

8569

Diag. Cht. No. 1107.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HY-4159 Office No. H-8541 ⁸⁵⁶⁹

LOCALITY

State Massachusetts

General locality Nantucket Shoals

Locality Central Nantucket Shoals

19...59

CHIEF OF PARTY

M. E. Wennermark

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USCOMM-DC 5087

8569

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. ⁸⁵⁶⁹ ~~H-8541~~

Field No. HY-4159

State Massachusetts

General locality Nantucket Shoals

Locality Central Nantucket Shoals

Scale 1:40,000 Date of survey 1 August 1959, to 27 August 1959 (incomplete)

Instructions dated 28 November 1956

Vessel HYDROGRAPHER

Chief of party M. E. Wennermark
D. M. Whipp, P. A. Stark, J. T. Flynn, L. S. Brown, D. W. Moncevicz,
Surveyed by P. A. Martus, R. R. Floyd.

Soundings taken by ~~HYDROGRAPHER~~ graphic recorder, ~~hand held~~

Fathograms scaled by Ship's personnel

Fathograms checked by Ship's Personnel

Protracted by J. T. Flynn

Soundings penciled by J. T. Flynn, L. S. Brown

Soundings in fathoms feet at MLW ~~MLW~~

REMARKS: Off shore survey

DESCRIPTIVE REPORT

to accompany

Hydrographic Survey (H-~~8541~~
8567)
Ship HYDROGRAPHER
Maurice E. Wennermark, Chief of Party
General Locality: Nantucket Shoals

Field No. HY-4159
Scale 1:40,000
Locality: Central Nantucket
Shoals.

A. PROJECT: Project No. CS-401. Original instructions dated 28 November 1956; supplemental instructions dated 28 February 1957, 23 October 1957, and 16 October 1958. Revised instructions 27 November 1959.

B. SURVEY LIMITS and DATES: The survey layout covers an area centered around Texas Tower #3. The survey is 20% complete.

Field work this season was from 1 August 1959 to 27 August 1959. This survey makes a junction with the following prior surveys:

H6559 a&b	1:140,000	unknown
H-6439	1:60,000	1939
H-5275	1:100,000	1932
H-5227	1:40,000	1932

and contemporary survey HY-1259 (H-8484) thus far.

C. VESSEL and EQUIPMENT: The Ship HYDROGRAPHER was used in this survey.

The turning radius at sounding speed of the HYDROGRAPHER, depending on the prevailing winds and current, is 80 to 120 meters.

An 808 J type fathometer, serial No. 57-31 was used.

D. TIDE and CURRENT STATIONS: The tide gage, at Boston Mass., was used as the reference station (see tide note).

No current stations were observed.

E. SMOOTH SHEET: The smooth sheet projection and Raydist arcs were ruled by the Washington Office.

F. CONTROL STATIONS: All hydrography on this sheet was controlled by Raydist, using two stations as follows:

R₁ at Wellfleet, Cape Cod, Massachusetts
Latitude - 41° 56' 31.426" N
Longitude - 69° 59' 11.303" W

The G.P. of this station was determined by K.S. Ulm, Boston District Officer, in 1957. It is the same as Reference Mark 1 of Triangulation Station FRAZIER 1957.

R₂ at Gay Head, Martha's Vineyard Island, Massachusetts:
Latitude 41° 20' 48.794" N
Longitude 70° 49' 59.486 W

The G.P. of this station was determined in 1958 by K. S. Ulm, Boston District Officer. It is known as Raydist R. M. 1 of 1958 and was located from Gay Head No. 2, 1958.

G. SHORELINE AND TOPOGRAPHY: No Shoreline or topography are shown on this sheet.

This is an offshore survey.

H. SOUNDINGS: All depths were measured using an 808J type fathometer. Adequate checks and tests were made to verify the accuracy of these soundings. Instrument & velocity correctors will be found in Fathometer^{and} Velocity Corrections Report, 1959 - Ship HYDROGRAPHER.

I. CONTROL of HYDROGRAPHY: Raydist control was used for all work done during 1959 on this sheet. The Raydist dials were set at Texas Tower #3 (East Leg) and at survey buoys located by runs from T.T. #3. An abstract of raydist corrections for the 1959 work is included in the 1959 Raydist & Shoran Report, Ship HYDROGRAPHER, and is also included at the end of this report. *frequency 3280kc*

A complete explanation of Raydist control and calibration is included in Technical Bulletin No. 5 and 1959 Raydist and Shoran Report - Ship HYDROGRAPHER.

