

5746

Diag. Cht. No. 1210-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey PLANIMETRIC

Field No. PH-31(18)C Office No. T-5746

LOCALITY

State MASSACHUSETTS

General locality ELIZABETH ISLANDS

Locality NASHAWENA ISLAND - CUTTYHUNK ISLAND

AND VICINITY

194 g

CHIEF OF PARTY

R. J. Sipe

LIBRARY & ARCHIVES

DATE _____

5746

DATA RECORD

T - 5746

Project No. (II):
PH-31(48)C

Quadrangle Name (IV):

Field Office (II): WASHINGTON, NORTH CAROLINA

Chief of Party: RILEY J. SIPE

Photogrammetric Office (III): BALTIMORE, MARYLAND

Officer-in-Charge: THOS. B. REED

Instructions dated (II) (III): 9 April 1948
Letter 711-1mh, 18 Jan. 1949

Copy filed in Division of
Photogrammetry (IV)
Office Files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): —

Scale Factor (III): None

Date received in Washington Office (IV): 7-14-49 Date reported to Nautical Chart Branch (IV): 8-1-49

Applied to Chart No. 249
1210

Date: 3-13-50
3-13-50

Date registered (IV): 11-22-50

Publication Scale (IV): 1:10,000

Publication date (IV): Jan-50

Geographic Datum (III): N.A. 1927

Vertical Datum (III): M.H.L.

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): FORBES, 1948

Lat.: 41° 25' 25.546" (788.1m) Long.: 70° 53' 45.488" (1056.3m)

Adjusted
Elevations

Plane Coordinates (IV): ✓

State: Mass.

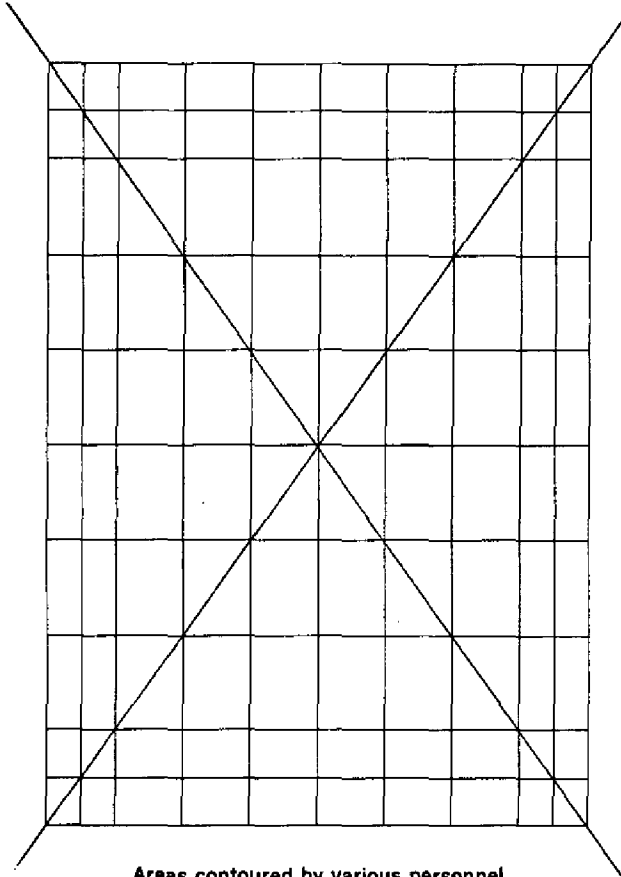
Zone: Island

Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.



Areas contoured by various personnel
(Show name within area)
(II) (III)

DATA RECORD

Field Inspection by (II): E. T. Jenkins
R. A. Horn

Date: 10-4-48 to
11-23-48

Planetable contouring by (II): *None*

Date:

Completion Surveys by (II): *None*

Date:

Mean High Water Location (III) (State date and method of location): 5-2-48
Located by field identification

Projection and Grids ruled by (IV): *WEN*

Date: 8-13-48

Projection and Grids checked by (IV): *WEN*

Date: 8-13-48

Control plotted by (III): *Wayne Lineweaver*

Date: 2-3-49

Control checked by (III): *Frank J. Tarcza*

Date: 2-4-49

Radial Plot ~~on Stereoscopic~~
Control extension by (III): *F.J.Tarcza*

Date: 2-9-49

Planimetry
Stereoscopic Instrument compilation (III):
Contours

Date:

Date:

Manuscript delineated by (III): *Ruth M. Whitson*

Date: 5-10- to 5-25-49 and
6-1 to 6-13-49.

Photogrammetric Office Review by (III): *J. W. Vonasek*

Date: 6-27-49 to
7-7-49

Elevations on Manuscript
checked by (II) (III): *_____*

Date: *_____*

Camera (kind or source) (III):

U. S. Coast and Geodetic Survey Single Lens camera,
type "J".

PHOTOGRAPHS (III)

| Number | Date | Time | Scale | Stage of Tide |
|-----------------------|--------|------|----------|----------------|
| 48-J-906 to 910 incl. | 5-2-48 | 1416 | 1:10,000 | 2.6' above MLW |
| 48-J-935 to 936 incl. | 5-2-48 | 1434 | 1:10,000 | 2.7' above MLW |
| 48-J-937 to 938 incl. | 5-2-48 | 1437 | 1:10,000 | 2.7' above MLW |

Tide (III)

Reference Station: NEWPORT RHODE ISLAND
Subordinate Station: CUTTYHUNK POND ENTRANCE
Subordinate Station: PENIKESSE ISLAND

| Ratio of Ranges | Mean Range | Spring Range |
|--------------------|---------------|-----------------|
| 1.0 | 3.5 | 4.4 |
| 1.0 | 3.4 | 4.2 |
| 1.0 | 3.4 | 4.2 |

Washington Office Review by (IV): *C. Harvick*

Date: 9-22-49

Final Drafting by (IV): *R. Breene*

Date: 1-24-50

Drafting verified for reproduction by (IV): *C. Karpis*

Date: 1-31-50

Proof Edit by (IV): *W.O. Halluin*

Date: 6-1-50

Land Area (Sq. Statute Miles) (III): 4

Shoreline (More than 200 meters to opposite shore) (III): 19

Shoreline (Less than 200 meters to opposite shore) (III): 5

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 8

Recovered: 6

Identified: 6*

Number of BMs searched for (II): 9

Recovered:

