5946

Diag'd. on diag. ch. No. 5534

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Air Photo Compilation

Field No. ..... *Office No.* T-5946

5946

LOCALITY

State California

General locality Suisun Bay

Locality Montezuma ~~Creek~~ Slough

USRY dup

1943

CHIEF OF PARTY

Kenneth G. Crosby

LIBRARY & ARCHIVES

DATE Feb 9 1948

B-1870-1 (1)

Form T-1

DATA RECORD

T- 5946

Quadrangle (II): Antioch, Cal. Project No. (II): 262

Field Office: San Francisco, Calif. Chief of Party: L.D.Graham

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

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

Completed survey received in office: 3-18-43

Reported to Nautical Chart Section:

Reviewed: 1-7-48 Applied to chart No. 5534 Date: May 1943

Redrafting Completed:

Registered: 1-13-48 Published:

Compilation Scale: 1:10,000 Published Scale:

Scale Factor (III): 1.00

Geographic Datum (III): N.A. 1927 Datum Plane (III): M.S.L.

Reference Station (III): Airway Beacon #3, San Francisco-Reno, 1932

Lat.: 38° 07' 01".230 (37.02 m.) Long.: 121° 51' 48".717 (1186.75) Adjusted Unadjusted

State Plane Coordinates (VI):

X = Y =

Military Grid Zone (VI)

PHOTOGRAPHS (III)

Number	Date	Time	Scale	Stage of Tide
5539	5-18-41	12:12	1:10,000	~~No tide~~ 2.6
5540	"	12:13	"	"
5541	"	12:33	"	+2.1
5542	"	12:34	"	"
5543	"	12:35	"	"
6352	9-3-41	12:11	"	+4.6
6353	"	12:12	"	+4.6

Tide from (III): ~~No tide~~ Meins Landing (Reference Station - San Francisco)

Mean Range: 4.5 ft Spring Range: 5.9 (diurnal)

Camera: (Kind or source) U.S.Coast & Geodetic 9 lens (8¼" focal length)

Field Inspection by: Lt. (j.g.) Walter J. Chovan, Lt. (J.g.) William C. Russell date: Sept-Nov. 1941

Field Edit by: None date:

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

Projection and Grids ruled by (III) C.H.R. (Wash.Offc.) date: 12-2-42

" " " checked by: W.D.H.(Wash.Offc.) date: 12-2-42

Control plotted by: R. Dossett, Sr. Photo Aid date: 12-7-42

Control checked by: A.L.Kidwell, Jr. Topo. Engr. date: 12-8-42

Radial Plot by: Tampa Office Personnel date:

Detailed by: Oscar M. Rivera, Photo Aid date: 12-1942

Reviewed in compilation office by: J.A.Giles, Asst.Photo.Engr. A.L.Kidwell, Jr.Topo.Engr. date: Jan 7, 1943 1 & 2 1943

Elevations on Field Edit Sheet checked by: date:

STATISTICS (III)

Land Area (Sq. Statute Miles): 23.3 mi.

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

Shoreline (Less than 200 meters to opposite shore): 11.8 mi.

Number of Recoverable Topographic Stations established: 2

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:

DESCRIPTIVE REPORT
TO ACCOMPANY
SHEET NO. T-5946

26. CONTROL

Reference is made to the field inspection report of the Suisun Bay Area in which the triangulation stations used to control this sheet are listed. Filed in Div. of Photogrammetry- General Files.

STation SHEEP, 1942, could not be identified on the photographs, therefore Field Inspection Point "Gravel", a nearby "T-road" intersection, was identified by the field party. This F.I.P. was picked on four photographs and used for control with good results. See review report

Field Inspection Point "Trail" relating to triangulation station KIRBY, 1922, falls just outside the detailing limits of this sheet and should have been used as control. However, it is a very poor point and could not be accurately identified on but one photograph on this sheet and proved of very little use in controlling the detail in its vicinity.

Station Three Point No. 2, 1941, was plotted on this survey sheet by using a metal 3-arm protractor, after a three-point problem had been computed to obtain the angles. Good results were obtained by using this station as control in the main radial plot and in holding it to "cut-in" additional radial points during the detailing of the sheet.
Form 524 Card filed in Div of Photogrammetry - General Files.

27. MAIN RADIAL PLOT

A continuous radial plot was run on December 16-19th inc., for the purpose of locating all photograph centers, all hydrographic stations, topographic stations, bench marks, azimuth marks, and radial points. The plot extended over the area covered by sheets T-5946 to T-5952 inclusive. This area is the northern two-thirds of Nautical Chart 5534 taking in Grizzly Bay (approximate Lat. 38° 06') on the south and the town of Fairfield (approximate Lat. 38° 15') on the north and extending from approximate longitude 121° 53' westward to approximate longitude 122° 10'.

