

8394

Diag. Cht. No. 1210-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-05157 Office No. H-8394

LOCALITY

State Rhode Island

General locality Narragansett Bay

Locality East Passage-Newport Harbor

1957

CHIEF OF PARTY

M. T. Paulson

LIBRARY & ARCHIVES

DATE August 27, 1958

USCOMM-DC 5087

Area 1
CHT
13221
13223

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-8394

Field No. ECFP-05157

State Rhode Island

General locality Narragansett Bay

Locality East Passage - Newport Harbor

Scale 1:5,000 Date of survey 23 May 1957 - 25 Oct. 1957

Instructions dated 31 Jan. 1956 - Supplemental instructions 15 Feb. 1957

Vessel East Coast Field Party

Chief of party Marvin T. Paulson

Surveyed by A.G. Davis, R.A. Lewis, A.M. Cook, L.L. Seal, & J.S. Baker

Soundings taken by ~~echometer~~ graphic recorder, hand lead, ~~wire~~ sounding pole

Fathograms scaled by East Coast Field Party

Fathograms checked by East Coast Field Party

Protracted by Ship Hydrographer & Jordan S. Baker

Soundings penciled by Jordan S. Baker

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~ are true depths

REMARKS:

*Changes in Ach. Wk. made in
review inspection*

Appld To Stb

DESCRIPTIVE REPORT
TO ACCOMPANY

Hydrographic Survey H-8394 (Field No. ECFP-05157)

Narragansett Bay
Project 13870
Chief of Party

East Passage
Scale 1:5,000
M. T. Paulson, Lcdr. C&GS

* * * * *

A. PROJECT

Instructions - project 13870 - Rhode Island - Connecticut Coast, dated 31 January 1956 and addressed to Officer In Charge ECFP. Supplemental instructions - Project 13870, dated 15 February 1957, addressed to Officer in Charge East Coast Field Party.

B. SURVEY LIMITS

The area covered by this survey is in the area of Narragansett Bay and in the vicinity of the East Passage. The limits are from latitude, $41^{\circ}-32'45''$ on the north to $41^{\circ}-28'00''$ on the south. From longitude $41^{\circ}-18'15''$ on the east to $71^{\circ}-21'00''$ on the west.

Hydrography on this sheet began 23 ~~March~~^{May} 1957 and ended 25 October 1957.

This sheet forms a junction with sheet H-8367, ECFP-1856 on the west and Prior Survey H-7790, 1949, on the north. It is bounded by coastline on the east and south. ~~and H-6859 (1943)~~⁽¹⁹⁵⁶⁾

As weather would allow, work proceeded in an orderly manner, progress in general was extremely good, when considering the out-dated condition of the equipment.

C. VESSEL AND EQUIPMENT

Launches CS-82 and CS-168 were used for the survey. For this survey the launches were based at Fort Adams, Newport, Rhode Island. Launch CS-82, a 30 ft. wooden launch, has a turning radius of 50 meters at half rudder and standard speed. Launches CS-168, a 25 ft. aluminum launch with a turning radius of 20 meters at half rudder and standard speed.

No settlement and squat test was made for this survey.
The following fathometers were used on Launch CS-82.

<u>TYPE</u>	<u>SERIAL NO.</u>
808J	101
EDO 255	202
EDO 255	201

The following fathometers were used on Launch CS-168.

<u>TYPE</u>	<u>SERIAL NO.</u>
EDO 255	201

C. VESSEL AND EQUIPMENT (CONT'D)

On both launches, the transducers were mounted in a "Fish" extended over the starboard side just aft of amidship.

The equipment as a whole proved to be very unsatisfactory and as a result many unnecessary pains had to be taken to accomplish a first rate survey.

D. TIDE AND CURRENT STATIONS

For both the boat sheet and the smooth sheet a portable automatic tide station located at Fort Adams, latitude $41^{\circ}-28.88'$, longitude $71^{\circ}-20.24'$ was used without any time correction or range correction.

See TIDE NOTE appendix D.

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

E. SMOOTH SHEET

The projection was made in Washington D.C. by mechanical means. The signals and shoreline were put on by the East Coast Field Party and Ship HYDROGRAPHER. The smooth sheet was plotted by the East Coast Field Party. Up to h day was plotted by Ship HYDROGRAPHER.

Because of the fact that the blackline manuscript was incomplete it was necessary to plot some of the topographic signals from the plane table manuscript. *subsequently destroyed*

Soundings in excess of 25 ft. for k day appear to be 1 ft. to 2 ft. shoaler than those indicated by other days and crosslines. Investigation of this situation revealed no solution. (See p 4A of Review)

F. CONTROL STATIONS

Control consisted of triangulation and photo stations. The following is a list of triangulation stations and the source of control for each. (See pg. 8 for additional control)

STATION	G.P. PAGE	VOL. NO.	CH. OF PTY.
ALL - Newport city Hall Dome 1934	62	1	W.D.P.
AND - Rose Island Lighthouse 1888	58	1	A.T.M.
ANK - Goat Island South tank 1934	70	1	-----
CEN - Naval Tr. Station Center Tank 1943	70	1	-----
CON - Gull Rocks Beacon 1932	60	1	-----
CUP - War College Cupola 1915	60	1	R.I.G.S.
DAM - Fort Adams Light 1934	59	1	W.D.P.
DOM - Naval College Dome 1888	137	1	R.I.G.S.
GOA - Goat Island North tank 1934	70	1	-----
HAN - Newport Channing Memorail Church Spire 1934	61	1	L.F.W.
IDA - Ida Lewis Light 1934	59	1	L.F.W.
IRE - Newport St. Mary's Church Spire 1934	63	1	W.D.P.
LAN - Gould Island Tank 1932	40	1	W.D.P.
LEG - S.E. War College Tank 1943	70	1	R.I.BHR
OAT - Goat Island Lighthouse 1888	60	1	W.D.P.
ROC - Light on rock 1932	60	1	W.D.P.

<u>F. CONTROL STATIONS CONT'D</u>	G.P.	PAGE	VOL.NO.	CH.OF PTY
ROSE- Rose Island Aero Light 1934		58	1	-----
SHO - Goat Island Shoal Light 1934		60	1	-----
TAC - Tall stack waterfront 1932		61	1	W.D.P.
TAN - Rose Island tank 1940		40	1	P.L.B.
VAL - Naval Training Station North Tank, 1943	70		1	BHR
TRI - Newport Trinity Church Spire 1934	63		1	L.F.W.
TAT - Naval Training Station South Tank 1943	70		1	B.H.R.

For the southern section of H-8394, the topographic control was located on photogrammetric manuscript T-11433. For the northern section of H-8394, the topographic control was located by use of planetable charts. This control was supplied by the photo party located at Newport, Rhode Island. *subsequently destroyed*

See Appendix "A" for a list of control stations and origin of each.

In order to aid in the survey hydro signal "DON" was established.

G. SHORELINE AND TOPOGRAPHY

The shoreline and topographic detail shown on the boat sheet were transferred from manuscripts prepared by the photo party.

In general the shoreline was in good agreement except for a few cases along the wharf front where existing piers have been destroyed or new piers erected. See tracing of shoreline for notation of exact changes.

*The final shoreline and topography will be obtained from photogrammetric manuscripts. *31.85- * See Review par. 2.*

At latitude ~~41°-21.80'~~^{41°-30.60'} longitude 71°-18.70' a large dock was under construction. *(Review #7A)*

H. SOUNDINGS

All soundings on this sheet were made by fathometers as listed in Section C. except for a few soundings taken in connection with bottom sampling, along the edges of piers or those taken in depths too shoal for the fathometer.

Soundings shown on the boat sheet did not have velocity corrections applied and in some cases may be in error in amounts greater than one foot.

All strays and indications of critical soundings were investigated and resolved.

Due to the existence of low bridges etc. it was impossible to survey the small area at latitude 41°-30.60' longitude 71°-19.40'. Also because of the fact that Navy vessels and equipment were always tied up at the dock latitude 41°-31.70' longitude 71°-18.70' it was impossible to obtain any soundings within 50 meters of the dock on both sides. However, leadline soundings were taken along the edges of the dock.

I. CONTROL OF HYDROGRAPHY

All hydrographic control was usually by sextant angles on shore objects. Positions were usually taken at one minute intervals. In many instances a poor fix was obtained and it was necessary to refer to the boat sheet in order to plot the position. This action, when taken, was indicated in the volume.

J. ADEQUACY OF SURVEY

This survey is complete within the limits defined. Junctions with adjoining surveys appear to be in good agreement.

K. CROSSLINES

About 13 nautical miles of sounding lines were crosslines or about 7.2% of the total nautical miles of hydrography.

On the boat sheet all crosslines are in good agreement, and except for one or two isolated cases sounding agree within one foot.

L. COMPARISON WITH PRIOR SURVEYS

This survey was compared with prior surveys H-5621 1:5,000 1934 ✓
H-5554 1:5,000 1934.

In general, the soundings shown on the old survey are in fair agreement with those of the new. Since the old survey was not as complete as the new, much of the detail was not shown. It is believed that all known shoals were proved. In general slightly lesser depths and/or slightly different location were found.

M. COMPARISON WITH CHART

A comparison with Chart No. 236 8th edition, January 1953 shows the following differences as listed in Section N of this report.

N. DANGERS AND SHOALS

The following is a list of dangers and shoals found within the limits of the survey. Present depths are taken directly from the smooth sheet.

* Office comparisons with Chf. 236, 10th Ed. June 1961

		DEPTHS			
DESCRIPTION	LAT. & LONG.	PRESENT	CHART 236*	POSIT.	DATE LOC.
Rock ✓	41°-29.62' ✓ 71°-20.32' 25' ✓	15	14 (retain) See Review p 6.C.(B)	1 t ✓	Aug. 8, 1957 ✓
Shoal ✓	41°-29.64' 163' ✓ 71°-20.32' ✓	16 ✓	16 ✓ 18	4 x ✓	Aug. 16, 1957 ✓
Rock ✓	41°-29.62' ✓ 71°-20.43' ✓	8 ✓	1 (retain) See Review p 6.C.(4)	48 u ✓	Aug. 9, 1957 ✓
Rock ✓ (Tracy Ledge)	41°-29.90' ✓ 71°-20.05' ✓	10 ✓	9	13 x ✓ 14 x ✓	Aug. 16, 1957 ✓

chart 10
See Review p 7 A

Reverse
CHT.

