

4396

Form 504
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: Massachusetts

11-5813

DESCRIPTIVE REPORT.
4396

Topographic Sheet No. D 4396

LOCALITY:

Cape Ann

Gloucester Outer Harbor

1928

CHIEF OF PARTY:

Raymond P. Eyma

4396

DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET "D"

(1) Authority

This survey was made under instructions in the Director's orders dated May 22, 1928, to Lieut. R.P. Eyman, Chief of Party, Gloucester Shore Party.

(2) Locality and Limits

The east coast beginning south and east of Ten Pound Island, in the harbor of Gloucester, Mass., in Southeast Harbor, continuing to Eastern Pt. Lt. House and a short distance up the outside coast. On the west side, the survey was started south of Δ Ham and at the southern extremity of Freshwater Cove, and continues to the extremity of this sheet at Magnolia Pt. Flag.

(3) Control

The control for this survey consisted of Third Order Triangulation stations established from time to time, over a period of years extending from 1902 up to the present year of 1928, when some stations were established by this party.

(4) Survey Methods

Ordinary PLANE TABLE methods were used in this survey. Each setup, when ever possible, was checked by a three point fix and the error adjusted before proceeding to the next setup, or before the shoreline and details were run in.

On the east coast, the traverse was started at a point on the breakwater that runs out from Eastern Pt. Lt. House to Dog Bar Lt. This point was determined by a three point fix and checked by a measured distance to both lights. The traverse was carried on from this point running up the outside coast until a junction was made with the past surveys of this vicinity, and up the east coast of Gloucester Harbor until a junction was made with the extremity of sheet "A" at Southeast Harbor.

On the west coast the survey was started from a point 16 meters east of Δ Muscle Pt. On a line with Δ Dog Bar Lt. This point was checked by a three point fix and a distance from Δ Muscle Pt. One traverse ran south down the coast and terminated at Magnolia Pt. Flag Δ station, checking out at that station with no discrepancies in distance nor in azimuth. The other traverse ran north from Muscle Pt. and joined onto the southern extremity of sheet "A".

(5) General Description

At the northern extremity of this sheet in Southeast Harbor a sandy beach runs for a distance of about 400 meters south. The heavy black line shown on the sheet denotes the mean high water line on the beach, and a straight light line shows a sea wall at this place. A low rocky ledge formation starts at the cessation of the sand beach and continues thruout the traverse of the eastern shore line with two exceptions. There is a small sandy beach at Lighthouse Cove, and a small gravel beach in the small cove just north of Δ Eastern Pt. Lt. House.

In Southeast Harbor at the southern end of the sand beach, a traverse was run along the roadway and carried to Niles Pond, a small fresh water pond having from one to two feet of water in it, and many species of plant life, such as grasses, reeds, lily pads, and small bushes. The new survey of the pond shoreline, followed very closely the old survey.

The roads as shown were run in by planetable methods and changes noted. The shoreline at the extreme end of Eastern Point was found by the present survey to extend approximately 30 meters farther south than shown by the old survey. Contours on this sheet follow closely the original lines.

At the northwest extremity of the shoreline shown on this sheet, the coast starts off with a gravel and boulder beach, but very soon starts showing the characteristic ledge of this coast line, and continues thruout the traverse of the western shoreline. The ledge rises to a height of approximately 25 feet

2.

in places and then dwindles down to four or five feet. there is a small cove at Dolliver Neck, where the Gloucester Coast Guard boat station is located. This cove has a shoreline of heavy gravel and boulders, with ledges to the north and south. There is a small cove west of Muscle Pt. the northern tip of Normans Woe Cove where the ledge is replaced with a beach of heavy gravel and boulders. From this point the ledge continues to the end of the shoreline shown on this sheet, but has very little rise. At Magnolia there is a small cove with a gravel and boulder beach, but ledge appears to be still in evidence underneath.

(6) Comparison with former work

The new survey shows quite appreciable differences in many places along the shoreline shown on this sheet.

At a point 115 meters northeast of Δ Muscle Pt. this survey brings the shoreline approximately 15 meters to the westward and continues approximately the same amount in the same direction to a point 210 meters southwest of Δ Muscle Pt.

At a point 139 meters southwest of \odot Chy. Green Rfd. House this survey shows the same tendency to extend itself to the eastward. In the past survey a point of cove was shown to be approximately 72 meters southwest of \odot Chy. Green Rfd. House while this survey shows the point of cove to be approximately 127 meters south by west of the old point.

Just south of the above mentioned cove point, this survey shows an extension of approximately 20 meters easterly.

In the vicinity of Normans Woe west and south of \odot Del there was one very prominent chasm or inland cut that that was not shown on the old survey.

The most notable variance on the east coast shoreline was found at the extreme end of Eastern Point, where this survey extends 30 meters farther south than shown by the old survey, with small indentures hitherto unnoted.

In most instances of change, the coastline is of rocky ledge formation and an extension of shoreline seemingly impossible.

(7) Landmarks

On the east coast, a very prominent lighthouse shows out from Eastern Point with a very definite granite block breakwater extending northwesterly to Bog Bar Lt. On the west coast the bluff ledge just south of \odot Del is plainly describable, and at Muscle Pt. a large flag staff is seen from the entrance to the harbor.

Δ Ham is a square stone tower on the estate of Jay Hammond and a very prominent landmark.

(8) Recoverable signals

\odot Owl is a small flag staff approximately 95 meters south of the Southern end of Freshwater Cove. The staff is located very close to a small swimming pool.

\odot Chy. Green Rfd. House is a good sized square chimney on a prominent house which is located about 300 meters northwest of Normans Woe Rk.

\odot Del is the tip or peak of a small round house which sets well up into prominence on the bluff ledge known as Normans Woe.

(9) Scale

The scale of this sheet is 1 to 5000 and joins at its northern extremities to the southern extremities of sheet "A".

Respectfully submitted,

Leonard C. Johnson
Leonard C. Johnson,
Lieut. (j.g.) U.S.C. & G.S.
Topographer

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

REG. NO. 4396

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

Field Letter D

REGISTER NO. **4396**

State Massachusetts

General locality Cape Ann

Locality Gloucester Outer Harbor ✓

Scale 1:5000 Date of survey September, 1928

Vessel U. S. C. & G. S. L. #65

Chief of Party Raymond P. Eyma, H. & G. E.

Surveyed by L. C. Johnson

Inked by L. C. J.

Heights in feet above _____ to ground to tops of trees

Contour Approximate contour Form line interval _____ feet

Instructions dated May 22, 1928

Remarks: _____