5935

Diag'd. on Diag. Ch. No. 5530-4

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric Air Photographic

Field No. CS-262-A *Office No.* T-5935

LOCALITY

State California

General locality San Pablo Bay

Locality Sonoma Creek - Napa River & Vicinity

194 3

CHIEF OF PARTY

K.G.Cresby

LIBRARY & ARCHIVES

DATE April 7-1949

B-1870-1 (1)

5935

RS.H. 4859
C.M.

Form T-1

DATA RECORD

T- 5935

Quadrangle (II): Project No. (II): GS 262 A

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 Descriptive Report No. T- (VI)

Completed survey received in office: 19 Oct. 1943

Reported to Nautical Chart Section:

Reviewed: 24 July 1945 Applied to chart No. 5533 Date: 2-7-47

Redrafting Completed: 20 Nov. 1947

Registered: ~~Before 1947~~ April 1949 Published: Feb. 1948

Compilation Scale: 1:10,000 Published Scale: 1:10000

Scale Factor (III): 1.00

Geographic Datum (III): N.A. 1927 Datum Plane (III): ~~M.L.L.W.~~ M.H.W. 1929

Reference Station (III): Sonoma Creek 3 - 1921

Lat.: 38°08'34"677 (1069.16 m.) Long.: 122°22'02"560 (62.34 m) Adjusted ~~Unadjusted~~

State Plane Coordinates (VI): Zone 2

X = 1,894,333.43 Y = 173,678.65

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
6430	9/3/41	2:57	1:10,000	3.6
6431	"	2:58	"	3.6
6419	"	2:45	"	3.7
6420	"	2:46	"	3.7
6421	"	2:47	"	3.7
6422	"	2:48	"	3.7
6460	"	3:26	"	3.1
6467	"	3:37	"	3.0
6468	"	3:38	"	3.0
5582	5/18/41	1:25	"	0.4

Tide from (III): Sonoma Creek entrance (reference Sta. San Francisco)

Mean Range: 4.5 ft. **Spring Range:** 6.0 ft. (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:** "

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

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

Radial Plot by: Tampa Office Personnel **date:** 4/19/43-4/29/43

Detailed by: B.O.Bryant, Sr.Photo.Aid **date:** July-Sept. 1943

Reviewed in compilation office by: A.L.Kidwell, Jr. Topo.Engr. **date:** Sept. 1943

Elevations on Field Edit Sheet checked by: _____ **date:**

STATISTICS (III)

Land Area (Sq. Statute Miles): 16.72

Shoreline (More than 200 meters to opposite shore): 13.4 Nautical Miles

Shoreline (Less than 200 meters to opposite shore): 89.7 " "

Number of Recoverable Topographic Stations established: 3

Number of Temporary Hydrographic Stations located by radial plot: 12

Leveling (to control contours) - miles:

Roman numberals 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:

COMPILATION REPORT
TO ACCOMPANY
SHEET NO. T-5935

CONTROL

Nine triangulation stations appear on this sheet, seven of these stations are transmission towers and could easily be identified on photographs. There was adequate control to insure a good radial plot. All stations were held during the radial plot.

MAIN RADIAL PLOT

The discussion of the radial plot which includes this sheet has been made a part of descriptive report of Sheet T-5934. There were approximately six radial points to each chamber of photographs used in Main Radial Plot. Additional radials were cut in direct from photographs on to survey sheet by the draftsman with excellent results by holding these secondary control points in addition to the triangulation.

DETAILING

The photographs used in detailing this sheet were generally clear, the scale of most of the photographs was found to be reasonably good. The largest discrepancy was found to be in the matching of chambers of photographs where double images were found. Some of the chambers were found to be out as much as 5 to 8 meters. Junction between chambers 1 and 5 of photograph 6430 was found to be off approximately 6 meters. Junction between chambers 7 and 3 of photograph 6429 was found to be off approximately 6 meters. Other chambers were found to be off but not as bad as above mentioned ones. Photograph 5582 could not be used due to the fact of extreme tilt, however, it was used in determining the approximate limits of shoal area as the 6400 series of photographs were taken at a time when the tide was higher. The approximate limits of shoal area were stopped at limits of photograph 5582. The extent of shoal area will have to be determined by the Hydrographer. Chamber 7 of photograph 6420 was not used. Apparently the negative slipped in printing the photograph and the draftsman could not get satisfactory cuts on points in this chamber.

