

5961

Top.  
Diag'd. on Dia. Ch. No. 1204-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey **Air Photographic**  
**Shoreline**

Field No. Office No. **T-5961**

LOCALITY

State **Maine**

General locality **Casco Bay**

Locality **Yarmouth and Vicinity**

Date of Photos - October 1941

1941

CHIEF OF PARTY

**L. W. Swanson**

LIBRARY & ARCHIVES

DATE

**April 2 - 1946**

B-1870-1 (1)

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field No. T-5961

REGISTER NO.

State MAINE

General Locality Casco Bay

Locality Birch Point to Cousins River

Photos.

Scale 1:10,000 Date of ~~Survey~~ October 17, 19 42

Vessel Air Photographic Survey party No.2

Chief of party L.W. Swanson

E.B. Lewey 1942, Field Inspection

Surveyed by Henry M. Eldridge, Radial Plot

Inked by Henry M. Eldridge

Heights in feet above ----- to ground to tops of trees

Contour, Approximate contour, Form line interval ---feet

Instructions dated Project No.272 Dated, Jan. 12, 19 42

Remarks: -----



# DATA RECORD T-5961

## PHOTOGRAPHS

| NUMBERS   | DATE     | SCALE    | ALTITUDE | STAGE OF TIDE     |
|-----------|----------|----------|----------|-------------------|
| 6645-6648 | 10/17/41 | 1:10,000 | Unknown  | 6.9' Above M.L.W. |
| 6653-6655 | 10/17/41 | 1:10,000 | Unknown  | 6.6' Above M.L.W. |
| 6677-6678 | 10/17/41 | 1:10,000 | Unknown  | 5.9' Above M.L.W. |
| 6691      | 10/17/41 | 1:10,000 | Unknown  | 5.2' Above M.L.W. |

Tide from prediction tables for Casco Bay, Portland, Maine; mean range 8.9 ft.

Camera: U. S. Coast and Geodetic Survey nine-lens camera.

Focal length of  $8\frac{1}{4}$  inches

Negatives on file in Washington office.

## SUPPLEMENTAL SURVEYS

Graphic Control Surveys.....Fred L. Peacock, Season of 1941  
 Hydrographic Surveys.....Fred L. Peacock, Season of 1941  
 Field Inspection.....Mr. E. B. Lewey, Season of 1942  
 Geographic Name Investigation.....Fred L. Peacock, Season of 1941

## GENERAL INFORMATION

Chief of Party.....L. W. Swanson Date  
 Projection by.....Washington Office.....Unknown  
 Control plotted.....William A. Rasure.....12/8/41  
 Control checked by.....W. E. Schmidt.....12/10/41  
 Radial plot by.....H. M. Eldridge.....1/5/41--12/12/41  
 Radial pricked by.....H. M. Eldridge.....1/13/41  
 Additional points by.....H. M. Eldridge.....1/13-14/41  
 Shore line inked by.....H. M. Eldridge.....1/20-25/41  
 Scale.....1:10,000 (No scale factor)

## STATISTICS

Area (land).....None  
 Shore line (more than 200 meters from opposite shore).....16.4 statute miles  
 Shore line (less than 200 meters from opposite shore).....8.8 statute miles  
 Roads, streams, and trails.....None  
 Railroads.....None  
 Total time required to complete map drawing and report.....25- $\frac{1}{2}$  days

## REFERENCE STATION

Thomas, 1933.....North American Datum, 1927 (adjusted)  
 Latitude  $43^{\circ}-46'-42.726''$  (1318.7m.)  
 Longitude  $70^{\circ} 11' 08.819''$  (197.2m.)

(West Zone) Maine system of plane coordinates x y  
 $x = 494,951.00$

$y = 344,507.73$

Position Checks

Survey dates as of photos

J. H. McBeth



DESCRIPTIVE REPORT  
TO ACCOMPANY  
AIR PHOTOGRAPHIC SURVEY MAP DRAWING NO. T-5961, PROJECT 272  
STATE OF MAINE  
CASCO BAY

Date of this report

February 5, 1942

INSTRUCTIONS

The topography on this map drawing is part of Project 272, the instructions for which are dated January 12, 1942

CONTROL

The control consists of twenty triangulation stations shown by the triangulation symbol, nine hydrographic signals (natural objects) shown by a one and one half m. m. ( $1\frac{1}{2}$ ) circle. Two recoverable topographic signals and two recoverable hydro- marks, each shown by a two and one-half ( $2\frac{1}{2}$ ) m. m. circle.

The following is a list of control stations and its source.

U. S. COAST AND GEODETIC SURVEY

Yarmouth Water Tank, 1933  
Yarmouth First Parish Congregational Church spire, 1933  
Yarmouth Central Universalist Church spire, 1933  
Yarmouth Memorial Hall spire, 1854, 1933  
Yarmouth Forest Paper Mills brick stack, 1933  
Cousins Island, Blaney Point, house chy., 1933  
Thomas, 1933  
York, 1852

Thomas and York were not used to control this map drawing as they are <sup>not prominent</sup> ~~man-made~~ and would need field inspection.

