

8012

Diag'd. on Diag. Ch. No. 1203

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Photogrammetric Shoreline

Field No. CS-272 Office No. T-8012

LOCALITY

State Maine

General locality Penobscot Bay

Locality Lincolntown

1941-'46

CHIEF OF PARTY

R.A. Gilmore

LIBRARY & ARCHIVES

DATE August 29, 1949

B-1870-1 (11)

8012

DATA RECORD

T - 8012

Project No. (II): CS-272

Quadrangle Name (IV):

Field Office (II): Calais, Maine

Chief of Party: Ross A. Gilmore

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: Thos. B. Reed

Instructions dated (II) (III): 1 April 1942 (additional 10 July 1943 for horizontal control) 18 March, 11 April & 17 July, 1944 Supplemental Instructions, 10 August 1944 (additional) 26 August 1944 (amendments) 18 September 1946 (additional)

Copy filed in Division of Photogrammetry (IV)

(Office File)

Method of Compilation (III): Graphic

Manuscript Scale (III): 9,740

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.02669

Date received in Washington Office (IV): 4-25-49 Date reported to Nautical Chart Branch (IV): 4-29-49

Applied to Chart No.

Date:

Date registered (IV):

7/22/49

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A.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): PATTERSON 2, 1911

Lat.: 44° 22' 18.05" (557.2m)

Long.: 69° 03' 18.40" (407.4m)

Adjusted
~~unadjusted~~

Plane Coordinates (IV):

State:

Zone:

Y=

X=

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

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

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

Camera (kind or source) (III): U.S.Coast & Geodetic Survey nine lens - 8 $\frac{1}{4}$ " focal length

Number	Date	PHOTOGRAPHS (III)		Scale	Stage of Tide
		Time			
07189 - 7191	10-21-41	0950		1:9,740	11.0' above MLW
7200-7202	10-21-41	1010		1:9,740	11.8' above MLW

Tide (III)

Reference Station: Portland, Me.
Subordinate Station: Camden, Me.
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
1.1'	9.6	10.9

Washington Office Review by (IV): *B. Thomas Hyson*

Date: 5/16/49

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 1

Shoreline (More than 200 meters to opposite shore) (III): 4.6 statute miles

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

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II):

Recovered: 3

Identified: 3

Number of BMs searched for (II):

Recovered:

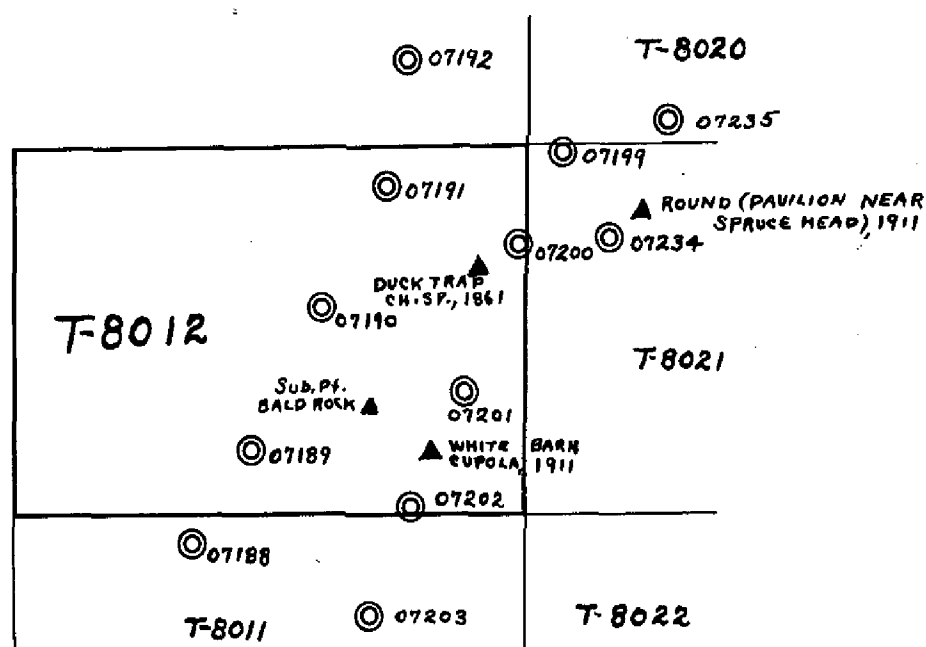
Identified:

Number of Recoverable Photo Stations established (III): 2

Number of Temporary Photo Hydro Stations established (III): 87

Remarks:

LAYOUT SKETCH
PROJECT CS-272 C
SURVEY T-8012



○ OFFICE PHOTOGRAPHS

○ FIELD PHOTOGRAPHS

▲ TRIANGULATION STATIONS (IDENTIFIED and HELD IN RADIAL PLOT)

Fig. 1.

