

11193 11193 a  
11194

Diag. Cht. No. 1208-2.

Form 504

U. S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

## DESCRIPTIVE REPORT

Type of Survey Shoreline T-11193  
T-11193a  
Field No. Ph-116 Office No. T-11194

### LOCALITY

State Massachusetts  
General locality Cape Cod  
Locality Barnstable Harbor

1952-58

### CHIEF OF PARTY

E.H.Kirsch, Chief of Field Party  
W.F.Deane, Balto. District Officer

### LIBRARY & ARCHIVES

DATE January 2, 1966

USCOMM-DC 5087

11193 11193 a  
11194

## DATA RECORD

T-11193 &amp; 11194

Project No. (II): Ph-116(53)      Quadrangle Name (IV): T-11193 = BARNSTABLE *\* see bottom of page*  
 T-11194 = DENNIS

Field Office (II): Plymouth, Massachusetts      Chief of Party: Emil H. Kirsch  
 Photogrammetric Office (III): Washington, D.C. (Shoreline) Louis J. Reed, Chief  
 Baltimore, Md (Balance) Jack C. Sammons, Stereo-Mapping Branch  
 Instructions dated (II) (III):      Copy filed in Division of  
 Photogrammetry (IV)

(II) = Supplement II dated 9 July 53 (Supersedes all others)  
 (III) = Office Memorandum dated 3 Aug 53.

Method of Compilation (III): Kelsh Plotters

Manuscript Scale (III): 1:10,000      Stereoscopic Plotting Instrument Scale (III): 1:2,000

Scale Factor (III): Photographs :: Stereoplanigraph :: Kelsh Plotter :: Manus.  
 10,000      6,000      2,000      10,000

Date received in Washington Office (IV): 28 OCT 1959      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:  
 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):

Lat.:      Long.:      Adjusted  
~~Unadjusted~~

Plane Coordinates (IV):      State:      Zone:

Y=      X=

GRID = Massachusetts Mainland Lambert with 5,000 ft interval

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.

*\* Two maps were registered for T-11193. Refer to the final review report.*

DESCRIPTIVE REPORT - DATA RECORD

Page ~~1~~

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T- 11193 and T-11194

Project No. (II): Ph-116

Quadrangle Name (IV):

Field Office (II): Plymouth, Mass.

Chief of Party: E. H. Kirsch

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: William F. Deane

Instructions dated (II) (III):

Copy filed in Division of  
Photogrammetry (IV)

Method of Compilation (III): Instrument and Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

Date received in Washington Office (IV): 28 OCT 1958

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): MERIDIAN NORTH STONE, 1934

Lat.: 41° 42' 30.381" (937.3m)

Long.: 70° 17' 42.064" (972.5m)

Adjusted

~~Unadjusted~~

Plane Coordinates (IV):

State: Mass.

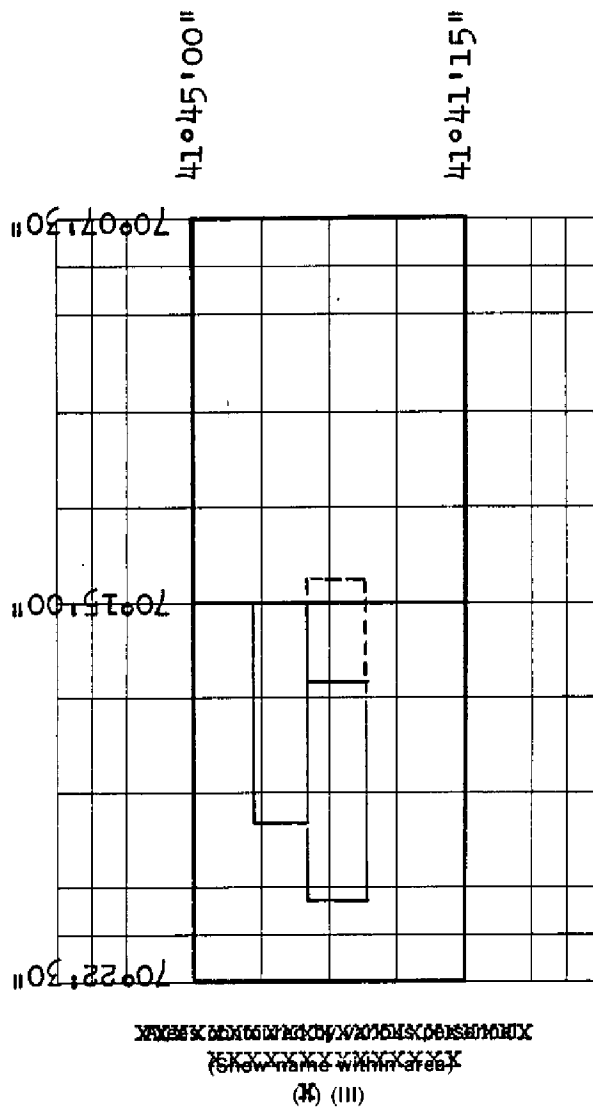
Zone: Mainland

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.



Areas compiled by various Personnel:

- Charles E. Cook on the Kelsh Plotter, model "A"
- Frank J. Lesslie on the Kelsh Plotter, model "B"
- Morton Keller on the Stereoplanigraph



## DATA RECORD

Field Inspection by (II): Emil H. Kirsch Date: 1953  
(B. Frank Lampton Jr.)

Planetable contouring by (II): Not applicable Date:

Completion Surveys by (II): Date:

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

The shoreline (MHWL) was located during instrument compilation using field indications on photographs as a guide. The field work was accomplished during July, 1953, and therefore the MHWL is dated: JULY 1953.

Projection and Grids ruled by (IV): R. Austin Riley on the Reading Ruling Machine Date: 13 Jul 53  
Projection and Grids checked by (IV): Howard D. Wolfe Date: 14 Jul 53  
Control plotted by (III): Louis J. Reed Date: 5 Aug 53

Control checked by (III): Stanley W. Trow Date: 6 Aug 53

~~Radio Plot~~ Stereoscopic Control extension by (III): Morton Keller and Ivan R. Jarrett Date: Aug 53

Planimetry  
Stereoscopic Instrument compilation (III): Shoreline: Cook & Lesslie Date: 28 Aug 53  
Contours & Keller Date:

compiled  
Manuscript ~~checked~~ by (III): Shoreline: Henri Lucas Date: 31 Aug 53

Photogrammetric Office Review by (III): Stanley W. Trow Date: 31 Aug 53

Elevations on Manuscript checked by (II) (III): Not applicable Date:

BALTIMORE OFFICE

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT - DATA RECORD

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W. M. Reynolds

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

Date: July 1953

Planetable contouring by (II):

Date:

Completion Surveys by (II):

Date:

Mean High Water Location (III) (State date and method of location): July 1953 (date of Field inspection) supplemented by office interpretation of November 1955 photographs.

