. 070/45/42.3	Sextant Fix
Angelica Pt. Beacon	Lat. 41/38/20.3 Long. 070/45/47.7	Horizontal Control Volume II (card 1/320)
Mattapoisett Harbor Calibration PIPE (II)	Lat. 41/38/31.0 Long. 070/48/12.9	Intersection by three T-2 cuts
Mattapoisett Harbor Calibration Pipe (I)	Lat. 41/37/45.1 Long. 070/47/58.5	Sextant Fix

<u>NAME</u>	<u>LOCATION</u>	<u>HOW LOCATED</u>
Puppy Rock	Lat. 41/36/56.5	Geodimeter
Calibration Site	Long. 070/50/20.2	Distance
Cormorant Rock	Lat. 41/36/17.8	Sextant Fix
Calibration Pipe	Long. 070/47/32.5	

All field data used to calculate the positions of the calibration sites are included in the supplemental data.

Occasional Del Norte "flyers" were experienced and have been corrected by using time and course positions.

H. SHORELINE

The shoreline of the field sheet was transferred from Shoreline Manuscript TP-00769, scale 1:10000 (1927 North American Datum). The Shoreline Manuscript has not been field edited. All shoreline features on the manuscript are in agreement with this survey.

I. CROSSLINES

Crosslines constitute approximately 6% of the approximately 400 miles of mainscheme hydro run. All crosslines are in excellent agreement with the main scheme hydro.

J. JUNCTIONS

This survey does not junction with any prior surveys. The survey junctions with the following contemporary surveys:

1. H-9628, 1976 (1:10000 scale)
2. H-9661, 1976 (1:10000 scale)
3. H-9615, 1976 (1:20000 scale)
4. H-9724, 1977 (1:10,000 scale)

All soundings at the junctions are in excellent agreement.

K. COMPARISON WITH PRIOR SURVEYS

There were 12 numbered PSR Items to be investigated in the area surveyed. A discussion of each item follows.

1. PSR 17(1), (17' shoal) - this item was investigated by divers on J.D. 252 and the 17' shoal was confirmed. The position obtained from H-2309 has not changed and should remain as charted (VESNO 2832, Position 2410). H-2309 position: Latitude 41/38.74, Longitude 070/45.12. ⁸⁰⁰⁰

2. PSR 17(2), (16' shoal) - this item was investigated by divers on J.D. 252 and a least depth of 19' was obtained. The position obtained from H-3391 has not changed and should remain as charted. The depth should be revised to reflect the newest findings (VESNO 2832, Position 2411). H-3391 position: Latitude 41/38.80, Longitude 070/45.22. ⁸⁰⁰¹

3. PSR 17(3), (16' shoal) - this item was investigated by divers on J.D. 252 and a least depth of 17' was obtained. The position obtained from H-2272 has not changed and should remain as charted. The depth should be revised to reflect the recent findings. (VESNO 2832, Position 2412). H-2272 position: Latitude 41/39.33, Longitude 070/44.50. ⁸⁰⁰²

4. PSR 17(4), (11' shoal) - this item was investigated by divers on J.D. 252 and a least depth of 12' was obtained. The position obtained from H-2309 has not changed and should remain as charted. The depth should be revised to reflect the recent findings (VESNO 2832, Position 2413). ⁸⁰⁰³ H-2309 position: Latitude 41/39.14, Longitude 070/44.45.27

5. PSR 38(³), (8' shoal - Barstow Rock) - this item was investigated by divers on J.D. 252 and a least depth of 9' was obtained. The position obtained from H-2309 has not changed and should remain as charted. The depth should be revised to reflect the recent findings (VESNO 2832, Position 2414). H-2309 position: Latitude 41/38.49, Longitude 070/47.65.40 ⁸⁰⁰⁴ 30

A description of each of the five PSR items above is found in the appended Dive Report dated 08 September 1976.

6. PSR 38(⁵2), (7' shoal - Randall Rock).-this item was developed by VESNO 2832 on J.S. 247 and a least depth of 11^{1/2}' was obtained between positions 1793 and 1794. It is recommended that the 7' sounding from H-2309 be carried forward and the item remain as charted as there is no conclusive evidence that the item does not exist. H-2309 position: Latitude 41/38.60, Longitude 070/46.83. ✓ A

7. PSR 38(⁴3), (5' shoal - Snow Rock) - this item was developed by VESNO 2832 on J.D. 238 and a least depth of 15^A' was obtained between positions 1640 and 1641. It is requested that the 5' sounding from H-159 be carried forward and the item remain as charted as there is no conclusive evidence that the item does not exist. H-159 position: Latitude 41/38.40, Longitude 070/47.47. ✓ A

8. PSR 38(¹4), (10' shoal - Gallatin Rock) - this item was developed by VESNO 2832 on J.D. 238 and a least depth of 15¹¹' was obtained at Pos 5720 between positions 1661 and 1662. It is recommended that the 10' sounding from H-2309 be carried forward and the item remain as charted as there is no conclusive evidence that the item does not exist. H-2309 position: Latitude 41/37.97, Longitude 070/47.24. ✓ A

9. PSR 38(²5), (7' shoal - Nye Ledge - this item was developed by VESNO 2833 on J.D. 234 and a least depth of 12' was obtained between position 796 and 797. It is recommended that the 7' sounding from H-2309 be carried forward and the item remain as charted as there is no conclusive evidence that the item does not exist. H-2309 position: Latitude 41/37.16, Longitude 070/46.35. ✓ A

10. PSR 39(1), (Rock Awash - Cormorant Rock) - the existence and position of this rock was verified on J.D. 216 at position 130. A calibration was taken at the Cormorant Rock Calibration Pipe and the distance to Cormorant Rock was estimated to be 75 meters. The actual distance was the rock was 73 meters. It is recommended that the position from H-2308 be carried forward and the item remain as charted. H-2308 position: Latitude 41/36.27, Longitude 070/47.58. ✓ A

11. PSR 39(³2), (Rock Awash) - this item was observed but no position was obtained. It is recommended that the position from H-2309 be carried forward and the item remain as charted. H-2309 position: Latitude 41/37.71, Longitude 070/47.48. ✓ A

12. PSR 39(²), (Sunken Rock) - this item was not observed. It is recommended that the position from H-2309 be carried forward and remain as charted. H-2309 position: Latitude 41/36.96, Longitude 070/48.08.

The following soundings are highly reliable wire drag soundings from prior surveys which have been carried forward. The positions of these soundings have been scaled from the Pre Survey Review Chart.

<u>DEPTH</u>	<u>POSITION</u>	<u>H-9647 DEPTH</u>
21'	Lat. 41/34/38 Long. 070/47/09 48	23'22 ✓
22'	Lat. 41/34/41 Long. 070/48/08	29'27 ✓
31'	Lat. 41/34/37 Long. 070/47/57	36'35 ✓
27'	Lat. 41/35/30 Long. 070/48/28	31' ✓
31'	Lat. 41/35/46 Long. 070/47/21	33'34 ✓
25'	Lat. 41/36/07 Long. 070/47/00	30'32 ✓
31'	Lat. ⁴ 31/36/28 Long. 070/45/33	36' NO HYDRO ✓
26'	Lat. 41/36/28 Long. 070/46/14	33'34 ✓
27'	Lat. 41/36/30 Long. 070/46/15	32'29 ✓
26'	Lat. 41/36/34 Long. 070/46/09	31'30 ✓
27'	Lat. 41/36/36 Long. 070/46/12	32' ✓
28'	Lat. 41/36/40 Long. 070/46/22	30' ✓

<u>DEPTH</u>	<u>POSITION</u>	<u>H-9647 DEPTH</u>
28'	Lat. 41/36/46 Long. 070/46/21	31'30 ✓
23'	Lat. 41/37/00 Long. 070/45/32 46/02	33'31 ✓
18'	Lat. 41/37/25 Long. 070/46/45	24'25 ✓
13'	Lat. 41/37/30 Long. 070/46/48	25'18 ✓
17'	Lat. 41/39/04 Long. 070/44/24	20'19
17'	Lat. 41/39/23 Long. 070/44/33	18'
14'	Lat. 41/39/25 Long. 070/44/39	17'18

The following items from previous surveys, which were undeveloped or unsupported at the time, were investigated. The positions of the soundings were scaled from the :Pre Survey Review Chart.

<u>DEPTH</u>	<u>POSITION</u>	<u>H-9647 DEPTH</u>
12'	Lat. 41/38/47, Long. 070/47/30	14
12'	Lat. 41/38/40, Long. 070/47/28	15
12'	Lat. 41/38/39, Long. 070/47/33	14
11'	Lat. 41/38/26, Long. 070/47/02	15
10'	Lat. 41/38/23, Long. 070/47/00	18
10'	Lat. 41/38/20, Long. 070/47/07	15

These six items above were extensively developed and no depths as shall as those were found. It is recommended that the soundings in these areas be charted to reflect the soundings obtained from the development and the main scheme hydro.