FIELD REPORT

SURVEY NO. T-8012

GENERAL

The 1946 field inspection is for completion of field work in Project CS-272, Penobscot Bay, which was left uncompleted during the field seasons of 1944 and 1945. This survey includes identification of horizontal control, selection and identification of recoverable photo stations, photo hydro stations, shoreline, inspection, landmarks, and coast pilot inspection. This field work was accomplished during October 1946.

DESCRIPTION OF THE AREA

This survey includes the west shore of Penobscot Bay between lat. $44^{\circ} 15'$ and lat. $44^{\circ} 18'$. The interior is mostly wooded with one large pond which empties into Duck Trap River. Vegetation in the area is mainly pine, spruce, fir, birch, maple, and alder. Very little farming is done which reflects in the amount of area under cultivation.

The shoreline, in general, is rocky with many ledges and occasional sand and gravel beaches.

U.S. Highway No. 1 running parallel to the shore, is the main road of travel. The only settlement of importance in the area is Lincolnville.

The terrain rises from sea level to a maximum elevation of 1100 on Bald Rock.

For additional information refer to Season's Report, 1946, Project CS-272-D submitted by R. A. Gilmore. *Filed in Division Div. of Photogrammetry General Files.*

RADIAL PLOT REPORT

PROJECT CS-272-C
SURVEY T-8012

GENERAL DESCRIPTION

This radial plot is for an individual survey, T-8012, one of a series of planimetric surveys in Project CS-272-C, located along the west side of Penobscot Bay on the coast of Maine.

PHOTOGRAPHS

The photographs used in this radial plot are nine-lens photographs, scale approximately 1:~~10,000~~^{9,740}, taken with the U.S.C. & G.S. nine-lens camera, focal length $8\frac{1}{4}$ inches. Twelve (12) photographs were used, numbered as follows:

07188 to 07192, inclusive
07199 to 07203, inclusive
07234 and 07235

Photographs 07188, 07189, 07202 and 07203 are metal mounted photographs, previously used in the radial plot for Survey T-8011 which was completed in January 1944. Except for additional pass points added for use in this plot, the symbols for control as pass points on these photographs are those in use in 1944 and not generally in accordance with Photogrammetry Instructions No. 12, dated 17 March 1947. The remainder of the photographs are unmounted and, being recent prints, symbols on these photographs are in accordance with Instructions No. 12.

CONTROL

Four horizontal control stations were recovered and identified by the field inspection party in the area of this radial plot, one of them being identified by use of a substitute point and three pricked direct.

A sketch showing distribution of control and photographs in the area of this radial plot is attached to this report.

PROJECTIONS

The map manuscript furnished the compilation office for this survey was ruled with polyconic projection and Maine East state grid, on acetate, at a scale of 1:9740. A vinylite base sheet, with polyconic projection only, was also furnished, but was not used for this radial plot.

All control stations were plotted and checked on the map manuscript using beam compass and meter bar. The substitute point was plotted graphically.

TEMPLETS

No templets were necessary since this radial plot was made by placing photographs under the manuscript and plotting the pass points directly thereon.

RADIAL PLOT

The area of this survey, T-8012, is the last of a series of surveys in Project CS-272-C. It was originally intended to combine this with surveys to the east and northeast in Project 272-D but due to sheet distortions it was necessary to lay the plots separately. There are no surveys on the west and north sides of Survey T-8012. Survey T-8021 on the east falls in Penobscot Bay, which is too wide for photographs to bridge across in one continuous radial plot. Pass points and photograph centers from Survey T-8020, the plot for which was recently completed, were transferred to the northeast corner of this survey by matching common projection lines. Survey T-8011 on the south was completed in 1944 at a scale of 1:9700. An ozalid copy of that completed survey was available but there was distortion in it and could not be used in a projector for reducing to scale of 1:9740. An old base sheet with 5000 foot grid was found and attached to the map manuscript for T-8012, which was at the same scale. Pass points and photograph centers near the junction line were scaled from T-8011 and plotted on the base sheet using a scale factor. Since the ozalid copy of T-8011 was distorted, scale being larger in the east-west than north-south direction, two scale factors were necessary. After all pass points and photograph centers were replotted on the base sheet the radial plot was completed directly on the map manuscript with attached base sheet by placing photographs under the manuscript and orienting photographs under centers transferred from adjoining surveys first. Radial lines were drawn through all pass point and intersections established were used to orient remaining photographs. No difficulty was encountered completing the plot or holding transferred points.


