

5015
5015a

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

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

State: California

DESCRIPTIVE REPORT
Aero-
Topographic
~~Hydrographic~~ Sheet No. 5015

LOCALITY
San Joaquin River
Jersey Island to Middle River

19 31-33

CHIEF OF PARTY
O. S. Reading

5015
5015

T 5015 and T 5015a

Applied to drawing of Chart 5527

Dec. 17, 1934 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 10:20 A.M. on December 12, 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 projection 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 compilation. 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 northwest 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. $37^{\circ} 59.5'$ 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.

Approved
B. S. Reading

Respectfully submitted,

H. E. MacEwen

H. E. MacEwen

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~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 hydro-
The following determined objects are prominent, can be readily distinguished from seaward from the
description given below, ~~and should be charted~~ graphic signals

Chief of Party.

DESCRIPTION	POSITION						METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE			LONGITUDE				
	°	'	D. M. METERS	°	'	D. P. METERS		
Water tank	37	59	428.4	121	37	554.0	1927	
* Windmill	38	00	220.8	121	34	1191.3	"	
Windmill in trees	37	59	637.6	121	34	1330.3	"	
** Wooden pole (E)	37	58	1790.1	121	34	1051.2	"	
Wooden pole (W)	37	58	1776.0	121	34	1344.7	"	
Wooden pole (N)	37	58	1176.9	121	36	126.3	"	
Wooden pole (S)	37	58	1003.9	121	36	129.0	"	
Windmill and tank	37	58	299.9	121	37	562.3	"	
Tank	37	57	1627.7	121	31	1440.7	"	
Hydro.						(24.0)	"	
* Tree	38	00	115.8	121	34	1126.3	"	
A	37	57	1782.0	121	31	1085.1	"	
B	37	58	1159.9	121	31	1218.3	"	
C	37	58	1033.9	121	31	1400.3	"	
Tule	37	58	352.5	121	32	121.8	"	
Point	37	58	1279.2	121	32	2.3	"	
Beet Loader	37	56	848.3	121	32	872.7	"	
Mark	37	57	1045.5	121	31	1032.5	"	

* These points fall in the area mentioned in paragraph 3b of the report.
** This position was not spotted with certainty on the photos.

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, flagstaves and like objects are not sufficiently permanent to chart.

REVIEW OF TOPOGRAPHIC SURVEY No. 5015

Title (Par. 56) *Jersey Island to Middle River, San Joaquin River, Cal.*Chief of Party *O. S. Reading* *Photos plotted* Surveyed by *H. E. MacEwen* Inked by *H. E. MacEwen**Army Air Corps FIA airplane* Instructions dated *Photos - Dec. 12, 1931* Surveyed in *Compilation - June 9, 1933*

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. 40, 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, *roads, levees, ditches* ~~reefs, coral reefs and rocks,~~ *culture* and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.)
9. ✓ ~~Reeks and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.)~~
There are no previous surveys by the Coast & Geodetic Survey.
10. The span, ~~draw~~ *type* and clearance of bridges are shown, (Par. 16c.) *except where it was impossible to determine from the photographs and not no notes were supplied by the field inspection party. The clearance was not*
11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~ *reported by the field inspection*
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 recoverable stations will be furnished on Form 524 by L.P. Raynor during the hydrographic work in this vicinity.*
- 16. ✓ A list of ~~landmarks for charts~~ *Prominent objects* was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *A list of lead marks was furnished by the field inspection and is in file as chart letter.*
- 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 controlled by unadjusted triangulation.*
- 19. ✓ Junctions with contemporary surveys are adequate. *Junction to east with T-4689-led disagreement as to method of marking type of rocks on lines. Rept from T-5015 explains practice on this sheet.*
- 20. ✓ Geographic names are shown on the sheet and are covered by the Des- ~~criptive report.~~ *from quadrangles, and the prints of Brown Island and Four Jaws Strait.* (Par. 64, 66k.) *field inspection notes, Geological Survey*
- 21. ✓ The quality of the drafting is ^{very} 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 destroyed.*

Reviewed in office by *Frank G. Estlin - November 10, 1933*

Examined and approved:

K.T. Adams
Chief, Section of Field Records

H.B. Borden
Chief, Section of Field Work

L.O. Lobat
Chief, Division of Charts

G. Hude
Chief, Division of Hyd. and Top.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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

Scale 1:10,000 Date of survey 192
Photographs: Dec. 12, 1931
Compilation: June 9, 1933

~~Vessel~~ Army Air Corps F 1A airplane Lt. J. F. Phillips, Pilot
Capt. A. W. Stevens, Photographer

Chief of Party O. 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 - 909. Reduced to scale and printed by photo-lithographic process.

