

4555

Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

U. S. COAST & GEODETIC SURVEY
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MAR 6 1931

State: Florida

Acc. No.

DESCRIPTIVE REPORT

Photo
Topographic
Hydrographic } Sheet No.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4555

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

REGISTER NO. 4555

State Florida

General locality East Coast

Locality Melbourne to Micco

Scale 1:20,000 Date of photographs April 29, 1928
Survey 30.

Vessel Army Air Corps Loening Amphibian Airplane

Chief of Party O. S. Reading

Surveyed by J. H. Wulbern

Inked by J. H. Wulbern

Heights in feet above to ground to tops of trees

Contour Approximate contour Form line interval feet

Instructions dated (Control & Compilation) June 6, 1929

Remarks: Compilation of four-lens air photographs Nos. 655 -

686. Reduced to 1:20,000 and printed by photo-lithographic

process in Printing Section.

U. S. GOVERNMENT PRINTING OFFICE: 1928

DESCRIPTIVE REPORT TO ACCOMPANY

AIR PHOTO TOPOGRAPHIC SHEET NO. EAST COAST OF FLORIDA

MELBOURNE TO MICCO

This sheet is a compilation of air photographs taken by the Army Air Corps four-lens camera No. 26. However, only three views made up each composite photo, the "D" chamber film having jammed during the flight. Photographs numbers 655 to 686, the direction of flight to the northward, taken April 29, 1928, compose the sheet. Photograph number 655 which begins the sheet was taken about 10:05 A.M., and photograph number 686, which ends the sheet, was taken about 10:17 A.M. A Lening amphibian plane was piloted by Lieutenant J. A. Dexter at a height of approximately 10,000 feet, giving an average scale of 1:18,400 to the photographs. A factor of 1.087 was actually used in making the projection for the photographs. A low tide of -0.1 as taken from the tide tables, occurred during the time the photographs were taken for this sheet. These data apply to the outer coast, as no tidal data were available for the Indian River.

LIMITS

The area of this sheet is covered by a single strip of photographs, extending about three miles west of Indian River. The northern limit of this sheet is latitude $28^{\circ}06'$ N. and the southern limit is $27^{\circ}53'$ N. The southwestern edge of the sheet also covers an area almost extending to $27^{\circ}52'$ N. but this parallel does not appear on the sheet.

CONTROL

The scheme of triangulation that was executed in 1930 along the outer coast and portions of Banana and Indian Rivers was used as the main control; use was also made of all the old triangulation stations that were recoverable. Topographic sheet number 4545, executed in April 1930, was used as the control for the outer coast.

In addition to the above-mentioned control, taped road traverses, all running in a general east-to-west direction, and a railroad traverse extending the length of the sheet, were utilized. The road traverses were plotted from sextant angles and taped distances, azimuths being obtained from solar observations with a theodolite. The railroad traverse was plotted from data obtained from the Florida East Coast Railway.

COMPILATION

A projection was made on the celluloid to the approximate scale of the photographs, using a scale factor of 1.087 as obtained from a preliminary radial plot.

Photostats were made of topographic sheets 1460 and 1478 made in 1878 and 1879, to the scale of the projection, and shorelines traced on the projection in blue. A photostat was also made of topographic sheet 4545, made in 1930, and the outer shoreline traced in black and accepted as the ocean shoreline for the sheet.

All triangulation stations that could be identified on the photographs were marked for use in the radial plot. The triangulation stations were plotted on the projection. The turning points of the tape traverses, azimuth stations, plusses to roads, trails, etc., are shown by small red circles.

After this information was plotted on the projection, a radial line graphic traverse was plotted holding to the control and the general trend of the old topography. The remaining features of the photo topographic map were located by adjustment between the points determined by the radial line plot.

DIFFERENCES FROM OLD TOPOGRAPHY

Only minor changes between the old and new shorelines were noted mostly at the heads of creeks and on a few points along the eastern shore of the Indian River.

LANDMARKS FOR CHARTS

No landmarks not already used as triangulation points occur on this sheet, indicated on sheet attached to descriptive report for topographic sheet 4545, a copy of which is attached to this report.

NAMES

The names on this sheet are those appearing on chart 162 and photo topographic sheet number ~~B-4545~~, the names of the small towns along the west bank of the sheet being taken from the railroad stations of the Florida East Coast Railway.

OTHER MAPS USED

The only maps other than those of the Coast and Geodetic Survey used in the compilation ^{was} the Sanborn maps in the vicinity of Melbourne, utilized to identify important buildings and furnish details obscure on the photographs.

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, a single short dashed line for trails and a single long dashed line for boundaries of cultivated or cleared fields.

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 similarities noted to that obtained from the field inspection.

Respectfully submitted,

Julian H. Wulbern

Julian H. Wulbern,
Jr. Carto. Engineer.

Approved:

O. S. Reading per JYS.

O. S. Reading,
Chief of Party,
Coast and Geodetic Survey.

APPROVED

K. T. Adams
FIELD RECORDS (C)

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