

5939

Diag. Cht. No. 5502

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric Air Photo
Compilation

Field No. _____ Office No. T-5939

LOCALITY

State California

General locality San Pablo Bay

Locality Napa Slough - Sonoma Creek

194 1-'42

CHIEF OF PARTY

E.H.Pagenhart, Chief of Party

K.G.Crosby, Tampa Photo. Office

LIBRARY & ARCHIVES

DATE

May 19-1950

B-1870-1 (1)

5939

DATA RECORD

T- 5939

Quadrangle (II):

Project No. (II): C.S. 262

Field Office:
San Francisco, Calif.

Chief of Party: E. H. Pagenhart

Compilation Office:
Tampa, Florida

Chief of Party: K. G. Crosby

Instructions dated (II III):
9/4/41Copy filed in *Division of*
~~Descriptive~~
~~Report No. T- (VI)~~
Photogrammetry Office Files.

Completed survey received in office: 1-5-44

Reported to Nautical Chart Section: Jan. '44

Reviewed: 11-17-48 Applied to chart No. Date:

Redrafting Completed: 7-20-49

Registered: 4-26-50

Published: 4-18-50

Compilation Scale: 1:10,000

Published Scale: 1:10,000

Scale Factor (III): 1.00

Geographic Datum (III): NA 1927

Datum Plane (III): *M.H.W.*
~~M.S.L.~~

Reference Station (III): Radio Tank, 1942

Lat.: 38° 11' 51.16"

(1577.42m)

Long.:

122° 23' 21.68" (527.51m)

Adjusted

~~Unadjusted~~State Plane Coordinates (VI): *California, 2nd 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>
6423	9/3/41	2:49	1:10,000	3.9 ft.
6426	"	2:53	"	3.7
6427	"	2:54	"	3.7
6428	"	2:55	"	3.6
6429	"	2:56	"	3.5
6439	"	3:04	"	3.5
6440	"	3:05	"	3.5
6441	"	3:06	"	3.5
6442	"	3:07	"	3.5

Tide from (III): Sonoma Creek Entrance (Ref. Sta. San Francisco Calif.)

Mean Range: 4.5 ft Spring Range: 6.0 ft (Diurnal)

Camera: (Kind or source) U.S.C. & G.S. 9 lens ($8\frac{1}{2}$ " focal length)

Field Inspection by: Ensign L.F. Woodcock. date: Apr-July 1942

Field Edit by: *None* date: _____

Date of Mean High-Water Line Location (III): Date of Photographs

Projection and Grids ruled by (III) Washington Off. date: Apr. 1943

" " " checked by: " " date: " "

Control plotted by: J.L. White, Prin. Photo. Aid. date: 4/17/43

Control checked by: R. Dossett, Prin. Photo. Aid date: 4/19/43

Radial Plot by: Tampa Office Personnel date: May, 1943

Detailed by: R. J. Pate, Photo. Aid date: Nov.-Dec. 1943

Reviewed in compilation office by: date: Dec. 1943
F. H. Elrod, Prin. Photo. Aid.

Elevations on Field Edit Sheet
checked by: *Not applicable* date: _____

STATISTICS (III)

Land Area (Sq. Statute Miles): 29.7

Shoreline (More than 200 meters to opposite shore): 0

Shoreline (Less than 200 meters to opposite shore): 99

Number of Recoverable Topographic Stations established: 3

Number of Temporary Hydrographic Stations located by radial plot: 19

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:

MAP T-5739 PROJECT NO. 262 A SCALE OF MAP 1:100,000 SCALE FACTOR 0

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ψ -COORDINATE LONGITUDE OR λ -COORDINATE	DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
SILLO, 1942	G.P.	N.A. 1927	38° 14' 03.741"	115.3					
			122° 24' 19.397"	471.8					
BARN, GALVANIZED, IRON ROOF, WEST GABLE, 1942	"	"	38° 13' 52.73"	1625.8					
			122° 27' 15.05"	366.0					
SPUR, 1942	"	"	38° 12' 15.378"	474.1					
			122° 26' 36.059"	877.4					
VENTILATOR OF BARN No. 3, 1922	"	"	38° 12' 01.54"	47.5					
			122° 25' 19.24"	468.1					
VENTILATOR OF BARN No. 4, 1922	"	"	38° 11' 39.10"	1205.6					
			122° 25' 57.60"	1401.6					
RADIO TANK, 1942	"	"	38° 11' 51.144"	1576.9					
			122° 23' 21.673"	527.4					
WEST RHOMBIC, 1941	"	"	38° 10' 58.538"	1804.9					
			122° 24' 14.026"	341.4					
EAST RHOMBIC, 1941	"	"	38° 10' 58.634"	1807.9					
			122° 23' 36.071"	877.9					
SOUTH RHOMBIC, 1941	"	"	38° 10' 32.644"	1006.5					
			122° 23' 54.946"	1337.4					
SKAGG, 1941	"	"	38° 11' 00.173"	5.4					
			122° 22' 03.081"	75.0					
RADIO TOWER, 1942	"	"	38° 10' 49.16"	1515.8					
			122° 23' 54.03"	1315.0					
NAVAL RADIO BUILDING, 1941	"	"	38° 10' 49.94"	1539.8					
			122° 23' 55.02"	1339.1					

