11217a
11217b

11217a 11217b

Diag. Cht. No. 1209-2.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Planimetric

Field No. Ph-116 Office No. T-11217a
T-11217b

LOCALITY

State Massachusetts

General locality Nantucket Island

Locality Head of the Harbor

1955-61

CHIEF OF PARTY

E.H.Kirsch, Chief of Party
W.E.Randall, Chief of Party
~~L.W.Swanson, Div. of Photo. Wash.,D.C.~~

LIBRARY & ARCHIVES

DATE February 1, 1965

USCOMM-DC 5087

Refer to the "Summary" (page 6) concerning the registration of two maps ("A" and "B") for this Survey

(1)

Red notations refer to 1961 revision work * (11217 B)

DATA RECORD

T-11217 (A) and T-11217 (B)

Project No. (II): ~~6116~~ PH-116

Quadrangle Name (IV):

Field Office (II): Baltimore, Maryland

Chief of Party: E. H. Kirsch
W.E. Randall

Photogrammetric Office (III): Washington, D. C.
Baltimore Md.

Officer-in-Charge: L. W. Swanson

Instructions dated (II) (III): 30 April 1953
9 July 1953 (Supp. II)
15 December 1955
20 January 1956
8 May 1961
10 May 1961 (PH-6102)

Copy filed in Division of Photogrammetry (IV)

Method of Compilation (III): Stereo instruments
Kelsh and Stereoplanigraph

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:10,000

Scale Factor (III):

Date received in Washington Office (IV): MAR 28 1955

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): NA 1927

Vertical Datum (III):
~~Mean sea level except as follows:~~ MHW
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): Nantucket Great Point Light House, 1835

Lat.:

Long.:

Adjusted
Unadjusted

Plane Coordinates (IV):

State: Mass

Zone: Island Zone

Y= 142,397.73 ft.

X= 324,534.75 ft.

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

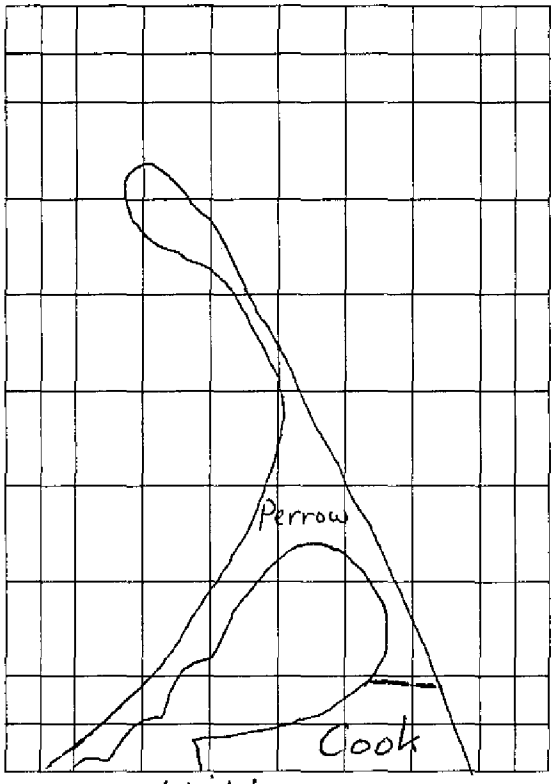
When entering names of personnel on this record give the surname and initials, not initials only.

* After revision in 1961 the PH-116 maps provided topography for Nautical Chart Drawing compilations of Martha's Vineyard and Nantucket Islands, accomplished as a part of PH-6102. Supplemental compilation and Review Reports for the revision work are included in this Descriptive Report.

