

# 5930

Diag. Cht. No. 5530-4

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey PLANIMETRIC

Field No. \_\_\_\_\_ Office No. T-5930

### LOCALITY

State California

General locality San Pablo Strait

Locality San Rafael and Vicinity

194 1-'43

### CHIEF OF PARTY

R.J.Sipe, Chief of Party

G.E.Morris, Jr., Tampa Photo Office

### LIBRARY & ARCHIVES

DATE

February, 1950

6-1870-1 (1)

# 5930

Part applied 6/20/47

## DATA RECORD

T- 5930

Quadrangle (II);

Project No. (II); 262-C

Field Office: San Francisco, Cal. Chief of Party: E. H. Pagenhart

Compilation Office: Tampa, Florida Chief of Party: George E. Morris Jr.  
Lt. Comdr.

Instructions dated (II III); 8 Feb., 1944

Division of  
Copy filed in ~~Descriptive~~  
~~Report No. T-~~ (VI)  
Photogrammetry Office  
Files.

Completed survey received in office; 4-25-46

Reported to Nautical Chart Section; April '46

Reviewed; 8-24-48 Applied to chart No. 5532 Date: 6-20-47  
(Partial)

Redrafting Completed; 8-29-49

Registered; 12-19-49

Published;

Compilation Scale: 1:10,000

Published Scale: 1:10,000

Scale Factor (III); None

Geographic Datum (III); N.A. 1927

Datum Plane (III); M.S.L. <sup>H.W.</sup>

Reference Station (III); Pow, 1916, 1917

Lat.: 37°58'12.620" (389.1m) Long.: 122°29'41.572" (1014.7m)  
Adjusted  
Unadjusted

State Plane Coordinates (VI); California 3rd Zone

X =

Y =

Military Grid Zone (VI)

PHOTOGRAPHS (III)

<u>Number</u>	<u>Date</u>	<u>Time</u>	<u>Scale</u>	<u>Stage of Tide</u>
6391	9-3-41	1:05	1:10,000	+ 4.9
6392	9-3-41	1:05	"	+ 4.9
6393	9-3-41	1:06	"	+ 4.8
6394	9-3-41	1:06	"	+ 4.8
6447	9-3-41	3:12	"	+ 2.8
6448	9-3-41	3:12	"	+ 2.8
6449	9-3-41	3:13	"	+ 2.8
6450	9-3-41	3:14	"	+ 2.8
6451	9-3-41	3:15	"	+ 2.8
6491	9-3-41	4:13	"	+ 2.3
14019	6-2-43	2:14	"	+ 4.5
14020	"	2:14	"	+ 4.5

Tide from (III): San Francisco

Mean Range: 4.1

Spring Range: 5.7

Camera: (Kind or source) U.S.C. & G.S. 9 lens 8  $\frac{1}{4}$ " focal length

Field Inspection by: E. J. Pagenhart

date: 1943

Field Edit by: *None*

date:

Date of Mean High Water Line Location (III): Date of Photograph

Projection and Grids ruled by (III) B. R. C. - S. R.

date: Dec. 14, 1944

" " " checked by: B. R. C.

date: Dec. 15, 1944

Control plotted by: M. M. S.

date: March 3, 1945

Control checked by: B. H. Lyon

date: March 1945

Radial Plot by: B. H. Lyon

date: March 14, 1945

Detailed by: V. S. Simmons and R. Dossett

date: Feb. & March, 1945

Reviewed in compilation office by: J. A. Giles

date: April 1946

Elevations on <sup>Manuscript</sup> ~~Field Edit Sheet~~  
checked by: *None*

date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 19.9

Shoreline (More than 200 meters to opposite shore): 9.3

Shoreline (Less than 200 meters to opposite shore): 6.4

Number of Recoverable Topographic Stations established: 7

Number of Temporary Hydrographic Stations located by radial plot: None

Leveling (to control contours) - miles:

Roman numerals indicate whether the item is to be entered by  
(II) Field Party, (III) Compilation Party, or, (VI) the Washington  
Office.