In the small land area in the northwest corner of Survey T-8021, all pass points and photograph centers were established in radial plot for Survey T-8020 and verified by this radial plot. Since most control and photographs used to establish these points are outside of Survey T-8021 and other photographs across Penobscot Bay do not reach, it would not be possible to complete this area on Survey T-8021. These pass points and photograph centers were then transferred directly to the map manuscript T-8021 by matching common projection lines.

REMARKS

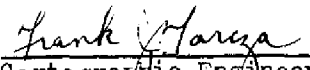
All horizontal control stations were held in the radial plot. Since only three control stations were identified on Survey T-8012, it would be difficult to detect any except major errors in control. The number and distribution of photographs and control is sufficient for a satisfactory radial plot for a shoreline survey. However, coverage is not complete for interior if this is to be compiled later, and at least one control station in the west half of the survey would be necessary to ensure required accuracy in interior areas west of the flight line.

Approved and forwarded

17 January 1949


Officer in Charge
Baltimore Photogrammetric Office

Respectfully submitted


Cartographic Engineer

COMPILATION REPORT

MAP MANUSCRIPT,

SURVEY NO. T-8012

26. CONTROL

Three control stations were recovered and identified in the area of this survey. See radial plot report for this survey, for layout of control, submitted to Washington Office 17 January 1949. A list of stations on Form No. M-2388-12 is attached to this report.

27. RADIAL PLOT

Refer to the radial plot report for Survey T-8012 submitted to Washington Office 17 January 1949.

28. DELINEATION

According to Instructions for Project CS-272, letter No. 28-RCC 1990, dated April 20, 1943, a complete field inspection for the area of Survey T-8012 with the exception of geographic names was to be made. Field inspection of this area was not completed at the close of the field seasons 1944 and 1945.

Instructions dated 18 September 1946 for completion of field inspection left uncompleted in 1944 were furnished the field party. Those instructions did not include the area of Survey T-8012, but field inspection for this survey was accomplished. This inspection in accordance with the aforementioned instructions included sufficient data to enable the compilation of a shoreline survey.

This survey according to instructions and letter No. 836-RCR, dated 3 April 1945, a copy of which is attached to this report, is to be compiled as a planimetric map. Since interior field inspection has not been accomplished, Survey No. T-8012 is being submitted as a shoreline survey.

The compilation is in accordance with Photogrammetry Instructions No. 17 dated 15 September 1947.

30. MEAN HIGH WATER LINE

Delineated in accordance with field identification.

31. MEAN LOW WATER LINE

Stage of tide of photographs was too high to accurately delineate MLWL.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE

A fish trap in Duck Trap Harbor, identified by the field party, has been shown on the manuscript.

33. WHARVES AND SHORELINE STRUCTURES

Delineated in accordance with field identification.

34. LANDMARKS AND AIDS TO NAVIGATION

One previously charted landmark, triangulation station DUCK TRAP CHURCH SPIRE, 1861, was found to be correct as charted. Form 567, for this landmark, was submitted by the field party. *Filed in Div. of Charts*

35. HYDROGRAPHIC CONTROL

Nine photo hydro stations selected and identified by the field party were located on the map manuscript. A list of descriptions is attached to this report. Two copies of this list are furnished for the hydrographic party.

See review report 524 cards on file in Div. of Photogr. General files for the two stations noted in the Review Report Table, 1946 Cupola, 1946

36. LANDING FIELD AND AERONAUTICAL AIDS

None

37. GEOGRAPHIC NAMES

814 ✓

Geographic names shown on the manuscript were taken from U. S. Coast and Geodetic Survey chart No. 310 and U. S. Geological Survey Belfast, Maine, quadrangle. A list of names is attached to this report. *Approved by Geog. Names Section, Div. of Charts*

38. JUNCTIONS

Junction with Survey T-8013 to the north and with Survey T-8021 to the east will be made when those surveys are compiled. Junction of shoreline details with Survey T-8011 to the south is in good agreement. There is no contemporary survey to the west.

39. BRIDGES

The vertical clearance only was furnished by the field party for the highway bridge over Duck Trap River.

44. COMPARISON WITH EXISTING TOPOGRAPHIC SURVEYS

This manuscript was compared with U. S. Geological Survey quadrangle, Belfast, Me., scale 1:62,500 edition of 1917 reprinted 1938. Only a visual comparison was made and except for man made changes the common area of the two surveys appear to be, in general, in good agreement.

