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5009a

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES  
JAN 18 1934  
Acc. No. \_\_\_\_\_

Form 504  
Ed. June, 1923

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

State: California.

**DESCRIPTIVE REPORT**

Photo *Topographic* } Sheet No. 5009 5009  
*Hydrographic* } ~~5009a~~

LOCALITY

Sacramento River

Sacramento and Vicinity

1933

CHIEF OF PARTY

O. S. Reading

5009  
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DESCRIPTIVE REPORT

to accompany

AIR PHOTO TOPOGRAPHIC SHEET NO. 5009

Sacramento and Vicinity  
Sacramento River  
California.

*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 photographs taken with type T-3A camera from an altitude of 5,000 feet. A type F - 1A plane was used, piloted by Lieutenant J. F. Phillips with Captain A. W. Stevens as photographer.

The photographs which embrace this sheet consist of two parallel strips from SS 47 to SS 67 inclusive, running in a north and south direction. These were taken between one and two o'clock on the afternoon of December 14, 1931.

(b) Included in the compilation is 20.1 square miles of area and 9.2 miles of river, <sup>shortly</sup> (less than 200 meters wide.)

(c) Practically all of the eastern half of the area comprises the City of Sacramento. The northwest is devoted to orchards and truck gardens, while in the southwest there are pasture lands and larger cultivated areas. In general, the country is well developed.

2. CONTROL.

(a) The control consists of first order triangulation established by J. Bowie, 1931; third order triangulation by L. P. Raynor in 1932 and 1933; also a third order traverse by L. P. Raynor in 1932 from the Sacramento State Capital Building on M Street to the Western Pacific Railroad, north on the railroad tracks to a point beyond the limits of the photographs. Traverse turning points are shown with red circles. All control is adjusted to the North American 1927 datum.

(b) Two errors in control were noted, found by the photo plot. An instrument setup, (not recoverable) "N.W. End American River Bridge, 1933" had been computed as a weak three point fix. This point had been in error 29.5 meters in longitude and no meters in latitude. Station "SS 63 C," instrument setup near Shed and noted as "Shed, 1933" on the sheet was also in error, no reason having been given for the error in the recomputation. The new determination of position showed a discrepancy of 291.5 meters in latitude and 145.8 meters in longitude. In both cases the new position fit the radial plot.

(c) The control established by the U. S. Engineer Corps had been plotted. This, however, did not agree with the radial plot as determined from our own control and thus this former control was abandoned. The discrepancy was as much as five meters in some cases.

3. COMPILATION.

(a) Only the radial line method of compilation was used.

(b) Due to tilt, marked adjustment was required in the vicinity of the American River where the railroads and highway cross it. Tilt is present in photos SS 56 and SS 55 which cover this area. Only the important features are shown here, where the adjustment was made by selecting and intersecting additional control points.

(c) Field inspection notes were complete in every detail. In some cases for the sake of clearness, dirt or unimproved roads are shown with a full line. All important roads and highways are noted as being paved. \*In any case where the type of road is not shown, an unimproved road is understood. Ditches are shown in solid lines.

*Except in case of City streets*

(d) All detailed information shown was taken directly from the photographs. The Sanborn maps and the City engineer's map of the City of Sacramento were used in securing the names for the street layout. The Sanborn maps also served as a guide in inking the Southern Pacific R. R. yards in Sacramento.

4.

This sheet joins sheet No. 5008 on the south where the junction is satisfactory. There are no adjacent sheets on the north, east or west.

5. LANDMARKS.

No landmarks have been recommended by the field inspection party. However, from a study of the photographs it is known that there are at least two prominent landmarks, as follows:

Gas Tank	38° 34'	558 meters
	121° 30'	<del>523</del> 714 meters
Tall Chimney	38° 35'	<del>558</del> 1064 meters
	121° 29'	<del>523</del> 774 meters

*see letter 223 (1933) dated Apr. 20, 1933 for landmarks T 5009 17W*

6.

No further surveys of this area are considered necessary at this time.

*Approved  
B. Reading*

Respectfully submitted,

*Leonard A. McGann.*  
Leonard A. McGann.

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U. S. COAST AND GEODETIC SURVEY

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REG. NO. 5009  
Acc. 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. 5009

State California

General locality Sacramento River

Locality Sacramento and Vicinity

Scale 1:10,000 Date of ~~Survey~~ Photographs: Dec. 14, 1931.  
Compilation: June 30, 1933.