Projection and Grids ruled by (IV): A. Riley

Date: 7/13/53

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

Date: 7/14/53

Control plotted by (III): E. L. Rolle

Date: 12/5/57

Control checked by (III): B. Kurs

Date: 12/6/57

**Additional**

~~Stereoscopic~~ Stereoscopic

Date: 1/7/58

Control extension by (III): E. L. Rolle

Planimetry

Date: 1/7/58

Stereoscopic Instrument compilation (III): E. L. Rolle

~~XXXXXX~~

Date:

Manuscript delineated by (III): J. Honick  
J. Councill

Date: 5/18/59

Photogrammetric Office Review by (III): R. Glaser

Date: 5/26/59

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

Date:

Camera (kind or source) (III): USC &amp; GS "J" camera, 6", wide-angle

Number                      Date                      PHOTOGRAPHS (III)  
Time                      Scale                      Stage of Tide

53 J ~~673~~ 674  
thru ~~681~~ 678

and                      9 May 53                      1455 EST                      10,000                      0.7ft above MLW

53 J ~~690~~ 690  
thru ~~697~~ 698

## Tide (III)

Reference Station: Boston (tide gauge readings)  
Subordinate Station:  
Subordinate Station: Barnstable Harbor

Ratio of Ranges	Mean Range	Spring Range

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

Date: June 1964

Final Drafting by (IV): Baltimore office

Date: 1959

Drafting verified for reproduction by (IV): S.G. Blankenbaker

Date: June 1964

Proof Edit by (IV):

Date:

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

Shoreline (More than 200 meters to opposite shore) (III): 30 mi

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

Control Leveling - Miles (II): None

Number of Triangulation Stations searched for (II): 43

Recovered: 28

Identified: 20

Number of BMs searched for (II): 4

Recovered: 3

Identified: 3

Number of Recoverable Photo Stations established (III): 10

Number of Temporary Photo Hydro Stations established (III):

Remarks:



BALTIMORE OFFICE  
DESCRIPTIVE REPORT - DATA RECORDU.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

Camera (kind or source) (III): C&amp;GS "J", "S" and "W" cameras and P.M.A.

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PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
DPL 4K8 - 11, 4K15 - 17	7/13/52	0910, 0915	1:10,000	0.2' above MLW
DPL 4K31 - 33	"	0927	"	0.0 " "
DPL 4K106 - 107	"	1031	"	-0.2 (below MLW)
DPL 3K27 - 29, 3K32 - 35	7/25/52	1151, 1157	"	7.2 above MLW
DPL 5K7-11	"	1236	"	8.5 " "
53 J 674-678, 690-698, & 707-710	5/9/53	1455 (estimated)	"	0.1 " "
54 W 1328 & 1329	4/24/54	1543	"	(Interior)
54 W 2480-2487	11/15/55	1156	"	10.2 above MLW
55 W 2508-2511	"	1215	"	10.0 " "
58 S 4755-4757	6/8/58	(not marked)	"	(Interior)

Tide (III)  
From Predicted TablesReference Station: Boston  
Subordinate Station: Barnstable Harbor, Beach Pt.  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	9.5	11.0
	9.5	11.0

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

Date: June 1964

Final Drafting by (IV): Baltimore Office

Date: 1959

Drafting verified for reproduction by (IV): S.G. Blankenbaker

Date: June 1964

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 20

Shoreline (More than 200 meters to opposite shore) (III): 28 mi.

Shoreline (Less than 200 meters to opposite shore) (III): 35 mi.

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 44

Recovered: 28

Identified: 22

Number of BMs searched for (II): 4

Recovered: 3

Identified: 3

Number of Recoverable Photo Stations established (III): 15

Recovered: 1

Number of Temporary Photo Hydro Stations established (III): 29

Remarks:

Additional horizontal control: 9 Theodolite fixes

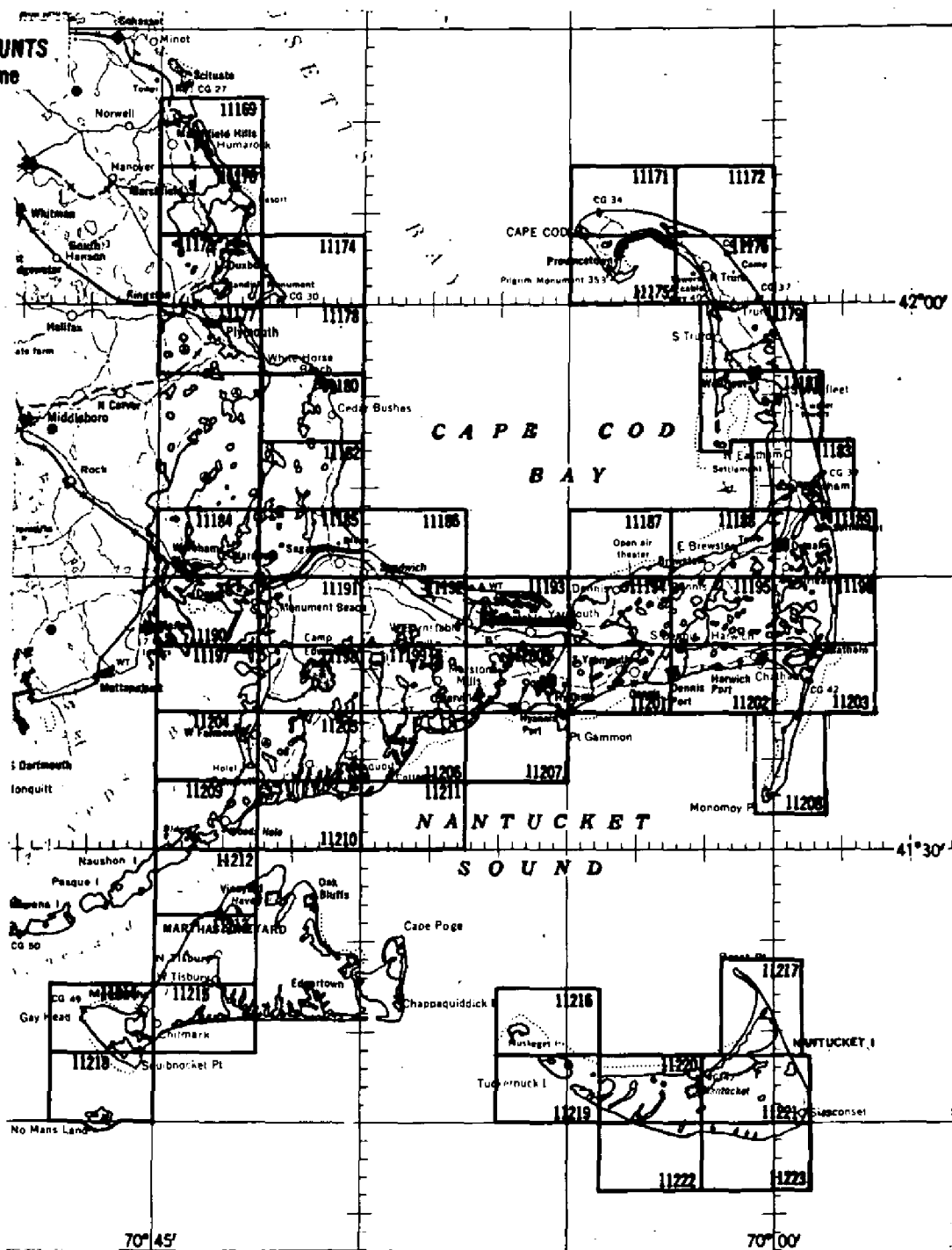


# SHORELINE MAPPING PROJECT PH- 116

## CAPE COD, MASS.

Page 5

MA No.	Lin.	Miles Shoreline
11169	24	
11170	12	
11171	10	
11172	2	
11173	26	
11174	6	
11175	18	
11176	12	
11177	14	
11178	4	
11179	15	
11180	9	
11181	31	
11182	7	
11183	23	
11184	12	
11185	8	
11186	6	
11187	5	
11188	13	
11189	20	
11190	59	
11191	17	
	5	
	32	
	7	
	3	
	14	
	19	
	7	
	9	
	25	
	13	
	13	
	24	
	12	
	9	
	20	
	6	
	14	
	28	
	25	
	3	
	12	
	7	
	22	
	25	
	5	
	22	
	9	
	12	
	24	
	20	
	6	
	7	
TOTAL	812	



Summary to Accompany Descriptive Report

T-11193 and T-11194

T-11193 and T-11194 are two of 40 similar maps comprising project 116. The maps cover (1) Cape Cod Bay shoreline (2) the entire east shore of Cape Cod, including Monomoy Point and (3) the islands of Martha's Vineyard and Nantucket.

Project maps were compiled in the Washington and Baltimore Offices.

Two maps (T-11193A and T-11193) were registered for survey T-11193.

Refer to the final review report

## FIELD INSPECTION REPORT

T-11193

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2. AREAL FIELD INSPECTION

Barnstable Harbor is in the approximate center of the sheet. It is enclosed on the north by Sandy Neck, a long arm of dunes partially covered by brush and stunted softwood, and backed by marsh on the south side. The western end of Barnstable Harbor is bounded by extensive marshes, cut up by meandering tidal streams. Numerous boulders and rock outcropping indicate that the interior is of glacial origin but the present character of the land is that of the dunes which have built up since glacial times.

The land which has not been cleared is covered with a dense growth of mixed hardwood and softwood with considerable brush near the marshes and the shore.

The sheet is crossed east and west by the New York, New Haven and Hartford Railroad and U. S. Highways Nos. 6 and 6A with most of the population near the highways.

Field inspection is believed to be complete. Photography was satisfactory. Field work was done on the following photographs: DPL-4K 8 through DPL-4K 10; DPL-4K 15 through DPL-4K 17; DPL-4K 31 through DPL-4K 34. Field work was also done on 9x9 inch contact prints of low water photography.

3. HORIZONTAL CONTROL

Nine horizontal control stations were established by theodolite three point fixes to control Kelsh plotter models and have been designated Fix No. 1 through Fix No. 9. Topographic stations were established at seven of the fixes.

The following Massachusetts Geodetic Survey traverse stations were recovered and identified: 92P and 92Q. The following Massachusetts Geodetic Survey stations were recovered but not identified: 92L, 92N. The order of accuracy of these stations is not known.

The following stations have been reported as lost on Form 526: SANECK 1934; BARNSTABLE, CAPE COD CRANBERRY CO, FISH FREEZING STACK 1934; BARN CUPOLA 1848; WEST BARNSTABLE BRICKWORKS STACK 1934; BARNSTABLE-YARMOUTH 4(BARNSTABLE COR 9) 1887; and the following Massachusetts Geodetic Survey traverse stations: 92J, 92K, 92M, and 92R.

4. VERTICAL CONTROL

Three tidal bench marks have been recovered and identified. One tidal bench mark has been reported as lost on Form 685.

Spot elevations were established at points specified by the Washington Office by hand level methods and have been indicated on the low water photography. These elevations are referred to the water level at the time and date given.

FIELD INSPECTION REPORTT-11194

- 7 -

2. AREAL FIELD INSPECTION

Numerous boulders and rock outcropping indicate that the area is of glacial origin, but the present character of the land is that of the dunes which have built up since glacial times. There is practically no natural drainage except for tidal drainage, although there are numerous ponds and marshes in the low areas. Most of the fresh water marshes are now under cultivation of cranberries. There are rather extensive salt marshes extending inland from Cape Cod Bay.

The higher dunes in the interior are covered by a dense growth of mixed hardwood and softwood. The trees near the shore are mostly stunted pine. There are also large brush areas near the shore.