N. DANGERS AND SHOALS (CONT'D)

DESCRIPTION	LAT. & LONG.	DEPTHS	* CHART 236 POSIT.	DATE LOCATED
Rock	41°-30.02' ✓ 71°-20.01' ✓	2 ✓	1 (Retain) 55 u see Review P 6.C.(5)	Aug. 9, 1957 ✓
Rock Awash	41°-30.12' ✓ 71°-20.02' ✓	Rk Awash ✓ bare 2	NOT charted bare 2	55 h ✓ June 24, 1957 ✓
Shoal ✓	41°-30.18' ✓ 71°-20.03' ✓	4 ✓	not charted	98 - 99 t ✓ Aug. 8, 1957 ✓
Rock ✓	41°-30.22' ✓ 71°-20.04' ✓	1 1/2	charted 10 10 retain 87 t see Review P 6.C.(6)	Aug. 8, 1957 ✓
Rock ledge ✓ part submerged	41°-29.90' ✓ to 29.95' ✓ 71°-20.27' ✓	submerged ✓ and bares (offing Rock)	24 - 26 ✓	June 25, 1957 ✓
Shoal ✓	41°-30.28' ✓ 71°-20.28' ✓	8 ✓	9 8 ✓ 62 s ✓ 64 s ✓	Aug. 7, 1957 No Change
Rock ✓	41°-30.06' ✓ 71°-19.62' ✓	12 ✓	13 1/2 ✓	101 t ✓ Aug. 8, 1957 No Ch.
Rock Awash	41°-30.20' ✓ 71°-19.66' ✓	* (1) ✓	bare * ✓	123 h ✓ June 24, 1957 No Ch.
Rock ✓	41°-29.94' ✓ 71°-19.44' ✓	5 ✓	5 ✓	102 t ✓ Aug. 8, 1957 No Ch.
Rock Concrete Block (2)	41°-29.37' ✓ 71°-19.76' ✓	bare (2) ✓	Not charted bares	1 w ✓ 17 K (4/10) ✓ Aug. 15, 1957 ✓
Rock	41°-30.40' ✓ 71°-20.16' ✓	17 ✓	17 ✓	17 r ✓ Aug. 6, 1957 No Ch.
(Rock) reef awash at MLW	41°-30.94' ✓ 71°-19.77' ✓	awash ✓	awash bares	106 d ✓ Ich. 168 ✓ July 2, 1957 No Ch.
Rock ✓	41°-31.02' ✓ 71°-20.05' ✓	9 (Chart) ✓ (see Review P 7A)	8 1/2 ✓	35 r ✓ Aug. 6, 1957 Review Chart
Rock ✓	41°-31.08' ✓ 71°-19.90' ✓	bare (5) ✓ [Chart as * (5)]	ledge bare see Review P 6.C.(10)	13 m ✓ July 30, 1957 ✓
Rock ✓	41°-31.35' ✓ 71°-19.77' ✓	(The Sisters) 2 ✓	awash (rotained) bare see Review P 6.C.(9)	12 p ✓ Aug. 2, 1957 ✓
Rock Awash	41°-31.28' ✓ 71°-19.76' ✓	* (2) (3) ✓	(2) * ✓	10 e ✓ Ich. 168 ✓ July 3, 1957 No Ch.

O. COAST PILOT INFORMATION

There are no changes to report.

P. AIDS TO NAVIGATION

The following is a list of all floating aids to navigation.

NAME	LAT. & LONG.	DEPTH	POSIT	DATE LOCATED
Can #5	41°-29.05' ✓ 71°-19.55' ✓	20 ✓	Vol. 1 61 o	May 28, 1957 ✓
Nun #4	41°-28.81' ✓ 71°-19.61' ✓	21 ✓	Vol. 1 77 c ✓	May 28, 1957 ✓
Can #3	41°-28.96' ✓ 71°-19.58' ✓	19 ✓	Vol. 1 143 c	May 28, 1957 ✓

P. AIDS TO NAVIGATION (CONT'D)

NAME	LAT. & LONG.	DEPTH	POSIT.	DATE LOCATED
Lt. Bell #1a A BELL "1A"	41°-28.88' ✓ 71°-19.72' ✓	19 ✓	Vol. 1 ✓ 144 c ✓	May 28, 1957 ✓
Can #1	41°-28.94' ✓ 71°-19.78' ✓	21 ✓	Vol. 1 ✓ 145 c ✓	May 28, 1957 ✓
Nun #2 N"2"	41°-28.87' ✓ 71°-20.13' ✓	32.8 ✓	Vol. 1 ✓ 146 c ✓	May 28, 1957 ✓
Can #7	41°-30.26' ✓ 71°-20.01' ✓	24.2 ✓	Vol. 2 ✓ 17 e ✓	June 11, 1957 ✓
Obstruction bouy	41°-30.03' ✓ 71°-19.98' ✓	22 ✓	Vol. 5 ✓ 52 h ✓	June 24, 1957 ✓
Gong #3	41°-29.63' ✓ 71°-20.17' ✓	42 ✓	Vol. 5 ✓ 18 j ✓	June 25, 1957 ✓
Can #1	41°-29.59' ✓ 71°-20.42' ✓	29.4 ✓	Vol. 5 ✓ 19 j ✓	June 25, 1957 ✓
Mooring bouy M-5	41°-29.85' ✓ 71°-19.56' ✓	21.2 ✓	Vol. 5 ✓ 138 j ✓	June 25, 1957 ✓
Nun #4 ✓	41°-29.95' ✓ 71°-19.47' ✓	20.2 ✓	Vol. 5 ✓ 139 j ✓	June 25, 1957 ✓
Nun #6	41°-30.03' ✓ 71°-19.64' ✓	25.0 ✓	Vol. 5 ✓ 143 j ✓	June 25, 1957 ✓
Mooring bouy M-7	41°-30.84' ✓ 71°-20.15' ✓	52.8 ✓	Vol. 10 ✓ 8 n ✓	July 31, 1957 ✓
Lighted Bell #8A (Now "14")	41°-31.24' ✓ 71°-19.77' ✓	40 ✓	Vol. 10 ✓ 9 n ✓	July 31, 1957 ✓
Mooring bouy M-8	41°-31.61' ✓ 71°-19.77' ✓	76 74 fath. ✓	Vol. 10 ✓ 10 n ✓	July 31, 1957 ✓
Nun #2	41°-31.94' ✓ 71°-18.97' ✓	21.4 ✓	Vol. 10 ✓ 16 n ✓	July 31, 1957 ✓
Nun #10 (Now "16")	41°-31.38' ✓ 71°-19.92' ✓	46.8 ✓	Vol. 10 ✓ 34 n ✓	July 31, 1957 ✓
Nun #2	41°-31.43' ✓ 71°-19.53' ✓	26.7 ✓	Vol. 11 ✓ 13 p ✓	Aug. 2, 1957 ✓
Nun #8	41°-30.27' ✓ 71°-20.26' ✓	40.5 ✓	Vol. 11 ✓ 76 q ✓	Aug. 5, 1957 ✓
Obstruction bouy	41°-30.42' ✓ 71°-20.19' ✓	25.0 ✓	Vol. 11 ✓ 77 q ✓	Aug. 5, 1957 ✓
Lighted bouy #4	41°-31.45' ✓ 71°-19.39' ✓	28.7 ✓ 0.9	Vol. 12 ✓ 92 r ✓	Aug. 6, 1957 ✓
Can #5	41°-29.87' ✓ 71°-20.01' ✓	51.4 ✓	Vol. 13 ✓ 49 u ✓	Aug. 9, 1957 ✓
(fixed) Day Beacon	41°-28.60' ✓ 71°-19.20' ✓	Bares	1 a (Blue) ✓ 1ch. 168	June 10, 1957 ✓
(fixed) Private Aid	41°-30.18' ✓ 71°-19.51' ✓	11 ✓	140 j ✓ Vol. 5 ✓	June 25, 1957 ✓
Mooring Bouy M-2	41° 29.10' ✓ 71° 20.01' ✓	50' ✓	35 h - ✓ Vol. 5 ✓	June 24, 1957 ✓
Mooring bouy M-3	41° 29.35' ✓ 71° 19.97' ✓	50' ✓	Vol. 5 ✓ 27 h - ✓	June 24, 1957 ✓
Mooring Bouy M-1	41° 29.24' ✓ 71° 20.13' ✓	56' ✓	539 - ✓ Vol. 4 ✓	June 19, 1957 ✓
Mooring Bouy M-4	41° 29.34' ✓ 71° 20.06' ✓	56' ✓	Vol. 6 ✓ 85 k ✓	June 28, 1957 ✓
Mooring bouy M-9	41° 31.84' ✓ 71° 19.64' ✓	56' ✓	Vol. 11 ✓ 140 g ✓	Aug. 5, 1957 ✓
Cable crossing bouy	41° 19.60' ✓ 71° 29.46' ✓	56' ✓	Vol. 13 ✓ Pos. 87 ✓	Aug. 4, 1957 ✓

Navy Maintained F R B ft. = $171^{\circ}18.851$ Vol. 14 pos. 22y
9410 31.58

Mooring Buoy 9 410 30.70 ✓
M-6 $171^{\circ}20.38$ ✓

Q. LANDMARKS FOR CHARTS

There are no new landmarks to report

R. GEOGRAPHICAL NAMES

There are no new geographical names to report.

S. SILTED AREAS

There are no silted areas to report.

See Special Report 187 of 1956 for examples of EDO Fathometer trace of fish.

