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

State: New York

DESCRIPTIVE REPORT
Topographic
Hydrographic

Sheet No. A 6022

LOCALITY
Long Island Sound
Ninias to Great Captain Island

193 8

CHIEF OF PARTY
Harold A. Cotton, H. & G. E.
Instructions:

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

Scope:

The sheet comprises the south shore of the State of Connecticut from the west side of Stamford Harbor to the west side of Byram Harbor.

Control:

Second order triangulation supplemented by control of third order accuracy was used for control on this sheet.

Method:

The usual plane-table method of topographic survey was used throughout. All traverses closed well within the allowable and the closures were so small that the adjustments were hardly discernible. Three point fixes were rarely used because of the lack of control in inland waterways.

Offlying features such as rocks, etc., were located by telemeter readings.

General Description of Coast Surveyed

The shore on the west side of Stamford Harbor north of the narrow neck leading to Greenwich Point is fringed with rock reefs and rock strewn areas interspersed with mud in the protected bights. The shore line south of the aforementioned area and extending to Greenwich Point is of sand. The seaward sides of Greenwich Point and Flat Neck Point are bordered by rocky areas. The highwater line is bordered by trees and grass.

In general, Greenwich Cove has a low water coast of marsh and mud; Pelican Island being the only sand formation in the Cove. Elias and Todd Points are bounded by rock ledges and areas of boulders. The prevalence of estates in this vicinity causes the area back of the high water line to be composed of trees and well kept lawns.

Cos Cob Harbor has a coastline of mud and marsh throughout its extent. The area back of high water is composed of trees and grass, giving way to buildings in the upper portion of the harbor. The New York, New Haven, and Hartford Railroad has a drawbridge across the Lianus River in Cos Cob Harbor; this is the only railway bridge located on Sheet A.

From Goose Island, on the west side of Cos Cob Harbor, to Tweed Island at Chimney Corner the coastline has a low water area of rocks and rock reef. The highwater line is bordered by estates on the eastern portion but has an area of
grass and trees near Chimney Corner.

Chimney Corner is a marsh and mud area, the highwater line being bounded by trees and grass on the east side and houses on the west. Indian Harbor is also a mud and marsh area, but the points on the sides at the entrance are rocky. The highwater line on the east side is composed of estates and on the west side of houses in the Village of Greenwich.

The harbor of Greenwich has a low water line of marsh and mud except where docks and bulkheads make the high and low water lines coincident. The easterly and northerly sides of the harbor have buildings on the high water line, while the west side is bordered by trees and grass.

The coast line from Round Island to the east side of Byram Harbor is generally rocky. The high water line is bounded by estates.

Byram Harbor is choked with marsh and mud and the high water position is composed of marshy areas on the northeast side and of estates on the west. A small stretch of sandy beach is to be found on the west side.

All off lying islands are rocky with the exception of a stretch of sand on the north side of Little Captain Island. The islands in the inshore area are bordered by marsh or mud as a general thing.

Statistics:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miles of shore line</td>
<td>52.2</td>
</tr>
<tr>
<td>Area in miles</td>
<td>7.5</td>
</tr>
<tr>
<td>Miles of roads</td>
<td>3.5</td>
</tr>
<tr>
<td>Number of rocks</td>
<td>104</td>
</tr>
<tr>
<td>Number of Topographic Signals</td>
<td>107</td>
</tr>
<tr>
<td>Number of Set-ups</td>
<td>181</td>
</tr>
<tr>
<td>Miles of low water shoreline</td>
<td>50.2</td>
</tr>
</tbody>
</table>

Landmarks:

All landmarks located on this sheet are listed on the form "Landmarks for Charts."

Respectfully,

[Signature]

[Signature]

Harold Altbg
Chief of Staff

William F. Deane
Aid.
MEMORANDUM BY CHIEF OF PARTY

To accompany Topographic Sheet "A" (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"

A great number of extensive estates are located over the area covered by the topographic sheets executed during the present (1933) season. Some of the large buildings on these estates comprise the most prominent objects of the landscape. This is particularly true where such buildings have bright red tile roofs; others with green, blue or grey tile roofing are also very prominent.

As these buildings are not only of outstanding prominence but also have particular promise of permanency it is believed that the charts should show a reasonable number of them. Accordingly the principal objects of this character have been listed at frequent intervals on Form 567 "Landmarks for charts". In each case a particular point of the roof in question has been noted.

CONNECTION WITH WORK OF U.S. ENGINEERS.

U.S. Army Engineers have made surveys and established monuments in Cos-Cob Harbor - Chimney Corner and Greenwich Harbor. A number of such monuments in each of these localities have been located on the topographic sheet. This method was considered more expedient than trying to connect with this work by triangulation.