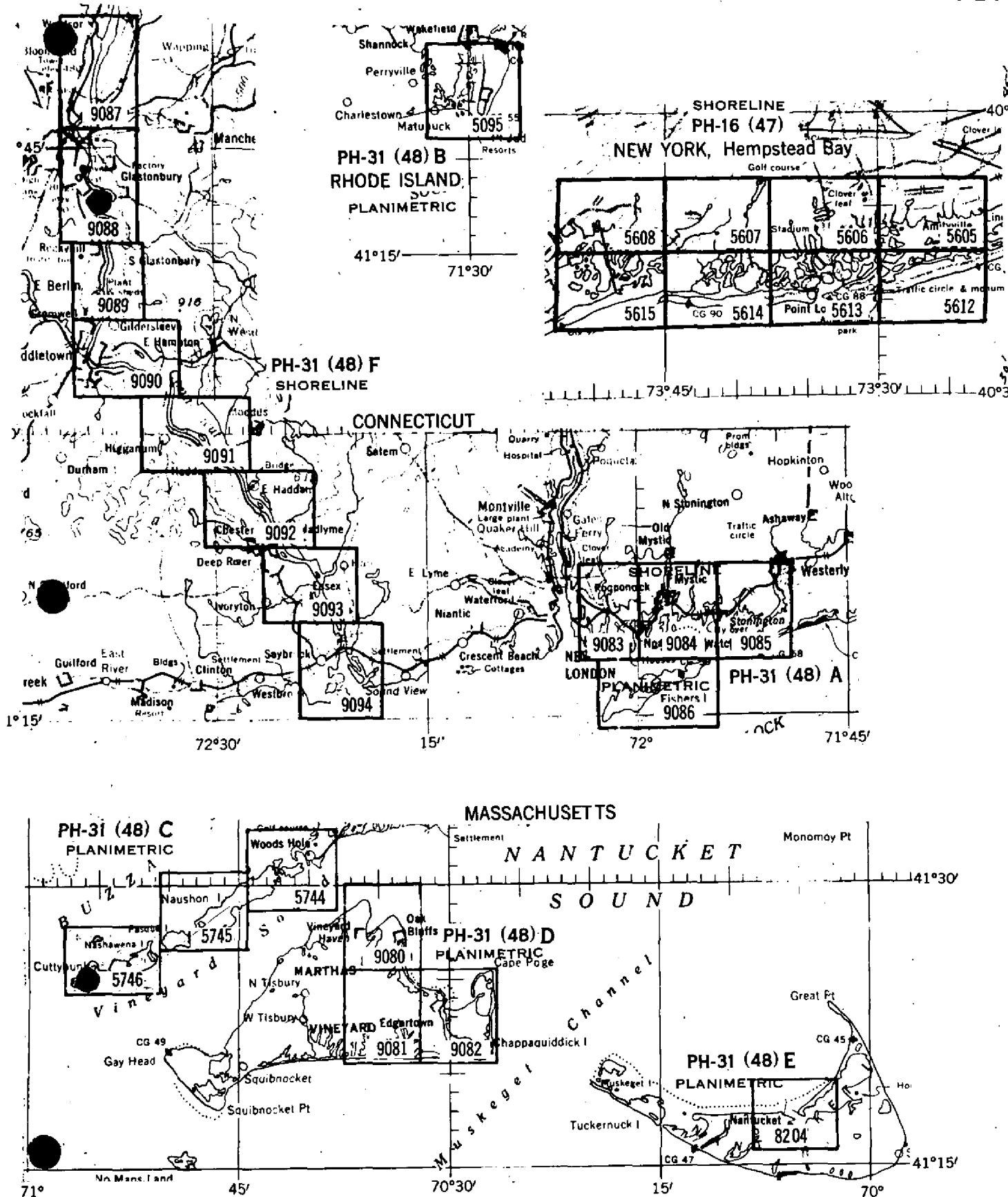
Identified:

Number of Recoverable Photo Stations established (III): 7

Number of Temporary Photo Hydro Stations established (III): none

Remarks: * In addition to these, four new stations were established and identified.

PLANIMETRIC AND SHORELINE MAPPING PROJECTS PH-16(47) - PH-31(48) A-B-C-D-E-F



Summary to Accompany T-5746

T-5746 is one of three planimetric maps in project Ph-31(48), subproject C. This subproject covers the area of the Elizabeth Islands including Woods Hole on the southwest tip of Cape Cod, Mass. T-5746 covers Nashawena, Cuttyhunk, Penikese and Gull Islands of the Elizabeth Islands.

The photographic coverage which consisted of 1:10,000 scale single-lens ratio prints was adequate and the compilation is complete. The field operations preceding compilation included complete field inspection, establishment and identification of additional horizontal control, clarification and annotation of photographic detail and an investigation of geographic names. The graphic compilation was done at a scale of 1:10,000.

Data pertaining to this survey will be filed as follows:

1. Filed in the Div. of Photogrammetry
 - a. The original acetate manuscript at 1:10,000 scale with final review corrections applied.
 - b. Geographic names sheet
 - c. Pricking cards for identification of horizontal control.
 - d. Forms 524 (7)
 - e. Duplicate descriptive report
2. Filed in the Bureau Archives
 - a. A clothbacked lithographic print of T-5746 at 1:10,000 scale.
 - b. Descriptive Report

* See review report

FIELD INSPECTION REPORT
QUADRANGLES 5744, 5745, and 5746
PROJECT Ph-31 (48)
SUB-PROJECT "C"

Riley J. Sipe, Chief of Party

All phases of the field work were done in accordance with The Director's Instructions, Project Ph-31 (48), Field, dated 9 April 1948.

The field work on these sheets was performed by the following personnel on the dates indicated:

| <u>Name & Title</u> | <u>Field Work</u> | <u>DATES</u> |
|-------------------------|----------------------------------|--------------|
| E. T. Jenkins | Shoreline, Inspection, | 10-4-48 |
| Engineering Aid | & Establish of Horiz. Control | 11-23-48 |
| R. A. Horn | Recovery, Establishment, | 10-4-48 |
| Photogrammetrist | and Inspection | 11-23-48 |

1. Description of the Area..

Woods Hole, a village situated at the southwest tip of Cape Cod, is a busy commercial center. It is a trans-shipping point for passengers and freight in the general traffic to and from Nantucket and Martha's Vineyard by steamer.. There is railroad and bus communication. During the summer it is an active resort and is usually a port of call by yachts passing through Vineyard Sound to and from Buzzards Bay.

