DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
E. Lester Jones, Superintendent.

DESCRIPTIVE REPORT
to accompany

TOPOGRAPHIC SHEET 3657

REVISION OF TOPOGRAPHY OF SAN FRANCISCO BAY.

SURVEYED UNDER THE DIRECTION

of

L.O. Colbert, Assistant

by

Harry T. Kelah Jr. Assistant, and
Revee C. Briggs, Aid.

DECEMBER - 1916.

FEBRUARY - 1917.

Scale, ................ 1:10,000.

Rps. 16468 to 16472 (for latter) transmitted with sheet.
DEPARTMENT OF COMMERCE

U.S. COAST AND GEODETIC SURVEY

E. Lester Jones, Superintendent.

Descriptive Report to accompany Topographic Revision Sheet _____
of
SAN FRANCISCO BAY.

Limits of sheet:-

This sheet embraces both sides of the Golden Gate, San Francisco Bay; on the north side, the shoreline from Point Bonita to the north end of Sausalito in Richardson Bay; on the south side, from the Exposition Grounds at the eastern limits of the sheet to the south end of Golden Gate Park on the ocean beach.

Methods of Survey:-

The work was controlled by a number of triangulation signals, chiefly the following; Lime Point, Point Diablo, Point Bonita Lighthouse, Fort Point Lighthouse, and Mile Rock Lighthouse. The survey was made by two parties; the first under Mr. Briggs, which was on the north entrance to the Bay; the south side was done later by the party in charge of Mr. Kelsh.

The north shore was started at triangulation 'R.R. Tank' and a traverse run to Point Cavallo. West of this a few short traverses were run as considered necessary.

No important objects were sketched, and all buildings were well located, those on the beach front by direct readings and those inside by cuts. Those parts of the roads which were sketched have been noted on the sheet. Shoreline which was inspected but not rerun has been shown in dashed lines. Notes describing all features not perfectly clear will be found on the sheet.

There is some unavoidable repetition of old work, in as much as the only data obtainable furnished was the old chart on a 1 : 48,000. scale, on which small changes were not noticeable.

The survey of Mr. Briggs was made by the officer and two men using the regulation Coast and Geodetic Survey plane table outfit.

A traverse was run from the Exposition Grounds to Fort Point and another from South Bay to the southern limits of the sheet checking on various triangulation signals.

The various points were reached by auto and by launch. The south shore was by a similar party. Here trolley service was available to reach the shore at any point.
Scale of Sheet: 1:10,000.

Detailed Description of Shoreline: North side.

At Alameda Point, Sausalito, the south side has been filled in and is now composed of Railway yards. From here to Sausalito Point there are a number of small wharves. The bay is very shallow here and even small boats have difficulty in reaching the wharves at low water. Blue prints of the streets etc., in this vicinity obtained by Mr. Briggs are attached to the sheet.

The Sausalito Ferry slips have been changed from the form shown on the chart.

There are no important changes south of this.

On the hillside in south Sausalito stands the sub power station above the rest of the houses. This is a small yellow concrete building, but is very prominent especially at night due to the fact that the walls of the building are lighted up by indirect lighting so that they show very brightly.

At Point Cavallo the parade grounds and some of the buildings were located. There are a few more than shown, but the others were unlocated when the survey was made, and in view of the fact that before the work could again be taken up in this vicinity a general order was issued forbidding all civilians entrance to Government grounds. The remainder of the buildings were not located, as they were not considered of sufficient importance to warrant the special effort to obtain them.

The shoreline was rerun in Horseshoe Bay. Between Lime Point and Point Bonita there is nothing of importance. A small section of the shoreline was rerun at Point Diable, and the rest inspected and found unchanged.

At Point Bonita there were a few more buildings and a wharf not shown on the chart; these were located.

Detailed Description of the shoreline: South Side.

At the Exposition Grounds a few of the buildings remain as shown. The Palace of Fine Arts is still in good condition and will probably be left as long as possible. Its position was put on the sheet by transfer from the chart as it was not relocated except for a couple of cuts to the dome.

Just west of the California Buildings stands a flagpole 250 feet high. It has a large multi-pointed gold star on the top. It is quite prominent due to the size and will be permanent. The small wharf on which the C. & G. S tide house is placed remains the same.
Detailed Description of the Shoreline: South Shore, Continued.

The race track is still in good condition.

No attempt was made to rerun the Presidio as it is probably the same.

There is no pond between the race track and the foot of the hill to the west.

The Coast Guard Station here was carefully run in.

The pier a quarter of a mile west of here is slightly changed in shape from that shown on the chart.

