5621

5621

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: Rhode Island

DESCRIPTIVE REPORT

5621

~~Topographic~~ / Hydrographic } Sheet No. 2 (Field)

LOCALITY

Vicinity of Newport Harbor, R.I.

1934

CHIEF OF PARTY

Wm. D. Patterson, Lieut.
U. S. Coast & Geodetic Survey.

U. S. GOVERNMENT PRINTING OFFICE: 1963

Form 537
Ed. Dec., 1930

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.

Field No. 2

REGISTER NO. 5621

State Rhode Island

General locality ~~Eastern Passage~~

Locality Newport Harbor

Scale 1:5,000 Date of survey Sept. to November, 1934

Vessel Field Party No. 5

Chief of Party Lieut. Wm. D. Patterson

Surveyed by Lieut. (j.g.) George E. Morris, Jr.

Protracted by J. C. McIlwaine, Draftsman

Soundings penciled by Charles R. Smith, Surveyor

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by M. D. Cooper

Verified by M. D. Cooper

Instructions dated May 14 & July 31, 1934

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

DESCRIPTIVE REPORT TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 2 (Field Number)

VICINITY OF NEWPORT HARBOR, RHODE ISLAND.

1934

Project HT-179 Lieut. Wm. D. Patterson Chief of Party

****

DATE OF INSTRUCTIONS

Director's instructions dated May 14, 1934; supplemental instructions dated July 11, 1934, July 31, 1934; letters dated August 9, 1934, August 27, 1934.

SURVEY METHODS

Standard methods of hydrographic surveying were followed. Three point sextant angles were taken on shore objects located by triangulation or plane table topography for position. Depths were measured with a phosphor bronze stranded-wire centered mahogany tiller rope hand lead line marked in fathoms and feet. Soundings to delineate the low water line were taken from a skiff on inshore lines run at high tide. Soundings along the faces of all docks and wharfs were taken with the hand lead line at measured intervals. Measurements when expressed in fathoms were taken with a lead line and when expressed in meters were taken with a steel tape. The lead line was used when the tape was not available.

An attempt was made to take advantage of high tide to develop by hydrographic methods the low water line. The western shore of Goat Island was not developed in this way because protracted bad weather made it inadvisable to operate a skiff in unsheltered places. A line was run as close in as the skiff could get at low tide when the sea was calm. The low water line lies close to the bulkhead and in no place is more than four or five meters off.

The congested condition of the harbor earlier in the season because of the America's Cup Races when the weather was more favorable delayed the work.

The area near the Newport Yacht Club in Latitude 41° 29.3', Longitude 71° 19.1' was not fully developed. So many pleasure craft were moored in this area that the hydrographic boat could not get in to take soundings.

Soundings could not be taken between the New England Steamship Company docks in Latitude 41° 29.4', Longitude 71° 19.4' because the area was filled by the company's ships that had been tied up for the winter.

2

DANGERS

All charted and reported dangers were investigated.

The $\frac{1}{4}$ foot rock charted in Latitude 41° 30.9', Longitude 71° 19.7' was found. A sounding of $\frac{1}{2}$ foot (position 110 AA) was found. The ledge was plainly visible and the shoalest point on the rock was found. At mean low water the grass floats on the surface. It is recommended that $\frac{1}{2}$ foot be accepted as the correct depth.

The two rocks awash charted in Latitude 41° 30.8', Longitude 71° 19.8' (position ~~75 AA~~ 4066) bares 2 feet.

Two rocks in Latitude 41° 30.9', Longitude 71° 19.4' (between positions 44 L and 45 L) bares 2 feet.

A rock in Latitude 41° 30.6', Longitude 71° 19.4' (position 92 M) bares $\frac{1}{2}$ foot.

A rock in Latitude 41° 30.6', Longitude 71° 19.4' (position 76 M) bares 3 feet.

A rock in Latitude 41° 30.4', Longitude 71° 19.5' (position 87M) bares $1\frac{1}{2}$ feet. This is the highest part of the rocky patch that bares at low water.

A rock in Latitude 41° 30.2', Longitude 71° 19.4' (the first sounding after position 37 GG and the first sounding after position 54 Z) is a large flat topped rock and has $2\frac{1}{2}$ feet of water on it at Mean Low Water.

The charted 9 foot spot marked by the nun buoy 8, was found with a least depth of 9 feet (position 145 AA). Ø 41-30.2 λ 71-20.3

The charted 11 foot spot north of Gull Rocks marked by the can buoy 7 was found with a least depth of $10\frac{1}{2}$ feet (positions 2 DD and 3 DD). It is recommended that $10\frac{1}{2}$ feet be charted.

