

6472

6472

FORM 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Hydrographic~~ } Sheet No. H-6472
Hydrographic } Field No. 1005

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
DEC 16 1940
Acc. No.

State Massachusetts

LOCALITY

Nantucket Sound

Chatham Roads

1939

CHIEF OF PARTY

F. L. Gallen

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. 1005

REGISTER NO. 6472

H6472

State Massachusetts

General locality Nantucket Sound

Locality Chatham Roads

Scale 1:10,000 Date of survey Sept., 1939

Vessel Launch MIKAWA

Chief of Party F. L. Gallen

Surveyed by C. A. Schanck and M. G. Ricketts

Protracted by George E. Varnadoe

Soundings penciled by George E. Varnadoe

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by

Inked by J. W. Vonasek

Verified by J. W. Vonasek

Instructions dated April 1, 1939 and July 1, 1939, 1939
also instructions to M.V. GILBERT, dated 1938.

Remarks:

DESCRIPTIVE REPORT

To Accompany Hydrographic Sheet H-6472
(Field No. 1005)

INSTRUCTIONS Project No. HT-217, dated April 1, 1939 and
July 1, 1939. Instructions to the MV GILBERT
for the season of 1938. ✓

LIMITS This sheet covers the inshore section of Nantucket
Sound along the South Shore of Cape Cod from the
Herring River east to Monomoy Island and includes Stage Harbor
and tributaries. Junctions are with Sheet H-6471 (Field 1004)
on the west, Sheet H-6473 (Field 1006) and the 1939 work of the
MV GILBERT on the south. H-6534 (1939) ✓

SURVEY METHODS The shoreline and signals used on this sheet
were compiled by the Baltimore Office from
Aerial Photographs. Signals thus located were checked by
sextant cuts, additional signals needed were located by sextant
fixes, cuts and sextometer distances. The shoreline was revised
by sextant fixes where found necessary, this data being recorded
in the sounding volumes. Revised shoreline is inked in ~~blue~~ on
the smooth sheet. ✓

T-5736
T-5738
T-5739
~~CS-192~~
T-5737

The hydrography was the usual sextant control
hand lead work, using 16 and 25 foot skiffs and launch No. 75.
The inshore work was done by Lieut.(j.g.) C. A. Schanck, the
offshore by Lieut.(j.g.) M. G. Ricketts. The cross lines on
the Nantucket Sound section of the work were run by the offshore
launch party. Shoal soundings were transferred to the boat
sheets from previous surveys and the charts to aid in comparison
and investigation of previously charted depths. ✓

DANGERS No dangers were noted on this sheet. ✓

CHANNELS There is no definite channel into Allen Harbor.
Outside the jetties at this harbor the bottom is
of shifting sand and changes frequently. There was found, a
least depth of 2½ feet about midway between the outer end of
the east and west jetties. ✓

A channel with a least depth of 6 feet is maintained
into Wychmere Harbor. Outside the end of the breakwater this
channel is 15 to 20 meters wide and would fill quickly if not
dredged at frequent intervals. ✓

There is a channel with a least depth of 6 feet into
Stage Harbor and this depth can be carried all the way through
the harbor to its northern limits. Entering the outer harbor
this channel is winding around the southern tip of Harding
Beach but is well buoyed by the U. S. Coast Guard. The channel
from the lower to the upper harbor is marked during the summer
months by local boatmen. ✓

There is no channel into Oyster Pond. ✓

ANCHORAGES There is a fair anchorage for Northeast weather 0.6 mile west of the new light at Stage Harbor. The depth is 28 feet.

✓
✓
25

UNCOMPLETED WORK Due to the loss of the inshore boat sheet by fire, it was not possible to plot positions numbered 1, 5, 15, 18, 19, 20, 25, 27, 29, 30 and 44a; 86, 91, 92, 99, and 100e; and 134'1'. The result is an incomplete record of the location of the soundings in Allen's and Wychmere Harbors. However it is believed that any information desired to supplement the soundings shown on the smooth sheet can be reliably obtained from local boat clubs.

Sufficient information on smooth sheet.
See new positions for signals on Sheet T-5738

DISCREPANCIES In the vicinity of Lat. 41°-39.4' Long. 70°-06.3' there are three or four discrepancies of 2 feet between the cross lines 145 to 147d (red) and the regular system of lines. It is recommended that the shoaler soundings be accepted.

✓
✓
✓

There is a similar discrepancy of 2 feet on the 5th sounding after position 13e (red) on the cross line in Lat. 41°-39.5' Long. 70°-04.4'

O.K. ✓

In Lat. 41°-39.5' Long. 70°-03.7' on the cross line between positions 2 and 3e (red) there is a 3 foot sounding between 6 foot soundings on the regular system of lines. It is recommended that this sounding be retained for there are a number of other small 3 foot spots just inside the one fathom curve in this vicinity.

