

Additional work

6349

Additional work

6349

Form 504
Rev. April 1936

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Hydrographic~~ } Sheet No. H - 6349
Hydrographic }

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

AUG 19 1942

Acc. No. _____

State Massachusetts

LOCALITY

North Shore of Nantucket Sound

19K12

CHIEF OF PARTY

John Bowie, Jr.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO. H6349 Additional work

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. _____

REGISTER NO. **H6349** Additional work

State Massachusetts

General locality Nantucket Sound

Locality Nobeka Point to Bowen Pond

Scale 1:10,000 Date of survey June, 1942

Vessel Motor Vessel GILBERT

Chief of Party John Bowie Jr.

Surveyed by John Bowie Jr. & H.F. Garber

Protracted by A.R. Stirni

Soundings penciled by A.R. Stirni

Soundings in ~~fathoms~~ feet

Plane of reference _____

Subdivision of wire dragged areas by _____

Inked by A.R. Stirni

Verified by A.R. Stirni

Instructions dated March 9, 1942 ~~1942~~

Remarks: _____

XWW 10/22/91

Supplemental Descriptive Report
to
Accompany Sheet H - 6349

H6349
Additional work

North shore of Nantucket Sound, Mass.

M. V. GILBERT - John Bowie, Jr., Comdg.

June 9, 1942

AUTHORITY:

The additional work executed on this sheet was done in accordance with the Supplemental Instructions, Project HT - 217, dated March 9, 1942.

PURPOSE OF WORK:

The purpose of the additional work is to prove or disprove certain soundings indicated in large red figures on the boat sheet.

CONTROL:

Sufficient natural objects that were used as signals on the previous survey were identified, so that no new control was established.

SURVEY METHODS:

Standard survey methods for development were followed. The 808-A depth recorder was used throughout, scaling the soundings to $\frac{1}{2}$ feet. Soundings were recorded as they were obtained, and the fathogram later scaled for verification. Launch No. 75 was used for this work. Bar tests were made three times daily with no resulting corrections. Tide reducers were entered to half feet. The 1942 soundings were plotted in red on the boat sheet to differentiate from the previous survey.

RESULT OF INVESTIGATIONS:

1. The 12 foot sounding at Lat. $41^{\circ} 32'.12$, Long. $70^{\circ} 37'.30$ could not be verified. The surrounding area is even hard sand bottom, and a reduced sounding of 15 feet, hard sand bottom was obtained on the exact spot with both the hand lead and depth recorder. It is recommended that the 12 foot sounding be deleted.

✓
Reviewed
Hain 3g

It was noted that the present soundings are one to two feet shoaler than those on the previous survey in places. This may be due from using predicted tides for the boat sheet reductions of soundings on the previous survey.

✓
Not noticeable on smooth sheet.
Difference on 25. caused by tide reducers

RESULT OF INVESTIGATIONS: (Cont'd)

2. The eleven foot spot at Lat. $41^{\circ} 31'.20$, Long. $70^{\circ} 37'.77$ was not verified. A close system of lines indicated an uneven rocky bottom. The general depths at the exact location of the reported 11 feet are around 24 feet. Thirteen minutes of drift sounding was spent over the immediate area and a sounding of $24\frac{1}{2}$ feet was obtained on the exact spot. The shoalest sounding obtained was $16\frac{1}{2}$ feet - 100 meters SSW of the reported 11 foot sounding.

Review
Item 3b

It is recommended that the 11 foot sounding be deleted.

3. The 35 foot sounding at Lat. $41^{\circ} 31'.20$, Long. $70^{\circ} 37'.09$ falls about on the 7 fathom curve, with a shoal with considerable less water laying just to the south. There is a 29 foot spot 115 meters due south, and two 34 foot spots 90 meters SW and WSW, respectively, of the reported 35 foot spot. It is believed that the 35 foot sounding is misplaced slightly, and is recommended that it be deleted and the shoaler soundings be plotted.