M-2618-12(4)

(2)

2



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

(3)

DATA RECORD

Field Inspection by (II): R. L. McGlinchey Date: July 1955

Planetable contouring by (II): None Date:

Completion Surveys by (II): R. L. McGlinchey Date: July 1955

J.K. Wilson Sept. 1961

Field Edit Report (Refer to Project PH6102) T-12500

Mean High Water Location (III) (State date and method of location):

Field Inspection July 1955 (T- 11217 A)

Revised from April 1961 tide controlled infrared photography (T-11217B)

Projection and Grids ruled by (IV): A. Riley Date: 4 Jan. 1956

Projection and Grids checked by (IV): Date:

Control plotted by (III): C. Cook, M. Keller, J. Perrow Date: Feb. 1956

Control checked by (III): C. Cook, M. Keller, J. Perrow Date: Feb. 1956

Radial Plot or Stereoscopic Control extension by (III): J. Perrow Date: Feb. 1956

Stereoscopic Instrument compilation (III):

Planimetry C. Cook, J. Perrow Date: Feb. 1956

~~Contours~~ J.C. Richter Date: July 1961

Shoreline revision

Manuscript delineated by (III): C. Cook Date: March 1956

Photogrammetric Office Review by (III): Date:

Revision reviewed by: R. GLASER JULY, 1961

Elevations on Manuscript checked by (II) (III): Date:

(4)

4

Camera (kind or source) (III): Wild

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
55-W-5021 thru 5025	15 March 1955	9:49	25,000	+0.3
5056 thru 5060	"	10:10	25,000	+0.3
Number Color				
61-S-6630 thru 6633	4/12/61	1545	1:15,000	-0.1' (low water)
61S-6635 thru 6646	"	1555	1:10,000	-0.1' (low water)
infrared				
61-L-1582 thru 1586	4/12/61	0810	1:19,000	+.15' (high water)
61-L-1589 and 1590	"	0826	"	0.0 (high water)

Tide (III)

	Ratio of Ranges	Mean Range	Spring Range
Reference Station: Boston		9.5	11.0
Subordinate Station: Great Point		3.1	3.7
Subordinate Station: Wauwinet (outer shore)		3.3	4.0

Washington Office Review by (IV): S. G. Blankenbaker Date: Dec. 1961
Topography applied to chart Drawing 343 JULY 1964 (FINAL REVIEW)
Final Drafting by (IV): Date:

Drafting verified for reproduction by (IV): Date:

Proof Edit by (IV): Date:

Land Area (Sq. Statute Miles) (III):
Shoreline (More than 200 meters to opposite shore) (III): 24 miles
Shoreline (Less than 200 meters to opposite shore) (III): See Descriptive Report T-11221
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): Recovered: Identified:
Number of BMs searched for (II): Recovered: Identified:
Number of Recoverable Photo Stations established (III):
Number of Temporary Photo Hydro Stations established (III):

Remarks: Refer to the Descriptive Report for Nautical Chart Drawing 265 * for new 567 forms covering Nantucket Island.

* T-12500

M-2618-12 (4)