The R₂ value used for a lane width in the projection of this sheet is 149.87307 feet with a corrector of 0.00012 (R₁ - R₂) applied.

The Datum held for the sheet i.e. the R₁ and R₂ values used for Texas Tower No.3 (East Leg) in setting the Raydist dials and locating survey buoys are as follows:

$$R_1 = 2429.0$$

$$R_2 = 2590.9$$

J. ADEQUACY of SURVEY: This survey is about 20% complete. The remainder of the survey will be completed by the Ship EXPLORER during the 1960 field season.

The portion of the survey this report covers is complete and adequate to supersede prior surveys for charting.

Junctions with the adjoining survey (HY-1259), (~~HY~~-8484) is satisfactory.

Depth curves can be adequately drawn at the junctions.

Nonstandard depth curves of 15 and 25 fathoms were added to the smooth sheet in addition to the standard depth curves to aid in delineating the rough character of the bottom.

K. **CROSSLINES:** Crosslines were run to approximately 5% of the regular system of sounding lines.

L. **COMPARISON WITH PRIOR SURVEYS:** This survey was compared with prior survey H-6559 a 1:140,000. On the old survey the soundings were rather widely and unevenly spaced, and many of the depth curves bear little resemblance to the bottom configuration on this survey. The depths themselves however are in close agreement and the shoal areas agree well in both position and depth. The 4.3 fathom sounding found in Latitude 41°-05.2', Longitude 69°-25.0' was not substantiated in the present survey. The shoalest sounding on the present survey in this vicinity is 5.4, found in Latitude 41°-05.4' Longitude 69°-25.1'. The shoalest soundings on this survey are two 4.5's located in the vicinity of Latitude 41°-03.9, Longitude 68°-25.6'.

Many new shoals are developed in this survey and some of the shoalest are tabulated in section N of this report.

M. **COMPARISON WITH CHART:** This portion of the survey was compared with chart No. 3076, scale 1:220,000, the largest scale chart of the area available.

The comparison is good considering the difference in scale between the chart and this survey. Most comments in Par. L also apply to the comparison with the chart.

N. **DANGERS AND SHOALS:** The following shoal soundings are in addition to those mentioned in Par. L.

<u>Least Depth (fms)</u>	<u>Lat.</u>	<u>Long.</u>
5.7	40°-59.4'	69°-22.6'
5.0	41°-03.4'	69°-25.4'
4.9	41°-04.3'	69°-25.6'

P. **AIDS TO NAVIGATION:** No fixed or floating aids to navigation are located within the limits of this survey.

Q. **LANDMARKS FOR CHARTS:** No landmarks for charts are located within the limits of this survey.

R. **GEOGRAPHIC NAMES:** No investigation of geographic names was made.

Z. **TABULATION OF APPLICABLE DATA:**

1959 Seasons Report	<u>To W. O.</u>
1959 Raydist & Shoran Report	15 December 1959
1959 Fathometer & Velocity Correction Report	January 1960
	January 1960

Abstracts of the various corrections used in this survey
are attached to the end of this report.

Lawrence S. Brown

Lawrence S. Brown
ENS, C&GS

TIDE NOTE
to accompany
Hydrographic Survey
HY-4159 (H-)

Standard Tide Station: Boston, (Northern Ave. Bridge) Mass.

Latitude: $42^{\circ} 21.3'$ North
Longitude: $71^{\circ} 03.0'$ West

Plane of Reference: MLW 3.3 ft. on tide staff
Height Correction: Ratio of heights 0.1
Area covered: Entire sheet
Time Correction: No time correction

The hourly heights and time and height corrections were
furnished by the Washington Office.