U. S. ENGINEERS.

Z Free, 1937  
Fogg, 1937  
Brown, 1937  
Parker, 1937  
Status, 1937  
Doyle, 1937

These stations were not used to control this map drawing as they are <sup>not prominent</sup> ~~man-made~~ and would need field inspection.

U. S. GEOLOGICAL SURVEY

U. S. G. S. 1940 (1490+) (in Freeport Quadrangle) (line 3)  
U. S. G. S. 1940 (1460) ( in Freeport Quadrangle) (line 3)  
U. S. G. S. 1940 (1076+) (in Freeport Quadrangle) (line 1)  
U. S. G. S. 1940 (1531+) (in Freeport Quadrangle) (line 3)  
U. S. G. S. 1940 (1536+) (in Freeport Quadrangle) (line 3)  
U. S. G. S. 1940 (1085+) ( in Gray Quadrangle) (line 3)



## HYDROGRAPHIC SIGNALS

Nine natural objects located on this map drawing for use as hydrographic signals were used as additional control. These objects are shown by black acid ink circles 1.5 m.m. in diameter.

## RECOVERABLE HYDRO. & TOPOGRAPHIC MARKS

Two topographic and two hydrographic marks are shown on this map drawing by black acid ink circles 2.5 m.m. in diameter.

Skin and Roof Hydro. marks were not used to control this map drawing as they are marked stations and need field inspection.

## RADIAL PLOT

The U. S. G. & G. S. triangulation stations and the U.S.G.S. triangulation stations were plotted in the usual manner.

The U. S. Engineers triangulation stations were pricked direct from the graphic control sheets. This party not having the geographic positions.

The hydrographic and topographic signals were also pricked direct from the graphic control sheets.

"A" The radial plot for this map drawing was run independent. Each photograph was layed separately so that radial lines through the control spotted on the photograph resected as nearly as possible the triangulation as plotted on the map drawing. The center of the photograph was then pricked on the map drawing and is indicated by large double purple circles. Good resections on triangulation and nearly perfect joining of flight lines at adjacent photo centers was possible with most of the photographs. In a few cases errors occurred in the printing of the center chambers and in the matching of outer chambers of the photographs. These errors are noted on the photographs.

During the running of radial plot, it was noticed that one photograph No. 6655 has a slight amount of tilt. Also photograph No. 6654 has one chamber that is slightly out and is so marked to orient within chamber.

No trouble was had in running the radial plot except in the extreme southeast corner.

## SCALE

The scale of this map drawing is 1:10,000.

## DETAILING

Survey dates as of photographs- October, 1941

The following photographs were used for detailing, Nos. 6655, 6654, 6653, 6678, 6677, and 6691. Photograph 6648 was not used for detailing because of a sun spot which obliterated the shore line.

All shore line was verified by Mr. Lewey and rocks awash were field inspected or verified with certainty on two or more photographs and are shown by the rock awash symbol.



No field inspection was made of the shore line of Royal and Cousin rivers.

The photographs were interpreted by comparing with field inspection and the use of the stereoscope.

The photographs were out of scale, necessitating the use of the projector, for all detailing.

Channel lines were identified from two or more photographs and are shown by a dashed line in black acid ink.

The shoal or foul areas were identified from two or more photographs and are outlined by a solid red line.

All information shown in purple ink was taken from the hydrographic boat sheets. The zero curve is shown by a solid purple line.

This additional information is given as an aid to verifying hydrography and as a check to the shoal areas as identified on the photographs.

The colored ink can readily be removed.

#### COMPARISON WITH PREVIOUS SURVEYS

Air Photographic Party No. 2 was furnished a photostatic copy of ~~the~~<sup>a</sup> compilation of previous surveys made by the chart division of Casco Bay. When making a comparison of this survey with the above, the following discrepancies were noticed.

##### 1. Broad Cove:

- a. At lat.  $43^{\circ}-45.02'$  and long.  $70^{\circ}-11.65'$ , the previous survey does not show ledge awash at M.L.W. ✓
- b. The previous survey does not show the awash rock which is 95 meters northerly of Anderson's Rock. ✓
- c. At lat.  $43^{\circ}-45.9'$  and long  $70^{\circ}-11.6'$ , there is a sand spit which apparently has built up. ✓
- d. At lat.  $43^{\circ}-46.3'$  and long.  $70^{\circ}-11.5'$  there is 10 to 35 meters disagreement. Near the head of Broad Cove there is considerable disagreement, but this is marsh area and the drainage probably has changed. The Eastern shore of Broad Cove is in fairly good agreement. ✓
- e. At lat.  $43^{\circ}-46.05'$  and long.  $70^{\circ}-10.7'$  there is a high water rock, which is not shown on the previous survey. ✓

##### 2. Prince Point.

- a. Around the southern tip of Prince Point there is a disagreement of approximately 15 to 40 meters. Also along the eastern shore of Prince Point there is a disagreement of 10 to 40 meters.