~~Message~~ Army Air Corps F-1A airplane, Capt. A. W. Stevens, Photographer.

Chief of party \_\_\_\_\_

~~Surveyed by~~ Photographs plotted by: L. A. McGann *L.A. McGann*

Inked by L. A. McGann *L.A. McGann*

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 47 - 67

inclusive; printed by photo-lithographic process.

(Polyconic projection by L. A. McGann *L.A. McGann* April 18, 1933.

( " " verified by J. H. Wulbern *J.H. Wulbern* April 18, 1933.

(Control plotted by L. A. McGann *L.A. McGann* April 19, 1933.

( " verified by H. E. MacEwen *H.E. MacEwen* April 19, 1933.

## REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO.

Title (Par. 56) *Sacramento River, Sacramento and Trinity, California*  
 Chief of Party *O. S. Reading* Compiled by *L. A. Mc Gann*  
 Project *Sacramento San Joaquin* 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.)
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".
3. ✓ The control and adjustment of the radial plot were adequate. (Par. 12, 29.)
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.)~~
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,~~ <sup>*tile patches*</sup> and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.)
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. *There is no previous Coast Survey chart of this area.*
8. ✓ The span, ~~draw and clearance~~ <sup>*type*</sup> of bridges are shown, (Par. 16c.) *for those on the Sacramento River. There was no data furnished for the bridge on the American River.*
9. ✓ The data furnished by the Field Inspection is adequate, *with the exception mentioned in (8).*

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.)
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".
12. ✓ The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.) *Descriptions of recoverable stations will be accomplished on form 524 by L.P. Raynor during the hydrographic survey of this area.*
13. A list of landmarks for charts was <sup>not</sup> furnished on Form 567, and scaling of positions checked. (Par. 16d, e, 60.) *There were no landmarks recommended by the field inspection, but two were selected by the compiler and are shown in the list in this report. → Letter 283 (1933)*
14. The geographic datum of the sheet is *N.A. 1927* and the reference station is correctly noted. (Par. 34.)
15. ✓ Junctions with contemporary surveys are adequate.
16. ✓ Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.)
17. ✓ The quality of the drafting is <sup>very</sup> good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.)
18. ✓ No additional surveying is recommended.
19. ✓ Remarks: *This sheet was compiled in the Washington office.*

20. ~~Examined and approved:~~

~~Chief of Party~~

21. Remarks after review in office:

Reviewed in office by: *Frank G. Eschline Feb. 26, 1934*

Examined and approved:

*K.T. Adams*  
Chief, Section of Field Records

*L.O. Abbott*  
Chief, Division of Charts

*B. Borden*  
Chief, Section of Field Work

*G. Hude*  
Chief, Division of  
Hydrography and Topography.



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 50092

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-Not .....

REGISTER NO. 5009 A  
50092

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

General locality.....Sacramento River.....

Locality.....Sacramento.....

Scale..... Date of survey....., 19.....

Vessel.....

Chief of Party.....

Surveyed by.....

Inked by.....

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

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

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

Remarks:.....Corrections and additions to the original survey.

.....For additional data see the Descriptive Report.



DESCRIPTIVE REPORT TO ACCOMPANY  
AIR PHOTO TOPOGRAPHIC SHEET NO. 5009 A  
(to be included in Report for T-5009)

5009a

Sacramento, Sacramento River, California

This sheet contains corrections (shown in red) to the original survey of this area.

Sources of Information:

Sheet No. 60 Air Photo Section files; chart letters 621 (1934) and 630 (1934).

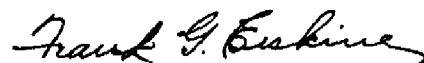
Compilation:

Sheet No. 60 contained corrections resulting from a field inspection.

Chart letter No. 621 (1934) contained the clearances of the two bridges over the Sacramento River. It was noted that there is a great difference between these clearances and those given in the "Lists of Bridges over Navigable Waters".

Chart letter 630 (1934) contained deletion notes on two lights.

Respectfully submitted,



Frank G. Erskine.

October 18, 1934.

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NAME; There are no charts covering the area of this project except chart 5514 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. Feathers Map (1851)--B'- 25708

U.S.G.S. Quadrangles B's. --25702 to 25707

(See also chart letter No. 688 (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 28, 1934

*Frank G. Eiskins*

*Applied to drawing of Chart 5528  
Jan 14, 1935 - J.T.W.*