

# 6027

Graphic Control

U. S. COAST & GEODETIC SURVEY  
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Form 504  
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## DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: New York

## DESCRIPTIVE REPORT

*Topographic* } Sheet No. I 6027  
*Hydrographic* }

### LOCALITY

Long Island Sound

Prospect Point to Hart Island

193 3

### CHIEF OF PARTY

Harold A. Cotton

U. S. GOVERNMENT PRINTING OFFICE: 1923

6027

Graphic Control

DESCRIPTIVE REPORT

to accompany

TOPOGRAPHIC SHEET NO. I

PROSPECT POINT

to

HART ISLAND

LONG ISLAND SOUND - N. Y.

SEPTEMBER - OCTOBER

1 9 3 3

SCALE - 1 : 10,000

## INSTRUCTIONS

The topography was executed in accordance with the Director's instructions dated March 23, 1933.

## LIMITS

This topographic sheet is a resurvey and extends from triangulation station Pier 1933 which is located on a prominent pier about one mile east of Prospect Point., westward to Prospect Point, to Sands Point; then south to Barker Point to Plum Point which is on the north side of the entrance to Manhasset Bay. Topography embracing Hart Island is included on this sheet also.

## JUNCTIONS

This sheet joins sheet "K" 1933 on the east, the station "Pier" being the common control point. Sheet "D" 1933 is on the north and Sheet "E" 1933 on the west. Sheet "H" 1933 which joins this sheet on the south was taken into the field and a flagpole on the southern tip of Plum Point was located by graphic triangulation and called "Plum." The located position of "Plum" was then transferred to Sheet "I" and used as the most southerly control station. This station makes the logical junction between these two sheets. No shoreline was mapped on Sheet "H".

## CONTROL

Thirteen triangulation stations were recovered, namely:- Sky 1930; Green 1930; Red 1930; Sands Point Light House 1932; Execution Rocks Light House 1932; Beacon (Sands Point) 1932; Beacon (Hart Island) 1932; Pea 1930; Hart Island 1932; Barker 1932; Tripod (Speed course) 1932; Spire (Hearst Estate) 1932; Tack 1930. Only six of these could be occupied, namely:- Sands Point Light House 1932; Execution Rocks Light House 1932; Pea 1930; Hart Island 1932; Barker 1932; Tripod (Speed Course) 1932. The other seven stations were third order intersection stations and being inaccessible for setups were used for azimuth only. Pier 1933, a third order station was established in addition to the recovered stations.

In connection with the junction of sheets, a topographic station was located on Hewlett Point by intersection and checked by a three point fix using the C. & G. S. triangulation for control. Similarly station "Plum" was located on Sheet "H", using Army Engineer's triangulation for control. The plane table then being set up at Hewlett checked Plum in azimuth thus tying in the two schemes of triangulation and making a good junction between sheets. Another field check was made between the two schemes of triangulation where a taped distance and plane table azimuth from Barker 1932, U. S. C. & G. S., checked Barker U. S. E. D. on Sheet "I".

## ELEVATIONS

Inasmuch as this was a re-survey, no elevations were taken. All rocks, reefs, and low water are shown on the sheet referred to mean low water.

## METHODS

The entire sheet was surveyed by a successive series of traverses run

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between triangulation stations and points determined by three point fixes. From Pier 1933 to Prospect Point where a three point fix was obtained and the traverse closed. Then from Prospect Point to Sands Point Light House 1932, traverse closed. From Sands Point Light House a traverse to Barker 1932 which was closed. From Barker to Plum Point a closed traverse. All traverses were within the required limits and closures adjusted accordingly. At Hart Island a traverse was run around the north end of the island from the east to the west side closing on Hart Island 1932. A traverse to Tripod (Speed course) 1932 on the west side and another up to Hart Island on the east side completed the plane table control for Hart Island, The closures on these traverses were adjusted accordingly.

### TRAVERSES

<u>From</u>	<u>Traverse</u>	<u>To</u>	<u>Length</u> <u>Sta. M</u>	<u>Clos.</u> <u>Meters</u>	<u>Clos.</u> <u>Per Mile</u>
Pier 1933		Prospect (3 pt. fix)	1	3	3
Prospect		Sands Pt. Light House 1932	1	4	4
Sands Pt. Light House		Barker 1932	1 $\frac{1}{2}$	6	4
Barker		Plum	1 $\frac{1}{4}$	3	2.4
Hart Island 1932		Hart Island 1932	1 $\frac{1}{4}$	2	1.6
Hart Island 1932		Tripod (Speed course) 1932	1	2	2
Tripod		Hart Island	1	1	1

### GEOGRAPHIC NAMES

As far as could be ascertained there has been no change in the geographic names as they now appear on the chart.