U. S. Highway No. 6 crosses the sheet east and west, with most of the population in villages along the highway. The New York, New Haven and Hartford Railroad crosses the southern edge of the sheet passing through the village of South Dennis. There are a number of minor roads in the interior with very little population along them for <sup>the most part.</sup>

The field inspection is believed to be complete. The photography was satisfactory. Field work was done on photographs DPL-3K-24,\*  
\*DPL-3K-26 through DPL-3K-28, DPL-3K-32 through DPL-3K-35, DPL-4K-106,\*  
DPL-4K-107, DPL-4K-110, DPL-5K-7, DPL-5K-9, and DPL-5K-10.  
OK X X X

3. HORIZONTAL CONTROL32-34-35  
OK

The following Massachusetts Geodetic Survey traverse stations were recovered and identified: 139A, 139D, 139G and 139J. The following Massachusetts Geodetic Survey stations were recovered but not identified: 139B and 139C.

The following stations have been reported as lost on Form 526: BASS HOLE 1934, NOBISCUSSETT FLAGSTAFF 1887, NOBISCUSSETT WATER TOWER 1887, SCARGO 1846, E. SCARGO(BORDEN) 1835, 139F M.G.S.

4. VERTICAL CONTROL

Inapplicable.

5. CONTOURS AND DRAINAGE

Contours inapplicable. All drainage is tidal and is clearly visible on the photographs.



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5. CONTOURS AND DRAINAGE

Contours inapplicable. All drainage is tidal and clearly visible on the photographs.

6. WOODLAND COVER

Inapplicable.

7. SHORELINE AND ALONGSHORE FEATURES

The mean high water line and apparent shoreline have been indicated on the photographs. The mean low water line has been indicated throughout a portion of the sheet. It is incomplete because of the little time available for inspection. In investigating the mean low water line it was found that the line usually follows a tone change on the low water photographs, but that the line may change abruptly from one line of tone change to another. The mean low water line is indicated on the photographs by symbol where it follows a line of tone change and the approximate MLWL in places where it was necessary to sketch the line.

The character of the foreshore has been indicated on the low water photographs in all areas where the mean low water line was investigated.

There is a bluff along Sandy Neck on the Cape Cod Bay shore, but it is not a very good landmark feature because of the prominence of the dunes behind the bluff.

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

There is a submarine telephone cable from the end of Bond Hill Road to Beach Point. The south end of the cable could be identified on the photographs but the entire telephone line at Beach Point is underground to the homes of the subscribers. Residents could give only an approximate location of the north end of the cable.

8. OFFSHORE FEATURES

A few offshore rocks visible on the photographs have been indicated. Their elevations were determined by hand level and are referred to water level at the time and date indicated.

9. LANDMARKS AND AIDS

All landmarks and aids to navigation have been reported on Form 567.

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6. WOODLAND COVER

Project Instructions, Supplement II, states that woodland shall not be field inspected or compiled. Woodland in the alongshore areas was indicated on the field inspection photographs before receipt of the supplemental instructions. These indications should be ignored by the compiler.

7. SHORELINE AND ALONGSHORE FEATURES

The mean high water line is partly visible on the photographs as a faint line, which has been indicated. The mean high water line roughly parallels the bluff behind the beach and should be drawn in that manner where not visible. There were no identifiable points on the beach from which measurements to the mean high water line could be taken. The bluff behind the beach is so steep that measurements from the top of the bluff are impractical.

The mean low water line was not visible on the photographs and no attempt was made to locate it.

There is a prominent bluff behind much of the beach in this sheet. It can be clearly discerned with a stereoscope and is adequately expressed by contours on the U.S.G.S. Dennis Quadrangle. It is recommended that this bluff be charted as a landmark feature.

There are no wharves, piers or similar shoreline structures in Cape Cod Bay. A few such structures have been indicated in Bass Hole, Bass River and some inland lakes.

8. OFFSHORE FEATURES

One large rock is visible on the photographs and has been indicated.

9. LANDMARKS AND AIDS

There are no aids to navigation in the sheet. Five landmarks for charts have been recommended on Form 567.

10. BOUNDARIES, MONUMENTS AND LINES

Inapplicable.

11. OTHER CONTROL

The following topographic station was established: ALSO 1953.



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10. BOUNDARIES, MONUMENTS AND LINES

Inapplicable.

11. OTHER CONTROL

Topographic station CALF 1934 was recovered and identified. JEG 1934 has been reported as lost on Form 524. In addition to landmarks and aids to navigation, the following 1953 topographic stations were established: DADE, SOLO, DUNE, SAND, EARL, ~~GRAY~~, EBON, ACME, SHIP, GERT, KITE, SPIRE, and GABE. GARY

Twenty-nine photo-hydro stations were established and designated OOL through O29. They have been indicated and described on the field inspection photographs.

12. OTHER INTERIOR FEATURES

There is a trail on Sandy Neck which is impassable to standard cars and trucks, but which has considerable traffic in four-wheel drive vehicles and vehicles with large tires. It has been classified Rd 8 and it is believed that it is of sufficient importance to be mapped.

13. GEOGRAPHIC NAMES

No changes noted.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Letter of Transmittal No. Ph-116-1, Supplemental horizontal control and low water photographs, forwarded to Washington Office 24 July 1953.

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

Letter of Transmittal No. Ph-116-4, Data, Map T-11193, forwarded to Washington Office JUL 31 1953

Submitted  
29 July 1953

*B. Frank Lampton, Jr.*

B. Frank Lampton, Jr.  
Cartographic Survey Aid

Approved &amp; Forwarded

JUL 31 1953

*E. H. Kirsch*

E. H. Kirsch  
Chief of Party

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12. OTHER INTERIOR FEATURES

The following bridge data was obtained:

Bass River, Mass. (Cape Cod)	Type	No. of Spans	Horiz. Cl.	Vert. Cl.	Purpose
Miles above mouth 3.75			55.2	10.3 0945 AM	
South Dennis	F	1	58.5*	EDT 7/21/53. 8.25 above HW*	Railroad

\* Bridge Book Measurements

13. GEOGRAPHIC NAMES

No changes noted.