4

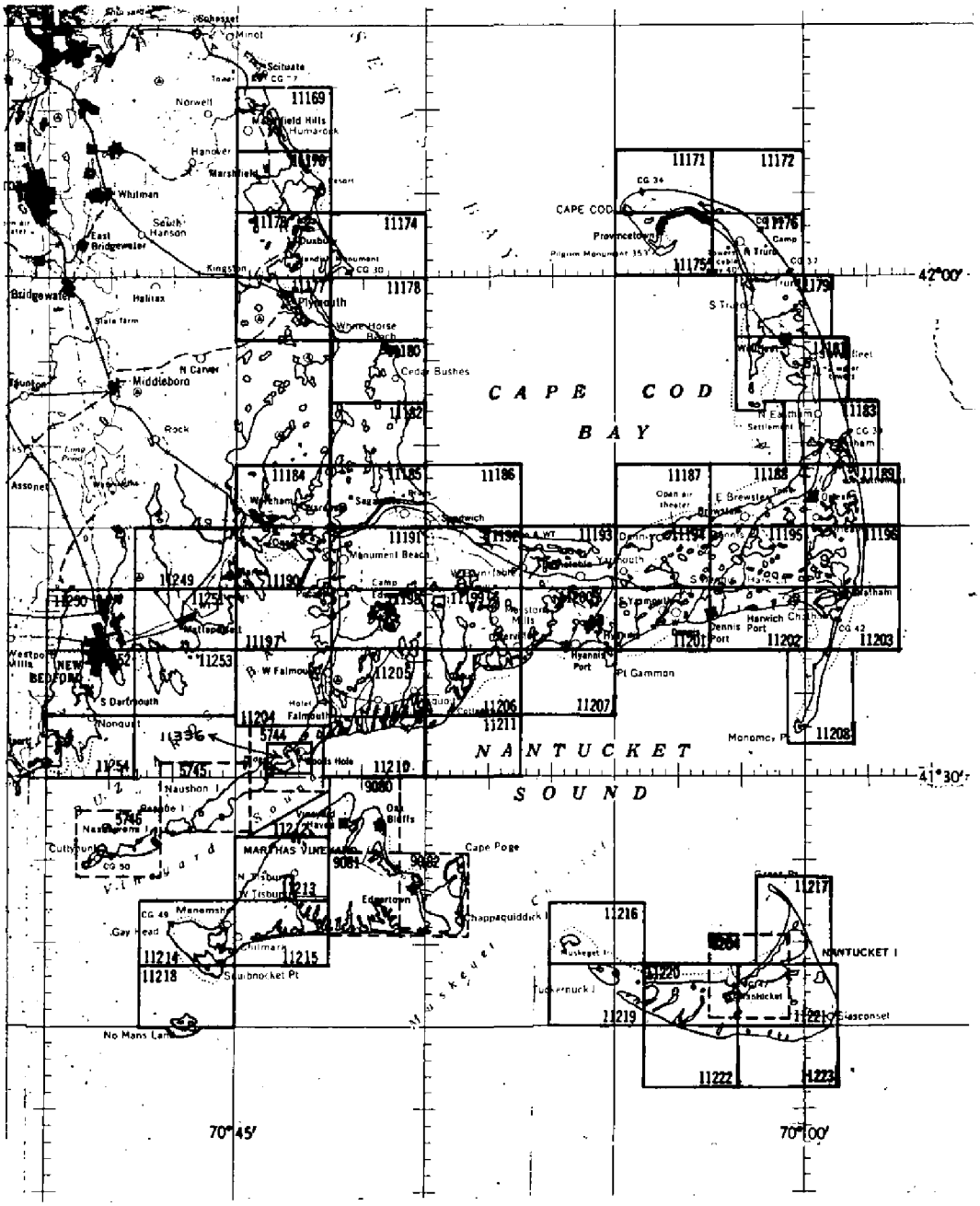
SHORELINE MAPPING PROJECT ~~BH~~- 116

CAPE COD, MASS.

(5)

OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No.	Lin. Miles Shoreline	Sq. St. Miles
11169	24	11
11170	12	16
11171	10	7
11172	2	1
11173	26	12
11174	6	1
11175	18	5
11176	12	10
11177	14	10
11178	4	2
11179	15	18
11180	9	15
11181	31	12
11182	7	12
11183	23	12
11184	12	13
11185	8	17
11186	6	3
11187	5	2
11188	13	9
11189	20	12
11190	59	12
11191	17	13
11192	5	19
11193	32	13
11194	7	15
11195	3	16
11196	14	8
11197	19	4
11198	7	7
11199	9	9
11200	25	10
11201	13	12
11202	13	9
11203	24	6
11204	12	5
11205	9	15
11206	20	14
11207	6	2
11208	14	3
11210	25	6
11211	3	1
11212	12	4
11213	7	22
11214	22	7
11215	25	14
11216	5	1
11217	22	3
11218	9	2
11219	12	2
11220	24	17
11221	20	21
11222	6	2
11223	7	4
11249	7	24
11250	11	23
11251	19	21
11252	15	13
11253	13	1
11254	16	3
11336	7	1
TOTALS	872	584



(6) 6

Summary to Accompany Descriptive Report

11217A & 11217B

JUNE 1964

T-11217 is one of 40 similar surveys comprising Project PH-116. Two maps (T-11217A and T-11217B) are to be registered for the subject survey . Project coverage includes (1) Cape Cod Bay shoreline (2) the entire east shore of Cape Cod, including Monomay Point, and (3) the islands of Martha's Vineyard and Nantucket. The subject maps covers the NE shore of Nantucket Island (Great Point).

The shoreline on T-11217A was compiled from 1955 photographs (field inspected in 1955). This shoreline was used for Hydrographic Surveys 8449 and 8450 (1958).

