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SUPPLEMENTAL T

Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY Director	
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State: <u>Florida</u>	
Acc. No. _____	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. 4600
LOCALITY	
Florida East Coast	
Ragged Keys to Old Rhodes Key	
19..31	
CHIEF OF PARTY	
O. S. Reading	

4600

SUPPLEMENTAL T

Applied to chart 848 April 20, 1936 H.C.

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 1.026 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 -.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° 28' N. was not shown on any photograph. The shorelines for this area were supplied from sheets 4561 and 408.

*H
Post sheet 5578 1934*

LIMITS

see Tap 4561 for add. Tap.

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 4561 and 408 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° 28' N. was not shown on any photographs. The bay shoreline for this unphotographed area was supplied from Topographic Sheet No. 4561, executed in 1930, and the ocean shoreline from Topographic Sheet No. 408, 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 Gable House, on the larger of the Ragged Keys, slightly to the northward with regard to the shoreline of the key as supplied by sheet 4561. 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 4561.

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 408, executed in 1853, which station was used in preference to Rubi 1930 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 4561. 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

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

APPROVED

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FIELD RECORDS (C)

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4600

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. 4597

REGISTER NO. 4600

State Florida

General locality Atlantic East Coast

Locality Ragged Keys to Old Rhodes Key

Mangrove Key to Division Point

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

Vessel Army Air Corps Loening amphibean 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. Shoreline shown in red added
from graphic control survey of 1934
which is filed with H 5578 - applied 5/1/36
2. Buildings in blue added from the
same graphic control survey - applied
to supplemental ¹²/~~20~~ ²⁰/~~12~~ /39.

B. J. Jones