1959
 Statistics for Hydrographic Survey HY-4159 (H-8541)
 USC&GSS HYDROGRAPHER
 Project CS-401

<u>Day Letter</u>	<u>Volume No.</u>	<u>Date</u>	<u>No. of Pos.</u>	<u>Nautical Miles of Sounding</u>
A	I	14 July 1959	74	50.2
B	I & II	2 August 1959	198	135.8
C	II	3 August 1959	51	37.9
D	II	4 August 1959	16	12.1
E	II	13 August 1959	24	11.5
F	II	17 August 1959	32	17.3
G	II & III	18 August 1959	134	80.6
H	III	26 August 1959	33	18.1
J	III	27 August 1959	57	37.6
TOTALS			<u>619</u>	<u>401.1</u>

1959
Ships Head Correctors For
HY-4159
USC&GSS HYDROGRAPHER

<u>S.H.</u>	<u>ΔR₁</u>	<u>S.H.</u>	<u>ΔR₂</u>
296°-023°	-0.3	355°-006°	+0.1
024°-043°	-0.2	007°-017°	+0.2
044°-060°	-0.1	018°-030°	+0.3
061°-077°	0	031°-046°	+0.4
078°-094°	+0.1	047°-114°	+0.5
095°-115°	+0.2	115°-129°	+0.4
116°-203°	+0.3	130°-142°	+0.3
204°-223°	+0.2	143°-154°	+0.2
224°-240°	+0.1	155°-164°	+0.1
241°-257°	0	165°-174°	0
258°-274°	-0.1	175°-185°	-0.1
275°-296°	-0.2	186°-197°	-0.2
		198°-210°	-0.3
		211°-226°	-0.4
		227°-294°	-0.5
		295°-309°	-0.4
		310°-322°	-0.3
		323°-334°	-0.2
		335°-344°	-0.1
		345°-355°	0

Refer to Technical Bulletin #5, pg. 15, for an explanation of Ships head correction.

1959 Abstract of Raydist Corrections
HY-4159

<u>Date</u>	<u>Day Ltr.</u>	<u>Positions</u>	<u>Final Corr'n</u>		<u>Remarks</u>
			<u>R₁</u>	<u>R₂</u>	
1 August	A	1-74	-1.8	+1.8	
2 August	B	1-197	+0.1	-0.8	
		198	+0.1	T&C	R ₂ Out
3 August	C	1-48	-1.7	+1.7	
		49-51	-1.7	-0.3	R ₂ gained 2 lanes
4 August	D	1-16	-0.8	+0.8	
13 August	E	1-16	-0.9	+0.9	
		17-20	-0.9	+2.9	R ₂ lost 2 lanes
		21-23	-0.9	+0.9	R ₂ gained 2 lanes
		24	-0.9	T&C	R ₂ failed
17 August	F	1-25	-4.3	-2.1	
		26-32	-4.3	-3.1	R ₂ gained 1 lane
18 August	G	1-101	+0.2	-1.1	
		102	+0.2	T&C	R ₂ Out
		103-134	-0.9	-0.6	Recalibration
26 August	H	1-23	-0.3	+0.6	
		24-29	-0.3	+2.6	R ₂ lost 2 lanes
		30	-0.3	+3.6	R ₂ erratic
		31-33	-0.3	T&C	R ₂ Fails
27 August	J	1-57	-0.5	+0.5	

27 August is last day of field work during 1959 season on this sheet.

APPROVAL SHEET

8569

Hydrographic Sheet H-~~8541~~ (Field No. HY-4159)

Nantucket Shoals

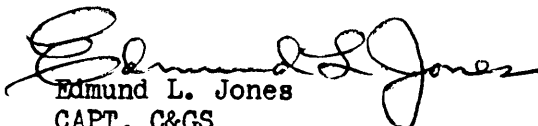
USC&GS Ship HYDROGRAPHER - 1959

This hydrography was accomplished by the Ship HYDROGRAPHER under the command of CAPT M. E. Wennermark in 1959. Since the hydrography was not complete to the sheet limits the records were transferred to the EXPLORER for additional work in 1960. Due to a change of Raydist frequencies, which involved different Raydist curves than those used by the HYDROGRAPHER, a new sheet was prepared by the Washington Office for the EXPLORER's 1960 work. Since the limits of the two sheets are identical the same registry number has been used for both. For the EXPLORER's 1960 hydrography see sheet field No. EX-40-3-60.

Registry No.
changed

The 1959 hydrography shown on sheet HY-4159 has been examined and found to be complete in the area covered. This sheet is approved for submission.