New Photography - tide controlled infra red and color - was taken in 1961 for the purpose of providing topography for the construction of new Nautical Chart 265, covering Nantucket Island. A chart compilation manuscript, registered as T-12500, provided the new topography for the chart. This manuscript was field edited. The details required for the new chart were revised on T-11217 and other PH-116 maps. T-11217B is the revised copy of T-11217A.

A report covering 1958 photogrammetric field work accomplished in conjunction with hydrographic surveys H-8449, H-8450; and H-8497 is bound with the subject Descriptive Report.

Nantucket Island

Photogrammetry

MAP T-11217 PROJECT NO. 6116 SCALE OF MAP 1/10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR y-COORDINATE LONGITUDE OR x-COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS FORWARD	(BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD	(BACK)
POCOMO HEAD 2, 1932	1	1927	Y = 115,367.61	367.61	4632.39					
			X = 328,405.95	3405.95	1594.05					
CHADWICKS FOLLY, 1893	8		Y = 116,878.29	1878.29	3121.71					
			X = 340,032.02	32.02	4967.98					
FINGER, 1949	GP. 522		41-18-53.968	1664.91	186.06					
			70-03-12.733	296.17	1099.4					
SQUAM HEAD 2, 1887	5		Y = 119 094.30	4094.30	905.70					
			X = 337 624.29	2624.29	2375.71					
NANTUCKET GREAT POINT LIGHT-HOUSE, 1835	3		Y = 142 397.73	2397.73	2602.27					
			X = 324 534.75	4534.75	465.25					
COATUE, 1955	Field Plane Coordinates		Y = 123,671.35	3671.35	1328.65					
			X = 328,709.60	3709.60	1290.40					
SANDY, 1955	Field Plane Coordinates		Y = 135 530.29	530.29	4469.71					
			X = 330 680.74	680.74	4319.26					
S.S. COATUE, 1955			Y = 123 773.90	3773.90	1226.10					
			X = 328 561.92	3561.92	1438.08					
S. S. POCOMO HEAD 2, 1932			Y = 115 440.81	440.81	4559.19					
			X = 328 341.70	3341.70	1658.30					
S.S. SANDY, 1955			Y = 135 612.82	612.82	4387.18					
			X = 330 646.12	646.12	4353.88					
S.S. SQUAM HEAD 2, 1887			41-19-34.382	1060.7	790.28					
			69-59-55.366	1287.6	107.8					

1 FT. = .3048006 METER

M-2388-12

COMPUTED BY: M. Keller DATE February 1956 CHECKED BY: C. Cook DATE 1956

(8) 8

FIELD REPORT

See Descriptive Report for T-11221

(9)

COMPILATION REPORT

T-11217 (A)

31. DELINEATION

The Kelsh plotter and stereoplanigraph were used for detailing.

The Coast Guard Communication line was delineated according to position on field identification photos. It could not be seen.

32. CONTROL

All control held well in the plot with the exception of Finger, 1949. Around this station, SS Coatue, SS Pocomo Head 2 and pass points from adjoining flight strips held very well. No reason could be determined for the deficiency.

33. SUPPLEMENTAL DATA - not applicable

34. CONTOURS AND DRAINAGE - not applicable

35. SHORELINE AND ALONGSHORE DETAILS

The high and low water lines were clearly delineated in the field.

36. OFFSHORE DETAILS - not applicable

37. LANDMARKS AND AIDS

See Form 567, a part of this report.

38. CONTROL FOR FUTURE SURVEYS - Recoverable Topographic Station Pond 1955

39. JUNCTIONS

T-11221 to the south.

40. HORIZONTAL AND VERTICAL ACCURACY - not applicable

46. COMPARISON WITH EXISTING MAPS

AMS V814 Sheet 6966 I SE
Siasconset, Mass.
1:25,000 1947

AMS V814 Sheet 6966 I NE
Great Point, Mass.
1:25,000 1947

USC&GS T-8204
Nantucket and Vicinity
1:10,000, 1949

(10) 16

47. COMPARISON WITH NAUTICAL CHARTS

Nautical Chart No. 343
Nantucket Harbor
1:10,000 1953

Nautical Chart No. 1209
Nantucket Sound and Approaches
1:80,000 1943

Submitted by: C. Cook

C Cook

Approved by: M. Keller

Morton Keller

(11)

SUPPLEMENTAL COMPILATION REPORT
T-11217 (B)

Ratio prints of the infrared photographs were used to revise the high-water line by holding details common to both the manuscript and the photographs.