The usual practice of laying the plot was followed. This consisted of plotting the control on the survey sheets and then transferring it to the base grid sheets by matching grid squares. The agreement between the grid lines on survey sheets and those on the base grid sheets was excellent and no adjustment was necessary. However, when the base grid sheets were laid on the plotting table a small amount of adjustment had to be made between the grid lines on the northern part of sheets T-5947, T-5948 and those on the south part of sheets T-5949, T-5950, T-5951. The reason for this was that the projections for sheets T-5947 and T-5948 had to be made over and the new projections were not identical. This adjustment did not exceed.5 ~~meters~~ mm, however, and it was distributed so as to fall in the least important areas.

This plot joins a previous plot covering sheets T-5941-T-5945 inclusive. A satisfactory tie-in was made as the overlapping points from this previous plot to the south were transferred to the base grids by matching grid squares and pricking the points direct.
Report for this plot in the Descriptive Report for T 5945 filed in Div of Photogrammetry General Files.

Control, in general, was of adequate density. However, areas of questionable accuracy due to lack of control will be discussed in a later paragraph.

Accuracy in identifying the following control stations was questionable to the extent as noted:

The geographic position for station Three Point No. 1 could not be computed from available data, therefore, it could not be used in the radial plot. However, the station could be identified with reasonable accuracy on 4 photographs and its geographic position scaled and listed on Form 524. Station is on survey T 5947. Form 524 filed in Div. of Photogrammetry General Files

Station DUMP, 1942 was very difficult to accurately identify. While it was identified on 4 photographs its picked position is somewhat questionable. Station in the area covered by T 5948

The same is true of stations ROCKVILLE, 1932 and THOMASSON, 1922. Due to the area in which these stations are located it was not possible to be sure of their accuracy of identification on the photographs.
Stations are in the area covered by T 5949

Station SMALL RED TANK, 1922, apparently has been destroyed. The tank identified by the field party does not fit the plotted position on the survey sheet by some 200 to 300 meters in longitude. The position of SMALL RED TANK was recomputed in this office and found to be correct. Therefore, as no tank appears on the photograph where the plotted position calls for, it is believed that the station is destroyed. The station was of no value in the radial plot. Station in the area covered by T 5750

Station GRIZZLY ISLAND BARN, WEST GABLE, 1922, could not be furnished by the field party as there are two barns close to each other and the field party could not determine which was the station. The station can be used by the draftsman, however, as he will be able to determine which is the correct barn. Station in the area covered by T 5951

Station GRIZZLY ISLAND SHED, SOUTH GABLE, 1922, has apparently been destroyed as the plotted position does not coincide with any building in the area.

Field Inspection Point TRAIL, relating to triangulation station KIRBY, 1922, is not a good point as it was very difficult to accurately identify on the photographs and at best it had to be considered questionable. Station in the area covered by T 5952

Photographs were adequate in all areas except the easternmost parts of sheets T-5946 and T-5952; also the westernmost part of sheets T-5948 and T-5949 were not adequately covered. The accuracy of these areas

will have to be considered questionable as the photographs permit but 2-cut intersections in many instances and as the terrain is hilly the detail may not be accomplished with the desired accuracy.

The two-cut intersections will be indicated as such on the survey sheet. All other points were picked at the intersection of from 3 to 9 radial lines. All points are believed to be picked within .25 m.m. of their true position.

Attention is called to the geographic position of station POND, 1942. A position computation was made of this station in the Tampa office, and the position furnished by the field party was found to have an error of 1 minute in Longitude. The correct geographic position of station POND, 1942 is - Lat. 38° 12' 25".14, Long. 121° 52' 50".20. Station is in the area covered by T 5952.

Various colored inks were used on the photographs and survey sheet to designate triangulation stations, topographic and hydrographic stations, and radial points. The following key is furnished for future reference:

PHOTOGRAPHS

Triangulation and traverse stations.	.2.5 m.m.	blue circle
Hydrographic and topographic stations.	.2.5 m.m.	green circle
Radial points in main plot	.2.5 m.m.	red circle
Photograph centers	.Double	White circle

SURVEY SHEET

Triangulation and traverse stations.	.3.5 m.m.	high black triangle
Hydrographic and topographic stations.	.2.5 m.m.	black circle
Radial points on main plot	.2.5 m.m.	blue circle on back of sheet
Radial points (additional)	.3.5 m.m.	blue circle on back of sheet
Photograph centers	.Double	blue circle on back of sheet

28. DETAILING

The detailing of this sheet was done in accordance with the current instructions.

The photographs were very clear and the only difficulty in interpretation of vegetation was in distinguishing between land used as pastures and marsh land in some of the lowland areas.

Field inspection is considered adequate for detailing.

Attention is called to a discrepancy in the name of the railroad running north and south on this sheet. On Nautical Chart No. 5534 it is labeled the S.F. & S. RR. On U.S. Geological Survey ANTIOCH CALIFORNIA QUADRANGLE map, General Highway Map of Solano County and on Sheet T-5020 formerly compiled by this bureau the name of this railroad is shown as the Sacramento Northern. The railroad is labeled on the survey sheet as S.F. & S.RR.

Changed to Sacramento Northern Railway by reviewer. See approved list of Geographic Names (part of this report)

29. SUPPLEMENTAL DATA

No graphic control survey of this area was available in this office for comparison.

