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Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: New York

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. "J" 6028

LOCALITY

Long Island Sound

South portion of Ferrisland

Harbor

1923

CHIEF OF PARTY

Harold A. Cotton

U. S. GOVERNMENT PRINTING OFFICE: 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 6028

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. "J"

REGISTER NO. 6028 Graphic Control

State New York

General locality Long Island Sound

Locality South portion of Hempstead Harbor. *large*

Scale 1:10,000 Date of survey October, 1933

Vessel Project HT-134

Chief of party Harold A. Cotton

Surveyed by W. O. Hinkley

Inked by A. Black

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated March 23rd, 1933

Remarks:

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DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SHEET NO. "J"

South portion of Hempstead Harbor

INSTRUCTIONS:

This survey was accomplished under instructions dated March 23, 1933.

CONTROL:

This sheet was controlled in the main by Army Engineer Stations although the Coast Survey Triangulation "Tank (Manhasset)" was used to a very considerable extent. This scheme of triangulation started off of the Coast Survey Stations Glen Cove Beacon and New York - see topographic sheet _____ (Field Letter K).

EXTENT:

This sheet takes in the entire southern portion of Hempstead Harbor from just below Sea Cliff up to the end of the Harbor.

JUNCTIONS:

This sheet joins with sheet "K" on the north.

METHODS:

Ordinary plane-table methods were used except that the nature of the sheet, the area of which is a comparatively narrow bay with control on each side, rendered it exceptionally easy to get resections and three point fixes everywhere except in the southern part where all visible stations were practically in line.

The initial set up was made at "H H 1" with an orientation upon "Tank (Manhasset) 1932" and a traverse run to "H H 4" and "H H 6" closing in on these stations about as closely as it is possible to plot.

From "H H 4" the traverse was run back up the west side of the bay tying in to the last point on sheet "K", within about two meters which was adjusted over 400 meters of shoreline.

From "H H 4" the traverse was also run south to "H H 9" where the closure was again about two meters.

A three point fix was then picked up on the west side of the bay and run north to "H H 4" and south around the south end of the bay, checking in on "H H 8" perfectly on the way, and back on the east side of the bay to a closure with the work previously done. This closure was exact. However "H H 12" which was on this circuit was missed by four hundred eighty meters. Obviously something is wrong with the triangulation determination of this station or with the transmission of the data regarding it. A.H.H. 12 (U.S.E.) was later plotted correctly on sheet.

Cuts were taken to prominent objects, which checked very closely, and at times it was possible to take rod readings to these same objects.

CHANGES:

At several places on the west bank the contour of the hills has been very decidedly changed from what is shown on the chart by the operation of sand and gravel companies. These changes are still going on, although operations are expected to discontinue within a year due to the exhaustion of the deposits. No attempt was made to get these changes that had occurred far above the high water line.

The end of the Bar Beach has been dredged back as far as station "H H 4" and a channel cut along the south side of this bar back to the Sand Docks. The low water line throughout the entire south end of the bay has been subject to considerable change.

There appears to have been some changes in the bulkhead in front of the Glenwood Power Plant. In the south end of the bay the land is very flat and the high water line is subject to considerable shifting.

NATURE OF THE SHORELINE:

The bluffs above Sea Cliff break away just about the north border of this sheet and drop back to become low hills several hundred meters back from the shore.

Opposite the Bar Beach a wood sheet pile bulkhead extends for about 700 meters in front of an electric power plant, but otherwise the shore becomes progressively more marshy both below and above high water line. In the southern end of the harbor the area between high and low water is very soft muck incapable of supporting anything, but a few meters back of the high water the hills rise far enough to afford firm land.

On the west side of the bay the features are similar, especially with regard to the muck between high and low waters.

South of the southern of the two sand docks is a considerable area between high and low water filled with ruined docks, grounded rotting scows, and other old equipment from the gravel pit. No attempt was made to delineate these structures but the high water and low water lines were run where they would normally come. This junk will be completely disintegrated within a few years, low water being completely outside.

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On the west side of the bay are three large gravel pits, which at the present time are about worked out. The large estates which occupied such a large portion of the north portion of the harbor have given place to small shacks or waste land.

A concrete highway roughly parallels the shoreline throughout that portion of the west shore of the harbor shown on this sheet.

