State: California

DESCRIPTIVE REPORT

Locality
San Joaquin River
Jersey Island to Middle River

19.31-33

Chief of Party
O. S. Reading
T 5015 and T 5015a

Applied to drawing of Chart 5527

Dec. 17, 1946  J. W.
Descriptive Report
to Accompany
Air Photo Topographic Sheet No. 5015
Longitude 121° 39' to Middle River
San Joaquin River
California

See Descriptive Report T-4685 for general report of Field Inspection
1. General Information.

(a) This sheet is a compilation of air photographs taken by the U. S.
Army Air Corps using five (5) lens camera, Type T 3A, No. 28-30-1, carrying
six inch (6") F 6.8 lenses. Flight photographs SS 791 to SS 813,
flown west to east, and photographs SS 889 to SS 909, flown east to west,
were taken between 9:30 and 10:30 A.M. on December 13, 1931.

The plane (type F-1A), piloted by Lieutenant Phillips with Captain
Stevens as observer, was used.

The altitude maintained was approximately 5,000 feet, giving an
average scale factor of 1.0159, which was used in constructing the pro-
jection and making the finished celluloid plot.

(b) The area of this sheet is covered by the two strips of photographs,
mentioned above, extending from Longitude 121° 39.2' to 121° 31.4'. A
third strip was flown (SS 1219 to SS 1236) approximately on the line of
flight of 889-909, but in the opposite direction (west to east). This
flight was not used, however, except where the field inspection prints
contained information not found on the other strips.

(c) 28. square miles of topography comprise the area of this com-
pilation. There are 27 miles of rivers and sloughs less than 200 meters
wide.

(d) The area covered by this sheet, except for portions of the north-
west corner, is cultivated. In this corner of the sheet are several
bare sand mounds and weed covered areas interspersed with occasional
cultivated plots. About three square miles of the southwest corner of
the sheet are devoted to orchards.

Two rivers, Middle River on the east edge and Old River on the east
central portion, cross the sheet approximately north and south. There
are several dredged sloughs draining the other portions of the sheet
with a number of irrigation canals and many irrigation ditches between.

2. Control.

(a) Control was obtained from triangulation by J. Bowie, 1931,
theodolite three point fixes by L. P. Raynor, and third order traverse
along the Atchison, Topeka and Santa Fe R.R. between Middle River draw
bridge and Bixler.
3. Compilation.

(a) The compilation was made by the radial plot method.

(b) Due to tilt in two photos (SS 804 and SS 805) Lat. 37° 59.5' on Old River, difficulty was experienced in effecting a strong junction with the adjoining sheet No. 5014. While no excessive tilt was found in the photos on sheet No. 5014, covering the area of this overlap, (SS 739 to SS 743) evidence of photographic distortion was found which was probably due to atmospheric changes encountered over the water and marsh areas of Old River. A thorough, detailed investigation was made in an effort to effect a close agreement. After the areas affected were given the most careful plotting possible, independently of each other, there was still found some slight disagreements in overlap when a comparison was made. These were corrected by a give and take adjustment between the two adjoining flights.

(c) For the purpose of clarity all levee roads are shown by a solid double line. The condition of the road is indicated by notes (such as private dirt road, poor, etc.). Where no note occurs to indicate a paved, public or other road, the road is a dirt road in fair condition.

(d) All information was obtained directly from the photographs and from field inspection notes.

4. Comparison with Other Surveys.

(a) No difficulty was encountered in effecting a junction with sheet No. 4689 on the east or with sheet No. 5014 on the north, except in the vicinity of Old River (see note above paragraph No. 3 b). No sheets join on the west and south.

(b) There were no previous surveys by the U. S. Coast Survey in this area. The Geological Survey quadrangles covering this area were surveyed in 1911. Maps in blue-print of Bacon Island and Lower Jones Tract were examined to make sure all relevant information had been traced from the photographs. These blue-prints were furnished by California Delta Farms, Inc., Stockton, California.

5. Landmarks

See list in back of the report.

6. No further survey is deemed necessary in this area.

[Signature]

Respectfully submitted,

[Signature]

H. E. MacEwen
LANDMARKS FOR CHARTS
LIST OF PROMINENT OBJECTS

June 22, 1933

Director, U. S. Coast and Geodetic Survey:

Together with a list of natural and marked objects suitable for use as hydrographic signals, the following determined objects are prominent, can be readily distinguished from seaward from the description given below:

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>DATUM</th>
<th>METHOD OF DETERMINATION</th>
<th>CHARTS AFFECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water tank</td>
<td>37 59 428.4</td>
<td>121 37 554.0</td>
<td>1927</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Windmill</td>
<td>38 00 220.8</td>
<td>121 34 1191.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windmill in trees</td>
<td>37 59 637.6</td>
<td>121 34 1330.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>** Wooden pole (E)</td>
<td>37 58 1790.1</td>
<td>121 34 1051.2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wooden pole (W)</td>
<td>37 58 1776.0</td>
<td>121 34 1344.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wooden pole (N)</td>
<td>37 58 1176.9</td>
<td>121 36 126.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wooden pole (S)</td>
<td>37 58 1003.9</td>
<td>121 36 129.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windmill and tank</td>
<td>37 58 299.9</td>
<td>121 37 562.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tank</td>
<td>37 57 1827.7</td>
<td>121 31 1440.7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hydro.

