

# 11186

Diag. Cht. No. 1208-2.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey Shoreline

Field No. Ph-116 Office No. T-11186

### LOCALITY

State MASSACHUSETTS

General locality Cape Cod Bay  
Springhill Beach to

Locality Cape Cod Canal Entrance

1953 1951-55

### CHIEF OF PARTY

E. H. Kirsch, Chief of Field Party

William F. Deane, Baltimore District Officer

### LIBRARY & ARCHIVES

DATE December 2, 1966

COMM-DC 61300

# 11186

DESCRIPTIVE REPORT - DATA RECORD

①

T -11186

Project No. (II): **Ph-116**

Quadrangle Name (IV):

Field Office (II): **Plymouth, Mass.**

Chief of Party: **E. H. Kirsch**

Photogrammetric Office (III): **Baltimore, Maryland**

Officer-in-Charge: **E. H. Kirsch**  
**William F. Deane**

Instructions dated (II) (III): **30 April 1953**

Copy filed in Division of  
Photogrammetry (IV)

**9 June 1953 (Supplement 1)**

**9 July 1953 (Supplement 2)**

**11 July 1953 (Supplement 3)**

**10 July 1953 (letter 70-lmh)**

Method of Compilation (III): **Graphic**

Manuscript Scale (III): **1:10,000**

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): **1.000**

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): **N.A. 1927**

Vertical Datum (III): **MHW**

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): **ADAMORE (USE), 1932**

Lat.: **41° 46' 06.649" (205.1)**

Long.: **70° 29' 55.618" (1284.7)**

Adjusted  
~~Uncorrected~~

Plane Coordinates (IV):

State: **Mass.**

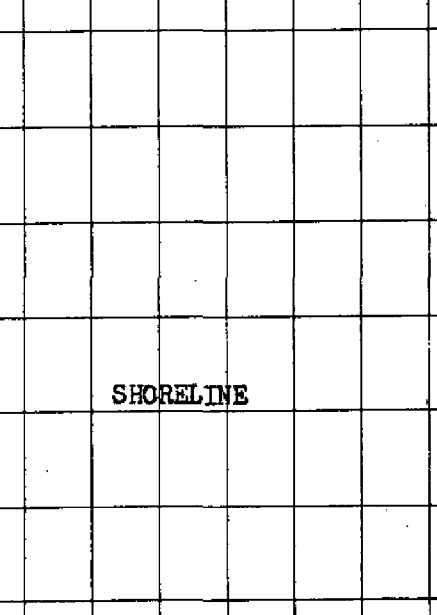
Zone: **Mainland**

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.



SHORELINE

COMM-DC-57842

DESCRIPTIVE REPORT - DATA RECORD

(3)

Field Inspection by (II): B. F. Lampton, Jr.

Date: August 1953

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

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

July and August 1953

Field inspection

15 November 1955

Office interpretation

Projection and Grids ruled by (IV): Austin Riley

Date: 2/5/54

Projection and Grids checked by (IV): H. D. Wolfe

Date: 2/12/54

Control plotted by (III): A. Queen

Date: 4/1/54

Control checked by (III): Leroy A. Senasack

Date: 4/1/54

Radial Plot ~~of Stereoscopic~~

Date: 11/7/55

~~Radio-Covered by~~

E. L. Williams

Planimetry

Date:

Stereoscopic Instrument compilation (III):

Contours

Date:

Manuscript delineated by (III): J. Tolodziecki  
F. M. Wisiecki

Date: 12/14/55

Photogrammetric Office Review by (III): H. R. Rudolph

Date: 5/31/56

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

Date:

# DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): Production and Marketing Administration, Single Lens  
USC&GS "W" Camera

(4)

## PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
DPL-2K-24	10/22/51	1036	1:10,000	2.1 above MLW
DPL-2K-27-28	"	1041	"	2.1 " "
55-W-1389 to 1391*	11/15/55	1200	"	10.0 " "
54-W-1335 and 1336*	4/24/54	1543	"	8.1 " "

## Tide (III)

### From Predicted Tide Tables

Reference Station: Boston  
Subordinate Station: Cape Cod Canal Entrance  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	9.5	11.0
1.0	9.4	10.9

Washington Office Review by (IV): S.G. Blankenbaker

Date: May 1965

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 3 mi.