Respectfully submitted,

Jordan S. Baker

Jordan S. Baker
ENS. C&GS

Approved and forwarded,

Miller J. Tonkel
Miller J. Tonkel, LCDR., C&GS
Chief of Party

APPENDIX A

LIST OF SIGNALS TO ACCOMPANY

Hydrographic Survey H-8394 (Field No. ECFP-05157)

*ALL	T-11433	* Triangulation (see pg 2+3)
*AND	T-11433	
*ANK	T-11433	
BIL	T-11433	
*CEN	PH-1-56-N	
CHU	T-11433	
*CON	T-11433	
*CUP	T-11433	
*DAM	T-11433	
*DOM	T-11433	
DON	Hydro. signal	
	pos. 130 q 8/5/57	
- FUN	PH-1-56-N	
*GOA	T-11433	
- GUM	PH-1-56-N	
*HAN	T-11433	
HIS	T-11433	
HUB	PH-1-56-N	
ICK	T-11433	
*IDA	T-11433	
*IRE	T-11433	
IRK	PH-1-56-N	
JIM	PH-1-56-N	
KEY	PH-1-56-N	
*LAN	PH-1-56-N	
*LEG	T-11433	
MID	PH-1-56N	
NEE	T-11433	
NUB	PH-1-56-N	
*OAT	T-11433	
- OIL	PH-1-56-N	
PAM	PH-1-56-N	
PAT	PH-1-56-N	
PET	PH-1-56-N	
*ROC	T-11433	
*ROSE	T-11433	
RUM	PH-1-56-N	
*SHO	T-11433	
SUB	PH-1-56-N	
*TAC	T-11433	
*TAN	T-11433	
*TAT	PH-1-56-N	
*TRI	T-11433	
*VAL	PH-1-56-N	
YEL	T-11433	

Apparently Fast Report
for 1957

APPENDIX B

FATHOMETER CORRECTIONS

EAST COAST FIELD PARTY

PROJECT CS-13870

SEASON 1957

LCDr Marvin T. Paulson:
Chief of Party

DESCRIPTIVE REPORT:

PROJECT: Instructions dated 31 January 1956 (22 MEK EP-East Coast, Supplemental Instruction dated 15 February 1957,) directed that hydrographic survey be made in the Narragansett Bay Area, Rhode Island. Hydrographic in this area was accomplished during the period 4 April to 24 October 1957 on sheets H-8394, H-8366, H-8396, H-8395, H-8367 and H-8397.

Numerous fathometer bar checks were taken during the season; the results of these checks were tabulated for the computation of the fathometer ^{corrections} for this project.

METHODS:

The fathometer corrections were determined in accordance with the instructions in the Hydrographic Manual, Section 55, Page 507-542. To obtain instrumental corrections, numerous bar checks were taken. These bar checks were taken at anchor or while drifting. Shoal water comparisons were made with the lead line and EDO 255 Fathometer simultaneously. The depth of the transducers was measured before the beginning of season and periodically during the season.

A KATO CONVERTER and VIBRAPAC were used for power supplies for the EDO-255 fathometers. By changing the frequency output of the KATO the velocity correction of the fathometer could be regulated to almost zero. 808J type fathometers were used a few days during the season when the EDO-255 was inoperative. Bar checks were also taken with the 808J and separate velocity curves were drawn and tabulated.

The velocity ^(missing) curves and abstracts are included in the Appendix of the report.

→ can't find
for 808J HWB
8/29/60
↓
curve
drawn for
in day-808J

APPENDIX B
(continued)

DIFFERENCES ENCOUNTERED:

All differences encountered were reported monthly in Monthly PERFORMANCE DATA. In general this fathometer was very satisfactory for hydrography on sheets listed in section I of this report.

APPENDIX B

ABSTRACT OF VELOCITY CORRECTIONS

Hydrographic Survey H-8394 (ECFP-05157)

EDO FATHOMETER NO. 202
(Vibrapac)

00.0 - 18.0 0.0
18.1 - 24.5 ~~+0.2~~
24.6 - 30.5 ~~+0.4~~
30.6 - 37.0 ~~+0.6~~
37.1 - 42.0 ~~+0.8~~
42.1 - 48.0 ~~+1.0~~
48.1 - 54.5 ~~+1.2~~
54.6 - 60.0 ~~+1.4~~
60.1 - 66.0 ~~+1.6~~
66.1 - down ~~+2.0~~

*one other survey
may for
can reduce
checks
closely with
H-8366
HWA*

EDO FATHOMETER NO. 202
(Kato- 60.5 cycles)

00.0 - 46.0 0.0
46.1 - 54.0 ~~+0.2~~
54.1 - 62.0 ~~+0.4~~
62.1 - 66.0 ~~+0.6~~
66.1 - down ~~+1.0~~

*Purp
h
J?*

FATHOMETER 808-J

"A" scale:

00.0 - 05.0 0.0
05.1 - 11.0 ~~+0.2~~
11.1 - down ~~+0.4~~

*for "A" scale
HWA*

Use corrections in Volume
"B" scale:

35.0 - 54.0 ~~-0.8~~
54.1 - down ~~-0.6~~

Carstens

EDO FATHOMETER NO. 201
(Kato-59.0 cycles, Vibrapac)

All depths 0.0 *July 5 and 3*
For "d" and "e" days/launch 168
use bar check corrections found
In Vol 7 page 40 *-HWA- 8/30/60*

EDO FATHOMETER NO. 201
(Kato - 60.0 cycles)

All depths 0.0

Use for Launch 168 "f" day July 5, 1960 - (HWA - 8/30/60)

Note to verifier- Watch out for velocity corrections applied from E.D.O. fathometers. - Applied from wrong tables i.e. - lines d, e, f. launch 168. ✓

*HWA-8/29/60
DJK*

See notes to Reviewer

(See Review # 4A)

APPENDIX C
STATISTICS
TO ACCOMPANY

Hydrographic Survey H-8394 (ECFP-05157)

LAUNCH CS-82

DAY 1957	VOL. NO.	DAY LTR.	POS. FATH.	POS. D.P.	STAT. MI. SDG. LINE
23 May	1	a	47	1	3.6
24 "	1	b	78	0	6.7
28 "	1	c	139	10	13.0
29 "	2	d	82	0	8.2
11 June	2	e	111	1	8.2
12 "	2&4	f	114	8	13.5
19 "	4	g	152	0	13.5
24 "	5	h	110	13	9.0
25 "	5&6	j	153	19	14.8
28 "	6	k	89	6	6.5
29 July	9	l	74	0	6.9
30 "	9	m	148	3	13.3
31 "	10	n	37	6	3.0
2 Aug.	11	p	34	3	3.2
5 Aug.	11	q	149	10	10.9
6 Aug.	12	r	86	11	7.6
7 Aug.	12	s	53	11	3.9
8 Aug.	12&13	t	103	5	10.6
9 Aug.	13	u	85	7	7.4
14 Aug.	13	v	98	11	5.7
15 Aug.	14	w	7	1	0.5
16 Aug.	14	x	41	2	3.4
19 Aug.	14	y	78	14	2.6
			2068	142	176.0

APPENDIX C

(Continued)

LAUNCH CS-168

DAY 1957	VOL. NO.	DAY LTR.	POS. FATH.	POS. D.P.	STAT. MI. SDG. LINE
10 June	3	a	0	43	0.0
17 "	3	b	0	43	0.0
1 July	3	c	0	34	0.0
2 July	7	d	126	5	12.9
3 July	7&8	e	126	8	9.1
5 July	8	f	22	13	2.5
21 Aug.	15	g	0	15	0.0
22 "	15	h	0	41	0.0
3 Sept.	15	j	0	20	0.0
9 "	15	k	0	38	0.0
10 "	16	l	0	40	0.0
22 Oct.	17	m	0	48	0.0
25 Oct.	17	n	0	4	0.0
			<u>274</u>	<u>352</u>	<u>24.5</u>

APPENDIX D

TIDAL NOTE

To Accompany

Hydrographic Survey H-8394 (ECFP-05157)

All tidal data for reducing soundings was obtained from a portable tide gage at Fort Adams, Newport, Rhode Island.

Location of Gage:

41 -28.88'

71 -20.26'

Staff:

Mean low water corresponds to 5.8 ft. on the staff.

Correction:

There was no time or height correction applied to the tides within the limits of this survey.

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

36-183-15b.2 dated 10 May 1957

36-416-15b dated 17 October 1957

APPENDIX E

APPROVAL SHEET


To Accompany
Hydrographic Survey H-8394 (ECFP-05157)
Project 13870

The record corrections, fathogram scanning and all field work were supervised by Marvin T. Paulson and Robert C. Darling.

The fathograms were scanned prior to the plotting of the soundings on the boat sheet and no further scanning is necessary.

The smooth sheet and descriptive report were made under the supervision of Robert C. Darling and Miller J. Tonkel. A small amount of smooth sheet plotting was done under the supervision of Ship Hydrographer.

The survey and processing is hereby approved.


Miller J. Tonkel
CinC, East Coast Field Party

REVIEW SECTION -- NAUTICAL CHART DIVISION

FIELD NO. ECFP-05157

The shoreline originates with reviewed photogrammetric survey T-11433 of 1954-56 and unreviewed photogrammetric manuscripts T-10500 and T-10501 of 1954-56. Numerous

shoreline revisions made from hydrographic information are shown in red on the survey.

3. Hydrography

Sounding line crossings are in good agreement.

The usual depth curves, with the exception of the low water line, are adequately delineated.

The development of bottom configuration and least depths is satisfactory except that some of the shoal features charted from prior surveys were not developed on the present survey in an effort to find lesser depths or verify charted least depths.

4. Condition of Survey

A. Velocity Correctors

Numerous disagreements at sounding line crossings and between adjacent lines of soundings on the unverified smooth sheet were reconciled during verification by revision of the velocity correctors for two of the three fathometers used on the survey--Edo 255, No. 201 and 808 J, No. 101. The velocity correctors tabulated in the Descriptive Report represent a mean of all bar check data but did not give satisfactory results because of the inconsistency of the daily bar checks. Revision of these velocity correctors, by using each day's bar check for that day's soundings, gave good results throughout the survey.

The abstract of velocity corrections in the Descriptive Report was not complete and did not agree with the corrections entered in the sounding volumes by the field party.

B. Field Plotting

The positions of eight control stations, which had been erroneously plotted or transferred to the smooth sheet, were corrected, and over one hundred positions controlled by these signals were replotted during verification. (See paragraph 5)

C. With the above exceptions the field plotting, records and reports were adequate and conform to the requirements of the Hydrographic Manual.

5. Junctions

Adequate junctions after verification were effected with H-6859 (1943) on the north, H-7790 (1949) on the north and northwest and H-8367 (1957) on the west and southwest.

Some difficulty was experienced by the verifier in making junctions between the east and west panels of the survey as well as the junctions with contemporary surveys. The former was attributed to incorrect transfer of signals to the smooth sheet, and the latter to substandard plotting and use of weak sextant fixes.

6. Comparison with Prior Surveys

- A. H-Misc 20 (1832), 1:24,000
H-785 (1865), 1:10,000
H-787a (1862), 1:10,000
H-811 (1865), 1:5,000
H-811a (1905), 1:5,000
H-1468 (1880-87), 1:5,000

These prior surveys were discussed in the formal reviews of H-5554 and H-5621 of 1934 and were superseded in the common areas after carrying forward a few critical soundings. No further discussion of these surveys is considered necessary.

