

# 5940

Diag. Cht. No. 5502

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Planimetric

Type of Survey Air Photo. Compilation

Field No. \_\_\_\_\_ Office No. T-5940

### LOCALITY

State California

General locality Petaluma Creek - San Pablo Bay

Locality Petaluma & Vicinity

1941-'42

### CHIEF OF PARTY

K.G. Crosby, Chief of Party

### LIBRARY & ARCHIVES

DATE

June 18-1950

B-1870-1 (1)

# 5940

## DATA RECORD

T- 5940

Quadrangle (II):

Project No. (II): CS 262

Field Office: San Francisco  
Calif.

Chief of Party: S.B.Grenell

Compilation Office: Tampa, Fla. Chief of Party: K.G.Crosby

Instructions dated (II III): 9/4/41

Copy filed in *Division of*  
~~Descriptive~~  
~~Report No. T- (VI)~~  
*Photogrammetry Office*Completed survey received in office: *Files*  
*11-23-43*Reported to Nautical Chart Section: *Nov. 43*Reviewed: *11-23-48* Applied to chart No. Date:Redrafting Completed: *7-19-49*Registered: *4-28-50*Published: *4-21-50*

Compilation Scale: 1:10,000

Published Scale: *1:10,000*

Scale Factor (III): 1.00

Geographic Datum (III): N.A. 1927 Datum Plane (III): *M.H.W.*  
~~N.A. 1927~~

Reference Station (III): LAKE 1930

Lat.:  $38^{\circ}13'29''$  940 (923.14m) Long.:  $122^{\circ}32'49''$  025 (1192.48m) Adjusted  
~~Unadjusted~~State Plane Coordinates (VI): *California, Zone 2*

X =

Y =

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
6480	9/3/41	3:59	1:10,000	+ 3.3 ft.
6481	"	4:00	"	+ 3.3 ft.
6482	"	4:03	"	+ 3.2 ft.
6483	"	4:05	"	+ 3.2 ft.
6484	"	4:06	"	+ 3.2 ft.
6485	"	4:08	"	+ 3.1 ft.
6486	"	4:09	"	+ 3.1 ft.

Tide from (III): Upper Drawbridge, Petaluma Creek

Mean Range: 5.1

Spring Range: 6.6 (Diurnal)

Camera: (Kind or source) USC&GS 9 lens

Field Inspection by: Ensign L.F.Woodcock

date: 1942

Field Edit by: *None*

date: \_\_\_\_\_

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

Projection and Grids ruled by (III)Wash. Office date: 4/8/43

" " " checked by: " date: 4/8/43

Control plotted by: J.L.White, Prin.Photo.Aid

date: 4/17/43

R.Dossett, Prin.Photo.Aid

April and

Control checked by: M.M.Slavney, Prin.Photo.Aid

date: May 1943

Radial Plot by: M.M.Slavney, Prin.Photo.Aid

date: Aug. 1943

Detailed by: M.M.Slavney, Prin.Photo.Aid

Aug. to  
date: Nov. 1943

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

date: Nov. 1943

Elevations on Field Edit Sheet

checked by: *Not applicable*

date: \_\_\_\_\_

STATISTICS (III)

Land Area (Sq. Statute Miles): 15.6

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

Shoreline (Less than 200 meters to opposite shore): 7.2 miles

Number of Recoverable Topographic Stations established: 34

Number of Temporary Hydrographic Stations located by radial plot: 9

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. 5940. PROJECT NO. 262 A SCALE OF MAP 1:100000 SCALE FACTOR 1.1

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $\chi$ -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)	
FLAT 2, 1922	G.P.	N.A. 1927	38° 14' 56.393"	1738.8					
SQUARE CHURCH TOWER, 1922	"	"	122° 36' 41.418"	1007.1					
	"	"	38° 13' 57.071"	1759.7					
	"	"	122° 38' 30.883"	751.1					
FLAG POLE ON CLOCK TOWER, 1922	"	"	38° 14' 02.428"	74.9					
	"	"	122° 38' 21.325"	518.6					
RED CHURCH, SPIRE, 1922	"	"	38° 14' 06.36"	196.1					
	"	"	122° 38' 43.76"	1064.2					
WESTERN SMOKESTACK, 1922	"	"	38° 14' 15.63"	481.9					
	"	"	122° 38' 14.49"	352.4					
WINDMILL NO. 1, 1922	"	"	38° 14' 11.382"	350.9					
	"	"	122° 36' 01.870"	45.5					
PETAL, 1930	PUBLICATION #202	"	38° 14' 08.736"	269.4					
	"	"	122° 35' 29.673"	721.6					
BODWELL 2, 1922	G.P.	"	38° 14' 05.152"	158.9					
	"	"	122° 34' 17.507"	425.8					
WINDMILL NO. 3, 1922	"	"	38° 13' 54.931"	1693.7					
	"	"	122° 35' 05.380"	130.9					
CENTER OF DRAWBRIDGE, 1922	"	"	38° 13' 42.65"	1315.0					
	"	"	122° 36' 46.98"	1142.7					
DAGO, 1922	"	"	38° 13' 33.870"	1044.3					
	"	"	122° 36' 52.785"	1283.9					
LAKE, 1930	PUBLICATION #202	"	38° 13' 29.940"	923.1					
	"	"	122° 32' 49.025"	1192.5					