<u>DEPTH</u>	<u>POSITION</u>
14'	Lat. 41/36/ ²⁶ 27 , Long. 070/ ⁴⁷ / 48 /18'19

This item was developed by VESNO 2833 on J.D. 234. A least depth of 12' was obtained on the main scheme by VESNO 2833 on J.D. 216 at position 88. It is recommended that the 12 foot sounding be charted at this location in lieu of the previous 14 foot sounding.

DEPTH
11'

POSITION ⁴⁸
Lat. 41/36/30, Long. 070/48/24

This item was developed by VESNO 2833 on J.D. 233. A least depth of 12' was obtained on the main scheme by VESNO 2832 on J.D. 218 between positions 1141 and 1142. It is recommended that the 11 foot sounding be carried forward from the prior survey as there is no conclusive evidence that the item does not exist.



DEPTH

POSITION

13' & 14'

Lat. 41/34/48, Long. 070/48/30

These items were developed by VESNO 2832 on J.D. 305 and a least depth of 13' was obtained between positions 2112 and 2113. It is recommended that these items remain as charted.



The following items which appeared on the main scheme, were developed and the findings are as follows:

1. A 26' sounding was obtained at Lat. 41/34/55, Long. 070/48/04 by VESNO 2833 on J.D. 233 between positions 603 and 604. The area was developed on J.D. 305 but did not produce any shoaler depths. It is recommended that the 26' sounding be charted.



2. A 17' sounding was obtained at Lat. 41/33/17, Long. 070/49/29 by VESNO 2832 on J.D. 307 between positions 2251 and 2252. The area was developed on the same day with no shoaler depth being found. It is recommended that this 17' sounding be charted.



3. A ¹⁴12' sounding was obtained at Lat. 41/33/57, Long. 070/49/19 by VESNO 2832 on J.D. 307 between positions 2216 and 2217. The area was developed on the same day with no shoaler depth being found. It is recommended that this ¹⁴12' sounding be charted.



4. A ¹⁵14' sounding was obtained at Lat. 41/34/11, Long. 070/49/15 by VESNO 2832 on J.D. 307 between positions 2201 and 2202. The area was developed on the same day with no shoaler depth being found. It is recommended that the ¹⁵14' sounding be charted.



An over all comparison with prior surveys H-5883 (1935), H-2309 (1897), and H-2308 (1897) were made with H-9647 (1976) and all soundings were in good agreement with the exception of the following:



<u>H-9647</u>	<u>POSITION</u>	<u>PRIOR SURVEY</u>	<u>DEPTH</u>
16'	Lat. 41/38/31 Long. 070/47/41	H-2309	12'
16'	Lat. 41/38/56 Long. 070/47/25	H-2309	16'
2325'	Lat. 41/38/32 Long. 070/46/56	H-2309	20'
25'	Lat. 41/37/56 Long. 070/46/21	H-2309	20'
22'	Lat. 41/37/10 Long. 070/47/37	H-2309	18'
36'	Lat. 41/37/09 Long. 070/46/02	H-2309	30'
27 '39	Lat. 41/34/32 Long. 070/48/29	H-5883	20'
24'23	Lat. 41/34/33 Long. 070/49/24	H-5883	18'
33'26	Lat. 41/34/21 Long. 070/48/26	H-5883	27'
24'18	Lat. 41/34/18 Long. 070/49/03	H-5883	17'
25'18	Lat. 41/34/47 Long. 070/48/28	H-2308	18'
33'	Lat. 41/34/29 Long. 070/48/15	H-2308	27'

It is recommended that these soundings be carried forward as they are shoaler than depths obtained on H-9647.



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
NOAA Ship PEIRCE (CSS-28)
General Delivery
Fairhaven, Massachusetts 02719

8 September 1976

TO: Commanding Officer
NOAA Ship PEIRCE (CSS-28)

FROM: Diving Officer
NOAA Ship PEIRCE (CSS-28)

SUBJECT: Diving Report

On 8 September 1976, four dives were made on presurvey review items of Sheet 10-2-76, Buzzards Bay, Massachusetts. These dives were performed by LTJG Ted I. Lillestolen and ENS Roger L. Parsons. Del Norte was used to locate the presurvey review items. For the first four PSR items, Del Norte stations were located at Cleveland Ledge Light (043) and Bird Island (044) and for PSR number five, at House (041) near Meds Point, and Angel (037) Angelica Point. At the specified location, a float with weight and line attached was dropped. From this location, the launch conducted a circle search around the float until the item was found at which time another float was dropped and divers went down to investigate and determine the least depth. A description of the dives and least depths are as follows:

1. 17' sounding (41/38/43.7N, 70/45/09.5W) PSR #17

Bottom was found to be sandy with boulders 1-2 feet in diameter scattered around. A least depth of 17.2 feet, determined by leadline was taken of the largest boulder. The boulder was approximately 8' high and 10 feet in diameter.

2. 16' sounding (41/38/47.²⁰17N, 70/45/11.⁷⁰81W) PSR #17

A boulder with a least leadline depth of 19' was found. Other than this boulder, which was 10-12 feet in diameter, the bottom was a combination of silt and sand.

3. 16' sounding (41/39/33N, 70/44/50W) PSR #17

This area was developed by the launch and no evidence of any shoaling was found. A leadline depth of 17.6 feet was taken at the location mentioned above. 10.0



4. 11' sounding (41/39/08.⁰¹~~99~~N, 70/44/27.⁴³46W) PSR #17

The bottom was found to be sandy with a gradual rise to a determined leadline depth of 12.7 feet.

5. 8' sounding (41/38/29.⁸⁶~~77~~N, 70/47/39.54W) PSR #38

A boulder approximately 10 feet high was found in the relatively silt and sandy bottom. The boulder was approximately 12-15 feet in diameter at the base and 6-8 feet at the top. A least leadline depth of 8.8 feet was taken.

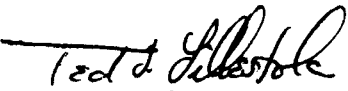
All depths were reduced to MLW.

Original notes on these dives which include raw leadline depths may be found in sounding volume 1 (2832), page 42.

A calibration of the depth gauges used on the dives was performed and the results are as follows. The gauges were not used to acquire least depths on these dives.

DEPTH GAUGE CORRECTIONS

<u>DEPTH</u>	<u>PARSONS</u>	<u>LILLESTOLEN</u>
5'	+2	+5
10'	+1	+6
15'	+1	+5
20'	+2	+5
25'	+1	+5


Ted I. Lillestolen
LTJG., NOAA

L. COMPARISON WITH THE CHART

This survey was compared with the following charts:

13218 (C&GS 1210)
Martha's Vineyard to Block Island
1:80,000 scale
19th Ed., July 19, 1975

13229 (114-SC)
South Coast of Cape Cod and Buzzards Bay
1:40,000 scale
12th Ed., February 1976 (pp. F & G)

13230 (C&GS 249)
Buzzards Bay
1:40,000 scale
27th Ed., October 25, 1976

13236 (C&GS 251)
Cape Cod Canal and Approaches
1:20,000 scale
18th Ed., October 12, 1974

All charts are in good agreement with the survey with the exception of the following soundings:

<u>POSITION</u>	<u>CHART 13230</u>	<u>H-9647</u>
Lat. 41/38/11, Long. 070/47/48	03'	16'5
Lat. 41/37/25, Long. 070/49/24	03'	12'10
Lat. 41/37/20, Long. 070/49/27	06'	12'13
Lat. 41/34/28, Long. 070/48/58	06'	15'19
Lat. 41/34/29, Long. 070/47/52	17'	26'23
Lat. 41/34/11, Long. 070/48/50	12'	20'17
Lat. 41/34/01, Long. 070/48/45	13'	08'27
Lat. 41/33/36, Long. 070/49/05	18'	35'36
Lat. 41/33/30, Long. 070/49/00	16'	35'36
Lat. 41/38/48, Long. 070/45/14	16'	24'19
Lat. 41/37/56, Long. 070/45/51	18'	25'

It is recommended that these depths be carried forward.

M. ADEQUACY OF SURVEY

This survey is to be considered adequate to supersede all prior surveys of the area. Due to insufficient time, the following areas were unable to be completed. Soundings from prior surveys have been carried forward in the areas of incomplete hydro.

