

8313

8313

Diag. Cht. No. 1210-3.

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey Hydrographic
Field No. ECFP-1456
Office No. H-8313

LOCALITY

State Rhode Island
General Locality . Narragansett Bay
Locality Greenwich Bay

1956

CHIEF OF PARTY

M. T. Paulson

LIBRARY & ARCHIVES

DATE May 28, 1959

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

To C322

reviewed HBS

This ~~SEA~~ survey H-8314 *AWY* 1962-63
is submitted for final indication
on the Standards and examination
for chart corrections and should
be returned to Vault. Area Chief,
please send chargeout slip to
Vault.

Chief, Marine Surveys Division

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

REGISTER No. H-8313

Field No. ECFP-1456

State Rhode Island

General locality Narragansett Bay

Locality Greenwich Bay

Scale 1:10,000 Date of survey 11 June to 6 Nov. 1956

Instructions dated 22/MEK, FP-East Coast, dated 31 January 1956

Vessel East Coast Field Party

Chief of party Marvin T. Paulson

Surveyed by R.A. Lewis, D.L. Campbell & C.W. Tupper

Soundings taken by ~~fathometer~~ graphic recorder, hand lead, ~~and~~ sounding pole

Fathograms scaled by Party Personnel

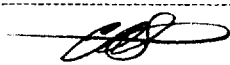
Fathograms checked by Party Personnel, A.K. Schugeld

Protracted by A.K. Schugeld

Soundings penciled by A.K. Schugeld

Soundings in ~~fathoms~~ feet at MLW ~~XXXXXX~~ and are true depths.

REMARKS: _____



DESCRIPTIVE REPORT
TO ACCOMPANY

Hydrographic Survey H-8313 - Field No. ECFP-1456
Greenwich Bay, Rhode Island

PROJECT: 13870 1956 SCALE 1:10,000

EAST COAST FIELD PARTY MARVIN T. PAULSON, CHIEF OF PARTY

SURVEYED BY: R.A. Lewis, D.L. Campbell and C.W. Tupper

* * * * *

A. PROJECT

Work on Project 13870 was executed in accordance with instructions 22/MEK, FP-East Coast, dated 31 January 1956.

B. SURVEY LIMITS AND DATES

The area covered by this survey is in the vicinity of Greenwich Bay. The limits are from latitude $41^{\circ} 42'$ on the north to $41^{\circ} 35.30'$ on the south, $71^{\circ} 20'$ on the east to $71^{\circ} 27.30'$ on the west.

Hydrography on this sheet began 11 June 1956 and ended 6 November 1956.

C. VESSELS AND EQUIPMENT

Launch CS-82 and CS-168 were used for the entire survey. The launches were based at Greenwich Cove for most of the season and then at Wickford for the remainder of the season. Launch CS-82, a 30 foot wooden launch, has a turning radius of 50 meters at half rudder and standard speed. Launch CS-168 has a turning radius of 20 meters at half rudder and standard speed.

The following fathometers were used on Launch CS-82;

<u>TYPE</u>	<u>SERIAL NO.</u>
EDO	#202 ✓
808J	#77 ✓

The following fathometers were used on Launch CS-168:

<u>TYPE</u>	<u>SERIAL NO.</u>
EDO	#201 ✓
808J	#77 ✓

On both launches, EDO-255 type fathometers were used with transducers mounted in a "fish" extended over the starboard side just aft of amidship.

The 808J type fathometer was used with transducer units mounted in the bilges.

D. TIDE AND CURRENT STATIONS

A portable automatic tide station at Greenwich Cove, Rhode Island, (Lat. $41^{\circ} 39.75'$ long. $71^{\circ} 26.72'$) was used without time or range correction. Where East Greenwich tides were not available Providence State Pier No.1 tides were used in accordance with letter 36-292-15b dated 2 July 1956.

See Tide Note.

No current stations, within the limits of this survey were occupied this season.

E. SMOOTH SHEET

The smooth sheet will be plotted by the Norfolk Processing Office. ✓

F. CONTROL STATIONS

Control consisted of triangulation, topographic and photo stations.

The following is a list of triangulation stations and the source of control for each:

<u>STATION</u>	<u>G.P. PAGE</u>	<u>VOL. NO.</u>	<u>CH. OF PTY.</u>
Conimicut Lighthouse, 1897	109	1	D.B.W.
Rocky Point (USE 1913)	109	1	J.B.B.
Aldrichs Tower, 1912	108	1	R.I. Geod.S.
Warwich Lighthouse, 1956	104	1	E.B.
Bell, 1913	104	1	J.B.B.
Patience, 1843	64	1	E.B.
Pat, 1913	105	1	J.B.B.
Prudence (USE 1909)	64	1	U.S.E.
Der, 1913	105	1	J.B.B.
Pine Hill (R.I. 1843)	120	1	E.B.
Hope Island, 1843	69	1	E.B.
Apponaug Court House Cupola, 1913	108	1	R.I. Geod.S.
Apponaug Spire, 1843	108	1	R.I. Geod.S.
Chip, 1913	105	1	J.B.B.
East Greenwich Brick Chimney, 1913	107	1	R.I. Geod.S.
East Greenwich Yellow Chimney, 1913	107	1	R.I. Geod.S.
East Greenwich Lutheran Church spire, 1913	107	1	R.I. Geod.S.
East Greenwich Court House, 1913	107	1	R.I. Geod.S.
Sally, 1913	105	1	J.B.B.
Camp Endicott elev. tank, 1944	97	1	I.E.R.
Allen 2, 1944	94	1	I.E.R.
Camp Thomas elev. tank, east, 1944	97	1	I.E.R.
Quonset Naval Air Station elev. tank, North 1944	96	1	I.E.R.
Quonset Naval Air Station A.O.B. bldg.No.61			
Control tower, 1944	96	1	I.E.R.
QUONSET Naval Air Station elev. tank, south, 1944	94	1	I.E.R.
Flagstaff, 1913	106	1	

All topographic control was transferred from topographic sheets PH-1-E-56, PH-1-G-56, PH-1-H-56, PH-1-L-56 and ~~6163-4~~. *planetable sheets to be destroyed.*
PH-163

G. SHORELINE AND TOPOGRAPHY

The shoreline and topographic detail shown on the boat sheet was transferred from tracings furnished by the photo party. These tracings were obtained from the chart using a projector to make the scale change.

The final shoreline and topography will be obtained from manuscripts prepared from photographs taken during the field season.

The low water line was not completely defined due to steep sloping and rocky shoreline. ✓

H. SOUNDINGS

All soundings on this sheet were made by fathometers as listed in section C, except for a few isolated soundings taken in connection with

bottom sampling and verification of least depths or those taken in depths too shoal for the fathometer.

It should be noted that soundings shown on the boat sheet did not have velocity corrections applied and in some cases may be in error by as much as two feet. This error will resolve itself when the smooth sheet is made.

Many strays were picked up with the EDO fathometers. ^{Some} All strays were investigated further in an attempt to verify or disprove the sounding. An additional discussion is included in "Fathometer Report" Project 13870.

I. CONTROL OF HYDROGRAPHY

All hydrographic control was visual by sextant angles on shore objects. Positions were usually taken at $1\frac{1}{2}$ minute intervals. No unusual methods or adjustments were used.

J. ADEQUACY OF SURVEY

This survey is considered complete and adequate to supercede all prior surveys for charting purposes. Junctions with prior and contemporary surveys are satisfactory and depth curves can be adequately drawn at *see review* junctions.

K. CROSSLINES

Crosslines were run to the extent of 8 to 10% of the regular system of lines excluding developments and agreement was satisfactory.

L. COMPARISON WITH PRIOR SURVEYS *see review*

This survey was compared with prior surveys H-3572, 1:10,000, H-3571, 1:10,000, 1913. In general, the soundings shown on the old survey are in fair agreement with those on the new. Since the old survey is not as complete as the new, much of the necessary detail was omitted. Several shoals not found on the prior survey are listed in section N. of this report.

It is believed that all known shoals were proved. In most cases lesser depths and/or a slightly different location was found.

Junctions with prior surveys are in fair agreement.

See section H regarding soundings as shown on the boat sheet.

M. COMPARISON WITH CHART *see review*

A comparison with Chart No. 278, 10th Edition, Print date 8/9/54 and Chart No. 236, 8th Edition, Print Date 2/20/56 shows no important differences except as listed in section N of this report.

N. DANGERS AND SHOALS

Following is a list showing a comparison with the prior survey, a comparison with the chart, as well as the dangers and shoals found within the limits of this survey. The locations and depths listed under "Present Survey" are taken from the boat sheet and may vary slightly when the smooth sheet is made.

NO.	LAT. & LONG.	POSIT.	DEPTHS			RECOMMENDATIONS
			PRESENT SUR.	CHART	PRIOR SUR.	
1.	41° 38.98' ✓ 71° 21.72' ✓	Vol. 7 ✓ 40 m ✓	rk. bare 4' ✓ MLW (foul) ✓	5.0	<i>No depths</i> 6.0	Chart new depth see pos. 39-42 m

NO.	LAT. & LONG.	POSIT.	PRESENT SUR.	DEPTH. CHART	PRIOR SUR.	RECOMMENDATIONS
2.	41° 40.93 ✓ 71° 23.87 ✓	Vol. 2 ✓ 68 c ✓	wreck bare 3' MLW ✓	wreck	1.0	Preliminary review item. ✓✓
3.	41° 39.18 ✓ 71° 21.10 ✓	Vol. 14 ✓ 26 x ✓	rk bare 2.5' ^{3.0'} MLW (foul) ✓	4.0	5.0	Chart new depth <i>concur</i> See pos. 26-42 x
4.	41° 39.27 ✓ 71° 24.52 ✓	Vol. 14 ✓ 54 y ✓	(<i>stump</i>) tree snag ✓ bare 2' ^{2'} MLW	4.0	4.0	Chart snag (2)
5.	41° 39.04 ✓ 71° 21.03 ✓	Vol. 14 ✓ 35 x ✓	* rk bare 1.5' ^{2'} ^{2.0'} MLW (foul) ✓	3.0	2.0	Chart new depth ^{All rocks} * Rock is SE offshore of several
6.	41° 39.30 ✓ 71° 24.39 ✓	Vol. 24 ✓ 16 h ✓	<i>sub m Rock</i> rk bare 1' MLW 2' below MLW.	0.0	4.0	Chart new depth <i>see additional rocks</i> <i>this vicinity noted in notes</i> <i>from prior survey</i>
7.	41° 39.67 ✓ 71° 21.19 ✓	Vol. 17 ✓ 11 da ✓	rk awash ✓ MLW (inked (L))	18.0	14.0	Chart new depth Position changed. See pos. 11 "da" and pos. 92 "ja". See review, section 9.
8.	41° 37.50 ✓ 71° 23.88 ✓	Vol. 11 ✓ 82-83 s ✓	sand shoal ✓ 0.0 ^{uncovered} 1-ft @ MLW <i>rock awash @ MLW</i>	2.0	5.0	Chart new depth ✓ <i>concur</i>
9.	41° 39.39 ✓ 71° 23.67 ✓	Vol. 10 ✓ 107 q ✓	sunken rk 1.0' MLW	1.0	7.0	Chart new depth <i>see review</i>
10.	41° 41.35 ✓ 71° 26.86 ✓	Vol. 23 ✓ 52 e ✓	obstruction 1.0' MLW	—	—	Chart obstruction ✓ <i>A second obstruction in lat 41° 41.36 long 71° 26.82</i> <i>is covered 2ft @ MLW</i>
11.	41° 40.79 ✓ 71° 26.80 ✓	Vol. 24 ✓ 6 h ✓	(<i>stump</i>) sunken snag ✓ 2.0 ^{Covered} 1-ft @ MLW	7.0	7.0	Chart snag ✓
12.	41° 39.07 ✓ 71° 21.26 ✓	Vol. 24 ✓ 6 j ✓	sunken rk ✓ 2.0' MLW (<i>smooth plotted as awash @ MLW</i>) <i>covered 1ft @ MLW.</i>	4.0	4.0	Chart new depth
13.	41° 38.98 ✓ 71° 21.40 ✓	Vol. 24 ✓ 2-3 j ✓	sunken rk ✓ 4.0' MLW ✓	5.0	5.0	Chart new depth ✓
14.	41° 39.07 ✓ 71° 21.27 ✓	Vol. 24 ✓ 4-5 j ✓	sunken rks ✓ 4.0' MLW ³	4.0	4.0	Chart new depth ✓ <i>see 12 above.</i>
15.	41° 40.45 ✓ 71° 25.53 ✓	Vol. 24 ✓ 15 h ✓	sunken rk ✓ 4.0' MLW ✓	4.0	4.0	Preliminary Review ✓ Item - Chart new depths
16.	41° 39.41 ✓ 71° 23.72 ✓	Vol. 16 ✓ 78 ba ✓	sunken rk ✓ 4.0' MLW ^{3.0}	6.0	7.0	Chart new depth ✓
17.	41° 36.37 ✓ 71° 22.30 ✓	Vol. 16 ✓ 174 ba ✓	sunken rk ✓ 5.0' MLW ✓	6.0	H-3/0' 6.0' ^{6.0'} not avail.	Preliminary Review Item ✓ Chart new depth & Pos. ✓
18.	41° 39.81 ✓ 71° 21.67 ✓	Vol. 23 ✓ 127 d ✓	sunken rk ✓ 5.0' MLW ✓	5.0	5.0	Chart new depth ✓
19.	41° 40.41 ✓ 71° 25.57 ✓	Vol. 17 ✓ 66 ca ✓	sunken rk ✓ 7.0' MLW	10.0	12.0	Chart new depth ✓

