

4528

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DESCRIPTIVE REPORT TO ACCOMPANY AIR PHOTO TOPOGRAPHIC SHEET

REGISTER No. 4528.

This sheet is a compilation of Army Air Corps four lens air photographs numbers 449 to 471. The photographs were clear and distinct except for a few small cloud shadows in the inshore wings. These small shadows were not so dense as to prevent the plotting of the areas, though they handicapped the interpretation somewhat. Only one photograph was tilted more than one degree. A Loening Amphibian plane with liberty motor was piloted at a little less than ten thousand feet by Lieutenant J. A. Dexter, while Sergeant Matos took the photographs. The four lens camera No. T-2-26-1 was slightly out of adjustment but in general the photographs represent the best practicable average practice with such equipment. The photographs were taken from about 3:55 to 4:10 P.M. on April 20, 1928. The tide tables predicted a low water of -0.8 feet at 4:26 P. M. on this day.

Three lens photographs numbers 110 to 116 first set and numbers 100 to 106 second set taken during 1927 were used to supplement the plot on Miami Beach, south of Station Start. A blueprint from Watson & Garris, Engineers in charge of the construction was used to show the newly filled island in the northeast part of Biscayne Bay. The blueprint was controlled by the former mangrove shoreline as meandered in their survey and by the adjacent shorelines and roads of Miami Beach.

CONTROL.

The sheet is controlled by triangulation stations recovered on the ground and spotted on the photographs during a field inspection. This control was supplemented by steel tape traverses and solar azimuths along roads running across the line of flight in Buena Vista, Little River, and Miami Shores. The road intersections measured are indicated by small red circles on the sheets. A three point fix on triangulation stations was used near the Coral Gables gateway on the Tamiami Trail. The tank at Dinner Key and the Deering Boat House were transferred from Topographic Sheet 3758 and used to check the plot south of the Miami River. The shoreline of the 1919 topographic survey was transferred to the sheet but was not used for control.

COMPILATION.

The mean scale of the photographs was determined by spotting their successive principal points together with control on celluloid to be 1:20,000x1.065.* A projection was laid down to this scale and the control plotted thereon. The 1919 topography was enlarged to this scale by pho-

1:20,000 x 1.065 approx 1:18,700

stat and traced in blue on the celluloid sheet using the projections. A careful radial plot was then made adhering to the control. Little forcing of the graphic plot was required to make it fit the control. The detail was then traced in black with small adjustments between the radial intersections. Four photographs which were a bit out of scale were photostated to keep the adjustments between radial intersections small.

The plot as a whole is believed to be accurate within 20 meters, the weaker portions being along the inshore mile or so of the sheet, due to poor graphic conditions in plotting the outer portion of the wings. The conditions for plotting the Miami and Venetian causeways were also poor but they check with the 1919 topography which had triangulation in the vicinity.

CHANGES.

The extraordinary growth of Miami is responsible for most of the differences noted. The 1919 survey was in error in some of the in-shore roads north of Little River and a small amount in the shoreline at ^{Briar} ~~Baker~~ Point. Minor changes possibly due to construction were made in the Miami River.

NAMES.

The names shown are those in general use. Little River and Miami Shores appear on the railroad stations and postoffices.

LANDMARKS.

The landmarks appearing on this sheet together with certain changes in those shown on Chart 583 have been forwarded as a separate report on Form 567, a copy of which is attached.

SYMBOLS.

The symbols used on the sheet are standard except as otherwise labeled. Some confusion in the triangulation symbols is due to a change in practice as the sheet was being inked. It was decided to show the recoverable triangulation stations with small black triangles so that they would appear on the chart paper prints. The landmarks were shown with small black circles as on the chart. These circles have circumscribed with red triangles when the landmark is located by triangulation on the registered sheet. The small black triangle only will be used on future sheets.

O. S. Reading
O. S. Reading,
Chief of Party.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Washington

February 11

1930

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.

O. S. Reading
O. S. Reading

T. 4528

Chief of Party.

| DESCRIPTION | POSITION | | | | | | METHOD OF DETERMINATION | CHARTS AFFECTED | |
|---|----------|----|----------------|-----------|----|--------------|-------------------------|---------------------------|--------------------------|
| | Latitude | | | Longitude | | | | | Datum |
| | ° | ' | D. M. meters | ° | ' | D. P. Meters | | | |
| Tank(150' (Warwick) | 25 | 38 | 1516.4 | 80 | 17 | 1525.2 | NA | Tri No check Theod. | 1248 583 |
| Tank (Grey) | 25 | 43 | 805.2 | 80 | 15 | 941.1 | " | Cuts | " " |
| Tank Coral Gables | 25 | 45 | 1435.2 | 80 | 14 | 237.0 | " | " | " " |
| Tower Hotel | 25 | 44 | 805.2 | 80 | 16 | 1224.8 | " | " | " " |
| Tank (Fisher Island) | 25 | 45 | 1257.0 | 80 | 08 | 902.2 | " | " | " " |
| Tank | 25 | 50 | 1637.0 | 80 | 11 | 838.5 | " | " | " " |
| (Green) Obelisk | 25 | 46 | 1153.9 | 80 | 09 | 85.3 | " | " | " " |
| Tower (Miami Beach) (Courthouse) | 25 | 46 | 1745.3 | 80 | 07 | 1627.3 | " | " | " " |
| <u>Removal recommended for reason noted</u> | | | | | | | | | |
| Tower Inshore Coconut Grove | 25 | 43 | 500 appx | 80 | 14 | 1330 appx | | | Not conspicuous |
| Bath Tanks North East of | above | | 760 meters and | | | 1240 meters | | | No longer conspicuous |
| Chy | 25 | 44 | 686 | 80 | 13 | 1510 | | | Gone |
| Boat Ho. Flagpole | 25 | 44 | 820 | 80 | 12 | 1120 | | | Gone |
| Tank | 25 | 47 | 860 | 80 | 11 | 1205 | | | 4 gas tanks confusion |
| Observation Tower | 25 | 47 | 1140 | 80 | 07 | 1160 | | | Gone |
| Royal Palm Chy | 25 | 46 | - | 80 | 11 | - | | | Street cut through |

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.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TOPOGRAPHIC TITLE SHEET

U. S. G. SURVEY
L. & A.
JUN 21 1930
Acc. No.

REG. NO. 4528

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. 4528

State _____ Florida _____

General locality _____ East Coast _____

Locality _____ Vicinity of Miami _____

Scale 1:20,000 Date of survey Feb. 27, 1927
April 20, 1928

Vessel Army Air Corps Amphibian Plane piloted by Lieut. J. A. Dexter

Chief of Party _____ J. S. Reading _____

Surveyed by _____ J. S. Reading _____

Inked by _____ J. S. Reading _____

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form-line interval _____ feet

Instructions dated _____ June 6 _____, 1929

Remarks: Compilation of four lens aerial photographs Nos 449 to 471
and three lens photographs 99 to 106 taken Feb 27 1927.

Reduced to 1:20,000 and printed by photo lithographic process
in Printing Section.

APPROVED

K. T. Adams
FIELD RECORDS (C)

J. S. Borden
Chief, Section Field Work

L. O. Pollock
Chief, Division of Charts

G. H. Hude
Chief, Div. of Hyd'y and Top'y