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

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

Letter of Transmittal No. Ph-116-3, Data, Map T-11194, forwarded to Washington Office  
JUL 31 1953

Submitted  
29 July 1953

*B. Frank Lampton, Jr.*

B. Frank Lampton, Jr.  
Cartographic Survey Aid

Approved & Forwarded

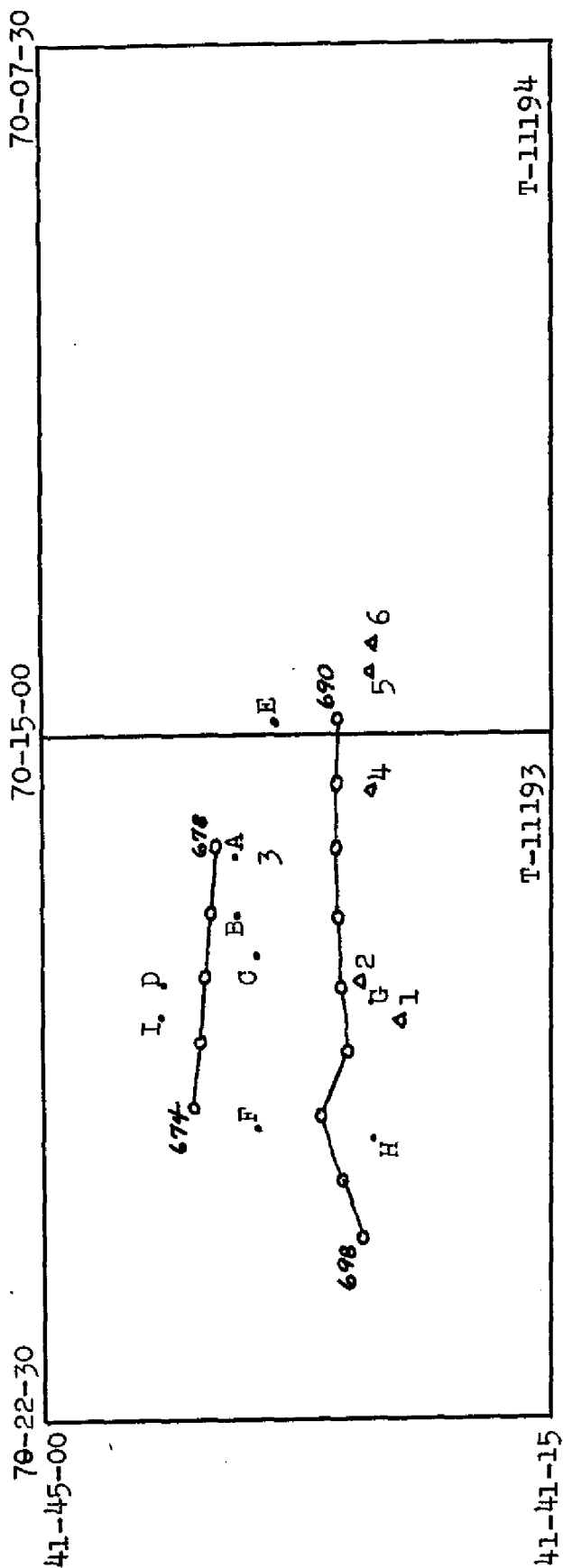
JUL 31 1953

*E. H. Kirsch*

E. H. Kirsch  
Chief of Party



PHOTO & CONTROL SKETCH



F. Fix No. 6  
G. Fix No. 7  
H. Fix No. 8  
✓ I. Fix No. 9

A. Fix No. 1  
B. Fix No. 2  
C. Fix No. 3  
D. Fix No. 4  
E. Fix No. 5,

MAP T.....	11193.....	~ PROJECT NO.....	Ph-116.....	SCALE OF MAP.....	1:10,000.....	SCALE FACTOR.....
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[illegible]

1 FT. = .3048006 METER

COMPUTED BY:...

DATE.

**00000000**

CHECKED BY:...

DATE:

M. 2388 P2

Page

MAP T 11193 PROJECT NO. Ph-116 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\phi$ -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)	
Sub Pt FIX 8	Field Comps	NA 1927	41 42 34.880 70 19 37.392	1076.1 864.5	775.0 522.6				
FIX No. 8	"	"	41 42 35.538 70 19 37.042						
Sub Pt FIX 9	"	"	41 44 03.991 70 18 15.055	123.1 347.9	1728.0 1038.7				
FIX No. 9	"	"	41 44 05.154 70 18 17.107	159.0 395.4	1692.1 994.2				
BEACH POINT LIGHT No. 347	"	"	41 43 28.086 70 16 32.910	866.5 760.7	984.6 626.1				
MERIDIAN, NORTH STONE, 1934	Page 154	"	41 42 30.381 70 17 42.064	937.3 972.5					
Sub Pt, MERIDIAN NORTH STONE, 1934	Office Comps	"	41 42 70 17	949.5 957.6	901.6 429.6				
YARMOUTH NORTH BASE, 1936 dm	Page 109	"	41 41 03.623 70 15 31.439						
HYANNIS STAND- PIPE, 1934 d	151	"	41 41 17.904 70 16 52.326						
92P, 1937 (MGS)			255.363.57 939 323.85						
BARNSTABLE, 1936 dm	Page 109	"	41 41 10.248 70 18 14.863						
BARNSTABLE COURTHOUSE, 1835	190	"	41 42 04.443 70 18 17.82	167.5 412.0	1683.6 975.3				Page 88

1 FT. = 3048006 METER

COMPUTED BY:

DATE

CHECKED BY:

DATE

M. 238122

2

MAP T-11194..... PROJECT NO. Ph-116..... SCALE OF MAP 1:10,000..... SCALE FACTOR.....

[illegible]



SCALE FACTOR

1 FT. = 3048006 METER

COMPUTED BY: E. L. Rolle	DATE 2 Dec. 1957	CHECKED BY: B. Kurs	DATE 3 December 1957
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COMM-DC-57843

