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U. S. COAST & GEODETIC SURVEY  
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Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. A. Patton, Director

State: New York

DESCRIPTIVE REPORT

Topographic } Sheet No. B 6023  
Hydrographic }

LOCALITY

Long Island Sound

Port Chester to Rye Neck

1933

CHIEF OF PARTY

Harold A. Cotton, H. & G. Engineer

U. S. GOVERNMENT PRINTING OFFICE: 1928

DESCRIPTIVE REPORT  
TO ACCOMPANY  
TOPOGRAPHIC SHEET NO. "B"  
WEST SHORE OF LONG ISLAND SOUND  
from Byram Harbor, Connecticut, to Parsonage Point, New York.

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INSTRUCTIONS:

This survey was executed in compliance with the Director's Instructions dated March 23, 1933, Project HT-134.

EXTENT:

This sheet comprises a resurvey of all shoreline from a point opposite Huck Island, below Byram Harbor to Parsonage Point. It also includes the shoreline of Port Chester Harbor and the Byram River to the New York, New Haven and Hartford Railroad bridge. Great Captain Island, Calf Island and numerous other smaller islands are also included on the sheet.

CONTROL:

The control consisted of 9 third order triangulation stations well distributed over the area surveyed along the Sound; and 17 U. S. E. D. stations in Port Chester Harbor and Byram River. Graphic determinations of position with ample check were possible for all portions of the sheet.

METHOD:

The usual plane-table methods of survey were used. Traverses were run between triangulation stations: "Huck" to "Byram"; "Sing" to "Man"; "Man" to "Beach"; and "Beach" to "Parsonage Point". All traverses were checked and adjusted when necessary by taking three-point fixes between triangulation stations. Roads were located by closed traverses between set-ups, which had already been checked in traverses between triangulation stations.

Port Chester Harbor: In the outer harbor U. S. E. D. stations "West Manursing", "St. Gauthney", and "P.C.H. Mon #10" also "P.C.H. Mon #11" were plotted on sheet and shore line located either from these stations or from set-ups between these stations, after first checking the positions of the U. S. E. D. stations from our stations "Byram" and "Sing".

Byram River: The following U. S. E. D. stations were plotted on sheet: "Oak"; "Mallory"; "Ermine"; "P.C.H. #9"; "Orrick"; "Station #6"; "Block"; "Station #27L"; "Station Bridge"; "P.C.H. #2"; "Station Mon City"; "P.C.H. #1 Mon"; and "Railroad". A traverse was run from our triangulation station "Byram" checking the position of the above stations, and the shoreline was located from these or from set-ups between.

DESCRIPTION:

From the beginning of survey at a point opposite Huckleberry Island to a point about 500 meters north of Byram Point Beacon the shoreline consists of a rock ledge rising vertically from 10 to 20 feet and continues to rise on a gentle slope to a road about a quarter of a mile back of and parallel with the shore line. The area between the shore and the road is occupied by estates with well kept lawns and shade trees. Numerous small docks were found along this stretch.

The shoreline immediately above Byram Point, as well as a considerable stretch on the inner side of the stone jetty consists of a sand beach.

From the northern end of Manursing Island to a point opposite the narrow neck a little north of its center, the low water shore line consists of rock ledge, with great quantities of boulders, some of about a cubic yard in size, covering the shore from the ledge rocks at the low water line to a point near the high water line. At high-water the shoreline would appear as a sand and gravel beach with many smaller boulders. A gravel bluff approximately 25 feet high extends along this section of shore just back of the high water line. A stone wall has been erected along most of this bluff, which is being maintained at considerable expense. The usual estates with lawns and shade trees occupy the slope above the wall.

A long sand beach extends from a point a little above the center of Manursing Island to a point 500 feet above the south end. This stretch is used as a bathing beach.

The shoreline along the lower portion of Manursing Island is similar to the north end, with a fringe of rock ledge showing at low water and great quantities of boulders between the ledge and high water. The gravel bluff above high water is somewhat lower than that at the north end.

From the lower point of Manursing Island to the shoe-shaped point at "Playland", the shoreline consists of sand and gravel with a low level area covered with tall grass and brush extending from the high water line to an inland lake.

The shoe-shaped point consists of rock ledge. The shoreline below this point is a long sand beach used for bathing, known as Rye Beach, with "Playland", an amusement park in the background. The lower end of the sand beach is known as Oakland Beach.

