DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

State: Massachusetts

DESCRIPTIVE REPORT.

Topographic Sheet No. D 4396

LOCALITY:

Cape Ann

Gloucester Outer Harbor

1988

CHIEF OF PARTY:

Raymond P. Ryman
DESCRIPTIVE REPORT
to accompany
TOPOGRAPHIC SHEET "P"

(1) Authority
This survey was made under instructions in the Director’s orders dated

(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 A 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
A Muscle Pt., on a line with A Dog Bar Lt. This point was checked by a three point
fix and a distance from A Muscle Pt. One traverse ran south down the coast and
terminated at Magnolia Pt. Flag A 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 line
shows a sea wall at this place. A low rocky ledge formation starts at the cessation
of the sand beach and continues through the traverse of the eastern shoreline
with two exceptions. There is a small sandy beach at Lighthouse Cove, and a
small gravel beach in the small cove just north of A 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, lilypads, 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
cost starts off with a gravel and boulder beach, but very soon starts showing
the characteristic ledge of this coast line, and continues through the traverse
of the western shoreline. The ledge rises to a height of approximately 25 feet
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 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 Muscle Pt.
At a point 160 meters southwest of Chv. Green Bfd. 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 Chv. Green Bfd. 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 Del there was one very prominent chasm or inland cut 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 Del is plainly discernible, and at Muscle Pt. a large flag staff is seen from the entrance to the harbor.
A Ham is a square stone tower on the estate of Jay Hammond and a very prominent landmark.

(8) Recoverable signals
Del 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.
Chv. Green Bfd. House is a good sized square chimney on a prominent house which is located about 300 meters northwest of Normans Woe Rk.
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 Johnson,
Lieut. (j.g.) U.S.C. & G.S.
Topographer
LANDMARKS FOR CHARTS

Washington, D.C.
March 12, 1929

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chy. Green Rd., House</td>
<td>42 34</td>
<td>1697</td>
<td>N. A. P. Table 243</td>
</tr>
<tr>
<td>Pk. of small round house on top of ledge</td>
<td>42 34</td>
<td>1244</td>
<td>N. A. P. Table 243</td>
</tr>
</tbody>
</table>

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it: for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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 Letter ..... D.

REGISTER NO. 4396

State. Massachusetts

General locality. Cape Ann

Locality. Gloucester Outer Harbor

Scale. 1:5000. Date of survey. September, 1928


Chief of Party. Raymond P. Eyman, H. & G. R.

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: 

U. S. COAST AND GEODETIC SURVEY OFFICE: 1928