1. Offshore area S.E. of West Island.
Lat. 41/35/00, Long. 070/49/00
2. Area in vicinity of Ram Island.
Lat. 41/37/15, Long. 070/48/20
3. Southern portion of Brant Island Cove.
Lat. 41/37/30, Long. 070/49/00
4. Inlet N.E. of Brant Island Cove.
Lat. 41/38/00, Long. 070/49/00
5. Pine Island Pond.
Lat. 41/38/55, Long. 070/46/20

N. AIDS TO NAVIGATION

All aids to navigation depicted on Charts 13218, 13229, 13230, and 13236 were located and their positions verified. All aids to navigation were found to be in their proper location and their location serves their intended purpose. The area is adequately marked for safe navigation. One new aid was located at position Lat. 41/39/26, Long. 070/45/15. The aid consisted of a red nun buoy with a horizontal white band and is privately maintained (Pos. 4220).

O. STATISTICS

The following statistics were compiled during the period of 03 August thru 10 November. A daily statistic tally for each vessel is included in the accompanying supplemental data envelope.

Electronic Hydro	397.5
Visual Hydro	000.0
Crosslines	22.0
Developments	53.6
	<u>473.1</u> nautical miles
To/From	198.0
Misc.	144.6
	<u>342.6</u> nautical miles

Total Mileage	815.7 nautical miles
Square Miles	13.5 sq. nautical miles
Bottom Samples	62
Detached Positions	195
Bar Checks	27
Del Norte Calibrations	58
Rejected Positions	66
Omitted Positions	35
Duplicated Pos-tions	13
Total Positions	3857

P. MISCELLANEOUS

No new shoalings were observed on this survey.

Q. RECOMMENDATIONS

The following recommendations are made for this survey:

1. The areas referred to in Section M of this report, those areas which were incompleated, should be surveyed so as to adequately complete this survey.
2. The PSR Items which were not investigated by divers should be so investigated in order to confirm or disprove the items existence.
3. Charted rocks from Chart 13230 should be carried forward in areas where D.P.'s of these rocks were not obtained. The existence of these rocks were visually confirmed but no geographic positions were obtained. The rocks referred to are shown in orange on the developement overlay.
4. The existence of Whale Rock, Lat. 41/35.85, Long. 070/49.10, was not confirmed and should be carried forward.

R. AUTOMATED DATA PROCESSING


The following Hydroplot System programs were used in the aquisition and processing of the data for this survey:

<u>Program</u>	<u>Title</u>	<u>Version</u>
RK 111	Range-Range Real Time Hydroplot	1/30/76
RK 201	Grid, Signal, and Lattice Plot	4/18/75
RK 211	Range-Range Non-Real Time Plot	1/15/76
RK 300	Utility Computations	2/05/76
RK 330	Reformat and Data Check	5/04/76
AM 400	Lambert State Plane Coordinates	4/01/76
RK 407	Geodetic Inverse/Direct Computatïon	10/28/75
RK 410	Geodetic Three-Point Fix	8/23/73
AM 500	Predicted Tide Generator	11/10/72
AM 602	Elinore-Line Oriented Editer	5/20/75

S. REFERENCES

There are no references to this report.

Respectfully submitted for approval by,


 Roger L. Parsons
 LTJG, NOAA

Tide Field Note

Field tide reduction of soundings for this survey was based on predicted tides from the reference station at Newport, R.I.. This survey was situated in Tidal Zoning Area 2. The correctors for this area are as follows:

Time Correction (H.W.)	+12 min
Time Correction (L.W.)	+22 min
Height Correction (H.W.)	0 ft
Height Correction (L.W.)	0 ft
Range Ratio	- 1.06

All predicted tides were interpolated by the ship's PDP 8/e computer utilizing program AM 500 (Ver. 11/02/72). All times of both predicted and recorded tides are in GMT.

One tide station, T.G. #844-7531, was located in the immediate survey area. The station was located in Mattapoissett Harbor at Lat. 41/39.4, Long. 070/48.8. The gage at this station, a Porter and Fisher ADR (S/N 6402A4596M18), began operation on 28 April 1976 and was removed on 10 November 1976.

<u>SIGNAL NAMES</u>	<u>SOURCE</u>
030 TP-01 (BRANT)	Photo Party 62
031 TP-02 (NORTH POINT)	Photo Party 62
032 WEST ISLAND TOWER	NOAA Ship PEIRCE
035 MATT DWARF	Photo Party 62
037 ANGEL	Card 1/320
038 RAM 2	NOAA Ship PEIRCE
039 WINDY	NOAA Ship PEIRCE
041 HOUSE	Photo Party 62
043 CLEVELAND ECCENTRIC	NOAA Ship PEIRCE
044 BIRD ISLAND	NOAA Ship PEIRCE
092 SMEG	NOAA Ship PEIRCE

LIST OF SIGNALS

030	7	41	37	27833	070	49	06786	254	0000	000000
031	7	41	36	22552	070	49	56092	254	0000	000000
032	7	41	35	00970	070	49	27457	250	0000	000000
035	7	41	39	21488	070	48	48188	254	0000	000000
037	7	41	38	29282	070	45	56313	250	0000	000000
038	7	41	37	06173	070	48	18813	254	0000	000000
039	7	41	38	04890	070	47	59465	254	0000	000000
041	7	41	39	01994	070	47	46097	254	0000	000000
043	7	41	37	51133	070	41	41240	254	0000	000000
044	7	41	40	08737	070	43	04579	254	0000	000000
092	7	41	34	59488	070	51	13383	254	0000	000000



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
 NATIONAL OCEAN SERVICE
 ATLANTIC MARINE CENTER
 439 West York Street
 Norfolk, VA. 23510-1114

July 7, 1989

Commander, First Coast Guard District
 Aids to Navigation Office
 408 Atlantic Avenue
 Boston, MA. 02110-2209

Dear Sir,

The following items were discovered during hydrographic survey operations and were considered dangers to navigation during office processing the survey data:

REPORT OF DANGER TO NAVIGATION

Hydrographic Survey Registry Number: H-9647
 Survey Title: State: Massachusetts
 General Locality: Buzzards Bay
 Locality: Mattapoissett Harbor

Project Number: OPR-503, NOAA Ship PEIRCE

Objects Discovered:

1) A shoal was found in the vicinity of Latitude 41°39'13.65"N, Longitude 70°49'06.90"W. The depth on this shoal was determined to be one-foot at mean low water, however the charted depth at this location is 8 feet.

2) A rock bearing one-foot at mean low water was located at Latitude 41°39'03.36"N, Longitude 70°49'01.27"W; however, charted information at this location shows depths of 9 to 11 feet.

Affected nautical charts (object 1):

CHART NUMBER	EDITION NO.	DATE	HORIZ DATUM	GEOGRAPHIC POSITION	
				LATITUDE	LONGITUDE
13230	36	11/15/86	NAD 27	41°39'13.65"N	70°49'06.90"W
13229 SC	22	09/26/87	NAD 27	41°39'13.65"N	70°49'06.90"W

Affected nautical charts (object 2):

CHART NUMBER	EDITION NO.	DATE	HORIZ DATUM	GEOGRAPHIC POSITION	
				LATITUDE	LONGITUDE
13230	36	11/15/86	NAD 27	41°39'03.36"N	70°49'01.27"W
13229 SC	22	09/26/87	NAD 27	41°39'03.36"N	70°49'01.27"W



Questions concerning this report should be directed to the Atlantic Hydrographic Section, Atlantic Marine Center by calling 804-441-6746 or FTS 827-6746.

Sincerely,

Jr R.D. Sauski

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

Attachments

5/23/77

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): Mattapoissett Harbor
Newport, R.I.

Period: August 3 - November 10, 1976

HYDROGRAPHIC SHEET: H-9647

OPR: 503

Locality: Buzzards Bay, Mass.

Plane of reference (mean ~~XXXXXX~~ low water): 1.79 ft. - Mattapoissett
1.67 ft. - Newport

Height of Mean High Water above Plane of Reference is
3.8 ft.


Remarks: Zone direct

Note: For November work (no tides available at Mattapoissett) use
Newport applying +10 minute time correction to the high waters,
+ 20 minute time correction to low waters, and range ratio x1.09.

Don Spillner
Chief, Tides Branch

*** APPROVAL SHEET ***

Field work on PE-10-2-76, H-9647, was done under my immediate daily supervision. The Boat Sheet and all records have been reviewed and are approved by me.

For 
Joseph W. Dropp
Commander, NOAA
Commanding Officer
NOAA Ship PEIRCE (CSS-28)

DESCRIPTIVE REPORT TO
ACCOMPANY SPECIAL INVESTIGATIONS

OPR-503-WH-77

A. PROJECT INSTRUCTIONS

Section 4.10 of Project Instructions OPR-503-WH-77 dated 15 March 1977 provides for additional work in 1977 to complete surveys not finished in 1976 by the NOAA Ships PIERCE and WHITING. For this purpose the WHITING was provided with a list of additional work to be completed by Processing Division, Atlantic Marine Center (see appendix). The WHITING also investigated a reported rock off Nashwena Island in last year's survey area.