45. COMPARISON WITH NAUTICAL CHARTS

This manuscript was compared with nautical chart No. 310, scale 1:40,000, by use of the vertical projector. The manuscript is in generally good agreement except in the area just south of the Lincolnville-Islesboro Ferry Landing where the shoreline has eroded a maximum of 4.0 mm and for ~~made~~ ^{man?} made changes.

The following topographic information shown on Survey T-8012 is of sufficient importance to warrant immediate application to the chart:

None.

The following topographic details above the plane of mean high water are not shown on this manuscript but are believed to still exist and should be carried forward on the chart:

None.

Minor changes in cultural and shoreline details require no special discussion.

Respectfully submitted
21 April 1949

Morris K. Spencer
Morris K. Spencer
Engineering Draftsman

Joseph Steinberg
Photogrammetric Office Reviewer

Approved and forwarded
26 April 1949

Harry R. Rudolph
Supervisor

Thos B. Baird
Officer in Charge
Baltimore Photogrammetric Office

GEOGRAPHIC NAMES

- + DUCK TRAP = one word ✓
- + DUCK TRAP HARBOR } Pending with USBTN ✓
- * + DUCK TRAP RIVER } ✓
- + FROHOCK PT. ✓
- + LINCOLNVILLE ✓
- + WEST PENOBSCOT BAY ✓

* Shown as DUCKTRAP RIVER on U.S.G.S. Belfast, Me., quadrangle.

• U.S. No. 1. ✓

+ Lincolnville - Islesboro
Ferry landing ✓

Names preceded by • are
approved. 5-13-49
L Heck

T-8012

LIST OF PHOTO HYDRO STATIONS

No.	Description	Field Photo. No.
✓ 21149	Stone outside chimney in middle of long white house with gable on each end.	7200
✓ 21150	Cupola on green barn southeast of church closest to shore.	7200
✓ 21151	Easternmost end of abandoned pier.	"
✓ 21152	North gable of pulley housing on ferry boat house on ferry pier at Lincolaville.	"
✓ 21153	Large white granite boulder on beach at storm high water line.	7201
✓ 21154	Cupola on north end of dairy barn. A silo is on other end.	7202
✓ 21155	East gable of white two story house with porch on all sides.	7202
21156	Brick chimney on white one and a half story house with long dormer to sea.	"
4516	South gable of shack near shore. It is unpainted. Two windows on east side.	"

T. 2012

LIST OF PHOTO HYDRO STATIONS

No.	Description	Field Photo. No.
✓ 21149	Stone outside chimney in middle of long white house with gable on each end.	7200
✓ 21150	Cupola on green barn southeast of church closest to shore.	7200
✓ 21151	Easternmost end of abandoned pier.	"
✓ 21152	North gable of pulley housing on ferry boat house on ferry pier at Lincolnville.	"
✓ 21153	Large white granite boulder on beach at storm high water line.	7201
✓ 21154	Cupola on north end of dairy barn. A silo is on other end.	7202
✓ 21155	East gable of white two story house with porch on all sides.	7202
21156	Brick chimney on white one and a half story house with long dormer to sea.	"
4516	South gable of shack near shore. It is unpainted. Two windows on east side.	"

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Division of Photogrammetry
Review Report of
Shoreline Map T-8012

28 Detailing

The original compilation was adequate except for additions and corrections to the marginal data.

35 Hydrographic Control

The numbers of two photo-hydro stations have been deleted from the manuscript and the descriptions of these stations have been deleted from the descriptive report. These stations were identical with the two recoverable photo-stations shown on the map manuscript.

*see p. 7, item # 35
of Compilation Report.*

38 Junctions

No junction was made with T-8021 since it was not available at the time of review.

44 Comparison with Existing Topographic Quadrangles

Quadrangles			
USGS	Belfast	1:62,500	1917-1947
USE	Belfast	1:62,500	1941

Topographic Surveys		
T-1233	1:10,000	1871

45 Comparison with Nautical Charts

310	1:40,000	1937-1947
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Reviewed by:

B. Thomas Hynson

B. Thomas Hynson 5-16-49

Approved by:

A. V. Griffith

Chief, Review Section *K.H.M.*

A. R. Bowman

Chief, Nautical Chart Branch
Division of Charts

K.T. Adams

Chief, Division of Photogrammetry

Wm. Scaife

Chief, Div. of Coastal Surveys *KSC*

NAUTICAL CHARTS BRANCH

SURVEY NO. T-8012

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.