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U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

Acc. No.

Director

State: CALIFORNIA

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. T-5036

LOCALITY

Sacramento-San Joaquin Delta

UNION ISLAND

19 23
24

CHIEF OF PARTY

L. P. Raynor

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

AIR PHOTO
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 Letter

REGISTER NO. **T-5036**State CALIFORNIAGeneral locality SACRAMENTO-SAN JOAQUIN DELTALocality UNION ISLAND

Date of photographs, January 3, 1932
Scale 1:10,000 Date of ~~survey~~ Compilation, November 28, 1933

Vessel Army Air Corps FIA AirplaneChief of Party Lieut. L. P. Raynor

Compiled by

Surveyed by S.S. WhiteheadInked by W.J. Mignola

Heights in feet above.....to ground to tops of trees

Contour Approximate contour Form line interval.....feet

Instructions dated August 12, 1933 and September 2 1933

Remarks: Compiled from photographs Nos. SS 1081 to 1098, inc. and 1133 to 1153, inc.

Reduced to scale and printed by photo lithographic process

JOB SHEET

T-5036

DESCRIPTION OF WORK	DONE BY	DATE COMPLETED
Polyconic Projection	<i>W. J. Mignola</i> W. J. Mignola	October 28, 1933
Projection verified	<i>S. S. Whitehead</i> S. S. Whitehead	October 28, 1933
Control Plotted	<i>W. J. Mignola</i> <i>K. B. Walker</i> W. J. Mignola	October 31, 1933
Control Verified	<i>K. B. Walker</i> K. B. Walker	October 31, 1933
Compiled in Pencil	<i>S. S. Whitehead</i> S. S. Whitehead	November 28, 1933
Inked	<i>W. J. Mignola</i> W. J. Mignola	December 28, 1933
Hachures and Woodland Symbol	<i>S. S. Whitehead</i> S. S. Whitehead	December 29, 1933
Proofreading	<i>T. P. Pendleton</i> T. P. Pendleton	February 1, 1934
Attaching Names Various Members of Party		February 27, 1934
Descriptive Report	<i>S. B. Lane</i> S. B. Lane	February 26, 1934

PROJECT NO. H.T. 153

DESCRIPTIVE REPORT

To Accompany

SHEET NO. T-5036

L. P. Raynor, Lieut., C. & G.S., Chief of Party

See report for Sheet No. T-5027 for information (Field Report)
applying to the entire project.

GENERAL INFORMATION

Area of sheet, 31.1 square miles

Length of rivers and sloughs, 16.7 miles

The entire area of this sheet is low, varying from
a few feet above to a few feet below mean sea level.

The Grant Line and Fabian and Bell Canals are
important arteries for navigation and carry large quantities
of water.

Tracy Island Road crosses Grant Line and Fabian and
Bell Canals on a county bridge. This is a through steel truss,
fixed over the Fabian and Bell Canal and with a hand operated
swing span over the Grant Line Canal. The only channel is
north of the swing pier and is 94 feet wide. The clearance
above mean high water will be secured by the hydrographic
party.

TRANSMISSION LINE CROSSINGS OVER NAVIGABLE WATERS

ACROSS	LOCATION	CLEARANCE ABOVE HW
Grant Line Canal	Grant Line Pole	106 feet
Old River	At Paradise Cut (2 lines)	110 feet

SUBMARINE CABLE CROSSINGS

All underwater crossings noted by the field inspection party or photo compilation party are shown

PHOTOGRAPHS

The photographs falling on this sheet are: Nos. 1081 to 1098 inc. and 1133 to 1153, inc.

These photographs were taken January 3, 1932 between 1:30 and 2:30 p.m.

CONTROL

Grant and Bell were triangulated by J. Bowie in 1931. Others were triangulated by L. P. Raynor in 1932 and 1933, except those marked "T.P.P.". These last are theodolite three point fixes, are not marked and are not recoverable, except Grant Line Pole. They are shown on the sheet by small circles. All values have been adjusted to 1927 N.A. Datum.

The locations shown in the following table are the values used in compiling the sheet.

NOTE: The following recoverable objects were located by the airophoto. plot and are shown as topographic stations on this sheet. These are in addition to the objects listed on the opposite page.

<u>Station</u>	<u>Approx. Lat</u>	<u>Approx. Long.</u>	<u>Height</u>	<u>Notes</u>
Towers 6.	37° 48.5'	121° 24.5'		Not described
Water Tank	37° 50.5'	121° 30.7'		Described on Form 524

TABLE OF CONTROL

DESCRIPTION	LATITUDE	LONGITUDE
△ GRANT, 1931	37 - 49 - 13.327	121 - 26 - 53.147
△ Bell, 1931	37 - 49 - 13.628	121 - 29 - 53.179
△ Fabian, 1933	37 - 48 - 29.94	121 - 30 - 47.32
△ Estate, 1933	37 - 51 - 55.47	121 - 28 - 09.94
△ Union, 1933	37 - 52 - 06.37	121 - 25 - 05.67
△ Undine, 1933	37 - 50 - 07.20	121 - 24 - 56.47
○ 1083 B ^{3pt Fix - Not recoverable}	37 - 50 - 31.89	121 - 30 - 37.66
○ No. Grant Line Pole (T.P.P.) <small>Not Described on Form 524 - Recoverable</small>	37 - 49 - 14.69	121 - 25 - 49.71
○ 1089 B (T.P.P.) ^{3pt Fix Not recoverable}	37 - 50 - 32.53	121 - 27 - 55.69
○ 1048 B (T.P.P.) " " "	37 - 52 - 07.76	121 - 24 - 00.69
○ 1141 B (T.P.P.) " " " "	37 - 48 - 22.57	121 - 26 - 54.92

Note: The above positions are from the field computations on 1927 N.A. Datum and will differ slightly from the finally adjusted positions.