The shape of Fort Point is the same and the Fort was relocated, although this was possibly located before and omitted from the chart.

From here to Baker Beach is a continuous line of gun emplacements and no survey was made of them.

The power house with high chimney at Baker Beach was located and just enough of the streets to fit in the new real estate developments map of this vicinity, which is attached.

A traverse was run along the double tracked trolley line to Point Lobos and the shoreline inspected. It shows no change. The Cliff House has been changed somewhat, but the Seal Rocks remaining the same were not rerun.

There is to be a concrete sea wall along the entire stretch of beach to the southward, but as yet only a couple of hundred meters have been run. It is shown on the sheet. The boulevard running along the beach front has been doubled from this point, and extends as shown in the insert on a 1 : 40,000 scale to the end just below the Ocean House.

Contours:

No contours were run as the chart is very thoro in this respect.

Prominent Objects Tabulated:

A few prominent objects have been tabulated in the list of plane table positions attached, but the more prominent ones have been located by the triangulation party and are listed in the triangulation data.
Statistics of Sheet:

Area surveyed in square miles ............
Length of general coast line in statute miles .......... 15
" " shoreline of rivers " " " 6666
Length of Shoreline of Creeks, ........................
Length of shoreline of Ponds ......................
Length of roads in statute miles, .................. 12
Topographic sheets finished, number of, ............. 1
" " " scale of, .................. 1:10,000.

Respectfully submitted,

[Signature]

Approved,

[Signature]

Assistant, C.& G. Survey.
Compiler & Observer

Assistant, C.& G. Survey.
Chief of Party
List of Plane Table Positions:

<table>
<thead>
<tr>
<th>OBJECT</th>
<th>LATITUDE</th>
<th>D.M.</th>
<th>LONGITUDE</th>
<th>D.P.</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Light, Sausalito ferry</td>
<td>37 - 51</td>
<td>768</td>
<td>122 - 28</td>
<td>867</td>
</tr>
<tr>
<td>South Light,</td>
<td>37 - 51</td>
<td>662</td>
<td>122 - 28</td>
<td>898</td>
</tr>
<tr>
<td>Bell,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given in Triangulation data.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cupalo on yellow House.</td>
<td>37 - 51</td>
<td>245</td>
<td>122 - 28</td>
<td>1057</td>
</tr>
<tr>
<td>East gable of Sub Station.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Given in Triangulation data.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Transmission Tower.</td>
<td>37 - 50</td>
<td>1427</td>
<td>122 - 29</td>
<td>36</td>
</tr>
<tr>
<td>West</td>
<td>37 - 50</td>
<td>1413</td>
<td>122 - 29</td>
<td>315</td>
</tr>
<tr>
<td>Flag Pole, Parade Grounds</td>
<td>37 - 50</td>
<td>450</td>
<td>122 - 28</td>
<td>1059</td>
</tr>
<tr>
<td>Sign</td>
<td>37 - 50</td>
<td>115</td>
<td>122 - 28</td>
<td>628</td>
</tr>
<tr>
<td>Tripod, Engineers</td>
<td>37 p 49</td>
<td>399</td>
<td>122 - 31</td>
<td>1184</td>
</tr>
<tr>
<td>Tower on Coast Guard Station</td>
<td>37 - 49</td>
<td>615</td>
<td>122 - 31</td>
<td>900</td>
</tr>
<tr>
<td>Peg Flag on Hill</td>
<td>37 e 49</td>
<td>940</td>
<td>122 - 31</td>
<td>1297</td>
</tr>
<tr>
<td>Exposition Flag Pole</td>
<td>37 - 48</td>
<td>-646</td>
<td>122 - 27</td>
<td>1440</td>
</tr>
<tr>
<td>250 ft. high.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FlagPole alongside Coast Guard House</td>
<td>37 - 48</td>
<td>659</td>
<td>122 - 27</td>
<td>1460</td>
</tr>
<tr>
<td>Cupalo, Coast Guard Station</td>
<td>37 - 48</td>
<td>646</td>
<td>122 - 27</td>
<td>1440</td>
</tr>
<tr>
<td>Practice Mast</td>
<td>37 - 48</td>
<td>720</td>
<td>122 - 28</td>
<td>20</td>
</tr>
<tr>
<td>Coast Guard Station, small yellow tower on house</td>
<td>37 - 48</td>
<td>1016</td>
<td>122 - 28</td>
<td>853</td>
</tr>
<tr>
<td>Small Cupalo on southeast corner grey concrete house</td>
<td>37 - 47</td>
<td>422</td>
<td>122 - 29</td>
<td>822</td>
</tr>
<tr>
<td>Landsend Station, cupalo</td>
<td>37 - 47</td>
<td>192</td>
<td>122 - 30</td>
<td>524</td>
</tr>
<tr>
<td>Chimney Lurline Baths</td>
<td>37 - 46</td>
<td>901</td>
<td>122 - 30</td>
<td>875</td>
</tr>
<tr>
<td>Boat</td>
<td>37 - 50</td>
<td>1596</td>
<td>122 - 28</td>
<td>971</td>
</tr>
<tr>
<td>Dolly</td>
<td>37 - 49</td>
<td>1666</td>
<td>122 - 28</td>
<td>827</td>
</tr>
</tbody>
</table>
# LANDMARKS FOR CHARTS