The Elizabeth Islands, extending 14 miles west-southwestward from the mainland at Woods Hole, separate Vineyard Sound from Buzzards Bay.. They are hilly, partly wooded, and the shores are, in general, low bluffs. With the exception of Cuttyhunk Island, the Elizabeth Islands are owned and occupied by the Forbes family only. Vehicles are prohibited, as are strangers unless granted permission. The Islands are an excellent refuge for various forms of wildlife, particularly turkey and deer.

2. Completeness of Field Inspection

Field Inspection is completely and adequately covered on the photographs.

3. Interpretation of the Photographs

The photography is considered excellent. No difficulties were experienced with interpretations..

4. Horizontal Control

All U. S. Coast and Geodetic Survey control stations were searched for and the majority recovered. Stations were identified in accordance with the Project Instructions. Form 526 is submitted regarding the status of each station.

Six horizontal control stations were established and identified in accordance with instructions (three point fix). Three were marked with standard triangulation station disks and three by standard topographic station disks. The latter were felt to be the weaker "fixes", however, all stations established had at least one check angle and sets of 6 D & R with a 10 second repeating theodolite were taken.

47 6-7-56 SET (disc) 1st set of 6 D & R taken GTZ, G-7806).

5. Vertical Control

Not applicable to this project.

6. Contours and Drainage

Not applicable

7. Mean High Water Line

The Mean High Water Line is quite distinct in most cases and an effort was made to make it obvious throughout with the necessary delineations. Generally speaking the shoreline is rocky. Isolated instances of apparent shoreline have been labeled appropriately.

8. Low Water Line

There was little opportunity to delineate a low water line in the course of this survey.

9. Wharves and Shoreline Structures.

All wharves and shoreline structures discernible on the photographs have been inspected and explained on the photographs. Additional delineations were made where necessary.

10. Details Off-shore from Mean High Water Line

Off-shore detail discernible on the photographs has been labeled appropriately. In some areas, due to the number and extent of the obstructions, the limits of an entire area are shown and marked as being foul.

On Chart 249, southeast of Penikese Island, a shoal area is shown with 4' of water over same at Mean Low Water. At this position there is one boulder that projects 3' above Mean Low Water, surrounded by a group of boulders that are nearly awash at Mean Low Water. A three-point fix is submitted for an accurate determination of the position of same.

On Chart 348, at approximate Latitude 41°-30.8' and Longitude 70°-42.0', a rock is shown symbolized as covering and uncovering and considered a danger to navigation. The existence of this rock is doubtful. This area was visited at extreme low water and there were no indications of aforementioned rock. See *Pk awash*
MHW on H-8170

11. Landmarks and Aids to Navigation

All landmarks and fixed aids to navigation were investigated. Several additional points have been recommended as landmarks. All pertinent information is submitted on Forms 524, 567, and pricking cards.

12. Hydrographic Control

Not applicable.

13. Landing Fields and Aeronautical Aids

There are no conventional landing fields or aeronautical aids in the area surveyed. Occasionally small aircraft land on the section of road running southwest from the Coast Guard Dock on Cuttyhunk Island. However this is not a recommended procedure by this unit.

14. Roads

The roads and trails were classified in accordance with Photogrammetry Instructions number 10, dated 14 April 1947, and the Amendment to the above, dated 24 October 1947. With the exception of Cuttyhunk Island the roads on all of the Elizabeth Islands are predominantly road 8. Since vehicles are prohibited

and horses are the accepted mode of transportation, the roads are really just a trail or path.

15. Bridges

All bridge information for the area covered by this report as listed in the U. S. Engineers 'List of Bridges Over Navigable Waters in the U. S. dated 1 July 1941 was verified in the field, all clearances were carefully measured with a steel tape, and the published descriptions and clearances were found to be correct.

16. Buildings and Structures

Indicated adequately on the photographs.

17. Boundary Monuments and Lines

Not applicable

18. Geographic Names 814 ✓

Although a complete investigation of Geographic Names was not prescribed in the Project Instructions, a fairly thorough scrutiny was made of the Preliminary Name Sheet supplied this party. The following are the results as determined in the field, and as recommended by this party:

- ✓1. Change "QUAMQUISSET HARBOR" to "QUISSETT HARBOR".
References: 3,4, and 5. 415706 T-5744
The old name was Quamquisset Harbor, and it is listed as such in the Light List. However, the predominant local usage is "Quissett Harbor."
- ✓2. Change the spelling of "QUISSET" to "QUISSETT."
References: 1,2, and 5. 415706 T-5744
The old spelling of the name of this settlement used the single "T". Predominant local usage today is with the double "T".
- ✓3. Add "NORTHWEST GUTTER" on T-5744
"OUTER THOMPSONS" (Fishing Grounds) where?
"GUNNING POINT" off limits T-5744
References: 1,2,5
- ✓4. "GATE OF CANSO" is a disputed name. Local usage frequently refers to it as "GUTTER CANSO".
References: 1,2, and 5 415706 T-5744

decision (11/10/41)

- 11
- ✓5. Change "MARY LAKE" to "MARYS LAKE" TS 144
References: 1,2,5 415707
- ✓6. Change "WEEPECKET ISLAND" to "WEEPECKET ISLANDS". TS 144-45
References: 1,2, and 5 715707
The plural should be used since the small
Islands to the northeast are included under
this name.


REFERENCES


1. W. M. Gifford,
High Street
Woods Hole, Mass.
2. Capt. Collins
Fish & Wildlife Service
Ship "ALBATROSS"
Woods Hole, Mass.
3. Chas. L. Eldred
Falmouth, Mass.
4. George Weeks
Falmouth, Mass.
5. A. H. Hauser, C. O., C. G. C. "WHITE SAGE"?
Woods Hole Depot, Mass.

All Geographic Name corrections or additions
have been shown on the Preliminary Name Sheet
submitted, and, or on the aerial photographs.

Submitted:

Date 11-23-48


E. T. Jenkins
Engineering Aid


R. A. Horn
Photogrammetrist *sm*

RADIAL PLOT REPORT

PROJECT NO. PH-31(48)C

SURVEYS T-5744, T-5745, T-5746

GENERAL DESCRIPTION

This radial plot includes the areas of Surveys Nos. T-5744, T-5745, and T-5746, comprising a series of planimetric surveys in Project PH-31(48)C. This project covers the Elizabeth Islands, located on the south side of Buzzards Bay.