Shoreline (More than 200 meters to opposite shore) (III): 4.8 mi.

Shoreline (Less than 200 meters to opposite shore) (III): 6.8 mi.

Control Leveling - Miles (II): none

Number of Triangulation Stations searched for (II): 10

Recovered: 5

Identified: 5

Number of BMs searched for (II): 0

Recovered: 0

Identified: 0

Number of Recoverable Photo Stations established (III): 1

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

Remarks: \* The centers of all photographs taken with "W" camera fall outside limits of this survey.

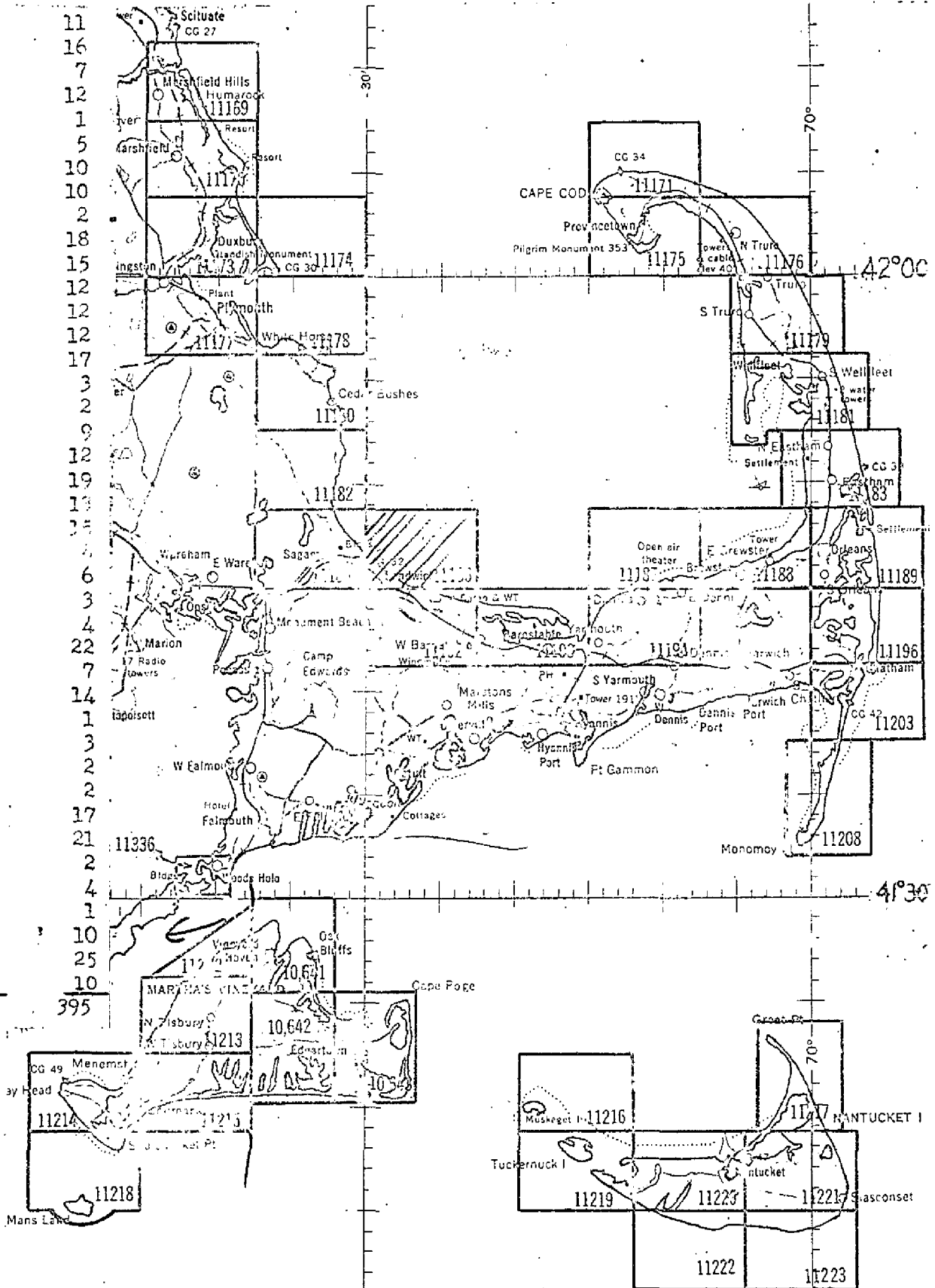
# SHORELINE MAPPING PROJECT PH-116

## CAPE COD, MASS.

5

Official Mileage for Cost Accounts  
 Section Lin.Mi. Area  
 No. Shoreline Sq.Mi.

1169	24	11
1170	12	16
1171	10	7
1172	26	12
1174	6	1
1175	18	5
1176	12	10
1177	14	10
1178	4	2
1179	15	18
1180	9	15
1181	31	12
1182	7	12
1183	23	12
1185	8	17
1186	6	3
1187	5	2
1188	13	9
1189	20	12
1192	5	19
1193	32	13
1194	7	25
1196	14	4
1198	24	6
1208	14	3
1212	12	4
1213	7	22
1214	22	7
1215	25	14
1216	5	1
1217	22	3
1218	9	2
1219	12	2
1220	24	17
1221	20	21
1222	6	2
1223	7	4
1336	7	1
1641	18	10
1642	12	25
1643	10	10
TOTALS	607	395



Summary to Accompany Descriptive Report T-11186

T-11186 is one of 40 similar maps comprising Project PH-116. Project coverage includes Cape Cod Bay shoreline, the east shore of Cape Cod, and Martha's Vineyard and Nantucket Islands. The subject map covers the Cape Cod Bay shoreline from the entrance to the Cape Cod Canal to Springhill Beach.

Refer to heading 61 of the final review report concerning the mapping of rock information.

## 2. AREAL FIELD INSPECTION

The major features of the area are the village of Sandwich, a large subdivision at Town Neck Hill and the east entrance to the Cape Cod Canal. East Sandwich Beach is a small community of beach houses. Sandwich Harbor is a little used entrance to a network of marsh streams, usable only by shallow draft boats at high tide. Most of the land area is marsh. The beach within the sheet is a mixture of sand and rock.