Below Oakland Beach the shoreline consists of rock ledge with a great number of offshore rocks. This type of shore extends to Parsonage Point, except for small areas of marsh and mud in back of the island just north of Parsonage Point, and in back of the T-shaped point above the island. The usual estates with lawns and shade trees occupy the area back of high water line, with a few small docks in the protected area inside the island and T-shaped point referred to above.

The shoreline of the smaller of the two Galf Islands consists of gravel and boulders with rock ledge on the northeast corner. The island is occupied by several houses and a large round stone tower at its center, which has been listed as a land mark, and named "MEM". There are many

shade trees scattered over the island.

The shoreline of the larger of the two Calf Islands consists of rock ledge along the south shore and around the extreme south point; a sand and gravel beach along the lower east shore; gravel and boulders along the upper east shore and around the north end; and a considerable area of marsh and mud on the northwest side - the marsh extending back into the center of the island. A gravel bluff extends along the south shore as well as along the upper east shore and around the north end. A small dock has been constructed at the beach. The island is unoccupied except for a small bath house. The beach is used for bathing. The two Calf Islands are connected by a narrow sand bar at low water.

The shoreline of Great Captain Island consists of rock ledge and boulders around the southwest point and also around the northeast point. The southeast shore consists of boulders some of which are 10 feet or more in diameter. A lake fringed with marsh occupies the east center portion of the island. Most of the boulders have been removed from the south shore between the inlet and lake and the southwest point, leaving a sand and gravel beach.

The north shore is a sand and gravel beach with boulders at each end. One large dock is located on the northwest corner. A high gravel bluff extends around the east end of the island with the Great Captain Lighthouse situated on the highest point. A lower bluff extends around the west end of the island. A boardwalk extends along the narrow sand neck at the center of the island.

The shore line of the outer portion of Port Chester Harbor is similar to the rock ledge shoreline above Byram Point along the Sound, and with the same type of estates in the background; the exception being at the entrance to the Byram River, where the northwest shoreline comprises the Port Chester dump with the high chimney of the incinerator in the background (named "LAM" on sheet). The outer edge of this shore at low water is a mixture of mud and junk with a high bank of burned trash and ashes in back. The extreme south end of the outer harbor, in back of Manursing Island, is a mud flat at low water with small areas of marsh around it. The shoreline along the Byram River, after rounding the first point is lined with docks.

NEW NAMES: None.

CHANGES:

There were only two changes noted. At Byram Point a sand fill has been placed in back of and on either side of the stone jetty, forming an excellent bathing beach. At the north end of the outer portion of Port Chester Harbor on the west side of the entrance to the Byram River, the shoreline comprises the dump for Port Chester, N. Y., and is continually changing. A dock at Oakland Beach has been removed.

CONNECTIONS WITH U. S. E. D. STATIONS:

As all the U. S. E. D. stations recovered were plotted on the sheet and used as part of the control, they have been listed at the beginning under the paragraphs on "Control" and "Methods". Photostatic copies of descriptions with sketches showing their location accompany this report.



LANDMARKS FOR CHARTS:

Submitted on special form No. 567.

TOPOGRAPHIC SIGNALS:

Listed on sheet accompanying report.

STATISTICS:

Statute Miles of shoreline - high water.....	16.1
" " " " - low water.....	15.3
Number offshore rocks.....	122
Number of recoverable positions:	
Triangulation.....	9
Plane Table.....	45
Statute Miles of roads, railroads, etc. ....	5.2
Number of positions occupied.....	150

Respectfully submitted,

*E. R. Cotton*

E. R. Cotton,  
Surveyor, C. & G. Survey.

Approved and forwarded,

*Harold A. Cotton*

Harold A. Cotton,  
Lieutenant Commander, C. and G. Survey,  
Chief of Party.

TO ACCOMPANY TOPOGRAPHIC SHEET "B" (H. A. COTTON 1933)

LOW WATER LINE

In common with other topographic sheets executed during the present (1933) field season it was impracticable to locate much of the low water line by launch hydrography. Most of this shore line is strewn with off lying boulders and it was not considered safe to extend hydrography inside the low water line even during periods of high water.

Accordingly, the location of the low water line on all these topographic sheets was a distinct job in itself, i.e. it was necessary to visit the entire low water area during periods of low water and to locate the low water line with due regard to existing tidal conditions. Low water examination also made in this area by Hydrographic parties.

