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U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: California

DESCRIPTIVE REPORT

Air-Topographic | Sheet No. 5014
~~Hydrographic~~

LOCALITY

San Joaquin River Delta
Taylor Slough to Old River.

1933.

CHIEF OF PARTY

O. S. Reading.

(T5014 & T5014a)
Applied to drawing of Chart 5527

Dec 21, 1934 - jfw

DESCRIPTIVE REPORT TO ACCOMPANY

AIR PHOTO-TOPOGRAPHIC SHEET NO. 5014

TAYLOR SLOUGH TO OLD RIVER, SAN JOAQUIN RIVER DELTA, CALIFORNIA.

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

I. General Information

(a) A duplicate of the title sheet is attached to this report.

(b) Statistics. The sheet covers 30 square miles, and contains 12-3/4 miles of shoreline, and 30-1/2 miles of rivers and sloughs, less than 200 meters wide.

(c) The report of T-4686 contains a good description of the general topography of the San Joaquin Delta. It might be added that the various tracts are divided up more or less into camps and ranches, and on this sheet there are numerous sand mounds, especially on Holland Tract, protruding some five to ten feet above the general level of the land. Occasionally these mounds have been leveled somewhat and cultivated with the surrounding land; however, in general they are more or less overgrown with weeds.

(d) The sheet is made up of two flights, one across the northern half SS 651-666 taken between 1:15 p.m. and 2:10 p.m. December 12, 1931, and the other across the southern half, SS 739-755 taken between 9:30 a.m. and 10:20 a.m. December 12, 1931 (or between 11:30 a.m. and 12:15 p.m. December 16, 1931). The statement in the flight report of the aviator is not clear as to which part of the strip was flown on the 12th and which on the 16th.

II. Control.

Sources - Control of this sheet is from triangulation by J. Bowie, 1931, theodolite three point fixes by L. P. Raynor, 1932, and U. S. Engineer Traverse along False River. The triangulation and three-point fixes are on the North American, 1927, datum. The Engineers traverse was not received until the sheet was nearly completed and was used to prove and strengthen the plot along the False River.

(b) Errors - Considerable difficulty was experienced with "Tank near Inst. Set-up 6490". The location finally accepted checks T-4685, but is five meters east of the field's location. The latitude checks.

NW corner of sheet

(c) Discrepancies - U. S. E. D. station 250 + 85 was omitted from the sheet. It plotted some 15 to 20 meters east of its coordinate location.

III. Compilation.


(a) Method - The radial plot method of photograph compilation was used.

(b) Adjustments of plot - Latitude $38^{\circ} 00'$ Longitude $121^{\circ} 34'$ to $121^{\circ} 35'$, in the area of Rhode Island this sheet failed to join with 5015 by some 20 meters. In longitude the junction was very good. A detailed statement as to the adjustment in this area may be found in the report of 5015.

Around the mouth of the False River, the northwestern corner of the sheet, the junction with 4685 was troublesome. Photographs SS 652 - 647 contained tilt probably due to the difference in air pressure over the San Joaquin River from ^{that over land areas} ~~over the ground~~. This sheet was extended and the plot was carried into T 4685. By taking offset plumb points and proportioning "point to cut," the plot was smoothed out and a good junction made. The plot, however, moves "Tank near Inst. Set up 649 C" about five meters eastward.

Between $121^{\circ} 35'$ and $121^{\circ} 37'$ along the False River and northward, a discrepancy of 15 to 20 meters was noted in the junction with T-4686. After T-4686 was completed, control along this river was received. "North Wooden ~~Building~~ ^{Pole} 3, Webb to Hanks" was cut in on T-4686 and in investigating the junction it was found to be about 15 meters too far south. The photos of T-4686 in this area were badly tilted and the detail indistinct. This pole fell in the wings and as mentioned in T-4686 repeated difficulty was experienced in this area. T-4686 was the compilers first and only sheet, ^{it is believed} and due to his lack of experience, was unable to cope with the extremely distorted photographs, coupled with a shortage of control. With Raynor's control and some fairly good photographs a good plot of this area was made on T-5014. The U. S. Engineers furnished a traverse of the river and numerous stations on both sides of the river were plotted and verified the location established on T-5014. ~~An overlap with T-4686 of about 900 meters is shown and it is recommended that T-5014 be used in preference to T-4686 for this area.~~

(c) Interpretation - In general there were no discrepancies in the field inspection notes. However, a few camps and ranches were given two different names on different photographs.

The numerous mounds in this area are indicated by the fill or half-level symbol, thus: 

(d) Information from other sources - The field inspection noted all landmarks (poles, trees, tanks, etc.) shown. Plots of Holland Tract, Quimby Island and Jersey Island were used as a general check on detail.