1 FT. = 3048006 METER

COMPUTED BY:

DATE

CHECKED BY:

DATE

M. 2388-12



## Field Inspection

Field inspection data for the area of T-5940  
are contained in the "Field Inspection Report --  
San Pablo Bay Area, California" submitted by  
L. F. Woodcock. <sup>in 1947</sup> This report is filed in the  
Division of Photogrammetry, General Files.

COMPILATION REPORT  
TO ACCOMPANY  
SHEET NO. T-5940

CONTROL

In the radial plot for Sheet T-5940 all triangulation stations, with one exception, were held. "F.I.P. Fence", the station not held, was located on the survey sheet conventionally but apparently some fault in the angular or linear measurements by the field party resulted in a position that could not be held in the plot.

RADIAL PLOT

Because a large percentage of the radial points, azimuths, and control stations for survey sheet T-5940 were picked on the photographs by inexperienced personnel with a resultant weakness in the main radial plot for T-5940, a new radial plot for the sheet was run by the compiler on orders of Lieut. Comdr. K. G. Crosby, Chief of Party.

All azimuths, control station, radial points, and H & T stations were repicked on the photographs. Radial points are circled in yellow and white, the white ones were added while detailing, because it was impossible to remove the old red circles without injuring the photograph.

The control used to fix the plot was adequate. It may, however, be noted that several stations were used that fell outside the limits of T-5940 and of Project 262. Three of these stations, F.I.P. Adobe, Sonoma and Ventilator on Big Red Barn are shown on the sheet outside detailing limits. Two stations F.I.P. Rin and F.I.P. Mare were used by attaching a "dog ear" to the sheet to aid in fixing the position of photographs 6485 and 6486.

Control was adequately identified with the exception of F.I.P. Fence as previously stated.

Perhaps because this group of photographs constituted the end of one flight line and the start of another it was difficult to achieve proper flight overlap. Whatever the reason, the two flight lines were too widely separated to be of much assistance to each other for azimuths and some radial point intersection.

The results of the plot seem excellent as there were no adjustments to make for closure and in the few cases where the radial intersections looked doubtful the cuts are shown in blue on the back of the sheet.

The portion of this sheet from Latitude  $38^{\circ}12'$  to Latitude  $38^{\circ}13'$ ; Longitude  $122^{\circ}37'$  to Longitude  $122^{\circ}39'$  had insufficient photograph coverage to give more than

CONTROL

In the radial plot for sheet T-5940 all triangulation stations, with one exception, were held. "W.I.P. Fence", the station not held, was located on the survey sheet conventionally but apparently some fault in the angular or linear measurements by the field party resulted in a position that could not be held in the plot.

RADIAL PLOT

Because a large percentage of the radial points, azimuths, and control stations for survey sheet T-5940 were picked on the photographs by inexperienced personnel with a resultant weakness in the main radial plot for T-5940, a new radial plot for the sheet was run by the compiler on orders of Lieut. Comdr. K. C. Crosby, Chief of Party.

All azimuths, control station, radial points, and H & T stations were repicked on the photographs. Radial points are circled in yellow and white, the white ones were added while detailing, because it was impossible to remove the old red circles without injuring the photograph.

The control used to fix the plot was adequate. It may, however, be noted that several stations were used that fell outside the limits of T-5940 and of Project 262. Three of these stations, W.I.P. Adobe, Sonoma and Ventilator on Big Red Barn are shown on the sheet outside detailing limits. Two stations W.I.P. Rin and W.I.P. Mare were used by attaching a "dog ear" to the sheet to aid in fixing the position of photographs 6185 and 6186.

Control was adequately identified with the exception of W.I.P. Fence as previously stated.