B. AREA SURVEYED

The area surveyed includes several different sections of Buzzards Bay, Massachusetts. Investigations for this report were done in the general areas of Knox Point; Quick's Hole and vicinity; Robinson's Hole and vicinity; north shore of Naushon Island; West Falmouth Harbor and vicinity; approaches to Mattapoisett Harbor; areas east, south, and west of West Island; and approaches to New Bedford Harbor. The areas surveyed contains investigations within the limits of surveys H-9646, H-9647, H-9661, and H-9678. The survey was conducted from June 9, 1977 (Julian Day 160) to November 13, 1977 (Julian Day 317).

C. SOUNDING VESSELS

WHITING survey launches 1203 and 1202, and skiff WH4 performed all survey investigations. EDP numbers were 2931, 2932, and 2933 respectively. ³ ⁷

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

Launches ²⁹³⁴1203 and ²⁹³³1202 were equipped with Raytheon 7230 Fathometers, serial numbers 37010 and 37018 respectively. Skiff WH4 used a Raytheon 719 fathometer, serial number 5497. Transducer draft of launch ²⁹³⁷1203 was measured at 2.0 feet while ²⁹³⁵1202 was measured at 1.3 feet (see Section J). These values are entered on corrector tapes. TRA of the WH4 fathometer (typically around 0.8 feet) was measured each day and adjusted for by the internal draft correction on the fathometer; thus TRA is logged on the corrector tapes as 0.0.

Settlement and squat data for the launches is taken from May 1977 trials run in Brunswick, Georgia. Settlement and squat correction is not made for the skiff hydrography since the skiff always ran at a slow speed and was not considered to be different than the transducer depth previously discussed. Velocity corrections were taken from a number of different sources. If a regular survey was being run in adjacent areas at the same time, the velocity corrections from this survey were used in plotting the special investigation. For Julian Days 160, 163, 176, and 178, corrections for the appropriate launch were obtained from WH-10-9(76-77) (H-9668). For Julian Day 225, corrections from WH-10-1-77 (H-9712) were used. For Julian Day 317, velocity corrections from 1976 work of H-9668 were used; the reason for using these corrections is that this work was done in an adjacent area during the same period last year. No adjacent survey was available for Julian Days 303-307. For this reason velocity corrections were based on an average of 5 bar checks. Corrections were graphed and scaled off as shown in the appendix.

Since all work done by WH-4 was very shoal, no velocity corrections were applied to these soundings.

E. HYDROGRAPHIC SHEETS

A total of seven field sheets (one of which contains four separate development plots) were prepared for this report. Sheets were drawn up by WHITING personnel using a Houston Instruments DP-3-5 roll plotter, serial number 5557-6. Due to the varying density of soundings, some are plotted at 1:5000 scale while others are at 1:10000. The sheets are as follows.

<u>NAME</u>	<u>SCALE</u>	<u>SURVEY</u>	<u>JULIAN DAYS</u>	<u>VESSEL</u>	<u>POSITION NUMBERS</u>
Quick's Hole	1:5000	<u>H-9646</u>	160	2931	4000-4089
			163	2931	4090-4104
			176	2932	1-125
Robinson's Hole	1:5000	<u>H-9646</u>	178	2932	127-174
H-9646 Developments	1:5000	<u>H-9646</u>	163	2931	4105-4294
			317	2931	6000-6012
West Falmouth Harbor	1:10000	H-9661	215	2933	6805-6819
			225	2931	1228-1291
Approaches to New Bedford Harbor	1:10000	H-9628	303	2931	1-136
			304	2931	137-228
West Island and Vicinity	1:10000	<u>H-9647</u>	305	2931	229-320
			305	2931	360-366
			306	2931	637-676

<u>NAME</u>	<u>SCALE</u>	<u>SURVEY</u>	<u>JULIAN DAYS</u>	<u>VESSEL</u>	<u>POSITION NUMBERS</u>
West Island and Vicinity (cont'd)	1:10000	H-9647	307	2931	689-717
			307	2931	719-720
			310	2933	3000-3116 ✓
			316	2933	3117-3204
Nye Ledge	1:10000	H-9647	305	2931	320-359
			306	2931	677-688
			307	2931	718

Velocity corrections, tide corrections, and static draft corrections have been applied to the soundings. Tide corrections are based on predicted tides from Newport, R.I. corrected according to zoning furnished by Oceanographic Division (C 331) their correspondence of January 15, 1976.

F. CONTROL STATIONS

The following were used as electronic and/or visual control stations:

<u>ELECTRONIC CONTROL NUMBER</u>	<u>NAME</u>	<u>SOURCE</u>	<u>USE (see key)</u>
1	Joy Reference Mark 4	Vol 1	1
3	Radome (Round Hill Light)	Vol 1	4,5
5	West Island Tower B41S41	Vol 1	1,2,4
7	But, 1977	PP62	1
9	Bird Island Lighthouse	Vol 1	4
11	Cleveland Ledge Lighthouse	Vol 1	4
13	Wing's Neck Lighthouse	Vol 1	4
19	Nye's Neck Water Tank	Vol 1	4
21	Chass	Vol 1	3
33	Wood's Hole Water Tank	Vol 1	4
43	Fess, 1977	WHITING	2
46	Duck, 1977	WHITING	2
47	Lamb	Vol 1	3
85	Bri, 1976	PP62	2
401	Walcott USE	Vol 1	1
403	Tater, 1976	PP62	1
405	Black Rock Beacon	Vol 1	4
407	Butler Flats Lighthouse	Vol 1	4
409	Fairhaven Water Tank	Vol 1	4
411	New Bedford Radio Tower	PP62	4
413	New Bedford Fort	Vol 1	1
417	TP-01, 1976	PP62	1
421	Cormorant Rock Beacon	Vol 1	3,4

<u>ELECTRONIC CONTROL NUMBER</u>	<u>NAME</u>	<u>SOURCE</u>	<u>USE (see key)</u>
423	Mat 2 Reference Mark 1	Vol 1	1
425	Angel	Vol 1	1
427	Ned Point Lighthouse	Vol 1	4
431	Ram 2, 1976	PP62	2
433	Nashwena Island Monument	Vol 1	5
435	Cuttyhunk Wind Generator, 1977	PP62	5

Station Uses: 1 = Electronic (Range/Range)
 2 = Electronic (Range/Azimuth)
 3 = Range/Azimuth Initial
 4 = Calibration Object
 5 = Visual Signal

Station Fess, 1977 and Duck, 1977 were established by WHITING personnel by three point fix with check angle.

Joy RM 4 and Mat 2 RM 1 are reference marks whose position was computed using AM407 and the distance and direction furnished in the station description. In both cases the original station was not recovered. Bri, 1976 and Ram 2, 1976 were also used by NOAA Ship PIERCE in 1976.

For other sources, "Vol. 1" means the source is the published control for Buzzard's Bay, and "PP62" means the control was established in 1976 or 1977 by Photo Party 62, Robert S. Tibbits, Chief of Party.

G. HYDROGRAPHIC POSITION CONTROL

Range/range, range/azimuth, and visual methods of control were used during these investigations. Julian Days 215, 310 and 316 were range/azimuth, Julian Day 317 visual, and all other work range/range. Visual calibrations were obtained daily during range/range operations. These calibrations were three point fixes with check angles; normally several fixes with inverse distances of 5 meters or less were obtained. In addition, every two weeks the system was calibrated along a baseline of known length according to procedures described in the Del Norte manual. It should be noted that on Julian Days 303-307 frequent station changes took place during the course of operations.

H. SHORELINE

Shoreline on the sheets was taken from shoreline manuscripts:

TP-00768, May 1974; TP-00769, April 1976; TP-00770, May 1976; and TP-00774, December 1975. Shoreline on the 1:5000 Robinson's Hole sheet was taken from a commercial enlargement of the appropriate shoreline manuscript.

1. SPECIAL INVESTIGATION ITEMS

The following is a description of the special investigation items as described in the memo "Additional Work - Buzzard's Bay - PIERCE and WHITING" from Processing Division, Atlantic Marine Center (see appendix). All referenced depths are corrected to MLW.

H-9646 (WH-10-8-76)

1. Robinson's Hole: This area was investigated on J.D. 178 by launch 1202. Only one rock was seen awash in the area (position 127). Developments with 5 meter line spacing were run over the area of the other charted rocks, producing soundings as shoal as 2 feet. No detached positions on submerged rocks were taken due to strong currents and difficulty in judging visually where the shoalest areas were. From discussions with local residents, there seems little doubt that other submerged rocks are present. Recommend retention as charted.

2. Lone Rock ($41^{\circ} 27.7'N$, $70^{\circ} 51.2'W$) This item was developed extensively, a dive was made to determine least depth on Julian Day 166. The feature is a huge solitary rock with a least depth of 4.2 feet corrected to MLW.