GPO

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	" " "

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

AERIAL PHOTO-TOPOGRAPHIC
TOPOGRAPHIC TITLE SHEET

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

JUL 15 1933

Acc. No. _____

REG. NO.

5015

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

Scale 1:10,000 Date of survey, 19____
photographs: Dec. 12, 1931
compilation: June 9, 1933

~~Used~~ Army Air Corps F 1A airplane, Capt. A. W. Stevens, Photographer
Lt. J. F. Phillips, Pilot

Chief of party O. S. Reading

Photographs plotted by H. E. MacEwen
~~Surveyed by~~

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 889-909. 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

JUN 26 1934

Acc. No.

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 888 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 sheds 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 inspection on photos SS 889,888. The photographs were dark, and the stereoscope was unable to pick them up. On the photographs for T-5027, they were easily identified.

At $37^{\circ} 56\frac{1}{4}'$, $121^{\circ} 36\frac{1}{2}'$ 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", ($37^{\circ} 58'$, $121^{\circ} 32'$).

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 G. Eakin

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

NAMES: There are no charts covering the area of this project except chart 5554 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.-25706

U.S.G.S. quadrangles-- BPs.-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.

Frank G. Embury

GEOGRAPHIC NAMES

Date. April 11, 1935

Chart No. _____

HMS

Diagram No. 5534Names approved April 11, 1935. *Harlow Bacon*

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

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

Under investigation. Q

Status	Name on Survey	Name on CAMP maps **	New Names in local use	Names assigned by Field	Location
	<u>Upper Jones Tract</u> ✓	** Same			
	<u>Roberts Island</u>	<u>Lower Jones Tract</u> ✓			
	<u>Middle River</u> ✓	** Same			
	<u>Bacon Island</u> ✓	** "			
	<u>Old River</u> ✓	** "			
	<u>Fay Island</u> ✓	** "			
	<u>Palm Tract</u> ✓	** "			
	<u>Orwood Tract</u> ✓	** "			
	<u>Veale Tract</u> ✓	** "			
	<u>Holland Tract</u> ✓	** "			
	<u>Rock Slough</u> ✓	** "			
	<u>Jersey Island</u> ✓	Delete ✓			
	--	<u>Rhode Island</u> ✓ **			
	<u>Holman Slough</u> ✓	U.S.G.S. Woodward Island quad			
	<u>Youngs Slough</u> ✓	"			
	<u>Empire Slough</u> ✓	Same **			
	<u>Woodward Island</u> ✓	" **			
	<u>Atchison, Topeka and Santa Fe Ry</u> R. should be	<u>Atchison, Topeka and Santa Fe Ry.</u>			
	<u>Bixler</u> ✓	Rand McNally Commercial Atlas, 1935			Official Railway Guide, Jan. 1934.
	<u>Middle River</u> ✓	U. S. Official Postal Guide, July, 1934			
	<u>Werner</u> ✓	Rand McNally Commercial Atlas, 1935			
	** For authorities	used see DR for T-4685.			

Survey No. T-5015
H-6001

GEOGRAPHIC NAMES

Date April 11, 1935

Chart No. _____

HMS

Diagram No. 5534

Names approved April 11, 1935

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

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Orwood</u> ✓	Rand McNally Commercial Atlas, 1935			
	<u>Woodward</u> ✓	"			
	Post Office	Delete No post office where word is placed according to Post Office Department			
	Moorland P. O.	Delete post office became Middle River on Jan. 1, 1915			
	<u>Orwood Station</u> ✓	Official Railway Guide, Jan. 1935			