3. Parker Point.

- a. Around the northern tip of Parker Point there is a disagreement of 75 meters. ✓

4. Royal and Cousin Rivers.

- a. Along both shores of these rivers there is some disagreement but this is mostly marsh areas, therefore the shore line may be expected to change from year to year.
- b. The highway bridge over Royal river disagrees 20 to 30 meters. There is evidence of an old bridge up stream from present bridge.
- c. At lat.  $43^{\circ}-48.05'$  and long  $70^{\circ}-10.9'$  the bridge over Royal river disagrees 15 meters.
- d. At lat.  $43^{\circ}-48.1'$  and long.  $70^{\circ}-10.95'$  the dam across Royal river disagrees a maximum of 30 meters.

5. Fogg Point.

- a. Around the tip of Fogg Point there is a disagreement of 15 to 20 meters.

6. Cousins Island.

- a. There is a sand spit at Sandy Point and the Shore line at the tip of Sandy Point disagrees by 30 meters, but this has probably built up.
- b. The western shore is in fairly good agreement except at lat  $43^{\circ}-45.4'$  and long.  $70^{\circ}-09.1'$  it disagrees by a maximum of 85 meters.
- c. The eastern shore disagrees slightly, but this is sand and marsh area and probably has built up.
- d. The bridge from Cousin Island to Little John Island is in disagreement. It is probable that a new bridge has been built. The position of this bridge show on this map drawing checks the position as determined by Graphic control sheet "F".

Chart 201 (scale 1:25,000)

No comparison was made.

Chart 315 (scale 1:40,000)

No comparison was made.

LANDMARKS

Landmarks were submitted by the Hydrographic party. None are recommended by this party.

JUNCTIONS

Good junctions were made with map drawings T-5959 on the south and T-5962 on the east.

REMARKS

This map drawing is believed to be complete on the shore line only. For interior details see the U. S. Geological Survey map drawings.

The probable error is not greater than five meters for well defined objects along the shore line.

Respectively submitted.

Henry M. Eldridge  
Photogrammetric Aid

*Forward approved  
J. W. Williams  
Chief of Party*



## GEOGRAPHIC NAMES

Survey No. T5961

| GEOGRAPHIC NAMES          |  |    |    |   |   |   |   |   |   |    |  |
|---------------------------|--|----|----|---|---|---|---|---|---|----|--|
| Survey No. T5961          |  |    |    |   |   |   |   |   |   |    |  |
| Name on Survey            | <div>On Chart No. 201 &amp; 315</div> <div>On previous survey</div> <div>On U. S. quadrangle Maps</div> <div>From local information</div> <div>On local Maps</div> <div>P. O. Guide or Map</div> <div>Rand McNally Atlas</div> <div>U. S. Light List</div> |    |    |   |   |   |   |   |   |    |  |
|                           | A,   | B, | C, | D | E | F | G | H | K |    |  |
| <u>Cousins River</u>      | X  |    | X  |   |   |   |   |   |   | 1  |  |
| <u>Browns Point</u>       | *X   |    | X  |   |   |   |   |   |   | 2  |  |
| <u>Royal River</u>        | X  |    | X  |   |   |   |   |   |   | 3  |  |
| <u>Fogg Point</u>         | X  |    | X  |   |   |   |   |   |   | 4  |  |
| <u>Parker Point</u>       | X  |    | X  |   |   |   |   |   |   | 5  |  |
| <u>White Cove</u>         | X  |    | X  |   |   |   |   |   |   | 6  |  |
| <u>Drinkwater Point</u>   | X  |    | X  |   |   |   |   |   |   | 7  |  |
| <u>Prince Point</u>       | X  |    | X  |   |   |   |   |   |   | 8  |  |
| <u>Broad Cove</u>         | X  |    | X  |   |   |   |   |   |   | 9  |  |
| <u>Anderson's Rock</u>    | X  |    |    |   |   |   |   |   |   | 10 |  |
| <u>Pumpkin Nob</u>        | X  |    |    |   |   |   |   |   |   | 11 |  |
| <u>Birch Point</u>        | X  |    | X  |   |   |   |   |   |   | 12 |  |
| <u>Boyle's Point</u>      | *X   |    |    |   |   |   |   |   |   | 13 |  |
| <u>Sandy Point</u>        | X  |    | X  |   |   |   |   |   |   | 14 |  |
| <u>Sandy Point Ledges</u> | X  |    |    |   |   |   |   |   |   | 15 |  |
| <u>Cousins Island</u>     | X  |    | X  |   |   |   |   |   |   | 16 |  |
| <u>Yarmouth</u>           |  |    |    |   |   |   |   |   |   | 17 |  |
|                           |  |    |    |   |   |   |   |   |   | 18 |  |
| <u>Casco Bay</u>          |  |    |    |   |   |   |   |   |   | 19 |  |
|                           |  |    |    |   |   |   |   |   |   | 20 |  |
|                           |  |    |    |   |   |   |   |   |   | 21 |  |
|                           |  |    |    |   |   |   |   |   |   | 22 |  |
|                           |  |    |    |   |   |   |   |   |   | 23 |  |
|                           |  |    |    |   |   |   |   |   |   | 24 |  |
|                           |  |    |    |   |   |   |   |   |   | 25 |  |
|                           |  |    |    |   |   |   |   |   |   | 26 |  |
|                           |  |    |    |   |   |   |   |   |   | 27 |  |
|                           |  |    |    |   |   |   |   |   |   | 28 |  |

