

1933

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: California.

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~

Sheet No. 5010

LOCALITY

San Joaquin River Delta.

Venice Island to Dredger Cut.

1933

CHIEF OF PARTY

M. H. Reese.

Applied to drawing of Chart 5527

Jan 31, 1935 - J.W.

Descriptive Report to Accompany
Air-Photo Topo. Sheet No. *V. 5010*

See Descriptive Report T-4585 for general report of Field Inspection

Authority: The Director's Instructions of November 15, 1932.

Methods:-

Sheet No. 6 was compiled from five lens photographs taken by the U. S. Army Air Corps. In general the photographs are very good. A number of the pictures were taken during the day when the shadows were of considerable length and this has caused the draftsman some confusion. There is less than 50 percent of overlap in the direction of flight in about 30 or 40 percent of the pictures. With this minimum overlap it is more difficult to obtain the required accuracy than with the proper amount of overlap. The flight lines on the sheet are excellent, and this compensates somewhat for the minimum overlap. The tilt in the pictures is probably at a minimum.

The Radial Line Method as described by W. J. Chovan was used in the Compilations with amendments to fit the five lens photographs.

The Control on this sheet is three triangulation stations, and two three-point fixes. Several stations that fall outside the limits of the sheet were utilized in the compilation.

The drafting on the sheet is average and the accuracy is within the plottable error on 1:10,000 scale. Some difficulty was experienced in effecting a junction with sheet No. 4686. The detail on sheet No. 4686, in the vicinity of Latitude $38^{\circ}07'$ and Longitude $121^{\circ}33.2'$ is apparently incorrect as it would not fit the radial plot on sheet No. 6. Very good junctions were effected with other adjoining sheets.

Statistics:

Area of sheet = 21.63 sq. mi. (Nautical) = 24.9 sq. mi. (Statute).

107-1111-10


M. H. Reese,
Chief of Party, C. & G. Survey.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5010

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 6

REGISTER NO. 5010

State California.

General locality San Joaquin River Delta.

Locality Venice Island to Dredger Cut.

Scale 1:10,000 Date of survey December 12 & 16, 1931.

~~Revised~~ Photographs by U. S. Army Air Corps.

Chief of party M. H. Reese.

~~Surveyed by~~ Field Inspection by L. P. Raynor.

Inked by P. A. Kelly

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated November 15, 1932.

Remarks: The scale of the celluloid sheet is 1:10,000 and the
negative is to be made to that scale.

...

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5010

AIR PHOTO TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this Coast & Geodetic Survey filled in as completely as possible, when the sheet is LIBRARY AND ARCHIVES
warded to the Office.

Field No. 6

REGISTER NO. 5010

JUN 9 1933

Acc. No. _____

State California

General locality San Joaquin River Delta

Locality Venice Island to Dredger Cut

Scale 1:10,000 Date of survey December 12 & 16, 1931

~~Vessel~~ Photographs by U. S. Army Air Corps

Chief of party M. H. Reese

~~Surveyed by~~ Field Inspection by L. P. Raynor

Inked by P. A. Kelly

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated November 15 _____, 1932

Remarks: The scale of the celluloid sheet is 1:10,000 and

the negative is to be made to that scale.

...

GEOGRAPHIC NAMES

Survey No. T-5010H-6011Date. Jan. 29, 1935

Chart No. _____

Names approved Jan. 29, 1935.

Walter M. Strong

Diagram No. _____

*, Approved by the Division of Geographic Names, Department of Interior.

C, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Harlow Bacon

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Staten Island</u>	--			
	<u>South Fork Mokolunne River</u>	--			
	Isle Mouth Slough Should be <u>Island Mouth Slough</u>	--			
	<u>Westgate Landing</u>	--			
	<u>Terminous</u>	--			
	<u>Terminous Tract</u>	--			
	<u>Bouldin Island</u>	--			
	<u>Little Potato Slough</u>	--			
	<u>Westgate Landing No. 2</u>	--			
	<u>Strawberry Landing</u>	--			
	<u>Puccinelli Landing</u>	--			
	<u>Sargent Slough</u>	--			
	<u>Potato Slough</u>	--			
	<u>Venice Island</u>	--			
	<u>Empire Tract</u>	--			
	<u>White Slough</u>	--			
	<u>Dredger Cut</u>	--		Dredger Cut	
		--			
	<u>King Island</u>	--			
	<u>Correra Landing</u>	--		Correra Landing	
	<u>Honker Cut</u>	--			
	<u>San Joaquin River</u>	--			
	<u>Little Connection Slough</u>	--			

V *SW* (M 100)

5010a

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

JAN 25 1935

Acc. No. _____

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } Sheet No. 5010A
* Hydrographic }

State California

LOCALITY

San Joaquin River Delta

Terminous and Vicinity.