SUPPLEMENTAL DATA

There was no supplemental data available for this sheet.

LANDMARKS AND AIDS TO NAVIGATION

There are no uncharted landmarks in this area worthy of being charted.

Aids to Navigation are listed on Form 567 which is made a part of this report.

HYDROGRAPHIC CONTROL

Three ~~Two~~ marked H & T stations appear on this sheet and are listed on Form 524.

Twelve unmarked H & T stations appear on this sheet which can be recovered and used by the Hydrographer for future purposes. These stations were determined by the radial plot. 1a 60 1 2 3 5 9 70 1 3 5 86 7

GEOGRAPHIC NAMES

Only those geographic 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 December 2, 1942, reference 28-PFA 1990. Filed in Div. of Photogrammetry - Office Files

COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

A comparison was made with the following quadrangles:

California, Napa Quadrangle, edition of May 1902, reprinted 1932, published by the Department of Interior U.S.G.S.

California, Mare Island Quadrangle, edition of 1916, reprinted 1927, published by the Department of the Interior U.S.G.S.

Due to the difference in time when photographs were taken and when quadrangle sheets were compiled there has been numerous changes in the terrain which this sheet covers. California, Mare Island Quadrangle, edition of 1942 published by War Department, Corps of Engineers, U. S. Army, was found to be in good agreement except at approximate Latitude 38°09', Longitude 122° 21'. Sheet T-5935 shows this as being cultivated land whereas the quadrangle sheet shows this terrain as being marsh land. Due to scale difference only a visual comparison was made with these sheets.

COMPARISON WITH NAUTICAL CHARTS

A comparison was made with U. S. C. and G. S. west coast, California Nautical Chart 5533. Several discrepancies occur from this comparison.

At approximate Latitude 38° 09', Longitude 122° 21' west to mouth of Sonoma Creek the terrain is shown as marsh on Sheet T-5935 whereas Nautical Chart 5533 shows it as being fast land. Land north of Napa Slough is

shown as fast land on sheet T-5935 whereas Nautical Chart 5533 shows it as being part fast and part marsh. All that land embraced by China Slough and South Slough is shown as being marsh on Sheet T-5935 whereas Nautical Chart 5533 shows it as being part fast and part marsh. All that land embraced by South Slough and Dutchman Slough is shown as fast land on Sheet T-5935 whereas Nautical Chart 5533 shows as all being marsh. There were no noticeable discrepancies in position of shoreline or shoreline structures. There are no charted features that should require immediate correction. However, this compilation should supersede charted information.

Respectfully submitted,

Ben O. Bryant

Ben O. Bryant,
Sr. Photogrammetric Aid

Forwarded by:

Kenneth G. Crosby,
Chief of Party

Form 567
(Rev. April 1942)

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Non-Floating Aids to Navigation
Sheet No. T-5935

LANDMARKS FOR CHARTS

TO BE CHARTED / ~~TO BE DELETED~~ STRIKE OUT ONE

Tampa Photogrammetric Office 9/23, 1943

I recommend that the following objects which have (have not) been inspected from seaward to determine their value as landmarks, be charted on (~~deleted from~~) the charts indicated.

The positions given have been checked after listing.

Kenneth O. Crosby *Chief of Party.*

GENERAL LOCALITY: San Pablo Bay, Calif.	POSITION					METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
NAME AND DESCRIPTION	LATITUDE		LONGITUDE		DATUM						
	° ′	D. M. METERS	° ′	D. P. METERS							
Pacific Gas & Elec. Co. Tower	38 09	464.33	122 17	1166.8	N.A. Trian. 1927		1922	X			5533
Napa River Center Trans. Tower 1922											