PROMINENT OBJECTS - "LANDMARKS"

Also in common with 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 permanence, it is believed that the chart should also 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

The U.S. Engineers have a scheme of triangulation extending up the Byram River from Port Chester Harbor. Connection between this work and the C. & G. Survey triangulation was made on the line  $\Delta$  Byram (#17 USE) to  $\Delta$  Sing (E. Manursing U.S.E.). As  $\Delta$  Byram was the center of co-ordinates for the position of the U.S. Engineers stations, the later stations were plotted directly on the topographic sheet.

RECOVERABLE STATIONS

Six well marked ground stations are described on Form 524. These stations are favorably distributed over the sheet. An additional forty (40) recoverable topographic signals are listed in the report - the nature of these are such as not to require an extended description on Form 524.

BRIDGES

The only bridge shown on the sheet is the Mill Street Bridge at Port Chester which is a fixed bridge marking the limit of any navigation up the Byram River.



CHANGES

The following may be mentioned in addition to those listed in the report.

(a) The hook on the east side of the entrance to the southern portion of Port Chester has extended somewhat.

(b) The dock at Playland is smaller than charted.

(c) There has been little change at Manursing Point altho this appears to be an eroding point.

ACCOMPANYING DATA

Blue print of Harbor Line Survey of 1930 showing the triangulation of the U.S. Engineers, about Port Chester and Byram River.

Descriptions of sixty (60) U.S. Engineers stations in the above area.

Computations for plotting twenty one (21) of the above stations on this topographic sheet.

*Form 524 for 05 Shoe, Tee, Brass, Neck, Tain, Teak*

*Harold A. Cotton*  
Harold A. Cotton, Chief of Party  
U.S. Coast and Geodetic Survey.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

B T 6023

Mamaroneck, New York

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						METHOD OF DETERMINATION	CHARTS AFFECTED	
	LATITUDE			LONGITUDE					NAME DATUM
	°	'	D. M. METERS	°	'	D. P. METERS			
High round stone tower center of smaller Calf Island	40	59	1514	73	38	924	Mem	Plane table	222 ✓, 1213
Apex of red roofed cupola a pyramid	40	59	1327	73	39	228	Ram	Plane table	222 ✓
Tall light yellow brick chimney of incinerator	40	59	946.7	73	39	856.9	Lam	Triangulation	222 ✓
Cupola on yellow house facing outer Port Chester Har	40-59		78	73	39	1315	Upa	Plane table	222 ✓, 1213
Tallest chimney in center of house N. end Manursing Is	40-58		1558	73	39	613	Nur	"	222 ✓
<del>Tallest white flagpole center Manursing Island</del>	<del>40</del>	<del>58</del>	<del>718</del>	<del>73</del>	<del>39</del>	<del>983</del>	<del>Pole</del>	<del>"</del>	<del>222</del>
Dormer window on south side red roofed house on south end Manursing Island	40	58	129	73	39	1027	Dorm	"	222 ✓
Spire with flag pole on Magners Pool Oakland Beach	40	57	986	73	40	1255	Mag	"	222 ✓
Center of center arch white stone house with blue roof	40	57	486	73	41	112	Arch	"	222 ✓
South chimney last house south end T-shaped point North of Parsonage Point	40	56	1802	73	41	22	South	"	222 ✓
Objects for (2) inshore and (3) harbor charts as for charts 222									
Objects for (1) offshore charts as for charts 1213									
This list only from topographic sheet "B" (H.A. Cotton-1933)									
See special report (Same Form 567) for charts Nos. 222 and 1213 for landmarks other than from topographic sheets.									
North American Datum									

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.



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Recoverable Topographic SignalsS H E E T   "B"