Review
Item 3c

4. The 31 foot spot at Lat. $41^{\circ} 31'.14$, Long. $70^{\circ} 36'.91$ falls outside the seven fathom curve, while there is a 29 foot sounding 75 meters due south of it. This sounding likewise appears to be misplaced in the same direction as under item 3. It is recommended that it be deleted and the 29 foot sounding be charted.

Review
Item 3c

5. The bottom around the 24 foot sounding at Lat. $41^{\circ} 31'.08$ Long. $70^{\circ} 37'.07$ is very irregular. The sounding was found to fall in an area of sharp ridges of rock. A sounding of 27 feet lies 25 meters to the eastward, and a sounding of 23 feet 75 meters west northwestward. Likewise soundings of 25 feet and 28 feet are found just south and north, respectively. As the bottom is very irregular and the soundings within a short radius are substantially the same, it is recommended that the 24 foot sounding be retained.

Review
Item 3d

6. There was apparently a holiday in the recent surveys at Lat. $41^{\circ} 31'$, Long $70^{\circ} 37'$ which was filled in with a close system of lines.

SMOOTH PLOTTING:

As per instruction, all data is forwarded to the Washington office for plotting on the original smooth sheet.

LIST OF SIGNALS USED:

The signals NOB, FLAT, CEN, SUN, and MIL as they appeared on the boat sheet were used for control.

TIDAL DATA:

Tide reducers were obtained from the marigrams of a portable tide gage maintained at Falmouth Heights, Mass. Lat. $41^{\circ} 32'.7$, Long. $70^{\circ} 35'.6$.

M. L. W. of 2.8 feet on the staff was determined by spirit levels from bench marks. (See Director's letter dated May 26, 1942, ref. 34 mlh).

STATISTICS:

"a" day, June 9, 1942.

16.5 Statute miles of sounding

820 Soundings

116 Positions

0.3 Square Statute miles.

Respectfully submitted,

Harry F. Garber
Harry F. Garber,
Lieutenant,
C. & G. Survey

Approved and Forwarded:

John Bowie, Jr.
Commanding Officer,
U. S. C. & G. S. M. V. GILBERT

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
 DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~

No. H
~~None~~

{ received August 20, 1942
 registered August 24, 1942
 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
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✓ 83	Pgs 1+2 2+3	H29	825 Plot adys. and check for handlon. + N to m. S.B.B.
88			
90			

RETURN TO

82	R. W. Knox
----	------------

✓ R.W.K.

LAC
HIC

TIDE NOTE FOR HYDROGRAPHIC SHEET

August 27, 1942.

~~Division of Hydrography and Topography:~~

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

Plane of reference approved in
1 volume of sounding records for

HYDROGRAPHIC SHEET 6349

Locality Nobska Point to Bowen Pond, Nantucket Sound, Massachusetts

Chief of Party: John Bowie, Jr. in 1942
Plane of reference is mean low water reading
2.8 ft. on tide staff at Falmouth Heights
9.7 ft. below B. M. 1

Height of mean high water above plane of reference is 1.3 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

41° 32'

H-6349 (1942)

Additional Work

Scale 1:10,000



41° 31'

70° 38'

70° 37'

DIVISION OF CHARTS

SURVEYS SECTION

REVIEW OF HYDROGRAPHIC SURVEY REGISTER NO. 6349 AD. WK.

Massachusetts, Nantucket Sound, Nobska Pt. to Bowen Pond
Surveyed in June 1942; Scale 1:10,000
Instructions dated March 9, 1942

Soundings:
Depth Recorder 808A

Control:
Visual Fixes on Shore Signals

Chief of Party - John Bowie, Jr.
Surveyed by - John Bowie, Jr. and H. F. Garber
Protracted by - A. R. Stirni
Soundings plotted by - A. R. Stirni
Verified and inked by - A. R. Stirni
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston

1. Purpose of Survey

The additional work was accomplished for the purpose of investigating the soundings discussed in Par. 3 and 5(c) of the review of H-6349 (1938) and certain other soundings of earlier and contemporary surveys.