### CHARACTER OF SHORELINE

The portion of the Long Island shore which is shown on this sheet can be divided into what may be considered four more or less equal stretches of shoreline with prominent points or headlands dividing them namely:- Prospect Point, Sands Point, and Barker Point. Each one of these points is distinctive in itself, Prospect Point having a huge grey house with four chimneys standing in the open, set back on a gentle sloping green lawn. A concrete wall acts as a seawall and also as a retaining wall for the land behind. Sands Point is easily distinguished by the spire of the Hearst Estate set about 200 meters to the east of the actual point. The old abandoned light tower also serves to identify this point. Barker point is a very steep bluff about 75 feet high well wooded on top and conspicuous because of the absence of any buildings on top. The shoreline between Pier 1933 and Prospect Point has a gentle sloping sand and gravel beach with a cluster of huge rocks and boulders laying just outside the low water line about halfway up the beach. A bluff studded with evergreen trees extends for about 300 meters to the northwest of Pier. Just off Prospect Point there are numerous rocks, sunken and rocks awash which make this point dangerous to small craft. From Prospect Point westward toward Sands point for about halfway a rugged bluff at varying distances from the high water line presents itself. The shore is covered with numerous rocks and large boulders, the outer limit of this foul area being about 150 meters from the high water line. The rest of the shore line towards Sands Point is sandy and of gentle slope with no rocks. The beacon off Sands Point marks the outer limit of a foul area which is further defined by a line of rocks to

either side of the beacon. This area is such as to be difficult to put a small boat thru at low water.

The shore between Sands Point and Barker Point is sandy with some gravel. The first five hundred meters has considerable trees and vegetation close to the shoreline which obscures the buildings back of the shore. The rest of the stretch is open with a tree line some 100 to 300 meters back from the shore. At Barker Point a bluff starts some 300 meters to the east and carries around the turn to a point 200 meters south. The base of the bluff touches the high water line. This point has a considerable foul area to the west containing rocks awash and sunken rocks the outside limits which are shown on the sheet. The shoreline south of Barker Point presents a wooded slope which rises abruptly upon leaving the high water line. This slope declines in steepness until it becomes quite flat at the inner end of the sandy neck of land at Plum Point and with few trees.

Except for the approach to the two docks on the west side of Hart Island, the shore is generally foul with rocks and large boulders making it hazardous to beach a small boat at low tide. The northern end of the Island presents a steep and stoney bluff and generally speaking the ends of the island have higher ground with the center quite flat in appearance.

#### PROMINENT OBJECTS

Stations Sky 1930 and Green 1930 present the best landmarks for approaching this particular shore. The large grey house on Prospect Point affords an excellent landmark as it stands unobscured on a wide expanse of green lawn. West of Prospect Point station Red 1930 is easily distinguished. The Hearst Estate Spire 1932 is the next prominent landmark. This spire can easily be picked up on a clear day from the north side of Long Island Sound and shows to the west as well as to the north. The outstanding landmark on the shore between Sands and Barker Point is a glass roofed tennis house which shows very distinct against a green background of trees. There is nothing of prominence on Barker Point itself but the chimney on a red brick house set in some 400 meters from the point affords a landmark somewhat limited. The point itself would be more distinctive on making the land from the North West but the chimney would serve to identify the point. There is nothing of real prominence going toward Plum Point except that close in/a huge white flagpole shows up nicely. On entering Manhasset Bay the peaked tower on the Sands Point Clubhouse clearly defines Plum Point.

Hart Island has numerous buildings on it but the outstanding landmark is Station Tack 1930 the power plant chimney which can be easily seen from all directions.

#### CHANGES and ADDITIONS to TOPOGRAPHY

About 400 meters to the northwest of station Pier 1933 another dock has been constructed which does not show on the chart. To the west of Prospect Point three jetties have been constructed of loose rock. A dock has been constructed about halfway between Sands and Barker Points. The inlet to the marsh is considerable up the shore to the northeast from that as shown on the chart. The inside reaches of the marsh having been dredged and the bottom being sandy probably accounts for the shifting of the opening to the marsh. Another dock has been constructed between the first and second docks south of Barker Point. A dock extends off the west shore at the extreme tip of Plum Point.

The present chart shows a dock line on the west side of Hart Island.

Actually this dock is now only an irregular line of loose stone submerged at high water. However, there is still quite a depth of water just outside of this line. The seawall at the north end has started to deteriorate and unless repaired will disintegrate soon. The impounded lake as shown on the chart has been reduced considerably in size by filling in from the land side. The water in this area runs out with the tide but the level at low tide is about 1 1/2 foot above M.L.W.