Name	Latitude	Longitude	Description
Van	41 00.3	73 39.7	Weather-vane on flag pole top of pent house
Is	41 00.2	73 39.6	Pole
Win	41 00.1	73 39.6	North twin derrick (signal cloth)
Pol	41 00.1	73 39.8	Black stack
Tanc	41 00.1	73 39.6	Wooden tank
Ank	41 00.0	73 39.6	South tank of tallest twin tank
Tope	40 59.9	73 39.7	Pole top of cliff (signal cloth)
Old	40 59.9	73 39.6	East gable 2 $\frac{1}{2}$ story house
Lum	40 59.9	73 39.6	Chimney lumber yard
Tan	40 59.8	73 39.6	Southeast corner 2 story warehouse
Cor	40 59.8	73 39.6	Corner post
Der	40 59.8	73 39.6	Derrick
Gabe	40 59.8	73 39.6	Gable red boat house
Sign	40 59.7	73 39.6	Sign "50¢"
Ked	40 59.6	73 39.6	Base of crooked tree
Rick	40 59.6	73 39.6	U.S.E.D. "Orrick"
Ney	40 59.6	73 39.6	Square chimney
En	40 59.5	73 39.5	U.S.E.D. "Ermine"
Mall	40 59.5	73 39.5	U.S.E.D. "Mallory"
Con	40 59.5	73 39.5	Concrete pier
Him	40 59.4	73 39.5	Square chimney
Post	40 59.4	73 39.5	Pole (signal cloth)
Ban	40 59.4	73 39.7	Gable of most westerly of two abandoned boat houses
Flag	40 58.7	73 39.7	Flag pole
End	40 59.1	73 39.4	Beacon - Byram Point
Round	40 59.5	73 39.3	Red cupola
Ken	40 59.7	73 39.1	Center of dock
Calf	40 59.5	73 38.4	Flagpole
Sap	40 58.7	73 39.4	East gable small white house on inside end of dock
Bal	40 58.5	73 39.5	Highest boulder in wall
Bul	40 58.2	73 39.7	Flag pole
Fire	40 58.0	73 40.1	East gable fire works house
Bum	40 57.9	73 40.5	Concrete chimney near southwest corner of restaurant
N. Twin	40 57.8	73 40.7	North twin tower
S. Twin	40 57.8	73 40.7	South twin tower
Small	40 57.7	73 40.8	Small red roofed house
Rest	40 57.6	73 40.8	Cupola red-roofed building
Bloom	40 57.4	73 41.0	North chimney Bloomingdale house
Pole	40 58.4	73 39.7	Tallest white flag pole center Manursing I.

## TOPOGRAPHIC SHEET No \_\_\_\_\_ (Field Letter B)

Name Station	Rectangular Feet	Co-ordinates Meters
Railroad	N. 6640.43 W. 83.28	N. 2024.0 W. 25.4
P.C.H. #1	N. 6239.3 W. 398.4	N. 1901.9 W. 121.5
P.C.H. #2	N. 6161.3 W. 250.0	N. 1878.1 W. 76.2
P.C.H. #9	N. 2198.2 W. 773.0	N. 670.1 W. 235.6
P.C.H. #10	N. 431.0 W. 408.0	N. 131.4 W. 124.4
P.C.H. #11	S. 332.0 W. 1723.9	S. 101.2 W. 525.3
Bridge	N. 6155.2 W. 263.7	N. 1876.3 W. 80.4
Ermine	N. 1802.4 W. 232.6	N. 549.4 W. 70.9
<del>Arch</del>		
Oak	N. 1046.4 W. 82.7	N. 319.0 W. 25.2
Orrick	N. 2395.1 W. 488.1	N. 730.1 W. 148.8
Block	N. 3173.59 W. 711.05	N. 967.4 W. 216.8



Name of Station	Rectangular Co-ordinates	
	Feet	Meters
Mallory	N. 1913.6 W. 122.1	N. 583.3 W. 37.2
Gauthney	S. 789.4 W. 1636.6	S. 240.6 W. 498.9
#27L	N. 5124.9 W. 1054.5	N. 1562.2 W. 321.5
#6	N. 2722.1 W. 637.7	N. 829.7 W. 194.4
#17	Zero co-ordinates	
Mon City	N. 6189.1 W. 407.5	N. 1886.6 W. 124.2
Ref. Bolt 168B	S. 61.0 W. 1568.4	S. 18.6 W. 478.0
E. Manursing	S. 1675.0 W. 150.3	S. 510.5 W. 45.8
W. Manursing	S. 1724.2 W. 1137.8	S. 525.4 W. 346.8

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 6023

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. B

REGISTER NO. 6023 *Graphic Control*

State New York

General locality Long Island Sound

Locality Port Chester to Rye Neck

Scale 1-10 000 Date of survey May-June, 1933, ~~1932~~

Vessel Project HF-134

Chief of Party Harold A. Cotton

Surveyed by E. R. Cotton

Inked by Carl G. W. Swanson

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

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

Instructions dated March 23, 1933, ~~1932~~

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