1 FT. = 3048006 METER

COMPUTED BY:

DATE

CHECKED BY:

DATE

M-2388-12

Field Inspection

Field inspection data for the area of T-5939 are contained in the "Field Inspection Report - San Pablo Bay Area, California" submitted by L. F. Woodsock. ^{1/17/42} This report is filed in the Division of Photogrammetry, General Files.

DISCRIPTIVE REPORT
TO ACCOMPANY
SHEET T-5939

CONTROL

There are ¹³ triangulation stations plotted within the limits of this sheet. No cards were furnished by the field party for RADIO TOWER, 1942, and RADIO TANK, 1942, as they have been constructed since the photographs were taken and could not be tied in by the field party. Two other stations could not be identified on the photographs. An F.I.P. was established for each, namely, F.I.P. Spur, 1942, for SPUR, 1942, and F.I.P. Brig for SOUTH RHOMBIC, 1941.

There is no control near the northeast corner of the sheet, but points transferred from Sheet T-5937 and those established by the main radial plot were held for cutting in additional radials.

Due to distortion and badly matched chamber junctions of the photographs, chamber lines were transferred to the sheet by the template method using the paper distortion correction template.

It was noted that F.I.P. Spur could not be held in adjusting templates, so "cuts" were taken through the station from several photographs, forming an intersection approximately ten meters from the plotted position. It is believed that the computed distance from the station to the F.I.P. is in error.

Triangulation station NAPA BRANCH WINDMILL, 1922, could not be held in adjusting templates. The windmill has been rebuilt and apparently is not in the same location. This is indicated by the information furnished on the card for this station. The station is out of the limits of this sheet.

In adjusting the template for photograph 6439 to control on this sheet, WEST RHOMBIC, 1941, and F.I. P. Brig were touching the radial line through the stations but could not be held directly "on".

In adjusting the template for photograph 6428, WEST RHOMBIC, 1941, and VENTILATOR ON EARN NO. 4, 1922, could not be held. A bad junction between chambers 4 and 8 appear to be the reason for this. Triangulation stations SONOMA CREEK TRANSMISSION TOWERS EAST AND WEST, 1922, ELEVENTH TOWER EAST OF SONOMA CREEK, 1921, and SONOMA CREEK, 1921, were reached by taping a piece of acetate to the sheet, the stations being transferred to the extension from Sheet T-5935 by matching projection lines of the sheets and picking the stations on the extension.

No cuts were taken in chamber 2 as the chamber is badly distorted.

In adjusting the template for photograph 6429, F. I. P. Brig could not be held and SONOMA CREEK WEST TRANSMISSION TOWER, 1922, was shaded about three meters. Control off the sheet was reached on this photograph in the same manner as explained in the preceding paragraph.

In adjusting the template for photograph 6441, all stations were held. Chamber 6 appears badly distorted and could not be used in cutting in points.

In adjusting the template for photograph 6440, station VENTILATOR ON BARN NO. 3, 1922, and station VENTILATOR ON BARN NO. 4, 1922, could not be held. This is due to chamber No. 8, which appears to be badly distorted. In taking cuts through points in this chamber the stations were held and the chamber lines disregarded, this adjusted for the distortion and good intersections were obtained.

In adjusting the template for photograph 6427, VENTILATOR ON BARN NO. 4, 1922, and G. I. Roof West Gable, 1942, could not be held. Chambers 1 and 5 appear badly distorted and only a few cuts were taken in these chambers. Station G. I. ROOF WEST GABLE, 1942, and well established points were held for control and cuts were only taken through points that gave good intersections.

In adjusting the template for photograph 6442, all stations were held. Due to poorly matched junctions between chambers 1 and 2, it was necessary to disregard chamber lines while cutting in points in the half of chamber 6 adjoining chamber 2 and hold points on radially that had given three-cut intersections from other photographs. This adjustment gave good cuts through the remaining points in the affected area.

