

4611

Form 504  
Ed. June, 1928

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

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES  
**AUG 25 1931**

State: New York

Acc. No. \_\_\_\_\_

**DESCRIPTIVE REPORT**

<p><i>Topographic</i> <i>Hydrographic</i></p>	<p>Sheet No. <b>4611</b> Field #A</p>
---	---

LOCALITY

Long Island

Shoreline of Eastern Neck (r.s.g.B.)

1931

CHIEF OF PARTY

H. E. Finnegan

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET A

EATONS NECK, LONG ISLAND

AUTHORITY:

Supplemental instructions from the Director dated June 26, 1931. The original instructions for the party are dated April 7, 1931.

SURVEY METHODS:

Standard planetable equipment and methods were used with third order triangulation control. No departure, worthy of note, was made from standard practice.

PROCEDURE:

The first traverse was begun at triangulation Station Shellheap 2 and proceeded northward along the beach, around Eaton Point, thence south eastward to Asharoken beach. The stadia rods had been carefully tested before work was begun and every opportunity was used to check the planetable position as the work progressed. The second traverse was begun at Station Shellheap 2 and proceeded southward to the limits of the sheet.

ERROR OF CLOSURE:

The traverse from Station Shellheap 2 southward was left unclosed. The long traverse to the eastward was checked several times by three point fixes and finally closed out on triangulation station Conical Tower (plain) 1916 on the eastern limit of the sheet with an error too small to measure in either distance or azimuth.

GENERAL DESCRIPTION:

South of Station Shellheap 2 the character of the shoreline is clearly indicated on the sheet except in the locality of signal "Bun" where there are several prominent eroded bluffs of yellow sand-clay formation. The photograph accompanying this report shows clearly the extent and appearance of this feature. The elevation (84 feet) at the top of the bluff about 60 meters South East by South from signal "Bun" is at the highest point.

Between Station Shellheap 2 and the south jetty at the harbor entrance the ordinary high water line is determined by a narrow sand ridge as shown. The area between this sand ridge and the tree line (shown as grassy) is from two to three feet lower than the top of the ridge and is sometimes flooded during winter storms when the waves break over the ridge.

The two jetties are similar in construction being merely piles of uncut stone held partly in place by piling and a rude crib work of logs which is partly rotted away. At high water the stones are covered except for the tops of a few of the larger rocks, but the tops of short piling project three or four feet above the surface and roughly outline the position of the rocks.

The low water line around the lagoon and sand spit is taken both from reduced soundings and actual rod readings at low water. The high water line around the sand spit and the inner edge of the lagoon was carefully rodded in as noted. The entire spit forming the north west limit of the harbor is bare about 2 feet at ordinary high water but is washed over during winter storms.

The salt marsh was carefully rodded in and is fully shown by symbol both in character and extent. The central drainage creek and the blind slough are of no importance being practically bare at low water.

It will be noted that eastward from Eaton Point two distinct high water lines are shown. The outer or seaward line is where ordinary high water extends along the clean sand and gravel beach which characterizes this section. The inner line, shown mostly in hachures, is the point where storm high water has undermined the bank forming low eroded bluffs as a definite limit. In several places where the bluffs are high they are indicated by broad hachures on the sheet.

JUNCTION WITH PREVIOUS SURVEYS:

At Latitude  $40^{\circ} 56'$  (70 meters), Longitude  $73^{\circ} 24'$  (390 meters) a perfect junction was made with a previous survey as shown on a photostat 1 : 10,000 now on hand. The limit of topography 525 meters south of this point does not quite check the old shoreline where it meets the north side of an old crib and rock retaining wall which is partially washed away at the high water line. The outer end of the cribwork is still intact and the high water line south of the wall appears to be unchanged.

At the eastern limit of the sheet near Station Conical Tower (plain) the ordinary high water line checks perfectly with the old survey. At points along the east shore, where the old and new surveys do not check, the error may not be due to actual change of beach line but more probably to the fact that it is almost impossible to determine ordinary high water along these flat sand beaches where a foot or two difference in tide level makes ten meters lateral displacement in the high water line.

Respectfully submitted;

*Samuel B. Grenell*  
Samuel B. Grenell,  
Lieut. (j.g.), C. & G. Survey.

Approved and forwarded:

*Henry E. Finnegan*  
Henry E. Finnegan,  
Chief of Party

PLANE TABLE POSITIONS

Object	Lat.	D. M.	Long.	D. P.	Elev.	Remarks
Abandoned derrick	40 55	1366	73 24	260		Top of frame
Flagpole near small ho.	40 55	1735	73 24	321		Bottom
N.W. pile- ruined dock	40 56	68	73 24	405		Top
S.W. tall pile on dock	40 56	959	73 24	411		3 m. from cor. dock
Cross banner	40 57	388	73 23	681		Straight slim tree 2' diameter, end of row.
Cone roof, summer house	40 56	1032	73 22	1149		Center white sea wall
Flagpole	40 56	1029	73 22	1148		Alongside summer ho.
Chimney over 3 gables	40 56	454	73 22	791		N.W. house of row
Flagpole	40 56	396	73 22	692		in front of houses
Tall center gable	40 56	551	73 22	682		S.E. house of row
Flagpole	40 55	1625	73 21	1364		in front of N.W. ho.
" large, white	40 55	1581	73 21	1284		W. end of low sea wall



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4611

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. A

REGISTER NO. **4611**

State New York

General locality Long Island, ~~Eaton Neck~~

Locality ~~Eaton Point and vicinity~~ Shoreline of Eatons Neck

Scale 1 : 5000 Date of survey July 14-16, 19231

Vessel Wire Drag Party

Chief of Party Henry E. Finnegan

Surveyed by S. E. Grenell

Inked by S. B. Grenell

Heights in feet above M. S. L. to ground to tops of trees

Contour, Approximate contour, Form line interval -- feet

Instructions dated June 26, 19231

Remarks: Instructions supplemental to general instructions for seasons work.