**Seattle Wash**

March 29, 1917

**SUPERINTENDENT, 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:

---

<table>
<thead>
<tr>
<th>Description</th>
<th>Latitude</th>
<th>Longitude</th>
<th>Datum</th>
<th>Method of determination</th>
<th>Charts affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power House Gable</td>
<td>37.50</td>
<td>122.28</td>
<td>Stand</td>
<td>Triang</td>
<td>5532</td>
</tr>
<tr>
<td>S. Saucalite</td>
<td></td>
<td>118.29</td>
<td></td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>Exposition Platform</td>
<td>37.48</td>
<td>122.35</td>
<td></td>
<td>P. Table</td>
<td></td>
</tr>
<tr>
<td>H. Wireless</td>
<td>37.46</td>
<td>122.30</td>
<td>1910</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>S. Wireless</td>
<td>37.46</td>
<td>122.30</td>
<td>1910</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>H. Wireless below Golden</td>
<td>37.45</td>
<td>122.30</td>
<td>1910</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>S. Wireless--Gate Park</td>
<td>37.45</td>
<td>122.30</td>
<td>1910</td>
<td>US</td>
<td>5532</td>
</tr>
<tr>
<td>H. Windmill--Gate Park</td>
<td>37.46</td>
<td>122.30</td>
<td>1910</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>S. Windmill--Gate Park</td>
<td>37.45</td>
<td>122.30</td>
<td>1910</td>
<td>US</td>
<td></td>
</tr>
</tbody>
</table>

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A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, 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 of primary importance. The description of each object should be short, but such as will identify it: for example, standpipe, water tower, church spire, tank, mill stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the
following title sheet, filled in as completely as possible, when
the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 3659

State . California

General locality . San Francisco Bay

Locality . Pt. Bonita to Sausalito, and Exposition Grounds to Ocean beach

Chief of party . J.O. Colbert

Surveyed by . H.T. Kelsh

Date of survey . Dec 1916—Feb 1917

Scale . 1/10000

Heights in feet above . none

Contour interval . . feet . none

Inked by . H.T. Kelsh . Lettered by . H.T. Kelsh

Records accompanying sheet (check those forwarded): Photographs,
Descriptive report; Horizontal angle books, Field computations,
Data from other sources affecting sheet . . . . . . . . .


Remarks:
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: California

DESCRIPTIVE REPORT.

Topo Sheet No. 3659a

Locality:
San Francisco Bay
Entrance, Ocean Beach
to Sausalito

1920

Chief of Party:
F. G. Engle, My G. E.
Descriptive Report

To accompany Topographic Sheet #3859.

San Francisco Bay - Entrance - Ocean Beach to Sausalito.

Revision under instructions dated July 25, 1919.

This sheet is a bromide copy of Colbert's revision of 1917. The work consisted of examining the copy for changes and making the alterations with the aid of the planetable. Mr. R. F. A. Studds, then Deck Officer, and two men from the deck comprised the party. They went to and from the working grounds each day, the ship being berthed at Pier 36, San Francisco. The revision of this sheet was not completed. The territory on the South side of Golden Gate was done, but it had been planned to leave the north side until such time as the ship would be in that locality.

No traverses were run, the topographer locating himself when necessary by the aid of contiguous topography, or such signals as could be used. No planetable positions were established.

Very few changes were found in the shorelines. A telephone cable lies between Baker Beach L. S. S. and Point Bonita, a feature not heretofor shown on the charts.

At two places, Sealbiff, near Spring Valley Rock, and the old Exposition grounds, rather large changes have occurred. These changes are shown on accompanying prints.