O.K. ✓

On position 156e (red), Lat. 41°-40.3' Long. 70°-00.4', a 1 foot sounding was obtained approximately on a 4 foot sounding.

Accept 1. ✓

It is believed that the reason for discrepancies between cross lines and the regular system is the irregular bottom of the area due to the shifting sand ridges.

Probable. ✓

COMPARISON WITH PREVIOUS SURVEYS The agreement with previous statements cover investigation of some previously shown shoals.

Lat. 41°-39.0' Long. 70°-03.0' A charted 5 foot spot. Close development and careful cruising of this area failed to find such depth. Least depths found were 12 feet. Local boatmen do not believe this 5 foot spot exists. Disregard 5. Rev. par. 5.

Lat. 41°-37.4' to 38.7' Long. 70°-00.0' to 01.0' This area is charted showing depths of 1 to 5 feet. It is a flat sand area with numerous definite visible sand ridges which appear to be of a changeable nature. Numerous shoals were found in the area with depths of 2 to 6 feet. The slope off this flat on the west side is very abrupt.

Lat. 41°-39.15' Long. 69°-59.93' A ridge was found lying in a NE-SW direction with a least depth of 13 feet, this ridge is about 0.12 miles in length. Disregard 11 on chart.

✓

✓
✓

✓

GEOGRAPHIC NAMES All names shown on the charts in this area were investigated in the field, the records were lost by fire. Names as charted were found to be correct with the exception of the one noted below.

"WYCHMERE HARBOR" (Not "WITCHMERE" as shown on the chart) seems to be the correct spelling. This name appeared in conjunction with a large picture of the harbor in the local newspaper in the summer of 1939. It also appears on postcards that portray the harbor. It is also approved by Charles L. Bevins, Assistant Postmaster of Harwichport and by John H. Paine, Lawyer and Historian of Harwich Center, Mass. Mr. Paine reports, that, before the harbor was developed, it was called "SALT WATER POND" which name appeared on original topographic sheets by this Bureau. The original Indian name was "ANNOSARAKUMITT". The name "WYCHMERE" seems to have no meaning, it is the name given to the harbor when it was developed by Dr. A. A. Jullien of Columbia University in 1890.

Submitted by,

Max G. Ricketts
Max G. Ricketts
Jr. H. & G. E.

Approved:

F. L. Gallen
F. L. Gallen
H. & G. Engr.
Chief of Party

Smooth Sheet H-6472 (Field No. 1005)

Prepared in Washington Office February 6, 1940

Projection on ruling machine by S. Kass

Shoreline transferred in projector from air photographic surveys T-5736, ~~T-5737~~, T-5738 and T5739 by J. P. Dunich

Shoreline checked by R. E. Elkins

Triangulation stations and air photographic signals transferred in projector

Air Photographic signals checked by scaling from ozalid copies of the above air photographic surveys by R. E. Elkins

Triangulation stations checked with geographic positions by R. E. Elkins

Sent to field with shoreline in pencil and station points pricked.

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H.6472**

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

Number of positions on sheet	3062
Number of positions checked	...67.
Number of positions revised4.
Number of soundings recorded	18,328
Number of soundings revised	...26
Number of soundings erroneously spaced11
Number of signals erroneously plotted or transferred	None.

Date: **3/7/41**

Verification by **J.W. Vonasek**

Time: **134 hr.**

Review by **J.A. McCormick 3/13/41**

Time: **22 hr.**

HYDROGRAPHIC SURVEY NO. H6472

Smooth Sheet One

Boat Sheet One (inshore boat sheet destroyed by fire)

Records; Sounding 12 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) No

Statistics Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) No

Special Chart for Lighthouse Service June 14, 1940
(Circular Nov.30, 1933)

Hydrography: Total Days 14 ; Last Date Sept. 29, 1939

Remarks _____

Remarks.