3. North Rock ($41^{\circ} 27.1'N$, $70^{\circ} 51.2'W$) Additional lines were run in the vicinity of North Rock.

4. (a) There is no 9 foot sounding either charted or found on H-9646 at $41^{\circ} 29.3'N$ and $70^{\circ} 46.7'W$. However, the 9 foot sounding at $41^{\circ} 29.3'N$ and $70^{\circ} 46.3'W$ was developed at 50 meter spacing. Least depth found was 7 feet, 3rd sounding out of position 4273.

(b) The 18 foot sounding at $41^{\circ} 29.0'N$ and $70^{\circ} 47.15'W$ was developed at 50 meter spacing. Least depth found was 18 feet, 1st sounding out of position 4229.

(c) The charted 12 foot sounding at $41^{\circ} 28.3'N$ and $70^{\circ} 48.02'W$ was developed at 50 meter spacing. A 13 foot sounding was found at this location, 5th out of position 4145. Recommend retention as charted.

5. Quick's Hole - Wire sweep and dive was judged impractical due to strong currents in this area. However, all presurvey review items were redeveloped. PSI 9 - The two submerged rocks at

(6)

41° 26.88'N, 70° 50.66'W were not found with 25 meter line spacing. There are no rocks awash in the immediate area. Recommend deletion.
PSI 10 - The rock awash at 41° 26.78'N, 70° 50.63'W was not found or seen with 25 meter spacing. Recommend deletion.
PSI 11 (a) - The charted 6 foot sounding at 41° 26.6N, 70° 51.2'W was not found with 25 meter spacing. Recommend deletion.

(b) - The charted 5 foot sounding at 41° 26.44'N, 70° 50.38'W was not found; however, a 9 foot rock was found at position 69. Due to such shoal indications, retention is recommended.

(c) - A 5 foot sounding was found 55 meters E. of the charted 4 foot sounding at 41° 26.64'N, 70° 50.63'W. Retention recommended.

(d) - A 4 foot sounding was found 40 meters S of a charted 2 foot sounding at 41° 26.69'N, 70° 50.56'W. Retention recommended.

6. The charted rock at 41° 27.8'N, 70° 48.4'W was concretely verified at the 2nd sounding out of position 4178.

H-9647

7. (a) Least depth of Randall Rock, 41° 38.6'N, 70° 46.8'W, was measured by divers as 18 feet. Randall Rock is not a solitary rock but rather a pile of large boulders. Due to poor visibility, it is possible that a shoaler rock exists than the one leadlined. Recommend retention of 7 foot sounding. ✓ P055718

(b) Least depth of Snow Rock, 41° 38.4'N, 70° 47.5'W, was measured as 8.3 feet by divers. Due to poor visibility, recommend retention of 5 foot sounding. ✓ P055719

(c) Gallatin Rock, 41° 38.0'N, 70° 47.2'W was measured as 10.3 feet by divers, as charted. ✓ P055720
11.0 reduced

(d) Least depth of Nye Ledge, 41° 37.2'N, 70° 46.4'W, was found as 10 feet on 50 meter sounding line spacing, 5th sounding out of position 5334. Recommend retention as charted. ✓ P055334+5

8. Cormorant Rock was developed as close as safely possible on Julian Day 305, position 360-366, and on Julian Day 306, position 637-648.

9. (a) Area southeast of West Island was surveyed on Julian Day 316.

(b), (c), and (d) the vicinity of Ram Island, entrance to Brant Island Cove, and the area northeast of Whale Rock were done on Julian

Day 310.

(d) and (e) Pine Island Pond and the northeast inlet to Brant Island Cove were not surveyed. Pine Island Pond is very shallow and probably bares at low water.

10. Not surveyed.

11. (a) The charted 12 foot sounding at $41^{\circ} 34.2'N$, $70^{\circ} 48.8'W$ was developed at 50 meter spacing. A 13 foot sounding was found 70 meters NW of this position, on the 1st sounding out of position 5279. Retention recommended.

¹⁵
(b) A ¹⁵14 foot sounding (3rd out position 5300) was found 80 meters E of a charted 12 foot sounding at $41^{\circ} 34.3'N$, $70^{\circ} 48.9'W$. Retention of charted sounding recommended. 12ft @ position 2065+5

^{also see position 5314+3}
(c) A 7 foot sounding (2nd out position 5310) was found 50 meters W of a charted 6 foot sounding, $41^{\circ} 34.5'N$, $70^{\circ} 49.0'W$. Retention of charted sounding recommended.

12. Two developments of shoal indications were done south of West Island. Least depths were 16' (4th out position 257) and 17 feet (2nd out position 244). ^{3rd} 5 ¹⁸

13. The charted sunken rock at $41^{\circ} 36.96'N$, $70^{\circ} 48.08'W$, was developed at 20 meter spacing. No evidence of a sunken rock was found either visually or on the fathogram. Due to the irregular nature of the bottom, retention is recommended.

14. The sunken ledge at $41^{\circ} 38.2'N$, $70^{\circ} 47.8'W$, was developed at 50 meter spacing. A 5 foot least depth was obtained at 1st sounding out of position 5703. Recommend retention as charted. ^{2nd}

15. Hiller Cove work is included with H-9724.

H-9661

16. Hydrography south of the West Falmouth Harbor bridge was done on Julian Day 215.

17. Additional lines southwest of Little Island were done on Julian

fathograms the rock is probably there; retention recommended.

27. PSI 42, 32 foot reported sounding at $41^{\circ} 33.6'N$, $70^{\circ} 51.6'W$, was picked up on the 2nd sounding out of position 124, least depth 34 feet. Recommend retention of 32 foot charted sounding.

28. Henrietta Rock, $41^{\circ} 34.3'N$, $70^{\circ} 52.2'W$, was the subject of considerable development and a dive. Least depth by leadline and fathogram was 11 feet. Feature appears substantially as charted.

29. A detached position was taken 3 meters west of Egg Island. No remnants of the beach were seen at low water; the shoalest object was a rock 0.2 feet above the water line at the time of observation. Recommend charting as rock awash.

30. Great Ledge, $41^{\circ} 32.4'N$, $70^{\circ} 53.8'W$, was developed at 50 meter spacing. A least depth of 5 feet was obtained at position 187 and position 196. No breakers were observed; however, work was run at high tide. Recommend retention of 1 foot sounding.

H-9644

31. PSI 5: Instructions from Processing Division state "Divers and wire sweep required." However, Pre-Survey Review instructions state: "No specific investigation of this reported wreck required." Therefore no special investigation was done. Due to time constraints, no special investigations on H-9644 were done.

J. MISCELLANEOUS ✓

It should be noted that this survey was done essentially in two parts. Sheets 1-4, on the eastern half of the bay, were done early in the season; data is labelled "Special Investigations." Sheets 5-7, on the western side, were done from Julian Days 303-316. This data was labelled "Pierce Pick-ups" at the time, since all work on these sheets is from NOAA Ship PIERCE sheets of 1976.

Due to the fact that these investigations were done concurrently with other surveys, duplicate and omitted position numbers are common. Close attention should be paid to the breakdown shown in Section E.

The investigation on Julian Day 317 is in response to a report of a rock off Knox Point by the caretaker of Nashwena Island, Mr. Alan P. Wilcox. This rock, known locally as "Centerboard Rock", was investigated using visual control and its existence verified

(10)

(see sounding volume). A message was sent to Coast Guard District 1 on November 18, 1977 (enclosed) and a Dangers to Navigation Report sent to Marine Surveys and Maps Division (C3) through AMC.

Between Julian Days 225 and 303²⁹³¹ the transducer on Launch 1203 was remounted, changing TRA from 1.3 feet to 2.0 feet.

FIELD TIDE NOTE

The soundings on these sheets have been reduced for predicted tides based on preliminary zoning furnished by Oceanographic Division. Tide gages for these investigations were installed at the following locations:

<u>NAME</u>	<u>LOCATION</u>	<u>DATES OF OPERATION</u>
Quick's Hole	41° 26.9'N. 70° 50.5'W.	June 25-26
Robinson's Hole	41° 27.0'N 70° 48.5'W	June 26-28

The above gages were installed to act as tide staffs during the periods of hydrography.

Chappaquoit Point. (844-7685)	41° 36.3'N. 70° 39.1'W.	June 4-November 3
Stoney Point Dike (844-7417)	41° 41.7'N. 70° 40.2'W.	July 6-November 10
Marion (844-7385)	41° 42.3'N. 70° 45.7'W.	Sept. 15-November 11
New Bedford (844-7584)	41° 38.4'N. 70° 55.1'W.	Oct. 7-November 12

The above are 30-day gages.

Marigrams and level records have been forwarded to Oceanographic Division C331.