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

MAP T-11194 PROJECT NO. Ph-116 SCALE OF MAP 1:10,000 SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\mu$ -COORDINATE LONGITUDE OR $x$ -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)	FORWARD	(BACK)
139G, MGS, 1939	MGS p. 67		273.442.71		3442.71	1557.29			1049.3	474.7		
			965.126.84		126.84	4873.16			38.7	1485.3		
139A, MGS, 1939	"		253.623.10		3623.10	1376.90			1104.3	419.7		
			967.047.04		2047.04	2952.96			623.9	900.1		
139D, MGS, 1939	"		267.426.26		2426.26	2573.74			739.5	784.5		
			966.121.26		1121.26	3878.74			341.8	1182.2		
139J, MGS, 1939	"		275.097.10		097.10	4902.60			29.7	1494.3		
			972.090.99		2090.99	2909.01			637.3	886.7		
GERMAN, 1934	G-3548 p. 127	N.A. 1927	41 41	27.319					842.8	1008.3		
			70 12	35.649					824.4	563.1		
SCARGO TOWER, 1933	G-3548 p. 127	"	41 44	21.733					670.5	1180.6		
			70 10	49.965					1154.6	231.9		
YARMOUTH TANK, 1934	"	"	41 42	00.779					24.0	1827.1		
			70 14	24.368					563.4	823.9		
EAST DENNIS METHODIST CHURCH, 1887	G-3694 p. 169	"	41 44	53.062					1637.1	214.1		
			70 08	51.968					1200.8	185.6		
NORTH DENNIS, WHITE CHURCH, SPIRE, 1846	G-3694 p. 174	"	41 44	13.162					406.1	1445.0		
			70 11	35.493					820.2	566.4		
											138	

1 FT. = 3048006 METER

COMPUTED BY: E. L. Rolle

DATE 2 December 1957

CHECKED BY: B. Kurs

DATE 4 Dec. 1957

COMM-DC-57843

SCALE FACTOR

1 FT. = .3048006 METER	1 FT. = .3048006 METER	COMM. DC-57843
COMPUTED BY: <b>E. L. Rolle</b>	DATE: <b>2 Dec. 1957</b>	DATE: <b>6 Dec. 1957</b>
	CHECKED BY: <b>B. Kurs</b>	

## COMPILATION REPORT

31. Delineation:

After the control had been extended on the Stereoplanigraph, two Kelsh Plotters and the Stereoplanigraph compiled the project area by sections as shown on page 2.

32. Control:

Horizontal and vertical control were adequate. Both were marked on photographs and located by the field party. The Photo & Control Sketch, page 10, shows the relative location of the horizontal control and indicates the few that were not used. The three unused triangulation stations were outside the project, and Fix No.9 did not agree with the other control by about 25ft. All other stations were held. The elevations established were used for model leveling only.

33. Supplemental Data: No graphic control surveys available.34. Contours and Drainage: Not applicable.35. Shoreline and Alongshore Details:

The shoreline was completely field identified and no trouble was encountered in the instrument delineation of it using the field identification as a guide. The delineation of the low-water-line was the principle purpose of this project and with it considerable difficulty was experienced. To begin with it was not possible to completely indicate the LWL on the field photographs without a great deal of time being spent, and only tick indications were made in accessible areas with some areas being left unmarked. The photographs were purposely taken at or very near to low water stage to facilitate this work, but even with this the instrument delineation was difficult. Each model was carefully leveled and the floating mark was used to draw the LWL in conjunction with the tick-indications where they existed. It was possible to read heights to the nearest 1.0ft only, and therefore it was necessary to use color tones to assist the floating mark in the interpretation of the LWL in the unmarked areas. For the most part the instrument operators believe a good job has been done. By special request a 5ft depth contour was delineated in model 694-695, shown in blue and labled on the manuscript, to be checked against hydrographic soundings.

36. Offshore Details:

Shoal lines on the manuscript are office identified and delineated without benefit of field indications. MARASPIN CREEK DAY BEACON, 1953, was instrument located as field identified.

37. Landmarks and Aids: See page 10 and side-heading 36 above.

38. Control for Future Surveys:

All except two hydro signals that were field identified and described were positioned during instrument work, and they are listed on a separate page of this report under sub-heading 49, "Notes for the Hydrographer". Nos. 1 and 9 were not located because they fell outside the project area, and the other 27 are shown on the manuscript in proper symbol. Only two topo stations were positioned by this compilation; GABE, 1953 and SPIRE, 1953. Both have been scaled from the manuscript and recorded on the 524 cards. DADE 1953 fell outside the limits of the work and CALF 1953 was not well enough identified to plot.

39. Junctions: In agreement. No outside junctions involved.40. Horizontal and Vertical Accuracy:

The accuracy of this compilation is believed to meet the requirements established by National Map Standards for maps at a scale of 1:10,000.

46. Comparison with Existing Maps:

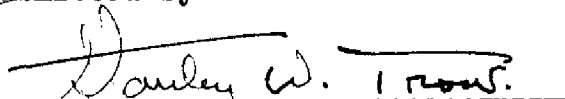
HYANNIS QUADRANGLE, USGS, 1:31,680, edition of 1943.

47. Comparison with Nautical Charts:

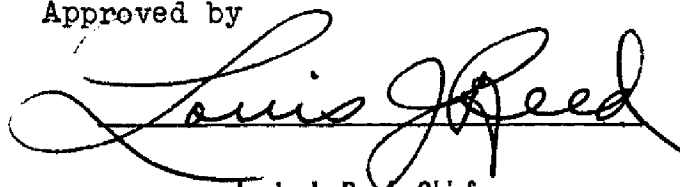
BARNSTABLE HARBOR, No. 339, scale 1:20,000, June 1937, 4th edition, last correction date of 16 Feb 53.

48. Geographic Name List: Not applicable49. Notes for the Hydrographer: See separate unnumbered page.50. Compilation Office Review: Not accomplished.

Submitted by

  
Stanley W. Trow, Chief,  
Single Lens Plotting Section

Approved by

  
Louis J. Reed, Chief  
Stereoscopic Mapping Branch  
Photogrammetric Engineer

GRAPHIC COMPILATION REPORT  
T-11193 and T-11194

31. DELINEATION

Parts of these surveys were compiled at different times by a combination of four different methods. The area of Barnstable Harbor was bridged by stereoplanigraph and compiled partly on Kelsh plotters and partly by stereoplanigraph (see pages 14 and 15). After later photography became available (November 1955 - "W" camera), these surveys were bridged by multiplex, including the area previously bridged. At that time, most of the interior roads were delineated by multiplex to serve as detail to assist in graphic compilation of interior details. The shoreline of Cape Cod Bay and all other interior details were completed by graphic compilation. The interior limits of compilation were generally back to the main road (Gar Highway - U.S. No. 6), paralleling the shoreline of Cape Cod Bay. (see revised project instructions dated 22 November 1957, para. 4)

32. CONTROL

The identification, density and placement of control was adequate.