2. Office Work

The hydrography was plotted in the Washington office on the survey H-6349 with the soundings in red.

3. Results of Survey

The results of the investigation of individual soundings are discussed in the following items:

- a. The 12-ft. sounding in Lat. $41^{\circ}32.12'$, Long. $70^{\circ}37.30'$ from the survey of H-6439 was investigated by drift sounding for 15 minutes and by running a system of sounding lines spaced about 15 meters apart. A sounding of 15 feet was obtained, both by handlead and depth recorder, on the position of the 12-ft. sounding. The bottom is even and no irregularity that would indicate a sudden shoaling to depths of 12 feet from the general depths could be seen on the fathograms. Fixes determining the positions

of the soundings were exceptionally strong. The present investigation is considered adequate to warrant disregarding the 12-ft. sounding.

- b. The 11-ft. sounding on a shoal in Lat. $41^{\circ}31.2'$, Long. $70^{\circ}37.77'$ from H-2851 (1906) was investigated by running a system of closely spaced lines across the width of the shoal and by 13 minutes of drift sounding. No indication of a depth of 11 feet was found by the drift soundings, but the sounding lines did reveal that the shoal on which the 11-ft. sounding fell had moved about 80 meters to the southward.

In the immediate area of the 11-ft. sounding the general depths on the shoal have deepened 8 to 12 feet to a depth of 23 to 24 feet. The present investigation is considered adequate to disprove the existence of the 11-ft. sounding.

In order to obtain a complete picture of the changes which have occurred, a resurvey of the entire shoal would be necessary.

- c. The soundings of 35 feet in Lat. $41^{\circ}31.2'$, Long. $70^{\circ}37.09'$ and 31 feet in Lat. $41^{\circ}31.14'$, Long. $70^{\circ}36.91'$ from H-2851 (1906) were investigated by running a system of closely spaced lines in the direction of the length of the shoal. The hydrography revealed shoaler spots in the vicinity of the soundings investigated; consequently, the earlier soundings are no longer considered necessary for charting and should not be carried forward. The present survey reveals in detail the irregular nature of the bottom in this area.
- d. The 24-ft. depth in Lat. $41^{\circ}31.08'$, Long. $70^{\circ}37.07'$ from H-6350 (1938) was developed by a system of closely spaced lines. Similar depths found within a distance of 35 meters adequately verify the sounding.

Examined and approved:

Robert W. Gray

Chief, Surveys Section

J. P. Raymond

Chief, Section of Hydrography

F. S. Jordan

Chief, Division of Charts

G. H. Rude

Chief, Division of Coastal Surveys

Applied to Chart 249 11/11/42 G.R.
Partially applied to Ch. 1210 12/24/42 H.J. Stegman
Applied to Ch. 209 2/19/42 JHE.
Applied to Ch. 1107 7/22/43 g.k.S.

6349

6349

Form 504 Rev. Dec. 1933 DEPARTMENT OF COMMERCE U.S. COAST AND GEODETIC SURVEY R. S. PATTON, DIRECTOR	
DESCRIPTIVE REPORT	
<i>Topographic</i> <i>Hydrographic</i>	} Sheet No. 6349
State	Massachusetts
LOCALITY	
Nantucket Sound	
Nobska Point to Bowen Pond	
1938	
CHIEF OF PARTY	
Chas. M. Thomas	

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. H-6349

H6349

State Massachusetts

General locality Nantucket Sound

Locality Nobska Point to Bowen Pond

Scale 1:10,000 Date of survey August 12, 1938 to September 16, 19 38

Vessel L. H. Launch No. 37

Chief of Party Chas. M. Thomas

Surveyed by C. A. George and J. P. Lushene

Protracted by R. W. McKinley

Soundings penciled by R. W. McKinley and M. C. Enstine

Soundings in ~~Ortho~~ feet

Plane of reference M. L. W.

