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Diag. Cht. No. 5530-4

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey GRAPHIC CONTROL

B0-A-54 &

Field No. B0-B-54 Office No. T-7001 a & b

LOCALITY

State California

General locality San Francisco Bay

Locality Mission Rock to Hunters Point

194 54

CHIEF OF PARTY

H. C. Applequist

LIBRARY & ARCHIVES

DATE _____

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FORM 597a
(9-24-47)

DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

REGISTER NO. T -

TOPOGRAPHIC TITLE SHEET

FIELD NO. **BO-A-54 & BO-B-54**

Each Planetable and Graphic Control Sheet should be accompanied by this form, completed so far as practicable, when forwarded to the Washington Office.

STATE

California

GENERAL LOCALITY

San Francisco Bay

LOCALITY

San Francisco Waterfront - Mission Rock to Hunters Point

SCALE

1 : 5000

DATE OF SURVEY

April - May, 19 **54**

VESSEL

Ship BOWIE

CHIEF OF PARTY

H.C. Applequist

SURVEYED BY

W.R. Kachel

INKED BY

W.R. Kachel

HEIGHTS IN FEET ABOVE MHW OR _____

☐ TO GROUND

☐ TO TOPS OF TREES

CONTOUR

APPROXIMATE CONTOUR

FORM LINE INTERVAL _____ FEET

PROJECT NUMBER

CS-256

REMARKS

DESCRIPTIVE REPORT

to accompany

GRAPHIC CONTROL SHEETS BO-A-54 & BO-B-54

Graphic control survey of the San Francisco Waterfront area between Mission Rock and Hunters Point.

A. PROJECT:

This survey was executed in accordance with the Director's instructions dated 25 February 1954 to provide control for 1 : 5000 scale hydrography. Project CS-256.

B. SURVEY LIMITS AND DATES:

This survey covers the San Francisco waterfront area between Mission Rock and the south side of Hunters Point. Field work was done during April and May of 1954.

C. CONTROL:

Control for this survey was furnished by existing triangulation published in Vol. VII, Geographic Positions, California, Supplemented by additional triangulation accomplished by a photogrammetric field unit during the winter 1952-53. Field computations for this additional triangulation were furnished by the Portland Photogrammetric Office.

D. SURVEY METHODS:

All signals and pier lines, etc. were located by cuts, stadia, or a combination of the two from setups located by 3 point fixes or combination resection, three point fix, and traverse. Planetable traverse was not used except for an occasional set up to locate signals or detail obscured by ships, building etc. No closed traverse was run.

E. COMPARISON WITH PREVIOUS SURVEYS:

Detail and shoreline was transferred to the topographic sheet from 1 : 5000 enlargements of the 1 : 10,000 shoreline manuscripts furnished by the Portland Photogrammetric Office. Because of the necessity for numerous signals in this area and by using a few extra rod shots, all the pier lines and most of the intermediate shoreline was run in. T-11064 (1952-53)

Except for a few cases of mis-identification and some recent changes, the shoreline as determined by photogrammetric methods compared very well with that as determined by planetable. Most of the minor discrepancies were probably due to enlarging the 1 : 10,000 shoreline manuscript to 1 : 5000. The inked shoreline was that determined by planetable.

F. STATISTICS:

Miles of shoreline 4.8.

G. MISCELLANEOUS:

Large floating dry-docks, semi-permanently fixed in position were located and outlined with a dashed line.

A new ferry slip is under construction just south of Mission Rock on BO-A-54. The plans for the finished structure were tied into the survey by the portion of the slip already under construction and is outlined with a short dash line.

A large number of topo stations were located and inked. Names were given to only those used for hydrography. There is a discrepancy in names of signals on the two hydrographic sheets using these signals. A list is appended to this report.

Descriptions are submitted for all recoverable topographic stations whether they were used or not.

Respectfully submitted:

W.R. Kachel
Lieut. (jg), USC&GS

APPROVED:

*Report written by Lieut. (jg) Kachel but not
smooth copied prior to his detachment.*

H.C. Applequist
H.C. Applequist
Commander, USC&GS
Chief of Party

LIST OF TOPOGRAPHIC STATIONS INCORRECTLY NAMED ON HYDROGRAPHIC
SHEET H-8024

~~XXXX~~

CORRECT NAME

USED ON

TOPOGRAPHIC SHEET

AND

HYDROGRAPHIC SHEET H-8023

NAME

USED ON

HYDROGRAPHIC SHEET H-8024

EGO	-----	AXE
LEO	-----	EEL
OLD	-----	BEE
FOP	-----	TUG
CAD	-----	HIM
FIT	-----	NUT

DIVISION OF CHARTS

SURVEY SECTION

REVIEW OF TOPOGRAPHIC SURVEY

REGISTER NO. T-7001 a&b

California, South San Francisco Bay, Mission Rock to
Hunters Point

FIELD NO. B0-A-54
B0-B-54

Surveyed - April-May, 1954

Scale 1:5,000

Instructions dated 25 February, 1954

Graphic Control

Aluminum Mounted

Chief of Party - H. C. Applegquist

Surveyed by - W. R. Kachel

Inked by - W. R. Kachel

Reviewed by - I. M. Zeskind

Inspected by - R. H. Carstens 14 December 1956.

A formal review of the present survey is considered unnecessary.

1. The control for the present survey is based on triangulation of 1916-1948 inclusive, supplemented by additional triangulation accomplished by a photogrammetric field unit during the winter of 1952-53.
2. The junctions with T-11064 (1952-54) on the north and south are adequate.
3. Comparison with Topographic Surveys

- A. Air-photographic Survey T-5920 (1943-44), 1:10,000
Air-photographic Survey T-5923 (1941-45), 1:10,000

A comparison between the above surveys and contemporary plane-table survey T-7001 a and b (1954) reveals changes in the shoreline and piers. Examples of these changes occur in the vicinity of lat. $37^{\circ}44.5'$, long. $122^{\circ}22.8'$, where land has been reclaimed and in the vicinity of lat. $37^{\circ}43.0'$, long. $122^{\circ}21.65'$, where several piers have been constructed. Several features located in the

foreshore on T-5920 have been carried forward to the contemporary hydrographic survey H-8023 (1954).

The high-water line on the present survey supersedes that shown on the prior air-photographic surveys.

B. Air-photographic Survey T-11064 (1952-53)

A comparison between air-photographic survey T-11064 (1952-53) and T-7001 a and b (1954) shows several minor changes in the shoreline. An example of these changes occurs in the vicinity of lat. $37^{\circ}43.85'$, long. $122^{\circ}22.1'$, where land has been reclaimed and the high-water line extends about 50 meters beyond its former location. A few piles have been transferred from T-11064 to contemporary hydrographic survey H-8023 (1954).

The high-water line on the present survey supersedes that shown on T-11064.

4. The shoreline shown on Chart 5535 (latest print date 9-10-56) originates principally with topographic surveys T-5920 (1943-44) and T-5923 (1941-45), supplemented by information from U. S. Navy survey of 1948 (Bp. 44148) and chart letter 324 (1948). The present survey high-water line supersedes the charted high-water line.
5. No declinoire observations were made for magnetic declination.
6. No descriptions were given for three inked dots on T-7001 b, located in the following positions:

<u>Latitude</u>	<u>Longitude</u>
$37^{\circ}43.92'$	$122^{\circ}22.38'$
$37^{\circ}44.21'$	$122^{\circ}22.24'$
$37^{\circ}44.28'$	$122^{\circ}22.46'$

These have been assumed to be piles and have been carried forward to H-8023 as such.