* Tree | 38 00 115.8 | 121 34 1128.3 |       |                        |                 |
| A      | 37 57 1782.0 | 121 31 (379.5) |       |                        |                 |
| B      | 37 58 1159.9 | 121 31 1218.3 |       |                        |                 |
| C      | 37 58 1033.9 | 121 31 (64.1) |       |                        |                 |

* Tree | 37 58 352.5 | 121 32 121.8 |       |                        |                 |

Point | 37 58 1279.2 | 121 32 2.3 |       |                        |                 |
| Beest Loader | 37 56 843.3 | 121 32 (872.7) |       |                        |                 |
| # Mark   | 37 57 1043.0 | 121 31 1052.5 |       |                        |                 |

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstaffs and like objects are not sufficiently permanent to chart.
REVIEW OF TOPOGRAPHIC SURVEY No. 506

Title (Par. 56) — Meeting Place to Middle River, San Joaquin River, Cal.
Chief of Party (Par. 60) — Medically by H. E. MacKenna

Instructions dated December 12, 1931
Surveyed in Completion June 1932

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.)

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. 48, 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 legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.)

9. Reef and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)

10. The span, duff and clearance of bridges are shown. (Par. 16c.) except where it was impractical to determine from the photographs and the resulting drawings were not compiled with the details of the bridges. (Par. 19, 21.)

11. There are no previous surveys by the Coast and Geodetic Survey.

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 DMs and DPs, 68.) Descriptions of underwater stations will be furnished on this sheet.

16. A list of benchmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) A list of benchmarks was furnished by the field inspection and in the field sketch sheet.

17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.)

18. The geographic datum of the sheet is N. A. 1927 and the reference station is correctly noted. (Par. 34.) The sheet is complete by unadjusted triangulation.

19. Juncions with contemporary surveys are adequate. Junction to sheet with T-469, T-4691, T-4692, T-46912, T-4691a, T-4691b, T-4691c, T-4691d, T-4691e, T-4691f, T-4691g, and T-4691h.

20. Geographic names are shown on the sheet and are covered by the descriptive report. (Par. 64, 65.) Field inspection notes, topographical features, quadrangles, and the names of islands, and town from field.

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: In the review of this sheet minor errors were discovered and corrected. The corrected sheet was substituted for the old copy. Nov. 28, 1933, the old copy was cancelled.

Reviewed in office by

Examine and approved:

K. T. Adams
Chief, Section of Field Records

T. F. Johnson
Chief, Section of Field Work

L. E. Gilbert
Chief, Division of Charts

W. H. Hole
Chief, Division of Hydro. and Top.
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 5015

State. California

General locality. San Joaquin River

Locality. Jersey Island to Middle River

Photographs: Dec. 12, 1931

Compilation: June 9, 1933

Scale. 1:10,000 Date of survey. 192

Lt. J. F. Phillips, Pilot

Witnessed. Army Air Corps F. 1A airplane Capt. A. W. Stevens, Photographer

Chief of Party. Q. S. Reading

Photographs plotted by:

Surveyed-by. H. E. MacEwen

Inked by. H. E. MacEwen

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated. 192

Remarks: Compilation of aerial photographs Nos. SS 791 - 813 and SS 889 - 899. Reduced to scale and printed by photo-lithographic process.

Polyconic projection by: H. E. MacEwen March 29, 1933.

" " verified by: Frank G. Erskine " " "

Control plotted by: H. E. MacEwen March 29, 1933.

Control verified by: Frank G. Erskine " " "
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. 5015

State ............................ California

General locality ........................ San Joaquin River

Locality .......................... Jersey Island to Middle River

photographs: Dec. 12, 1931

compilation: June 9, 1933, 19

Scale 1:10,000 Date of survey

U.S. Army Air Corps F.1A airplane, Capt. A. W. Stevens, Photographer

Lt. J. F. Phillips, Pilot

Chief of party ........................ Q. S. Reading

Photographs plotted by ................... H. E. MacEwen

Inked by ............................... H. E. MacEwen

Heights in feet above to ground to tops of trees

Contour, Approximate contour, Form line interval feet

Instructions dated .........................., 19......