NO.	LAT. & LONG.	POSIT	PRESENT SUR.	DEPTHS CHART	PRIOR SUR.	RECOMMENDATIONS
20.	41° 38.78 71° 21.47	Vol.15 78 aa	sunken rk 8.0' MLW 7.0'	10.0	12.0	Chart new depth ✓
21.	41° 39.91 71° 21.40 41	Vol.23 121-122d 91-d	sunken rk 9.0' MLW 7.0' located approx 50m South of prior depth	7.0	7.0	Not disproved *Chart old ^{both} depths. ✓
22.	41° 40.43 71° 20.84 .88	Vol.23 53-d 48-49d	sunken rk 9.0' MLW 8.6'	10.0	12.0	Chart new depth ✓
23.	41° 37.67 71° 20.89	Vol.25 2 l	sunken rk 9.0' MLW 8.6'	9.0	24.0	Chart new depth ✓
24.	41° 37.79 71° 20.78	Vol.25 4 l	sunken rk 9.0' MLW 8.4'	9.0	15.0	Chart new depth ✓
25.	41° 37.71 71° 20.81	Vol.25 3 l	sunken rk 10.0' MLW 9.6'	18.0	18.0	Chart new depth ✓
26.	41° 39.28 71° 23.60	Vol.24 92 g	sunken rk 10.0' MLW 9.0'	12.0	12.0	Chart new depth ✓
27.	41° 38.88 71° 21.71 .70	Vol.15 90 aa 81 22	10.0 9.0	17.0	17.0	Chart new depth ✓
28.	41° 40.43 71° 20.98 87 30	Vol.3 54 d 58 d	sunken rk 11.0 9.0	14.0	15.0	Chart new depth ✓ near item 22
29.	41° 39.29 71° 23.30 .35	Vol.24 110 g 107-108g	12.0 11.0	12.0	15.0	Chart new depth ✓
30.	41° 39.91 71° 21.70	Vol.24 8 j	12.0	11.0	16.0	*Chart old ^{12'} depth
31.	41° 38.41 71° 21.66	Vol.8 59-60 n	20.0 16.0 Considered a stray.	17.0	20.0	See Carstens Chart new depth
32.	41° 37.55 71° 20.98	Vol.7 55-56 m	17.5 18.0	23.0	23.0	See review Chart new depth ^{Added to 236} 6/23/59
33.	41° 39.24 71° 24.66	Vol.20 7-31 ma	3.0	rock awash	2.0 3/4	**Chart old depth See know
34.	41° 39.71 71° 21.47	Vol.19 37-38 ja	6.0	3.0	3.0	**Chart old depth ✓
35.	41° 40.03 71° 24.05	Vol.21 36-38 a	7.0	4.0	4.0	#Chart new depth ✓
36.	41° 40.18 71° 22.48	Vol.14 52-53 j 2 k	9.0 6.6	5.0	10.0	**Chart old ^{both} depth ← lat 41° 40.13' long 71° 22.47' from H-940
37.	41° 39.77 71° 23.30 29 72	Vol.24 43-58 g	13.0	10.0	10.0	*Chart old depth ✓ 10-ft from H-3572 Carried forward.
38.	41° 39.78 71° 25.12 23.12	Vol.24 59-81 g	14.0 13.0	12.0	14.0	Chart old depth ✓ 12-ft from H-3572 Carried forward

NO.	LAT. & LONG.	POSIT.	PRESENT SUR.	DEPTHS CHART	PRIOR SUR.	RECOMMENDATIONS
39.	41° 40.25 ✓ 71° 22.28 ✓	Vol. 24 ✓ 3-23 k ✓	14.0 ✓ development	12.0	H-3572 (1913) 12.0	*Chart old depth adequate, chart depths from present survey.
40.	41° 40.59 ✓ 71° 22.30 ✓	Vol. 24 ✓ 24-48 k ✓	15-20 18.0 ✓	9.0	9.0	*Chart old depth discredited - see review.
41.	41° 36.90 ✓ 71° 24.20 ✓	Vol. 11 ✓ 139-140 s ✓	10.0 ✓	5.0	10.0	See review **Chart old depth { Severe shore-line change in vicinity. New Pier constructed. See chart # 236

See Review

- *Thoroughly investigated - wire drag required to disprove sounding.
- **Further investigation necessary.
- #Change in depth due to shifting sand along edge of channel.

All charted dangers and shoals were found as charted except those listed above. In most cases a shoaler depth and/or a slightly different location was found. See review.

O. COAST PILOT INFORMATION

There are several changes necessary in the Coast Pilot Notes. These are reported in a Coast Pilot Report (Appendix E), a copy of which is attached.

P. AIDS TO NAVIGATION

See report on Form 567.

Following is a list of positions of the floating aids to navigation;

#note spelling of buoy

NAME OR NUMBER	LAT. & LONG.	DEPTH.	POSIT.	DATE LOCATED
Quonset Air Station Channel				
#578 Lighted buoy 22 buoy	41° 36.65 ✓ 71° 23.74 ✓	22 ✓	Vol. 11 ✓ 65 s ✓	7/12/56
* Buoy 24 buoys renumbered N.M. 49, 1958	41° 36.78 ✓ 71° 24.17 ✓	31 ✓	Vol. 11 ✓ 142 s ✓	7/12/56
* Buoy 25	41° 36.43 ✓ 71° 24.97 ✓	32 ✓	Vol. 11 ✓ 93 s ✓	7/12/56
* Buoy 27	41° 36.52 ✓ 71° 24.29 ✓	13 1/4	Vol. 16 ✓ 138 ha	8/16/56
Allen Harbor (private aids maintained by U.S.N.)				
* Barrel buoy B1	41° 37.08 71° 23.92	12 ✓	Vol. 2 ✓ 92 d ✓	6/19/56
* Barrel buoy B2	41° 37.12 71° 23.91	12 ✓	Vol. 2 ✓ 91 d ✓	6/19/56
* Barrel buoy B4	41° 37.15 71° 24.02	8 ✓	Vol. 2 ✓ 94 d ✓	6/19/56
* Barrel buoy B6 B3 buoy located in charted area of "B3", Buoy 6 not located.	41° 37.12 71° 24.05	9-10 ✓	Vol. 2 ✓ 93 d ✓	6/19/56
* Red spar buoy	41° 37.28 ✓ 71° 24.43 ✓	9 ✓	Vol. 11 ✓ 109 s ✓	7/12/56

Aids do not conform to Light List or charted positions; or in number.

<u>NAME OR NUMBER</u>	<u>LAT. & LONG.</u>	<u>DEPTH.</u>	<u>POSIT.</u>	<u>DATE LOCATED</u>
Allen Harbor (cont'd) ----- Black spar buoy ✓	41° 37.23 ✓ 71° 24.46 ✓	6 ✓	Vol. 11 ✓ 110 s ✓	7/12/56
Greenwich Bay Approach ----- Mooring buoy W9 ✓ * Special purpose buoys Nos 10 of 1955 ----- Mooring buoy W10 ✓	41° 36.79 ✓ 71° 21.26 ✓ 41° 37.28 ✓ 71° 21.33 ✓	28 ✓ 25 ✓	Vol. 8 ✓ 170 m ✓ Vol. 9 ✓ 118 n ✓	7/2/56 7/3/56
----- Warwick Narrows west buoy 5 ✓	41° 37.94 ✓ 71° 22.29 ✓	20	Vol. 10 ✓ 105 r ✓	6/11/56
----- Warwick Narrows east buoy 2 ✓	41° 38.26 ✓ 71° 22.18 ✓	19	Vol. 10 ✓ 104 r ✓	6/11/56
----- Round Rock Bouy 1A	41° 39.36 ✓ 71° 23.54 ✓	22 1/2 ✓	Vol. 4 ✓ 113 g ✓	6/25/56
----- Patience Island lighted bouy 2A Bell	41° 39.66 ✓ 71° 22.41 ✓	35 ✓	Vol. 1 ✓ 1 b ✓	6/13/56
Greenwich Bay. ----- Can bouy 1	41° 40.25 ✓ 71° 23.25 ✓ 99	18	Vol. 2 ✓ 1 c ✓	6/14/56
----- Lighted bell bouy 3 ✓	41° 40.55 ✓ 71° 24.49 ✓ 25	13 ✓	Vol. 6 ✓ 172 k ✓	6/28/56
----- can bouy 3 ✓	41° 40.54 ✓ 71° 24.49 ✓ 25	13 ✓	Vol. 6 ✓ 173 k ✓	6/28/56
----- mun bouy 2 ✓	41° 40.21 ✓ 71° 26.38 ✓	11	Vol. 2 ✓ 2 d ✓	6/19/56
----- can bouy 5	41° 40.04 ✓ 71° 26.68 ✓	13	Vol. 2 ✓ 1 d ✓	6/19/56
Providence River Approach ----- Fork Rock Bouy ✓	41° 40.57 ✓ 71° 20.90 ✓	22	Vol. 17 ✓ 88 da ✓	8/20/56

Q. LANDMARKS FOR CHARTS

All landmarks for charts were reported by Photo. Party No. 1 on Form 567.

R. GEOGRAPHICAL NAMES

There are no new geographical names to report.

S. SILTED AREAS

Not applicable

U-Y MISCELLANEOUS

See Fathometer Report 1956 Season - Project 13870.

It is to be noted that extensive plans for Narragansett Bay have been discussed by the Army Engineers and various city and state officials concerned with hurricane damage in Narragansett Bay. Plans have been set forth for a tide barrier across the entrance to the bay near Newport, Rhode Island and other damage barriers inside the bay, including one such barrier near* Fox Point near latitude $41^{\circ} 48.85$, longitude $71^{\circ} 24.00$. There has been no construction started on these barriers and they still are in the preliminary planning stage. * off survey limits

TABULATION OF APPLICABLE DATA

As noted in Item H, bar check, tabulations, velocity curves and fathometer report will be transmitted as a separate report.

A report of proposed changes in apponaug Cove will be submitted under separate cover as a separate report.