- B. H-3695 (1914, W. D.), 1:10,000
H-3801 (1915, W. D.), 1:10,000

A general comparison of these wire-drag surveys with the present survey indicates the following disagreements:

The wire drag soundings in latitude $41^{\circ} 31.8'$ longitude $71^{\circ} 19.35'$ of 25 to 34 foot depths are superseded by present survey depths. This area was dredged in 1957 and swept to a depth of 35 feet in 1958 by the Corps of Engineers. The least depth in this area at the time of the present survey is 32 feet (see paragraph 7A).

The wire drag soundings in latitude $41^{\circ} 32.1'$ to $32.4'$ longitude $71^{\circ} 18.90'$ to $19.05'$ are considered to be superseded by the present survey. This area was apparently dredged between August 1941 and September 1942 (dates of Corps of Engineers' blueprints 35540 and 36611). The latter blueprint is in good agreement with the present survey.

All other shoals found on the wire-drag surveys have been transferred to the present survey. With the above exceptions no conflicts occur between the present survey depths and the effective depths of the wire drag surveys.

- C. H-5554 (1934), 1:5,000
H-5621 (1934), 1:5,000

These prior surveys cover the area of the present survey. A comparison of the prior and present surveys reveals only minor natural changes in the bottom but extensive cultural changes in the high water line and bottom changes resulting from dredging.

The area of greatest change lies just north of Coddington Cove where much dredging and construction of piers, wharves, and breakwaters had been accomplished subsequent to the date of the prior surveys. Numerous changes in the shoreline are also noted in the Newport waterfront area, the northern part of Goat Island and in the vicinity of Fort Adams.

Attention is called to the following:

- (1) Numerous 17 to 18 foot shoals in approximate latitude $41^{\circ} 28.80'$ longitude $71^{\circ} 19.65'$ from H-5621 are not considered to be disproved by the present survey. The development on the present survey is not adequate to verify these shoals but does indicate similar shoals of small extent which characterize the bottom in this vicinity. These shoals have been carried forward to the present survey.
- (2) A charted 14 foot sounding on a rock in latitude $41^{\circ} 29.12'$ longitude $71^{\circ} 19.83'$ and an 18 foot isolated shoal about 50 meters to the south originate with H-5621. They were not investigated on the present survey, although the fathograms on two sounding lines show definite breaks in the smooth bottom in this vicinity. These two soundings have been carried forward to the present survey.
- (3) A charted 14 foot depth on Mitchell Rock in latitude $41^{\circ} 29.63'$ longitude $71^{\circ} 20.24'$ originates with H-787a (1862) and was carried forward to H-5621. The

hydrographer found a least depth of 15 feet about 15 meters southwest of that position. The development on the present survey is not considered adequate to disprove the 14 foot sounding and it has been carried forward.

- (4) The charted 1 foot submerged rock in general depths of 8 feet in latitude $41^{\circ} 29.63'$ longitude $71^{\circ} 20.42'$ which originates with H-787a (1862) was searched for but could not be found by the hydrographer on the present survey. The least depth found was 8 feet. A search was also made on H-5621 with similar results. At the time of the original survey (H-787a of 1862), this rock was marked by a spindle leaving little doubt of its existence and proximity to the water surface at that time. Although the present condition of this rock is questionable, it is not considered to have been disproved and has been carried forward to the present survey. It should be retained on the chart pending investigation by wire drag for final disposition.
- (5) The charted 1 foot submerged rock at latitude $41^{\circ} 30.01'$ longitude $71^{\circ} 20.01'$ originates with H-5621. The least depth found at this position on the present survey is 2 feet. The 1 foot sounding is not considered to be disproved. It has been carried forward to the present survey.
- (6) The charted 10 foot shoal in latitude $41^{\circ} 30.22'$ longitude $71^{\circ} 20.01'$ originates with H-5621. The least depth found on the present survey is 12 feet which falls about 20 meters southwest of this position. The 10 foot sounding has been carried forward to the present survey and should be retained on the chart.
- (7) An isolated 18 foot shoal at latitude $41^{\circ} 29.73'$ longitude $71^{\circ} 19.60'$ originating with H-5621 was removed from the chart when the Corps of Engineers' survey, BP 35261 of 1941, was applied. Although the 18 foot depth was not found on BP 35261, several shoal indications of 20 feet were noted. Therefore this 18 foot shoal is not considered to have been disproved by the above blueprint nor by the present survey. It has been carried forward to the present survey.

- (8) The 13 foot shoal at latitude $41^{\circ} 30.04'$ longitude $71^{\circ} 19.65'$ from H-5621 was not investigated on the present survey. The original position is questionable because of misidentification of a signal. Pending additional investigation, soundings on the shoal have been carried forward to the present survey.
- (9) "The Sisters," approximate latitude $41^{\circ} 31.3'$ longitude $71^{\circ} 19.8'$ consists of four rocks (descriptive report H-5554, page 2). Three were located on the present survey and are in agreement with the prior survey. The fourth, which is the farthest offshore charted at latitude $41^{\circ} 31.36'$ longitude $71^{\circ} 19.78'$ was not located on the present survey. This rock was located in the prior survey at low tide and charted as a rock awash. Since no evidence could be found in the present survey records to verify or disprove its existence it has been carried forward to supplement the present survey.
- (10) The 9 foot detached shoal at latitude $41^{\circ} 31.02'$ longitude $71^{\circ} 19.98'$ from H-5554 was not investigated on the present survey. Examination of the prior survey indicated that this shoal originated with a leadline sounding, the position of which is somewhat uncertain. The shoal has been carried forward to the present survey pending future field examination. (See paragraph 9 C.)
- (11) The 15 foot shoal in latitude $41^{\circ} 31.17'$ longitude $71^{\circ} 19.90'$ (Item 15, Presurvey Review) was not investigated on the present survey. However, shoal indications can be seen on the fathogram in this area and the 15 foot sounding has been carried forward to the present survey.
- (12) Numerous inshore rocks from the prior surveys which were neither verified nor disproved by the present survey have been carried forward.
- (13) Bottom characteristics throughout the survey area have been carried forward from the prior surveys.
- (14) The charted 33 foot sounding at latitude $41^{\circ} 31.78'$ longitude $71^{\circ} 19.42'$ from H-5621 lies in a split on the present survey. Although this area was dredged in May 1957 and swept clear to a depth of 35 feet in July 1960 by P.W.C.E.N. (Chart letter 814 of 1960) a subsequent survey by the Corps of Engineers (BP 60860) verified the original 33 foot depth. The

↳ 35 FT subsequently reported Aug 1962

33-foot sounding has been carried forward to the present survey and should be retained on the chart.

- (15) The wharf ruins in latitude 41 29.73', longitude 71 19.36' was charted from H-5621. The fathogram of the present survey (pos. 88y, launch 82) shows traces rising from the bottom which are considered to be submerged piling at this position. The ruins have been carried forward to the present survey and should be retained on the chart.

7. Comparison with Chart 236 (latest print date June 16, 1961)

A. Hydrography

- (1) Charted hydrography originates with the previously discussed surveys, with surveys by the Corps of Engineers, with surveys by the U. S. Navy and with partial application of the present survey before verification and review. As a result of minor revisions in position and depth made during verification, survey depths may generally vary by one foot from boat sheet depths. The following are the more significant revisions made during verification which will require revision of the chart:

- a. Two 13-foot soundings charted in approximate latitude 41 32.37', longitude 71 18.80' were moved about 60 meters eastward during verification.
- b. The 2-foot sounding charted in latitude 41 30.85' longitude 71 19.51' (H. O. Notice to Mariners 22, 1959) was revised to 4 feet during verification.
- c. The islet in latitude 41 30.17' longitude 71 19.57' charted as a high water feature was revised during verification to a low water reef to conform to present charting practice.

- (2) The charted information is generally in good agreement with the present survey except in areas where cultural changes have taken place since the date of the survey. In these areas the charted information listed below should supplement the present survey:

- a. The extension of the breakwater in latitude 41 28.65' longitude 71 19.43', the finger piers on the adjacent Ida Lewis Rock pier and the three breakwaters inshore were charted from 1960 photographs and from chart letter 1148 (1960).
- b. The pier in ruins charted in latitude 41 31.00' longitude 71 19.86' from H-5621 (1934) is apparently gone. However, no investigation was made to determine the

possible existence of submerged remains. The pier in ruins should be retained on the chart pending future investigation (see paragraph 9 A). *See notes with add. wk.*

- c. In the area north of Coddington Cove pier 2 and the adjacent bulkheads were charted from U. S. Navy Plan, BP 57985; the 1400-yard breakwater under construction and lighted piles marking its position were charted from chart letter 1118 of 1959 and H. O. Notice to Mariners 24 of 1960; and many of the soundings in this vicinity were charted from Corps of Engineers Surveys, BP 60859 and 60860 of 1961.
- d. The 15-foot sounding in latitude $41^{\circ}29.45'$, longitude $71^{\circ}19.58'$ and the 13-foot sounding 100 yards to the north were charted from Corps of Engineers Survey, BP 34956 of 1941. These shoal soundings were not investigated on the present survey and should be retained on the chart. *Superseded by subsequent surveys* *to 61075 BP 68345*
- e. The submerged wreck in latitude $41^{\circ}29.3'$ longitude $71^{\circ}19.22'$ was charted from T-6117 (1934). It was not investigated on the present survey and should be retained on the chart. Attention is called to a stranded wreck which was located by the present survey about 50 yards to the north of the charted submerged wreck.

(3) With the above exceptions the present survey is adequate to supersede the charted information.

(4) Attention is called to the following:

- a. The $8\frac{1}{2}$ -foot shoal charted in latitude $41^{\circ}31.02'$ longitude $71^{\circ}20.05'$ originates with H-5554 (1934). The least depth on the present survey is 9 feet. The 9-foot sounding is considered adequate for charting.
- b. The formerly charted 32-foot sounding in latitude $41^{\circ}31.85'$, longitude $71^{\circ}19.37'$ originating with the present survey, was replaced by a 34-foot depth from a subsequent Corps of Engineers survey, BP 60860 of 1961. However the 32-foot depth was well established on the present survey (pos 61-62r, launch 82) after dredging operations had been completed and is not considered to be disproved by this Corps of Engineer's survey. It is recommended that the 32 be re-established on the chart. *Superseded by subsequent dredging and survey results*
- c. The 9-foot depth charted over Tracey Ledge in latitude $41^{\circ}29.90'$, longitude $71^{\circ}20.05'$ originates with H-785 (1862-1865) and/or H-787a (1862) (both surveys were plotted

from the same field records) but could not be located in the records of these surveys. The shoal was investigated on H-5621 (1934) and on the present survey, and a least depth of 10 feet was found on both surveys. The 9-foot depth is therefore considered to be superseded in favor of the 10-foot depth. It is recommended that the chart be revised accordingly.