193³⁴

CHIEF OF PARTY

O. S. Reading.

U. S. GOVERNMENT PRINTING OFFICE: 1934

5010a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 50102

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No.

REGISTER NO. 5010 A 50102

State California

General locality San Joaquin River Delta

Locality Terminus and vicinity

Scale 1/10,000 Date Photos Dec. 12 and 15, 1931
Compilation, Aug., Sept., 1934

Airplane Lt. J. F. Phillips, Pilot
~~Vessel~~ Army Air Corps F-1A plane. Capt. A. W. Stevens, photographer

Chief of compilation O. S. Reading
~~party~~

Photos plotted by H. C. Olsen
~~Surveyed by~~

Inked by L. A. McGann L. A. McGann, October 8, 1934.

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated, 19

Remarks: Compilation of 5-lens aerial photos No. 512-528 and
554-569, inclusive, printed by photo-lithographic process.

...

Polyconic projection by H. C. Olsen, Aug., 1934
Projection verified by F. G. Erskine, Aug., 1934 F. G. E.
Control plotted by H. C. Olsen, Aug., 1934
Control verified by F. G. Erskine, Aug., 1934. F. G. E.

Descriptive Report to Accompany
Air Photo Topographical Sheet No. 5010 A.

(See Descriptive Report T-4685 for general report of Field Inspection.)

1. General Information:

(a) This sheet is a compilation of Army Air Corps five lens aerial photographs taken with a type T-3A camera on a scale of approximately 1/10000. The original sheet No. 5010 was compiled in the New York office during December 1933. This "A" sheet was compiled from the same photographs using an original plot during August and September 1934 by the compilers in the Washington Office. A plane table survey of the Mokelumne River and portion of Potato Slough was made available for this compilation. (See T-6050).

(b) Statistics:

29 sq. statute miles of area
13 miles of shoreline
23 miles of rivers and sloughs less than 200 meters wide.

(c) Photographs No. 512 to 528 inclusive and Nos. 554 to 569 inclusive. Photographs of two parallel strips of photographs embrace this sheet. The former were taken between 10:45 A. M. and 11:00 A. M. on December 15, 1934, the latter between 1:15 P. M. and 2:00 P. M. December 12, 1934. No tidal data is available for this area.

2. Control:

(a) Control consists of triangulation by J. Bowie in 1931^{1932 and} and L. P. Raynor in 1933; theodolite three point fixes by L. P. Raynor in 1932. Control was insufficient for a good radial plot without the aid of the plane table survey No. T-6050. There are two three-point fixes and one triangulation station "Rut" 1933 which fall without the limits of this sheet. These were used in the com-

pilation. All control is on the N. A. 1927 datum.

3. Compilation:

The radial line method of compilation was used on a projection with a scale factor of unity. This radial plot was made by Mr. H. C. Olsen who transferred it to the compiler for completion.

Marked adjustment was required in nearly every section of the sheet due to the tilt present in the photographs of both flights. The delineation of the shoreline in the following localities had been made extremely difficult on account of tilt.

(a) White Slough north of Correra Landing between longitude $121^{\circ} 28'$ and $121^{\circ} 29'$.

(b) Potato Slough where it joins Little Connection Slough.

(c) South Fork Mokolumne River north of Terminous.

The overlap of photographs Nos. 521 to 527 is not more than 50% of the "B" prints. This allows only two cuts to be made on points adjacent to or on the "B" print.

(d) Topographic (P. T.) (Aluminum) Sheet No. 6050 was transferred to this sheet after the radial plot was made. The detail as shown on No. 6050 was accepted without question. There are numerous discrepancies with the original sheet. This may be explained by the fact that they are changes since the photographs were taken rather than errors.

(e) Names were taken from Sheet No. 5010 and from B. P. 25708 (Weather's map), and *from sheet #69 Air Photo Section Files.*

4. Comparison with other surveys:

(a) A satisfactory junction was made with the four adjoining sheets.

(b) Upon comparison it will be noted that there are many discrepancies, both large and small, with sheet No. 5010, as follows:

1. The canal along the W. P. RR. east of Terminous becomes narrow so that it may be shown as a single line east of longitude $121^{\circ} 27'$. Building and bridges have been fully shown here.

(a) White slough for the limits given under Art. 3 (a).

2. Certain unimportant farm roads have been omitted.

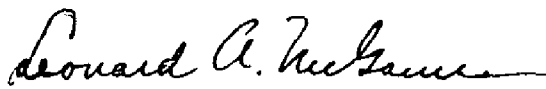
3. The canal south of Sargent Slough has been correctly interpreted.

