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

State: California
Locality: Jaggal Slough to Coyote Creek
San Francisco Bay
California

Air-photo / Topographic | Sheet No. 4645

1931

CHIEF OF PARTY
O. S. Reading
DESCRIPTIVE REPORT

To Accompany Air Photo Topographic Sheet No. 4646
Jagel Slough to Coyote Creek, San Francisco Bay.

This sheet is a compilation of five lens photographs taken on
April 29, 1931. Photographs X 1 to 19 were taken at about 2:50 P. M.
and Y 1 to 19 about 3:10 P. M. at about low water according to the
tide tables. The photographs were taken with T 3 A Camera No. 30-1.
The pilot was Lieutenant Bobzien, the photographer Captain Hill, and
the biplane the O-25 type. The nominal altitude was 5000 feet, which
was approached quite closely on the Y flight. The plane was apparently
low and climbing on the X flight for the scale changes quite rapidly.

CONTROL. The control used for this sheet was triangulation,
executed by the party of Lieutenant G. C. Jones, in 1931. A traverse
along the road leading south and westward from the town of Alvise, and
swung in by three point fixes, was also used, as were a three point
fix on photo X 19, and some supplemental intersection stations located
by the field inspection party. No mistakes were found in the control
but an error in spotting Station Guadalupe of some five meters caused
considerable difficulty with the plot until it was found.

COMPILATION. The sheet was compiled with a scale factor of 1.10
x 10,000, which was the average scale of the X flight on which the most
detail occurred. Afterward it was found that the scale of this flight
varied considerably and it was necessary to make a considerably number
of photostats in order to trace off the detail without too large ad-
justments.

The compilation was made by the radial line method. In general,
satisfactory intersections were obtained except that the intersections
in the outer half of the wings tended to give positions too far out
from the flight line. This was adjusted proportionately between the
two flights and by the traverse of the road along the southern limit
of the sheet. It was possible by means of the plot to pick up a five
meter error in spotting Station Guadalupe on the photographs, but this
station occurred near the center of the flight.

The photographs were taken approximately at low water and the edge
of the water at the time is shown by dashed lines on the sheet.

AGREEMENT WITH OTHER SURVEYS. In general, good agreement was
found with the plane table surveys made by the party of Lieutenant G. C.
Jones, in 1931, (Sheets 4626 and 4627 ). The discrepancies are be-
lieved to be due to mistaken rod readings and sketching in the plane
table surveys.

DATUM. The sheet is compiled on the 1927 datum, although the
triangulation computations had not been adjusted to this datum at the
time of compilation.
LANDMARKS. No landmarks or permanent objects were specially marked for charting by the field inspection party.

The prominent objects such as transmission towers, two conspicuous tanks at Alviso and a red tank at the Albrae Gun Club have been located by triangulation. Recommendations for landmarks for charting should have been sent in by Lieutenant G. C. Jones, but nothing has been found in the files of this office.

It is not the function of a photographic compiler to recommend landmarks, but the three tanks mentioned above are high enough to be conspicuous in the area covered by this sheet.

O. S. Reading

APPROVED

K. T. Adams
FIELD RECORDS (O)

Chief, Section Field Work

Chief, Division of Charts

Chief, Div. of Hyd'y and Top'y
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. 46 46 4646

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

General locality.......................... San Francisco Bay

Locality................................. Jagel Slough to Coyote Creek

Photographs

Scale 1 : 10,000 Date of survey April 29, 1931.

Vessel Army Air Corps Q. 25 type aeroplane

Chief of Party......................... O. S. Reading

Compiled by......................... O. S. Reading

Inked by............................. O. S. Reading

Heights in feet above.............. to ground to tops of trees
Contour, Approximate contour, Form line interval........... feet
Instructions dated................................., 19...

Remarks: This sheet has been compiled by the radial line
method from five lens aerial photographs No. 2 X 1 to 19 and
Y 1 to 19. The sheet was reduced to 1:10,000 and printed on
Whatmans paper by the photo-lithographic process in the
Printing Section.