1 March 1961


Edmund L. Jones
CAPT, C&GS
Comdg., Ship EXPLORER

Tabulation of Oscillator Draft Measurements and Corrections

Trip No.	Date	Time	Oscillator Draft (ft)	Draft Corr. (ft)	Draft Corr. (fms)	Final Draft Correction
1	21 Apr't 11 29 Apr't 11	1115 1515	12.9 12.0	0.9 0.0	0.1 0.0	0.0
2	4 May 14 May	1030 1100	12.7 11.8	0.7 -0.2	0.1 0.0	0.0
3	18 May 28 May	1200 1100	12.7 12.0	0.7 0.0	0.1 0.0	0.0
4	No Hydrography					
5	16 June 26 June	0940 1000	12.6 11.5	0.6 -0.5	0.1 -0.1	0.0 through 23 June -0.2 through 26 June
6	6 July 11 July	1300 0950	12.6 12.1	0.6 0.1	0.1 0.0	0.0
7	No Hydrography					
8	27 July 5 Aug.	1230 0820	12.6 11.8	0.6 -0.2	0.1 0.0	0.0
9	11 Aug. 19 Aug.	1500 0850	12.9 11.9	0.9 -0.1	0.1 0.0	0.0

Tabulation of Oscillator Draft Measurements and Corrections

Trip No.	Date	Time	Oscillator Draft (ft)	Draft Corr. (ft)	Draft Corr. (fms)	Final Draft Correction
10	24 Aug. 28 Aug.	1500 1000	12.5 12.3	0.5 0.3	0.1 0.0	0.0
11	1 Sept. 9 Sept.	1630 1345	12.6 12.1	0.6 0.1	0.1 0.0	0.0
12	14 Sept. 22 Sept.	1530 1600	12.9 12.0	0.9 0.0	0.1 0.0	0.0
13	28 Sept. 9 Oct.	0830 2230	12.8 11.9	0.8 -0.1	0.1 0.0	0.0
14	No Hydrography					

TABULATION OF FINAL INSTRUMENT CORRECTIONS IN FATHOMS FOR 1959.

This final Instrument Correction is the algebraic sum of the fathometer instrument error, phase, draft, and settlement and squat correction.

Trip No.	Dates	Fathometer No.	Seals			
			A	B	C	D
1 through 3	21 April through 28 May	57-31 153	-0.2 -0.2	+0.3 +0.2	+0.9 +0.1	+1.2 -1.3
4	No Hydrography this trip.					
5	16 June through 23 June	57-31 153	-0.2 -0.2	+0.3 +0.2	+0.9 +0.1	+1.2 -1.3
	24 June through 26 June	57-31 153	-0.4 -0.4	+0.1 0.0	+0.7 -0.1	+1.0 -1.5

Trip No.	Dates	Fathometer No.	Scales			
			A	B	C	D
6	6 July through 11 July	57-31 153	-0.2 -0.2	+0.3 +0.2	+0.9 +0.1	+1.2 -1.3
7	No Hydrography this trip.					
8 through 10	27 July through 28 August	57-31 153 * 57-31 * 153	-0.2 -0.2 -0.1 -0.1	+0.3 +0.2 +0.4 +0.3	+0.9 +0.1 +1.0 +0.2	+1.2 -1.3 +1.3 -1.2
11	1 September through 9 Sept.	57-31 153	-0.2 -0.2	+0.3 +0.2	+0.9 +0.1	+1.2 -1.3
12	14 Sept. through 22 September.	57-31 153 * 57-31 * 153	-0.2 -0.2 -0.1 -0.1	+0.3 +0.2 +0.4 +0.3	+0.9 +0.1 +1.0 +0.2	+1.2 -1.3 +1.3 -1.2
13	28 Sept. through 9 October.	57-31 153	-0.2 -0.2	+0.3 +0.2	+0.9 +0.1	+1.2 -1.3
14	No Hydrography this trip					

* When the sounding is 11.0 fathoms or under and the speed is between 107 to 120 f.p.m., use these corrections. F A

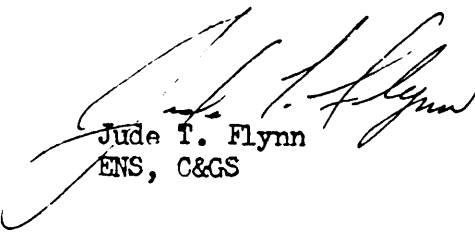
VELOCITY CORRECTION REPORT
SHIP HYDROGRAPHER
Projects - CS-401 and 08000-810
M. E. Wennermark - Chief of Party
1959

Velocity corrections for all hydrography were determined from temperature and salinities in accordance with the instructions of reference 561 of the Hydrographic Manual.

Temperatures and salinities were obtained in conjunction with oceanographic station operations. A total of 34 stations were observed during the field season.