A rocky ridge extends from Gull Rocks Lighthouse to the red and black can buoy marker at its southern end. The charted 1 foot spot at the buoy was found with a least depth of $1\frac{1}{2}$ feet (position 147 AA). Position 99 BB marks the southern end of the ledge that extends south from the bare rock in Latitude 41° 30.1'. ~~It has a $\frac{1}{2}$~~ foot of water over it and $5\frac{1}{2}$ feet just south of it. There is deeper water between it and the bare rock. shown by rock awash symbol.

The reported ledge, Chart Letter No. 602 (1928), charted in Latitude 41° 30.0', Longitude 71° 19.6' as 12 feet was examined. A least depth of $13\frac{1}{2}$ feet (positions 79 X, 80 X and 83 X) was found. Three quaters of an hour was spent drift sounding over the area and while the $13\frac{1}{2}$ feet sounding was checked several times, the reported 12.6 feet was not found. It is believed that $13\frac{1}{2}$ feet is the correct depth and it is recommended that the depth be charted as 13 feet.

13 feet accepted for charting See par 7a(4) of this review

DANGERS (continued)

St. Patrick Rock, Latitude 41° 29.9', Longitude 71° 19.4', was found with a least depth of 5½ feet (position 87 X). It is recommended that 5½ feet be charted.

Several rocks bare at low water north of Rose Island were located by topographic methods. A few were located by hydrography to determine the general height of all of them. A rock (position 113 BB) bares 1½ feet at Mean Low Water. A rock (position 114 BB) bares 1 foot at Mean Low Water. A rock (position 115 BB) bares 1½ feet at Mean Low Water. A rock (two soundings after position 29 BB) bares ½ foot at Mean Low Water.

Citing Rock is charted as a rock awash but it is bare at Mean High Water. Position 102 V is at the southern edge of the ledge that extends from Citing Rock.

A rock in Latitude 41° 29.8', Longitude 71° 20.6' (the first sounding after position 63 Z) has 3 feet of water over it at Mean Low Water.

A rock in Latitude 41° 29.7', Longitude 71° 20.6' (position 87 Z) has ½ foot over it at Mean Low Water.

The 18 foot spot charted in Latitude 41° 29.6', Longitude 71° 20.3' was found. A least sounding of 18½ feet (positions 11 DD and 12 DD) was obtained. It is recommended that the charted 18 feet be retained.

A concrete block marking the outer end of a sanitary sewer is in Latitude 41° 29.4', Longitude 71° 19.8' (position 5 GG).

A rock in Latitude 41° 29.4', Longitude 71° 19.8' (position 30 GG) bares 1 foot at Mean Low Water.

A rock in Latitude 41° 29.4', Longitude 71° 19.8' (position 31 GG) has 3½ feet of water over it at Mean Low Water.

The rocks charted in Latitude 41° 28.6', Longitude 71° 20.1' were found. A rock (position 80 T) bares 1 foot at Mean Low Water. Two rocks (positions 81 T and 82 T) are awash at Mean Low Water. A rock (position 191 T) bares 1½ feet at Mean Low Water.

Two rocks in Latitude 41° 28.3', Longitude 71° 20.2' (positions 199 T and 200 T) bare ½ foot at Mean Low Water.

A wreck, an old engine attached to a short section of keel, in Latitude 41° 28.1', Longitude 71° 20.2' (position 202 T) bares 1 foot at Mean Low Water.

A rock in Latitude 41° 28.1', Longitude 71° 20.2' (position 201 T) is awash at Mean Low Water.

A wreck in Latitude 41° 28.2', Longitude 71° 20.1' extends under a private dock. The stern and stern port project above the water (positions 203 T and 204 T).

DANGERS (continued)

1 A rock in Latitude 41° 28.3', Longitude 71° 20.0' (position 218 U) bares 3½ feet at Mean Low Water.

2 A rock in Latitude 41° 28.5', Longitude 71° 19.~~8~~7' (position 233 U) bares 1½ feet at Mean Low Water.

3 A rock charted in Latitude 41° 28.5', Longitude 71° 19.6' was found to bare 1 foot at Mean Low Water (position 234 U).

4 Two rocks in Latitude 41° 28.~~7~~65', Longitude 71° 19.~~6~~55' are marked by a small red keg on post day beacons (positions 239 U and 240 U).