Perhaps because this group of photographs contained the end of one flight line and the start of another it was difficult to achieve proper flight overlap. For this reason, the two flight lines were too widely separated to be of much assistance to each other for determining and some radial point intersection.

The results of the plot seem excellent as there were no adjustments to make for closure and in the few cases where the radial intersections looked doubtful the cuts are shown in blue on the back of the sheet.

The portion of this sheet from latitude  $38^{\circ}12'$  to latitude  $38^{\circ}15'$ ; longitude  $122^{\circ}37'$  to longitude  $122^{\circ}39'$  had insufficient photograph coverage to give more than

BM 4107, 1932  
BM 4107  
BM RV-199; 1942  
Pipe (USED), 1942

Farms 524-Rec. Topo. Stations:

two cut intersections for most radials in this area. It is considered adequately strong however. For instance fence lines known to be straight have been tied down with two cuts and when checked by using the fence as an intersecting line the results seem to be within the limits for error imposed upon this project.

#### DETAILING

Photographs were clear and sufficient for detailing with the exception in the area of PETALUMA. The two flight lines avoided the city and all work here was done from the wings of the photographs.

Field inspection was lacking in the city of PETALUMA. There were no notes on the river front areas, railroad spurs or number of tracks, and bridge data is assumed to be correct in Bridge List of January 1, 1935. In the rural area field inspection was adequate.

#### SUPPLEMENTAL DATA

There was available a zoning map of PETALUMA from which the public buildings were identified. *Div. of Photogr. General Files.*

Also available were a Highway Planning Survey Map of Sonoma County, Petaluma Quadrangle by the Corps of Engineers of the War Department, and Petaluma Quadrangle by the Geological Survey.

#### LANDMARKS AND AIDS TO NAVIGATION

There are no uncharted Landmarks recommended to be charted.

Non floating aids to navigation are listed on Form 567 and made a part of this report.

#### HYDROGRAPHIC CONTROL

Nine unmarked H & T stations have been located by the radial plot and may be recovered for use by the hydrographic party.

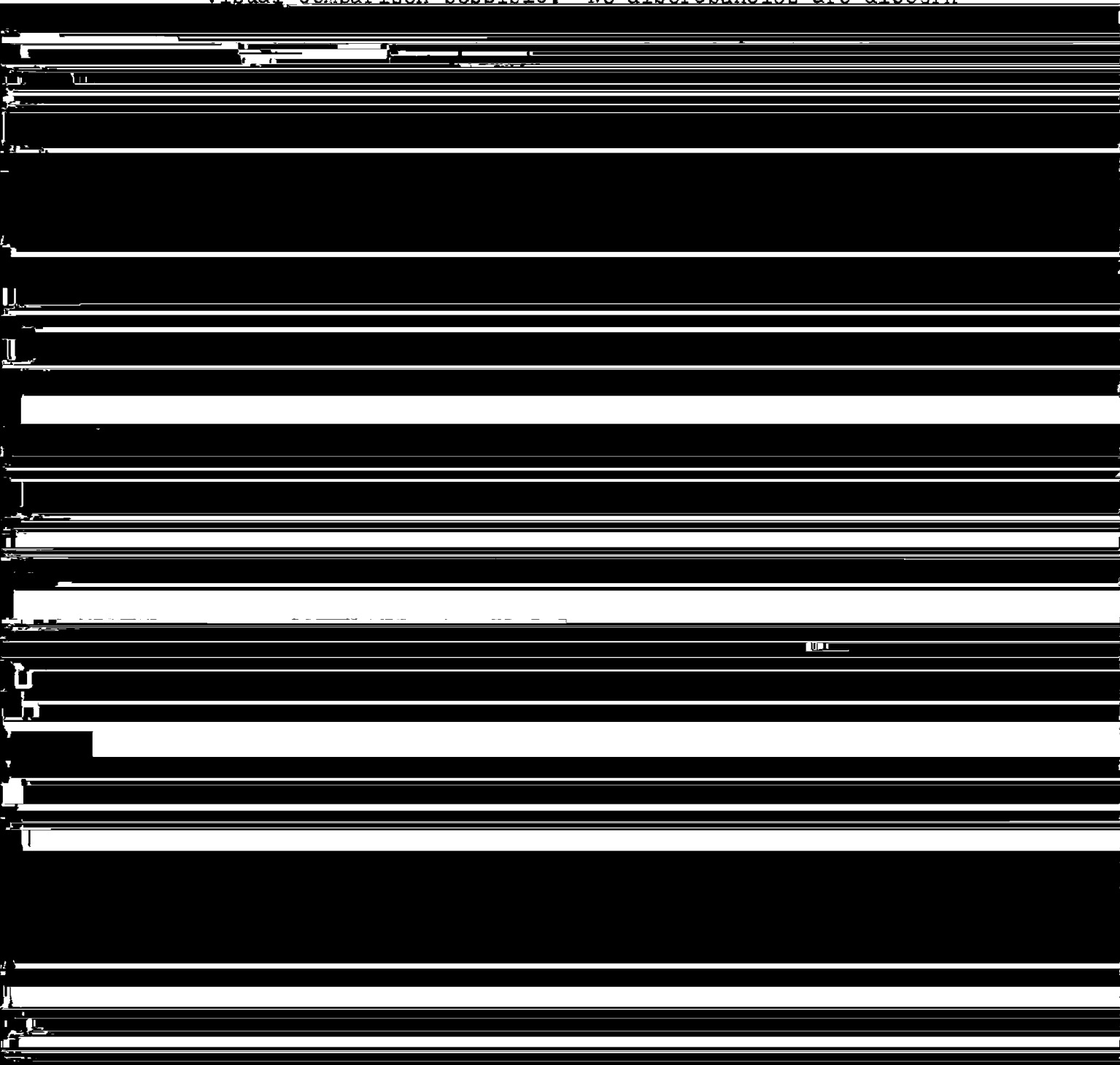
Marked H & T station U.S.E.D. has been located by the radial plot and is listed on Form 524. *Forms 524 Filed in Div. Photogr. General Files.*