Respectfully submitted,

Donald L. Campbell

Donald L. Campbell
LT., C&GS

Approved and forwarded,

Marvin T. Paulson, LCDR., C&GS
Chief of Party

ATTACHMENTS

Appendix A - List of Control Stations
B - Abstract of Velocity Corrections
C - Statistics
D - Tidal Note
E - Coast Pilot Report
F - Approval Sheet

APPENDIX A
LIST OF CONTROL STATIONS
SHEET H-8313 (ECFP-1456)
PROJECT 13870

<u>NAME USED</u>	<u>ORIGIN</u>	<u>NAME USED</u>	<u>ORIGIN</u>
ABE	PH-1G-56	*EVA	PH-1-G-56
ACE	PH-1-G-56	FAR	PH-1-G-56
AIM	PH-1-G-56	FIN	PH-1-G-56
AID	Aldrichs Tower 1912	FIT	PH-1-H-56
ALL	Sally, 1913	*FOG	PH-1-G-56
ALP	PH-1-E-56	FOX	PH-1-H-56
AMP	Camp Endicott elev. tank, 1944	FUN	PH-1-G-56
*AMY	PH-1-G-56	GAD	PH-1-E-56
ANN	PH-1-H-56	GAG	PH-1-G-56
ART	PH-1-G-56	GAL	PH-1-H-56
BAG	PH-1-G-56	GAS	PH-1-G-56
BAT	PH-1-G-56	GEM	PH-1-G-56
BELL	BELL, 1913	GIG	PH-1-E-56
BIB	PH-1-E-56	GUM	PH-1-H-56
*BOA	PH-1-G-56	*GUS	PH-1-G-56
BOR	PH-1-H-56	HAT	PH-1-G-56
BUM	PH-1-H-56	HEX	PH-1-H-56
BUS	PH-1-G-56	HIM	East Greenwich yellow chim., 1913
BUT	PH-1-E-56	HIS	PH-1-G-56
CAB	PH-1-G-56	HOP	PH-1-G-56
CAW	PH-1-H-56	*HUB	PH-1-G-56
CHI	6163-C	HUM	PH-1-H-56
CHIP	CHIP, 1913	ICE	PH-1-G-56
COD	PH-1-E-56	IDA	PH-1-H-56
CON	Conimicut Lighthouse, 1897	IRE	East Greenwich Lutheran Church Spire, 1913
COP	PH-1-G-56	IRK	PH-1-G-56
*COT	PH-1-G-56	ITS	PH-1-H-56
COW	PH-1-H-56	IVE	PH-1-G-56
CUP	6163-C	HIT	PH-1-G-56
CUPO	Apponaug Court- House cup., 1913	HEX	PH-1-G-56
CUT	PH-1-G-56	JAR	PH-1-G-56
DEB	PH-1-H-56	JAW	PH-1-G-56
DER	PH-1-H-56	JOE	PH-1-G-56
DIP	PH-1-G-56	JOY	PH-1-H-56
DIX	PH-1-G-56	JUT	PH-1-H-56
DOG	PH-1-G-56	KED	PH-1-G-56
DON	PH-1-E-56	KEN	PH-1-G-56
DOT	PH-1-H-56	KEY	PH-1-G-56
*DUD	PH-1-G-56	KIM	PH-1-H-56
EAE	PH-1-G-56	LAM	PH-1-G-56
EAS	Camp Thomas elev. tank, east, 1944	LEA	PH-1-H-56
EAT	PH-1-G-56	LEG	PH-1-G-56
EIF	PH-1-H-56	LEN	ALLEN 2, 1944
END	PH-1-G-56	LET	PH-1-G-56
		LIP	PH-1-H-56
		*LOG	PH-1-G-56
		MAG	PH-1-G-56

LIST OF SIGNALS (CONT'D)

<u>NAME USED</u>	<u>ORIGIN</u>	<u>NAME USED</u>	<u>ORIGIN</u>
MAN	PH-1-E-56	RIG	PH-1-G-56
MAR	PH-1-G-56	RIP	PH-1-G-56
MAX	PH-1-H-56	ROL	Quonset NAS, A.O.B.
MID	PH-1-H-56		Control tower, 1944
MOO	PH-1-L-56	SAD	PH-1-G-56
NAT	PH-1-G-56	SAL	PH-1-G-56
NEW	PH-1-G-56	SIP	PH-1-H-56
NIP	PH-1-G-56	SOD	6163-C
NON	PH-1-H-56	STY	ROCKY POINT
NOR	Quonset NAS		(U.S.E.), 1913
	elev.tank,north,	SUB	PH-1-G-56
	1944	SUE	PH-1-H-56
NUB	PH-1-H-56	TAN	PH-1-G-56
OAK	PH-1-G-56	TANK	Quonset NAS elev.
ODD	PH-1-G-56		tank, south, 1944
OIL	PH-1-G-56	TAP	PH-1-G-56
ORA	PH-1-H-56	TAX	PH-1-H-56
OUT	PH-1-H-56	TEL	6163-C
PAL	PH-1-G-56	TOY	PH-1-H-56
PAT	PAT, 1913	USE	East Greenwich
PATI	PATIENCE, 1843		Court House, 1913
PAW	PH-1-H-56	VAN	6163-C
PEG	PH-1-G-56	VEY	PH-1-G-56
PINE	PINE HILL (R.I.),	VIA	PH-1-H-56
	1843	VIM	PH-1-G-56
PIT	PH-1-H-56	WAG	PH-1-G-56
PIX	PH-1-H-56	WAR	Warwick Light-
POL	PH-1-E-56		House, 1956
PUP	PH-1-G-56	WAS	PH-1-G-56
QUO	PH-1-G-56	WEE	PH-1-H-56
RAG	PH-1-G-56	YEA	PH-1-G-56
REV	PH-1-H-56	YES	PH-1-G-56
RIC	East Greenwich	YET	PH-1-E-56
	brick chim., 1913	ZIP	PH-1-G-56
RID	PH-1-H-56	ZOO	PH-1-G-56

*Located photogrammetrically

APPENDIX B (CONT'D.)
ABSTRACT OF VELOCITY CORRECTIONS
PROJECT 13870
SHEETS H-8316; H-8315; H-8314; H-8313; (ECFP-1856)

GROUP III

LAUNCH CS-82 FATHOMETER NO. 808 #77 SHEETS: H-8316; H-8314
11/7/56 only

TABULATIONS OF RESULTS (SEE NOTE BELOW)

DEPTHS (ft.)	CORRECTIONS (ft.)
0.0 to 15.0	0.0
15.1 to 48.0	- 0.2
48.1 to 70.0	0.0

NOTE: Initial setting is 0.0

GROUP IV

LAUNCH CS-82 FATH. NO. EDO-202 SHEETS: *H-8314; **H-8313
#H-8315; ##ECFP-1856

*5/28 to 6/8
**6/11 to 9/26
#7/26 to 10/17
##9/4 to 10/25

TABULATIONS OF RESULTS (SEE NOTE BELOW)

DEPTHS (ft.)	CORRECTIONS (ft.)
0.0 to 14.0	0.0
14.1 to 21.0	+ 0.2
21.1 to 27.5	+ 0.4
27.6 to 36.0	+ 0.6
36.1 to 46.0	+ 0.8
46.1 to 54.0	+ 1.0
54.1 to 59.0	+ 1.2
59.1 to 64.0	+ 1.4
64.1 to 69.0	+ 1.5
69.1 to 70.0	+ 2.0

NOTE: Initial setting is 1.0 feet.

STATISTICS (CONT'D)

LAUNCH CS-168

DATE	VOL. NO.	DAY LTR	NO. POSITIONS FATH.	D.P.	STATUTE MI. SDG
10/26	24	g	107	3	9.2
10/29	24	h	0	16	0.0
10/30	24	j	19	13	1.577
10/31	24&25	k	117	2	9.1
11/1	25	l	<u>0</u>	<u>4</u>	<u>0.0</u>

TOTALS CS-168

706

71

69.7⁹

TOTALS BOTH LAUNCHES

4,830⁵⁵

326

~~584.5~~
588.8

AREA COVERED - 14.3 sq. statute miles

Grand total positions:

5161 ←

APPENDIX C
STATISTICS
SHEET H-8313 (ECFP-1456)
PROJECT 13870

LAUNCH CS-82		DAY LTR.	NO. POSITIONS		STATUE MI. SDG.
DATE	VOL. NO.		FATH.	D.P.	
<u>1956</u>					
6/11	1	a	40	9	5.5
6/13	1	b	150	1	21.0
6/14	2	c	87	23	11.8
6/19	2&3	d	149	0	20.5
6/20	3	e	115	0	10.9
6/22	3&4	f	183	0	21.9
6/25	4&5	g	170	2	20.0
6/26	5	h	141	1	20.8
6/27	6	j	10	1	1.4
6/28	6	k	168	5	20.2
6/29	6&7	l	176	0	25.5
7/2	7&8	m	203	6	29.4
7/3	8&9	n	218	1	33.0
7/9	9	p	0	25	0.0
7/10	9&10	q	96	16	5.1
7/11	10&11	r	197	2	31.6 35.7
7/12	11	s	192	5	27.4
7/13	12	t	45	1	4.0
7/16	12	u	161	3	23.8
7/17	13	v	139	14	20.7
7/18	13&14	w	137	5	18.9
7/19	14	x	0	47	0.0
7/20	14	y	84	3	11.5
8/14	15	z	120 125	1	10.9
8/15	15&16	aa	158	4	16.0
8/16	16	ba	196	7	23.1
8/17	17	ca	122	5	12.8
8/20	17	da	87	23	12.4
8/22	18	ea	71	0	5.3
8/23	18	fa	50	1	4.6
8/27	18	ga	122	0	13.9
8/28	19	ha	78	6	7.1
8/29	19&20	ja	167	9	16.0
8/30	20	ka	19	27	1.4
9/4	20	la	12	0	1.4
9/26	20	ma	32	2	1.8
11/6	20	na	29	0	3.2
TOTALS			4,124	255	517.6 578.9
<u>LAUNCH CS-168</u>					
6/15	21	a	123	14	15.9
6/16	21	b	78	1	9.7
8/23	22	c	43	1	4.9
10/17	23	d	119	8	10.2
10/24	23	e	71	4	6.9
10/25	24	f	29	5	2.3

APPENDIX D

TIDAL NOTE FOR HYDROGRAPHIC SURVEY
H-8313 (ECFP-1456)
PROJECT 13870

All tidal data for reducing soundings was obtained from portable tide gages at East Greenwich, Rhode Island and Providence State Pier No. 1.

EAST GREENWICH, R.I.

Gage: Lat. $41^{\circ} 39.85$
LONG. $71^{\circ} 26.70$

Staff: Mean low water corresponds to 0.4 ft.
on staff.

Correction: No time or height correction.

PROVIDENCE STATE PIER NO.1

Gage: lat. $41^{\circ} 48.41$
long. $71^{\circ} 24.09$ } NOT ON H-8313

Staff: Mean low water corresponds to 0.0 ft. on
staff.

