

6182

U. S. COAST & GEODETIC SURVEY
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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

Topographic } Sheet No. B 6182
~~Hydrographic~~

State FLORIDA

LOCALITY

EAST COAST

PORT EVERGLADES

1934

CHIEF OF PARTY

W. H. Bainbridge

6182

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

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. B

REGISTER NO. **6182**

State Florida

General locality FLORIDA EAST COAST

Locality VICINITY OF PORT EVERGLADES

Scale 1 to 5,000 Date of survey June 21 to July 21, 1934

Vessel _____ Party No. 22

Chief of party W. H. Bainbridge

Surveyed by C. L. Roshore

Inked by C. L. Roshore

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated April 30 & May 10, 1934

Remarks: _____

*Applied to chart 1248. June 1935. J. J. Zumbale
applied to chart 546. Oct. 14, 1935 G. H. S.*

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET
'B', PROJECT H.T. 181, PORT EVERGLADES, FLORIDA, UNDER
INSTRUCTIONS DATED APRIL 30, 1934, and MAY 10, 1934.

General:

The Sheet, of 1 to 5,000 scale, covers Port Everglades, Fla.; its entrance from the Atlantic Ocean; the adjacent Atlantic Coast and Intracoastal Waterway a distance of 0.30 nautical miles north and 1.46 nautical miles south.

The general character of the coast is low and sandy, backed by (1) Mangrove swamps - south of latitude $26^{\circ} 04' 30''$, (2) Hydraulic dredged Florida Rock spoil banks from port construction - north of latitude $26^{\circ} 04' 30''$.

Landmarks:

The prominent land marks visible from the ocean and from the air and shown on the sheet are: (1) Two rock jetties extending approximately 200 meters off the coast line at Port Everglades entrance; (2) The floating buoys, fixed navigation aids, front and rear range towers (lighted); (3) The Port Everglades dock facilities: slip, wharves, warehouse, and office; (4) The Standard Oil Company and Belcher Oil Company storage tanks. The rectangular area adjacent to and south of the slip is hydraulic dredged Florida rock fill and is used as a U.S. Marine camp and drill ground.

Character of Control:

The third order triangulation stations Mabel, Spoil, Front Range Light, Rear Range Light, Sollee, Mullet, and Wave, appearing on the sheet were extended by this party in connection with and prior to the topographic survey from the second order stations Count and Dale, 1928 datum adjusted in accordance with attached correction sheet to conform with the values given in Appendix No. 6, Report for 1911. The above stations provided an adequate and circumambient control scheme for the supplemental plane table graphic triangulation traverses and establishment of additional stations at vantage points.

Traverse Closures:

The traverses were closed within the prescribed limits; the closure errors being distributed, and all occupied stations checked by the three point resection method.

Surveying Methods Used:

All hydrographic stations and navigation aids were located by graphic triangulation intersection from three to five stations, or located by stadia and checked by intersection from two stations. The high and low water shore lines and topographic features of lesser importance were located by stadia distances. Hydrographic control in the restricted inshore waters afforded a comparatively close check on the accuracy of the hydrographic stations and navigation aids.

Changes of Prominent Features:

Comparison with previous maps and charts, shows that the sandy coast line is subject to considerable change, especially in the vicinity of station Mabel. The shore line at this point is now some 70 meters west of the previously shown; and the position of station Sand - G.C.M. 1928 - is now 58 meters off shore. The old Intracoastal Waterway at this point is now 85 meters in width instead of a previously charted width of 140 meters.

Chart No. 1248 shows an inlet from the Atlantic Ocean into the old Intracoastal Waterway at latitude $26^{\circ} 04' 45''$ which is now non-existent. The Intracoastal Waterway now has a dredged channel south from latitude $26^{\circ} 05' 07''$ that does not show on previous charts.

Data compiled by this party shows the azimuth of Port Everglades Entrance Lighted Range to be $269^{\circ} 44' 28.0''$ instead of $271\frac{1}{2}^{\circ}$ according to 1934 Local Light and Buoy List, and Atlantic Coast Light List.

Incompleted Work, and Reasons Therefor:

The Mangrove Swamp area with its high tide lagoons, south of latitude $26^{\circ} 05' 30''$ and west of the new Intracoastal Waterway was not charted, due to the impenetrable nature and minor importance of the swamp.

Positions of Hydrographic Stations:

The hydrographic survey was accomplished by this party in its combined operations, and for this reason it is deemed unnecessary to incorporate a list of plane table positions for the hydrographic stations.

Character of Swamps:

The Mangrove Swamps are tangled masses of mangrove trees and roots, and are awash at high tide. The tidal flats are bare soft mud flats that would not sustain the weight of a man.


Magnetic Variation:

The declinatoire was applied at stations Sollee and Wave, and the magnetic variation of $1^{\circ} 10'$ east was observed at both points. It will be noted that charts of this area show a variation of $1^{\circ} 30'$ east with no annual change.