PHOTOGRAPHS

The thirty-three (33) photographs used in this radial plot are single lens photographs, type "J", taken with the 6" Metrogon lens, contact scale approximately 1:24,000 and ratioed to scale of 1:10,000.

The symbols for control and pass points used on these photographs are in accordance with photogrammetry instructions No. 12, dated 17 March 1947.

*Filed in Div. Photogr.
Office Files.*

CONTROL

Twenty-nine (29) horizontal control stations were recovered and identified by the field inspection party in the area of this radial plot. Eleven (11) were pricked direct on the photographs and eleven (11) were identified by the use of substitute points. In addition, seven stations were identified direct on the photographs but no pricking cards submitted. These also were pricked on office photographs and used in the radial plot.

A sketch, showing distribution of control and photograph centers, and a list of horizontal control stations are attached to this report.

PROJECTIONS

The map manuscripts furnished the compilation office for these surveys were ruled with polyconic projections and Martha's Vineyard Grid, 5000 foot intervals, at a scale of 1:10,000.

All control stations and substitute points were plotted and checked on the map manuscripts, using beam compass and meter bar.

No base sheets were furnished the compilation for this project. Vinylite base sheets, previously furnished the compilation office for another project, were used in this radial plot.

TEMPLATES

Acetate templates were made of all photographs used.

RADIAL PLOT

Since no base sheets were found whose scale matched Martha's Vineyard grids, it was necessary to disregard all lines and mark, on the base sheets, the intersections of common polyconic projections along the junctions between surveys. This resulted in "made-to-order" base sheets in exact scale, to which control stations could be transferred directly without adjustment by matching projections.

The plot was laid without any difficulty, beginning at the northeastern end where there was abundant control and extended southwesterly to the end of the project limits where a good fix was made on identified control in this area.

The positions of all pass points and photograph centers were transferred directly to the manuscripts by placing the manuscripts on the completed radial plot and matching common projection points.

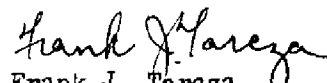
REMARKS

Only one horizontal control station, ALLEN, 1938, could not be held in this radial plot. The radially plotted position was 0.3 mm. northwest of the geographic position. Since this station was pricked direct, it is believed that this small discrepancy could be in identification on the photograph.

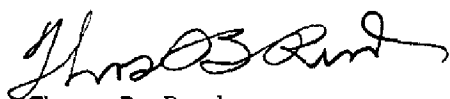
The number and distribution of photographs was adequate. The distribution and identification of control was excellent, resulting in an accurate and easily laid radial plot.

The pricking of control on the photographs was greatly expedited by the valuable assistance given by Mr. Robert A. Horn, who was responsible for the field identification of the stations in this project during the field season of 1948.

Respectfully submitted

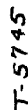
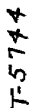

Frank J. Tarcza
Cartographic Engineer

Approved and forwarded
15 February 1949


Thos. B. Reed
Officer in Charge
Baltimore Photogrammetric Office

| No. | Station | Recovery | Pricking |
|-----|--|----------|-------------|
| 1. | FALMOUTH HEIGHTS WATER TOWER, 1904 | Yes | Direct |
| 2. | WOODS HOLE, 1934 | Yes | By Sub.Pt. |
| 2. | WOODS HOLE, YELLOW STONE TOWER, 1928 | Yes | Direct |
| 3. | CHURCH OF MESSIAH, STEEPLE, 1938 | Yes | Direct |
| 4. | NOBSKA POINT LIGHTHOUSE, 1904 | Yes | Direct |
| 5. | WOODS HOLE OCEANOGRAPHIC INSTITUTE, DOME, 1932 | Yes | Direct |
| 6. | FISH COMMISSION CUPOLA, 1877 | Yes | Direct |
| 7. | RED BEACON, 1938 | Yes | Direct |
| 8. | McGARRAH, 1938 | Yes | By Sub.Pt. |
| 9. | BLACK BEACON, 1938 | Yes | Direct |
| 10. | ALLEN, 1938 | Yes | Direct |
| 11. | HOUSE WEATHER VANE, 1938 | Yes | Direct |
| 12. | HADLEY, 1938 | Yes | By Sub. Pt. |
| 13. | CAMERON, 1938 | Yes | None |
| 14. | DUDE, 1948 | Yes | Direct |
| 15. | NAUSHON, 1844 | Yes | By Sub.Pt. |
| 16. | TARPAULIN COVE LIGHTHOUSE, 1904 | Yes | Direct |
| 17. | NAUSHON SOUTHWEST 2, 1887 | Yes | By Sub.Pt. |
| 18. | LAMB, 1948 | Yes | By Sub.Pt. |
| 19. | PASQUE, 1844 | Yes | By Sub.Pt. |
| 20. | NECK, 1948 | Yes | By Sub.Pt. |
| 21. | NASHAWENA, 1884 | Yes | By Sub.pt. |
| 22. | FORBES, 1948 | Yes | Direct |
| 23. | PENIKESE, 1948 | Yes | Direct |
| 24. | CUTTYHUNK BLACK WATER TANK, 1939 | Yes | Direct |
| 25. | CUTTYHUNK (U.S.E.) 1934 | Yes | By Sub.Pt. |
| 26. | EXTRA, 1948 | Yes | Direct |
| 27. | END, 1943 | Yes | By Sub.Pt. |
| 28. | GOSNOLDS MONUMENT, 1904 | Yes | Direct |
| 29. | CUTTYHUNK LIGHTHOUSE, 1904 | Yes | Direct |

0925



- ☐ OFFICE PHOTOGRAPHS
- ☐ FIELD PHOTOGRAPHS
- ☐ TRIANGULATION STATIONS (NOT IDENTIFIED)
- ☒ TRIANGULATION STATIONS (IDENTIFIED)
- ☒ TRIANGULATION STATIONS (NOT HELD)