NORTH DENNIS WHITE CHURCH SPIRE, 1846 was field identified but the photogrammetric position falls 75 meters northeast. There is no building at the published position. A Form 526 was initiated in the office and is being submitted with this report.

33. SUPPLEMENTAL DATA

U. S. Geological Survey quadrangles DENNIS and HYANNIS were used as a source of geographic names.

34. CONTOURS AND DRAINAGE

Contours - not applicable.  
Drainage - no comment.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline inspection was adequate.

There was some revision of the shoreline compiled on the Kelsh plotters due to changes since 1953 which appeared on the later photography.

The low water line in Barnstable Harbor and along Cape Cod Bay to Longitude 70° 19' was delineated by instruments (item 35, page 14). To the west of that point and on survey T-11194, the approximate low-water line was office interpreted on photographs taken at a fairly low stage of tide and was delineated graphically. It was generalized along the outer limits of the apparently bare sand area.



36. OFFSHORE DETAILS

There are many rocks shown in Barnstable Harbor on Chart 339, several of which have names. Most of these could not be located either by stereo instruments or by careful study of the photographs. Only those which could be definitely identified as rocks were delineated.

37. LANDMARKS AND AIDS

Forms 567 have been submitted for 12 landmarks and 2 aids to navigation to be charted. A Form 567 has been submitted by the field inspection party for one landmark to be deleted.

38. CONTROL FOR FUTURE SURVEYS

Forms 524 are being submitted for 13 new recoverable topographic stations on T-11193 and 2 on T-11194. Two Forms 524 used as recovery notes for previously established stations are also being submitted. JEG, 1934 was considered lost. CALF, 1934 was identified by the field party for relocation in 1953. Although the Compilation Report, item 38, page 15, states that this station was not well enough identified, the photo. pt. was readily identified and established graphically with the photographs, and the station was plotted by azimuth and distance from it.

The stations are listed in item 49.

39. JUNCTIONS

Junctions were made and are in agreement between the surveys and:

T-11192 to the west

T-11187 to the north (T-11194)

All water area to the north of T-11193

To the east and south - no contemporary surveys

40. HORIZONTAL AND VERTICAL ACCURACY

No comment.

41 thru 45

Not applicable.

46. COMPARISON WITH EXISTING MAPS

USGS Quadrangles DENNIS, edition of 1943 and HYANNIS, edition of 1942, both scale 1:31,680

47. COMPARISON WITH NAUTICAL CHARTS

Chart 339, scale 1:20,000, 4th edition, 1937, corrected to 1/4/54.

Items to be applied to Nautical Charts immediately: none

Items to be carried forward: None

Respectfully submitted  
20 May 1959

*Frank J. Tarcza*  
Frank J. Tarcza  
Carto. (Photo.)

Approved and forwarded

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

50-

PHOTOGRAMMETRIC OFFICE REVIEW

T-11193 & T-11194

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

4a. Classification label ☒

CONTROL STATIONS

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

ALONGSHORE AREAS

(Nautical Chart Data)

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

PHYSICAL FEATURES

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

CULTURAL FEATURES

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

BOUNDARIES

31. Boundary lines ☒ 32. Public land lines ☒

MISCELLANEOUS

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

40. R. G. Gasser  
Reviewer

Joseph 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.

Complier

Supervisor

43. Remarks:

Review Report  
Shoreline Survey T-11193

62. Comparison with Registered Bureau Surveys

T-6114	1:10,000	1934
T-6122	1:10,000	1934
T-6123	1:10,000	1934

Differences exist between T-6122 and T-11193 in alongshore rock information in Barnstable Harbor. As mentioned in the Baltimore Office compilation report (item 36, page 17) photography was not adequate for a good interpretation of rocks. Rock information should be checked during future hydrography.

Except for the above differences, T-11193 supersedes the prior surveys for charting purposes in the common areas.

63. Comparison with Maps of Other Agencies

USGS Quad, Hyannis, Mass., scale 1:24,000, dated 1939 (revised 1950).

No significant differences between the maps were noted.

64. Comparison with Contemporary Hydrographic Surveys

H-8111	1:10,000	1953
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The incomplete manuscript for T-11193 was used to provide shoreline for H-8111. No changes in T-11193 shoreline were made by the hydrographic survey party. A copy of the incomplete manuscript will be registered as T-11193A.

65. Comparison with Nautical Charts

339, Edition of 4/19/50, revised 3/25/63, scale 1:20,000

Differences exist in alongshore rock information. These discrepancies were not resolved due to the inadequacy of the photography for this purpose (refer to item 62 of this report). No other significant differences were noted.



66. Adequacy of Results and Future Surveys

With the exception of possible rock discrepancies (items 62 and 65) this map meets the National Standards of Map Accuracy and Bureau requirements.

Reviewed by:

S. G. Blankenbaker  
S. G. Blankenbaker

Approved by:

Charles L. Lemen Chief, Photogrammetric Branch  
E. Vaughn 7/24/65 Chief, Photogrammetry Division  
Chief, Nautical Chart Division

(22)

Review Report  
Shoreline Survey T-11194  
June 1964

62. Comparison with Registered Topographic Surveys

T-6114

1:10,000

1934

Differences exist between the surveys in foreshore rock information. The difference can be resolved during future hydrography or through use of color photography. Except for the above differences, T-11194 supersedes the prior survey for charting purposes.

63. Comparison with Maps of Other Agencies

USGS QUAD, DENNIS MASS, Scale - 1:24,000, map date 1940, revised 1961.

No significant differences between the maps were noted.

64. Comparison with Contemporary Hydrography Surveys

Inapplicable

65. Comparison with Nautical Charts

Chart 339, Edition of April 19, 1950, revised March 25, 1963, scale 1:20,000.

Differences in foreshore rock information exists. No other significant differences were noted.

66. Adequacy of Results and Future Surveys

With one exception, the possibility of discrepancies in foreshore rock information, this map meets the National Standards of Map Accuracy and Bureau requirements.