The approximate low-water line, the apparent edge of shallow areas and several rocks were delineated by office interpretation on overlays from the 1:10,000 and 1:15,000 scale color transparencies. These details were then transferred to the manuscript by use of the vertical projector.

Respectfully submitted
12 July 1961

R. Glaser

R. Glaser
Carto. (Photo.)

Approved and forwarded

William E. Randall

William E. Randall
CDR, C&GS
Baltimore District Officer

Addendum:
Only those interior details needed for the compilation of ~~Chart 265 have been added or revised from 1961 photography.~~ topography for Chart Drawing 265 and the revision of Chart Drawing 343 have been added ~~(Project PH-6102)~~. or revised from 1961 photography (PH-6102).

Washington office Review was limited to details required for the revision of Chart Drawing 343 (to be revised by the Chart Maintenance Section)

Note: No preliminary final review report was submitted. Manuscripts a & b were reviewed Wash. Office in 1964 - Refer to final review report and the Descriptive Report Summary

NOTE Chart Drawing 265 is registered (Topography) as T-12500

Review Report

Survey T-11217 (A and B)

July 1964

61. General

Refer to the subject Descriptive Report "Summary" concerning the registration of two manuscripts, A and B, for this survey.

62. Comparison with Registered Topographic Surveys

The new manuscript (T-11217A) was compared with T-8204, 1:10,000 scale, 1949, at the time of compilation. Having been used for (1) shoreline for hydrographic surveys - map T-11217A, and (2) new nautical chart construction - map T-11217B, (after application to Chart Compilation manuscript T-12500), the maps were not compared with older topographic surveys at the time of final review. T-11217B or chart compilation manuscript T-12500 should be used for future nautical chart construction.

63. Comparison with Maps of Other Agencies

Great Point (USGS) 1:24,000 scale 1951

No significant differences were noted.

64. Comparison with Contemporary Hydrographic Surveys

T-8449 and T-8450 scale 1:10,000 - date 1958

Some shoreline was revised during hydrography (refer to the photogrammetric report submitted by the hydrographic party). * The revised shoreline was not transferred to survey T-11217. T-11217B should be used for future hydrographic survey support purposes (refer to the Descriptive Report "Summary").

65. Comparison with Nautical Charts

265 June 1963 1:40,000 scale

Topography for this chart was provided through T-11217 and other PH-116 surveys. Refer to the Descriptive Report "Summary" and previous section of this report.

* Page 14 of this report

66. Adequacy of Results and Future Surveys

This map meets the National Standards of Map Accuracy and Bureau requirements.

Reviewed by:

S. G. Blankenbaker

S. G. Blankenbaker

Approved by:

J. E. Waugh 1/26/65

Chief, Photogrammetry Division

Chief, Nautical Chart Division

Chief, Photogrammetric Branch

(14) 14

INCLUDE IN FOR D.S. T-1217

PROCESSING OFFICE

PHOTOGRAMMETRIC REPORT - 1958

PROJECT CS-369 SHIP GILBERT

NANTUCKET ISLAND

(15)

PHOTOGRAMMETRIC REPORT - 1958

PROJECT CS-369 SHIP GILBERT

NANTUCKET ISLAND

A. PURPOSE AND SCOPE.

This report is written to cover the relationship between the photogrammetric work and the hydrography on this project. It includes the fieldwork done during the 1958 field season on Sheets H-8449(GI-1158), H-8450(GI-2157), and GI-1258. All of the work done in 1958 was on the eastern half of Nantucket Island.

B. CONTROL.

The basic control in this area is triangulation executed for the last century. The most recent triangulation was done by the photogrammetric field inspection party in 1955. In addition, two photo-topo stations, TOWER 1955 & PIPE 1955, were relocated in 1958 by theodolite observations with a precision approaching third-order accuracy. This was done to strengthen the control on the southeast side of Nantucket for the shoran calibrations on Sheet H-8450 and for the photogrammetric detail. The positions obtained by theodolite are listed in the 1958 Triangulation Report for this project, and are in remarkably close agreement with the photo-topo positions.

