Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic ~~Hydrographic~~ *Sheet No.* 6112

State Massachusetts

LOCALITY

Cape Cod

Brewster to Wellfleet Harbor

193 4

CHIEF OF PARTY

E.A. Daily

U.S. GOVERNMENT PRINTING OFFICE: 1934

Form 537a
Ed. Nov. 1929

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO. 5112

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. C

REGISTER NO. 5112

State Massachusetts

General locality Cape Cod

Locality So. Brewster to Wellfleet Harbor

Scale 1:20,000 Date of survey May, June, 19 34

Vessel Project H.T. 145

Chief of party Earle A. Deily, Lieut., U.S.C.& G.Survey.

Surveyed by Edwin A. Fowler, Observer

Inked by Earle A. Deily

Heights in feet above none to ground to tops of trees

Contour, Approximate contour, Form line interval none feet

Instructions dated Apr. 29, 1933, Orders May 2, 1934, 19

Remarks: Sheet begun season 1933, completed season 1934

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET C

Cape Cod , Massachusetts.

Project H. T. 145

1934

Earle A. Deily

Lieutenant, U.S.C.& G.Survey,

Chief of Party.

DESCRIPTIVE REPORT

TO ACCOMPANY TOPOGRAPHIC SHEET C

Cape Cod , Massachusetts.

Project H.T. 145

1934

a- Authority :

The Authority for the topographic work embraced by this sheet is included in the "Orders and Instructions" to the Inspector, U.S.Coast and Geodetic Survey, Boston, Massachusetts, and "Orders" to Lieutenant Earle A. Deily, dated May 2, 1934.

b- General Description of the Coast:

The land area from the northern end of the sheet to North Eastham is a low plateau and therefore the shoreline southward to triangulation station Herring 1933 is backed by what appears to be a low ridge of grass covered sand dunes. The interior terrain is wooded.

A great swamp area, cut up by necks of land lies between triangulation station Herring 1933 and Longitude 70 02. The marsh is salt and covered with high marsh grass and intersected by numerous winding channels which go dry except in the main portions at low water. These streams have no outlet at low water, the channels disappearing into the sand flats which extend for some distance out into the bay. The grassy delineated areas are only partly covered at the outer edge at high water.

There is a small basin and dock in Rock Creek and this is the harbor for the fishermen of Orleans. Entrance is only possible for small boats in fairly calm weather and near high tide when there is sufficient water to cross the sand flats. The basin has room only for a few boats and is practically dry at low water.

Westward from Namskaket Creek the shore rises and has the appearance of a low bluff. Numerous scattered boulders, covered at high water, are visible on the flats at low water, and fringe this portion of the shore.

c- Landmarks:

There are only two landmarks of navigational use on the sheet and are only visible for a distance of about 2 miles off-shore.

Tower - Topographic station "GRAY" - The gray watch tower on the top of the main house of the Crosby Estate in East Brewster. Latitude 41 46 1505 m.
Longitude 70 02 153 m.

Tower - Triangulation Station Fieldstone 1938 - The round tower, spire tipped, on the garage at Fieldstone Hall, East Brewster. Latitude 41 46 710.0m.
Longitude 70 03 188.9 m.

d- Character of Control Used:

The topography on this sheet is controlled entirely by the coordinating triangulation done in 1933 and such old stations as could be recovered.

The Cupola, Eastham Town Hall was relocated by sextant angles on triangulation stations and plotted on the sheet. This is the same object as was located in 1933, 4th order, no check on position. The 1933 position was found to be in error and should be deleted from the records.

e- Closing Errors of Traverses:

No long traverses were run.

The traverse from Eastham to Orleans along the road failed to close within the required limits and was rerun.

f- Surveying Methods:

The usual topographic plane table methods were used.

No attempt was made to extend the topography eastward and southward beyond the road and railroad. Such interior topography as was run was for photographic control.

No attempt was made to locate the low water line except in the creeks and at their mouths as the low water line is a great distance off shore at this point.

g- Changes in Shore Line and Prominent Features:

In general few great changes have occurred in this area since the 1868 survey.

The shoreline southward to Herring River has apparently moved approximately 20 meters eastward.

Slight changes in the courses and mouths of Herring River, Boat Meadow River, Rock Creek and Namskaket Creek are evident.

The neck west of Namskaket Creek is apparently building up and the shoreline is now about 20 meters northward at Longitude 70 02 from the position as shown on the 1868 sheet (No.1078) This building up continues westward to Longitude 70 04 where there is an agreement with the previous survey.

Slight changes in the position of the high water line at the point , Longitude 70 04.3 , is also noted.

Highway intersections and the railroad agree closely in position with the old survey.

Highway changes are noted in the area just north of Orleans.

h- Junctions:

The junction to the northward was made in 1933 when this sheet was begun.

Satisfactory junction was made with sheet D at Longitude 70 -05. Some topography in this immediate vicinity does no show on sheet C but was run on sheet D.

i- Magnetic Meridian:

The magnetic declination was determined with the declinatoire at triangulation station Alden 1933 at 9:40 am. on May 26,1934 and found to be : 15° 46' W.

j- Inking:

The inking of the sheet was done by the Chief of Party.

The outside edge of the heavy line delineating the high water is the position of High Water.

As there is some ambiguity and chance for variation of opinion as to the position of the high water line in the marshes the inner edge, or line of high or firm ground , was considered as the high water line and located and inked as such. In general some portion of the tips of the marsh grass extends above the water which coveres the marsh at high water.

The edges of the channels are shown as a light solid line.