34. LANDMARKS AND AIDS TO NAVIGATION

There are no prominent uncharted landmarks nor non-floating aids within the detailing limits of this sheet. Form 567 made out for the San Francisco - Medford Airway Beacon No 3, 1932. Copies forwarded to Nautical Charts and Aeronautical Charts Sections.

35. HYDROGRAPHIC CONTROL

There are 9 unmarked hydrographic stations on this sheet that may be recovered for future use by the hydrographic party. Reference is hereby made to the field inspection report of Lieut. Comdr. L. D. Graham covering the Suisun Bay Area, in which these stations are listed. This report was submitted by Lieut. Comdr. Graham to the Washington Office in 1941. Filed in D.V. of Photogrammetry - General Files. Form 524 cards for 2 USED Bench Marks are also filed in the General Files.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLES

The U. S. Geological Survey quadrangle map ANTIOCH CALIFORNIA covers this area. This quadrangle map was corrected as of 1936 and is in good agreement, generally speaking, with this survey sheet. However, due to a large scale difference the comparison was a visual one. The changes indicated are mostly in the marsh areas where a considerable portion of the land has been converted to pasture and in some instances to cultivation.

45. COMPARISON WITH NAUTICAL CHARTS

Visual comparison was made with Coast & Geodetic Survey Nautical Chart No. 5534 (1:40,000 scale), corrected to Aug. 12, 1942. Numerous levees and drainage ditches have been constructed in the southwestern past of the sheet which do not appear on the nautical chart. Most of this area has been reclaimed as pasture and cultivated land, thus necessitating the above changes. This map compilation should supersede the charted information.

Respectfully submitted,

Oscar M. Rivera

Oscar M. River,
Photogrammetric Aid

Forwarded by:

Kenneth G. Crosby

Kenneth G. Crosby,
Chief of Party.

Division of Photogrammetry
Review Report of
Planimetric Map Manuscript T-5946

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

26. Control.-

The station "Sheep", 1942 and the substitute station "Gravel", both of which were unmarked, were removed from the map manuscript. Station "Sheep" was located by the field inspection party with sufficient accuracy for the control of the radial plot but it is of less than third order accuracy. The computations are filed in the Bureau library.

The triangulation station, "Meins 2", 1922, was added to the map manuscript.

44. Comparison with Existing Topographic Surveys.-

USGS	Antioch Quadrangle	1:62,500	1908
USGS	Honker Bay "	1:31,680	1918
USGS	Collinsville "	1:31,680	1918
USGS	Birds Landing "	1:31,680	1918
USGS	Denverton "	1:31,680	1918
T-1029		1:20,000	1866
T-1855		1:10,000	1888

The surveys are in good agreement with the map manuscript with the following exceptions:

The shoreline of Montezuma Slough, south of Meins Landing, because of the construction of levees.

Many ditches, levees, buildings, and roads are shown on the map manuscript that do not appear on the surveys.

45. Comparison with Nautical Charts.-

Chart No. 5534	1:40,000	1946

The map manuscript was applied to the nautical chart and ~~is~~ these are in excellent agreement with the following exceptions:

Piers shown on the map manuscript at Meins Landing and southwest of Molena are not on the chart.

The cable crossing northwest of Meins Landing is not shown on the map manuscript.

Reviewed by:

Charles Theurer
C. Theurer
1-7-48

Reviewed under direction of:

S. V. Griffith
S. V. Griffith
Chief, Review Section

APPROVED BY:

B.J. Jones 1/48
Technical Assistant to the
Chief, Div. of Photogrammetry

Chief, Nautical Chart Br.
Division of Charts

K.T. Adams
Chief, Div. of Photogrammetry

C.K. Green
Chief, Div. of Coastal surveys

Form 567
April 1945

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

Orig + 2 copies

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

Washington Office Jan 16, 1948

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 by _____

S. V. Griffith *Chief of Party.*

STATE / CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE ° ′	LATITUDE D.M. METERS	LONGITUDE ° ′	LONGITUDE D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	San Francisco – Reno,												
	Airway Beacon No 3 ~~[illegible]~~		38 07	37.9	121 51	1186.7	NA 1927	Theod.	1932		X		5534
					O.K. on chart 5534 J.M.A.								
					Copies fowarded to								
							Nautical Charts						
							Aeronautical Charts						
							1-19-48						

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. 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.

GEOGRAPHIC NAMES

Survey No.

T-5946

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									USGB	1
Montezuma Slough									"	2
Sacramento Northern Railway		(not S F & S R R)								3
										4
Duttons Landing		(not Dutton's)								5
Hammond Island										6
Clank Hollow										7
Molena										8
Birds Landing		(village)								9
Birds Landing		(old landing on Montezuma Sl.)								10
Lucol Hollow										11
Hopkins Ravine										12
Montezuma Hills		(cover a large area)								13
Meins Landing										14
Grizzly Island										15
Kirby Hill										16
				Names underlined in red are approved 11/16/48 L. Heck						17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234