#### ADDITIONS AND VERIFICATION FOR HYDROGRAPHY

"Old Hen" north of Prospect Point was located and its position on the chart verified. A rock awash one foot at M.L.W. was located in the approximate position of the two foot rock as shown off of Barker Point. Gangway Rock Beacon was cut in from numerous points on all sides. At the south tip of Hart Island an old wrecked barge lies just inside the low water line. One hundred and thirty meters to the north of Execution Rocks Light House, a sunken steamer 300 feet long lies in six feet of water. The complete outline of the boat bares at low water. Four boilers rise about 4 to 5 feet above the rest of the wreck. One sunken and one rock awash were located to the northeast of the wreck.

#### MARSHES

The two marshes which appear on this sheet are changed somewhat as the Nassau County Mosquito Commission has dredged out channels and thereby drained off the marsh area. However, at extreme highs the marsh area perhaps would be covered with water. The marsh above Barker Point has changed considerable due to the shifting of the inlet.

#### AIR PHOTO CONTROL

Where prominent objects seemed to lend themselves to air-photo control they were located by the plane table. To the east of Sands Point Light House a long seawall set in from the H.W.L. was located. Also short pieces of wall elsewhere on the sheet where no overhead trees would obscure them in the photograph. The best object located in this connection was the glass roofed tennis house about a mile due east of Gangway Rock Beacon. This will show up very strong in the photograph.

#### STATISTICS

Statute miles of shoreline - High Water . . .	7.6
Statute miles of shoreline - Low Water . . .	11.5
(marsh, creeks, etc.)	
Number of offshore rocks . . . . .	71
Area square statute miles . . . . .	1.1
Number of recoverable positions	
Triangulation . . . . .	10
Plane Table . . . . .	9
Number of position occupied . . . . .	51

Respectfully submitted

*H. J. Seaborg*  
H.J. Seaborg, Deck Officer,  
Coast and Geodetic Survey,  
Topographer.

Approved and forwarded

*Harold A. Cotton*  
Harold A. Cotton,  
Chief of Party, C. & G. Survey



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MEMORANDUM BY CHIEF OF PARTY NO.3

REGARDING TOPOGRAPHIC SHEET "I"

Long Island Sound 1933

LOW WATER LINE

In common with other topographic sheets executed during the present (H.A.Cotton -1933) season, the location of the low water line on this sheet was a distinct job in itself i.e., the entire low water area was visited during periods of low water and the low water line located with due regard for existing tidal conditions.

PROMINENT OBJECTS - "LANDMARKS"

Also in common with the other topographic sheets executed during the present season, there are numerous extensive estates located over the area coming within the limits of this sheet. Some of the large buildings on these estates comprise the most prominent objects of the landscape.

As these buildings are not only of outstanding prominence but also have particular promise of permanance, it is believed that the chart should show a reasonable number of them. Accordingly the principal objects of this character (at frequent intervals) have been listed on Form 567 "Landmarks for charts". In each case some particular point of the structure has been located.

NAMES

Local inquiry did not determine any new place names. The names on the sheet appear to be in general use.

*Geographic names examined and approved Dec 3, 1934  
H. Bacon, Senior Cartographer*

Respectfully submitted

*Harold A. Cotton*

Harold A. Cotton, Chief of Party

Card Forms 524 accompany this report for the following stations:

Hew, Blau, Pro, Plum.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

IT 6027  
H 5547 same area

Mamaroneck, N.Y.

November 13, 1933

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

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

*Harold A. Cotton*  
Harold A. Cotton

Chief of Party.