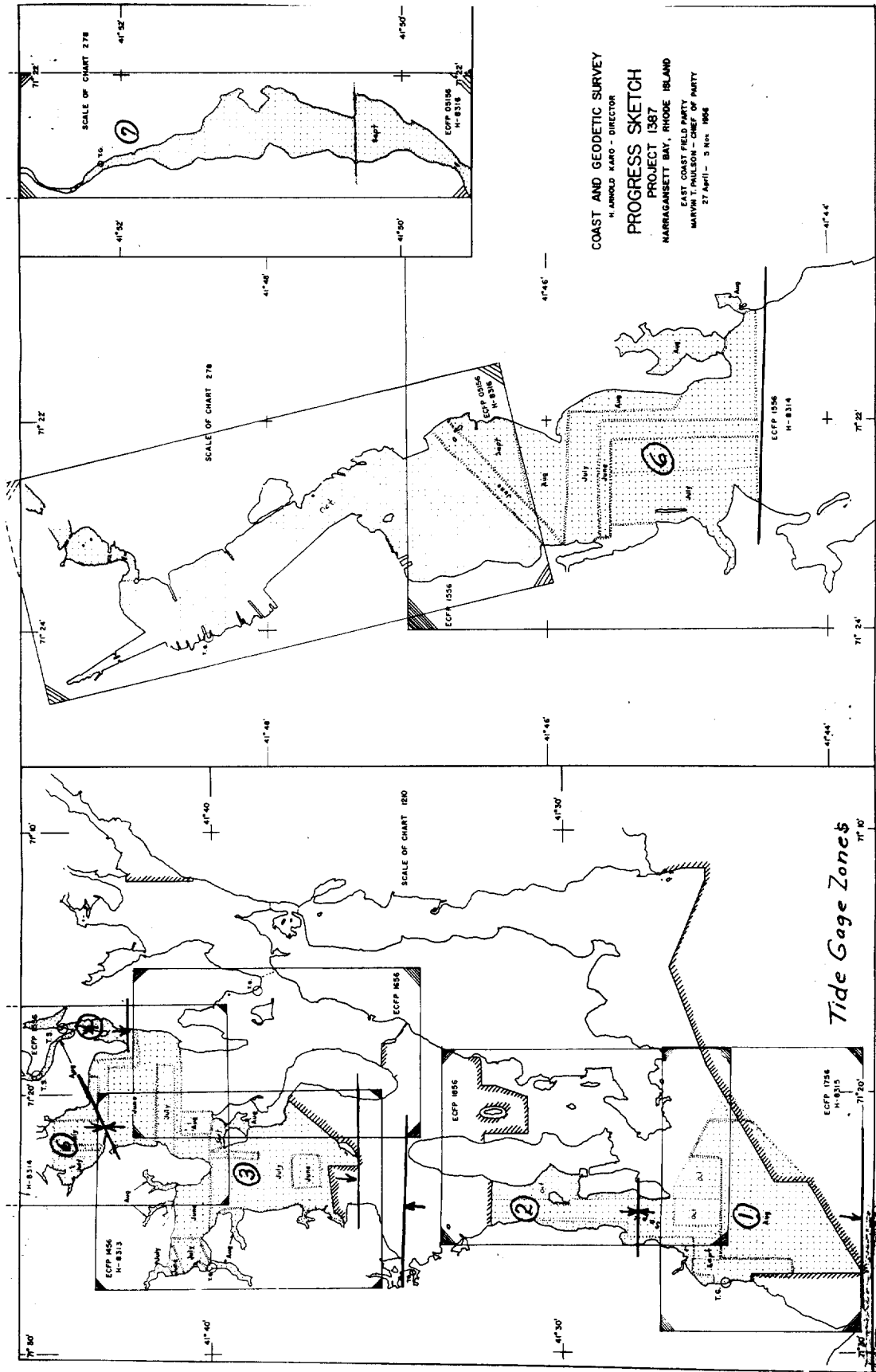
Correction: Time correction 0 mins.
height ratio 0.8.

The method of determining tide reducers is in accordance with the following letters:

36-292-15b dated 2 July 1956
36-11-15b.2 dated 29 January 1956

See sketch for zones. - attached

H-8313 (1956) falls in Tidal zone #3



COAST AND GEODETIC SURVEY
 H. ANNOLD KARG - DIRECTOR
 PROJECT 1387
 NARRAGANSETT BAY, RHODE ISLAND
 EAST COAST FIELD PARTY
 MARVIN T. PAULSON - CHIEF OF PARTY
 27 April - 5 Nov 1966

Tide Gage Zones

- 1. Monahans Cove
- 2. Wickford
- 3. East Greenwich
- 4. Warren River
- 5. Providence
- 6. Pawtucket
- 7. Pawtucket

APPENDIX / E

COAST PILOT REPORT
Atlantic Coast (5th Edition)
Section B - Cape Cod to Sandy Hook

Page 219, line 46, read;
-ville Depot had a depth of 30 feet

Page 220, line 14, read;
-channel which had a controlling depth of 8 feet in 1956. Inside the
harbor is a basin -

Page 220, line 19, read;
shore. (delete the remainder of line)

Page 220, line 26;
(delete)

Page 221, line 20 & 21,
(delete)

APPROVAL SHEET

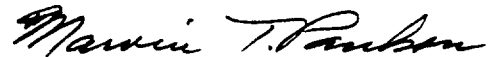
BOAT SHEET ECFP 1456 (H-8313)

The hydrographic survey is approved as complete and adequate. The records were inspected almost daily by the chief of party as the survey progressed.

As stated in item "G" of the Descriptive Report, the shoreline was not available at the time of the hydrographic survey. The shoreline, in pencil on the boat sheet, was obtained by enlarging the shoreline of the printed chart; whereas this was a rough outline, few discrepancies were noted by the hydrographer. Part of the shoreline was inked by the hydrographer, but should have been left in pencil, except as noted in the sounding record.

The hydrographic investigations mentioned in Item "H" bear special attention, as much time was spent investigating the fathometer strays. A special fathometer report has been prepared as a guide to the interpretation of the fathograms. A more detailed investigation would have to be accomplished by a wire drag survey of the area of the strays.

The U. S. Engineers should be contacted for the latest information on construction of basins and/or breakwaters before smooth sheet plotting.



Marvin T. Paulson
LCdr., C&GS, OinC

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS
H-8313

TRIANGULATION STATIONS

ALD ALDRICHS TOWER, 1912-35
 ALL SALLY, 1913-35
 AMP CAMP ENDICOTT, ELEV. TANK, 1944
 BELL BELL, 1913
 CHIP CHIP, 1913-35
 CON CONNIMICUT LIGHTHOUSE, 1897-1913
 CUP APPONAUG COURTHOUSE CUPOLA, 1913-35
 DEN BRUDENCE (USE), 1909-44
 DER DER, 1913-16
 EAS CAMP THOMAS, ELEV. TANK, EAST, 1944
 HIM EAST GREENWICH, YELLOW CHIMNEY, 1913-35
 HOPE HOPE ISLAND, 1843-1943
 IRE EAST GREENWICH, LUTHERAN CHURCH SPIRE, 1913-35
 LEN ALLEN 2, 1944
 NOR QUONSET NAS, ELEVATED TANK, NORTH, 1944
 PAT PAT, 1913-16
 PATI PATIENCE, 1843-1918
 PINE PINE HILL, 1843-1943
 RIG EAST GREENWICH, BRICK CHIMNEY, 1913-35
 ROL QUONSET NAS, A.O.B. BUILDING NO. 21, CONTROL TOWER, 1944
 SPI APPONAUG, SPIRE, 1843-1935
 STY ROCKY POINT (USE), 1913-35
 TANK QUONSET NAS, ELEV. TANK, SOUTH, 1944
 USE EAST GREENWICH, COURTHOUSE, 1913-35
 WAR WARWICK LIGHTHOUSE, 1956

TOPOGRAPHIC STATIONS

SOURCE FH-1-G-56

Cur Sod Van Chi Tel

SOURCE FH-1-E-56

Alp Bib But Cod Don Cad Gig Nan Pol Yet

SOURCE FH-1-G-56

Abo	Ace	Alm	Amy	Art	Eag	Bat	Don	Bus
Cab	Cop	Cot	Cut	Dip	Dix	Dud	Ear	Eat
End	Eva	Far	Fin	Fog	Fun	Gal	Gas	Gem
Gus	Hat	Hib	Kop	Hub	Ice	Irk	Ivy	Jar

(Con't)

TOPOGRAPHIC STATIONS

Jaw	Joe	Ked	Ken	Key	Lam	Leg	Let	Log
Mag	Mar	Nat	New	Nip	Oak*	Odd	Oil	Pal
Peg	Pup	Quo	Rag	Rig	(Rip)*	Sad	Sal	Sub
Tan	Tap	Vex	Vim	Wag	Was	Yea	Yes	Zig
Zoo								

* Triangulation Sta.

SOURCE PH-1-G-56

Ann	Bor	Bun	Caw	Cow	Deb	Dot	Elf	Erg
Fit	Fox	Gag	Gum	Hex	Hum	Ida	Its	Joy
Jut	Kim	Leo	Lip	Max	Mid	Non	Nub	Ora
Out	Paw	Pit	Fix	Rev	Rio	Sip	Sus	Tax
Toy	Via	Wee						

SOURCE PH-1-H-56

Moo

HYDROGRAPHIC STATIONS

Mud Pos. 14ea, Vol. 18

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8313 (EGFP-1456)

GENERAL

This appears to be an excellent basic survey. The few minor discrepancies found are listed below.

OVERLAYS

The rather extensive development of fathometer strays is being submitted on six overlay tracings labeled "A" thru "F". Shoal depths have been transferred to the smooth sheet. Symbols on the overlays show positions of temporary marker buoys. *Edqs were plotted from these overlays only where needed for least depths or to develop bottom. The overlays are filed in 'i' day, launch 82, fathogram envelope.*

TIDES

Tide corrections on ca and na days, Lch. 82, were re-entered in this Office to resolve crossing discrepancies. Hourly heights for these revisions were requested from the Division of Tides.

CHART COMPARISONS

Lat. 41-38.86', Long. 71-21.70' An uncharted 9' sounding falling near the 18' curve was found between positions 102 and 103n, Lch. 82. A confirming trace appears between positions 74 and 75y, Lch. 82. Some additional development shown on overlay "A" failed to confirm this sounding. *(See also page 102, vol. 18, p. 58) Echos were considered confirmed and are smooth plotted.*

DISCREPANCIES

incurred X
uncertainty in position due to small X
Positions 22 and 23x, Lch. 82, were not smooth plotted. They are supposed to show the location of the breakwater at Warwick Point but are in disagreement with the manuscript position which was retained on the smooth sheet. *(T-10588)*
hydrography & topographic pos are in adequate agreement.

Position 122ga, Lch. 82, could not be plotted. This is a detached bottom sample. (vol. 18, p. 66) No \odot Bar on sheet. (BAR)
Using \odot BOR does not check depth. (BOR)

Norfolk, Va.
22 May 1959

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer

The Edo record interpretation by Norfolk is generally good and can serve as a pattern to follow. PH Careless

GEOGRAPHIC NAMES

Survey No. H-8313

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Rhode Island</u>				(for title)						BGN	1
<u>Narragansett Bay</u>										"	2
<u>Hope Island</u> ✓											3
<u>Prudence Island</u> ✓											4
<u>Sheep Pen Cove</u>											5
<u>Coggeshall Cove</u>											6
<u>Patience Island</u> ✓											7
<u>Warwick Point</u> ✓											8
<u>Old Warwick Cove</u> ✓											9
<u>Brush Neck Cove</u> ✓											10
<u>Buttonwoods Cove</u> ✓											11
<u>Greenwich Bay</u>										BGN	12
<u>Apponaug Cove</u> ✓											13
<u>East Greenwich</u> ✓											14
<u>Greenwich Cove</u> ✓				(tide station)							15
<u>Potowomut River</u> ✓											16
<u>Allen Harbor</u> ✓											17
<u>Davisville Depot</u> ✓											18
											19
											20
Tide Station off sheet											21
											22
State Pier No. 1											23
Providence											24
											25
											26
											27

Names approved 6-29-59

L. Heck

If additional names are desired, all on current charts 236, 278 are approved.

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8313...

Records accompanying survey:

Boat sheets .1...; sounding vols. .25...; wire drag vols.; bomb vols.; graphic recorder rolls 21-Envelopes special reports, etc. .1-Smooth sheet, 1-Descriptive report... and 6-Overlays (tracings).....

The following statistics will be submitted with the cartographer's report on the sheet:

	*Revised	
Number of positions on sheet		5161..
Number of positions checked		186..
Number of positions revised	8	0....
Number of soundings revised, ^{added} (refers to depth only)	99	Revised Several dozens by $\frac{1}{2}$ foot or one foot to ad-just to surrounding hydro.
Number of soundings erroneously spaced	7	0....
Number of signals erroneously plotted or transferred HIS - PIT - ALP	3	0....
Topographic details	7	Time 19 hrs.
Junctions	3	Time 24 hrs.
Verification of soundings from graphic record	3	Time 13 hrs.