- d. The row of piles in approximate latitude $41^{\circ}31.37'$, longitude $71^{\circ}18.80'$ was charted from U. S. Navy Plan, BP 53793 of 1954. These bumper piles were apparently established solely for use during dredging operations which were accomplished prior to March 15, 1955, and removed prior to the date of the present survey. Notes on the boat sheet by the hydrographer indicate that no submerged remains could be found. It is recommended that these piles be removed from the chart.
- e. At latitude $28^{\circ}28.78'$, longitude $71^{\circ}19.22'$ one high water rock and three low water rocks were located (vicinity of Little Ida Lewis Rock).

B. Aids to Navigation

- (1) The aids to navigation located on the present survey were compared with the charted aids. The following differences are noted:
 - a. Mooring buoys "M-8", latitude $41^{\circ}31.60'$, longitude $71^{\circ}19.81'$, and "M-9", latitude $41^{\circ}31.85'$, longitude $71^{\circ}19.65'$ shown on the present survey were removed from the chart in accordance with H. O. Notice to Mariners 16 of 1959.
 - b. Mooring buoys "M-3", latitude $41^{\circ}29.35'$, longitude $71^{\circ}19.97'$ and "M-4", latitude $41^{\circ}29.74'$, longitude $71^{\circ}20.06'$ shown on the present survey were removed from the chart in accordance with H. O. Notice to Mariners 18 of 1961.
 - c. The following buoys located on the present survey were re-numbered subsequent to the date of the survey by H. O. Notice to Mariners 3 of 1959:
 - 1. The Sisters Buoy N "10" on the present survey was changed to N "16"
 - 2. Bishop Rock Shoal Bell Buoy "8A" on the present survey was changed to "14"
 - d. St. Patrick Rock Buoy "4" was located on the present survey at latitude $41^{\circ}29.95'$, longitude $71^{\circ}19.47'$, which is about 30 meters northwest of the charted position.

- e. Mitchell Rock Gong Buoy "3" was located on the present survey at latitude $41^{\circ}29.62'$, longitude $71^{\circ}20.17'$ which is about 50 meters east northeast of its charted position.
- f. Bishop Rock Shoal Bell Buoy "14" (formerly "8A") was located on the present survey at latitude $41^{\circ}31.04'$, longitude $71^{\circ}20.11'$ which is about 75 meters northwest of its charted position.
- g. The following aids charted at positions indicated were established subsequent to the date of the present survey:
 - 1. Two Special Purpose Buoys at latitude $41^{\circ}29.10'$, longitude $71^{\circ}19.83'$ and at latitude $41^{\circ}29.35'$ and longitude $71^{\circ}19.82'$ per H. O. Notice to Mariners 36, 1959.
 - 2. A Radar Reflector Buoy C"1" at latitude $41^{\circ}31.86'$, longitude $71^{\circ}18.95'$ in accordance with H. O. Notice to Mariners 36, 1959.
 - 3. A horn, Navy maintained, at latitude $41^{\circ}31.63'$, longitude $71^{\circ}19.07'$ in accordance with H. O. Notice to Mariners 32, 1957. *Removed - 11/70*
 - 4. A Radar Reflector "10" at latitude $41^{\circ}31.33'$, longitude $71^{\circ}19.65'$ in accordance with H. O. Notice to Mariners 38, 1961.
- (2) All other aids to navigation on the present survey are in substantial agreement with the chart.
- (3) The aids, as presently are charted, adequately mark the features intended.

8. Compliance with Instructions

The survey adequately complies with the Project Instructions except as discussed in items 3 and 4.

9. Additional Field Work

With the additional information brought forward from the prior surveys this is considered to be a basic survey. However it is desirable to examine the following areas for final disposition of questionable items:

- A. The pier in ruins (discussed in paragraph 7 A(2)b of this review) charted in latitude $41^{\circ}31.0'$ and longitude $71^{\circ}19.85'$
- B. The 9-foot shoal (discussed in paragraph 6 C(10) of this review) charted in latitude $41^{\circ}31.02'$, longitude $71^{\circ}19.98'$
- C. The 1-foot submerged rock (discussed in paragraph 6 C(4) of

this review) charted in latitude $41^{\circ}30.01'$, longitude $71^{\circ}20.01'$.

- D. The 13-foot shoal charted in latitude $41^{\circ}30.04'$, longitude $71^{\circ}19.65'$ (discussed in paragraph 6 C(8)).
- E. The above items have been included in recommendations for additional work previously submitted to Operations Division.

Examined and Approved:

Mervin T. Paulsen
Chief,
Nautical Chart Division

J. T. Surman
Assistant Director,
Office of Cartography

Charles W. Clark
Projects Officer,
Operations Division

May Skellett
Assistant Director,
Office of Oceanography

GEOGRAPHIC NAMES

Survey No. H-8394

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
<u>Rhode Island</u>			(for title)						BGN	1
<u>Narragansett Bay</u>			"	"					"	2
<u>East Passage</u>										3
<u>Newport Harbor</u>			(for title)							4
<u>Brenton Cove</u>										5
<u>Port Adams</u>			(tide station)							6
<u>Newport</u>										7
<u>Goat Island</u>										8
<u>Rose Island</u>										9
<u>Coasters Harbor</u>										10
<u>Coasters Harbor Island</u>										11
<u>Coddington Point</u>										12
<u>Coddington Cove</u>										13
										14
										15
Any other names that may be desired can be taken from the 2-7-58 revision of chart 236, all approved.										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8394...

Records accompanying survey:

Boat sheets 1(2 parts) sounding vols. 17.; wire drag vols.; bomb vols.; graphic recorder rolls 10. Envelopes special reports, etc. 1-Smooth sheet and 1-Descriptive report.. 1-Smooth sheet overlay.

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

Number of positions on sheet

2836 Kennon 3015

Number of positions checked

25 448

Number of positions revised

21102 122

Number of soundings revised revised a great number (refers to depth only) due to wrong velocity correction being applied

23.665 this figure includes depth changed due to application of wrong depth correction

Number of soundings erroneously spaced

25.534

Number of signals erroneously plotted or transferred

8

Topographic details

Time 20 hrs

Junctions

Time 40 hrs

Verification of soundings from graphic record

Time 14.60 hrs.

Verification by Chester A. Kupiec Total time 7 hrs Date April 8, 1959

H. W. Burgoyne V. & R. reviewed certain sdgs with respect to Letter 191 (59) + L 814 (1960) 3-10 hrs Chart 236 20

Aug 30, 1960 Oct 3-5, 1960

Reviewed by David J. Kennon Time 713 hrs Date Oct 25-1961

Reviewed by D. R. Engle

Time 398 hrs Date Mar 29, 1962

Area verified by C. F. Kupiec N 41° 31' 45" W 71° 19' 22"

Pos. verified 39L-42L, 52L-55L, 67L-70L

35m-38m, 75m-77m

47r-62r

45t-48t

66y-71y

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens:

9 October 1958

Plane of reference approved in
17 volumes of sounding records for

HYDROGRAPHIC SHEET 8394

Locality Narragansett Bay, Rhode Island

Chief of Party: M. T. Paulson in 1957

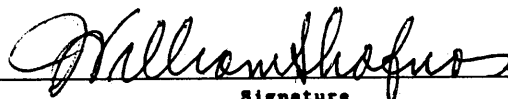
Plane of reference is mean low water, reading

5.8 ft. on tide staff at Fort Adams

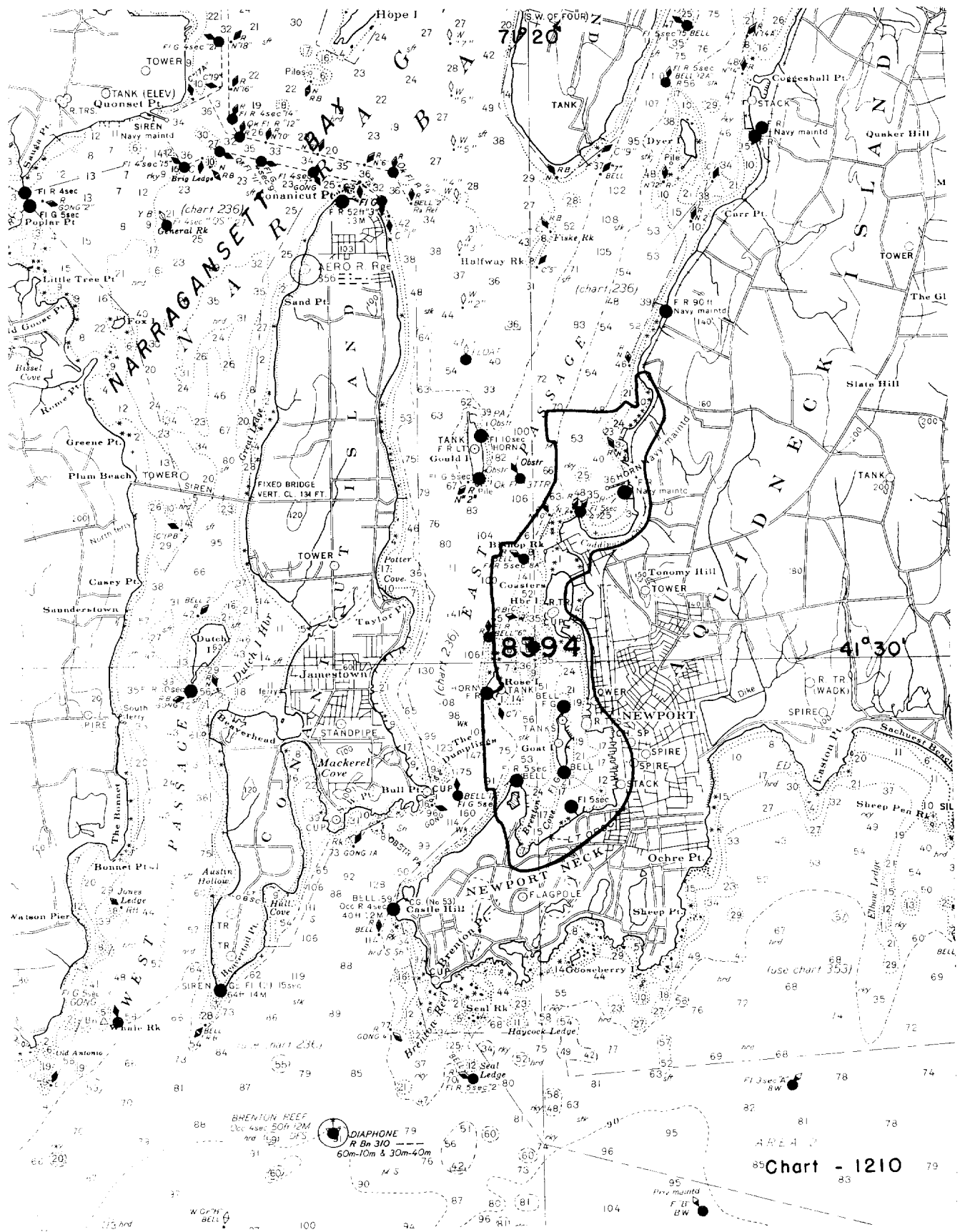
17.9 ft. below B.M. 1 (1957)

Height of mean high water above plane of reference is 3.4 feet.