Names underlined in red approved

by L. Heck on 6/27/42

M 234

Names underlined in red approved

by L. Heck on 6/17/42

## Remarks

## Decisions

|    |                                       |                    |
|----|---------------------------------------|--------------------|
| 1  |                                       | 437 701            |
| 2  | Shown as Brown Point on Chart No. 315 | "                  |
| 3  |                                       | 437 701 - U.S.G.B. |
| 4  |                                       | "                  |
| 5  |                                       | "                  |
| 6  |                                       | "                  |
| 7  |                                       | "                  |
| 8  |                                       | "                  |
| 9  |                                       | "                  |
| 10 |                                       | "                  |
| 11 |                                       | "                  |
| 12 |                                       | "                  |
| 13 | Shown as Doyle Point on Chart No. 201 | "                  |
| 14 |                                       | "                  |
| 15 |                                       | "                  |
| 16 |                                       | 437 701            |
| 17 |                                       | 437 701            |
| 18 |                                       | U.S.G.B.           |
| 19 |                                       | 436 700 For title  |
| 20 |                                       |                    |
| 21 |                                       |                    |
| 22 |                                       |                    |
| 23 |                                       |                    |
| 24 |                                       |                    |
| 25 |                                       |                    |
| 26 |                                       |                    |
| 27 |                                       |                    |



## DIVISION OF PHOTOGRAMMETRY

### REVIEW OF PHOTOGRAMMETRIC SHORELINE SURVEY T-5961

The field inspection and compilation of this manuscript were accomplished <sup>partly</sup> slightly after the hydrography. Control for hydrography in this area was provided by graphic control surveys, and these graphic control surveys were available to the photogrammetric office in compiling this manuscript.

#### Graphic Control Surveys:

|          |            |      |
|----------|------------|------|
| T-6843-A | (1:10,000) | 1941 |
| T-6848-A | (1:10,000) | 1941 |

The graphic control surveys were made for location of hydrographic control. They show only a few short sections of shoreline, and these have been compared with the manuscript during compilation and review.

#### Contemporary Hydrographic Surveys:

|        |            |      |
|--------|------------|------|
| H-6728 | (1:10,000) | 1941 |
|--------|------------|------|

T-5961 has been compared with H-6728 during this review and minor adjustments made as necessary to bring the sheets into agreement as regards limits of rock ledges and along shore rocks awash.

#### Comparison with Previous Topographic Surveys:

Refer to page 2 of the descriptive report for the detailed comparison made by the compilation office between T-5961 and a compilation of previous surveys in this area. T-5961 supersedes those sections of the following older topographic surveys which it covers: T 918 A (1:10 000) 1861-62  
T 919 A (1:10 000) 1864

#### Field Inspection and Detailing:

Field inspection was not complete of Royal River and Cousins River and parts of this shoreline were interpreted by stereoscopic examination in the office.

The low water line as compiled on T-5961 (but not including rock ledges shown inside of low water) is completely superseded by the hydrographic surveys and will not be shown on the printed copy of T-5961.



Comparison with Charts 201 and 3201:

T-5961 was applied to chart 201 in March 1942 and to chart 3201 in December 1942 prior to this review. Minor changes in the shoreline made during this review may affect these charts and T-5961 should be examined when the charts are again taken up for correction.

Reviewed by R. E. Elkins

Under the direction of D. H. Benson

Review report prepared by B. G. Jones, 7-1-46, from reviewer's notes.

APPROVED BY:

B.G. Jones 7/2/46  
B. G. Jones, Technical Asst.  
Div. of Photogrammetry

K.T. Adams  
Chief, Div. of Photogrammetry

Robert W. Jones  
Chief, Nautical Chart Branch  
Division of Charts

Raymond B. Egan  
Chief, Div. of Coastal Surveys