Verification by A. Rose Total time 373 hrs. Date Dec. 6, 1961

Reviewed by * Ernest E. Thomas Time 183 Date 5/17/62

F.40

TIDE NOTE FOR HYDROGRAPHIC SHEET

10 July 1959

Chart Division: R. H. Carstens

Plane of reference approved in
25 volumes of sounding records for

HYDROGRAPHIC SHEET 8313

Locality Narragansett Bay, Rhode Island

Chief of Party: M. T. Paulson

Plane of reference is mean low water, reading
0.4 ft. on tide staff at East Greenwich
28.7 ft. below B.M. 5 (1917)

Height of mean high water above plane of reference is 4.4 feet.

Condition of records satisfactory except as noted below:


Signature

Chief, Tides Branch

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8313

FIELD NO. ECFP-1456

Rhode Island, Narragansett Bay, Greenwich Bay

SURVEYED: June - November 1956

SCALE: 1:10,000

PROJECT NO. 387

SOUNDINGS: EDO Depth Recorder
808 Depth Recorder
Hand lead
Sounding Pole

CONTROL: Sextant
fixes on shore
objects.

Chief of Party-----M. T. Paulson
Surveyed by-----R. A. Lewis,
D. L. Campbell,
C. W. Tupper
Protracted by-----A. K. Schugeld
Soundings plotted by-----A. K. Schugeld
Verified and inked by-----S. Rose
Reviewed by-----E. E. Thomas
Inspected by-----R. H. Carstens

Date: 5/3/62

1. Description of the Area

This survey covers part of the upper reaches of Narragansett Bay west of Prudence Island and includes Greenwich Bay and its tributaries.

The bottom is predominantly mud and sand, with irregularities, such as, shoals, flats, and natural random deeps. Numerous rocks and boulders, both awash and submerged are found in most inshore areas as well as in occasional offshore areas. To the southwest of Pine Hill Pt. on Prudence Island, shoal soundings indicate submerged pinnacle rocks rising 13 to 16 ft. from a generally smooth sand and mud bottom.

The dredging of channels, the spoil areas, and land fills has greatly altered the area in the vicinity of Allen's Harbor and Davisville Depot.

2. Control and Shoreline

- a. The origin of control is adequately described in the Descriptive Report. The present hydrographic sheet is now the authority for the topographic signals since the graphic control sheets upon which they were originally located are to be destroyed.
- b. The shoreline originates with the advance manuscripts of photogrammetric surveys T-10480, T-10481, T-10487, T-10488, T-10489, and T-10495, of 1956, with revisions by the hydrographer in red.

3. Hydrography

- a. Depths at sounding line crossings are in good agreement.
- b. The usual depth curves are in general adequately delineated, except where extensive areas of marsh grass and foul inshore areas frequently prevented development to the low-water line. The 3-ft. and 24-ft. curves were added to more adequately define the bottom configuration and to accentuate the natural channels.
- c. The development of the bottom configuration and investigation of least depths are considered adequate except:
 - (1) Numerous piers, groins, and similar alongshore obstructions charted from prior topographic surveys and aerial photographic revisions (Bp 48251 of 1951) in portions of Greenwich Bay and its tributaries have not been specifically investigated on the present survey or disposed of by the advance information of the contemporary photogrammetric manuscripts.

An example is the group of piers, presently charted (some as ruins) in lat. $41^{\circ}41.25'$, long. $71^{\circ}23.6'$ which were originally charted through T-5749 (1944); they were subsequently rebuilt

(photograph 54W1047) and again, apparently damaged by hurricanes of 1954.

- (2) The hydrography in the vicinity of the marine railway in lat. $40^{\circ}41.80'$, long. $71^{\circ}23.45'$ is incomplete and the prior coverage of H-940 (1867) is not adequate in this vicinity to supplement the present survey for charting.
- (3) The hydrography from the present survey is not adequate to define the bottom configuration in portions of the alongshore area at the west bank of Greenwich Cove. Soundings from prior survey H-3572 (1913) were carried forward to supplement the present hydrography.
- (4) The following are items which could not be reconciled by re-examination of the field records of both the hydrographic or topographic surveys and are called to the attention of the photogrammetric reviewer:

<u>Feature</u>	<u>Lat.</u>	<u>Long.</u>	<u>H-8313 Elev.</u>	<u>T-Survey -----Elevation</u>
Islet	$41^{\circ}40.15'$	$71^{\circ}22.52'$	2' MHW ✓	10489? Awash MHW
Islet	$41^{\circ}40.34'$	$71^{\circ}25.57'$	2' MHW ✓	10488 Awash MHW
Islet	$41^{\circ}40.32'$	$71^{\circ}25.59'$	2' MHW ✓	10488 (3)
Islet	$41^{\circ}40.29'$	$71^{\circ}25.60'$	3' MHW ✓	10488 Awash MHW
Islet	$41^{\circ}40.98'$	$71^{\circ}26.96'$	4' MHW ✓	10487 (2)
Islet	$41^{\circ}39.64'$	$71^{\circ}21.92'$	2' MHW ✓	10489 Not shown
Islet	$41^{\circ}39.52'$	$71^{\circ}21.29'$	2' MHW ✓	10489 Awash MHW
Islet	$41^{\circ}39.59'$	$71^{\circ}21.35'$	4' MHW ✓	10489 Awash MHW

- d. The reef uncovering 1 ft. at MLW in lat. $41^{\circ}39.7'$ long. $71^{\circ}21.18'$ conflicts with soundings of 16 ft. on a regular sounding line and maybe out of position. The contemporary photogrammetric survey and air-photographs show no indication of this low-water feature. *see AW 1962*
- e. Numerous strays, traces of fish, etc. on the EDO record precluded firm interpretation of the bottom profile. Some of the soundings and bottom configuration may be of questionable reliability.

4. Condition of Survey

The field plotting, sounding records, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual except:

- a. The following signals were found to be located in error and were revised on the smooth sheet of the present survey. Only critical hydrographic information located from the incorrect positions was revised on the smooth sheet.
 1. Station Pit in lat. $41^{\circ}38.85'$, long. $71^{\circ}24.67'$ was originally smooth plotted from PH-1-H-56 (Graphic control survey of 1956) and was replotted on the present survey in accordance with the photogrammetric location on T-10488.
 2. Station HIS in lat. $41^{\circ}39.80'$, long. $71^{\circ}24.67'$ and Station ALP in lat. $41^{\circ}40.44'$, long. $71^{\circ}22.53'$ were repositioned on the present survey during review by means of boat sheet descriptions and photogrammetric identification.
- b. The lack of sufficient check-angles for many detached sextant positions resulted in the identical rocks from the photogrammetric survey having two locations. Additional time was necessary during review to reconcile these differences. Also the additional check angle would have provided the hydrographer with evidence of the faulty location of signals HIS, PIT, and ALP which were replotted during review. Sounding line positions involving these signals have not been corrected, in all instances, on the smooth sheet, but are considered adequate for charting.
- c. The use of weak inks for identification of sounding line positions for the majority of the smooth plot increased the time for processing of the survey in verification and review.
- d. Numerous items, further discussed in section 6 of this review, were not inspected at low-water as prescribed in the Hydrographic Manual.

5. Junctions

An adequate junction was effected on the north with H-8314 (1956), on the northeast with H-8395 (1957), on the southeast with H-6859 (1943) and with H-6970 (1944) on the southwest.

6. Comparison with Prior Surveys

A. Misc 20 (1832) 1/24,000 USN Chart

The few soundings on this prior reconnaissance survey which fall in the area of the present survey afford no adequate basis for cartographic comparison.

B. H-880 (1865-67)	1/10,000	H-3565 (1913)	1/10,000
H-939 (1867-68)	1/10,000	H-3571 (1913)	1/10,000
H-940 (1867)	1/5,000	H-3572 (1913)	1/10,000
H-3404 (1912)	1/10,000		

These surveys cover the area of the present survey. A comparison between the prior and present surveys reveals only minor differences of 1 to 3 ft in depths which are attributed to methods of survey. An exception to this is in lat. $41^{\circ}36.3'$ to $41^{\circ}38.0'$, long. $71^{\circ}23.3'$ to $71^{\circ}25.1'$ where significant alterations by dredging, spoiling, and fill have been made since the surveys of 1913.

Generally, the present survey presents the more detailed hydrographic development of the area and verifies numerous charted dangers from the 1865-67 surveys that were not investigated by the 1913 coverage of the common area. Several new shoal and lesser depths on known shoals were found on the present survey. However, over 20 rocks awash or least depths on shoal features were carried forward to supplement the present hydrography.

Off Calf Pasture Point shoal flats of less than 6-ft. depths have accreted as much as 300 meters. Calf Pasture Rock is now within the shoal area and the name could well be omitted from the chart. No extensive natural changes in the bottom were noted in other areas.

Attention is specifically directed to the following items:

1. An unsupported 9-ft. sounding charted in lat. $41^{\circ}40.59'$, long. $71^{\circ}22.30'$ from H-3572 falls in 15-to 20-ft. depths

on the present survey in an area of close development and is considered discredited. The prior sounding appears to be one fathom too shoal possibly because of a recording error.

2. The 14 ft charted in lat. $41^{\circ}39.90'$, long. $71^{\circ}22.38'$ and the 18 ft charted in lat. $41^{\circ}39.99'$, long. $71^{\circ}22.20'$ from H-3572 are considered displaced and have been revised on the smooth sheet of H-3572 to corrected positions. The prior depths are now in agreement with depths from the present survey.
3. The 29 ft. charted in lat. $41^{\circ}39.95'$, long. $71^{\circ}22.12'$ and the 34 ft. charted in lat. $41^{\circ}40.11'$, long. $71^{\circ}21.99'$ from H-3572 are considered erroneous depths and possibly result from confusion in reading the hand-lead markings. The present depths in this vicinity are in good agreement with those of H-880. The 29-ft and 34-ft depths are considered discredited.
4. A rock awash at MLW (Flat Rock) charted in lat. $41^{\circ}39.39'$, long. $71^{\circ}23.73'$ was protracted incorrectly on H-940 and in its true position agrees with details developed by the present survey. The prior position of the rock should be disregarded.
5. A rock awash (Old Sow Rock) is charted in lat. $41^{\circ}37.23'$, long. $71^{\circ}24.39'$ from T-912 (1868) and verified by H-939 as a rock awash at MHW (-4.5 ft) and similarly on H-3572. The rock was not specifically investigated on the present survey. However, regular sounding lines in the immediate vicinity were run at 2-ft stages of tide and no comments as to its existence are recorded. Nor does it appear on photographs taken at 2 ft. of tide. It is believed that the rock has been removed or lowered during improvements by the U. S. Navy in this area.

This survey with the above additions is adequate to supersede these prior surveys within the common area.

7. Comparison with Chart 236 (latest print date 6/19/61)
278 (latest print date 11/27/61)

- a. These charts represent the largest scale coverage for the area of the present survey. The charted hydrography originates principally with the previously discussed prior

*Reviewer
is
to
be
considered
at
Flat
Rock
Rocks
P.S.*

surveys, supplemented by partial application of the present survey through the boat sheet (Bp 54548) and the unverified smooth sheet.

- (1) The charted hydrography in the marked channel into Greenwich Cove is supplemented by letter 564 of 1949.
- (2) The center portion of Apponaug Cove was surveyed by the Corps of Engineers. (Bp 58661 of 1957 - 1/2,400). This survey is subsequent to and supersedes the present survey in the common area.
- (3) The marina on the southern side of Chepiwanoxet Island in lat. $41^{\circ}40.38'$ long. $71^{\circ}26.60'$ is charted through Letter 249 (1958) and is subsequent to the present survey information.
- (4) The pier and groin charted in the vicinity of lat. $41^{\circ}39.7'$, long. $71^{\circ}24.6'$ originate with chart letter 840 of 1959 and are subsequent to present survey information.
- (5) A rock awash charted in lat. $41^{\circ}39.35'$, long. $71^{\circ}21.93'$ originates with the incomplete manuscript of T-10489 and was not investigated by the present survey. The rock does not appear on the unreviewed compilation of T-10489 available at this time in the Washington office. Field investigation of the rock has been requested.
- (6) The ruins outline charted in lat. $41^{\circ}37.45'$ long. $71^{\circ}25.0'$ from T-5751 (1944) and corrections from air photographs of 1946 were not investigated on the present survey. Field disposition of this feature has been requested.
- (7) The 4, 12 and 13 charted in the vicinity of lat. $41^{\circ}39.7'$, long. $71^{\circ}22.12'$ are from the boat sheet of the present survey and were revised on the smooth sheet.
- (8) The sewer outfall charted in lat. $41^{\circ}36.3'$, long. $71^{\circ}24.8'$ is from Bp 38675 (1943) which is a Key Plan and is used as a base for outlining areas of after dredging of other than this immediate area.