Subdivision of wire dragged areas by

Inked by R. H. Carstens

Verified by R. H. Carstens

Instructions dated January 17, 19 38

Remarks: ~~No Descriptive Report is being submitted for this sheet due to the fact that no personnel connected with the survey is now (January 1940.) attached to the party. It is locally reported that considerable change has taken place in this area since the hurricane of September 21, 1938.~~

U. S. GOVERNMENT PRINTING OFFICE 1935

H. C. Warwick.
H. C. Warwick.
Lt. C&GS - Chief of Party.

Verifiers Report of H-6349 (1938)

1. The signals were located by triangulation in 1904, 1933, 1934 and 1935 and by graphic control on T-6623 (1938) and T-6624 (1938). The shoreline was transferred from the above mentioned topographic sheets.

2. The usual depth curves could be satisfactorily drawn.

3. Sounding line crossings were satisfactory. See review.

4. As no other contemporary surveys have been registered as yet, no junctions were made.

5. Condition of the sounding records was satisfactory.

6. The protracting was satisfactory.

7. The field plotting of soundings was satisfactory.

8. The position numbers were too large and too close to the position dots, and all were erased and reinked. Noted in review.
Capital day letters were inked

on the smooth sheet whereas lower case letters were used in the sounding records. The ^{Noted in review.} day letters were changed to lower case letters.

Twenty eight signal names were erased from the water area and inked on the land area. ^{Noted in review.}

9. No descriptive report has been received from the field party at this date.

Respectfully submitted
R. H. Carstens

2/26/40

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. **H6349**

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

Number of positions on sheet	14.15
Number of positions checked	...6.2
Number of positions revised	...2.5
Number of soundings recorded	590.4
Number of soundings revised	...7..
Number of soundings erroneously spaced	...14
Number of signals erroneously plotted or transferred	...0.

Date: *Febr 26, 1940*

Verification by *R.H. Carstens*

Time: *73*

Review by *J.A. McCormick 2/28/40*

Time: *10 hr.*

HYDROGRAPHIC SURVEY NO. 6349

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 4 Vols., Wire Drag Vols., Bomb Vols.

Descriptive Report Yes(Made in office -none submitted)

Title Sheet Yes

List of Signals None

Landmarks for Charts (Form 567) None

Statistics None

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) None

Special Chart for Lighthouse Service Yes
(Circular Nov.30, 1933)

Hydrography: Total Days 12 ; Last Date Sept. 16

Remarks _____

Remarks

Decisions

1		415706
2		"
3		"
4		"
5		"
6		"
7		" U S G B
8		
9		415706
10		"
11		"
12		"
13		"
14		"
15		"
16		" U S G B
17		
18		
19	All names listed from 1 to 16 inclusive are approved: it is	
20	suggested that those underlined in red are sufficient to place	
21	on this sheet, since the features east of Falmouth Heights	
22	are not shown in full.	
23	L. Heck 3/8/40.	
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. 6349

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
<u>Nobska Point</u>											1
<u>Falmouth Harbor</u>											2
<u>Oyster Pond</u>											3
<u>Salt Pond</u>											4
<u>Falmouth</u>											5
<u>Falmouth Heights</u>											6
<u>Falmouth Inner Harbor</u>											7
Falmouth Heights											8
<u>Little Pond</u>											9
<u>Great Pond</u>											10
<u>Lewis Neck</u>											11
<u>Green Pond</u>											12
<u>Davis Neck</u>											13
<u>Davisville</u>											14
<u>Bowen Pond</u>											15
L'Hammedias Shoal <i>gan</i>											16
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MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

} No. H 6349
No. ~~xxxx~~

{ received
registered
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
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RETURN TO

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

V 9/30

LAC
H.C.P.