(e) Conflicting names - Bethel Tract is also known as SandMound Tract and Stone Tract according to the field inspection.

IV. Comparison with Other Surveys.

(a) Junctions - The junction of this sheet with the four adjoining sheets is satisfactory when adjusted as described above.

are

V. Landmarks.

Lists of landmarks for charts covering this area have been submitted as chart letters by the field inspection party.

~~A list of prominent objects recommended by the field inspection for use in hydrographic work is attached to this report.~~

VI. Recommendation for Further Surveys.

(a) It is believed that there is no error in compilation greater than 5 meters.

(b) Additional work is not considered necessary.

Respectfully submitted,

Frank G. Erskine

Frank G. Erskine,
Jr. Cartographic Engineer.

June 22, 1933.

Approved
B. Reading

CORRECTION T-5014

In approximate Latitude $38^{\circ} 00'$, Longitude $121^{\circ} 38'$ there is a tank and silo. Letter #1 (1934) Air Photo Section files gives a location for each \pm 10 meters northwest of the photo plot location. A careful plot of the photographs was made holding to the sheet control which included a 3 pt. fix (N. gable of shed on levee - 798B) falling off the sheet, (Lat. $37^{\circ} 59-1/3'$, Long. $121^{\circ} 37-1/4'$). This plot gave a location very near the theodolite location. To use the theodolite location necessitated pulling off N. gable shed 798B and changing the junction with sheet T-5015. The photo location was shown on sheet.

		Theodolite	Photo		Theodolite	Photo
Silo	$38^{\circ} 01'$	302.5	300.0	$121^{\circ} 38'$	1266.4	1263.5
Square Tank	$38^{\circ} 01'$	283.3	280.8	$121^{\circ} 38'$	1219.3	1216.4

In the vicinity of $38^{\circ} 02'$, $121^{\circ} 34'$ there were several errors in the shoreline location and the large shed on the levee. With the use of additional control furnished by a plane table revisen sheet (#6 Air Photo files) a replot was made tying into the original plot and fixing the shoreline and sheds to agree with the plane table locations.

These two corrections were made to the file copy before it was registered.

Frank G. Enline

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AIR-PHOTO TOPOGRAPHIC TITLE SHEET

5014

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. T-5014

State California

General locality San Joaquin River Delta

Locality Taylor Slough to Old River

Date of Photographs - December 12, 1931

Scale 1:10,000 Date of survey April - May, 1933

Compilation

Lieut. J.F. Phillips, Pilot

Vessel Army Air Corps Aeroplane Capt. A.W. Stephens - Photographer

Chief of party O. S. Reading

Photographs Plotted by

~~Successor~~ F. G. Erskine

Inked by F. G. Erskine

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated, 19.....

Remarks: Compilation of five lens air-photographs Nos. SS-650

to SS-666 and SS 739 to SS 755, printed by the photo-lithographic process

Polyconic projection by	<u>F.G.E.</u> F. G. Erskine	Feb. 15, 1933.
Projection verified by	<u>H.E.</u> H. E. MacEwen	Feb. 15, 1933.
Control plotted by	<u>F.G.E.</u> F. G. Erskine	Feb. 17, 1933.
Control verified by	<u>H.E.</u> H. E. MacEwen	Feb. 20, 1933.

REVIEW OF TOPOGRAPHIC SURVEY No.

✓ Title (Par. 56)

Chief of Party - *Compiled* ~~D.S. Reading~~ Surveyed by *J.G. Erskine* Inked by *J.G. Erskine*

~~Ship~~ *Plane-USAAC.* Instructions dated *Photographs taken Dec 12, 1931*
~~Surveyed in~~

- ✓ 1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.)
- ✓ 2. The character and scope of the survey satisfy the instructions.
3. The control and closures of traverses were adequate. (Par. 12, 29.)
See discussion of control in Desc. Report
4. ~~The amount of vertical control that the Manual specifies for contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~
5. ~~The delineation of contours-formlines- is satisfactory. (Par. 49, 50.)~~
6. ~~There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.)~~
- ✓ 7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
- ✓ 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.)
9. Rocks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) *No Previous Survey by this Bureau*
10. The span, draw and clearance of bridges are shown. (Par. 16c.)
11. *The necessary clearances of the bridges were not given by the field inspection party.* Locations and elevations of summits are given. (Par. 19, 51.)
12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.