Field work on this sheet was done simultaneously with field work for the revision of USGS Sandwich Quadrangle. The photographs for the revision work were received after field work had begun. Before the revision photographs were received, field inspection applying to quadrangle revision had been partially inked on photograph DPL-2K-55. Field inspection notes on this photograph which do not apply to shoreline manuscript compilation should be ignored. Roads have been classified according to instructions for shoreline Project Ph-116.

The field inspection is believed to be complete. Work was done on 1:10,000 scale single lens ratio prints DPL-2K-24; DPL-2K-27 through DPL-2K-29; DPL-2K-55 through DPL-2K-57.

The quality of the photographs is adequate.

## 3. HORIZONTAL CONTROL

All Coast and Geodetic Survey stations were searched for and identified if recovered. Stations 92D and 92E MGS were not searched for. The following stations have been reported as lost on Form 526: WICH 1940; SANDWICH MIRILITE STACK 1934; NECK 1940; BITTS(USE)1932; SPRING HILL RED CHIMNEY 1909. At station WICH 1940, Reference Mark No. 2 was identified.

## 4. VERTICAL CONTROL

There are no tidal bench marks within the sheet. No other vertical control is required by project instructions.

## 5. CONTOURS AND DRAINAGE

Contours inapplicable.

All perennial drainage within the sheet is tidal through marsh. No perennial drainage above marsh level was observed during field inspection.

## 6. WOODLAND COVER

Inapplicable.



7. SHORELINE AND ALONGSHORE FEATURES

The mean high water line along the beach is visible as a line of debris and has been indicated at intervals on the field photographs. The stage of tide at time of photography was too high to permit identification of the low water line.

The foreshore is a mixture of sand and rock. One area of numerous large rocks has been indicated as a "foul area" on the field photographs.