The feature was not verified by the present survey or H-6970 (1944) where both surveys indicate depths of 15 to 17 ft at the charted offshore position of the obstruction. The photogrammetric field inspection of 1956 states that "no evidence was found" of the feature nor did it appear on T-5751 of 1944. The feature may be entrenched, but it is doubtful if it extends into the deeper water.

- (9) The 5 ft charted in lat. $41^{\circ}40.69'$, long. $71^{\circ}24.76'$ originates with the boat sheet (Bp 54548) of the present survey and should be disregarded. The depth was revised to 8 ft in the volumes during smooth sheet plotting.
- (10) Numerous rocks awash in the vicinity of Warwick Point charted from the unreviewed survey were revised during review and are charted out of position.
- (11) The rock awash charted in lat. $41^{\circ}36.52'$ long. $71^{\circ}21.73'$ originates with a misplotted feature on the boat sheet of the present survey and should be disregarded.

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

b. Controlling Depths

The charted information for the dredged dock areas at Davisville Depot is from Chart Letters 536 of 1957 (Bp 55049-10), 783 of 1957 (Bp 55658) and 334 of 1958, which are subsequent to the present survey.

The legend 28 FT JUNE 1956 in Davisville Depot Basin originates with the unverified smooth sheet and is in agreement with the present survey after review.

c. Aids to Navigation

The charted positions of aids to navigation adequately mark the features intended.

Attention is directed to the disagreement in buoys, both in number and positions, along the dredged channel into Allen's Harbor. Chart Letter 224 (1963) provides the latest report of the positions.

The special purpose buoys "W9" and "W10" charted from NM 10 of 1955 south of Pine Hill Point do not agree with the survey positions by as much as 310 meters.

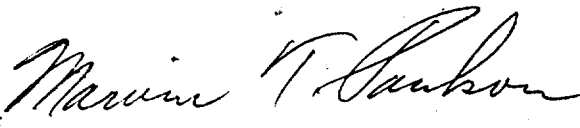
8. Compliance with Instructions

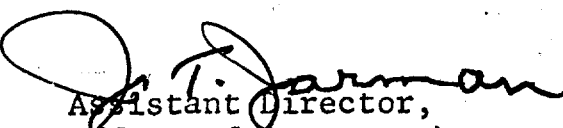
The survey adequately complies with the project instructions, except as discussed under sections 3 and 4 of this review.

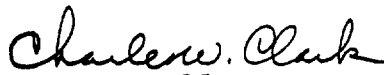
9. Additional Field Work


The present survey is considered basic. Field verification of the position of the reef in lat. $41^{\circ}39.7'$, long. $71^{\circ}21.18'$ and other items have been previously recommended to Operations Division.

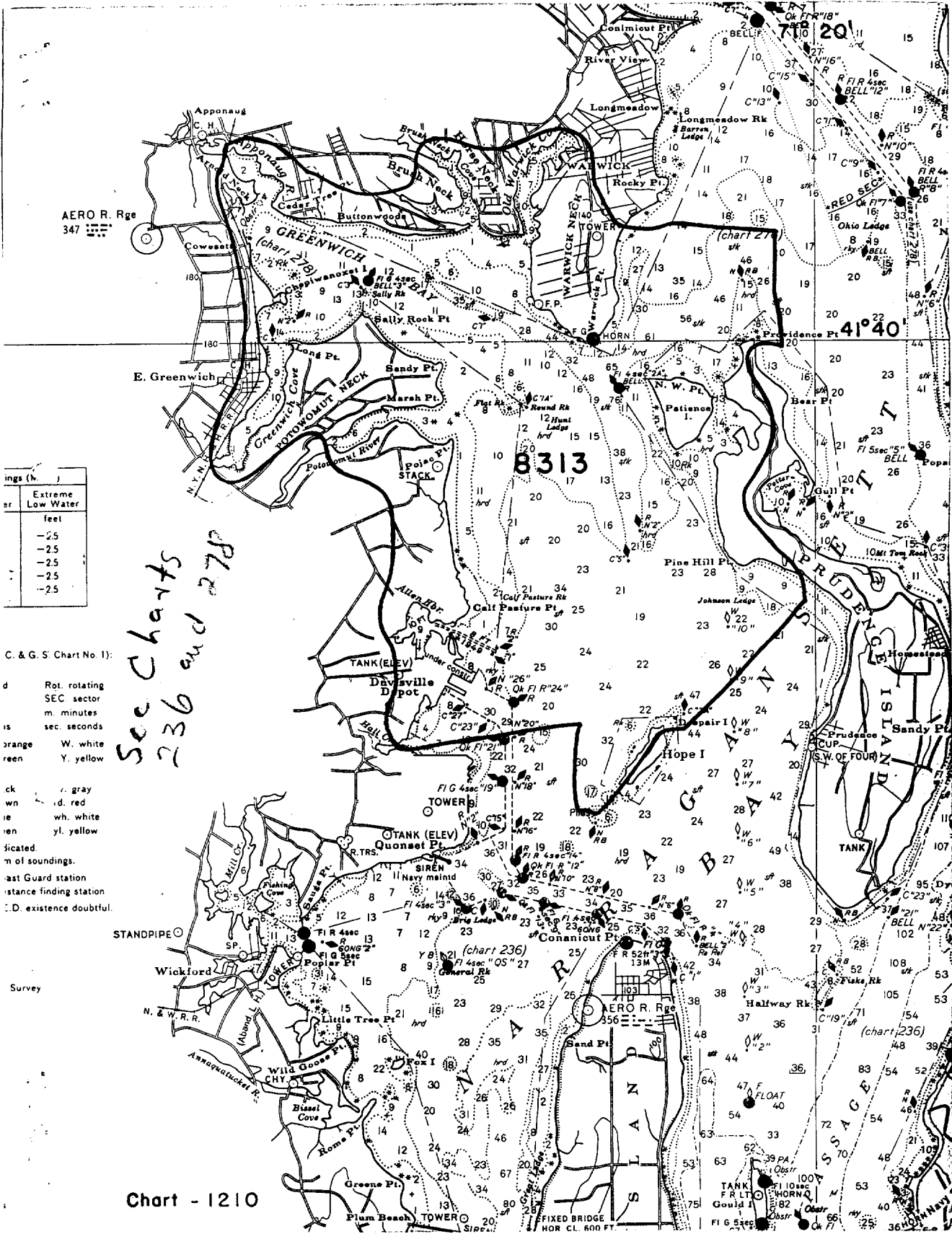
Examined and Approved:


Chief,
Nautical Chart Division


Assistant Director,
Office of Cartography


Projects Officer,
Operations Division


Assistant Director,
Office of Oceanography



AEROR. Rge
347

GREENWICH
(chart 236)

(chart 236)

41°40'

8313

Soundings (N. J)	Extreme Low Water	feet
—2.5		—2.5
—2.5		—2.5
—2.5		—2.5
—2.5		—2.5
—2.5		—2.5

*See charts
236 and 278*

C. & G. S. Chart No. 11:

- d Rot. rotating
- SEC sector
- m. minutes
- is sec. seconds
- orange W. white
- reen Y. yellow
- ck gray
- wn d. red
- re wh. white
- en yl. yellow
- icated.
- m of soundings.
- ast Guard station
- istance finding station
- .D. existence doubtful.

STANDPIPE

Wickford

Survey

Chart - 1210

AEROR. Rge

(chart 236)

AEROR. Rge

(chart 236)

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8313

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/23/59	236	J. M. Gunn	Before After Verification and Review Partially applied. ✓ RKD
6/25/59	353	J. M. Gunn	Before After Verification and Review Partially applied.
9-11-59	1210	J. M. Albert	Partial via dwg. 353 #25 Before After Verification and Review
11-10-59	278	M. Rogers	Partially applied for critical changes Before After Verification and Review ✓ RKD 9-9-60 after chart printed
9-16-60	353	R. K. Alexander	Part appld - re appl Before After Verification and Review thru larger scale 278
1-7-63	236	Hebebron Raddar	Partially Applied Before After Verification and Review but before inspection - critical Edgs and Curves
3-8-63	353	M. Rogers	Partial application Before After Verification and Review before inspection thru chart 236
1-20-64	278	G. R. McCann	dwg #20 in common area - Before After Verification and Review FULLY APPLD.
1-20-64	353	G. R. McCann	Partly applied Before After Verification and Review fully applied only
7-27-64		R. E. Elkins	that part which falls on 278 - Before After Verification and Review
7-26-65	236	G. R. McCann	Fully applied After Verification and Review thru Chart 278 in area covered by 278. ✓ RKD
12-4-68	2353	J. B. Penns	Fully applied after V & R.

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

8313

Additional Work

Diag. Cht. No. 1210-3.

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey Hydrographic.....
Field No. ECFP-1456.....
Office No..... H-8313. Ad. Wk.....

LOCALITY

State Rhode Island.....
General Locality .. Narragansett Bay.....
Locality .. Greenwich Bay-Prudence I.....

19 62-63

CHIEF OF PARTY

..... E. K. McCaffrey and K. A. MacDonald.....

LIBRARY & ARCHIVES

DATE January 24, 1964.....

8313

Additional Work

TO: The Director
Coast and Geodetic Survey

4 December 1963

FROM: Commanding Officer
USC&GSS WAINWRIGHT & HILGARD

SUBJECT: SPECIAL REPORT, SP 22-62 to Accompany H-8313 (ECFP 1456)

REF: INSTRUCTIONS, Special Project 1-63, 2100B-pt, S-2-WA&HI dated
19 March 1963 (Items No. 25 and 26)

Dates of Survey: September 19-22, 26 and October 8-9, 1962
May 16, 21-24 and June 5, 1963

In accordance with the above referenced instructions, additional hydrographic investigations were carried out as noted on the bromide print accompanying the blue line print of survey No. H-8313 (ECFP 1456).

Investigations proceeded in the following manner with results as noted:

Reference chart 13223 (22nd Ed., Aug. 30, 1975) and 13224 (24th Ed., Dec. 27, 1975)

HYDRO-SKIFF, CS 771, a Day, 19 September 1962

1. Additional shoreline development was accomplished in approximate Lat; 41-39, Long: 71-27 (Pos. 1-33a), and the following alongshore features investigated, as noted on the bromide print: *(bromide copy was not available)*
Some additional soundings were smooth plotted in the inshore development area.

a. The charted marine railway in Lat: 41-39.21, Long: 71-27.13 was verified, extending approximately 20 meters offshore and awash at MLW (Pos. 6a). *CONCUR A float was also located in the area (Pos. 8a)*

b. The charted feature in Lat: 41-39.29, Long: 71-26.99 was found to be a small pier (Pos. 11a) *from the boat sheet - concur*

c. The charted pier ruins, ^{from T-5749} in Lat 41-39.57, Long: 71-26.73 were found to be non-existent. (Pos. 28a) *Concur*

2. Numerous uncharted piers, small boat moorings, wharfs, platforms and other alongshore culture were also located (See sounding volume 'a' day for details). *These newly located features have been smooth plotted*

HYDRO-SKIFF, CS 771, b Day, 20 September 1962

3. Additional shoreline development was accomplished in approximate Lat: 41-40, Long: 71-26.7 (Pos. 1-9b), and the following alongshore features investigated, as noted on the bromide print: *(bromide copy was not available)*

a. The charted pier ruins in Lat: 41-39.72, Long: 71-26.74 were found to be non-existent (Pos. 16 & 17b). *However, a group of approx. 17 pilings were located at the above positions*

b. The charted obstruction in Lat: 41-39.19, Long: 71-26.89 was found to be non-existent. (Pg. 23, Sounding volume, 'b' day) Concur. Obstr. not presently charted.

c. The area in Lat: 41-39.97, Long: 71-26.17 was investigated for the reported pier removal. A timber groin was the only feature located in this area. Local information indicated that a temporary floating pier is used in the area during the summer season. (pos. 38b). *concur*
A timber groin was located and smooth plotted at the above position.

4X. An uncharted small craft marina was located in Lat: 41-40.97, Long: 71-26.87⁹⁰ (Pos. 31-36b). In addition, numerous other charted and uncharted boat moorings, wharfs, floating piers, ^{pillars and dolphins} and other alongshore culture were also located. (See Sounding Volume, pos. 10 - 29b for details) and are smooth plotted. *concur*

HYDRO-SKIFF, CS 771, c Day, 21 September 1962

5. *A private marker in lat. 41°40.65', long. 71°26.4' was located (Ps. 1c) It is not presently charted.*

6X. An uncharted small boat marina in Lat: 41-41.41, Long: 71-26.78 was verified (Pos. 2-10c). *The Apponavq Harbor Marina was located at the above positions It is presently charted on 278.*

7X. The pier charted in Lat: 41-41.33, Long: 71-26.9 was found to be non-existent (Page 30, sounding volume, c Day). *The pier was visually investigated with no verification and local information indicated it was washed out in 1957. However, the pier should be charted as submerged pier ruins.*

8X. The charted 6 foot sounding in Lat: 41-40.94, Long: 71-26.78 was developed with additional hydrography. No evidence of this sounding could be located with echo sounder (Pos. 11-26c). *Least depths of 7 ft. were located in the vicinity. Delete charted 6 and chart least present survey depths.* Reference item 9: Chart present depths

9X. The 5 and 7 foot shoals in approximate Lat: 41-40.87, Long: 71-26.54 were investigated with additional hydrography. Echo sounders failed to detect these shoal soundings (Pos. 27-74c). *The 5 and 7 ft shoals were disproved by 20 meter line spacing at the above positions. Soundings obtained by the Adak are in general agreement with surrounding area. The 5 ft shoal does not appear on the final inspected S.S. subsequent to the blue line copy of the S.S.*

10X. The charted 6 and 7 foot soundings in Lat: 41-40.31, Long: 71-25.19 were developed with additional hydrography (Pos. 75-126c). Several erratic shoal soundings were indicated due to improper fathometer operation, which cannot be considered reliable. Therefore, further hydrography was accomplished in the area on 'h' Day, CS 771, 21 May 1963 (Pos. 2-33h) and on 'j' Day, CS 771, 22 May 1963 (Pos 1-15j). No evidence of the shoal soundings could be found during the 1963 season. *The 7 ft. shoal sounding was disproved by deeper soundings of 11 ft. during close line development. It is presently uncharted. The 6 ft. shoal does not appear on the final inspected S.S. subsequent to the blue line copy of the S.S.* Chart present depths

HYDRO-SKIFF, CS 771, d Day, 22 September 1962

11X. The charted rocks in approximate Lat: 41-40.62, Long: 71-26.41 were investigated with the following results:

- (a) The charted rock awash in latitude $41^{\circ} 40.62'$, longitude $71^{\circ} 26.40'$ was located 15 meters northwest of its charted position, awash at MLW (pos. 1d). *A rock covered 1 ft. at MLW was confirmed 20 meters NW of the above position.*
- (b) The charted rock awash in latitude $41^{\circ} 40.64'$, longitude $71^{\circ} 26.42'$ was investigated. A rock covered 3 feet at MLW, was found (pos. 2d). An additional rock was located approximately 10 meters ^{west} east of above rock, covered 2 feet at MLW (pos. 3d). *concur*
The two covered rocks were smoothly plotted at the above positions
- 12 X. The 3-foot rock charted in latitude $41^{\circ} 40.46'$, longitude $71^{\circ} 26.35'$ was investigated and found to be non-existent (page 60, sounding volume, "d" day and pos. 1, "h" day CS-771, 21 May 1963). *The 3RK at the above position was not disproved or confirmed and should be retained.* Retain as presently charted
- 13 X. Additional hydrography was accomplished, as directed by the bromide print, in the northern portion of Old Warwick Cove, latitude $41^{\circ} 41.7'$, longitude $71^{\circ} 23.40'$ (pos. 4d-12d, 24d-25d). In addition, 2 uncharted small-boat marinas were located in the area (pos. 13d-20d). Present chart reflects significant development in the area subsequent to the date of the present survey. Retain as presently charted.

HYDRO-SKIFF CS-771 "e" day 26 September 1962

- 14 X. The charted rock awash and rock, covered 2 feet in latitude $41^{\circ} 39.31'$, longitude $71^{\circ} 24.4'$ were investigated. Only the latter rock was verified, and found to be covered 3 feet at MLW (pos. 1e). *A 3RK was confirmed at the above position and the rock awash 30 meters west of the 3RK was not confirmed or disproved - retain.*

HYDRO-SKIFF CS-771 "f" day 8 October 1962

- 15 X. The 3 charted rocks awash in approximate latitude $41^{\circ} 39.40'$; $71^{\circ} 21.9'$ were investigated with the following results:
A rock was located at pos. 6f (lat. $41^{\circ} 39.42'$, long. $71^{\circ} 21.95'$). Chart as appropriate.
- (a) Charted rock awash in latitude $41^{\circ} 39.40'$, longitude $71^{\circ} 21.93'$ was verified, awash at MLW (pos. 5f). *concur*
- (b) Charted rock awash in latitude $41^{\circ} 39.39'$, longitude $71^{\circ} 21.96'$ could not be located (~~pos. 6f~~). Chart as a submerged rock.
- (c) Charted rock awash in latitude $41^{\circ} 39.35'$, longitude $71^{\circ} 21.95'$ was not found by search (pos. 7f). *(cov 2 ft.)* A submerged rock, located at lat $41^{\circ} 39.35'$, long. $71^{\circ} 21.91'$ should be added to the chart
- 16 X. An uncharted rock in latitude $41^{\circ} 39.72'$, longitude $71^{\circ} 21.58'$ was located, covered 3 feet at MLW (pos. 8f).
A 3RK was smoothly plotted at the above position and is 120 meters SW. of the charted 3RK in lat. $41^{\circ} 39.74'$, long. $71^{\circ} 21.50'$ Retain charted rocks in the area and chart the additional rock at the new position

HYDRO-SKIFF CS-771 "g" day 9 OCTOBER 1962

- 17 ~~X~~. Rock detail was investigated in approximate latitude 41° 39.5', longitude 71° 21.3'. The ~~charted~~ ^{presently} rock cluster in this area was verified, bare ~~7~~ ⁷ feet at MLW, and its limits were delineated (pos. 1g). In addition, the ~~charted~~ ^{presently} rock awash, 55 meters east of cluster could not be found ~~while~~ ^{and should be charted as a submerged rock.}
- A ~~previously~~ uncharted rock was located 30 meters south of the cluster, bare 1-foot at MLW (pos. 2g). *The rock awash 1 ft. MLW located 30 meters south of the above position is presently uncharted (Pos. 2g)*
- 18 ~~X~~. The charted rock awash and rock covered 1-foot in latitude 41° 39.67', longitude 71° 21.17' was found to be non-existent (page 12, Sounding volume, "g" day; and pos. 52, "j" day, CS-771, 22 May 1963). *Delete charted rocks. Search and air photos discredit a feature here. Original positions were improperly revised by the smooth plotter. Feature replots in the vicinity of lat. 41° 39.78', long. 71° 21.03'. Chart revised position of the referenced rock.*
- 19 ~~X~~. The 3-foot ~~shoal~~ ^{shoal} charted in latitude 41° 39.74', longitude 71° 21.50', could not be located by hydrographic search (page 13, sounding volume, "g" day; and pos. 3g - 25g ^{and 82-92 day}). *Hydrographer considers 3 disproved. CONCUR* ^{Charted position is probably in error. Revise chart to agree with the smooth plotted additional work in the vicinity}
- 20 ~~X~~. The charted shoal "boulders" in latitude 41° 39.9', longitude 71° 21.4' was investigated. This shoal consists of a ridge of rocks extending north and south 100 meters with a least depth of 6-feet ^{7RK} determined by leadline (pos. 26-28g). *concur*
The 7RK shoal is presently charted, however a 6RK least depth in lat. 41° 39.87' long. 71° 21.4' should be charted (Pos. 26g).

HILGARD'S Aluminum Skiff "a" day 16 May 1963

1. An uncharted small-boat marina was located in latitude 41° 41.77', longitude 71° 23.49' (pos. 1a for detail). *The floating pier was located in 1962 and is presently charted of the above position. It was also located and confirmed in 1963.*
2. Investigation of reported pier ruins and ~~obstructions~~ ^{pilings} was accomplished in Old Warwick Cove, south of latitude 41° 41.4', longitude 71° 23.5'. Features located were as follows:
 - (a) Numerous charted small piers in the area were found to be in poor condition, but the only pier ruins were at latitude 41° 41.22', longitude 71° 23.61' (pos. 4a). ^{ruins} *(presently uncharted)*
 - (b) Uncharted pilings were located as follows:
 - As 3a. latitude 41° 41.24'; longitude 71° 23.59' *pile bare 13 ft. MHW (presently uncharted)*
 - 2a. latitude 41° 41.40'; longitude 71° 23.59' *pile bare 15 ft. MHW (presently uncharted)*
 - 5a. latitude 41° 41.16'; longitude 71° 23.62' *group of approx. 77 pilings in ruins (presently uncharted)*

HYDRO-SKIFF CS-771 "h" day 21 May 1963

- 3 ~~X~~. The rock charted awash in latitude $41^{\circ} 39.25'$, longitude $71^{\circ} 24.66'$ was found to be non-existent (pos. 34h). Concur; investigation accomplished during a tide stage at approximately MLW and reported "clearly visible" bottom.
- 4 ~~X~~. The group of 4 charted rocks awash in approximate latitude $41^{\circ} 37.9'$, longitude $71^{\circ} 24.3'$ were investigated. Only two rocks could be found in the immediate area, one awash at MLW and the other, covered 1-foot at MLW (pos. 35h, pos. 64, "j" day, 22 May 1963). The remaining rocks are not disproved. See item No. 8 below
- 5 ~~X~~. The charted rock in latitude $41^{\circ} 37.967'$, longitude $71^{\circ} 24.37'$, was verified, bare 1-foot at MLW (pos. 36h). The rock on the present smooth sheet, approximately 40 meters to the southeast of the recorded position, is not considered disproved.

HYDRO-SKIFF CS-771 "j" day 22 MAY 1963

- 6 ~~X~~. A hydrographic investigation failed to locate the charted 11-foot shoal in latitude $41^{\circ} 39.93'$, longitude $71^{\circ} 21.64'$ (pos. 16j-51j). However, an uncharted shoal ¹⁰⁰75 meters to the northeast of the sounding was found with a least depth of 12 feet determined by echo-sounder. Retain 11-foot sounding on chart
- 7 ~~X~~. The charted rock in latitude $41^{\circ} 39.70'$, longitude $71^{\circ} 21.4'$ was verified, covered 3 feet at MLW (pos. 53j). A 3RK was confirmed (pos. 112) of the above position. It is presently charted.
- 8 ~~X~~. Uncharted rocks were found at the following locations:
- (a) Latitude $41^{\circ} 39.1'$, longitude $71^{\circ} 24.31'$, covered 2 feet at MLW (pos. 63j) 2 RK was smooth plotted. It is presently charted
 - (b) Latitude $41^{\circ} 37.86'$, longitude $71^{\circ} 24.29'$, covered 1-foot at MLW (pos. 65j). A rock covered 1 ft at MLW is smooth plotted
 - (c) Latitude $41^{\circ} 37.87'$, longitude $71^{\circ} 24.29'$, covered 21-feet at MLW (pos. 66j). A 2 RK was smooth plotted
 - (d) Latitude $41^{\circ} 37.85'$, longitude $71^{\circ} 24.29'$, bare 1-foot at MLW. A rock awash at MLW is smooth plotted. (pos. 67j)

HYDRO SKIFF CS-771 "k" day 23 MAY 1963

- 9 ~~X~~. The charted nomenclature of aids and charted features within Allen Harbor were investigated, latitude $41^{\circ} 37.4'$, longitude $71^{\circ} 24.8'$ (pos. 1-19k; pos. 1-24, "m" day, 5 June 1963). These aids were changed after departure of survey party from this area. Buoy positions were not plotted due to subsequent relocation. Several dols, piling and ruins located during the present additional work (positions 1-15 k) are plotted in the area. Chart as considered appropriate.