Bathythermograph observations were taken on the average of once every four hours, where weather permitted, while running hydrography. The Bathythermograph observations were checked for possible changes in water temperature occurring between oceanographic station observations. Since the temperature changes were slight between observations, the velocity correctors were computed on a trip basis, or longer, where possible.

Velocity correctors for the two days of launch hydrography using the EDO 255-C18 depth recorder were determined by ~~use of~~ bar checks.


Jude T. Flynn
ENS, C&GS

Approved and forwarded
M. E. Wennermark, CAPT, C&GS
Comdg., Ship HYDROGRAPHER



ABSTRACT OF BAR CHECKS FOR LAUNCH HY-1 EDO FATHOMETER
 SHEET HY-1259 a and b Day, 26 and 27 August 1959

Bar checks were taken to obtain instrument and draft corrections and found to be +0.2 fms. for all depths. Since the velocity correction is 0.0 fms. for all shoal depths in this area, the final instrument correction is +0.2 fms.

<u>Date & Time</u>	<u>Fathometer Reading</u>	<u>True Depth</u>	<u>Correction</u>
26 Aug. - 1120	3.1 fms	20 ft. (3.33 fms)	+0.2
27 Aug. - 1203	3.1 fms	20 ft. (3.33 fms)	+0.2
	4.9 fms	30 ft. (5.0 fms)	+0.1
27 Aug. - 1608	3.1 fms	20 ft. (3.33 fms)	+0.2
	4.9 fms	30 ft. (5.0 fms)	+0.1

Mean = +0.2 fms

FINAL VELOCITY CORRECTIONS (FMS)
1959

Trip 1 (21-30 April 1959)

HY - 10158

0.0 to 2.2
-0.2 to 12.6
-0.4 to 23.6
-0.6 to 38.2

Trip 2 (4-14 May 1959)

HY-10158

HY-4258

HY-10157

0.0 to 2.5
-0.2 to 11.8
-0.4 to 21.3
-0.6 to 30.8
-0.8 to 40.2
-1.0 to 49.7

0.0 to 2.2
-0.2 to 12.6
-0.4 to 23.6
-0.6 to 38.2

0.0 to 3.0
-0.2 to 13.2
-0.4 to 22.5
-0.6 to 29.7
-0.8 to 36.8
-1.0 to 44.1
-1.2 to 52.6

Trip 3 (18 - 28 May 1959)

HY-10158

HY-4258

0.0 to 2.0
-0.2 to 11.5
-0.4 to 21.5
-0.6 to 31.0
-0.8 to 40.2

0.0 to 2.0
-0.2 to 11.5
-0.4 to 21.5
-0.6 to 31.0
-0.8 to 40.3

Trip 4 (2-11 June 1959)

NO HYDROGRAPHY

Trip 5 (16-26 June 1959)

HY-4258

HY-10158

HY-10157

0.0 to 4.5
-0.2 to 22.7
-0.4 to 39.5

0.0 to 4.5
-0.2 to 22.7
-0.4 to 39.5

0.0 to 8.5
-0.2 to 20.0
-0.4 to 29.5
-0.6 to 38.6
-0.8 to 47.8
-1.0 to 56.4
-1.2 to 64.4

Trip 6 (6-11 July 1959)

HY-4258

0.0 to 8.0
-0.2 to 39.0

HY-10157

0.0 to 8.5
-0.2 to 20.0
-0.4 to 29.5
-0.6 to 38.6
-0.8 to 47.8

Trip 7 (14-21 July 1959)

NO HYDROGRAPHY

Trip 8 (27 July to 5 August)

Table 1

HY-4159 H-8569

0.0 to 8.2
-0.2 to 40*

HY-1259

0.0 to 8.2
-0.2 to 40*

Trip 9 (11 to 19 August)

Table 2

HY-4159

0.0 to 4.1
-0.2 to 18.7
-0.4 to 40*

HY-1259

0.0 to 4.1
-0.2 to 18.7
-0.4 to 40*

Trip 10 (24 to 28 August)

Table 3

HY-4159

0.0 to 8.3
-0.2 to 40*

HY-1259

NO SHIP HYDROGRAPHY

Trip 11 (1 to 9 September)

HY-2359

0.0 to 28.3
-0.2 to 38*

Trip 12 (14-22 September)