COMPILATION

Compilation was by the radial line method. The map was completed in pencil before being inked.

Some difficulty was experienced in placing a projection on this sheet due to lack of flatness of the celluloid sheet. While a satisfactory projection was obtained at the time, the sheet has since changed shape and no longer joins the south sheet, T-5039, or on the north with Sheet No. T-5028.

The change is irregular, and the joining of map details was accomplished by fitting a single minute of longitude at a time. To check future changes in overall dimensions, the distance between neat lines at latitude 37 - 48 - 20 was

measured January 29, 1934 and found to be 113.68 centimeters, while the true value is 113.75 centimeters.

NAMES

The name Old River is applied without dispute to that section of the river west of longitude 121 - 26 , and should properly be applied also to that part of the river east of this meridian. The correctness of this designation is verified by local usage and by use on maps entitled "The San Joaquin River Survey of 1931" prepared by the U.S. Engineers in collaboration with the Department of Engineering, State of California, and the California Debris Commission.

The U.S. Geological Survey, Union Island California Quadrangle, uses the name "Salmon Slough," for this section of the river, but no confirmation of any kind could be obtained for the application of this name to the particular section of Old River on which it appears.

The name "Salmon Slough" cannot be definitely attached to any stream, but probably is most correctly applied to the maze of channels connecting Grant Line Canal with Old River near meridian 121 - 25 . Although the existence of the name is generally admitted, its indefinite location has led to its omission from the sheet.

LANDMARKS AND RECOVERABLE OBJECTS.

For list of landmarks and recoverable objects, see general section of descriptive report for sheet T-5027 -
(duplicate list of landmarks for this area is attached at back of desc. report T 5027).

W-5036

Nov. 20, 1934

to: Bacon
From: Strong

names UK with exception of Salmon Slough to be added to braided waterways at eastern end of Heblian Bell Canal as indicated in our memo and discussion.

Await further investigation of the ^{IMS}
names Old River, Middle River & Salmon Slough.
The placing of Salmon Slough will depend
upon the decision in regard to these names.

Survey No. T 5036
 (H 6020)
 Chart No. None

GEOGRAPHIC NAMES

Date Oct 31, 1934

Names underlined in red approved Oct 31, 1934
 H.B.

Diagram No. _____
 Further inquiry to be made concerning names not approved.
 Comparison made with U.S.G.S., Union J + Bethany Quads.

- * 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 or other Maps or Reports	New Names in local use	Names assigned by Field	Location
	<u>Old River</u> (USGS)	Desc. Report T 5036	Conflicting evidence, USGS calls this Ashburn, although it has been indicated		H.B.
	<u>Grant Line Canal</u>	USGS same			
	<u>Fabian and Bell Canal</u>	USGS. same			
	<u>Union Island</u>	USGS. same			
	<u>Tracey Island Road</u>	Desc. Report T 5036			
	<u>Clifton Court Road</u>	Desc. Report T 5036			
	<u>Undine Road</u> , O.K.	Probably O.K. See Undine School on U.S.G.S., Union J. Quad.			
	<u>Fabian Tract</u>	Source of name desired O.K.			H.B.
		For authorities consulted see DIR for T-5027			H.B.

RECOMMENDATIONS

This sheet is believed to have a probable error of less than five meters in all places.

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T-5036

Title (Par. 56)

Chief of Party L. P. Raynor

Compiled by

Project 153 H.& T.

Instructions dated

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.)
Yes
2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
Yes
3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.)
Yes
4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.) Maps from other sources were not used.
5. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
6. 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.) These features, except low water line, do not occur on this sheet. For general statement regarding water lines see descriptive report Sheet No. T-5027
7. Important details shown on previous surveys and on the chart have been compared with this sheet and a statement has been entered in the report regarding the removal from the chart or change in position of important detail such as rocks, lights, beacons, prominent objects, bridges, docks, and structures along the water front. No previous surveys for navigational use have been made.
8. The span, draw and clearance of bridges are shown. (Par. 16c.) These details appear in descriptive report#.
9. The data furnished by the Field Inspection is adequate.
Yes.

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.

10. The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.)

Yes

11. The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".

Yes

12. The descriptions of recoverable ~~points~~ ^{topographic stations} ~~points~~ were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.)

Yes

13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.) **Yes. This is a duplicate of list supplied by L.P. Raynor with omitted positions scaled, and a few additional marks. List is on file as a chart letter**

14. The geographic datum of the sheet is **N.A. 1927** and the reference station is correctly noted. (Par. 34.)

Yes

15. Junctions with contemporary surveys are adequate.

Yes

16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.)

Yes

17. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.) **Yes, except that black celluloid ink was used throughout.** (Celluloid ink is used on all air photo compilations. Drafting is good on this sheet)

18. No additional surveying is recommended.

Bgf

19. Remarks:

20. Examined and approved:

L.P. Raynor T.P. Pemberton
Chief of Party Chief Photo Compiler

21. Remarks after review in office: Refer to the report on this project attached to desc. report for T 5027 for description of the country.

Reviewed in office by: B.G. Jones

Examined and approved:

K.T. Adams
Chief, Section of Field Records

L.O. Lobell
Chief, Division of Charts

T.S. Borden
Chief, Section of Field Work

G. Wade
Chief, Division of Hydrography and Topography.