105

906 ©

MAP T-5746

PROJECT NO. PH-31(48)C

SCALE OF MAP 1:10,000

SCALE FACTOR 1.000

| STATION | SOURCE OF INFORMATION (INDEX) | DATUM | LATITUDE OR ϕ -COORDINATE LONGITUDE OR λ -COORDINATE | | DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS | | DATUM CORRECTION | N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS | | FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS | |
|------------------------------------|-------------------------------|--------------|--|--------|---|---------|------------------|--|---------|---|--------|
| | | | | | FORWARD | (BACK) | | FORWARD | (BACK) | FORWARD | (BACK) |
| NASHAWENA, 1844 | G-5984 Pg. 406 | N.A. 1927 | 41 25 | 30.387 | | | | 937.4 | 913.6 | | |
| SUB. PT. NASHAWENA, 1844 | | | 70 52 | 06.783 | | | | 157.5 | 1235.7 | | |
| | | | 41 25 | 30.635 | | | | 945.1 | 905.9 | | |
| | | | 70 52 | 07.747 | | | | 179.9 | 1213.3 | | |
| NECK, 1948 | G-7806 Pg. 520 | " | 41 26 | 15.130 | G-7804 2805 2806 | Library | | 466.8 | 1384.2 | | |
| | | | 70 52 | 46.732 | | | | 1084.9 | 308.1 | | |
| SUB. PT. NECK, 1948 | | | 41 26 | 14.972 | | | | 461.9 | 1389.1 | | |
| | | | 70 52 | 46.028 | | | | 1068.6 | 324.4 | | |
| CUTTYHUNK(USE) 1934 | G-3720 Pg. 219 | " | 41 25 | 13.628 | | | | 420.4 | 1430.6 | | |
| | | | 70 56 | 03.622 | | | | 84.3 | 1309.1 | | |
| SUB. PT. CUTTYHUNK(USE) 1934 | | | 41 25 | 12.781 | | | | 394.3 | 1456.7 | | |
| | | | 70 56 | 04.094 | | | | 95.1 | 1298.2 | | |
| EXTRA, 1948 | G-7806 Pg. 520 | " | 41 24 | 42.929 | G-7804 2805 2806 | Library | | 1324.4 | 526.6 | | |
| | | | 70 56 | 24.718 | | | | 574.1 | 819.5 | | |
| GOSNOLDS MONU- MENT, 1904 | G-5985 Pg. 408 | " | 41 24 | 50.578 | | | | 1560.3 | 290.7 | | |
| | | | 70 56 | 54.720 | | | | 1270.9 | 122.6 | | |
| PENIKESE, 1948 | G-7806 Pg. 520 | " | 41 27 | 03.516 | " | " | | 108.5 | 1742.5 | | |
| | | | 70 55 | 26.254 | " | " | | 609.4 | 783.3 | | |
| FORBES, 1948 | G-7806 Pg. 520 | " | 41 25 | 25.546 | " | " | | 788.1 | 1062.9 | | |
| | | | 70 53 | 45.488 | | | | 1056.3 | 336.9 | | |
| END, 1943 | G-5984 Pg. 406 | " | 41 24 | 35.446 | | | | 1093.5 | (757.5) | | |
| | | | 70 56 | 56.050 | | | | 1301.8 | (91.8) | | |
| SUB. STATION END, 1943 | | | 41 24 | | | | | 1090.9 | (760.1) | | |
| | | | 70 56 | | | | | 1338.1 | (55.5) | | |

1 FT. = 3048006 METER

COMPUTED BY: Wayne Lineweaver

DATE 1-28-49

CHECKED BY: F.J. Tarcza

DATE

2/2/49

M-2388-12

COMPILATION REPORT T-5746

PHOTOGRAMMETRIC PLOT REPORT:

Photogrammetric Plot Report for Surveys No. T-5744, T-5745, and T-5746 was submitted to the Washington Office 14 February 1949. *Attached to this Descriptive Report.*

31 DELINEATION

The map manuscript was compiled by graphic methods. The delineation of Nashawena Island has been extended beyond the neat line of this survey to facilitate the junction with Survey No. T-5745.

32 CONTROL

See photogrammetric plot report for remarks concerning the density and placement of the control on this survey. ✓

33 SUPPLEMENTAL DATA *- See Review Report*

None

34. CONTOURS AND DRAINAGE

Inapplicable

35 SHORELINE AND ALONGSHORE DETAILS

The shoreline inspection was adequate

The low water line was not identified by the field party.

There are numerous alongshore areas within this survey which were indicated by the field party as "shoal areas foul with numerous rocks awash at MHW" the limits of which were not defined by the field party. Only the notes are shown on the manuscript in the vicinity of the areas indicated. *- See Review Report*

36 OFFSHORE DETAILS

Sextant fixes for various features are recorded on the backs of identification cards, form No. M-2226-12.

37 LANDMARKS AND AIDS

Form 567 will be submitted to the Washington Office upon completion of Project PH-31(48)C. See also forms 567 submitted by R. A. Horn on 20 November 1948.

The reflector on Baret Island does not appear on the chart nor is it listed in the Light List.

38 CONTROL FOR FUTURE SURVEYS

Forms 524 are submitted with this report for seven (7) recoverable photo stations. They are listed in paragraph 49.

Seven Filed in Div. Photogr General Files

T 9, has 2 similar photos

39. JUNCTIONS

Junction with Survey No. T-5745 to the east has been made and is in agreement.

There are no other contemporary surveys that join this survey.

40 HORIZONTAL AND VERTICAL ACCURACY

No comment

41 TIDAL BENCH MARKS

There are tidal bench marks on Nashawena Island near Quicks Hole at Cuttyhunk Pond Entrance, and on Penikese Island. These were not delineated because they were not identified by the field party.

42-45 Inapplicable

46 COMPARISON WITH EXISTING MAPS

Survey No. T-5746 has been compared with the U. S. Geological Survey, Gay Head, Massachusetts quadrangle scale 1:62,500, edition of September 1893, reprinted 1932.

Previous surveys Nos. T-1938 (1889) and T-1939 (1889) of this bureau exist in the area of this survey but were not available for comparison.

47. COMPARISON WITH NAUTICAL CHARTS

Survey No. T-5746 has been compared with USC&GS charts No. 297, scale 1:10,000, seventh (7th) edition, published at Washington, D.C., June 1939, corrected February 9, 1948; No. 345, scale 1:10,000 seventh (7th) edition, published at Washington, D.C. March 1942, corrected May 31, 1948; and No. 249, scale 1:40,000, fourteenth (14th) edition published at Washington, D.C. September 1941, corrected January 31, 1949.

An island that appears on the manuscript, just west of Canapitsit Channel, was originally part of a peninsula on the east tip of Cuttyhunk Island. The peninsula has been washed through, leaving this island independent of Cuttyhunk Island. This information appears in the supplement to the U.S. Coast Pilot - Atlantic Coast, Section B, edition of January 1949.