U.S. DEPARTMENT OF COMMERCE
August 9, 1978 NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 844-7584 New Bedford, MA

Period: November 1-12, 1977

HYDROGRAPHIC SHEET: H-9647

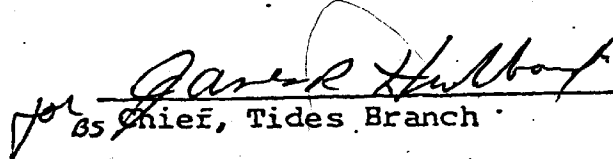
OPR: 503

Locality: Buzzards Bay, Massachusetts

Plane of reference (mean ~~LOW~~ low water): 2.28 ft.

Height of Mean High Water above Plane of Reference is
3.8 ft.

Remarks: Zone direct.


Chief, Tides Branch

SPECIAL INVESTIGATIONS

SIGNAL TAPE

001	6	41	30	43663	070	59	07018	139	0000	000000	JOY RM 4
003	6	41	32	24234	070	55	50761	139	0000	000000	ROUND HILL LT.
005	6	41	35	00950	070	49	27429	139	0011	000000	WEST ISLAND TWR
007	6	41	40	35480	070	42	59940	139	0000	000000	BUT, 1977
009	6	41	40	09099	070	43	04241	139	0000	000000	BIRD IS. LT.
011	6	41	37	51087	070	41	40931	139	0000	000000	CLEV. LDG. LT.
013	6	41	40	48508	070	39	42260	139	0000	000000	WING'S NK LT.
019	6	41	38	26928	070	39	00933	139	0000	000000	NYES NECK WTR TK
021	6	41	36	15171	070	38	57000	139	0000	000000	CHASS(TWR)
033	6	41	31	33071	070	39	43352	139	0000	000000	WOODS HL WTR TK
043	6	41	26	56551	070	50	29892	139	0000	000000	FESS, 1977
046	6	41	27	30377	070	48	28302	139	0000	000000	DUCK, 1977
047	6	41	27	18084	070	49	30388	139	0000	000000	LAMB
085	6	41	35	53977	070	38	34784	139	0000	000000	BRI, 1976
401	6	41	35	37389	070	54	05185	139	0000	000000	WALCOTT USE
403	6	41	34	59490	070	51	22422	139	0000	000000	TATER, 1976
405	6	41	34	40951	070	51	46667	139	0000	000000	BLACK RK BN
407	6	41	36	13285	070	53	42007	139	0000	000000	BUTLER FLATS LH
409	6	41	38	30252	070	53	12307	139	0000	000000	F'HVN WTR TK
411	6	41	37	20892	070	55	07145	139	0000	000000	N.B. RADIO TWR
413	6	41	37	26509	070	54	10524	139	0000	000000	N.B. FORT
417	6	41	35	34214	070	55	40690	139	0000	000000	TP-01, 1976
421	6	41	36	16611	070	47	32295	139	0000	000000	CORMORANT RK BN
423	6	41	37	42955	070	48	07929	139	0000	000000	MAT 2 RM 1
425	6	41	38	29282	070	45	56313	139	0000	000000	ANGEL
427	6	41	39	02756	070	47	46211	139	0000	000000	NED PT LH
431	6	41	37	06173	070	48	18813	139	0000	000000	RAM 2, 1976
433	6	41	25	36395	070	52	36417	139	0000	000000	NASHWENA IS MON
435	6	41	25	08301	070	56	03159	139	0000	000000	CUTTYHUNK WIND GEN

1
02

FI DE AMC

R 181357Z NOV 77
FM NOAA SHIP WHITING/WTEW
TO CCGDONE BOSTON MA
BT

UNCLAS

LOCAL NOTICE TO MARINERS INFORMATION
HYDROGRAPHIC SURVEYS BY THE WHITING HAVE LOCATED THE FOLLOWING DANGER
TO NAVIGATION.

1. AN UNCHARTED ROCK COVERED BY SIX FEET OF WATER AT MEAN LOW WATER
LOCATED: NOS CHARTS 13229 AND 13230 AT LATITUDE 41 DEGREES 26 MINUTES
27.8 SECONDS NORTH AND LONGITUDE 70 DEGREES 54 MINUTES 04.0 DEGREES
WEST. THIS POSITION IS APPROXIMATELY ONE TENTH OF A NAUTICAL MILE
NORTH OF KNOX POINT ON NASHAWENA ISLAND. THIS ROCK IS JUST EAST OF
A CHARTED 13 FOOT SOUNDING AND IS KNOWN LOCALLY AS CENTERBOARD ROCK.
2. AN EXTENSIVE AREA OF UNCHARTED SHOALING LIES EAST OF HOG ISLAND
CHANNEL LIGHT NUMBER 8 (LIGHTLIST NUMBER 657); NOS CHARTS 13229, 1323
AND 13236. THIS SHOALING CAN BEST BE DESCRIBED AS BEING CONTAINED WI

IN A CIRCLE WITH A 0.4 NAUTICAL MILE RADIUS CENTERED AT LATITUDE 41
DEGREES 42 MINUTES 24 SECONDS NORTH AND LONGITUDE 70 DEGREES 33 MINUTE
37 SECONDS WEST. SOUNDINGS WITHIN THE CIRCLE ARE AS MUCH AS
10 FEET SHOALER THAN CHARTED SOUNDINGS AND REACH A MINIMUM DEPTH OF 0
FOOT NEAR THE CENTER OF THE CIRCLE.

BT

C TO 37 SECONDS IN PARA 2

TCO: 18/1414Z NOV 77 DC
DE FIR AJ

Additional Work
Buzzards Bay
PEIRCE and WHITING

(H-9646)

1. Robinson's Hole - Additional detail required - charted rocks not shown or discussed in the Descriptive Report. Six and twelve foot curves require better delineation.
2. Lone Rock - The feature is buoyed and should be proved or disproved.
3. Additional work needed in the vicinity of North Rock.
4. The nine foot sounding at $41^{\circ} 29.3'$ and $70^{\circ} 46.7'$, the eighteen foot sounding at $41^{\circ} 29.0'$ and $70^{\circ} 47.15'$, and the charted twelve foot sounding at $41^{\circ} 28.23'$ and $70^{\circ} 48.02'$ should be developed.
5. PSR items in Quick's Hole should be given additional attention with divers and/or wire drag sweep.
6. Rock at $41^{\circ} 27.8'$ and $70^{\circ} 48.4'$ was not discussed in comparison with chart. Is it there?

(H-9647)

7. Divers and wire drag sweep required to prove or disprove Randall Rock, Snow Rock, Gallatin Rock, and Nye Ledge.
8. Cormorant Rock should be developed more extensively.
9. All areas where no hydro was conducted on present survey must be completed:
 - (a) Offshore southeast of West Island
 - (b) Vicinity of Ram Island
 - (c) South end of Brant Island Cove
 - (d) Northeast inlet in Brant Island Cove
 - (e) Pine Island Pond
 - (f) Area northeast of Whale Rock
10. Additional line along beach from Ned Point to Pine Island Pond, in order to better delineate the six foot curve.
11. Shoaling off Rocky Point to R"2" Bell not developed. Two 12 foot soundings and a 6 foot sounding not developed.
12. Numerous shoal indications south of West Island were not developed.

13. Sunken rock at $41^{\circ} 36.96'$ and $70^{\circ} 48.08'$ should be proved or disproved.
14. Sunken ledge in vicinity of C"5" needs developing.
15. Hiller Cove - needs additional work.
16. Hydrography needed in south end of West Falmouth Harbor - beyond fixed bridge. "See Boat Sheet" adequate.
17. Southwest of Little Island - additional work is required.
18. The 30 foot sounding at $41^{\circ} 35' 44''$ and $70^{\circ} 39' 42''$ could have been split and actually is only about 150 meters north of the 30 foot curve around Clifford Ledge.
19. Holiday off Silver Beach should be filled in with hydrography.
20. Items listed in Section Q of the Descriptive Report as areas requiring additional development should be developed.

(H-9628)

21. The limits of Little Black Rock were not determined.
22. Negro Ledge requires additional development.
23. The 26 foot sounding and the 18 foot rock near N"10" should be proved or disproved.
24. PSR Item 38 (10) Packet Rock - additional dives, hydrography, or wire sweep required.
25. PSR Item 39 (12) Mosher Ledge - should be developed and least depth obtained. Was not developed in 1976. This also applies to PSR Item #41 - Submerged Obstruction.
26. PSR Item 40 (2) 18 foot rock - more development and/or diving needed to prove or disprove.
27. PSR Item 42 - 32 foot reported sounding - development required.
28. PSR Item 43 - Henrietta Pock - requires dive and/or wire sweep.
29. PSR Item 49 - Obstruction - Ruins of Beacon - needs description - does it bare, submerged, or what?
30. Develop, dive, and/or sweep Great Ledge for least depth.

APPROVAL SHEET

Submitted by:

David M. Goodrich

David M. Goodrich

Lt.(j.g.), NOAA

Supervision of field and office work on this hydrographic survey was continuous on a day to day basis to ensure completeness of the survey and that all work was done in accordance with the Project Instructions.