Condition of records satisfactory except as noted below:


Signature

Chief, Tides Branch



NAUTICAL CHARTS BRANCH

SURVEY NO. H-8394

Rev 3-28-62

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
<i>1/16/59</i>	<i>353</i>	<i>H.C. Anderson</i>	Before After Verification and Review
<i>1/23/59</i>	<i>1210</i>	<i>JPW</i>	Before After Verification and Review <i>Extensive re-apply</i>
<i>4/19/59</i>	<i>236</i>	<i>M. Rogers</i>	Before After Verification and Review
<i>4-22-59</i>	<i>236</i>	<i>R.E. Elkins</i>	Partially appld after partial verification in area covered by <i>chartlet in Coddington Cove</i> Before After Verification and Review
<i>4-23-59</i>	<i>353</i>	<i>R.E. Elkins</i>	Partly applied (area outside of Coddington Cove chartlet). Before After Verification and Review
<i>4-27-59</i>	<i>1210</i>	<i>R.E. Elkins</i>	Additional revisions applied thru chrt 236. Before After Verification and Review
<i>12-22-60</i>	<i>236</i>	<i>R. E. Elkins</i>	Revised sdgs thru partial Verification in Coddington Cove as per memo in L-814 (60). Before After Verification and Review
<i>12-22-60</i>	<i>353</i>	<i>R. E. Elkins</i>	Revised sdgs thru partial Ver. in Coddington Cove as per memo in L-814 (60). app thru chrt 236. Before After Verification and Review
<i>12-22-60</i>	<i>1210</i>	<i>R.E. Elkins</i>	Revised sdgs thru partial Verification in Coddington Cove as per memo in L-814 (60). app thru chrt 353. Before After Verification and Review
<i>1-4-63</i>	<i>236</i>	<i>Hebesden Radder</i>	Before After Verification and Review partial Application of critical sdgs and curves
<i>3-6-63</i>	<i>353</i>	<i>M. Rogers</i>	Partial application of critical sdgs + curves as noted in review ^{applied} thru chrt 236 dwg # 30
<i>11-28-63</i>	<i>1210</i>	<i>M. Rogers</i>	fully applied after rev & review
<i>12-3-65</i>	<i>236</i>	<i>G.R. McCann</i>	fully applied after ver. & review <i>1 m2</i>
<i>12-4-68</i>	<i>353</i>	<i>J.R. Powers</i>	fully applied after Ver & review

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.

8394

Additional Work

Diag. Cht. No. 1210-3.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. WA-HI-SP-22 Office No. H-8394 Ad. Wk. 62

LOCALITY

State Rhode Island

General locality Narragansett Bay

Locality East Passage

1963

CHIEF OF PARTY

E. K. McCaffrey

LIBRARY & ARCHIVES

DATE January 1964

USCOM-DC 5087

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H-8394 Ad wk

TO: The Director
Coast and Geodetic Survey

17 December 1963

FROM: Commanding Officer
Ships WAINWRIGHT & HILGARD

SUBJECT: SPECIAL REPORT, SP 22-62, to accompany H-8394 N/2 and H-8394 S/2

REF: INSTRUCTIONS, dated 15 Aug. 1962, 2100B-pt, S-2-WAHI

In accordance with referenced instructions, hydrographic investigations were carried out as noted on the accompanying bromide prints with the following results: (refer to Chart 236/22nd Ed.)

1. Additional hydrography was run in an attempt to locate the two barges shown in Lat: 41-32.0N, Long: 71-19.55W and Lat: 41-31.9N, Long: 71-19.3W. This investigation failed to indicate any trace of the barges and verbal communication with Naval Base personnel indicated that both barges had been removed to facilitate ship handling in the area. The breakwater shown in the same area as being under construction is completed. The end of this breakwater was located by fix 3d, launch CS 181. *See CL 1025 (1964) - Wrecks not presently charted.
2. ^{Submerged} A rock shown in Lat: 41-31.3⁶N, Long: 71-19.78W was located 30 meters Southeast of the indicated position. It is covered 0.6 ft. at MLW. (136c)
A rock covered 1.1 ft. at MLW was confirmed by the present work 30 meters SE of the above position.
3. Additional hydrography was not possible in the area Lat: 41-31.9N, Long: 71-19.0W because of ships constantly berthed at the pier. One sounding line was run in the area and is plotted on the smooth sheet.
4. Additional hydrography was run in Lat: 41-31.15N, Long: 71-19.85W to further develop the indicated 12 & 15 ft. charted soundings, with respective least depths of 11 & 16 ft. found.
5. Additional hydrography was run in Lat: 41-30.02N, Long: 71-19.99W in search of the indicated 9 & 12 ft. soundings. No evidence of a shoal was found and it is recommended that the soundings be expunged. However, a 14 ft. sounding was obtained in Lat: 41-31.07N, Long: 71-20.04W. (See Review-item 3-b)
Removed from chart undoubtedly out of position survey
6. Additional hydrography was run in Lat: 41-30.02N, Long: 71-19.8W with no pier ruins or unusual shoaling in evidence. The three rocks and 10 ft. ^{at pile} ~~at~~ bare piling in the area were verified as shown on the boat sheet. (See Review-item 3-c) ^{6 ft. above} ^{MHW}
7. A rock covered by 1.8 ft. at MLW was located in Lat: 41-30.01N Long: 71-20.01W. This is the same location as the charted 1.0 ft. sounding. (See Review-item 3d) ^{2.7 ft. 20.0}

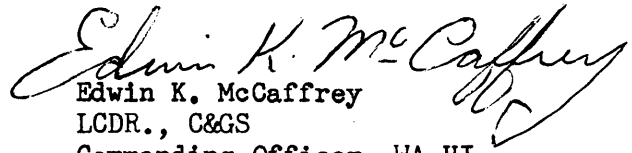
8. Additional hydrography was run in the area Lat: 41-30.15N, Long: 71-20.0W in order to delineate the two shoals. A least depth of 11 ft. was obtained on the northern shoal and 8 ft. in the area of Lat: 41-30.15N, Long: 71-20.01W. (See Review - section 3e) ✓
9. Additional hydrography was run in the area Lat: 41-30.15N, Long: 71-20.35W to further develop the area. The rocks charted at Lat: 41-30.04N, Long: 71-20.45W and Lat: 41-30.15N, Long: 71-20.35W were verified. ✓
10. Additional hydrography was run in Lat: 41-30.05N, Long: 71-19.7W to delineate the indicated shoal. A least depth of 13 ft. was found in Lat: 41-30.05N, Long: 71-19.65W. (See Review - section 3-f) *Hold as cited from basic survey until after V&R* ✓
11. Pier and wharf ruins in Lat: 41-29.74N, Long: 71-19.35W were investigated visually at low tide and no trace of these features could be found. (See Review - section 3-g) *Retained as cited until after V&R* ✓
12. Additional hydrography was run in Lat: 41-29.73N, Long: 71-19.7W in search for the charted 18 ft. sounding. The investigation failed to verify the existence of the 18 ft. (See Review - section 3-h) *Retained until after V&R* ✓
13. A rock awash was located in Lat: 41-29.32N, Long: 71-19.75W. (See Review - section 3-i) ✓
14. Additional hydrography was run in Lat: 41-29.1N, Long: 71-19.8W to further develop the indicated shoal. The existence of the shoal running in a South to North direction from Lat: 41-29.03N, Long: 71-19.8W was verified and ~~a~~ least depths of 10 ft. obtained in proximity to the shoal soundings investigated. 14 and 15 ft. were (See Review - section 3-j) ✓
15. Additional hydrography was run in Lat: 41-28.9N, Long: 71-19.17W to develop the shoal indication. A least depth of 12 ft. was found in Lat: 41-28.87N, Long: 71-19.16W. ✓
16. Additional hydrography was run in Lat: 41-28.85N, Long: 71-19.65W to further develop shoal indications. (See Review - section 3-k) *Hold for V&R* ✓
17. Extensive low water investigation was made of the rocks awash charted in Lat: 41-28.3N, Long: 71-20.18W. This investigation failed to verify the existence of the rocks. However, a rock awash and a rock covered by 3 ft. and 4 ft. respectively, were located in Lat: 41-28.34N, Long: 71-20.21W. Signal Nee was relocated using sextant cuts, Vol. 1, Pg. 5. The investigated rocks awash from H-5621 (1934) are considered discredited. per R.H.C. (See Review - item 3-l) ✓
18. In addition to the above investigations, a wire drag investigation was carried out in Lat: 41-29.58N, Long: 71-20.25W to locate an indicated rock awash and Mitchell Rock. The rock awash shown at Lat: 41-29.58N, Long: 71-20.22W does not exist.* Mitchell Rock, located in its charted position, was hung at 26.5 ft., cleared by 14.5 ft. with a leadline sounding of 14.5 obtained. An extensive low water investigation in Lat: 41-29.62N, Long: 71-20.42W failed to verify the charted 1 ft. sounding. (See Review - section 3-m) ✓

* Cleared by 14 ft and therefore considered disproved. *use cleared depths*

△ Information shown in green ink on the smooth sheet.