Decisions

1		416700
2		"
3		416699 U. S. G. B.
4		U. S. G. B.
5		416699
6		"
7		"
8		416700
9	In title.	"
10	Location of tide staff.	416701
11		416699
12		
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27		

GEOGRAPHIC NAMES
 Survey No. **H6472**

Name on Survey	Source of Name										No.
	A	B	C	D	E	F	G	H	K		
<u>Allen Harbor</u>											1
<u>Bucks Creek</u>											2
<u>Harding Beach</u>											3
<u>Nantucket Sound</u>											4
<u>Oyster Creek</u>											5
<u>Oyster Pond</u>											6
<u>Stage Harbor</u>											7
<u>Wychmere</u>											8
<u>Witchmers Harbor</u>											9
<u>Chatham Roads</u>											10
<u>Herring River</u>											11
<u>Morris I</u>											12
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> Names underlined are approved by <u>L. Heck</u> on <u>3/11/41</u> </div>										13	
											14
											15
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											27

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY DESCRIPTIVE REPORT PHOTOSTAT OF	}	No. H H6472 No. J	{ received Nov, 19, 1940 registered Dec. 16, 1940 verified reviewed approved
----------------------------------------------	---	----------------------------------------	--------------------------------------------------------------------------------------------------------

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25	✓	<i>A.F.M.</i>	<i>Pages 1 and 2</i>
26			
30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	T. B. Reed
----	------------

✓ TBR

STATISTICS
 Hydrographic Sheet H-6472
 Field No. 1005

H6472

Date	Day (Blue)	Statute Miles	Soundings	Positions
Sept. 11	a	6.2	322	70
12	b	29.7	1234	160
13	c	29.9	1230	168
14	d	20.0	782	108
15	e	22.6	1054	147
18	f	24.3	994	147
19	g	24.7	1055	190
20	h	12.0	607	103
21	j	13.3	711	121
22	k	26.9	1097	168
25	l	16.0	807	142
26	m	6.3	541	62
28	n	30.0	1103	168
29	p	11.1	565	97

	(Red)			
Sept. 12	a	27.3	611	132
13	b	35.0	766	151
14	c	23.8	507	102
18	d	29.3	924	147
19	e	25.7	859	156
20	f	8.0	286	62
21	g	5.2	139	38
22	h	24.5	810	157
28	j	16.8	650	114
29	k	21.0	874	152

Totals	-----	489.6	-----18,328	-----3,062

RAC
HRE.

TIDE NOTE FOR HYDROGRAPHIC SHEET

December 23, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Plane of reference approved in
volumes of sounding records for

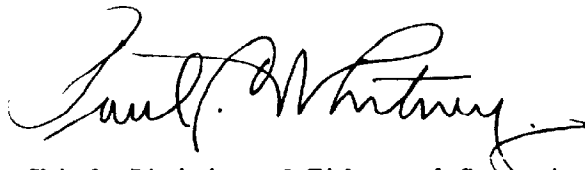
HYDROGRAPHIC SHEET 6472

Locality Chatham Roads, Nantucket Sound

Chief of Party: F. L. Gallen in 1939
Plane of reference is mean low water reading
0.5 ft. on tide staff at Stage Harbor
8.3 ft. below B. M. 1
2.8 ft. on tide staff at Herring River
9.3 ft. below B.M. 1

Height of mean high water above plane of reference is 3.6 feet at
Stage Harbor; 3.4 feet at Herring River.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H

Verified and Inked by *J. W. Vonasek*

Date *3/7/41*

1. The descriptive report was consulted and appropriate action taken. ✓
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude. ✓
3. All references to survey sheets mentioned in the descriptive report include the registry number and year. ✓
4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering. ✓
5. All items effecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken. ✓
6. All positions verified instrumentally were check marked in the sounding records. ✓
7. All critical soundings are clear and legible. ✓
8. The metal protractor has been checked within the last three months. ✓
9. The protracting and plotting of all bad crossings were verified. ✓
10. All detached positions locating critical soundings, rocks or buoys were verified. ✓
11. The boat sheet was compared with the smooth sheet. ✓
12. The spacing of soundings as recorded in the records was closely followed. ✓
13. The bottom characteristics were shown on outstanding shoals. ✓
14. The reduction and plotting of doubtful soundings were checked. ✓

15. The transfer of contemporary topographic information was carefully examined. ✓
16. All junctions were transferred. *except H-6571 (1939) on the west which was not yet verified.* ✓
17. The notation "JOINS H" was added for all contemporary adjoining or overlapping sheets now registered. ✓
18. The depth curves have been drawn to include the significant depths *except where drawn through the sounding to smooth out the curves.* ✓
19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓
20. Heights of rocks were checked against range of tide. ✓
21. Rocks transferred from topographic survey have a dotted curve where shown thereon. *none transferred.* ✓✓
22. Unnecessary pencil notes have been removed. ✓
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet. ✓
24. The low water line and delineation of shoal areas have been properly shown (see letter of October 20, 1934). ✓
25. Degree and minutes values and symbols have been checked. ✓
26. Source of shoreline and signals (When not given in report).
T-5736, ~~T-5737~~, T-5738; T-5739 (1938)
~~CS-192~~
T5737 ✓
27. Depth curves were satisfactory, ~~except as follows:~~ ✓

28. Sounding line crossings were satisfactory except as follows: ✓
See note under "Discrepancies" in descriptive Report - p. 2.