There are no bluffs or cliffs prominent enough to be landmark features.

All wharves, piers and similar shoreline structures have been indicated on the field photographs.

It is impractical to assign a definite junction between fast and apparent shorelines, as the limit of marsh at all points near open water is between the high and low water lines. As the distance from open water increases, the limit of marsh gradually approaches and touches the high water line, forming an inshore limit of marsh beyond this point.

8. OFFSHORE FEATURES

A foul area has been indicated on the field photographs.

9. LANDMARKS AND AIDS

One landmark and two aids to navigation have been reported on Form 567. In addition, the traffic lights at the east entrance to the Cape Cod Canal have been identified and a Control Station Identification card is being submitted.

10. BOUNDARIES, MONUMENTS AND LINES

Inapplicable.

11. OTHER CONTROL

One topographic station, WHITE CHIMNEY 1953, has been established within the sheet.

12. OTHER INTERIOR FEATURES

Adequately covered by the field photographs.

13. GEOGRAPHIC NAMES

No discrepancies in geographic names were noted during field inspection.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Letter of Transmittal No. Ph-116-2, Forms 567, Landmarks and Aids to Navigation, to be forwarded to Washington Office at a later date.

Letter of Transmittal No. Ph-116-9, Data, Map T-11186, forwarded to Washington Office ~~11 September~~ 1953.

22 October

Submitted  
10 September 1953

*B. Frank Lampton, Jr.*

B. Frank Lampton, Jr.  
Cartographic Survey Aid

Approved & Forwarded  
11 September 1953

*E. H. Kirsch*  
E. H. Kirsch  
Chief of Party

*by LSW*

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
DESCRIPTIVE REPORT  
CONTROL RECORD

MAP T. 11186

PROJECT NO. Ph-116

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $\lambda$ -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)
BEACON AT END OF CANAL BREAKWATER, 1934	P. 148 G-3692	NA 1927	41	46	46.718			1441.3	( 409.8)		
			70	29	25.472			588.3	( 797.4)		
CANAL, 1916	P. 212 G-3723	"	41	46	40.025			1234.9	( 616.2)		
			70	29	44.638			1030.9	( 354.8)		
RADIO BEACON MAST, 1940	P. 444 G-6928	"	41	46	27.94			862.0	( 989.1)		
			70	29	49.86			1151.6	( 234.2)		
ADAMORE, (USE), 1932	P. 115 CTZ G-3388	"	41	46	06.649			205.1	(1616.0)		
			70	29	55.618			1284.7	( 101.2)		
Sub. Pt. ADAMORE (USE), 1932		"	41	46				175.3	(1675.8)		
			70	29				1330.8	( 55.1)		
WICH, 1940, RM 2		"	41	45	53.475			1649.8	( 201.3)		
			70	28	33.870			782.4	( 603.6)		
Sub. Pt. WICH, 1940 RM 2		"	41	45				1614.2	( 236.9)		
			70	28				909.3	( 476.7)		
NECK, 1940	P. 442 G-6928	"	41	45	27.337			843.4	(1007.7)		
			70	27	35.486			819.8	( 566.3)		
MASTHEAD TOWER, 1934	P. 148 G-3692	"	41	45	01.04			32.1	(1819.0)		
			70	28	03.01			69.5	(1316.8)		
92D, MGS, 1936	P. 52	"	278	174.73	3,174.73	(1,825.27)		967.7	( 556.3)		
			874	390.81	4,390.81	( 609.19)		1338.3	( 185.7)		
92E, MGS, 1936	P. 52	"	277	725.28	2,725.28	(2,274.72)		830.7	( 693.3)		
			874	812.04	4,812.04	( 187.96)		1466.7	( 57.3)		

1 FT. = 3048006 METER

COMPUTED BY: R. L. McClinchey

DATE 23 March 1953

CHECKED BY: A. Queen

DATE 31 March 1954

COM-DC-57843

COMPILATION-REPORT  
T-11186

The Photogrammetric Plot Report is a part of the Descriptive Report, T-11182.

31. DELINEATION

Graphic methods were used to delineate this work-sheet.