Accepted hydrographic methods were followed with 3-point sextant fixes used for control. Check angles and leadline soundings were obtained where necessary. Existing control was utilized.

Newport, Rhode Island standard tide gage was used for tidal data, with high and low water values furnished by the Washington Office.


Edwin K. McCaffrey
LCDR., C&GS
Commanding Officer, WA-HI

LEG/jsm

ABSTRACT OF FATHOMETER CORRECTIONS

LAUNCH CS-181 . - - Raytheon Fathometer type DE-723 Number 211

<u>DEPTH (FT)</u>	<u>CORR. (FT)</u>
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	

RH C

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 20, 1964

Nautical Chart Division: R. H. Carstens

Plane of reference approved in

5 volumes of sounding ~~records~~ and wire drag records, for

HYDROGRAPHIC SHEET 8394 Add. Wk.

Locality East Passage, Narragansett Bay
Rhode Island

Chief of Party: E. K. McCaffrey(1963)

Plane of reference is Mean low water, reading

1.7 ft. on tide staff at Newport, R. I.

7.4 ft. below B. M. 4(1934)

Height of mean high water above Plane of reference
is 3.5 ft.

Condition of records satisfactory except as noted below:

Tide reducers for the following positions have been
changed in red and verified:

Vol.	Position
3 (Sounding)	11 d - 75 d
1 (Wire drag)	2 B - 6 B


Chief, Tides and Currents Branch

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8394. Add Wk.

Records accompanying survey: Smooth sheets
 boat sheets .2...; sounding vols. .3...; wire drag vols. .2...
 Descriptive Reports .1...; graphic recorder envelopes .2...
 special reports, etc.

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

Number of positions on sheet	588 Total Positions
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 *Mark J. Friese* Total time Date *9/21/76*

Reviewed by *Mark J. Friese* Time *64 hrs* Date

Inspected by *K. W. Wellman*

46 hrs.

3-28-78

Can't say 17 hr 8/3/78

H-8394 Ad. Wk.

Items for Future Presurvey Reviews

Items numbered 6, 11, and 18 listed in the Special Report of H-8394 Ad. Wk., originating with the 1957 work and the prior surveys of 1934, were investigated by the hydrographer. They are not considered disproved or confirmed and should be reexamined during future work in the area.

<u>Position Index</u>		<u>Bottom Change</u> <u>Index</u>	<u>Use</u> <u>Index</u>	<u>Resurvey</u> <u>Cycle</u>
<u>Lat.</u>	<u>Long.</u>			
412	0713	3	3	25 years
412	0712	3	3	25 years
413	0713	3	3	25 years
413	0712	3	2	50 years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE SURVEYS DIVISION

MODIFIED HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8394 Ad. Wk.

FIELD NO. WA-HI SP-22-62

Rhode Island, Narragansett Bay, East Passage - Newport Harbor

SURVEYED: June 7 to July 10, 1963

SCALE: 1:5,000

PROJECT NO.: SP-2-62 WAHI

SOUNDINGS: DE-723, Lead Line, and Pole

CONTROL: Sextant Fixes on
Shore Signals

Chief of Party	E. K. McCaffrey
Surveyed by	J. S. Midgley
.....	D. W. Crawford
.....	E. J. Murphy
Protracted by	M. J. Friese
Verified by	M. J. Friese
Reviewed by	M. J. Friese
	Date: September 21, 1976
Cursory inspection made--survey	K. W. Wellman
processing considered complete	March 28, 1978

1. Purpose of Survey

The purpose of the additional work of 1963 was to investigate wrecks, rocks, shoal soundings, and other items originating with H-8394 of 1957 and items 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-8394 (1957) in violet ink.

In most instances least depths over shoals or rocks were not determined by lead line or a pole. In addition, some of the items were inadequately developed by the sparse sounding lines or by comments only in the volumes resulting in failure to verify or disprove those questionable features.

On June 7, 1963 (a day), there were some questionable soundings between positions 3-34 recorded by the Raytheon DE-723 depth recorder No. 211 that were attributed to being strays and were revised accordingly during verification.

It is noted that several of the check angles obtained in verifying a position of a rock were off substantially.

3. Results of Survey

The existence of most of the questionable rocks and shoal soundings is confirmed by the present work, although not always in the exact position or with the same least depth as formerly determined. In some cases the additional work revealed new information about the bottom configuration in areas where additional hydrography was required.

Most of the items are adequately discussed in the Special Report to accompany H-8394.

Attention is directed to the following cross-referenced supplemental comments pertaining to selected items discussed in the Special Report:

a. Item 2 - A submerged rock in latitude $41^{\circ}31.36'$, longitude $71^{\circ}19.78'$ from H-5554 (1934) is confirmed by the present work. Its actual position, however, falls approximately 30 meters southeast of the above position and the rock is described as covered 1 foot at MLW.

b. Reference item 5 in the Special Report:

The referenced 9- and 12-foot soundings originating with H-5554 (1934) are considered to be out of position and should be disregarded. Development of the additional work discredited a shoal feature in this position. In addition, the positions of the first two fixes on the line containing the 9 and 12 do not conform to dead reckoning information for that line.

c. Item 6 - The seawall ruins in the vicinity of latitude $41^{\circ}31.03'$, longitude $71^{\circ}19.85'$, from the 1957 work, are considered neither verified nor disproved and have been retained on the survey.

Two of the three rocks awash in the vicinity of latitude $41^{\circ}30.85'$, longitude $71^{\circ}19.75'$ from H-5554 (1934) were not disproved or confirmed and have been retained. The northernmost rock, however, was confirmed and is shown as a 2 RK. Two other submerged rocks were located 30 meters north of the inshore prior rocks awash and have been added to the survey.

A pile charted in latitude $41^{\circ}30.86'$, longitude $71^{\circ}19.74'$ is confirmed by the present work and is shown as bare 6 feet above MHW.

A sewer pipe in latitude $41^{\circ}30.85'$, longitude $71^{\circ}19.75'$ was located by the present work and is designated as ruins in the records. The ruins extend from the shoreline 40 meters seaward. The previously mentioned items are presently charted.

d. Item 7 - A submerged rock in latitude $41^{\circ}30.01'$, longitude $71^{\circ}20.01'$ from the work of 1963 was described as covered 2 feet at MLW and is presently charted. The 1 RK carried forward during the review of the 1957 work is not considered discredited by the present development and has been retained on the smooth sheet.

e. Item 8 - The 8-foot sounding in latitude $41^{\circ}30.17'$, longitude $71^{\circ}20.01'$ from H-5554 (1934) is supported by another 8-foot sounding nearby from the 1963 work.

The 10-foot sounding in latitude $41^{\circ}30.23'$, longitude $71^{\circ}20.01'$ from H-5554 (1934) is supported by other 11-foot soundings nearby from the present work. The 10-foot sounding should be retained as presently charted.

f. Item 10 - The 12-foot shoal in latitude $41^{\circ}30.06'$, longitude $71^{\circ}19.63'$ from the 1957 work is confirmed by a least depth of 13 feet from the present work and has been plotted on the survey.

The 13-foot shoal in latitude $41^{\circ}30.04'$, longitude $71^{\circ}19.65'$ from H-5621 (1934) is considered not disproved or confirmed by the 1963 work and has been retained on the smooth sheet. The two shoals previously mentioned are presently charted.

g. Item 11 - The wharf ruins in latitude $41^{\circ}29.74'$, longitude $71^{\circ}19.36'$ from H-5621 (1934) are not considered disproved or confirmed by a visual search at low tide. They have been retained and are described as submerged wharf ruins.

The pier ruins in latitude $41^{\circ}29.70'$, longitude $71^{\circ}19.36'$ from the 1957 work is confirmed by the present work at the above position and is described as covered 1 foot at MLW.

A submerged rock was located 20 meters northeast of the submerged wharf ruins by the 1963 work and is described as a 2 RK. It is not presently charted.

An obstruction was located 55 meters west of the submerged pier ruins by the present work and is described as a submerged mooring. It is not presently charted.

h. Item 12 - The 18-foot sounding in latitude $41^{\circ}29.73'$, longitude $71^{\circ}19.7'$ from H-5621 (1934) was investigated by the 1963 work and is considered to be discredited by several deeper depths of 22 feet and 23 feet in the area. The 18-foot sounding has been removed from the chart.

i. Item 13 - A rock awash in latitude $41^{\circ}29.32'$, longitude $71^{\circ}19.75'$ from H-5621 (1934) was confirmed by the present survey and was described as a rock awash at MLW. The 3 RK in the vicinity from H-5621 (1934) (falling approximately 17 meters to the west of the located rock awash) was apparently not investigated during the additional field work on the present survey.

j. Item 14 - The 14 RK and 18-foot shoal in the vicinity of latitude $41^{\circ}29.01'$, longitude $71^{\circ}19.8'$ from H-5621 (1934) were investigated by the 1963 work and are supported by several shoaler and deeper depths surrounding the area. The two prior soundings have been retained with the addition of many present soundings to better delineate the bottom configuration. The chart should be revised accordingly.

k. Item 16 - The additional hydrography in the vicinity of latitude $41^{\circ}28.85'$, longitude $71^{\circ}19.65'$ was accomplished by the work of 1963 and resulted in the verification of most of the shoals investigated. Selected soundings from the present additional work have been added to the smooth sheet to supplement the 1957 hydrography.

l. Item 17 - The two rocks awash in latitude $41^{\circ}28.30'$, longitude $71^{\circ}20.18'$ from H-5621 (1934) are considered to be plotted in error on the source document. The true position most likely corresponds to the rocks located on the present survey to the northwest in the vicinity of latitude $41^{\circ}28.34'$, longitude $71^{\circ}20.21'$. The more southerly rocks charted from H-5621, therefore, should be deleted from the chart.

m. Item 18 - The 1-foot sounding in latitude $41^{\circ}29.63'$, longitude $71^{\circ}20.42'$ originates with H-787a (1862). It is not considered disproved or confirmed by the present additional work and has been retained on the survey. This sounding, formerly removed from the chart, should be charted again.

4. Additional Field Work

The work accomplished in 1963 adequately developed most of the questionable items. Several items, however, were not adequately verified or disproved but no additional work is considered necessary. During future work in the area, the remaining questionable items, 6, 11, and 18, should be investigated further and verified or disproved by appropriate means.