5 A rock in Latitude 41° 28.6', Longitude 71° 19.2' (position 148 U) bares 4 feet at Mean Low Water.

CHANNELS

6 A channel has been dredged along the face of the Standard Oil Co. wharf in Latitude 41° 28.7', Longitude 71° 19.0'. In coming to the wharf it is necessary to pass north of Little Ida Lewis Rock and go in very close to the dock line before turning south along the face of the wharf.

COMPARISON WITH PREVIOUS SURVEYS

See Dangers above.

7 The rock awash charted in Latitude 41° 30.4', Longitude 71° 19.5' is no longer there. It was searched for at a minus tide when the bottom was plainly visible and could not be found. It is recommended that it be removed from the chart.

8 The sunken rock charted in Latitude 41° 29.5', Longitude 71° 19.7' could not be found. Twenty minutes of drift sounding over the area was spent in searching for it. It is believed to have slid off into deeper water. It is recommended that it be removed from the chart. See par 6f(1) of this review 6f-1

9 The five foot spot charted in Latitude 41° 29.1', Longitude 71° 19.8' could not be found. In addition to the sounding lines run over the area, three quarters of an hour were spent in drift sounding over the area when the bottom was visible in eight feet. A rock with 14½ feet of water over it (position 60 P) was found. It is believed that the five foot rock has slid off into deeper water, and it is recommended that the new depth be charted. 6d-1

Recommendation concurred in, See par 6d(1) of this review

COMPARISON WITH PREVIOUS SURVEYS (continued)

1 The charted 18 foot spot in Latitude 41° 28.9', Longitude 71° 19.7' and the 17 foot spot in Latitude 41° 28.7', Longitude 71° 19.7' were investigated but deeper soundings were obtained at the exact location of each shoal. Half an hour was in drift sounding over each spot and all soundings checked those obtained on sounding lines. Soundings of the charted depth were obtained in slightly shifted positions; position 45 T, 18½ feet; the third and fourth sounding before position 33 T, 18½ feet; three soundings before position 16 U, 18½ feet; two soundings before position 17 U, 18½ feet; one sounding before position 17 U, 17½ feet; position 17 U and the next sounding, 18½ feet; the first, second and fourth sounding after position 33 U, 18½ feet; position 43 U and the first and fourth soundings after position 43 U, 18½ feet. The bottom is sticky mud and no doubt is continually shifting to a slight extent, so unless the charted shoal spots were reported as rocks, it is recommended that the depths obtained by the survey be accepted as correct. However, if the charted shoals were reported as rocks, it is recommended that they be retained on the chart until their existence is disproved by the wire drag. (Within the dredged area) see Review 7a-1

The 18 foot and 17 foot soundings are from H-3801 W.D. (1915) Both have been retained.

2 The 12 foot spot charted in Latitude 41° 28.7', Longitude 71° 19.4' was investigated but no indication of it could be found. Half an hour of drift sounding over the area in addition to the sounding lines produced a least depth of 19½ feet. The bottom is sticky mud so is subject to a slight continual change and unless the 12 foot spot was reported as a rock, it is recommended that the depths be charted as obtained by this survey. However, if the charted shoal was reported as a rock, it is recommended that it be retained on the chart until its existence is disproved by the wire drag. There is apparently an error in this paragraph. No such sounding could be identified. May refer to 12' spot discussed in par. 7a(4) of this review.

3 The depths charted north of the red and black can marker buoy in Latitude 41° 29.3', Longitude 71° 19.3' were not found as shown. The 6 foot curve extends to the north and west of the buoy. Drift sounding checked the depths obtained on the sounding lines. It is recommended that the depths be charted as obtained by this survey. This should be done. Discussion in review unnecessary

4 The 17 foot spot charted in Latitude 41° 29.7', Longitude 71° 19.7' could not be found. Half an hour of drift sounding over the area in addition to the sounding lines was spent in searching for it. The 18 foot curve north of Goat Island has changed from the charted position and since the bottom is sticky mud and subject to small continual change it is believed that the 17 foot spot has worn away. Unless the shoal was reported as rock, it is recommended that the depths be charted as obtained by this survey. However, if the shoal was reported as a rock, it is recommended that it be retained on the chart until its existence is disproved by the wire drag. 7a-3

See par 7a(3) of this review

COMPARISON WITH PREVIOUS SURVEYS (continued)

The 18 foot spot charted in Latitude 41° 29.8', Longitude 71° 19.5' could not be found. Half an hour of drift sounding in addition to the sounding lines was spent in searching for it. A least depth of 19 feet (position 91 X) and the second sounding before the (position 92 X) was found. The bottom is sticky mud and subject to slight continual change. It is recommended that unless the shoal was reported as a rock, the depths obtained by this survey be charted. However, if the shoal was reported as a rock, it is recommended that it be retained on the chart until its existence is disproved by the wire drag. 6b-1

See par 6 b (1) of this review.