In adjusting the template for photograph 6424, station BUSH ON KNOLL was shaded. Chamber 6 is badly matched and double images are noted along the junctions with chamber 1. Since station NAVAL SIGNAL in this chamber cannot be held while all others are on or shaded, it was necessary to pull the station on while taking cuts in and near this chamber. This gave good intersections.

No template was used with photograph 6443, as it was only used to cut in a few points. Triangulation and well established points were held while taking cuts.

In adjusting the template for photograph 6425, an extension was added to the sheet by matching projection lines for the purpose of reaching F.I.P. Leap on the photo. The station was plotted geographically on the extension and held in the adjustment.

Due to lack of control, several radial points transferred to the sheet from sheet T-5934 were held in adjusting the template.

In cutting in points on the sheet from the photograph (6425) the center was held and adjustments had to be made for each triangulation station separately while taking cuts in their respective vicinity since the stations EARN G. I. ROOF, F. I. P. Spur, and NAVAL ENGINEERS SIGNAL would not go on at the same time. This apparently is due to bad matching between chambers 3,4,7, and 8.

In taking cuts in the vicinity of F. I. P. Spur, it was determined the plotted position could not be held, but rather the intersections of cuts through the station from previous photographs. Good intersections were thus obtained in this vicinity.

All stations could be held in cutting in points on Photograph 6424. No template was made for this photograph.

MAIN RADIAL PLOT.

A discussion of the radial plot has been made a part of the descriptive report of sheet T-5934. Several radial points were picked in each chamber of the photographs used in the main radial plot, these points being used to advantage in cutting in additional points as they could be held for secondary control by the draftsman.

DETAILING

All photographs used for the detailing are very clear and no unusual difficulty was encountered in delineating vegetation, shoreline, marshes, and levees, etc.,

Field inspection was fair, but not thorough. There is some disagreement with the field inspection on road classification and vegetation.

It is noted that roads in a few cases traverse old stream beds, without bridges, and it is assumed these streams are no longer active.

There appears some doubt about the existence of a railroad

*This section of R.R. and bridge
not shown on San Pk. Quad 1951*

between the railway junction of Kamal and the Bascule bridge crossing Sonoma Creek at Lat. $38^{\circ} 12'$, Long. $122^{\circ} 25'$. This opinion is formed from the fact that no track can be identified on the photographs and that the field inspection indicates only a highway swing bridge crossing Steamboat Slough, while he does indicate a railway and highway bridge crossing Sonoma Creek. However, the field party indicates a single track in this area on field print 6440. Since a road bed can be seen on the photographs and a track is shown through this area by the War Dept., Corps of Engrs., U. S. Army, Mare Island quadrangle, Nautical Chart No. 5533 and the Sonoma County highway map, it was shown on this sheet.

SUPPLEMENTAL DATA

The War Dept., Corps of Engineers, U. S. Army Mare Island Quadrangle and Nautical Chart No. 5533 (San Pablo Bay) were used to supplement field inspection.

LANDMARKS AND AIDS TO NAVIGATION

There are no uncharted landmarks or aids to navigation in this area.

HYDROGRAPHIC CONTROL

There are 19 unmarked stations located by the radial plot within the detailing limits of this sheet. These stations are listed at the bottom of the sheet. Also they are listed in Ensign Lorin F. Woodcocks' Field Inspection Report of the San Pablo Bay area.

GEOGRAPHIC NAMES

Only those names considered so well established as to be correct beyond question are shown on this sheet. This was done in accordance with a letter from the Acting Director dated Dec. 2, 1942, Reference 28-P.F.A. 1990. *List of approved names attached.*

COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

A comparison was made with the War Department Corps of Engineers, U. S. Army, 1942, Mare Island quadrangle and the following changes noted: The northern half of Skagg Island and the area north of Hudeman Slough shown to be marsh is now cultivated. A bridge now crosses Hudeman Slough approached by a first class highway leading to naval developments of Skagg Island. These changes are noted at approximately Lat. $38^{\circ} 12'$, Long. $122^{\circ} 22'$.

COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the Coast and Geodetic Survey West Coast, Nautical Chart No. 5533. The same changes are noted as referred to in the preceeding paragraph.

Also Little Island -- Lat. $38^{\circ}10'$, Long. $122^{\circ}21'$ -- shown as marshy is now cultivated.

It is recommended that this compilation supercede the present charted information.