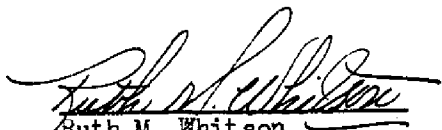
Items To Be Applied To Nautical Charts Immediately:

None.

Items to Be Carried Forward:

None.

Respectfully submitted
14 June 1949



Ruth M. Whitson
Engineering Draftsman (Compiler)

Approved and forwarded
July 1949



Thos. B. Reed
Officer in Charge
Baltimore Photogrammetric
Office

50.-

PHOTOGRAMMETRIC OFFICE REVIEW

T- 5746

1. Projection and grids JAV 2. Title JAV 3. Manuscript numbers JAV 4. Manuscript size JAV

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy JAV 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) JAV 7. Photo hydro stations JAV 8. Bench marks JAV 9. Plotting of sextant fixes JAV 10. Photogrammetric plot report JAV 11. Detail points JAV

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline JAV 13. Low-water line JAV 14. Rocks, shoals, etc. JAV 15. Bridges JAV 16. Aids to navigation JAV 17. Landmarks JAV 18. Other alongshore physical features JAV 19. Other along-shore cultural features JAV

PHYSICAL FEATURES

20. Water features JAV 21. Natural ground cover JAV 22. Planctable contours JAV 23. Stereoscopic instrument contours JAV 24. Contours in general JAV 25. Spot elevations JAV 26. Other physical features JAV

CULTURAL FEATURES

27. Roads JAV 28. Buildings JAV 29. Railroads JAV 30. Other cultural features JAV

BOUNDARIES

31. Boundary lines JAV 32. Public land lines JAV

MISCELLANEOUS

33. Geographic names JAV 34. Junctions JAV 35. Legibility of the manuscript JAV 36. Discrepancy overlay JAV 37. Descriptive Report JAV 38. Field inspection photographs JAV 39. Forms JAV

40. Joseph W. Konrad Reviewer Joseph Steinberg Supervisor, Review Section of Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler

Supervisor

43. Remarks:

REMARKS

- 8. Tidal bench marks are discussed in the report.
- 13. No LWL was furnished.
- 15. There are no bridges in the area.
- 29. There are no railroads in the area.
- 31, 32. There are no boundaries in the area.
- 36. A discrepancy overlay is not necessary.

Joseph W. Vonack
Reviewer

STRIKE OUT ONE

September 19 1949

S. v. Guttsch

The positions given have been checked after listing by *C. Haverich*

S. V. Griffith

Chief of Party.

123.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall ☒ be reported on this form. The data should be considered for the charts of the area and not by

C
O
P
Y

Box 173, Gardiner, Maine

16 August 1949

To: Chief, Division of Photogrammetry
U. S. Coast & Geodetic Survey
Washington 25, D. C.

Subject: Location of certain rocks on shoreline survey
T-5746, Project Ph-31(48)C

The following information is submitted relative to your letter of 8 August 1949, number 711-rs.

The rock at latitude 41-25.6, and longitude 70-55.1 has apparently been corrected by the Baltimore Office, with which I am in agreement. This fix was intended for a position of Whale Rock.

The group of rocks at latitude 41-24.5, longitude 70-57.2 are definitely a question in my mind. Naturally, at this date, I cannot state that the white spots on photo 906 are representative of rocks. Personally I would, however, be very reluctant to delete same without at least an additional check since I do recall that general area being very hazardous even with a skiff. Therefore it is recommended that Ensign Albert Hauser, U. S. Coast Guard Depot, Woods Hole, Massachusetts be contacted concerning the existence of rocks at that position. Although only an Ensign in rank, he is an old hand and has an extensive wealth of knowledge of these waters. It is felt that he can aptly verify or refute the existence of the rocks in question.

A note has been added to the single-weight print concerning a break in the peninsula forming the south shore of the channel to Cuttyhunk Pond. This break occurred during a storm last winter.

(Signed) Robert A. Horn

Robert A. Horn
Cart. Eng

cc: Comdr. McCarthy
Comdr. Reed

C
O
P
Y

11 August 1949

To: Chief, Division of Photogrammetry
U. S. Coast and Geodetic Survey
Washington 25, D. C.

Subject: Location of certain rocks on shoreline survey T-5746,
project Ph-31(48)C

The following information is submitted in reply to your letter of
8 August 1949 (No. 711-rs):

Group of rocks at latitude $41^{\circ} 25'$, longitude $70^{\circ} 57.2'$.

These three rocks were delineated from the field inspector's note on photograph No. 5-2-48J-906. An examination of photos 906 and 907 shows that a light spot appears on both photographs in the position of the ledge symbol on chart No. 297 while the three light spots shown as rocks awash on photo 906 do not show on photo 907. The field photographs, copy of the manuscript and chart are being forwarded to Mr. Horn for further comment.

Rock at latitude $41^{\circ} 25.6'$, longitude $70^{\circ} 55.1'$.

The protracting of the position of this rock in this office was in error. By transposing Photo points 2 and 3 as listed on the card, the fix plots near the radially plotted position of Whale Rock which is obviously the rock intended. The rock shown on the manuscript at latitude $41^{\circ} 25.6'$, longitude $70^{\circ} 55.2'$ should be deleted. *deleted from manuscript*

Both of the above discrepancies should of course have been picked up in this office during the review.

/s/ Thos. B. Reed,
Officer in Charge,
Baltimore Photogrammetric Office

cc-R A. Horn
Gardiner, Maine

734

26

711-rs

8 August 1949

To: Commander Thomas B. Reed
U. S. Coast and Geodetic Survey
518 East 32nd Street
Baltimore 18, Maryland
and

Mr. Robert A. Horn
U. S. Coast and Geodetic Survey
P. O. Box 173
Gardiner, Maine

Subject: Location of certain rocks on shoreline survey
T-5746, project Ph-31(48)C

One copy of T-5746, one copy of chart 297, and field inspection photographs Nos. 5-2-48J 906 and 908 are being forwarded to the Baltimore Office under separate cover. After examination in the Baltimore Office, this material shall be forwarded to Mr. Robert A. Horn, and returned by Mr. Horn to the Washington Office.

The material is being forwarded for examination in reference to the location of rocks as indicated on the copy of T-5746 by red circles at latitude $41^{\circ}25'$, longitude $70^{\circ}57.2'$, and at latitude $41^{\circ}26.2'$, longitude $70^{\circ}55.2'$. Examination of the nautical chart and the prior hydrographic surveys indicates the possibility that these rocks do not exist as shown. The material is forwarded for examination in the Baltimore Office and by the field party to emphasize the necessity of studying the nautical charts when identifying and compiling offshore obstructions.