When entering names of personnel on this record give the surname  
and initials, not initials only.

Remarks:

## Field Inspection

Field inspection for the area of T-5930 is covered in the Field Inspection Report for T-5926-29-30-32 by E. H. Pagenhart.

This report is filed in the Division of Photogrammetry General Files.

MAIN RADIAL PLOT  
SHEET No. T-5930  
Project C.S. 262-C PARTIAL.

26 and 27.

The projection for this sheet was received in this office on 25 August, 1944. Control was carefully plotted and checked by members of the control section, using the beam compass and meter bar method.

A circle, with a fourteen inch radius, was drawn upon each photograph in order to facilitate the use of the central portion of each photograph in preference to the outer extremities. Pass Points were picked as nearly as possible in a scheme of quadrilaterals five inches on a side in order to strengthen the graphic control scheme. Extreme care was exercised in plotting primary control on the photographs, and this was done without regard for the fourteen inch circle.

All azimuths between centers were established by means of the stereoscope and radial liner method.

The photographs used for this plot were printed on unmounted, acetate impregnated paper; therefore, it was necessary to treat for the effect of paper distortion. This was accomplished by means of the distortion templet, constructed from non-shrinking vinylite material.

A discussion of the main radial plot follows:

A. CONTROL

The following control stations were used to control this plot:

- Brick, 1916-17, East Brothers Is. L.H., 1932
- Flag Pole Marin Is., 1941
- Gallinas Creek, S. Transmission Tower, 1922
- Point San Pedro, 1851-52
- Sister, 1941
- Pow 1916-17
- San Francisco Bay, North End Lt., 1941
- Dollar, U.S. Army, 1938
- F.I. P. Pole (falls outside sheet limits.)

B. PHOTOGRAPHS.

The following nine lens photographs were used in the plot:

- \*6391, 6392, 6393, 6394, 6447, 6448, 6449, 6450, 6451,
- \*6452, \*6446, 14019, and 14020.

\*Fall outside of detailing limits.

The photograph coverage was sufficient for a radial plot, but the nine lens photographs are considerably outdated. The coverage was sufficient to locate existing details at the time the photographs were taken.

C. CLOSURE AND ADJUSTMENT

Regular procedure was followed in laying templets, with strongest fixes first, then progressively laying through templets with weaker fixes. Tilt was not sufficient to warrant computation.

All azimuths to adjacent centers were held and excellent intersections were obtained throughout.

D. AREAS OF QUESTIONABLE ACCURACY.

It is believed that all parts of the plot fall well within the limits of prescribed accuracy.

E. GENERAL.

Pass Points were picked on the sheet and shown by double blue inked circles of 2.8 millimeters radii. Centers were shown by double blue inked circles and 4.0 m.m. and 2.8 m.m. radii. The sheet was released to the draftsman for the addition of detailing points which are to be shown in blue ink with 2.0 m.m. circles.

Respectfully submitted,

*Bennie H. Lyon*  
Bennie H. Lyon,  
Asst. Photogrammetric Eng.

Approved and forwarded.

*George E. Morris, Jr.*  
Lt. Comdr. George E. Morris, jr.  
Chief of Party



DESCRIPTIVE REPORT TO  
ACCOMPANY  
SHEET NO. T-5930 - Project C.S. 262-C

26 and 27 CONTROL AND RADIAL PLOT

See report submitted by B. H. Lyon, Assistant Photogrammetric engineer.

Attention is called to a letter from E. H. Pagenhart, dated Feb. 27, 1945 stating that all necessary notes and forms covering the triangulation and topographic stations have been forwarded to the Washington Office.

28 DETAILING.

The detailing of this sheet has been done according to the current instructions for this project.

All photographs with the exception of 14019 and 14020 were taken in 1941. Photos 14019 and 14020 were taken in 1943. They were clear and of reasonably good scale; however, the density of the woodlands together with the high elevations made the selection of radial points difficult in the inshore areas.

The woodland has been shown on an overlay in accordance with the latest instruction.