Examined and Approved:

R.H. Coatsworth
for Chief
Marine Surveys Division

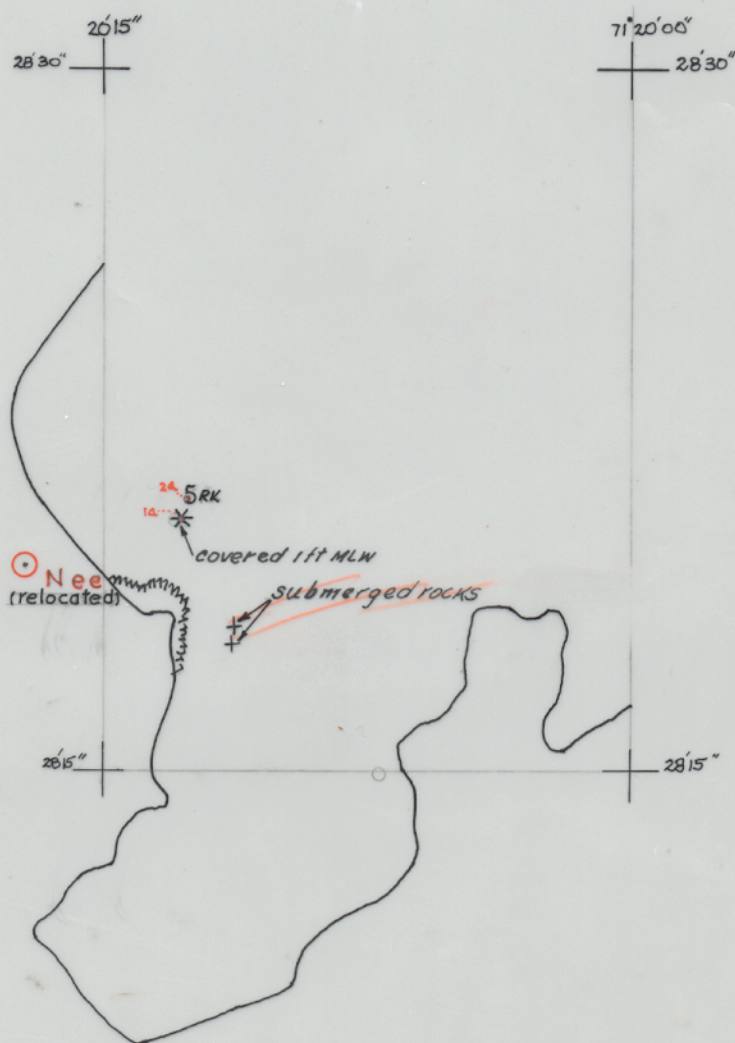
[illegible]

+

A hand-drawn map on a piece of paper showing a boat's path. The path is a series of connected line segments between numbered points. The points are labeled as follows: 39 (with a red 'ad' next to it), 39, 40, 40 (with a red 'ad' next to it), 39, 37, 35, 37, 36, 33, 35, and 23 (with a red 'ad' next to it). The path starts at point 39, goes to 39, then 40, then 40, then 39, then 37, then 35, then 37, then 36, then 33, then 35, and finally ends at point 23. The word 'holiday' is written near the path between points 40 and 39. The word 'pier' is written near the end of the path, with an arrow pointing to the path. The text 'pos. 1-2d see boat's sheet' is written at the top right of the map.

stem 3

H-8394(1963) Ad Wk



H-8394(1963)Ad Wk

GOAT
1.

1945
29'00"

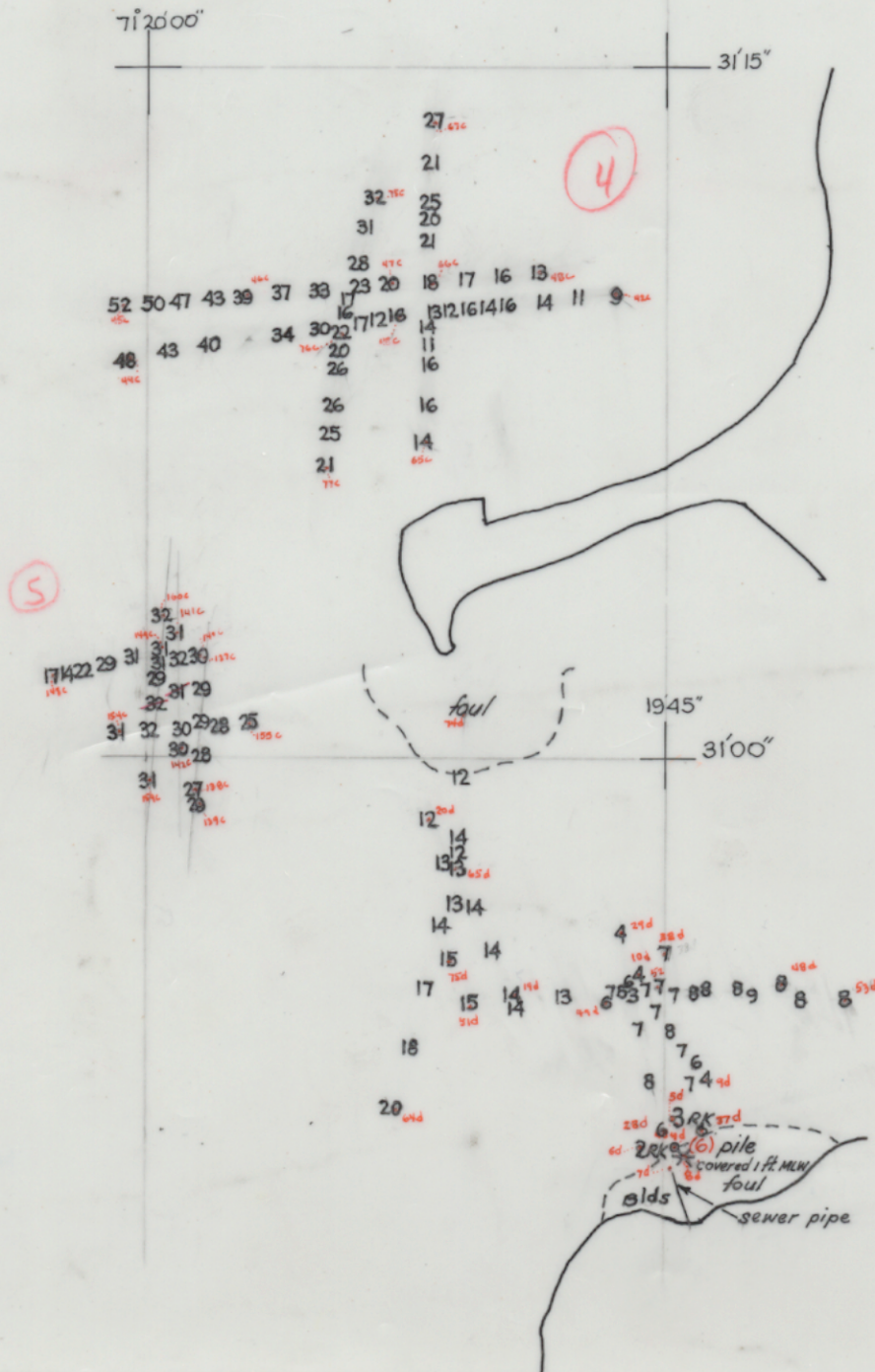
$$\begin{array}{r} 19'15'' \\ + 29'00'' \\ \hline \end{array}$$
$$\begin{array}{c} | \\ \hline 28'45'' \\ | \\ 19'30'' \end{array}$$
$$\begin{array}{r} 29^{\circ}45' \\ + 19^{\circ}15' \\ \hline \end{array}$$

26 26 24 23 19 21 19 15 14 14

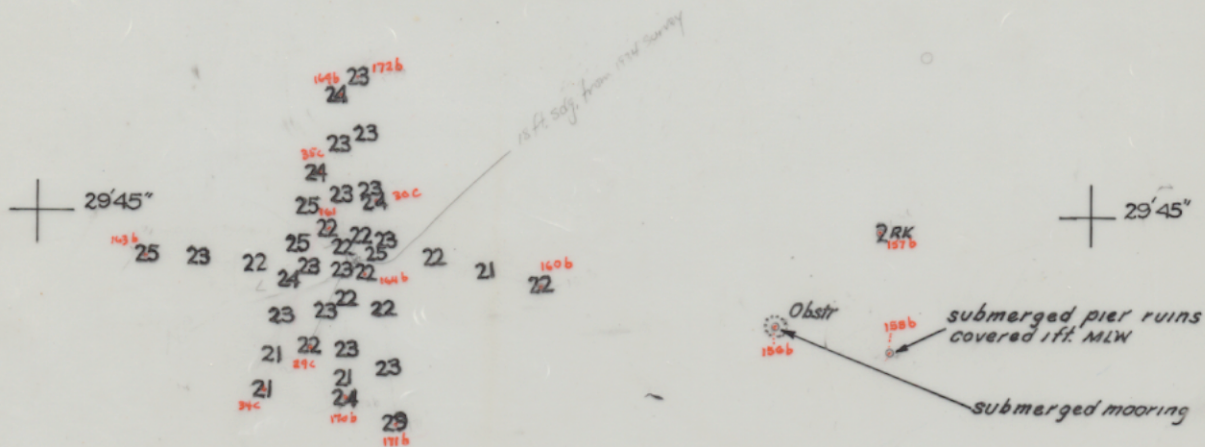
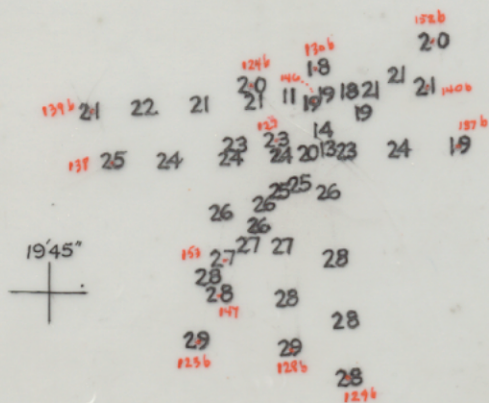
H-8394(1963) Ad. Wk.

* covered 1 ft MLW

Check position
42-43
75-76



H-8394 (1963) Ad. Wk.



20'15" 29'45" 71°20'00" 29'45"
 hang at 26 ft.
 cleared by 14 ft.
 actual sdg. 14 ft.
 3 End Vessel
 D.R. #2 (two CK L's)
 leadline sdg.
 2 End Vessel
 20'15" 29'30" 20'00" 29'30"

(1)

(2)