- (a) Notice to Mariners, No. 27, July 6, 1963 (3417)
- (b) Notice to Mariners, No. 38, Sept. 21, 1963 (8427)

10 X. The charted rock awash in latitude $41^{\circ} 36.32'$, longitude $71^{\circ} 24.83'$ was verified, covered 2 feet at MLW, (pos. 21k) In addition, an uncharted rock was also located 20 meters southwest of the charted rock awash, covered 4 feet at MLW (pos. 20k). The reported existence of a sewer outfall line in this immediate area was also investigated and it was found to be non-existent. *The rock awash was confirmed by a 2 RK 15 m west of the above position. A 4 RK was located 20 m. SW of the 2 RK.* *inspection conducted at minus tide*

HYDRO-SKIFF CS-771 "l" day 24 MAY 1963

11 X. The charted rock bare 1-foot in latitude $41^{\circ} 39.07'$, longitude $71^{\circ} 21.44'$ was verified, awash at MLW (pos. 11). *Additional rocks were also located in the area. They are smooth plotted.*
A rock awash of MLW was smooth plotted. It is presently charted.

12 X. The charted ^{2 ft. rock} in latitude $41^{\circ} 38.78'$, longitude $71^{\circ} 21.26'$ was verified, covered 3 feet at MLW (pos. 61). An additional uncharted rock, covered 2 feet at MLW, was located 20 meters northwest, (pos. 51). *A 3 RK at pos. 62 and a 2 RK at pos. 52 were smooth plotted*

13 X. The charted ^{2-ft} rock in latitude $41^{\circ} 38.56'$, longitude $71^{\circ} 21.24'$ was verified, covered 1-foot at MLW (pos. 71). *A rock covered 1 ft. at MLW was smooth plotted and located 40 m NE of the above position*

14 X. Additional uncharted rocks were located as follows:

- (a) Latitude $41^{\circ} 39.75'$, longitude $71^{\circ} 21.58'$ - covered 4 feet at MLW (pos. 81) *A 4 RK is smooth plotted*
- (b) Latitude $41^{\circ} 39.74'$, longitude $71^{\circ} 21.44'$ - covered 5 feet at MLW (pos. 91). *A 5 RK is smooth plotted*
- (c) Latitude $41^{\circ} 39.72'$, longitude $71^{\circ} 21.41'$ - covered 4 feet at MLW (pos. 101). *A 4 RK was smooth plotted*
- (d) Latitude $41^{\circ} 39.7'$, longitude $71^{\circ} 21.4'$ - covered 3 ft at MLW (pos. 111) - *see item 7 (pos. 53) above.*

HYDRO-SKIFF CS-771 "m" day 5 June 1963

15 X. Refer to "k" day, 23 May 1963 - Allen Harbor development. *Several piles, dolphins and buoys were located by detached positions in Allen Harbor*

LAUNCH CS-181 "a" day 23 MAY 1963

16 X. The charted 17-foot sounding in latitude $41^{\circ} 37.55'$, longitude $71^{\circ} 20.98'$ was developed with additional hydrography. This shoal was verified and a least depth of 18 feet obtained by echo sounder (pos. 4a-39a). *The 17 ft. shoal is supported by 18 and 19 ft. depths at the above position. Retain charted 17 ft sounding.*

17 X. The charted 18-foot shoal in latitude $41^{\circ} 37.50'$, longitude $71^{\circ} 20.57'$ could not be found by additional hydrography (pos. 40a - 62a) *The 18-ft sounding at the above position was not confirmed or disproved and should be retained. It is presently charted.*

HILGARD A & B days 22 MAY 1963

(Add a depth curve to the chart) ↘

- 18 X. The charted 10-foot and 17-foot shoals in approximate latitude $41^{\circ} 38.6'$, longitude $71^{\circ} 21.5'$ were developed with additional lines of hydrography. No indication of these shoals was evident by echo sounder. *The 10 ft and 17 ft shoals in the vicinity of the above position were not confirmed or disproved and should be retained. They are presently charted.*
- 19 X. The charted shoal area in latitude $41^{\circ} 37.45'$, longitude $71^{\circ} 22.15'$ was developed with additional hydrography. Retain as presently charted. *The shoal in the vicinity of the above position was not adequately developed to confirm or disprove the shoal. It is presently charted and should be retained.*

Accepted hydrographic procedures were followed in carrying out these investigations. Launch CS-181 was equipped with Raytheon echo sounder #211; CS -771 with Raytheon #215 & 244; and HILGARD with Raytheon #541. Pole soundings were obtained where necessary and check angles taken on all located features. All control used exists on the blue line print of survey H-8313. *no lead line was utilized on detached positions*

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

1962

SP 22-62, Survey H-8313

Hydro Skiff CS-771; Fath. #244

<u>Depth</u>	<u>Correction</u>
0.0	0.0
15.0	+0.2
28.0	+0.4
36.0	+0.6
42.0	+0.8
46.0	+1.0
50.0	

1963

SP 22-62, Survey H-8313

Launch CS-181; Fath. #211

0.0	0.0
6.3	+0.2
14.3	+0.4
20.3	+0.6
26.1	+0.8
32.7	+1.0
40.0	+1.2
47.1	+1.4
55.3	+1.6
65.3	+1.8

& on

0.0 correction phase comparison
on A & B scales

1963

SP 22-62, Survey H-8313

Hydro-skiff CS-771; Fath. 215

<u>Depth</u>	<u>Correction</u>
0.0	-1.6'
0.8	-1.4
6.0	-1.2
12.7	-1.0
21.7	-0.8
40.0	-1.0
& on	

1963

SP 22-62, Survey H-8313

HILGARD; Fath. #541

0.0	+0.4
4.3	+0.6
18.3	+0.8
27.9	+1.0
& on	

<u>Phase Comparison</u>	
<u>Scale</u>	<u>Correction</u>
A	0.0'
B	+0.2'

T I D E N O T E

Newport, Rhode Island standard tide gage, with hourly heights furnished by the Washington Office, was used for tidal data. Because of significant range and time differences, the following corrections were taken from C&GS Tide Tables for Greenwich, R. I., Sandy Point - Prudence Island, and Wickford, R. I., then applied to actual heights observed at Newport, Rhode Island:

Greenwich, R. I.

High Water: +16 min. +0.5 feet
Low Water: +08 min. +0.0 feet

Sandy Point - Prudence Is.

High Water: +10 min. +0.4 feet
Low Water: +09 min. +0.0 feet

Wickford, R. I.

High Water: +12 min. +0.3 feet
Low Water: +07 minutes +0.0 feet

Darrell W. Crawford
Darrell W. Crawford
LT, C&GS
(jg)

Approved and Forwarded:

Edwin K. McCaffrey
Edwin K. McCaffrey, LCDR, C&GS
Commanding WAINWRIGHT & HILGARD

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 5, 1964

Nautical Chart Division: R. H. Carstens

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 8313 Add. Wk.

Locality Narragansett Bay, Rhode Island

Chief of Party: K. A. McDonald (1962) & E. K. McCaffrey (1963)

Plane of reference is mean low water

ft. on tide staff at

ft. below B. M.

Height of mean high water above plane of reference of the
working grounds is 4 feet.

Condition of records satisfactory except as noted below:

Tide reducers for the following positions have been revised
in red and verified.

1 A-55A	22 j-38j
2c- 40c	
3g- 25g	64j-67j

J. M. Symons
Chief, Tides and Currents Branch

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8313 Ad. Wk.

Records accompanying survey: Smooth sheets
 boat sheets .2....; sounding vols. 5.....; wire drag vols.;
 Descriptive Reports .1....; graphic recorder envelopes 5.....
 special reports, etc.

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions ^{observed} on sheet	6.45
Number of positions checked
Number of positions revised
Number of soundings revised (refers to depth only)
Number of soundings erroneously spaced
Number of signals erroneously plotted or transferred
Topographic details	Time
Junctions	Time
Verification of soundings from graphic record	Time
Special adjustments	Time

Verification by *Mack J. Friess* Total time Date

Reviewed by *Mack J. Friess* Time Date *11-2-76*
C. W. Wellman 12-17-79 48 hrs

H-8313

Items for Future Presurvey Reviews

Items numbered 14 and 18 of the 1962 Ad. Wk. and item 18 of the 1963 Ad. Wk. listed in the Descriptive Report of H-8313 Ad. Wk. originate with the 1956 work and prior surveys. They were investigated but not found by the hydrographer and are not considered confirmed or disproved. The referenced items should be investigated by thorough development and/or wire drag during future work in the area.

OFFICE OF MARINE SURVEYS AND MAPS

HYDROGRAPHIC SURVEYS DIVISION

MODIFIED HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8313 Ad. Wk.

FIELD NO. ECFP-1456

Rhode Island, Narragansett Bay, Greenwich Bay - Prudence Island

SURVEYED: September 19-22, 26, October 8-9, 1962; May 16, 21-24, June 5, 1963

SCALE: 1:10,000

PROJECT NO.: SP-22-62, SP-1-63

SOUNDINGS: DE-723 Depth Recorder, Pole

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party	K. A. MacDonald
.....	E. K. McCaffrey
Surveyed by	R. R. Floyd, W. D. O'Neill
.....	J. R. Lewis, E. J. Murphy
.....	J. S. Midgley, D. W. Crawford
Verified by	M. J. Friese
Reviewed by	M. J. Friese
	Date: November 2, 1976
Cursory inspection made--survey	Kenneth W. Wellman
processing considered complete	December 17, 1979

1. Purpose of Survey

The purpose of the additional work of 1962-63 was to accomplish additional hydrography in sparsely sounded areas and to investigate several rocks, piles, dolphins, groins, piers, and shoal soundings originating with H-8313 (1956) and those which had been carried forward from prior surveys.

2. Office Work


The results of the additional work have been plotted on the smooth sheet of H-8313 (1956) in violet ink.

In several cases, inadequate investigations by the field party precluded resolution of specific items. The smooth plotting was limited to that necessary to adequately portray the individual items under investigation. In cases where hydrographic development revealed no new information, smooth plotting was minimized and only a few representative soundings were plotted.

The individual items are adequately discussed in the Descriptive Report for the Additional Work. Suitable annotations were added in red during review

and inspection. With the supplemental annotations, the Descriptive Report is considered adequate and no further comments in the Review Report are considered necessary.

Examined and Approved:


Chief
Hydrographic Surveys Division

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8313 Ad. Wk.

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
236	3/10/64	G.R.M ^c CANN	Full Part Before After Verification Review Inspection Signed Via Drawing No. 31
1210	6-22-64	R.K. Dufour	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>consider fully applied. Hydro removed from this area on chart 1210</i>
353	7-16-64	J.T. Galleher	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>thru 278 & 236</i>
236	7-26-65	G.R.M ^c CANN	Full Part Before After Verification Review Inspection Signed Via Drawing No. <i>thru Chart 278 in area covered by 278 mld</i>
13223	6-20-80	D. Wylie	Full Part Before After Verification Review Inspection Signed Via Drawing No. 47 COMP: 2 HR REVIEW: 1 HR
13224	6-20-80	D. Wylie	Full Part Before After Verification Review Inspection Signed Via Drawing No. 35-36 COMP: 23 HR REVIEW: 4 1/2 HR
13221	6-23-80	D. Wylie	Full Part Before After Verification Review Inspection Signed Via Drawing No. 53 COMP: 7 HR REVIEW: 5.5 HR
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.