Approved/Forwarded:

Dink R Taylor

for John W. Carpenter

Cdr., NOAA

Commanding, NOAA Ship WHITING



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
ROCKVILLE, MARYLAND 20852

DEC 27 1988

MEMORANDUM FOR: Lieutenant Commander William Wert, NOAA
Chief, Hydrographic Surveys Branch

FROM: *Russell C. Arnold*
Commander Russell C. Arnold, NOAA
Chief, Hydrographic Surveys Branch

SUBJECT: Processing of Wire Drag/Item, Buzzards Bay
Surveys

Per our December 1, 1988, meeting in Norfolk, I think we are in agreement that the subject surveys, most of which are now 5-15 years old, are well past due for processing. Obviously, your resources are not adequate to conduct full verification of these surveys without compromising other processing goals; a modified approach seems warranted to get these surveys off your inventory.

Buzzards Bay Surveys

Based on a cursory look at two of these surveys, they are not of sufficient quality to supersede the prior surveys in the area; many soundings and features from these prior surveys will need to be carried forward. These surveys do appear adequate, however, to provide supplemental information for charting.

I propose that you expend effort as outlined in your attached December 16, 1988, memo through verification of smooth sheet only. No evaluation and analysis need be done on these surveys. Sufficient priority should be given to this task such that all survey records and recommendations arrive in Rockville by June 30, 1989.

Wire Drag/Item Surveys

Attached is a prioritized list (supersedes 12/9/88 list) of surveys remaining in your inventory. Most of these surveys were conducted in areas where resurvey activity is scheduled in the near future (e.g., Long Island Sound, Rhode Island Sound, Calcasieu, Pascagoula). A cursory look at these surveys may be sufficient. We are primarily looking for information to update AWOIS. Unverified field recommendations may be adequate; we are willing to expand field resurvey effort to resolve items in lieu of waiting for full verification of prior surveys, which has historically resulted in recommendations for considerable resurvey work anyway. I believe that we are currently using better, more conclusive methods to resolve items more efficiently than ever before.



It is understood that our 6-month processing goal for current surveys will have to be temporarily relaxed to accomplish even modified processing of older surveys. However, current requirements for timely preprocessing examinations remain in effect as does the special request to process WHITING side scan sonar records in preparation for HECK's New Jersey Coast project.

Attachments



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
ATLANTIC MARINE CENTER
Atlantic Hydrographic Section
439 West York Street
Norfolk, VA 23510-1114

July 21, 1989

MEMORANDUM FOR: Users of Hydrographic Survey H-9647
FROM: *Christopher B. Lawrence*
Commander Christopher B. Lawrence, NOAA
Chief, Atlantic Hydrographic Section
SUBJECT: Processing Buzzards Bay Surveys
REFERENCE: Memorandum from Commander Russell C. Arnold,
dated December 27, 1988, Processing Buzzards Bay
Surveys

Office Processing of survey H-9647 at the Atlantic Marine Center was limited only to the verification phase of the survey field data. The hydrographic data are presented on a smooth sheet which includes shoreline transferred from field edited and office reviewed Shoreline Manuscripts. Conflicts between the Shoreline Maps and the hydrographic data were resolved on the smooth sheet. Notes were added in pencil to the Descriptive Report from verification. Internal quality control checks were performed on the verification process.

Evaluation & Analysis (including an Evaluation Report), final Inspection, and Approval were not accomplished for survey H-9647. The data presented should only be used to supplement the presently charted hydrography. This survey is not considered adequate to supersede the charted hydrography without a detailed comparison and evaluation of the prior surveys and charted data. The digital records/files for this survey are considered incomplete.

The Atlantic Hydrographic Section recommends that copies of this survey and the accompanying data not be sold to the public without noting that it is preliminary data. Users of these survey data should exercise caution.

cc:
N/CG24
N/CG243
N/CG2442



07/14/89

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER:

NUMBER OF CONTROL STATIONS	17
NUMBER OF POSITIONS	4060
NUMBER OF SOUNDINGS	24360

	TIME-HOURS	DATE COMPLETED
* PREPROCESSING EXAMINATION	0	/ /
VERIFICATION OF FIELD DATA	511	07/14/89
QUALITY CONTROL CHECKS	115	
EVALUATION AND ANALYSIS	0	/ /
FINAL INSPECTION	0	/ /
TOTAL TIME	626	
MARINE CENTER APPROVAL		/ /

* Preprocessing time is not considered as part of total survey time.

VERIFIER'S REPORT
HYDROGRAPHIC SURVEY, H-9647

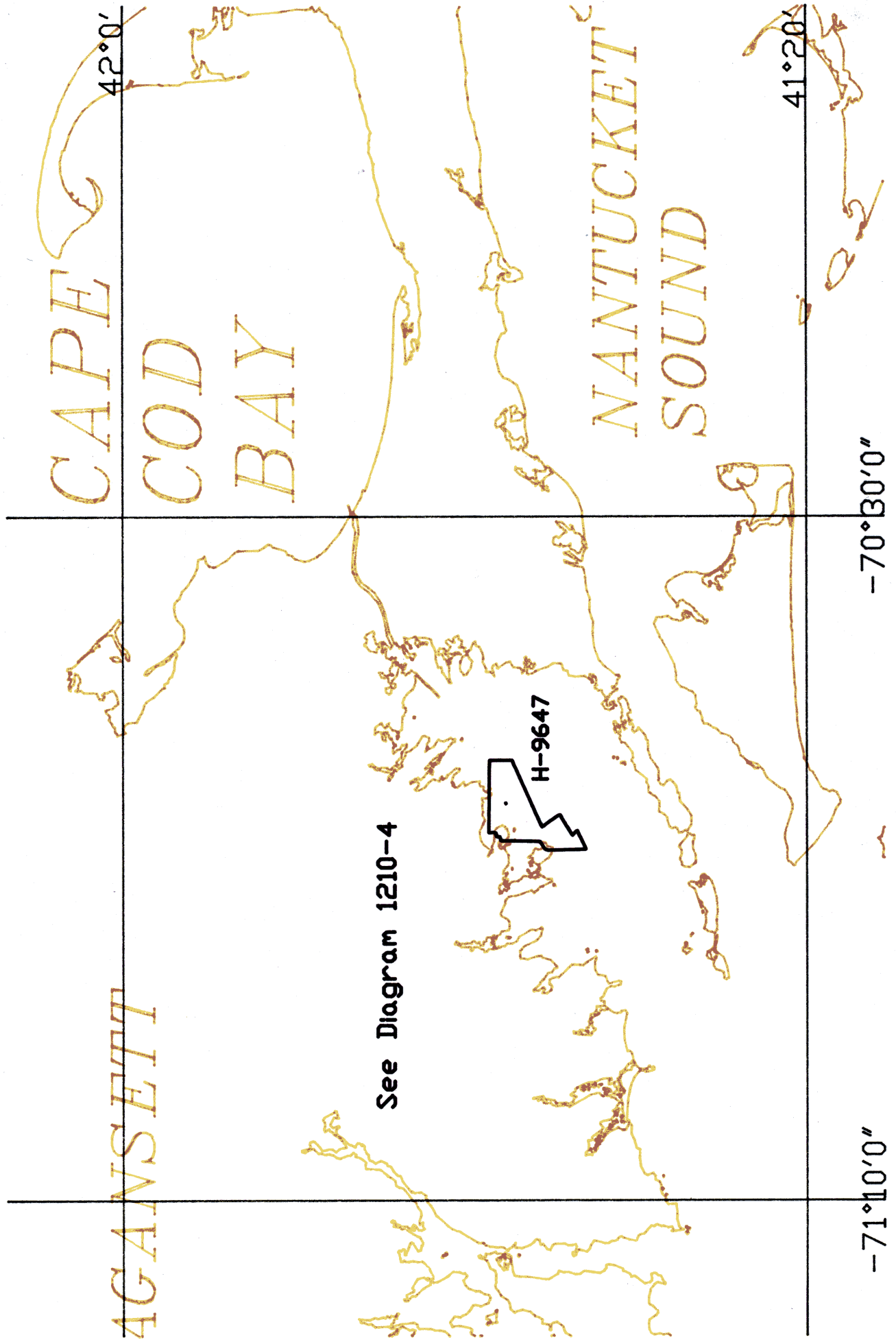
INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part I - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
<p>Note: The verifier should first read the Descriptive Report for general information and problems.</p> <p>1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None</p>	✓		<p>10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are SUPERSEDED.</p>	✓	
<p>Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None</p>	✓		<p>Part IV - VOLUMES 11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None</p>	✓	
<p>3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None</p>	✓		<p>12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following: (a) rocks ✓ (b) line turns ✓ (c) position values of beginning and ending of lines ✓ (d) bar check or velocity correctors ✓ (e) time recording ✓ (f) notes or markings on fathograms ✓ (g) was reduction of soundings accurately done? ✓ (h) was scanning accurate? ✓ (i) were peaks at uneven intervals missed? ✓ (j) were stamps completed? ✓ (k) references to adjacent features ✓</p>		
<p>Part II - SHORELINE AND SIGNALS 4. Source of shoreline signals Remarks Required: -- List all surveys TP-00769 a. Give earliest and latest dates of photographs APRIL 1974 b. Field inspection date NONE c. Field Edit date Sep 1979 OCT 1980 Reviewed-Unexamined NOV. 1984</p>	✓				
<p>5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.</p>	✓				
<p>6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None</p>	✓				
<p>7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.</p>	✓		<p>Part V - MACHINE PLOTTING 13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None</p>	✓	
<p>Part III - JUNCTIONS Note: Make a cursory comparison preliminary to inking soundings in area of overlap.</p>			<p>14. The plotting of all unsatisfactory crossings was verified. Remarks Required: -- None</p>		
<p>8. All junctions of contemporary or overlapping sheets were compared and overlapping curves were made identical. Remarks Required: -- None</p>	✓				✓
<p>9. The notation in slanted lettering "JOINS H--- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. or "ADJOINS" Remarks Required: -- None</p>	✓		<p>15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None</p>	✓	