Respectfully submitted,

Russell J. Pate

Russell J. Pate,
Photogrammetric Aid

Forwarded by:

Kenneth G. Crosby
Kenneth G. Crosby,
Chief of Party....

GEOGRAPHIC NAMES

Survey No.

GEOGRAPHIC NAMES										
Survey No.										
Name on Survey	On Chart No.									
	A	B	C	D	E	F	G	H	K	
• <u>Napa Slough</u>										1
• <u>Skagg Island</u>										2
• <u>Hudemau Slough</u>										3
• <u>Second Napa Slough</u>										4
• <u>Third Napa Slough</u>										5
• <u>Steamboat Slough</u>										6
• <u>Fairville</u>										7
• <u>Wingo</u>										8
• <u>Ramal</u>										9
• <u>Merazo</u>										10
• <u>State Highway 37</u>										11
<u>California</u> *	title									12
<u>San-Pablo Bay</u>	for title only									13
• <u>Sonoma Creek</u>										14
<u>Sonoma County</u>										15
<u>Napa County</u>										16
• <u>Mc Gill</u>										17
• <u>Quarries</u>										18
• <u>Rainbow Slough</u>										19
• <u>Northwestern Pacific R.R.</u>										20
• <u>Southern Pacific R.R.</u>										21
• <u>Little Island</u>										22
										23
										24
										25
										26
										27

*-Decision of BGN.

Underlined names approved.

9-13-48. C. J. W.

M 234

*-Decision of BGN.

Underlined names approved.

9-13-48. C. J. W.

17 March 1950

Rear Admiral K.T. Adams
Acting Director
United States Coast and Geodetic Survey
Department of Commerce

Dear Admiral Adams:

Your memorandum, file No. 731-eal, dated 12 December 1949, addressed to the Director of Intelligence, United States Air Force, forwarding seventeen (17) maps for security clearance, was referred to the Assistant Chief of Staff, G-2 for action.

There is no objection to the publication of the following maps as unclassified:

T-5920 Point Avisadero - Point San Bruno
T-5929 San Quentin - California City
T-5931 Davis Point - Pinole Point
T-5936 Vallejo, California

Provided minor deletions are made as indicated on each map, there is no objection to publication of the following maps as unclassified:

T-5922 (R&S) San Francisco Bay and Oakland Area, California
T-5923 San Francisco Bay and Oakland Area, California
T-5924 (E&W) San Francisco Bay and Oakland Area, California
T-5928 San Francisco Bay and Oakland Area, California
T-5939 San Pablo Bay Area, California
T-5941 Suisan Bay Area, California
T-5942 (2 sheets) Suisan Bay Area, California
T-5943 Suisan Bay Area, California

The remainder of the maps forwarded with your memorandum have not yet been returned from the field agencies where they were sent for examination. Follow up action has been taken requesting that the return of the maps be expedited.

Sincerely,

1 Incl
12 maps
(as listed above)

ERNEST A. BARLOW
Colonel, GSC
Chief, Security & Training Division
the Assistant Chief of Staff, G2

DIVISION OF PHOTOGRAMMETRY
Review Report of
Planimetric Map Manuscript T-5939

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

26 Control

All triangulation stations shown on the map manuscript are listed on Form M-2388-12, attached to this descriptive report. Stations underlined in red were added during review.

28 Detailing

Only minor corrections and additions were necessary to complete the map manuscript. Detailing east of 122°21' Longitude is to be disregarded in the final drafting of T-5939. This portion was added to the adjoining map manuscript, T-5937 to afford a better common junction.

44 Comparison with Existing Topographic Surveys

T-4017	1:10,000	1921-22
T-4018	1:10,000	1922
T-4019	1:10,000	1922

These surveys are superseded by T-5939, *for nautical charting purposes.* in all common areas, except for contours.

45 Comparison with Nautical Charts

5533 · 1:40,000 1940 (48-3/8)

51 Application to Nautical Charts

This map manuscript has not been applied to Nautical Chart 5533 as of the date of this review report.

Note: No classification - see attached letter of 17 March 1950 on removal of restrictions. KHM 3/24/50
Reviewed by: Under the direction of:

J. J. Streifler
J. J. Streifler 17 Nov. 1948

A. V. Griffith
Chief, Review Section KHM

Approved by:

B. G. Jones 5/50
Tech. Asst. to the Chief,
Division of Photogrammetry

H. R. Edmoustone
Chief, Nautical Chart Branch
Division of Charts

O. S. Reading
Chief, Div. of Photogrammetry

W. M. Acaife
Chief, Div. of Coastal Surveys