29. Junctions with contemporary surveys were satisfactory. ~~except as follows:~~ ✓

30. Condition of sounding records was satisfactory. ~~except as follows:~~ ✓

31. The protracting was satisfactory. ~~except as follows:~~ ✓

32. The field plotting of soundings was satisfactory. ~~except as follows:~~ ✓

33. Notes to reviewer:

The following note describing the bridge north of Stage Harbor was not inked on the sheet:

*" Wooden single Bascule; hand operated
Vertical Clearance 12½ ft. M.L.W.
Horizontal Clearance 17 ft. "*

*Bridge not important. Not listed in bridge book.
Note not inked.*

*Bridge book gives hor. cl. 14 ft.
S.M.A.
8-8-47*

*Respectfully submitted
Joseph M. Vonarok*

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6472 (1939) FIELD NO. 1005

Massachusetts; Nantucket Sound; Chatham Roads
Surveyed in September 1939, Scale 1:10,000
Instructions dated January 17, 1938 (GILBERT)
April 1 and July 1, 1939 (MIKAWÉ)

Soundings:

Control:

Hand Lead

Sextant Fixes on Shore Signals

Chief of Party - F. L. Gallen
Surveyed by - C. A. Schanck; M. G. Ricketts
Protracted by - G. E. Varnadoe
Soundings plotted by - G. E. Varnadoe
Verified and inked by - J. W. Vonasek
Reviewed by - J. A. McCormick, March 13, 1941
Inspected by - H. R. Edmonston

1. Shoreline and Signals

Discussion in the descriptive report, page 1, is adequate.

2. Sounding Line Crossings

Satisfactory.

3. Depth Curves

Satisfactory.

4. Junctions with Contemporary Surveys

The junction with H-6471 (1939) on the west will be considered in the review of that survey. Junctions with H-6534 (1939) and H-6473 (1939) on the south are satisfactory but it is noted that the fathometer soundings of the former are, as usual, 1 to 2 feet shoaler than the overlapping hand lead soundings of the present survey.

5. Comparison with Prior Surveys

H-245 (1849), 1:20,000; H-387 (1853), 1:30,000;
H-455a (1854), 1:40,000; H-527 (1855-56), 1:30,000;
H-1243 (1874), 1:20,000; H-1948 (1889), 1:20,000;
H-1949 (1889), 1:10,000

Surveys in 1849 to 1856 are poorly developed and generally unreliable. Those of 1874 and 1889 are in fair agreement with the present survey. Outstanding differences between old and new surveys are: 5 feet (charted) in Lat. $41^{\circ} 39.0'$, Long. $70^{\circ} 03.0'$ on H-455a, 12 feet on present survey; 12 feet (charted) in Lat. $41^{\circ} 38.7'$, Long. $70^{\circ} 06.3'$ on H-1948, 16 feet on present survey; 4 feet (charted) in Lat. $41^{\circ} 38.9'$, Long. $69^{\circ} 59.8'$ on H-1949, 8 to 9 feet on present survey. The 5 on H-455a may be disregarded because of general disagreement in the vicinity. The others quite possibly are due to errors on the old surveys. There is also evidence of shifting bottom and, as development on the present survey is good, the old soundings have not been retained. The present survey supersedes the older surveys in the common area.

6. Comparisons with Chart 1209 (New Print of July 2, 1940)

a. Hydrography

Depths charted in this area are from previously discussed surveys.

b. Aids to Navigation

Survey positions of floating aids in Stage Harbor differ by varying amounts from charted positions but, with one exception, adequately mark the channel. Red nun buoy "6A" appears to be considerably out of position and on the wrong side of the channel.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory.

9. Additional Field Work Recommended

None.

10. Superseded Surveys

H-245	in part	H-1243	in part
H-387	" "	H-1948	" "
H-455a	" "	H-1949	" "
H-527	" "		

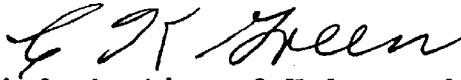
Examined and approved:



Thos. B. Reed,
Chief, Section of Field Records



Chief, Division of Charts



Chief, Section of Hydrography



Chief, Division of
Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. *H-6472*

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
<i>1-10-47</i>	<i>257</i>	<i>W. Andrews</i>	Before After Verification and Review <i>Completely applied.</i>
			Before After Verification and Review
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			Before After Verification and 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.

Wpplina to CHA 1209 - Aug 1941 - D. P. G.
" " " 1107 " " J. M. A.
" " " 70 " " J. M. A.