

4430

4431

SUPPLEMENTAL T-4430

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY

L. & A.

MAY 24 1929

Acc. No.

State: FLORIDA

11-5013

DESCRIPTIVE REPORT.

Air Photo 4430
Topographic Sheet No. 4431

LOCALITY:

West Coast of Florida

Collier and Monroe Counties

No. 4430 Coon Key to Tiger Key

Transf. in

No. 4431 Tiger Key to Rabbit Key

Transf. in

1927

CHIEF OF PARTY:

R. P. Eyman, Str. Hydrographer
Guy Kirksey, Pilot

O. S. Reading, Photo Reduction.

4431

4430

SUPPLEMENTAL T-4430

Descriptive Report to Accompany
Air Photo Topographic Sheets.

No ~~4430~~ Coon Key to Tiger Key, Collier County.

No ~~4431~~ Tiger Key to Rabbit Key Collier and Monroe Counties.

These two sheets are a compilation of air photographs numbers 53 to 61 and 75 to 147 (first roll 1927) taken with Army Air Crops tri-lens camera No. 11. A Loening amphibian plane was piloted by Lieutenant Guy Kirksey at a height of approximately 10,000 feet giving an average scale of about 1:19,000 to the photographs. Photographs 147 to 75 were taken on February 18, 1927, in the order of diminishing numbers, photograph No. 147 being taken about 4:35 P. M., and 75 about 5:30 P. M. about two hours after high water by the tide tables. Photographs 61 to 53 were taken about 10:45 A. M., February 22, 1927. The tidal constants for the inner bays shown on these photographs have not been published.

Limits. These sheets have been plotted from two strips of photographs, one extending alongshore from Rabbit Key to Coon Key and an inner strip extending from just south of Royal Palm Hammock to Lopez River. The two strips include the outer fringe of mangrove islands, the shallow bays and the edge of the everglades together with a short portion of the Tamiami Trail. The portion of the Tamiami Trail shown on the sheet but not included in the photographs was obtained from road traverses by the Florida Development Company adjusted 50 meters in azimuth to Stations Shell Camp and Royal Palm. The trail runs practically straight from the northwest end on the sheet to a junction with the southeast end as shown on sheet No ~~4431~~, Little Marco Pass to Cape Romano and Coon Key. The new highway between Royal Palm Hammock and Collier City was also obtained from traverses by the Florida Development Company and adjusted 30 meters to Station Royal Palm and the photograph containing Stations Goodland Point and Coon Key Beacon.

Compilation. Projections on the approximate scale of the photographs as determined by a preliminary plot were laid down on celluloid. Photostats of topographic sheets Nos. ¹⁹³⁵⁻¹⁹³⁶ 1836 to this scale were traced on the celluloid in blue ink and the triangulation stations plotted on the projections. A radial line graphic traverse was then plotted from each strip of photographs holding to the control and the general trend of the topography. The strips were replotted to agree with each other also. There was a gradual turn in the flight of the strip just south of Royal Palm Hammock which weakened the positions along the inshore side of this ^{strip} in this vicinity. Certain other irregularities in the flight course with attendant tilt distortion caused difficulties in other localities. One of these localities lies immediately east of the town of Everglades. The various tilt

distortions were adjusted out as well as possible using overlap of the adjacent strips. It is believed that any error remaining after these adjustments will be inappreciable on a scale of 1:80,000.

The corner of Townships 53-54 S, Ranges 28-29 E on the Collier-Monroe County line as defined by the traverse executed by W. T. Wallis, Jr., for the Trustees of the Internal Improvement Fund of Florida was located by a supplemental triangulation station "Corner". The notes of this traverse were plotted to scale on the projection and checked very closely in distance with the photographs. The azimuth according to the photographs should be S 89° 45' W. instead of S 89° 55' W. as given by the notes.

The inner and outer strip flights were plotted on separate strips of celluloid. No difficulty was experienced in joining the Coon Key Tiger Key sheet strips. Pronounced shrinkage of the inner strip greater than the outer one of the Tiger Key Rabbit Key sheet has thrown a considerable distortion in the projection as printed on this sheet in the vicinity of Chokoloskee Bay. This distortion will not be of great importance if the topography is transferred to the chart by projection lines. If signals are established on the shores of Chokoloskee Bay for hydrography, it is recommended that points on the southern shore of the bay be used together with points on Chokoloskee Island. Signals on the northern shore of the bay should be located by angles from those on the southern shore on account of the distortion described above.

Connection with reconnaissance hydrography of 1927. The reconnaissance of Indian Key Anchorage made by the Ship HYDROGRAPHER in 1927, sheet No. 4256, may be connected to this sheet by station Rock (located by supplementary triangulation) and station Land (located by theodolite direction and measured distance from station Indian Key). The remaining signals may be adjusted by their relation to the adjacent topography.

Changes. In general the differences between the photographic sheets and the topography of 1888 (Sheets Nos. ^{1835 and} 1836) are small and attributable to wave and current erosion or mangrove growth. Some differences are obviously due to sketching of bights between rod readings.

