DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

State: Florida

LOCALITY
Florida East Coast
Ragged Keys to Old Rhodes Key

1931

CHIEF OF PARTY
O. S. Reading
Affixed to sheet 848 April 20, 1936
Descriptive Report to Accompany
Air Photo-Topographic Sheet No. T-4600
East Coast of Florida
Florida Keys, Ragged Keys to Old Rhodes Key.

This sheet is a compilation of multi-lens air photographs taken
by the Army Air Corps' four-lens camera, No. 26-1. Two flights of
photographs were used; photographs Nos. 336-344 being used from a
flight northward, and Nos. 345-356 from a flight southward. Photographs
Nos. 336-344 were composed of only three prints each, the "D" chamber
film having jammed during flight. Photographs numbers 345-356 were
composed of the usual four views.

A Loening amphibian plane was piloted by Lieutenant J. A. Dexter
at a height of approximately 10,600 feet for photographs Nos. 336-344,
giving a scale factor of 1.025 and at a height of approximately 10,100
feet for photographs Nos. 345-356, giving a scale factor of 1.071.
The factor of 1.071 was actually used in making the projection, photostat
enlargements of photographs 336-344 being made for transferring to the
celluloid.

Photographs 336-344 were taken April, 1928, at 3:30 P.M., three
hours and fifteen minutes after a high tide of 2.2 feet. Photographs
345-356 were taken April 17, 1928, between 10:00 and 10:05 A.M., two
hours and twenty minutes before a low tide of -0.4 feet, as predicted
in the tide tables.

The two flights did not meet, and as a result about 3/4 of a mile
of Elliott Key between latitudes 25° 27' N. and 25° 33' N. was not
shown on any photograph. The shorelines for this area were supplied
from sheets 4561 and 4661.

LIMITS

The northern limit of this sheet is latitude 25° 33' N., and
includes all of the Ragged Keys, but does not include Soldier Key, which
is farther northward. Soldier Key is shown on 1930 field topographic
sheet No. 4561.

The southern limit is latitude 25° 21', and includes all of Old
Rhodes Key except the southeastern tip, and the western part of Broad
Creek. Westward the sheet includes from one to two miles of the water
area of Biscayne Bay, and eastward approximately one mile of water area
of the Atlantic Ocean.

CONTROL

Triangulation executed in 1930 along the shores of Biscayne Bay
was used as the principal control; use was also made of several old
triangulation stations located on the ocean shores of outer keys.

COMPILATION.

A projection was made on celluloid to the approximate scale of photographs 345-356, using the scale factor of 1.071 as obtained from a preliminary radial plot of one of the flights of photographs used. Photostats were then made of the smaller scale photographs of other flights to conform to this scale.

Photostats were also made of topographic sheets 456l and 403 to the scale of the projection, and the ocean shoreline traced in blue on the celluloid as a check on the ocean shoreline determined by the radial plotting.

All triangulation stations that had been identified by the field party were marked for use in the radial plot, and the triangulation stations plotted on the projections.

A radial line graphic traverse was then plotted, holding to the control for both flights of photographs. Because of the gap between the two flights, 3/4 of a mile in the middle of Elliott Key between latitudes 25° 27' N. and 25° 23' N. was not shown on any photographs. The bay shoreline for this unphotographed area was supplied from Topographic Sheet No. 456l, executed in 1930, and the ocean shoreline from Topographic Sheet No. 403, executed in 1853. Junctions were made with these shorelines in plotting the photographs, holding to the shoreline as control.

DIFFERENCES FROM FIELD SURVEYS.

Difficulty was again experienced with the radial plotting because of the inaccurate spotting of triangulation stations by the field party. It was found necessary to move the station West Cable House, on the larger of the Ragged Keys, slightly to the northward with regard to the shoreline of the key as supplied by sheet 456l. The position shown on the sheet was established after several radial plottings, and is checked by the position of the keys immediately northward as given on sheet 456l.

It was also found necessary to move the station Rubi about fifty meters to the north of the position as spotted on the photograph on the most western of the Rubicon Keys. This position was also established by the radial plotting, and is checked by the station Rubicon Point 1852. This station was identified and accurately spotted on the photographs from sheet 403, executed in 1853, which station was used in preference to Rubi 1850 in the plotting because of its accurate identification.

The position of Sands Cut was found to be about 25 meters to the southward of that given on sheet 456l. A similar shift of about 25 meters to the southward was found necessary in general in the keys in the vicinity of Caesar Creek. With these exceptions only minor differences were noted.
LANDMARKS FOR CHARTS.

No landmarks suitable for charts were noted.

NAMES.

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 roads, 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 interpreted in the office from similarities to that noted on photographs from a limited field inspection of Key Largo, immediately south of this sheet, the area covered by this sheet having been inaccessible to the inspecting party. The two areas being quite similar, it is believed that the culture is as faithfully presented as if a field inspection had been made.

OMISSIONS.

Several bars in Biscayne Bay west of the Ragged Keys are not shown on the sheet. These were omitted because it was felt that the plot at this end of the sheet might be weak, and that the location of the bars could be better obtained from the soundings recently made in the region.

Respectfully submitted,

Julian H. Walbern

Julian H. Walbern,
Junior Cartographic Engineer.

Approved:

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

K. T. Adams
FIELD RECORDS (O)

L. C. Holland
Chief, Division of Charts

APPROVED

Chief, Section Field Work

Chief, Div. of Hyd'y and Top'y
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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. 

REGISTER NO. 4600

State... Florida

General locality... East Coast, Gard and Barnes Sounds

Locality... Middle Key and Envision Point

Scale... 1:20,000... Date of survey... April 12-17, 1928.

Vessel... Army Air Corps, Loaning amphibian plane

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 and Compilation, June 6, 1929

Remarks: Compilation of four-lens air photographs

Nos. 312-336 and 380-401, Reduced to 1:20,000 and printed by photolithographic process in Printing Section.
Report for T 46 00 Supplemental
filed 5/1/36

1. Streets as shown in map added from graphic control survey of 1934
which is filed with 145578 - filed 5/1/36

2. Buildings on map added from the same graphic control survey - added to supplemental 12/20/39.

B. G. Jones