13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.)
- ✓14. The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.
- ✓15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524: (Par. 29, 30, 57, 67 except scaling of IMs and DPs, 68.) *Descriptions of Recoverable Objects on Form 524 & will be submitted for this sheet by L.P. Raynor during the progress of his Hydrographic Work in this vicinity.*
- ✓16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Submitted as chart title by Field Inspection Party*
- ✓17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) *None shown*
- ✓18. The geographic datum of the sheet is *N.A. 1927* and the reference station is correctly noted. (Par. 34.)
- ✓19. Junctions with contemporary surveys are adequate.
- ✓20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.)
- ✓21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.)
- ✓22. No additional surveying is recommended.
- ✓23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~

24. Remarks:

Reviewed in office by *B.G. Jones*

Examined: OS Reading

Examined and approved:

K.T. Adams
Chief, Section of Field Records

L.O. Gobbut
Chief, Division of Charts

J.S. Darden
Chief, Section of Field Work

Stude
Chief, Division of Hyd. and Top.

JUN 13 1934

Descriptive Report to Accompany
Air Photo Topographic Sheet No. 5014-A
(to be included in report T-5014)

Acc. No. _____

Taylor Slough to Old River, San Joaquin River Delta, California.

This sheet contains changes, additions and corrections (shown in red) to the original survey of this area, T-5014.

Sources of Information:

Hydrographic survey #6000 by L. P. Raynor, 1933-34; blue print #27021 and chart letter #706 (1933); plane table correction sheet by L. P. Raynor 1933, sheet #6 Air Photo Section files; letters #1 and #4, Air Photo Section files; sheet #14, Air Photo Section files; photographs ss651-667 and ss739-755; original celluloid sheet T-5014.

Compilations:

The most important correction was that of Old River between Latitude $38^{\circ}-03'$ and $38^{\circ}-04'$. Additional control was plotted on the celluloid and a plot was made which tied into the original plot, and a shoreline was established which checked with the plane table. The tips of the two islands were also slightly changed. The houses were transferred from the plane table survey and checked by the photographs where possible. All of these houses are not visible in the photographs. This error was mentioned in paragraph one page 12 descriptive report H-6000.

Plotting was extended west from Old River along False River to Longitude $121^{\circ}-36'$. At the junction with the Old River an error was found in the south channel of False River and was corrected. Farther along the river other slight errors were noted and the shoreline changed where the greatest discrepancies occurred, (\pm 7 meters). These two corrections correspond to errors referred to in chart letter #706(1933) as cases one and two page two.

Cases 3, 4 and 5 page two chart letter #706(1933) were investigated. Careful plotting indicated an error in the shoreline but as the difference was so slight, (about the width of the shoreline) no correction was made.

The two tule islands mentioned in paragraph two, page twelve, descriptive report H-6000 were plotted from the photographs and checked the location on the smooth sheet. The other tule island referred to was not visible in the photographs nor was it shown on either the boat sheet or smooth sheet. As the sounding volumes were not available, this island was not located.

Errors in the vicinity of Latitude $38^{\circ}-02'$ Longitude $121^{\circ}-34'$ were corrected before T-5014 was registered. The hydrographic sheet, however, was printed before these errors were discovered and the corrections are shown in red on it.

The other changes, additions and corrections mentioned in descriptive report H-6000 have been applied and require no explanation.

Respectfully submitted

Frank G. Erskine

Frank G. Erskine.

June 13, 1934.

GEOGRAPHIC NAMES

Survey No. T-5014

H-6000

Chart No. _____

Date. Nov. 29th 1934

HMS

Names approved Nov. 30, 1934

H. Bacon

Diagram No. _____

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

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

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

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Dutch Slough</u>	Local usage and reliable maps			
	<u>Taylor Slough</u>	"			
	<u>Paper Slough</u>	"			
	<u>Sand Mound Slough</u>	"			
	<u>Old River</u>	"			
	<u>False River</u>	"			
	<u>Jersey Island</u>	"			
	<u>Bradford Island</u>	"			
	<u>Mandeville Island</u>	"			
	<u>Quimby Island</u>	"			
	<u>Rhode Island</u>	"			
	<u>Holland Tract</u>	Earliest maps call it Roosevelt Tract (incl. U.S.G.S.). All recent and current maps agree on Holland Tracts.			
	<u>Bethel Tract</u>	Local usage and reliable maps.			
	<u>Franks Tract</u>	"			
	<u>San Joaquin River</u>	"			
	<u>Webb Tract</u>	"			
	<u>Fletchers Landing</u>	"			
	<u>Shima-Shima Landing</u>	Weathers Maps is <u>Shima</u>			
	<u>Jersey Landing</u> **	On all maps this is on San Joaquin River, near entrance of False River, instead of where located on T-5014.			
	**Approve spelling, but not location without further search.			HMS	
	For list of authorities consulted see DR for T-4685.			HMS	
	<u>Fishermans Cut</u>	Local usage and reliable maps			38° 03.5 121° 38.8
	<u>Washington Slough</u>	8			(M 100)