HY-2259

0.0 to 15*

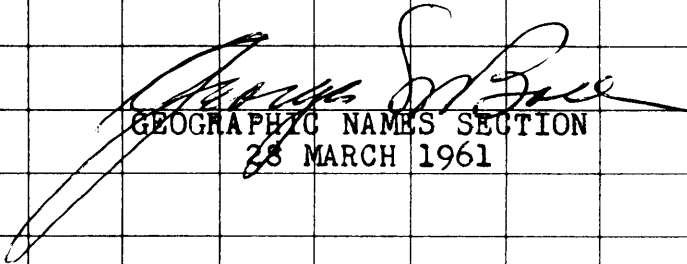
Trip 13 (28 September to 9 October)

HY-2159 H-8502

-1.4 80.0 to 90.0
-1.6 to 100.0
-1.8 to 110.0
-2.0 to 120.5
-2.2 to 130.5
-2.4 to 141.0

GEOGRAPHIC NAMES
Survey No. H-8569

Name on Survey	<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On Chart No. 1107</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On previous survey No.</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On U. S. quadrangle Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">From local information</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">On local Maps</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">P. O. Guide or Map</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Rand McNally Atlas</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">U. S. Light List</div> </div>										
	A	B	C	D	E	F	G	H	K		
Fishing Rip	x										1
Middle Rip	x										2
Nantucket Shoals	x										3
											4
											5
											6
											7
											8
											9
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											27


 GEOGRAPHIC NAMES SECTION
 28 MARCH 1961

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO.8569..

Records accompanying survey:	Smooth sheets	..1..;
boat sheets ..1..;	sounding vols. 3....;	wire drag vols.;
Descriptive Reports ..1..;	graphic recorder envelopes ..4..;	
special reports, etc. 1 Cahier - Raydist Records.....		
.....		

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

Number of positions on sheet
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 Total time Date

Reviewed by Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8569

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
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 and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
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.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

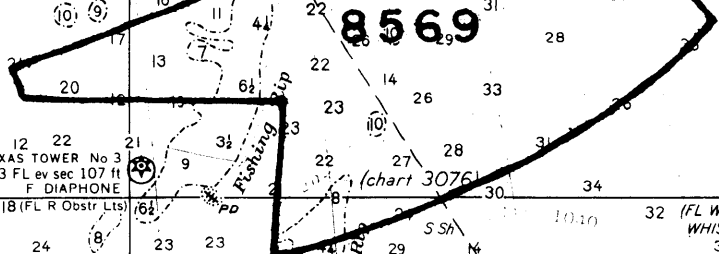
27. Source of shoreline and signals (when not given in report).
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date

69° 30'

41° 00'

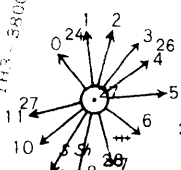


8569

TEXAS TOWER No 3
3 FL ev sec 107 ft
F DIAPHONE
18 (FL R Obstr Lis)

(chart 3076)