4. The layout of ditches has been changed somewhat, with additions and changes of location.

5. Recommendations for further surveys:

Since the radial plot for this compilation was made by others it is not known what the probable error of compilation might be, and since the control stations were few in number and difficult to spot on the photographs (as evidenced by the many changes in location) especially in the wing prints, the error of compilation may be greater than the average. However, the photo control survey (T 6050) reduces any possible error in the western half of the sheet to a minimum.

Respectfully submitted,


Leonard A. McGann.

REVIEW OF AIR PHOTO COMPILATION NO. 5010-A

Chief of Party: *O. L. Reading*

Compiled by: *L. A. McLean*

Project: *Sacramento-San Joaquin*

Instructions dated:

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, g and i; 26; and 64)
See report, also reverse side of this page.
2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, n)
3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)
4. ~~Blue prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)~~
5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.
6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; 44; and 66 c, h, i)
7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and 44)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

1. (cont'd) Planimeter sheet #T-6050 called for the deletion of two small islands shown on T-5010, one at $38^{\circ}07\frac{1}{2}'$, $121^{\circ}53\frac{1}{2}'$ and the other at $38^{\circ}05\frac{1}{2}'$, $121^{\circ}57'$. Several buildings and shores were also deleted by this survey.

8. The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41) *none*
9. Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)
10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60) *Landmarks were submitted by L.P. Raynor in 1932, 1933, & 1934.*
11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c) *No bridges*
12. Geographic names are shown on the overlay tracing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 66k) *See page 2 of report for source of names.*
13. The geographic datum of the compilation is *adjusted N.A. 1927* and the reference station is correctly noted.
14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)
15. The drafting is satisfactory and particular attention has been given the following:
 1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.
 2. The degrees and minutes of Latitude and Longitude are correctly marked.

3. All station points are exactly marked by fine black dots.
4. Closely spaced lines are drawn sharp and clear for printing.
5. Topographic symbols for similar features are of uniform weight.
6. All drawing has been retouched where partially rubbed off.
7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

*This sheet was compiled in the
Washington office*

18. ~~Examined and approved;~~

Chief of Party

19. Remarks after review in office:

See attached sheets

Reviewed in office by: *Frank G. Enckine* *December 20, 1934*

Examined and approved:

K.T. Adams
Chief, Section of Field Records
L.O. Colburn
Chief, Division of Charts

B.H. Borden
Chief, Section of Field Work
G. Hude
Chief, Division of Hydrography
and Topography.

Probable Error

Due to the condition of the photographs and the amount of control the error in position of detail for this sheet is different for various parts of it. The probable error in position of well defined detail (intersected) and other detail, respectively, for the various sections is estimated as follows:

1. West of longitude $121^{\circ} 30'$, four and eight meters.
2. Junction of Potato and Little Connection Sloughs, eight and sixteen meters.
3. South Fork Mokelumne River north of Terminus, ten and twenty meters.
4. White Slough north of Correra Landing between longitude $121^{\circ} 28'$ and longitude $121^{\circ} 29'$, fifteen and thirty meters.
5. The remainder of the sheet, six and twelve meters.

Frank G. Eskin

Remarks: The descriptions of five recoverable stations are submitted on Form 524 with this sheet.

The title of this sheet was changed from "San Joaquin River, Venice Island to Dredger Cut" to "San Joaquin River Delta, Terminous and Vicinity".

Hydrographic Sheet No. 6011 was plotted on an aluminum print of the original T-5010. As mentioned above there are numerous differences between T-5010 and T-5010A, and the majority of the signals for this hydrographic survey were located by spotting directly on the compilation. If the hydrography is replotted on a copy of the T-5010A compilation, the signals should be located as follows:

1. In the South Fork of Mokelumme River, a small section of the Potato Slough, and a small section of Little Potato Slough, consult the planetable survey T-6050.
2. The western end of Potato Slough which does not appear on T-5010A, but is shown on T-5010, consult T-4686A.
3. The southern part of Little Connection Slough which does not appear on T-5010A but is shown on T-5010, consult T-4688A.
4. Signals for the rest of the sheet should be spotted from detail on T-5010A.

Frank J. Kurbine

December 7, 1934

NAMES: There are no charts covering the area of this project except chart 5534 at the junction of the Sacramento and San Joaquin Rivers. The following maps filed as Blueprints were furnished by the field party with corrections made from field examination to show the names in local use and have been used in making the corrections to compilations on this project.

Capt. Weathers Map (1931) BP.-25708

U.S.G.S. Quadrangles-- BPs.- 25702 to 25707

(see also chart letter No. 698 (1932))

Name lists are now being prepared under Mr. Bacon's direction and will be attached at the back of the descriptive reports when completed. Any changes in names indicated by the name lists will be applied to the compilations at the next printing.

(For name list see D.R. T 5010) J.W.

November 26, 1934.

Frank G. Evenden

applied to drawing of Chart 5527

Jan 31, 1935 - J.W.