Unmarked H & T station No. 49 (Southeast Gable of Gun Club) is omitted from the sheet because the gun club house flagpole is a triangulation station.

#### COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

Petaluma Quadrangle by U. S. Geological Survey surveyed

in 1910-1912 has been superseded by Petaluma Quadrangle as done by Corps of Engineers with Multiplex and Aerial photographs taken in 1937. The scale 1:62,500 makes only visual comparison possible. No discrepancies are discern-



Sheet T-5940 was compared with Chart No. 5533 of print date 8/4/42. The scale, 1:40,000, of Chart 5533 made visual inspection the only basis for comparison. Discrepancies in Chart 5533 include showing the Washington Avenue Bridge as closed, not showing the Petaluma and Santa Rosa Railroad, misplacement of railroad spurs in Petaluma, and erroneous designation as marsh of the area at Latitude 38°11'. Longitude 122°36'30". This compilation



# GEOGRAPHIC NAMES

Survey No.

GEOGRAPHIC NAMES										
Survey No.										
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>Petaluma Creek</u>										1
✓ <u>Petaluma</u>										2
✓ <u>Mo Near Canal</u>										3
✓ <u>Petaluma &amp; Santa Rosa R.R.</u>										4
✓ <u>Haystack Landing</u>										5
✓ <u>Schutz Creek</u> (Schultz)										6
✓ <u>Newtown</u>										7
✓ <u>Lakeville</u>										8
✓ <u>Northwestern Pacific R. R.</u>										9
✓ <u>Petaluma Golf Club</u>										10
✓ <u>U.S. Highway #101</u>										11
✓ <u>California*</u>										12
✓ <u>Cloudy Bend</u>										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

\* - Decis. of BGN

Underlined names approved.

10-6-48.

a.j.w.

M 234

\* - Decis. of BGN

Underlined names approved.

10-6-48.

A. J. W.

DIVISION OF PHOTOGRAMMETRY  
Review Report of  
Planimetric Map Manuscript T-5940

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 detailing of the map manuscript.

29 Supplemental Data

A zoning map of the city of Petaluma has been placed in the descriptive report envelope in the event that additional street names, names for Public Parks and Buildings, etc. are desirable for the final publication of this map manuscript.

44 Comparison with Existing Topographic Surveys

T-817	1:10,000	1860
T-818	1:10,000	1860
T-4016	1:10,000	1922

These surveys are superseded by T-5940 <sup>for nautical charting purposes</sup> 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: The area covered by this map is unclassified.*

Reviewed by:

Under the direction of:

*J. J. Streiffer*  
J. J. Streiffer 23 Nov. 1948

*A. V. Griffith*  
Chief, Review Sections K.H.M.

Approved by:

B. J. Jones 5/50  
Technical Asst. to the Chief,  
Division of Photogrammetry

H. R. Edmonson  
Chief, Nautical Charts Branch  
Division of Charts

O. S. Reading  
Chief, Division of Photogrammetry

L. V. M. Scaife  
Chief, Division of Coastal Surveys

## NAUTICAL CHARTS BRANCH

SURVEY NO. 5940

### 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.