The U.S. Engineer's monuments located in each of those localities were as follows:
(a) Cos-Cob Harbor - Brush, U.S.E. - Yacht Club, U.S.E. - #6, U.S.E.
(b) Chimney Corner - #18, U.S.E. - #20, U.S.E.
(c) Greenwich Harbor - #1, U.S.E. - #3, U.S.E., Grass Island, U.S.E.

Each of these monuments have been described on Form 524. The descriptions of these stations is as prepared by the U.S. Engineers.

RECOVERABLE STATIONS

The descriptive report lists about 40 recoverable topographic signals. The nature of these signals is such that it is not believed necessary to prepare further descriptions on Form 524.

Accordingly the only descriptions prepared on Form 524 for this sheet are the monuments of the U.S. Engineers listed above, also stations Rod and Yacht.
CHANGES

Mr. Deane has made no comment relative to "Changes" in his report. There are quite a number of changes due to filling in and excavating which do no appear to need further comment.

The principal natural changes are as follows:

(a) Greenwich Point. The end of the point has eroded away for about 80 meters.
(b) Pelican Island. Only a small (northeast end) portion of Pelican Island now lies above high water.
(c) Point East Entrance Chimney Corner. The extremity of this long narrow point has broken up into a couple of off lying islands and the delineation of the shore line considerably changed.

All of these changes are confirmed by aerial photographs.

NAMES

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

The low long point at the east side of the entrance to Chimney Corner does not appear to have any name, NARROW POINT is suggested.

BRIDGES

The N. Y. N. H. & H. R.R. bridge across the mouth of the Mianus River is the only bridge on the sheet. Span and clearance for this bridge are as follows (data from Chief Engineer - N.Y.N.H. & H. R.R.):

- Clear span (between neat lines of piers) 75-ft.
- Channel (clear between fenders) 67' - 7".
- Clearance to mean high water 20.3-ft.
- Clearance to extreme high water 17.10 ft.

ACCOMPANYING DATA

The following data from the U.S. Engineers (Providence Office) accompany this sheet.

(a) U.S. Harbor Lines - Greenwich Harbor
(b) Mianus River - two sheets.

These sheets show the location of the monuments of the U.S. Engineers in this area - some of which located on this topographic sheet "A" by Mr. Deane.

Respectfully submitted

Harold A. Cotton,
Chief of Party.

Card Forms 524 accompany this report for the following stations:
Yacht Club U.S.E., No.6 U.S.E., Alfa Brush U.S.E., Grass Island U.S.E., No.1 U.S.E., No.3 U.S.E., No.27 U.S.E., No.26 U.S.E., Rod Yacht.
<table>
<thead>
<tr>
<th>NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buff</td>
<td>Buff colored flag pole</td>
</tr>
<tr>
<td>Row</td>
<td>Small red roofed house on end of dock</td>
</tr>
<tr>
<td>Mast</td>
<td>Mast on concrete replica of ship</td>
</tr>
<tr>
<td>Barn</td>
<td>Cupola on barn</td>
</tr>
<tr>
<td>Tor</td>
<td>Tower</td>
</tr>
<tr>
<td>Yell</td>
<td>East gable of yellow house</td>
</tr>
<tr>
<td>Red</td>
<td>Small red roofed house</td>
</tr>
<tr>
<td>Red</td>
<td>Small red roofed house</td>
</tr>
<tr>
<td>Rip</td>
<td>End of dock</td>
</tr>
<tr>
<td>Beam</td>
<td>Spindle</td>
</tr>
<tr>
<td>Yam</td>
<td>Tallest of trees on island</td>
</tr>
<tr>
<td>Pol</td>
<td>Cupola on Riverside Yacht Club</td>
</tr>
<tr>
<td>Riv</td>
<td>Flag pole</td>
</tr>
<tr>
<td>Bun</td>
<td>Corner of bulkhead</td>
</tr>
<tr>
<td>Oye</td>
<td>Cupola on boat house</td>
</tr>
<tr>
<td>Mic.</td>
<td>House on end of dock</td>
</tr>
<tr>
<td>Sid.</td>
<td>End of dock</td>
</tr>
<tr>
<td>Wall</td>
<td>North west corner of bulkhead</td>
</tr>
<tr>
<td>Pos.</td>
<td>West end of bridge</td>
</tr>
<tr>
<td>Don</td>
<td>End of dock</td>
</tr>
<tr>
<td>Pen</td>
<td>End of dock</td>
</tr>
<tr>
<td>Rin</td>
<td>Northeast corner of house on dock</td>
</tr>
<tr>
<td>Brick</td>
<td>Brick stack</td>
</tr>
<tr>
<td>Pen</td>
<td>Southeast corner of Palmer Marine Engine building</td>
</tr>
<tr>
<td>Hin</td>
<td>End of dock</td>
</tr>
<tr>
<td>Cos.</td>
<td>End of dock</td>
</tr>
<tr>
<td>Lip.</td>
<td>North chimney on house</td>
</tr>
<tr>
<td>Isot.</td>
<td>Isolated tree</td>
</tr>
<tr>
<td>Green</td>
<td>Small green roofed house</td>
</tr>
<tr>
<td>Vane</td>
<td>Weathervane on house</td>
</tr>
<tr>
<td>Pier</td>
<td>Middle pier of bridge</td>
</tr>
</tbody>
</table>
Come