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE 16—27869-1

NOMENCLATURE FOR FIELD INSPECTION

- D.F. - double full line road
- D.D. - double dash line road
- S.D. - single dash line trail
- H - house
- B. - barn
- Bldg. - building
- Tk. - track
- R.R. - railroad
- B. - bridge
- Culv. - culvert
- O.P. - overpass
- Hy. - highway
- Cr. - creek
- St. - stream
- Int. - intermittent
- C. - cultivation
- F. - fence
- M. - marsh
- Gr. - grass or grassy
- Sw. - swamp
- Br. - brush
- Priv. - private
- Sch. - school
- S. - sand
- S.L. - shoreline
- Pr. - pier
- D. - dock
- Bo.H. - boathouse
- Is. - island
- W. - water
- Md - mud or muddy
- Th. - thick
- Scr. - scrub
- H.W.L. - high water line
- L.W.L. - low water line
- Dch. - ditch
- Pd. - pond
- Orch - orchard
- Vin. - vinyard
- Ch. - church
- Can. - canal
- Scat. - scattered
- T. - trees
- P. - pasture (grass land)
- Dec. - deciduous
- Cem. - cemetery
- L.S.L. - light shore line
- I.S.L. - indefinite shore line
- H.S.L. - heavy shore line
- Blkd. - bulkhead

GEOGRAPHIC NAMES

Survey No. T-5935

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
California ✓				(for title)				USGB		1
San Pablo Bay ✓				380224						2
Napa River ✓				381222				"		3
Dutchman Slough ✓				381223						4
South Slough ✓				"						5
China Slough ✓				"						6
Knight Island ✓				"						7
Banty Island ✓				"						8
Napa Slough ✓				381224						9
Skagg Island ✓				"						10
Sonoma Creek ✓				"						11
Tubbs Island ✓				"						12
Tubbs ✓	(locality name)			"		see chart 5533				13
Tolay Creek ✓	(a small section)			"						14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Name(s) unofficial to be approved by L Heck on 9/18/45

M 234

26 Control

See page 12 of Field Inspection Report on San Pablo Bay Area, California for Chart 5533, (filed under "Field Inspection Reports, Project 262, Suisun Bay, California, Division of Photogrammetry, General Files)

27 Radial Plot

Upon examination of that portion of the plot covered by sheet T-5935, it is evident that inaccurate transfer of centers of the photographs did not permit holding azimuths. Several originally selected and several new detailed points were cut in. It was necessary to disregard picked centers on the manuscript to hold the primary control. Thus, the compiler was forced to "manipulate" intersections. If the control is sufficient on the individual photograph, inaccuracies in "manipulation" can be held to a minimum. But, in several instances photos could be shifted at will along radials to permit a good intersection and the resulting position may be in error to 10 meters.

Distortion templates were used at the time the plot was put down but the proceedure and results are not adequately discussed or designated on the photographs; thus it is impossible to verify the accuracy of results obtained.

It was decided in this office that this manuscript, after extensive redetailing, be accepted with explanation of discrepancies in this report and note that pricked centers of photographs may be in error beyond the Standard Map Accuracy allowance. To establish positions by radial cuts primary control must be held. This proceedure necessitates a coordinated use of adjoining manuscripts to insure accurate orientation of photographs.

28 Detailing

Extensive redetailing was necessary in the Washington Office. Carelessness in transfer of detail from the photographs, drafting, and a scarcity of cuts is the primary assumed cause of these discrepancies. It was not felt advisable to make further corrections at this time. The photographs are mechanically imperfect and somewhat outdated. The elements have made changes in shoreline which is marsh land and man is continually reclaiming interior marsh land for seasonal cultivation and flooding. All changes have been completed in red acid ink on the manuscript.

Field Inspection notes on photos were applied. Road classifications are not complete.

The compiler has classified roads on dikes , but it is not known from where the information was received in all cases. Interpretation of marsh

land, flooded pasture, and cultivated areas has been done by the compiler in the office. Some areas may be questioned because of insufficient field notes obtainable.

44 Comparison with Existing Surveys

4017	1/10000	1921-22
4019	1/10000	1922

There are numerous differences of shoreline limits and marsh area, but because of continuous changes it is believed that this sheet supersedes all previous surveys of this Area.

51 Application to Charts

This map manuscript was partially applied to chart 5533 before review.

Reviewed by:

R. J. Tallman c.t.
R. J. Tallman 7-24-45

B.G. Jones 4/49
Tech. Asst. to Chief,
Division of Photogrammetry

K.T. Adams
Chief, Div. of Photogrammetry

Under the direction of :

L. V. Griffith c.t.
Chief, Review Section

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

W.M. Scaife
Chief, Div. of Coastal Survey

NAUTICAL CHARTS BRANCH

SURVEY NO. T5935

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/7/47	5533	McGann	Before ~~After~~ Verification and Review Partially
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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.