The PMA being smaller in scale than the work-sheet made it necessary to plot many more detail points than normally would have been plotted. The vertical projector was used to compensate for the scale difference. However, since the original compilation was completed, new photographs taken 24 April 1954 and 15 November 1955 with the Coast and Geodetic Survey "W" camera were received in the compilation office and were used during review to correct the delineation. The photographs taken during 1954 and 1955 were printed at a scale very close to the scale of the work-sheet. The "W" photographs did not cover the area north of Mill Creek and the P.M.A. photographs had to be used for the area north of Mill Creek. (From latitude 41° 46' 00" northward).

32. CONTROL

See Photogrammetric Plot Report submitted with the compilation report for Survey No. T-11182.

33. SUPPLEMENTAL DATA

The USGS Sandwich, Massachusetts quadrangle was used for Geographic Names.

34. CONTOURS AND DRAINAGE

Contours - Inapplicable.  
Drainage - No comment.

35. SHORELINE AND ALONGSHORE DETAILS

The shoreline inspection was adequate, however, several changes were made along the shoreline of Cape Cod Bay from Sandwich Harbor southeastward as indicated by the photographs taken on 15 November 1955 which were taken when the tide was at 10 feet above MLW.

The low water line was not field inspected.

36. OFFSHORE DETAILS

A foul area just south of the entrance to the Cape Cod Canal is the only offshore feature delineated.

37. LANDMARKS AND AIDS

Forms 567 have been submitted for one landmark and two Non-floating Aids to Navigation. One of the non-floating aids is also an aeronautical aid.

38. CONTROL FOR FUTURE SURVEYS

One Recoverable Topographic Station was located: WHITE CHIMNEY, 1953 (Form 524 not furnished).

39. JUNCTIONS

The junction with survey No. T-11185 to the west has been made and is in agreement.

Survey No. T-11192 to the south has not been compiled; however, the delineation along the junction has been transferred to survey No. T-11192 so that the junction can be made at a future date.

To the north and east are all-water areas.

40. HORIZONTAL AND VERTICAL ACCURACY.

See the Photogrammetric Plot Report submitted with the Compilation Report for Survey No. T-11182.

41 - 45.

Inapplicable.

46. COMPARISON WITH EXISTING MAPS

Comparison has been made with U.S.G.S. Quadrangle Sandwich, Mass., scale 1:31,680 edition of 1943 and revised in 1947 and bureau survey T-5611 (1941), scale 1:10,000. T-5611 shows rocks beyond the foul areas limit shown on this quadrangle.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison has been made with Chart No. 1208, scale 1:80,000, published May 1942 (9th edition) corrected to August 24, 1953 and Chart No. 251, scale 1:20,000 published March 1942 (12th edition), corrected to January 15, 1954.

Items to be applied to nautical charts immediately: None.

Items to be carried forward: None.

Respectfully submitted  
23 April 1956

*Frank M. Wisiecki*  
Frank M. Wisiecki  
Carto. Photo. Aid

Approved and forwarded

*William F. Deane*  
William F. Deane,  
CDR C&GS  
Baltimore District Officer

(13)

Form T-2

## PHOTOGRAMMETRIC OFFICE REVIEW

T- 11186

1. Projection and grids H.R.R. 2. Title H.R.R. 3. Manuscript numbers H.R.R. 4. Manuscript size H.R.R.4a. Classification label H.R.R.

## CONTROL STATIONS

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

## ALONGSHORE AREAS

(Nautical Chart Data)

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

## PHYSICAL FEATURES

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

## CULTURAL FEATURES

27. Roads H.R.R. 28. Buildings H.R.R. 29. Railroads H.R.R. 30. Other cultural features H.R.R.

## BOUNDARIES

31. Boundary lines        32. Public land lines       

## MISCELLANEOUS

33. Geographic names H.R.R. 34. Junctions H.R.R. 35. Legibility of the manuscript H.R.R. 36. Discrepancy overlay        37. Descriptive Report H.R.R. 38. Field inspection photographs H.R.R. 39. Forms H.R.R.40. Harry R. Rudolph  
ReviewerJoseph Steinberg  
Supervisor, Review Section or 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:

M-2623-12

## Review Report

T-11186

June, 1965

61. General Statement

Immediately to the south of the entrance to the Cape Cod Canal the foreshore and offshore areas are foul with rocks. Foul line limits only, as indicated by the field inspector, are shown on T-11186. A considerable amount of rock information is shown on Bureau surveys T-5611 and H-6561, and on the inset for chart 251.