Remarks: Compilation of aerial photographs Nos. SS 791-813 and

SS 899-909, Reduced to scale and printed by photo lithographic

process.

Polyconic projection by H. E. MacEwen, March 29, 1933

verified by Frank G. Erskine, March 29, 1933

Control plotted by H. E. MacEwen, March 29, 1933

Control verified by Frank G. Erskine, March 29, 1933
Descriptive Report to Accompany  
Air Photo Topographic Sheet No. 5015-A  
(to be included in report of T-5015)

Jersey Island to Middle River, San Joaquin River Delta, California.

This sheet contains changes, additions, and corrections (shown in red)  
to the original survey of this area T-5015.

SOURCES OF INFORMATION

Hydrographic survey #6001 by L. P. Raynor 1934; blueprint #25708  
(Captain Weather's map); sheet #17, Air Photo Section files; T-5027;  
recoverable stations Semaphore and Road Crossing, submitted by L.P. Raynor  
on form 524; original celluloid sheet T-5015 and T-5027; photographs  
SS 883 to SS 904 and SS 914 to SS 929.

COMPILATION

The most important correction was in the southeast corner of the  
sheet and concerned the shoreline of Middle River south of the railroad  
bridge. A plot was made on the celluloid of T-5027 (as these photographs  
were clearer than those for T-5015). This plot tied in well with the  
detail on 5015 but showed an appreciable error in the shoreline of Middle  
River. These two sheets just west of Middle River along the railroad  
were also found to be slightly in error. The reason for the error in  
the shoreline with apparently more control than necessary (3 latticed  
steel poles) was because these poles were not spotted by the field inspec-  
tion on photos SS 889,888. The photographs were dark, and the  
terroscope was unable to pick them up. On the photographs for T-5027,  
they were easily identified.

At 37° 56' 1', 121° 26' 30" there were some slight errors in shoreline.  
These errors were easily corrected with the photographs of T-5027.  
These two corrections enabled a good junction to be obtained with T-5027.

Captain Weather's Map (blue print #25708) changes the name  
"Empire Slough" to "Empire Cut", (37° 56', 121° 32').

Air Photo Section file sheet #17 gives additional names which were  
not shown on the original sheet.

Two 3 point fixes described on form 524 were plotted. One is near  
the town of Orwood, the other near Wener, both on the center line of  
The A.T. & S.F.R.R.

H-6001 calls attention to two small tule islands in Middle River.  
They were plotted by the photographs and checked the hydrographic sheet  
location.

H-6001 mentions several shoreline changes but as the change was  
so small (width of shoreline) no correction was made.

Respectfully submitted,

June 21, 1934.  (over)  

Frank F. Reed
NOTE: The following changes have been made on the file copies of compilation T 5015 and T 5015A on August 21, 1934:

Dates added on all Triangulation Stations; names on several triangulation stations corrected to agree with the triangulation records; Triangle symbol shown on several stations for which no data is filed in the triangulation records have been changed to topographic symbols. These changes will be applied to the plates and negatives at the next printing of this compilation. A number of the topographic stations shown on this compilation are not recoverable and will not be shown on the copies printed for sale in the future.

B. G. Jones

B. G. Jones
NAME: There are no charts covering the area of this project except chart 2554 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. Weather's Map (1921)— EN.—25706

U.S.G.S. quadrangles— ENa.—25708 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.

November 26, 1934.

[Signature]
<table>
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<th>Status</th>
<th>Name on Survey</th>
<th>Name on U.S.G.S. maps **</th>
<th>New Names in local use</th>
<th>Names assigned by Field</th>
<th>Location</th>
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</thead>
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<td>Lower Jones Tract ✓</td>
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<td>Middle River ✓</td>
<td>** Same</td>
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<td></td>
<td>Bacon Island ✓</td>
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<td>Palm Tract ✓</td>
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<td>Orwood Tract ✓</td>
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<td>Youngs Slough ✓</td>
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<td>Woodward Island ✓</td>
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</tbody>
</table>


Bixler ✓ Rand McNally Commercial Atlas, 1935
Middle River ✓ U. S. Official Postal Guide, July, 1934
Werner ✓ Rand McNally Commercial Atlas, 1935

** For authorities used see DM for T-4685.
<table>
<thead>
<tr>
<th>Status</th>
<th>Name on Survey</th>
<th>Name on Chart</th>
<th>New Names in local use</th>
<th>Names assigned by Field</th>
<th>Location</th>
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<td></td>
<td><strong>Woodward</strong></td>
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<td></td>
<td>Orwood Station</td>
<td>Official Railway Guide, Jan. 1935</td>
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