

4532

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R.S. Patton, Director

U. S. COAST AND GEODETIC SURVEY

L. & A.

MAY 6 1930

Acc. No.

State: FLORIDA

DESCRIPTIVE REPORT

Air Photo
Topographic
~~Hydrographic~~

Sheet No.

4532

LOCALITY

East Coast of Florida.

Indian River, Vicinity of Cocoa.

1928

CHIEF OF PARTY

O.S. Reading

GOVERNMENT PRINTING OFFICE

Descriptive Report To Accompany
Air Photo Topographic Sheet.

No. - - - Indian River, Vicinity of Cocoa.

This sheet is a compilation of air photographs taken by the Army Air Corps 4-lens camera No. 26-1. Photographs 714 to 737, direction of flight to northward, were taken April 29, 1928; photograph No. 714 being taken about 10:20 A.M. and photograph No. 737 which terminates this flight strip was taken at 10:40 A.M. Photographs No. 920 to No. 925 were used for the vicinity east of New Found Harbor and were taken April 30, 1928 at about 10:30 A.M. 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 : 19,000 to the photographs. No tidal data was found available for this vicinity.

Limits. This sheet has been plotted from one main strip of photographs along the Indian River with the exception of the small territory east of New Found Harbor which was plotted by five photographs of a strip running along the outer coast.

The road shown running from Merritt across this gap was plotted from a sextant and tape traverse adjusted to a solar azimuth obtained with a theodolite, and the photo plot.

The unphotographed area along the west coast of the Indian River just to the north of City Point was caused by the film being cut and distorted on two of the center negatives so that the overlap of the adjoining photographs was not sufficient to enable the plotting of this area.

The northern end of this sheet is plotted by photo No. 737 which is the last photograph of this strip, there being a gap of about six miles to the northward that remains unphotographed.

The south end of this sheet join with Air Photo Topographic Sheet No. - - - -, photograph No. 714, and the southeastern corner makes a junction with Air Photo Topographic Sheet No. - - - -, photograph No. 924.

Compilation. A projection was laid on the celloid sheet^{ul} to the approximate scale of the photographs as determined by a preliminary radial plot. Photostats of topographic sheets No's. 1435 and 1450b were made to this scale and traced in blue ink upon the celloid sheet. The triangulation stations were also plotted on the projection together with the tape traverses oriented by solar azimuths obtained with a theodolite. The turning points of the tape traverses, azimuth stations, and pluses to roads, trails, etc. are shown by small red circles. A radial line graphic traverse was then plotted holding to the control and the general trend of the old topography. It was noted in making the radial plot that the scale of the photographs became slightly larger in going to the north which

was due to the decrease in altitude of the plane as it approached the end of the photographic strip. This required a slight adjustment in order to conform to the old topography.

This sheet was prepared from two photographic negatives the junction line of which is shown on the sheet in pencil. A maximum distortion of 3 meters in the projection was found to exist on the upper or northern portion of the sheet while the portion produced from the lower plate varies to a maximum of 10 meters in longitude in the southeastern corner.

Blueprints furnished by the Florida East Coast Railroad were used for interpretation of the track system in the vicinity of Cocoa and Rockledge.

Differences From Old Topography. In general the differences between the photographic sheet and the topographic sheets of 1876 (Sheets No. 1435 & 1450b) are small with the exception of the territory at the head of New Found Harbor between latitudes 28-24 and 28-25 and longitudes 80-41 and 80-42 which has changed considerably. This appears as though the plane table orientation had not been correct since the general shoreline was the same but a swing in azimuth resulted. It is unfortunate that this deviation from the old topographic sheet occurs on the outer wing photograph and cannot be traced further.

There is a change in the shoreline at Oleander Point from the old topography. Triangulation station Oleander Point 2 was recovered on the field inspection trip and it was noted that concrete piling had been put in and considerable improvements made around the large hotel now located on that point. The shoal as shown by the dotted line as extending from this point was deduced from inspection of the photographs.

Names. The names appearing on this sheet are those appearing on chart 161 and the State Highway map of this vicinity.

Details Requiring Further Examination. A short stretch from the northern end of this sheet to just south of Titusville, a distance of about six miles, has not been photographed. There is also a small area unphotographed just to the north of City Point due to two of the center negatives missing. Between the inshore and the coastal strips in this locality there is a gap also which it would be desirable to obtain in order to complete the topography of this area. The original topographic survey of this area was made in 1876.

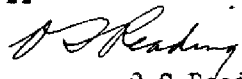
Symbols. The standard topographic symbols were used together with the following special symbols in order to bring out the topographic character of the locality;- A single full line was used for a ditch, a double full line for all improved graded and paved highways and streets, a double dashed line for all unimproved but graded roads, and a single dashed line for trails. Where the marsh grass grows in the water a broken marsh symbol was used and where definite limits could be distinguished it was bounded by a fine full line.

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 field inspection.

Respectfully submitted,


Roswell C. Bolstad,
Aid, C. & G. Survey.

Approved:



O. S. Reading,
Chief of Party, C. & G. Survey.

APPROVED

K. T. Adams
FIELD RECORDS (C)


Chief, Division of Charts


Chief, Section Field Work


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

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4532

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. 8 East Coast

REGISTER NO. 4532

State Florida

General locality East Coast.

Locality Indian River. Vicinity of Cocoa. ✓

Scale 1 : 20,000 Date of survey April 29th. & 30, 1928

Vessel U.S.A.C. Amphibian Plane

Chief of Party O.S. Reading

Surveyed by J.A. Dexter, Pilot; Sgt. Matos, Photographer

Inked by R. C. Bolstad

Heights in feet above None to ground to tops of trees

Contour, Approximate contour, Form line interval none feet

Instructions dated , 19

Remarks: Compilation of 4-lens air photographs Nos. 714 to 737, 920 to 925. Reduced to 1:20,000 and photo lithographed in Printing Section.

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