The group of rocks indicated by the red circle at latitude $41^{\circ}25'$, longitude $70^{\circ}57.2'$, falls in 8 feet or more water. The question arises as to whether these actually exist or whether the field party may have seen the ledge shown on chart 297 just to the northwest.

It is not intended to infer that uncharted rocks must never be identified in the field or delineated on map manuscripts. In fact, one of the primary purposes of shoreline surveys is to identify and locate uncharted rocks. However, in field identification and office delineation of alongshore obstructions the charts must be studied so as to find and dispose of improbable conditions such as those referred to in

27
Comdr. T. B. Reed
Mr. R. A. Horn

- 2 -

8 August 1949

this letter. On field work, if there is any question about an object being in the position indicated on the photographs, the identification should be checked by sextant cuts or other means of verifying the position and the fact stated in the field inspection report.

The existence of the rock indicated at latitude $41^{\circ}26.2'$, longitude $70^{\circ}55.2'$, seems improbable when compared with chart 297 and previous hydrographic surveys. This rock is not indicated on any field inspection photograph now in the Washington Office and apparently was plotted from a sextant fix. The question arises as to whether the fix may be erroneous as taken in the field or may have been plotted incorrectly. Thirty-four picking cards submitted with T-5746 are being included in the data listed in paragraph 1 of this letter. These picking cards include the sextant angles used for locating a number of objects. *(see side of letter 26 of the Report)*

The Officer in Charge of the Baltimore Office and Mr. Horn will please inform this office by letter of any additional information concerning these rocks, and will please not hesitate to write to the office if there are any questions regarding the meaning of this letter as regards the studying of charts in mapping alongshore and offshore obstructions.

K. T. Adams
Chief, Division of Photogrammetry

cc: Comdr. McCarthy

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733
28

ph-31

711-rs

9 December 1948

To: Mr. Robert A. Horn
U. S. Coast and Geodetic Survey
518 East 32nd Street
Baltimore 18, Maryland

Subject: Three-point fixes in Vineyard and Nantucket
Sounds

With reference to your letter of 18 November 1948, the Chart Division has checked the plotted positions of landmarks on published charts in this area and did not find an error in the position of West Chop Lighthouse or other landmarks.

I am asking the Division of Geodesy to compute the position of station "DUDE-1948" to see if your observations indicate any discrepancy in datums. Consideration is being given to making a field investigation of landmarks in this area, and such an investigation, when made, will probably dispose of the difficulty. It is quite probable that the difficulty is due to the use of some prominent object other than the charted object.

I appreciate your initiative in reporting this matter, and shall inform you if the computation for station "DUDE" reveals the difficulty.

(Signed) K. T. Adams
Chief, Division of Photogrammetry

~~PENDING~~

159

73

24.

Box 483, Woods Hole, Massachusetts

18 November 1948

To: The Director
U. S. Coast & Geodetic Survey
Attention: Division of Photogrammetry
Washington 25, D. C.

Subject: Positions obtained by "Three-point Fix",
Vineyard Sound-Nantucket Sound

The following situation has been brought to our attention by reliable personnel of the U. S. Coast Guard Depot in Woods Hole, Massachusetts and is forwarded for your consideration.

In the course of their (Coast Guard) work they take frequent "Three-point fixes" in Vineyard and Nantucket Sound. They have experienced considerable difficulties near the east end of Vineyard Sound and the west end of Nantucket Sound, generally south-southeast of Falmouth Harbor. They maintain that a fix taken in this locality, using points on Cape Cod and Martha's Vineyard, gives a plotted position which is in error 300 to 400 yards. Also, that a fix taken using only points on Martha's Vineyard, or only points on Cape Cod, give a fairly good position generally, but do not agree exactly. The major problem is, however, why a fix taken using points on both bodies of land does not give a reasonable position.

This party has not had the opportunity to make a thorough investigation of this matter since it is generally out of this sub-project. However, station "DUDE-1948", established by this party, may reveal under office conditions the exact source of any discrepancy that may exist. Points on Cape Cod, Martha's Vineyard, and the Elizabeth Islands were used in determining its position. Preliminary field investigations indicate that the plotted position of West Chop Lighthouse (Chart 249) may possibly be in error.

Should the source of the apparent discrepancy be determined in the office it would be appreciated, out of academic interest, if I would be informed of its nature. In the event a conclusion is not reached on the subject it is recommended that either this letter or a copy of the contents be furnished the party detailed to Project Ph-31(48) "D" next season for further investigation.

/s/ ROBERT A. HORN

Robert A. Horn
Photogrammetrist

*Copy of this work
original of this routed to 83 and then
to 62. Put in pending file. Check with geodetic
data. and see that Horn gets reply.
yes he did. D.A. Horn*

48.-

GEOGRAPHIC NAME LIST

PH-31(48)C

T-5746

- • Baret Island .
- • Buzzards Bay *
- • Canapitsit Channel *
- • Copicut Neck .
- • Cuttyhunk .
- • Cuttyhunk Harbor .
- • Cuttyhunk Island .
- • Cuttyhunk Pond .

- * Edwards Rock .
- • Elizabeth Islands .

- * Felix Ledge
- • Fox Point .

- ** - • Gosnold
- • Gosnold Island .
- • Gosnold Pond *
- • Gull Island .

- • Knox Point .

* ~~Lone Rock~~

* ~~Middle Ground~~

* ~~Middle Ledge~~

- • Middle Pond .

- • Nashawena Island .
- • North Point .
- • North Rock .

- • Pease Ledge .
- • Penikese Island .

- • Quicks Hole .
- • Quicks Hole Pond .

- • Saddleback Hill .
- • Sow and Pigs Reef .

- • The Neck .

- • Vineyard Sound *

- • Whale Rock .

* These names do not appear on the map manuscript because these features are not visible on the photographs.

** Name of township in which the Elizabeth Islands lie, does not appear on the manuscript.

* after name signifies Board decision (6th Rep. or later)

Names preceded by • are approved. 9-19-49
L Heck

Review Report T-5746
 Planimetric
 22 September 1949

2. Completeness of Field Inspection:-No inland inspection of marsh areas was noted on the field photographs.

31. Delineation:-The delineation of several marsh areas on Cuttyhunk Island was changed after studying the areas stereoscopically. A small cemetery near Cuttyhunk, the limits of a dredged basin in Cuttyhunk Pond, and the limits of several marsh areas on Nashawena Island were added.