The outer beach of the inner large islet of Rabbit Key though not shown on the photographs has been changed some 30 meters inshore to agree with measurements made when the triangulation station was established. The loss of old triangulation stations and new stations established near shore indicates a general erosion of the outer coast of most of the keys of about ten meters. This erosion, while driving the beach of mangrove inshore, does not affect the coral reefs forming the outer edge of the keys nearly so much. These reefs as shown by the surveys of 1888 (which the triangulation of 1928 checked so closely)

The area in the vicinity of Everglades has been corrected to March 1929 by means of corrections shown on a print of the sheet furnished by the Florida Development Co. at Everglades

may, therefore, be retained on the charts. The outer portions of Indian Keys and Rabbit Key were not included on the photographs but have been transferred to this sheet from sheet 1836 with modifications as measured when the 1928 triangulation stations were established.

Names. The names appearing on the sheets are those appearing on chart 1254 and a few others well established in local usage. No names were assigned by field officers.

High water line. The outer limits of the mangrove on these sheets have been shown with full lines. Much of the value of the shoreline topography from the air photographs lies in the use of small indentations for the identification of position by passing boats. The significant shape of these indentations and points would be lost if the mangrove symbol without limiting line were used. A limiting line perhaps much finer than the usual highwater line is recommended for the chart for the same reasons.

Details Requiring Further Examination. It is understood that a hydrographic examination is to be made of the locality shown on these sheets. As far as possible without undue delay it is desirable that the houses, topographic culture symbols, etc., be checked, and that small wharves and landmarks be accentuated on the sheets. The buildings on Fakahatchee and Chokoloskee Islands were not very distinct on the photographs and considerable construction was in progress at Everglades.

The list of landmarks for charting is also deferred until the hydrographic examination with the exception of the Indian Key Beacon and Everglades Tank.

O Reading

*See Hyd. Sheets 5049
5065
for corrections to these sheets.*

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington, D. C.

April 30, 1929

19

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

[illegible]

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report. The selection, determination, and description of these points are of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

AND REFER TO NO. 11-DEEM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

March 19, 1930.

SECTION OF FIELD RECORDS

Report on Topographic Sheets Nos. 4430 and 4431

Surveyed in 1927

Chief of Party, R. P. Eymann.

Photographs reduced and sheets plotted by O. S. Reading.

+ H. C. Walker

1. These sheets conform to the general requirements in so far as applicable to this class of work.
2. The junctions with the adjoining sheets are adequate.
3. The name Sandfly Pass is shown on T. 1836 applied to a passage one mile west of the passage named Sandfly Pass on T. 4431. This discrepancy should be checked.
4. The sheets are adequate and no further surveying is required.
5. Reviewed by E. P. Ellis, December, 1929.

Approved:

K. T. Adams
Chief, Section of Field Records (Charts)

T. B. Borden
Chief, Section of Field Work (H. & T.)

L. O. Lobnitz
Chief, Division of Charts

G. W. Hilde
Chief, Div. of Hyd'y and Top'y

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A.
MAY 24 1929
Acc. No.

REG. NO. 4430

AIR PHOTO - TOPOGRAPHIC TITLE SHEET

Aerial Phototopographic Survey

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. 4430

State.....Florida.....

General locality West Coast

Locality Tiger Key to Coon Key
~~Coon Key to Tiger Key, Collier County.~~

Scale 1:20,000 Date of survey February, 19 27

Vessel Str. Hydrographer standing by Army Amphibian Plane

Chief of Party R. P. Eyma; Guy Kirksey, Pilot; O. S. Reading, Reduction.

~~Surveyed by~~ Photographs reduced by H. C. Walker.

Inked by H. C. Walker

Heights in feet above none to ground to tops of trees

Contour Approximate contour Form line interval ----- feet

Instructions dated, 19

Remarks: Compilation of air photographs Nos. 96 to 130, first roll
1927. Sheet accompanied by 1 print on Whatmans paper and two prints
on boat sheet paper.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

C. & G. SURVEY
L. & A.
MAY 24 1929
Acc. No.

REG. NO. 4431

AIR PHOTO TOPOGRAPHIC TITLE SHEET

Aerial Phototopographic Survey

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. 4431

State Florida

General locality West Coast

Locality ~~Tiger Key to Rabbit Key to Tiger Key~~

Scale 1: 20,000 Date of survey February, 19 27

Vessel Str Hydrographer standing by Army Amphibian Plane

Chief of Party R. P. Eyma; Guy Kirksey, Pilot; O. S. Reading, Reduction.

~~Surveyed by~~ Photographs reduced by O. S. Reading

Inked by O. S. Reading.

Heights in feet above none to ground to tops of trees

Contour Approximate contour Form line interval ----- feet

Instructions dated _____, 19

Remarks: Compilation of air photographs Numbers 53 to 61, 75 to 96

and 130 to 147, first roll, 1927. Sheet accompanied by 1 print on

Whatman's Paper and 2 prints on boat sheet paper.

Descriptive Report for Supplemental T 4430
12/27/40

1. Corrections in green were taken from hydrographic surveys of March 1930 and applied to a copy of T 4430 entitled a Standard about 1931. These corrections were transferred to the Supplemental which replaced the Standard 10/15/40.

2. Additions in red applied to Supplemental
10/15/40

Boff

Chart 1254 (INSET)

App'd 12-5-62 HR