Some photo-hydro stations were located in 1955 by the field inspection party, but there were not nearly enough of these signals to control the hydrography. A few additional signals were located by photogrammetric methods, but about 90 percent of the extra signals were located by sextant cuts. Some new photo-hydro stations were located in accordance with section 2394A of the Hydrographic Manual. Three of these stations are on Sheet H-8449, HUB, LAX, PIT and three are on Sheet GI-1258, CAB, END, & FED.

SHORELINE AND TOPOGRAPHIC DETAILS.

The location of the shoreline was revised in two separate areas during the 1958 season. Approximately 1.5 miles of shoreline on the southeast coast of Nantucket on manuscripts T-11221 and T-11223 was revised by walking the high-water line and taking positions by sextant fixes. A rock along the water line about one mile north of Sankaty Head Lighthouse and not shown on T-11221 was located by sextant fix. Photo-topo station POLE 1955 shown on T-11221 has been destroyed and should be deleted from the manuscript. The locations and dimensions of the buildings inside the U.S. Naval Reservation (manuscript T-11223) were revised by Charles Hanavich and Ensign Garnett in June 1958. Approximately one mile of shoreline on the west side of Great Point (manuscript T-11217) was revised by measurements with a steel tape from hydrographic signals, and by sextant fixes taken along the high-water line.

PHOTOGRAMMETRIC MATERIAL USED DURING 1958.

Manuscripts: T-11217, T-11220, T-11221, T-11222, & T-11223.
Photographs: 55-W-5021 thru 55-W-5033
55-W-5047 thru 55-W-5061

Submitted,
Charles A. Schoene, Cdr(C&GS)
Comdg. Ship GILBERT

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

TO BE CHARTED
~~TO BE DELETED~~ } STRIKE OUT ONE

Nantucket, Mass. 25 July, 1955

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by _____

E. H. Kirsch
Chief of Party.

STATE Massachusetts

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
NANTUCKET (GREAT PT) LT.	White tower		41-23	731.9	70-02	1073.4	NA 1927	Triang	1835			X	1209

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 individual field survey sheets. Information under each column heading should be given.

* TABULATE [illegible]

M-2836-3

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~NONFLOATING AIDS OR~~ LANDMARKS FOR CHARTS

TO BE CHARTED
~~TO BE DELETED~~ } STRIKE OUT ONE

Nantucket, Mass. 25 July, 1955

I recommend that the following objects which have *(have ~~not~~)* been inspected from seaward to determine their value as landmarks be charted on ~~(deleted from)~~ the charts indicated.

The positions given have been checked after listing by _____

E. H. Kirsch
Chief of Party.

STATE Massachusetts

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE* ° ′	LATITUDE* ″ D.M. METERS	LONGITUDE* ° ′	LONGITUDE* ″ D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
FOLLY CUP	Cupola atop building		41-19	331.3	69-59	578.2	NA 1927	Triang	1893			X	1209

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 individual field survey sheets. Information under each column heading should be given.

* TA[illegible]

M-2836-3

GEOGRAPHIC NAMES

Survey No. T-11217

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Great Point										1
Atlantic Ocean										2
Nantucket Sound										3
Head of the Harbor										4
Wau winet										5
Pocomo Head										6
Wyers Point										7
Bass Point										8
Five Fingered Pt										9
Coskata Pond										10
The Haulover										11
										12
										13
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										27
										M 234 12

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11217 a & b

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
265	7-5-73	O. Chapman	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. Exam. No. Corr. Applied previous
1209	7-6-73	O. Chapman	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. #40 Revised Shoreline thru chart 265 (T-12300) Exam. ~~no Corr Applied previous~~
			Consider Adequately applied
343	4-18-75	Robert P. Neale	Full ~~Part Before~~ After ~~Verification~~ Review ~~Inspection Signed~~ Via
			Drawing No. 16. EXAMINED - NO CORRECTION - RN.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.