In the few instances where the field inspector had indicated intermittent ponds, these had been delineated as such by the compiler, but in other areas ponds comparable in size and appearance had been shown as perennial; this inconsistency was resolved by indicating all ponds perennial, and deleting small and insignificant ponds for the following reasons: Maps of other agencies as well as previous surveys by this Bureau, indicate all ponds as perennial. It is believed that this is the truer representation, since most of these ponds have no surface drainage (field note) except for seepage and evaporation.

33. Supplemental Data:-The following surveys of this Bureau were inspected for any additional information: T-1938 (1889); T-1939 (1889); T-192 bis (1933), sheets 2 and 3 of 3; and T-437 (1853). All surveys listed are at the scale of 1:10,000 and *are superseded by T-5746 for nautical charting purposes.*

35. Shoreline and Alongshore Details:-Foul areas (rocks awash) visible on the photographs were symbolized by the reviewer by a broken line. The numerous offshore rocks awash, which were located in position on the manuscript, were checked. Most of these rocks were not identified specifically by the field inspector on the photographs, except by the general notation that the area was foul with numerous rocks awash MHW; it was found that the location or existence of many of them was doubtful and they were deleted. A few rocks were added. *Refer to*

"Supplement to Review Report" for statement on offshore rocks.

36. Offshore Details:-Whale Rock just N of Capicut Neck was verified. It was noted as awash at MHW; this information was obtained from Form M-2226-12 (an identification card with the sextant fix for Whale Rk) submitted by the field inspector. For additional information refer to letter (3rd paragraph) attached to this report and dated 11 August 1949, from the Officer in Charge of the Baltimore Photogrammetric Office.

The rocks (a group of 3) indicated at latitude $41^{\circ} 24.5'$ and longitude $70^{\circ} 57.2'$ were deleted from the map manuscript. Although these rocks were identified by the field inspector from the white spots visible on photograph 906, these same white spots could not be identified on the adjoining photograph 907. However, just to the NW, a small foul area was visible

on both photographs; it was indicated on the manuscript by the reviewer and found to be in agreement with the position of the ledge shown on Chart 297. For additional information refer to the 3rd paragraph of the letter dated 8 August 1949 from the Chief, Division of Photogrammetry, and Mr. Horn's letter (3rd paragraph) dated 16 August 1949. These letters are attached to the report.

A rock awash at MHW, about 250 meters SSW of the abandoned CG Cupola on the small island between Cuttyhunk and Nashawena Islands, was found to have been protracted incorrectly. The sextant fix for this rock locates it as the southernmost rock in a foul area W of the small island.

The sextant position of one of the wooden piles in Cuttyhunk Pond was found protracted about 20 meters S of its correct position.

37. Landmark and Aids:-Landmarks and aids have been listed on Form 567, filed as Chart Letters 650 (1949) and 826 (1948) in the Nautical Chart Branch, Division of Charts.

Two other landmark stations, not found listed in the Chart Letters above, were listed by the reviewer on Form 567 and a copy attached to this report. These stations are noted as landmarks on nautical charts of the area and were recovered ~~on~~²⁵ triangulation stations by the field inspection.

Two recoverable photo (topo) stations could not be found described on Form 524; they are Cuttyhunk South Jetty Daybeacon, 1948, and Cupola, 1948 (CG aband.). Since they are listed on Form 567, no office descriptions on Form 524 were made up.

38. Control for Future Surveys:-There are 9 recoverable photo (topo) stations; forms 524 were not submitted for 2 of them. For additional information refer to side heading 37, of the review report.

39. Comparison with Existing Maps:-

1. AMS Cuttyhunk, Mass., quadrangle; Sheet 6866 IV NW; scale 1:25,000; First Edition 1947.
2. USGS Cuttyhunk, Mass., quadrangle; scale 1:31,680; Edition of 1944.
3. USGS Cuttyhunk, Mass., quadrangle; scale 1:62,500; Edition of 1893, reprinted 1941.

47. Comparison with Nautical Charts:-

1. Nautical Chart No. 297, scale 1:10,000;
published June, 1939; last correction 8-30-48.
2. Nautical Chart No. 249; scale 1:40,000,
published Sept. 1941; last correction 6-13-49.
3. Nautical Chart No. 345; scale 1:10,000;
published March, 1942; last correction 9-6-48.

Charts 297 and 249 indicate additional inland marsh areas that do not appear on the manuscript. From an inspection of these areas on the photographs, they appear as uneven, small, brush covered depressions or possibly swales; however, they did not appear to have the marshy or swampy characteristics of swales (delineated as marsh and brush) in other areas of this project (for example Sheet T-5745). The areas in question are found on elevated terrain. For additional information refer to side headings 2 and 31 of the Review Report.

The same differences as noted above are to be found between the quadrangles (listed under side heading 39) and the map manuscript.

On the subject of cable areas, refer to item 3 under the report "Notes to Compiler..." attached to the Descriptive Report.

Reviewed by:

*This item 3 is copied into
the review report for T-5744*

Charles Hanavich
Charles Hanavich

Approved by:

A. V. Griffith
Chief, Review Section
Division of Photogrammetry

H. Edmiston
Chief, Nautical Chart Branch
Division of Charts

J. Reading
Chief, Div. of Photogrammetry

J. S. H. H.
Chief, Div. of Coastal Surveys

Supplement to Review Report

During the review of this survey alongshore and offshore rocks shown on the manuscript have been verified by the reviewer against prior surveys listed under item 33 and/or the photogrammetric survey or by positive identification in stereopairs of photographs. Many offshore rocks have not been shown because they could not be positively identified on the photographs and were not located by the photogrammetric field party. Offshore rocks should be located by subsequent hydrographic surveys. The fore-shore is generally foul and boulder strewn with many bare rocks, rocks awash and sunken rocks. A foul line marks the limits of such areas.

S. V. Griffith
Chief, Review Section

Note: A few rocks have been deleted from the registered print of this map manuscript. These deletions are noted in the Division of Photogrammetry standards. They should be applied prior to the next printing.

K.H.M. 2/21/51

NAUTICAL CHARTS BRANCH

SURVEY NO. 5746

Record of Application to Charts

[illegible]

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.