Part V - PROTRACTING (Continued)	CL	R	Part VIII - AIDS TO NAVIGATION	CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	/		26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed.	/	
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.	N/A		27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None	/	
Part VI - SOUNDINGS			Part IX - BOAT SHEET		
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None	/		28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None	/	
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.	/		29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.	/	
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None	/		Part X - GENERAL		
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None	/		30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None	/	
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.	/		31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None	/	
Part VII - CURVES			32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: -- None	/	
23. The depth curves have been inspected before inking. Remarks Required: -- By whom was the pen curves inspected. <i>R.R.H.</i>	/		33. The bottom characteristics are adequately shown. Remarks Required: -- None	/	
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area not sounded in black dashed Remarks Required: -- None	/		Part XI - NOTES TO THE REVIEWER		
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.	/		34. Unresolved discrepancies and questionable soundings.	/	
			35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.	/	
			36. Supplemental information.	/	
Verified by				Date	
<i>Leroy C. Gray</i>				<i>July 14, 1989</i>	



See Diagram 1210-4

Lighting is maintained at the Cape Cod Bay entrance to the canal for west bound vessels, and at Wings Neck for east bound vessels.

Information on operating conditions is available by telephone, telegraph, or radio at the Cape Cod Canal office, Buzzards Bay.

For detailed information consult monthly bulletins published by the Corps of Engineers, Waltham, Mass.

CAPE COD CANAL REGULATIONS
207.20 (see note A)

CAPE COD CANAL LIGHTS

Mercury vapor lights, yellow on the north bank and white on the south bank, are located 140 feet from the edge of the channel. The lights in general are 500 feet apart on both banks.

PRIVATE AIDS

Privately maintained seasonal aids are placed to mark the channels to the following places.

- Sippican Harbor (upper part) May to Nov (reported)
- Hammett Cove April 15 to Nov 1
- Aucoot Cove May to Dec (reported)

CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and Defense Mapping Agency Hydrographic/Topographic Center Publication 117 (A & B).

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

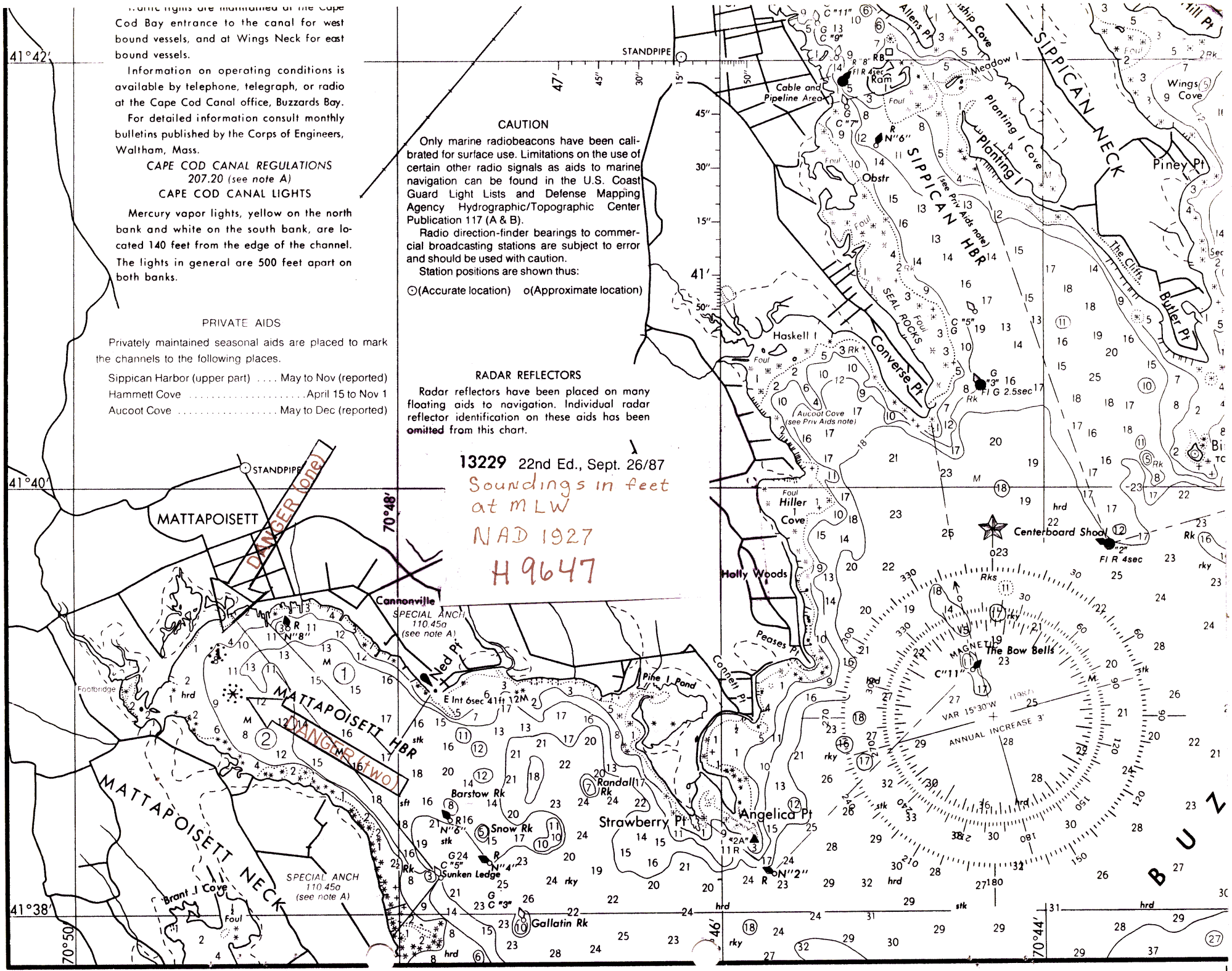
Station positions are shown thus:

- (Accurate location) ○ (Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

13229 22nd Ed., Sept. 26/87
Soundings in feet
at m LW
 NAD 1927
 H 9647



MARINE CHART BRANCH
RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9647

INSTRUCTIONS			
A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.			
1. Letter all information.			
2. In "Remarks" column cross out words that do not apply.			
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.			
CHART	DATE	CARTOGRAPHER	REMARKS
13232	10/1/89	J.A. Graham	Full Part Before After Marine Center Approval Signed Via Drawing No. I # # JP Fully app'd hydro to new Large scale chart of New Bedford Har.
13229 F	5-1-91	William Bellinger	Full Part Before After Marine Center Approval Signed Via Drawing No. # 24 PARTIALLY APPLIED
13229 G	5-1-91	William Bellinger	Full Part Before After Marine Center Approval Signed Via Drawing No. # 24 PARTIALLY APPLIED
13220	7-15-92	D.M. McAllister	Full Part Before After Marine Center Approval Signed Via Drawing No. # 49 EXAM PARTIALLY APPLIED
13218	6/14/93	John Barber	Full Part Before After Marine Center Approval Signed Via Drawing No. 69 Exam for critical corrections and shoaler conditions thru 13230 ^{no further application} necessary
13230	6/30/93	John Barber	Full Part Before After Marine Center Approval Signed Via Survey re-examined for Drawing No. 50 critical corrections - no further application necessary
			Full Part Before After Marine Center Approval Signed Via Drawing No.
			Full Part Before After Marine Center Approval Signed Via Drawing No.
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			Full Part Before After Marine Center Approval Signed Via Drawing No.
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