At the south end of the Harbor is the village of Roslyn behind which is the mud hole indicated on the sheet which is gradually being filled in by the city dump.

The highway running across the foot of the Harbor (i.e. East and West) is being widened and a new outlet for this pond being constructed.

STATISTICS:

Statute miles of high water.....	12
" " " low water, creeks, sloughs, etc.....	13
" " " roads, railroads, etc.....	1.1
Number of recoverable positions:	
Triangulation.....	13
Topographic.....	4
Number of set ups.....	53
Number of offshore rocks.....	None
Area.....	4 sq. miles.

Respectfully submitted

W. O. Hinkley
W. O. Hinkley,
Surveyor, C. & G. Survey

Approved and forwarded

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

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PLANE TABLE POSITIONS (SHEET "J")

NAME	LATITUDE	LONGITUDE	DESCRIPTION
Old	40°- 50.55	73°- 39.20	Low square brick stack partially covered with vines.
Green	40°- 50.35	73°- 39.15	Green dome on white house about in the edge of the trees, and visible over all of the southern portion of Hempstead Harbor. Not to be confused with Dome which is also a green dome but higher up on the hill and about three quarters of a mile further north. "Dome" is not readily visible from the southern part of Hempstead Harbor.
Tall	40°- 50.10	73°- 38.95	Tall white flagpole in edge of trees.
Nor	40°- 49.70	73°- 38.90	Northwest of four steel stacks at Glenwood power plant.
Blue	40°- 49.40	73°- 38.90	West gable of small blue shed just north of South Glenwood Landing.
Ball	40°- 49.25	73°- 38.90	Finial on top of small boat house at inner end of first dock south of the inlet at South Glenwood Landing.
For	40°- 48.95	73°- 38.85	Flagpole at inner end of fourth dock south of South Glenwood Landing.
Gab	40°- 48.75	73°- 38.90	Westerly gable of cream colored shed on bank above a pile bulkhead in the otherwise marshy shore which begins about 200 meters north of this point.
Cross	40°- 48.35	73°- 38.80	Gilt cross on the top of a round red brick tower about half way up the hill.
School	40°- 48.15	73°- 38.70	Stack on brick school house about half way up the hill on the east shore of Hempstead Harbor about opposite the southern end.
Top	40°- 47.90	73°- 38.30	Flagpole on top of the cupola of house on skyline to the southeastward of Roslyn.
Clock	40°- 47.95	73°- 39.05	Clock tower in Roslyn.
Pil	40°- 48.1	73°- 39.05	A pile on south side of the channel running up to Roslyn. It is the second pile past the point where another channel branches off to the eastward.
Cor	40°- 48.30	73°- 39.05	The tall pile in the northwest corner of Andrews Dock at the point where the dredged and bulkheaded channel to Roslyn starts.
Punk	40°- 48.45	73°- 39.40	Chimney of weathered old house on west side of Hempstead Harbor. This house sits higher up on the side of the hill than most of the similar dilapidated old houses on this side the bay. It is the second house of any

<u>NAME</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DESCRIPTION</u>
Punk - (continued from preceding page)			prominence north from the point where the shoreline swings to the east.
Out	40°- 48.85	73°- 39.25	North end of a row of piles out in water just beyond low tide line.
South	40°- 49.45	73°- 39.25	South one in a row of mooring dolphins for gravel barges.
Swing	40°- 49.70	73°- 39.30	Center pole of circular swing in park on sand spit.
Pole	40°- 49.70	73°- 39.40	Flagpole on house at inner end of dock on north shore of the sand spit.
Rick	40°- 50.15	73°- 39.75	Stiff leg derrick on a dock of the O'Brien Sand and Gravel Co.
Tin	40°- 50.20	73°- 39.80	Sheetmetal stack a few meters to north and west of a group of concrete silos.
Wood	40°- 50.35	73°- 39.85	Red wooden tank on end of the conveyor dock of the sand and gravel plant.
Pow	40°- 49.70	73°- 38.80	Elevated tank behind Glenwood Power plant.
Amos	40°- 48.10	73°- 39.10	Stack on the mill of lumber company on west side of the dredged channel running up to Roslyn.
Andy	40°- 48.15	73°- 38.95	Old disused stack (brick) south of the Andrews Dock.