Due to the density of the woodland in the city of San Rafael it was impossible to show all the streets, particularly outside of its urban area.

All buildings visible outside of the urban area have been shown.

29 SUPPLEMENTAL DATA.

The plans for the "Cordelia San Rafael" power line were obtained from the Pacific Gas and Electric Co.

These plans were used to obtain the power pole numbers, which have been shown on this compilation. The power poles were located by radial plot.

30 MEAN HIGH WATER LINE.

The mean high water line has been delineated according to field inspection notes.

31 LOW WATER AND SHOAL LINES.

No attempt was made to show low water or shoal lines as the field inspection showed no recovery of these details.

32 DETAILS OFFSHORE FROM THE HIGH WATER LINE.

Attention is called to two submerged rocks with the Geographic names of "Whiting Rock" and "Invincible Rock"

- 2 -  
situated approximately 500 meters and 900 meters respectively south-west of the "The Brothers" islets. These rocks are shown on U.S.C. & G.S. chart 5532, published Dec. 1943.

The approximate positions of these two rocks are shown on this compilation as they could not be identified on the photographs for location by radial line intersection.

### 33 WHARVES & SHORELINE STRUCTURES.

All docks, wharves and other shore line structures noted by the field inspection have been delineated accordingly.

### 34 LANDMARKS AND AIDS TO NAVIGATION.

All landmarks and aids to navigation identifiable have been listed on form 567 and made a part of this report. *Refer to Chart Letter #252 (1946) Div. of Charts files.*

On field print 14020 the field inspector has shown several aids to Navigation and labeled them "Pile - aid to navigation". Presumably these are dolphins acting as guides to the entrance to San Rafael Creek. These dolphins were not identifiable on a sufficient number of photographs to permit location by radial line intersection and perforce have been left for investigation by the Hydrographer.

Another on the same print labeled "Range Control Hut, Aid to Navigation" has been treated likewise.

### 35 HYDROGRAPHIC CONTROL.

Instructions to field party dated Feb. 8, 1944, state that no hydrographic stations need be selected.

### 36 LANDING FIELDS & AERONAUTICAL AIDS.

One partially completed landing field in the vicinity of Venetia Harbor on Gallinas Creeks appears on the photographs. The field inspector notes that this field has been abandoned.

### 44 COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES.

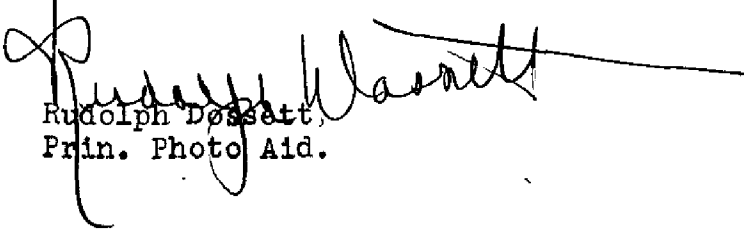
A comparison was made with U.S.G.S. Quadrangle, "San Francisco" surveyed in 1892-94. The scale of this Quadrangle is too small for a favorable comparison. The shoreline, however, is generally the same except for the elimination of marsh areas, particularly in the vicinity of San Pedro Point, where the large marsh area is now almost completely gone and replaced with high terrain and fast shore line.

45 COMPARISON WITH NAUTICAL CHARTS.

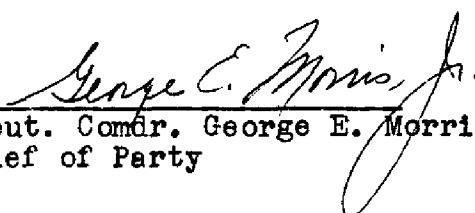
A comparison was made with U.S.C. & G.S. Nautical Chart No. 5532.

No outstanding changes other than those described under paragraph 44 were noted.

Respectfully submitted,

  
Rudolph Dessett,  
Prin. Photo Aid.