[Signatures]

F. F. Cogbill
Hydrographic & Geodetic Engineer
Chief of Party, C. & G. R.
DEPARTMENT OF COMMERCE
U. S. COAST AND GEOETIC SURVEY

TOPOGRAPHIC TITLE SHEET

The finished Topographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

J. S. Coast and Geodetic Survey.

REVISION

Register No. 3658 A

State . . . . . . . . . . . . . California . . . . . . . . . . . . . . . . . . . . . .

General locality . . . . . . . San Francisco Bay Entrance .

Locality . . . . . . Ocean Beach to Sausalito .

Chief of party . . . . . . F. G. Engle .

Surveyed by . . . . . . . R. F. A. Studds .

Date of survey . . . . . . September, 1918 .

Scale . . . . . . 1 to 10,000 .

Heights in feet above . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

Contour interval . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .


Records accompanying sheet (check those forwarded): Photographs,

Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet . . . . . . . . . . . . . . . . . . . .

Remarks:

2 prints
Form 594

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

State: California

DESCRIPTIVE REPORT.
Topographic Sheet No. 3659

LOCALITY:
San Francisco Bay
Entrance Point Bonita
I. e. Sausalito

1921

CHIEF OF PARTY:
F. G. Engle
DESCRIPITIVE REPORT.

To accompany Topographic Sheet #3659.

San Francisco Bay Entrance.
Point Bonita to Sausalito.

Revision under instructions dated Nov. 24, 1920.

This sheet is a portion of a bromide copy of Colbert's revision of 1917. The south side of the sheet was revised in the season of 1919-20, under instructions dated July 25, 1919.

The work consisted of examining the copy and making alterations with the aid of the planetable. One officer and two men comprised the party. The work was done on various days, at times when it was most convenient. The party traveled back and forth from San Francisco or used the launch when the ship was anchored off Sausalito.

No traverses were run, the topographer locating himself when necessary by the aid of signals or contigous topography. No planetable positions were established.

Two prints accompany this sheet. One is a tracing made of the streets of Sausalito from a map obtained at the town hall. This tracing was examined and corrected in the field. Streets shown on this exist. Trails shown probably will be made into roadway or streets at a later date.

The other print shows the tracks and yard layout of the Northwestern Pacific Railroad, at Sausalito.

The Golden Gate Ferry Co. plan on having a ferry terminal at some future date at approximately latitude 37° 51′.

No changes of importance have occurred, and as far as could be ascertained, no other, except the above mentioned ferry slip, are contemplated.


F. A. Studds,
Jr. H & G E.
Topographer.

E. G. Eagle
Chief of party.
DESCRIPTIVE REPORT.

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San Francisco Bay Entrance.
Point Bonita to Sausalito.

Revision under instructions dated Nov. 24, 1920.

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F.C. Engle
H & G E.
Chief of Party.

R.F.A. Studds,
Jr. H & G E,
Topographer.
SECTION OF FIELD RECORDS
REPORT ON TOPOGRAPHIC SHEETS 3659 a & b
Surveyed in 1919 & 1921.

Chief of Party: F. G. Engle
Surveyed by R. F. A. Studds
Inked by R. F. A. Studds.

1. The plan and character of the work fulfill the requirements of the General Instructions. The changes should have been shown in color on 3659a so that they might be easily distinguished from the old work.

2. Only short stretches of shoreline westward of Pt. Cavallo and Fort Pt. were surveyed on sheet 3659, the previous survey having been made in 1892. The resurveys 3659 a & b show no evidence that these unsurveyed stretches of shoreline were examined.

3. The instructions of Nov. 24, 1920 directed that the shoreline from Pt. Bonita to Duxbury Pt. be revised if possible. The survey of this area has not yet been received in the office.

4. If there have been no changes in the unsurveyed shoreline then the character and scope of the surveying and field drafting are good and no further surveying is required.

5. Reviewed by E. P. Ellis, September, 1921.
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

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U. S. Coast and Geodetic Survey.

Register No. 3659

State . . . . . . . . . . . . . CALIFORNIA

General locality . . . . . . . San Francisco Bay

Locality . . . . . . Entrance, Point Bonita to Sausalito

Chief of party . . . . . . F.C. Angle

Surveyed by . . . . . . R.F.A. Studis

Date of survey . . . . Jan., June, 1921

Scale . . . . . . . . . . 1 to 10,000

Heights in feet above

Contour interval . . . feet

Inked by . . . . . . R.F.A.S. Lettered by . . . . R.F.A.S.

Records accompanying sheet (check those forwarded): Photographs, Descriptive report, Horizontal angle books, Field computations,

Data from other sources affecting sheet Tracing, showing the streets of Sausalito; Blue print, showing tracks and yard layout of NP RR at Sausalito.

Remarks: