

4457a



Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

U. S. SURVEY
L. & A.
MAY 6 1930
Acc. No.

State: Florida

DESCRIPTIVE REPORT

Air Photos.
Topographic
Hydrographic

Sheet No. 4457 a

LOCALITY

East Coast of Florida

Jupiter Inlet to Lake Worth Inlet

1928

CHIEF OF PARTY

O. S. Reading

4457a

DESCRIPTIVE REPORT TO ACCOMPANY
AIR PHOTO TOPOGRAPHIC SHEET

No. 4457 a - Jupiter Inlet to Lake Worth Inlet, East Coast, Florida.

This is a compilation of a single strip of air photographs, numbers 499 to 523, (third roll) direction of flight to northward, taken with Army Air Corps 4 lens camera No. 26-1. These photographs were taken on April 20, 1928, No. 499 being taken at about 4:45 P.M. and No. 523 at about 4:55 P.M., about two hours before a minus low tide as obtained from the predicted tide tables. A Loening Amphibian plane was piloted by Lieutenant J. A. Dexter at a height of approximately 10,000 feet, giving an average scale of about 1:18,600 to the photographs.

LIMITS OF SHEET NO. 4457a

This sheet includes the area from the coast to about 4 1/2 miles inland, at the western edge of the single photographic strip, and from one mile north of Jupiter Inlet to one mile south of Lake Worth Inlet.

CONTROL

In addition to the photographic control sheets Nos. 4457b and 4458b, three roads about five miles apart, which extend in an easterly and westerly direction across the sheet, were used for control. Solar azimuths of these roads were obtained with the theodolite. The azimuths of railroads and roads crossing them were determined by sextant angles. The lengths of these roads and distances between crossroads, etc., were determined by steel tape measurements and are shown with red circles on the topographic sheet.

The northern road was tied to a triangulation station - West Jupiter School. The southern road was tied to a topographic signal. The center road, holding the azimuth of the road, was placed in position by means of the old topography and the topographic photo control sheet shoreline, and was checked by the azimuth of the railroad.

COMPILATION

A projection was laid on the celluloid sheet to the average scale of the photographs as determined by a preliminary radial plot. Photostats of topographic sheets Nos. 1640 and 1649 and topographic photo control sheets Nos. 4457b and 4458b were made to this scale. The shoreline from the photostats of the topographic photo control sheets was traced in black ink, from the other photostats in blue ink, on the celluloid sheet. A radial line graphic traverse was then plotted holding to this control. The remaining features of the photo topo-

graphic map were obtained by adjusting between the points determined by the radial plot.

This sheet was prepared from two photographic negatives, the junction line of which is shown on the sheet in pencil.

CHANGES

In general, the differences between the photographic sheet and the old topography as shown on sheets Nos. 1640 and 1649 are small. However, a large discrepancy was found on the inner waterway between latitudes $26^{\circ} 53'$ and $26^{\circ} 56'$. This discrepancy begins at about latitude $26^{\circ} 56'$ and has a gradual increase to the south to a maximum of about 140 meters where the canal joins the stream at latitude $26^{\circ} 53'5$. This was apparently due to the errors of the old plane-table traverse run along this swampy waterway, as the general features of the stream resemble the stream as shown on the air photographic map. The shoreline of the waterways at each end check very closely.

A hurricane swept this part of the country since the air photographs were taken which caused numerous changes in the shoreline and wharves. The ocean shoreline throughout this sheet, the shoreline in Lake Worth Inlet from Singer Hotel Bridge to North Bridge and the shoreline in Jupiter Inlet from the entrance to the Highway Bridge were run with the planetable in 1929 on photo control sheets 4457b and 4458b. This 1929 shoreline was used in the compilation of the photo sheet.

NAMES

The names appearing on this sheet are taken from the topographic air photo control sheets Nos. 4457b and 4458b.

SYMBOLS

The standard topographic symbols were used together with the following special symbols in order to bring out the topographic character of the locality: A single full line for a ditch, a double full line for all improved, graded and paved highways and streets, a double dashed line for all unimproved but graded roads, and a single dashed line for trails.

The culture was noted on the photographs from the principal highways and the roads traversed during a limited field inspection. At inaccessible places the culture was interpreted in the office from the similarity noted to that obtained from the field inspection.

LANDMARKS FOR CHARTS

The landmarks for charts will be found in the descriptive report of the topographic air photo control sheets Nos. 4457b and 4458b.

Respectfully submitted,

Walter J. Chovan
Walter J. Chovan
Jr. H. & G. Engr.

Approved:

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APPROVED

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REG. NO. 4457a

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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 16 E CREGISTER NO. 4457a **4457a**State FloridaGeneral locality East Coast of FloridaLocality Jupiter Inlet to Lake Worth Inlet ✓Scale 1:20,000 Date of survey April 20, 19 28Vessel Loening Amphibian AirplaneChief of Party O. S. ReadingSurveyed by W. J. ChovanInked by W. J. ChovanHeights in feet above -- to ground to tops of treesContour Approximate contour Form line interval -- feetInstructions dated Jan 7th and June 6, 19 29

Remarks: Compilation Air photographs Nos. 499 to 523. Reduced
to 1:20,000 and printed by photolithographic process
in Printing Section.