TIDE NOTE FOR HYDROGRAPHIC SHEET

January 29, 1940

Division of Hydrography and Topography:

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

Plane of reference approved in
4 volumes of sounding records for

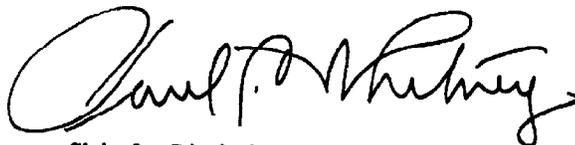
HYDROGRAPHIC SHEET 6349

Locality Nobska Point to Bowen Pond, Nantucket Sound

Chief of Party: C. M. Thomas in 1938
Plane of reference is mean low water reading
1.8 ft. on tide staff at Falmouth heights
9.7 ft. below B. M. 1 (1938)

Height of mean high water above plane of reference is 1.3 feet.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents.

CHARTS

80

KTA

82 1/2

rep the
you
SR

22-AB
1995 GI 4

February 13, 1940.

To: The Commanding Officer,
U.S.C. & G.S. Motor Vessel GILBERT,
c/o Quincy Dry Dock & Yacht Corp.,
Quincy, Massachusetts.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Descriptive Report, Survey H-6349.

It is noted that no descriptive report is being submitted for hydrographic survey H-6349 executed by the former Commanding Officer of the Motor Vessel GILBERT. You state as the reason that no personnel connected with the survey is now attached to the party.

This procedure is unsatisfactory. Sufficient data for an adequate descriptive report should have been turned over to you with the other field records for this survey. For any surveys of this character remaining on the GILBERT you will please prepare a descriptive report for each, using all the available data at hand. Should you deem it desirable, you are authorized to request any information from Lieutenant (j.g.) C. A. George and Lieutenant (j.g.) Joseph P. Lushene that they might have concerning these surveys.

It will be noted that compliance with the recommendations contained in Field Memorandum No. 1 of 1939 makes it unnecessary for any officer, who might be called upon to complete the processing of field records of surveys made by another officer, to feel that he was not in a position to submit adequate descriptive reports.

(Signed) L. O. COLBERT

Director

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6349 (1938) FIELD NO. 2

Massachusetts, Nantucket Sound, Nobska Point to Bowen Pond
Surveyed in August - September, 1938, Scale 1:10,000
Instructions dated January 17, 1938 (GILBERT)

Soundings:
Hand Lead

Control:
Three-point fixes on shore
signals.

Chief of Party - C. M. Thomas.
Surveyed by - C. A. George; J. P. Lushene.
Protracted by - R. W. McKinley.
Soundings plotted by - R. W. McKinley; M. C. Enstine.
Verified and inked by - R. H. Carstens.
Reviewed by - J. A. McCormick, February 28, 1940.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

Shoreline and topographic signals are from graphic control surveys T-6623 and T-6624 of 1938.

2. Depth Curves.

Satisfactory.

3. Sounding Line Crossings.

Satisfactory except in latitude $41^{\circ} 32.1'$, longitude $70^{\circ} 37.3'$ where a 12 foot sounding on a crossline falls in 18 feet on the regular system of development. The 12 is probably a leadsman's or recorder's error but, as it was not investigated, has been retained until disproved.

Disproved by
development
on H-6249 (1942)
Add. wk

4. Junctions with Contemporary Surveys.

None of the adjoining surveys had been received from the field at the date of this review.

5. Comparison with Prior Surveys.

- a. H-222 (1846), 1:20,000; H-455a (1854) 1:40,000
H-455b (1883-84), 1:10,000.

Depths on the above surveys are in fair to poor agreement with those on the present survey. Line spacing on the old surveys is wide and the shoals are poorly developed. The present survey

supersedes the overlapping portions of the old surveys.

b. H-1832 (1887) 1:20,000; H-1880 (1888) 1:20,000.

The above surveys are, in general, in fair agreement with the present survey except on L'Hommedieu Shoal. The shoal is apparently subject to considerable change and in 1887-88 there were but few indications of the shallow depths developed on later surveys. The present survey supersedes the older surveys of the common area.

c. H-2538 (1901), 1:20,000; H-2851 (1906) 1:20,000.