DESCRIPTION	POSITION North American Datum						METHOD OF DETERMINATION	CHARTS AFFECTED	
	LATITUDE			LONGITUDE					ADDITIONAL Name
	°	'	D. M. METERS	°	'	D. P. METERS			
Flagpole on green roofed tower	40	51	1227.6	73	41	1256.6	Green 1930	Trian.	1213 - 223
Flagpole on turret roofed tower	40	51	1473.5	73	42	97.2	Sky 1930	Trian.	1213 - 223
Most south of two larger chimneys on gray house	40	52	301.0	73	42	1249.0	Sol	P.T.	223 <sup>✓</sup> - 1213
Most north of 3 chimneys on red roofed house	40	52	159.2	73	43	24.6	Red 1930	Trian.	223 <sup>✓</sup>
Prominent spire on Hearst Estate	40	51		73	43		Spire Hearst Estate 1932	Trian.	1213 - 223 <sup>✓</sup>
North end gable on glass roofed tennis house	40	51	1035.0	73	43	770.5	Nug	P.T.	223 <sup>✓</sup> - 1213
Large south chimney on red brick house	40	50	1620.0	73	44	26.0	Lac	P.T.	223 <sup>✓</sup>
Weather vane atop Sand's Pt. Clubhouse	40	50	136.0	73	43	1024.0	Heat	P.T.	223 <sup>✓</sup>
Smoke stack, power plant, Hart Island	40	51	116.0	73	46	246.7	Tack 1930	Trian.	1213 - 223 <sup>✓</sup>
* Sand Point Lighthouse (Old tower-no light)	40	51	1764.2	73	43	1113.3		Trian.	223
This list only from Topographic sheet "1" (H.A. Cotton-1933) for landmarks other than from topographic sheets see special Report (Same Form) For charts 222, 1213 and 223,									
* Gone in 1934									

A list of objects carefully selected because of their value as landmarks as determined from seaward together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1933



(1) as for chart 1213

(2) &amp; (3) as for charts 222 - 223



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LIST OF TOPOGRAPHIC SIGNALS - SHEET I.

<u>NAME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DESCRIPTION</u>
 Ball	40°- 51.9	73°- 41.8	Round ball on top of dark colored octagonal build.
Turr	40°- 51.9	73°- 42.1	Center of square turret on front of dark brown building.
Bath	40°- 52.0	73°- 42.3	Center of door, white bath house.
Greb	40°- 51.9	73°- 43.4	Center of roof, green bath house.
Cof	40°- 51.8	73°- 43.8	Outer corner of concrete fence.
Lag	40°- 51.5	73°- 43.6	Tall white flagpole at head of dock.
Ship	40°- 50.7	73°- 44.1	Most southerly of two cone shaped roof tops, one with weather vane.
Hite	40°- 50.6	73°- 44.0	Center of white door of boathouse at head of dock.
Gold	40°- 50.5	73°- 43.8	White flagpole with gold ball.
Gar	40°- 51.5	73°- 46.3	Center of red roof on guard house.
Kin	40°- 51.2	73°- 46.4	Derrick Kingpost on coal dock, Hart Island.
Fen	40°- 51.1	73°- 46.4	Light on end of northerly ferry fender.
Art	40°- 51.1	73°- 46.3	Flagpole, Hart Island.
Cor	40°- 51.1	73°- 46.3	N.W. corner of main building, Hart Island.
Not	40°- 51.0	73°- 46.3	West spire on church, Hart Island
Lu	40°- 50.7	73°- 46.1	Center of roof, guard house.
Tab	40°- 51.2	73°- 46.2	West chimney on grey stable.
She	40°- 51.3	73°- 46.1	Doorway in small white shed.
Ded	40°- 51.3	73°- 46.0	White conspicuous tombstone.
Sig	40°- 51.3	73°- 45.9	Wooden sign reading - Prison Island Keep Off.
 Gen	40°- 51.4	73°- 46.0	Door in center of low brick build., north wall.
Jug	40°- 51.5	73°- 46.2	Center of red roof, guard house.

TOPOGRAPHIC  
REVIEW OF GRAPHIC CONTROL SURVEY T-6027, SCALE 1/10,000

Date of Review *Dec 18, 1935.*

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5333, , with particular attention to the following details:

- (a) Projection has been checked in the Field. ✓
- (b) Accuracy of location of plane table control points. ✓
- (c) Discrepancies between detail on this survey and the air photo compilations listed ~~above~~ in D.R. T-5333. ✓
- (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above. *none* ✓

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5333, , for a more complete discussion of any errors or discrepancies found. ✓

Any material errors found on this survey are noted in subsequent paragraphs of this review, and these have been reported to the Field Records Section and the Cartographic Section. ✓

Notes and corrections resulting from the review are shown on this survey in green. ✓

*See pages 4 and 7 of report T 5333  
 New location of O Greb T6027 is shown on T 5333.*

*Leonard A. Mulsauer*  
*December 18, 1935.*  
*B. G. Jones*

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 6027

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. I

REGISTER NO. 6027 *Graphic Control*

State New York

General locality Long Island Sound

Locality Prospect Point to Hart Island

Scale 1-10,000 Date of survey Sept.-Oct., 1933 ~~1934~~

Vessel Project HT-134

Chief of Party Harold A. Cotton

Surveyed by H. J. Seaborg

Inked by A. Black

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated March 23, 1933, ~~1934~~

Remarks: \_\_\_\_\_