Approved and Forwarded:

  
Lieut. Comdr. George E. Morris Jr.  
Chief of Party

*Description of Recognizable Top. Station*

- 11 - Forms 524
- B.M. 8 (1937)
- R.V. 216 (N.W.P.R.R.)
- B. 35 (U.S.G.S.)
- B.M. 11 (1936)
- W. 107
- M.S. Near
- F. 108
- E. 108
- D. 108
- B.M. 10 (1936)
- R.V. 218 (N.W.P.R.R.)

*filed  
in Div. of Photogrammetry  
General files*

# GEOGRAPHIC NAMES

Survey No. **T-5930**

**San Rafael Bay, California**

Name on Survey

On Chart No.  
On previous survey No.  
On U. S. quadrangle Maps  
From local information  
On local Maps  
P. O. Guide or Map  
Rand McNally Atlas  
U. S. Light List

	A	B	C	D	E	F	G	H	K	
<u>California</u>									USGB	1
<u>San Francisco Bay</u>									"	2
<u>San Pablo Bay</u>										3
<u>San Pablo Strait</u>										4
<u>San Rafael Bay</u>										5
<u>Point San Pedro</u>										6
<u>San Pedro Hill</u>										7
<u>China Camp</u>										8
<u>The Sisters</u>										9
<u>The Brothers</u>										10
<u>Whiting Rock</u>			(submerged)							11
<u>Invincible Rock</u>		"								12
<u>San Rafael Rock</u>										13
<u>Marin Islands</u>										14
<u>San Rafael Creek</u>	✓									15
<u>San Rafael</u>										16
<u>California Park</u>										17
<u>Kentfield</u>										18
<u>Dominican College</u>										19
<u>Gallinas Creek</u>										20
<u>Santa Venetia</u>			(not Venetia)	Forbes on tidal area (not)						21
<u>Venetia Harbor</u>			(not Venetia)							22
										23
<u>Northwestern Pacific R.R.</u>										24
<u>U.S. No. 101</u>										25
										26
										27

Names underlined in red are approved. 8/18/48

Division of Photogrammetry  
Review Report of  
Planimetric Map Manuscript T-5930

Subject numbers not used in this review report have been adequately covered in other parts of the Descriptive Report.

26. Control.--The intersection station, Pedro, 1941 (no check) has not been shown on the map manuscript. It is not a permanently marked station and it was not recovered during the field inspection.

28. Detailing.--The compilation was incomplete and in many instances the planimetry was depicted inaccurately. Several of the photographs used for detailing were not available to the reviewer. However, the reviewer made the necessary additions and corrections from the source material available and since there was sufficient coverage for the entire shoreline it was not deemed necessary to order new prints to obtain complete coverage.

43. Comparison with <sup>Contemporary</sup> Hydrographic Surveys:-

H-6725	1:5,000	1941
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The only feature common to this hydrographic survey and the map manuscript is the control, which is in very good agreement.

44. Comparison with Existing Topographic Surveys:-

T-415	1:10,000	1853
T-472	1:10,000	1854
T-1620	1:10,000	1881
T-2446	1:10,000	1898

← what about T-3654 (1917)?  
WE  
5/21/54

These surveys are superseded by T-5930 in all common areas, except for contours *for nautical charting purposes.*

45. Comparison with Nautical Charts:-

5532	1:40,000	1947 (48-7/5)
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The chart and map manuscript are in good agreement.

51. Application to Nautical Charts:-This map manuscript has not been applied to nautical chart 5532 as of the date of this review report.

52. Classification

*This map is classified "Confidential"*

This map is unclassified (Letter 3-6-50)

Reviewed by:

*J. J. Streifler*  
J. J. Streifler  
24 August 1948

APPROVED BY:

S. V. Griffith  
S. V. Griffith *R.M.*  
Chief, Review Section  
Div. of Photogrammetry

H. C. Moulton  
Chief, Nautical Chart Branch  
Division of Charts

O. S. Reading  
Chief, Div. of Photogrammetry

W. M. Sease  
Chief, Div. of Coastal Surveys *WMS*

## NAUTICAL CHARTS BRANCH

SURVEY NO. T5930

### Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.