The 1 foot rock charted north of the can buoy 1 in Latitude 41° 29.6', Longitude 71° 20.4' could not be found. Three quarters of an hour of drift sounding at low tide when the bottom was visible in five feet were spent in addition to the sounding lines in searching for it. A depth of 8½ feet (positions 101 Z and 102 Z) and 7½ feet (position 103 Z) and further inshore, a depth of 3½ feet (position 94 Z) were obtained. It is recommended that the depths be charted as obtained by this survey. 6b-2

See par 6 b (2) of this review.

Mitchell Rock, Tracey Ledge and the rock charted south of
3 the red and black can buoy in Latitude 41° 30.4', Longitude 71° 20.2' were investigated but the least depths found were greater than those charted. If the charted depths come from good authority, it is recommended that they be retained until disproved by the wire drag. Otherwise it is recommended that the depths obtained by this survey be charted. See par 6 b (3) (4) and (5) of this review

An hour of drift sounding over the area of Mitchell Rock in addition to the sounding lines was spent in searching for the charted 14 foot depth. A least depth of 16½ feet (positions 5 DD, 6 DD, 7 DD, and 8 DD) was found. 6b-3

14 feet retained, See par 6 b (3) of this review

Half an hour of drift sounding over the area of Tracey
5 Ledge in addition to the sounding lines was spent in searching for the charted 9 foot depth. A least depth of 10½ feet (position 162 X) was found. 9 ft retained, See par 6 b (4) of this review 6b-4

An hour of drift sounding over the area of the charted rock
6 in Latitude 41° 30.4', Longitude 71° 20.2' in addition to the sounding lines was spent in searching for the charted 17 foot depth. A least depth of 19 feet (positions 134 AA and 135 AA) was obtained. 6b-5

17 feet retained, See par 6 b (5) of this review

DATUM

The sheet is projected on N.A. 1927 Datum which was obtained by applying a correction of (-) 12.4 meters in latitude and 3.7 meters in longitude to all triangulation stations on the old N.A. Datum. This correction was obtained in this vicinity by the new triangulation connection with the old work.

TIDAL DATA

Tide reducers for this sheet were obtained from the standard automatic gage at Coasters Harbor Island, the hourly heights being sent to the field party as soon as the tide roll was scaled in the Washington Office. No correction was applied to the tides for time or range.

It should be noted that sounding time is the 60th meridian time through September 30, 1934 and 75th meridian time from October 1,1934 to the completion of the work, while the tide roll is marked in accordance with 75th meridian time throughout.

TIDE STATION	LATITUDE	LONGITUDE	LOW WATER DATUM ON STAFF
Newport, R.I.	41° 30.3'	71° 19.6'	1.3 feet

Respectfully submitted,

George E. Morris, Jr.

George E. Morris, Jr.,
Lieutenant (j.g.)

Approved:

Wm D Patterson

Wm. D. Patterson, Lieut.,
Chief of Field Party No. 5

STATISTICS

HYDROGRAPHIC SHEET NO. 2 (Field Number)

VICINITY OF NEWPORT HARBOR, RHODE ISLAND.

****

DAY LETTER	DATE 1934	COLOR	VOLUME	NUMBER OF SOUNDINGS	NUMBER OF POSITIONS	STATUTE MILES OF SOUNDINGS
A	Sept.10	Red	1	235	23	0.3
B	" 11	"	1	207	28	0.4
C	" 12	"	1	430	63	2.2
D	" 13	"	1	764	57	1.8
E	" 14	"	1	521	60	0.7
F	" 17	"	2	131	11	0.7
G	" 18	"	2	547	121	12.0
H	" 19	"	2	471	30	1.0
J	" 20	"	2	700	38	1.6
K	" 21	"	3	617	44	1.2
L	" 27	"	3	592	92	3.9
M	" 28	"	3	545	104	4.0
N	Oct. 3	"	4	600	190	23.0
P	" 4	"	4	941	181	16.8
Q	" 11	"	5	557	112	11.4
R	" 12	"	5	367	79	6.0
S	" 15	"	5	253	54	6.2
T	" 16	"	5 & 6	975	230	13.4
U	" 17	"	6	939	241	13.8
V	" 18	"	6 & 7	693	169	13.9
W	" 19	"	7	28	6	0.6
X	" 20	"	7	587	162	11.5
Y	" 22	"	8	219	55	2.5
Z	" 24	"	8	451	132	8.1
AA	" 25	"	8	554	149	8.7
BB	" 26	"	8 & 9	706	151	8.0
CC	" 29	"	9	172	54	6.1
DD	" 30	"	9	95	40	1.2
EE	" 31	"	9	229	53	3.3
FF	Nov. 2	"	9	133	4	0.3
GG	" 3	"	9	205	41	2.3
31	TOTALS			14464	2774	186.9

Area surveyed in square statute miles - 4½

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. 5621

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

Number of positions on sheet	2,774
Number of positions checked	245
Number of positions revised	14
Number of soundings recorded	14,464
Number of soundings revised	28
Number of signals erroneously plotted or transferred	0

Date: May 6, 1935

Verification by M. D. Cooper Time: 81 Hours

Review by R. J. Christman Time: 43 "

REPORT ON - H-5621
CHIEF OF PARTY - W.D. PATTERSON
PROTRACTED BY - J.C. McILWAINE
VERIFIED AND INKED BY M.D. COOPER.

SURVEYED IN SEPT. TO NOV. 1934
SURVEYED BY - LIEUT. G.E. MORRIS, JR.
SOUNDINGS PLOTTED BY C.R. SMITH

The record conform to the requirements, being fairly neat and legible. ✓

The usual depth curves can be drawn but in some few places additional development would have aided ✓ in more accurate curves.

The field plotting was completed as required, being accurate and neatly done. ✓

It was necessary to change all ½ foot soundings as they were plotted as zero's. This was the only out- ✓ standing correction in field plotting.

The junction with H-5554 to the north is adequate, a more detailed overlap would have been ✓ an aid to this junction.

REMARKS.

The plotting and draftsmanship on this sheet was good. The main difficulty was that the hydrography was rather sloppy in places, a uniform system of development would have been desirable. Check lines were fairly good. It was necessary to omit considerable soundings along docks as they were taken every two meters and therefore could not all be plotted. There were also a number of soundings omitted as they were not described

accurately enough and were not shown on the boat sheet. They were: 5A TO 7A, 16A TO 18A, 9B TO 28B, 9J TO 13J, 1FF TO 4FF, 16D TO 22D, 18E TO 37E, AND 11H TO 22H.
A FEW IRREGULARITIES:-
These are noted in pencil on smooth sheet by Capt. Ellis and are called to the attention of the Reviewer.

M. D. Cooper.

This sheet was compared with the topographic shore line, and adjacent rocks. Numerous buoys, and ~~anchor~~ mooring buoys were transferred from the topographic sheet.

PQC

March 5, 1935

F.D

Division of Hydrography and Topography:

✓ Division of Charts: Attention Mr. E. P. Ellis

Tide Reducers are approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 5621

Locality Newport Harbor, R. I.

Chief of Party: W. D. Patterson in 1934
Plane of reference is mean low water, reading
1.3 ft. on tide staff at Newport Naval Training Station
36.0 ft. below B.M. 1

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

Condition of records satisfactory except as noted below:

H A Marmer

Acting Chief, Division of Tides and Currents.

Survey No. H 5621

GEOGRAPHIC NAMES

Date.

Chart No. 1210

Diagram No. 1210

Approved by the Division of Geographic Names, Department of Interior. *

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	✓	Coasters Harbor Island			
	✓	Rose Island			
	✓	Goat Island			
	✓	Newport			
	✓	St.Patrick Rock			
	✓	Bishop Rock			
	✓	Bishop Shoal			
	✓	Gull Rocks			
	✓	Tracey Ledge			
	✓	Mitchell Rock			
	✓	Citing Rock			
	✓	Ida Lewis Rock			
	✓	Little Ida Lewis Rock			
	✓	Eastern Passage			
	✓	Brenton Cove			

Names underlined in red approved. HLF

(M-136)

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 5621 (1934) - FIELD NO. 2

Newport Harbor, Eastern Passage, Rhode Island
Surveyed in September and November, 1934
Instructions dated May 14, July 31, 1934 (W. D. Patterson)

Hand Lead Soundings. 3 Point fixes on Shore Signals.

Chief of Party - W. D. Patterson.
Surveyed by - G. E. Morris, Jr.
Protracted by - J. C. McIlwaine.
Soundings penciled by - Charles R. Smith.
Verified and Inked by - M. D. Cooper.

1. Condition of Records.

The records are neat and legible and conform to the requirements of the Hydrographic Manual.

The Descriptive Report is complete and comprehensive and satisfactorily covers all items of importance.

2. Compliance with Instructions for the Project.

The plan and extent of development complies with the instructions for the project.

3. Sounding Line Crossings.

The crosslines are in good agreement except in lat. 41°30.3', long. 71°19.5', where a 4 foot and an 8 foot sounding on line 39 - 40z fall in apparently deep water. This is a dredged area, but an examination of BP. 20826 of 1926 shows that there is a tendency to shoal in this locality. The 4 and the 8 have therefore been retained and should be charted until their existence is definitely disproved.

4. Depth Curves.

Within the limits of the survey, the usual depth curves may be satisfactorily drawn.

5. Junction with Contemporary Surveys.

The sheet joins H-5554 (1934) to the northward and the junction is satisfactory.

No contemporary surveys have been made to the westward and southward.

6.

6. Comparison with Prior Surveys.

a. H-Misc. 20 (1832).

This survey is on scale 1-24,000 and depths are referred to extreme low water. The general agreement of soundings is good, but there are a number of differences in details. All important features have been covered by later surveys and it would serve no useful purpose to make a detailed comparison with the present survey.

b. H-785 (1862-65), H-787a (1862).

Both surveys are on the scale of 1-10,000. The deeper areas on H-785 (1862-65) are plotted in fathoms and fractions, and the shoal areas inside the 18 foot curve in feet. H-787a (1862) is a replotting of the 1862 work with the depth unit in feet. The general agreement in depth is good, changes being confined mostly to the areas along shore where improvements have been constructed since the above surveys were made. Special attention is directed to the following features.

(1) The 18 foot spot (charted) in lat. 41°29.8', long. 71°19.5' is derived from an 18½ foot on H-787a (1862). The 1934 survey shows an 18 foot depth about 150 meters southwest of this place. The bottom is somewhat irregular in this locality but not of a rocky nature. The 18 from the 1862 survey was searched for by drift soundings in addition to the sounding lines and not found. It has not been retained and the depths from the present survey should be used for charting in this area. (See par. 1, p. 4 of Descriptive Report).

Carried fwd. to H-8394(57)

(2) The 1 foot rock (charted) in lat. 41°29.65', long. 71°20.45' originates with H-787a (1862). The present field party searched for the rock at low tide by drift soundings without finding it, although 7½ and 8½ foot rocks were located. (See par. 2, page 4, Descriptive Report).

carr'd fwd. H-8394 ✓

At the time of the old survey, the rock was marked by a spindle (pos. 4t), and since it is not likely that such a mark would be set on rocks as deep as 7½ feet, the 1 foot rock has been carried forward and should be retained on the chart.

(3) The 14 foot depth (charted) over Mitchell Rock, lat. 41° 29.63', long. 71°20.25', is derived from H-787a (1862) where it is given as 14-1/4 feet. This depth was confirmed by an examination in 1887 which also states that 14½ feet was the least depth on the rock. The least depth found on the present survey was 16½ feet, however the 14 is considered to have been well established and it has been carried forward to the present survey and should be retained on the chart. (See par. 3 and 4, p. 6 of Descriptive Report).

Carr'd fwd. -8394 ✓

(4) The 9 foot depth (charted) over Tracey Ledge, lat. 41°29.9', long. 71°20.05' is derived from H-787a (1862); the same rock is given on H-785 (1862-65) with a depth of 9½ feet, both sheet being plotted from the same records. The sounding was not identified in the record although considerable time was spent in tracing out sounding lines in the vicinity. The present survey obtained 10 feet by drift soundings as the least depth in about the same position, which appears to confirm the old 9½. The 9 foot sounding has been carried forward to the present survey and should be retained on the chart. (See par. 3 and 5, p. 6 of Descriptive Report). 9 Not Carried Fwd. considered disproved by H 8394

(5) The field party ~~were~~ was unable to find any depth less than 19 feet over the 17 foot rock (charted) in lat. 41°30.4', long. 71°20.17' after an hour of drift soundings. However, because a note in the old records states "a very small top to this rock - not over 6 feet square", the 17 foot rock is not considered disproved and has been carried forward and should be retained on the chart. (See par. 3 and 6, p. 6 of Descriptive Report). 17'Rk confirmed by H-8394

c. H-811 (1865), H-811a (1905).

These surveys are on a scale of 1-5,000. Depths in the deep area westward of Goat Island are in good agreement. All other areas covered by this survey have been greatly altered by dredging and improvements along shore, constructed since the survey was made. H-811a (1905) shows the results on an examination by sounding and wiredrag of the former 9 foot rock in approximate lat. 41°28.65', long. 71°20'. The rock was removed from the chart in 1909 by authority of the U. S. Eng. (Chart letter No. 265, 1909 and BP. 12855 of 1906). The present survey should supersede both of the above surveys.

d. H-1468 (1880-87).

This survey is on scale 1-5,000. The depths northeast of Goat Island light to the vicinity of St. Patrick Rock are in good agreement with the present survey. The area east and south of Coasters Harbor Island has been greatly altered by dredging. The 5 foot sounding (charted) in lat. 41°29.1', long. 71°19.8' was derived from an examination of this rock in 1887 (H-1468). The 5 was plotted by time between position fixes but the depth on the position recorded as "location of rock" was 8 feet. The old examination showed a shoal area extending about 80 meters north and south with depths of from 5 to 11 feet. The present field party spent three quarters of an hour in drift sounding over the spot when the bottom was visible at 8 feet. None of the present depths correspond to the old ones; however, a rock with $14\frac{1}{2}$ feet over it was found (pos. 60P). The field party believes the 5 foot rock has slid into deeper water and recommends that the present depth be charted. (See par. 9, page 4, Descriptive Report). In view of the intensive character of the present examination and the failure to find any similar depths, this recommendation is concurred in. The 5 foot sounding should be removed from the chart.

14 Rk around forward to H-8394 (57)

e. H-1938 (1889).

This survey shows the location of the measured mile trial course. No hydrography within the limits of the present survey is shown.

f. H-3695 (1914, W. D.), H-3801 (1915, W. D.).

A general comparison of the area and depth tracings of these wire drag surveys shows no discrepancies between the effective depths of the dragged areas and the soundings of the present survey.

The sunken rock symbol (charted) in lat. 41°29.5', long. 71° 19.75' was derived from H-3801 (1915, W. D.) where it is shown as "a pile of rocks." The pile of rocks probably marked the corner of the fill that was later made at this place, as the present field party drift sounded over the spot for twenty minutes without finding anything. Their recommendation that the sunken rock be removed from the chart is concurred in. (See par. 8, page 4 of Descriptive Report).

All other shoals found on these wire drag surveys have been transferred to the present survey.

7. Comparison with Chart 236.

a. Hydrography.

Within the area of the present survey the chart is based on surveys discussed in the foregoing paragraphs, except as follows:

(1) The area southward and eastward of Goat Island is charted from U. S. Engineer's survey, BP. 27781 (1934), which is in good agreement with the present survey. Unless dredging has been done since the date of the Engineer's survey, the two surveys should supplement each other.

(2) The area eastward and southeastward of Coasters Harbor Island is charted from BP. 10675 of 1904 and BP. 20826 of 1926. There is considerable evidence of change in this area and the information now on the chart should be replaced by that on H-5621 (1934).

The rock awash (charted) in lat. 41°30.44', long. 71°19.5' originates with a -0.1 foot sounding shown on BP. 10675 (1904). The present field party searched for the rock when the bottom was plainly visible at a minus tide and it could not be found. Their recommendation that this rock awash be removed from the chart is concurred in. (See par. 7, page 4 of Descriptive Report).

(3) No authority was found for the 17 foot sounding charted in lat. 41°29.7', long. 71°19.72'. It first appeared on the 1918 edition of Chart 353[2]. It falls in depths of 22 to 24 feet on the present survey and no evidence of its existence was found in half an hour of drift sounding. In view of its uncertain origin and the negative result of the present examination, the 17 should be removed from the chart. (See par. 4, p. 5, Descriptive Report).

See chart letters { 454 1914, 412 1937. for evidence of non-existence. CKG - 1937

(4) The 12 foot "RK" sounding (charted) in lat. 41°30.05', long. 71°19.6', originates with chart letter No. 602 (1928). This letter, from the Commanding Officer of the Naval Training Station, Newport, L. I., reports that a naval vessel touched bottom while at anchor and obtained a least depth of 12.6 feet. The present field party found this shoal but the least depth which could be obtained after three quarters of an hour of drift sounding was 13½ feet, rocky bottom (pos. 79X). The charted 12 foot sounding should be replaced on the chart by the 13 foot depth as recommended by the field party. (See last paragraph, page 2, Descriptive Report).

b. Aids to Navigation.

All the floating aids to navigation and the mooring buoys shown on the chart were located by the survey. The greatest differences in location noted are as follows:

(1) Buoy 8A (Occ. R) marking Bishop Shoal (lat. 41°31', long. 71°20.1') is charted about 80 meters east of the present location.

(2) Buoy C1 marking the shoal area southwest of Goat Island is charted about 75 meters northeast of the present location.

(3) Buoy C3 marking the shoal area southeast of Goat Island is charted about 60 meters northeast of the position located by the present survey.

All of the above buoys in their present locations adequately mark the features intended.

(4) Red buoy N6 (charted in lat. 41°30.05', long. 71°19.61') was located in substantially the same position as charted, however this buoy should be moved about 65 meters in a southwesterly direction in order to mark the 13 foot rocky shoal at that point.

8. Field Plotting.

The protracting was well done, only a few positions had to be revised in the office.

The penciling of soundings was satisfactory.

9. Additional Field Work Recommended.

This survey is considered complete and satisfactory and no additional hydrography is recommended; however, because of the importance of the locality, it might be desirable to examine the following areas with the wire drag:

a. The 17 foot charted sounding of uncertain origin (lat. 41°29.7', long. 71°19.72') should be dragged to a depth of 21 feet in order to conclusively disprove it. (Discussed in par. 7a(3) of this review).

Considered conclusively disproved - See chart letters, 454 (1914) and 412 (1937) CKG - 1937

b. The 5 foot rock shown on H-1468 (1880-87) in lat. 41°29.1', long. 71°19.8' should be examined with the wire drag in order to confirm the assumption that this rock has slid into deeper water. (See par. 6d(1) of this review and also par. 9, page 4 of Descriptive Report).

c. The least depths over Mitchell Rock, Tracey Ledge and the rock in lat. 41°30.4', long. 71°20.17' could be well established by dragging these areas with the drag set to the least depths found on the present survey. (See par. 6b(3), par. 6b(4), and par. 6b(5) of this review).

14 carried fwd to H-8394

d. The 1 foot rock (charted) in lat. 41°29.65', long. 71°20.45', which was not found by the present survey, should be definitely disproved by the drag. (See par. 6b(2) of this review and par. 2, page 4, Descriptive Report).

Carried fwd to H-8394

10. Superseding Old Surveys.

Within the area covered the present survey, with the indicated additions from previous surveys, supersedes the following surveys for charting purposes:

Misc. 20	(1832)	in part.
H- 785	(1862-65)	" "
H- 787a	(1862)	" "
H- 811	(1865)	entirely.
H- 811a	(1905)	"
H-1468	(1880-87)	"

11. Reviewed by - R. J. Christman and R. L. Johnston, June 8, 1935.

Inspected by - A. L. Shalowitz.

Examined and approved:

C. K. Green, C. K. Green
Chief, Section of Field Records.

L. O. Colbert
Chief, Division of Charts.

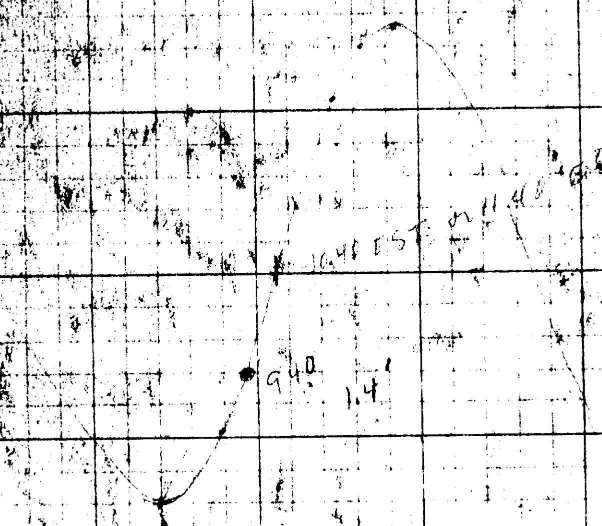
F. S. Borden
Chief, Section of Field Work.

Chief, Division of H. & T.

25 Jan 10, 1936

applied to Chk. 236 - Feb. 1936 [illegible]

[illegible]



2.1 Tide
6.1
3.4
2.7 (3)

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