The above surveys are detailed developments of L'Hommedieu Shoal. Outstanding difference between old and new surveys is the 11 foot lump (charted) located on position 72a (green) in latitude $41^{\circ} 31.2'$, longitude $70^{\circ} 37.8'$ on H-2851 and falling in 15 feet on the present survey. While the general outlines of the shoal have remained approximately the same through the intervening years there have been many changes in the shallower portions. There is no indication on any of the surveys that the shoal is of a rocky nature. Rather it appears to be mostly sand. The 11 foot lump is characterized by soft bottom in the old sounding records and it is improbable, in view of the changes in the vicinity, that it has remained as it was in 1906. However, drift sounding on the present survey was centered about the buoy rather than the 11 foot spot and furthermore, the hurricane of September 21, 1938 (subsequent to survey) is liable to have caused re-shoaling if the lump had actually scoured off. The 11 has therefore been carried forward in order to be on the side of safety. The present survey is otherwise satisfactory and supersedes the older surveys of the common area.

Existence of 11 ft. depth disproved by Additional Work on H-6349 (1938)

6. Comparison with Chart 249 (New Print of Jan. 8, 1940)
Chart 348 (New Print of July 17, 1939)
Chart 1209 (New Print of Sept. 28, 1939)
Chart 1210 (New Print of Dec. 14, 1939).

a. Hydrography.

Hydrography charted in the area covered by the present survey is from surveys discussed in paragraphs 5b and 5c. The 11 foot spot discussed in par. 5c is shown as 10 feet on Chart 1209 and

1210 and should be corrected. The difference is in the conversion of 11 feet to 1-3/4 fathoms on the early charts and the reconversion to 10 feet on the new charts. Many similar instances will be found on Charts 1209 and 1210.

b. Aids to Navigation.

Both survey and chart positions of floating aids in the area are satisfactory. There are some differences between the two but the buoys have probably been reset at least once subsequent to the survey.

7. Condition of Survey.

- a. No descriptive report was submitted by the field party. This already has been made the subject of a letter from the Director to the field party (copy attached to descriptive report).
- b. Values of latitude and longitude given for the reference station were those for the North American Datum. Further, the datum was not noted. The survey was found to be on the North American 1927 datum and the necessary corrections and additions made to the reference note.
- c. Protracting and plotting were satisfactory but position numbers and day letters were too large and too close to the positions. Day letters were also of different case than those in the sounding volumes. All were erased and reinked in the office.
- d. Twenty-eight signal names were removed from the water area and placed on the land area.

8. Compliance with Instructions for the Project.

Satisfactory except as noted in paragraphs 3 and 5c.

9. Additional Field Work Recommended.

Investigation of shoals discussed in paragraphs 3 and 5c would be desirable but is of minor importance compared to the changes which have probably taken place since the hurricane of September 21, 1938.

Edgs of paragraphs 3 and 5c disproved by Ad. Dr. H-6349(1938)

10. Superseded Surveys.

H-222 in part	H-1880 in part
H-455a&b in part	H-2538 in part
H-1832 in part	H-2851 in part

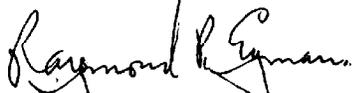
Examined and approved:



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



K. T. Adams
Chief, Division of Charts.



Raymond K. Egan
Chief, Section of Field Work.



G. H. Hude
Chief, Division of H. & T.

Applied to Chart 249 4/21/40

Ⓞ

Applied to Chart 1210 4/24/40

Ⓞ

Applied to Chart 348 7/15/40

Ⓞ

" " " 259 Oct 17, 1941 - J. Walker
applied to ch. 1209 Apr. 1940 J. G. Ladd (see history sheet)

" " " 348 2-2-57 Benson

" " " 1210 Reconstr thru chart 249 11-16-61 MR
Applied to new ch 260 2-2-62 R. K. D. Area
covered by chart 348 applied thru that chart.
Area covered by ch 259 applied thru that chart.