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MEMORANDUM BY CHIEF OF PARTY NO.3

REGARDING TOPOGRAPHIC SHEET "J" "K" "L"

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 line 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.

CONNECTION WITH WORK OF U.S. ENGINEERS.

Coast and Geodetic Survey triangulation furnished control for sheets "K" and "L" while triangulation of the U.S. Engineers furnished control for sheets "J" which covers the lower portion of Hempstead Harbor.

The line \triangle Glen Cove Lt. - \triangle New York is the base for the extension of the U.S. Engineers triangulation into Hempstead Bay. Connection was made on this line between the triangulation of the Coast and Geodetic Survey and the U.S. Engineers. The value determined for both the azimuth and distance of this line was slightly different than that originally used by the U.S. Engineers. The different values for both the azimuth and distance of this line \triangle Glen Cove Lt. - \triangle New York are as follows:

	Azimuth*Back	Log distance
U.S. Engineers	257 - 25' - 32.0"	3.226342
C. & G. Survey	257 - 26' - 04.1"	3.226363
Difference	\nearrow 32.1"	.000021

The above differences of azimuth and distance for the line Glen Cove Lt. - New York, were properly allowed for when converting the U.S. Engineers triangular co-ordinates of these stations into geographic positions for plotting on topographic sheet "J".

RECOVERY - OLD INTERSECTION TRIANGULATION STATIONS

The following former intersection triangulation stations were recovered during the course of the present topography:
Sheet "K" - Cone - Side - Stack - Sky - Green - Brown - Tow (all 1930); Point and New York (1917 - redetermined 1933); Tall Tank, Manhasset 1932.

Sheet "L" - Tank (Oak Neck) - Staff - Yel (all 1930); Dock - White - Will (all 1931).

CHANGES

Along shore line there have been numerous minor changes of filling and excavating, mostly the former. There has also been many changes among the small boat landings; many old ones gone and many new ones built. These scarcely merit individual mention; they are all corroborated by the aerial photographs.

ACCOMPANYING DATA:

(a) Blue prints Nos. 11135387 (Sheet No.2) and 11627395 (sheets Nos. 1 and 2). These prints are of Glen Cove and Hempstead Bay respectively. One of them are shown the U.S. Engineers triangulation stations, their scheme being extended from the base Δ Glen Cove Lt. to Δ New York which base was tied into the C. & G. Survey work during the present season.

(b) Description and position (rectangular co-ordinates) of twenty five triangulation stations of the U.S. Engineers.

(c) Computations for the conversion of the above rectangular co-ordinates into geographic positions for plotting on topographic sheet "J". In these computations due allowance was made for the new determination of the base Δ Glen Cove Lt. Δ New York. Computations were only made for such stations as were recovered and used for control.

Harold A. Cotton
Harold A. Cotton,
Chief of Party.

Card Form 524 accompany this report for the following stations

PIL - END - WALL - Cor

Geographic Names were examined in connection with the verification of names on H 5545

*Glenwood Landing not Glenwood
Bar Beach added*

H Bacon

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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LANDMARKS FOR CHARTS

Mamaroneck, N. Y.

November 13th, 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					
	°	'	D. M. METERS	°	'	D. P. METERS			NAME
Elevated Water Tank	40	49	1211	73	38	1107	Pow	Triang.	223
Range Light	40	49	1121	73	39	842	Pilot L.	Triang.	223✓
Stack on School	40	48	265	73	38	995	School	P T	223✓
F. P. on large house on sky line.	40	47	1718	73	38	476	Top	P T	1213✓
Gilt cross on red brick tower.	40	48	730	73	38	1105	Cross	P T	223✓
Brick Stack	40	48	137	73	39	103	Amos	Triang.	223✓ 1213
Green Dome	40	50	659	73	39	233	Green	P T	223✓
Brick Stack (Old)	40	48	283	73	38	1381	Andy	P T	223✓
Metal Stack	40	50	408	73	39	1097	Tin	P T	223✓
NW of four steel stacks	40	49	1266	73	38	1261	Wor	P. T.	223✓ 1213
This list only from Topographic Sheet "J" (H. A. Cotton-1933) For Landmarks other than from topo. sheets see Special Report (Same Form) For charts 222, 1213 and 223									

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) off-shore, (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: 1932

(1) as for chart 1213

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