South east corner of bulkhead

Went

West chimney on red roofed house

Yacht

Flag pole

Cab

West gable of Rudder Yacht yard building

Small

Black stack

Pub

South gable of Public Service Corp., Building

Sin

Chimney on sewage disposal plant

Hung

Flag pole on end of dock

Lo

Flag pole on end of dock

Boat

West chimney of red roofed house

Will

East chimney of green roofed house

High

Northwest chimney of red roofed house

Brow

Northwest white chimney of white house, gray roof

Hill

South white chimney of red roofed house

Front

Small house in front of boat house

Run

Flag pole

West

West chimney of gray roofed house

Fin

Finial on small pavilion
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 No. A

REGISTER NO. 6022

State Connecticut

General locality Long Island Sound

Locality Manus to Great Captain Island

Scale 1:10,000 Date of survey April-May, 1933

Vessel Project HT-134

Chief of Party Harold A. Cotton

Surveyed by William F. Deane

Inked by William F. Deane

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated March 23, 1933

Remarks: 
LANDMARKS FOR CHARTS

Narberth, N.Y.

October 25, 1933

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

Harold Cotton, Chief of Party.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POSITION</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sail Yell</td>
<td>East Gable of Yellow</td>
<td>Lat. 41° 01' 544.4 N 73° 34' 764.8 W</td>
<td>Topo 222 = 222</td>
</tr>
<tr>
<td>House</td>
<td>chimney</td>
<td>Lat. 41° 00' 1283.9 N 73° 34' 244.9 W</td>
<td>Triang 222</td>
</tr>
</tbody>
</table>

Note:
- Objects marked as affecting Chart 222 are useful for inshore and harbor charts.
- Only objects marked as also affecting charts 1218 are useful for offshore charts i.e. navigation about the outer portion of Long Island Sound.
- Only new objects located on this topographic sheet (Sheet 1A) are listed in this report.
- Landmarks other than those from the topographic sheets are covered by a special report on this Form (567) for Charts Nos. 222 and 1218, which see.

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.
**LANDMARKS FOR CHARTS**

Monofonack, N.Y.

October 25, 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.

**Chief of Party:**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>°</td>
<td>D.M. Meters</td>
</tr>
<tr>
<td>Gray roofed house on dock</td>
<td>41 05</td>
<td>157.5</td>
</tr>
<tr>
<td>Tower, small building</td>
<td>41 00</td>
<td>773</td>
</tr>
<tr>
<td>Finial on small pavilion</td>
<td>40 59</td>
<td>555</td>
</tr>
<tr>
<td>Central Red Roofed House</td>
<td>41 00</td>
<td>1513</td>
</tr>
<tr>
<td>Spindle</td>
<td>41 01</td>
<td>356</td>
</tr>
<tr>
<td>Cupola on yacht club</td>
<td>41 01</td>
<td>610</td>
</tr>
<tr>
<td>Weathervane on house</td>
<td>41 00</td>
<td>1535</td>
</tr>
<tr>
<td>W. Chim, Red Roofed House</td>
<td>41 00</td>
<td>1180</td>
</tr>
<tr>
<td>Chimney on disposal plant</td>
<td>41 00</td>
<td>1695</td>
</tr>
<tr>
<td>W. Chim, Red roofed house</td>
<td>41 00</td>
<td>436</td>
</tr>
<tr>
<td>W. Chim, Green roofed house</td>
<td>41 00</td>
<td>227</td>
</tr>
<tr>
<td>NW. Chim, red roof house</td>
<td>41 00</td>
<td>416</td>
</tr>
<tr>
<td>W. Chim, Gray roof house</td>
<td>41 00</td>
<td>247</td>
</tr>
<tr>
<td>Indian Harbor Yacht Club</td>
<td>41 00</td>
<td>1263.0</td>
</tr>
</tbody>
</table>

(center of building located from corners)
REVIEW OF GRAPHIC CONTROL SURVEY T-6022, SCALE 1:10,000

Date of Review 7/26/1938

1. This survey has been reviewed in connection with Air Photo Compilation Nos. T-5259, , , 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. See Report and review T-5259

   (d) Discrepancies found in descriptions submitted on Form 524 when compared with the air photo compilations listed above.

2. Refer to the reviews and descriptive reports of air photo compilations Nos. T-5259, , , 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.

   There are numerous differences between the benchmark on T-6022 and air photographic survey T-5259. T-5259 has been corrected against T-6022 and the photographs and should be used in preference to T-6022. Refer to review and descriptive report T-5259 for detailed information regarding differences between the two surveys.

   J.C. Landy
   5/11/38.