Reviewed by:

*S. G. Blankenbaker*  
S. G. Blankenbaker

Approved by:

Chief, Photogrammetric Branch

Chief, Nautical Chart Division

*J. E. Waugh 7/26/65*  
Chief, Photogrammetry Division

T-11193

48. GEOGRAPHIC NAME LIST

Bass Creek  
Barnstable  
Barnstable County  
Barnstable Harbor  
Barnstable Baptist Church (F.I.)  
Beach Point  
Blish Point  
Boat Cove Creek  
Bone Hill Road  
Braggs Lane  
Brick Yard Creek  
Bridge Creek  
Broad Sound

Cape Cod  
Cape Cod Bay  
Calves Psture Point  
Centre Street  
Church Street  
Cobbs Hill  
Sobbs Village  
Commerce Road  
County Road  
Cunnaquid  
Cunnaquid Golf Club

Duck Island

East Main Street  
Eel Creek  
Eel Grass Cove

Fish Island  
Flax Pond  
Finnish Lutheran Church (F.I.)

Gar Highway  
Great Island  
Great Island Creek  
Great Marshes  
Great Thatch Island  
Green Point

Halletts Mill Pond  
High Island  
Hinckley Pond  
Horseshoe Shoal (Chart 339)  
Huckins Island

Iyarnough Road

T-11193

Jackson Island  
Jules Island

Keveney Lane

Little Thatch Island  
Lone Tree Creek  
Lothrop Hill Cemetery

MASS 149 (hwy)  
Main Street  
Maraspin Creek  
Mill Creek  
Mollys Island  
Moon Shoal (Chart 339)  
Mussel Point

New York New Haven and Hartford (R R )

Oak Street

Parker Street  
Phillis Island  
Phinneys Lane  
Pine Street  
Plum St  
Pond Village

Saltens Point  
Sand Island  
Sandy Neck  
Sandy Street Cemetery  
Short Wharf Creek  
Scorton Creek  
Slough Point  
Spring Creek  
St. Marys Church (F.I.) *OK agw*

The Cove  
Town Island  
Through Creek  
Tupper Island

U. S. 6 (hwy)  
U. S. 6-A (hwy)

Wells Creek  
Wharf Ave.  
White Hill  
Wicks Island  
Willow Street

NOTE: (F.I.) denotes names from  
field inspection photographs.

Yarmouth Port  
Yarmouth Station



48. GEOGRAPHIC NAME LIST

Barnstable Co  
Bass Hole  
Beach St  
Bridge St.

Cape Cod  
Cape Cod Bay  
Centre St.  
Chase Garden Creek

Dennis

East Dennis

Gar Highway

Howes Cemetery

Lone Tree Creek  
Lower Road

Mass 134 (hwy)

New Boston  
New Boston Road  
New Jerusalem Church  
Nobscusset Road

Quivett Creek  
Quivett Neck

Scargo Hill  
Scargo Hill Road  
Scargo Lake  
Sea Street  
Seaside Avenue  
Sesuit Creek  
Sesuit Neck  
Sesuit Road  
South Street

U. S. 6 A (hwy)

Whig St  
Whites Brook  
Winter St

Yarmouth  
Yarmouth Port

*Names checked  
and approved  
5-15-65  
A. J. Wright*

49. Notes for the Hydrographer:Ph-116 Barnstable Harbor

## Photo-Hydro Points

- 001 - stake, point of marsh (not plotted )
- 002 - tip of arm of marsh
- 003 - center small marsh island
- 005 - point of marsh
- 006 - point of marsh
- 007 - radio mast, center NEW gable of house
- 008 - stake, point of marsh
- 009 - " inner tip of inlet
- 010 - " inner tip of inlet
- 011 - " point of marsh
- 012 - N. tip of heavy grass (use with caution)
- 013 - stake, center of marsh island
- 014 - " point of grass inside inlet
- 015 - " point of marsh
- 016 - chimney, taller and northerly of two
- 017 - gable facing N. on cottage
- 018 - flagpole white center N. gable of building
- 019 - NW corner roof, most northerly warehouse
- 020 - N. gable, westerly cottage of 3
- 021 - N. gable, easterly cottage of 3
- 022 - northernmost telephone pole
- 023 - chimney isolated cabin
- 024 - stake, center mouth of small inlet
- 025 - tank, wooden, square, elevated
- 026 - stake, point of sand
- 027 - stake, tip of dark spot
- 028 - stake, tip of sand
- 029 - stake, point of marsh

49. NOTES FOR THE HYDROGRAPHER -(cont'd)

## Recoverable Photo Stations

T-11193

GABE 1953  
SPIRE 1953  
SAND 1953  
EARL 1953  
SHIP 1953

DADE 1953  
SOLO 1953  
GARY 1953  
KITE 1953  
BEACH POINT LT. 1953

GERT 1953  
ACME 1953  
DUNE 1953  
CALF (1934) 1953

T-11194

ALSO 1953  
EBON 1953

On T-11193 west of  $70^{\circ} 19'$ , a generalized low water line was delineated along the outer limits of the apparently bare sand areas from the 1952 photographs. For the low-water area east of  $70^{\circ} 19'$  on T-11193, see the stereo-compilation report - item 35.

On T-11194 an approximate low-water line was delineated along the outer limits of apparently bare sand areas from the 1953 "J" photographs.

The rocks in Barnstable Harbor, shown on T-11193, should be verified during field edit (Hydro support); or, verified through use of color photography

S.B.R. June 1964



TO BE CHARTED  
10/15/1974

**Baltimore, Maryland**

28 January 1958

## NONLOADING/AIDS/OR LANDMARKS FOR CHARTS

The positions given have been checked after listing by

William F. Deane

Chief of Party.

28

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.



## NONFLOATING AIDS OR LANDMARKS FOR CHARTS

Baltimore, Maryland 28 Jan. 1958

The positions given have been checked after listing by R. Glaser

**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.

**STRIKE OUT ONE**

Baltimore, Maryland  
28 January, 1958

# NONFLOATING/AIDS/OR/LANDMARKS FOR CHARTS

I recommend that the following objects which have ~~(1444/1444)~~ been inspected from seaward to determine their value as landmarks be charted on ~~(1444/1444)~~ the charts indicated.

The positions given have been checked after listing by R. Glaser

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

30

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.

**STRIKE OUT ONE**

### **NON-FLOATING AIDS/OR LANDMARKS FOR CHARTS**

Plymouth, Mass.

23 October, 1953

I recommend that the following objects which have ~~floats/pops~~ been inspected from seaward to determine their value as landmarks be ~~skipped/ot~~ (deleted from) the charts indicated.

The positions given have been checked after listing by

/s/ Lorin F. 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**