During final review of T-11186 an attempt was made to verify or supplement, through office interpretation, the rock information shown on prior surveys. Those rocks that appeared to be more prominent on the photographs were delineated on the manuscript.\* It was found that better photography (preferably tide controlled), supplemented by field inspection, is required for comprehensive photogrammetric mapping of the foul areas.

62. Comparison with Registered Topographic Surveys

T-901	scale 1:10,000	date 1860
T-5611	scale 1:10,000	date 1938-41

Except as qualified in the preceding section of this report, T-11186 supersedes the prior surveys for charting purposes in the common area.

63. Comparison with Maps of Other Agencies

USGS quad, Sandwich, Mass. scale 1:24,000 date 1957  
No significant differences were noted.

64. Comparison with Contemporary Hydrographic Surveys

Inapplicable. Comparison with prior hydrographic survey 6561 (scale 1:10,000 - date 1940) is discussed under heading No. 61 of this report.

65. Comparison with Nautical Charts

251	scale 1:20,000	revised 10/22/62
1208	scale 1:80,000	4/15/63

No significant differences were noted.

\* As indicated in the opening paragraph these office interpreted rock were removed from the manuscript prior to reproduction for registration.  
ddg



66. Adequacy of Results and Future Surveys

This map meets the National Standards of Map Accuracy. Except as qualified under heading 61 of this report, this map meets Bureau requirements.

Reviewed by:

S. G. Blankenbaker  
S. G. Blankenbaker

Approved by:

Charles L. Hume  
Chief, Photogrammetric Branch  
C.L.H.

L. F. Woodward  
Chief, Photogrammetry Division

Chief, Nautical Chart Division

TO BE CHARTED  
TO BE CHARTED

## NONFLOATING/AIDS/OR LANDMARKS FOR CHARTS

Baltimore, Maryland      September      1958

I recommend that the following objects which have ~~(listed below)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(attached sheet)~~ the charts indicated.

The positions given have been checked after listing by H. R. Rudolph

William F. Deane

Chief of Party.

[illegible]

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 SECONDS AND METERS**

TO BE CHARTERED

**STRIKE OUT ONE**

## NON-LOADING/ AIDS/OR/ LANDMARKS/ FOR-CHARTS

## AERONAUTICAL AID

**Baltimore, Maryland**

**September, 19 58**

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

The positions given have been checked after listing by H. R. Rudolph

**William F. Deane** *Chief of Party.*

[illegible]

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 SECONDS AND METERS**

TO BE CHARTED  
10/08/01/01/01

**STRIKE OUT ONE**

**NONFLOATING AIDS OR LANDMARKS FOR CHARTS**

**Plymouth, Massachusetts**

23 October 1953

I recommend that the following objects which have ~~(been examined)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(attached form)~~ the charts indicated.

The positions given have been checked after listing by Isiah V. Fitzgerald

**Lorin E. Woodcock** *Chief of Party.*

[illegible]

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 SECONDS AND METERS**

T-11186

Geographic Names.

Beach Road

Cape Cod Bay

Cape Cod Canal

Corpus Christi Church

Dock Creek

Henry T. Wing School (Wing School only on 1957 USGS quad)

Main Street

Mill Creek

Mount Hope Cemetery

New York New Haven and Hartford

Old Harbor Creek

St. John's Church

Sandwich

Sandwich Harbor

Sandwich R.R. Sta.

Shawme Lake

Spring Hill

Springhill Beach

Springhill Creek

Town Neck

Town Neck Beach

Town Neck Hill

Water Street

Names approved 9-25-58

L. Heck.

L.H.

### RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. T-11186

## 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.

[illegible]