There is a great sand flat in Cape Cod Bay and there is a definite line where the marsh ends and the sand flat begins. This line is shown and was rodded in. The area off shore to the low water line as located by hydrography should be shown with the sand symbol.

k- Topographer:

The field work was done by Mr. Edwin A. Fowler, Observer under careful supervision of the Chief of Party. This topographer had previous plane-table experience but needed considerable instruction in Coast Survey methods, accuracy, and what to delineate.

This sheet is the first done by this topographer and the work in general is good. Some sections, however, had to be rerun to give the required accuracy.

L- Plane Table Positions:

	Latitude	Longitude
Cupola, Eastham Town Hall	41 49 1509 m.	69 58 615 m.
Skaket, 1934 Std. Hydro. disc in concrete post.	41 47 1264 m.	70 01 32 m.
Gray 1934 Gray tower, Crosby Estate.	41 46 1505 m.	70 02 153 m.

Description cards for these stations have been furnished.

m- Statistics

Miles of shore line	20.5
Miles of Creeks	8.8
Miles of Roads	22.2
Miles of Railroads	7.0
Area in sq.stat. mi.	9

Earle A. Deily

Earle A. Deily

Lieut., U.S.C.& G. Survey,

Chief of Party.

Character of March line.

While the outer edge of the marsh as shown on this sheet is a definite line at about half tide the line of demarcation between marsh and water at high tide is in most cases considerably further inshore and not well defined.

Carlo A. Folly

Lieut., U.S.C. & G. Survey

Chief of Party

To: Mr. Bacon
From L. S. S.

Date. Nov. 15, 1934

GEOGRAPHIC NAMES

MASSACHUSSETTS

Survey No. T 6112

Chart No. 1208 - T 340

Diagram No. 1208-2

Names underlined in red approved Dec 4, 1934
H Bacon

*, Approved by the Division of Geographic Names, Department of Interior.

¢, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Names compared with U.S. Geological Survey and with Chart 1208

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	Brewster	Same	------	------	
	Orleans	"	------	-------	
	Herring Pond	"			
	Herring River	"			
	Boat Meadow River	"			
	Rock Creek	"			
	Cedar Pond (U.S.G.S.)	Taken from U.S. Quadrangle			41° 47.7 69° 59.5
	Town Cove	Town Cove			
	Namskaket Creek	Namskaket Cr.			
	Cape Cod Bay				

(M 100)

Section of Field Records.

REVIEW OF TOPOGRAPHIC SURVEY NO. 6112 (1934)

Brewster to Wellfleet Harbor, Cape Cod, Massachusetts.
Surveyed May-June, 1934
Instructions dated: April 29, 1933, Inspector of Boston Field Station.
May 2, 1934 Orders, E. A. Deily.

Plane Table Survey - Aluminum Mounted.

Chief of Party - E. A. Deily.
Surveyed by - E. A. Fowler.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual with the following exceptions:

a. Landmarks for Charts, although listed in the Descriptive Report, were not furnished on Form 567.

b. The Latitude and Longitude of the Geographic position of the reference station was shown in red. This was changed to black to conform to the practice of showing such notations in the same color as the projection lines.

c. Some of the triangulation stations were not labelled with the year of location. They were added in the office.

d. Cupola, Eastham Town Hall was changed from red to blue to indicate that its' position was obtained by sextant angles (see D.R. page 2)

e. The firm land at the inner edge of marsh is inked in a full heavy line whereas the manual (Par. 43) requires it to be shown in a line distinctly lighter than the M.H.W. line. A note explaining this has been added to the sheet.

2. Compliance with Instructions for the Project.

The survey complies with the instructions.

3. Junction with Contemporary Surveys.

The junction with T-6034 (1933) on the north and T-6113 (1934) on the west are satisfactory.

4. Comparison with Prior Surveys.

a. T-260 bis 1848).

Only a small portion of this survey is included in the area of the present survey. The agreement is fair where it is possible to identify features.

b. T-368 (1851).

There is no discrepancy between this survey and the present survey which is considered material except that the shapes of the creeks were found to be at variance. The Descriptive Report mentions that slight changes in courses of creeks were found and it is assumed that they were thoroughly investigated and verified during the survey.

c. T-1078 (1868)

There is a good agreement between this survey and the present survey.

d. T-260b (1909), T-1078a (1909).

These are revision surveys of areas covered in the original work. The revisions are confined almost entirely to roads and other inshore features.

5. Field Drafting.

The field inking of the survey is satisfactory.

6. Additional Field Work Recommended.

The survey is complete and no additional work is necessary.

7. Note to Compiler.

Attention is called to the statement in the Descriptive Report, page 5, regarding the character of the outer edge of the marsh line.

8. Superseding Prior Surveys.

Insofar as the area actually covered in the present survey is concerned, it supersedes the following surveys for charting purposes:

T-260	(1848)	in part.
T-368	(1851)	in part.
T-1078	(1868)	in part.
T-260b	(1909)	in part.
T-1078a	(1909)	in part.

9. Reviewed by - A. F. Jankowski, January 1934.

Inspected by - A. L. Shalowitz,

Examined and approved:

C. K. Green, C. K. Green
Chief, Section of Field Records.

L. O. Colbert
Chief, Division of Charts.

K. B. Borden
Chief, Section of Field Work.

G. R. Putnam
Chief, Division of H. & T.

T-6112 (1934)

△ SILO - NAUSET MOORS (1933).

Incorrect position on smooth sheet caused by "flopping over" triangle in field computations.

This station was not used as a signal on contemporary hydrographic work.

Harold W. Murray
Aug 11, 1939