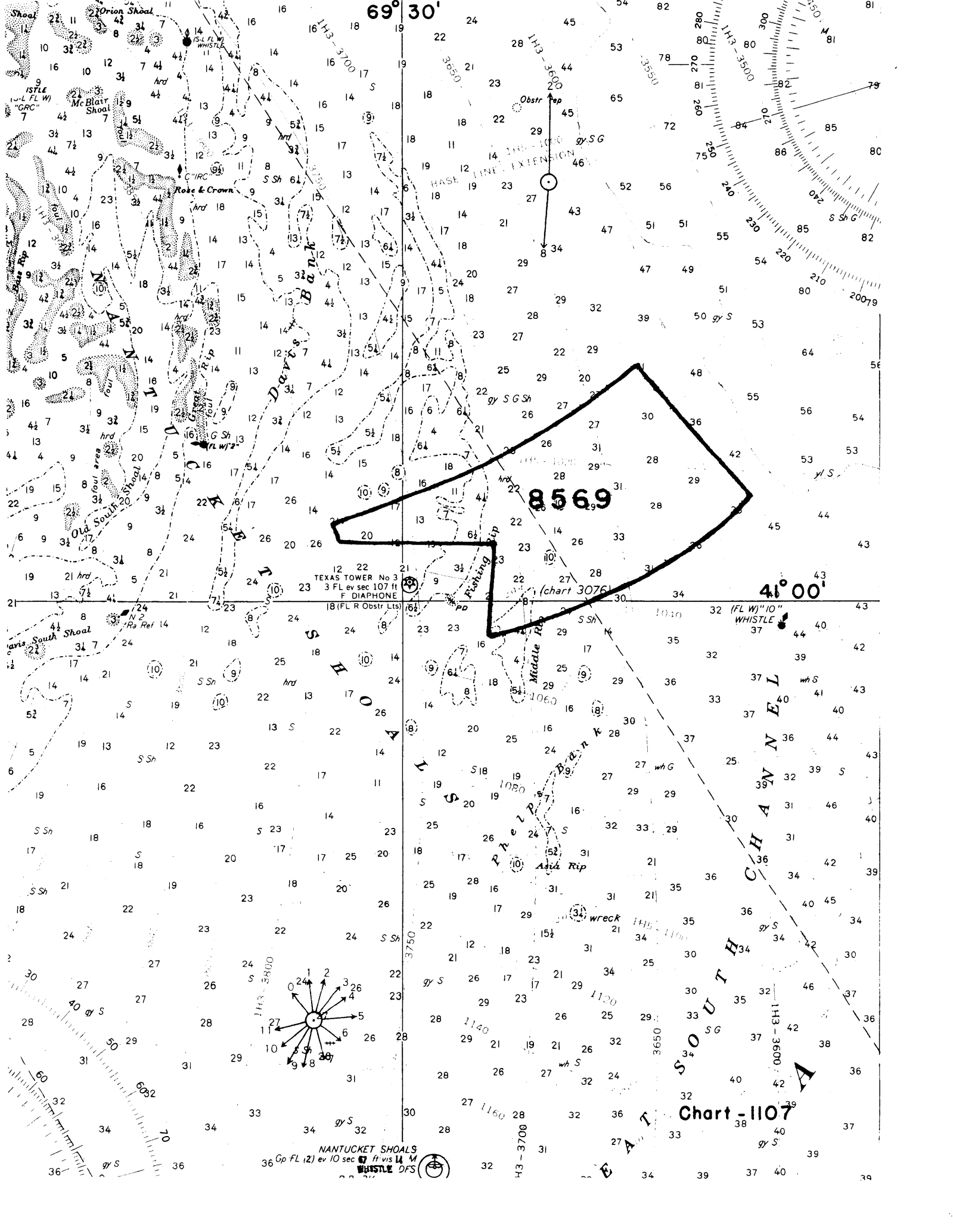
(FL W) "10"
WHISTLE
37



NANTUCKET SHOALS
36 Gp FL (2) ev 10 sec 67 ft vis 14 M
WHISTLE 9FS



Chart-1107



RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys:~~

11 May 1961

Division of Charts: R.H. Carstens

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 8569

Locality Central Nantucket Shoals, Mass.

Chief of Party: M.E. Wennermark (1959)

Plane of reference is mean low water
ft. on tide staff at
ft. below B. M.

Height of mean high water above plane of reference at working
grounds 1.0ft.

Condition of records satisfactory except as noted below:

Burt W. Wilcox

Chief, Tides and Currents Branch

~~Chief, Division of Tides and Currents.~~

NAUTICAL CHARTS BRANCH

SURVEY NO. 8569 1961

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/14/61	1107	J.A.M.	Before After Verification and Review <i>Partially applied</i>
11-8-61	1108	R.E. Elkina	Before After Verification and Review <i>Partly applied</i> <i>Revised one sounding thru chart 1107 drg 16.</i>
3-20-62	1000	<i>E. M. Hoop</i>	Before After Verification and Review <i>EXAM No Corr</i> <i>thru chrt 1108 Drg # 29</i>
5-1962	<i>New chart</i> 3053	J.J. Streifler	Before After Verification and Review <i>Soundings & Curves for new chart</i>
9-24-62	71	G.R. Johnson	Before After Verification and Review <i>Partly Applied</i> <i>through chrt 1108 drg #29</i>
10-17-62	70	G.R. Johnson	Before After Verification and Review <i>Partly Applied</i> <i>through chrt 71 drg #16 No Corr.</i>
6-22-63	3056	G.R. Johnson	Before After Verification and Review <i>Partly Applied</i> <i>App'd through compilation chrt 3053 in common area.</i>
2-14-90	13003	Ed Martin	Before After Verification and Review <i>Drg 61</i> <i>Adequately applyd. no further processing req.</i>
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			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.