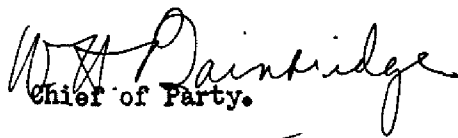
Statistics:

Area surveyed, in square statute miles - - - - 1.54
Length of detailed shore line, in statute miles - 11.00
Length of roads, in statute miles - - - - - 0.30
Length of railroads, in statute miles - - - - - 2.30

Submitted by,


Surveyor.

Approved:


Chief of Party.

Jan 8, 1935

* CORRECTION TO TRAVERSE

	Latitude			Longitude		
Baker from Publication 1911	25	54	28.538	80	07	20.992
Baker by Traverse, 1928	25	54	28.850	80	07	20.92
Correction Traverse to Publication			-0.312"			+0.072"
Hillsboro Inlet Light from publication 1911	26	15	32.350	80	04	51.572
Hillsboro Inlet Light by traverse 1928	26	15	32.62	80	04	51.52
Correction Traverse to Publication			-0.27"			+0.052"
Mean Correction Traverse to Publication:			-0.29"			+0.06"

TRAVERSE STATIONS PLOTTED ON TOPOGRAPHIC SHEETS

	Traverse			Corr.	Corrected Position			Meters
<u>Black Water Tank</u> , (Ft. Lauderdale)	26	07	22.82	-0.29	26	07	21.73	(1177.8) 668.7 (839.1) 827.9
<u>Count</u> , Broward Co.	26	06	53.84	-0.29	26	06	53.55	(198.5) 1648.0
Courthouse, (Ft. Lauderdale)	80	08	26.84	+0.06	80	08	26.90	(919.63) 747.3
<u>Sand</u> (Lost)	26	04	27.16	-0.29	26	04	26.87	(1019.62) 826.9
	80	06	34.51	+0.06	80	06	34.57	960.9 1151.3 (706.8) (516.4)
<u>Cupola</u> , Bathing Casino	26	06	58.90	-0.29	26	06	58.61	(42.7) 1803.7
(Ft. Lauderdale)	80	06	18.52	+0.06	80	06	18.58	(1150.8) 516.2

* NOTE:

The positions on topographic sheets A and B, vicinity Port Everglades, Florida, are based on the coastal traverse of 1928. The positions were taken from field computations but were adjusted for the discrepancies found at Station Baker and Hillsboro Light House. When this traverse was run northward from Biscayne Bay discrepancies as indicated above were found at Baker and at Hillsboro Light House. As the locality of this work is approximately half way between those two stations the mean of the discrepancies was used in correcting the field computations. This should make the positions used correspond with the values for this locality given in Appendix No. 6, Report for 1911.

F. S. Borden.

*Attach to Description Report Sheet B
JEB*

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Key West, Fla.

January 7, 1935, 193

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.

W. H. Bainbridge,
Chief of Party.

DESCRIPTION	POSITION					METHOD OF DETERMINATION	CHARTS AFFECTED
	LATITUDE		LONGITUDE		DATUM		
	°	'	°	'			
FRONT RANGE LIGHT (Port Everglades, Fla.)	26	05	1072.1	80 07	754.8	Triang.	1248, 3260, 546
REAR RANGE LIGHT (Port Everglades, Fla.)	26	05	1068.1	80 07	1589.6	"	1248, 3260, 546
Positions corrected to agree with values for this locality given in Appendix No. 6, Report for 1911.							
The azimuth of the lighted range is 269° 44'							

A list of objects carefully selected because of their value as landmarks as determined from seaward together with individual descriptions, 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 an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaves and like objects are not sufficiently permanent to chart.

Section of Field Records

REVIEW OF TOPOGRAPHIC SURVEY NO. T-6182(1934).

Vicinity of Port Everglades, East Coast, Florida

Surveyed June-July 1934

Instructions dated April 30, 1934

Plane Table Survey - Aluminum Mounted

Chief of Party - W. H. Bainbridge.

Surveyed by - C. L. Roshore.

1. Condition of Records.

The records conform to the requirements of the Topographic Manual with the following exceptions:

- a. Evidence that the projection and the plotting of the triangulation stations had been checked was lacking, since the usual notations at the bottom of the sheet were omitted. This has been accomplished in the office.
- b. The mangrove line is shown as a full line, the same as the high water line. Although there is an explanatory note regarding this, it would have been preferable to indicate this mangrove edge by symbol to make it apparent that this edge is not the high water line.
- c. The survey fails to show the station at which the magnetic meridian was obtained.
- d. Channel markers and beacons are inked in solid triangles. This method of indicating beacons is not desirable because it covers up the prick point which marks the exact location.

2. Compliance with Instructions for the Project.

The survey complies with the instructions for the project.

3. Junction with Contemporary Surveys.

The junction with T-6181(1934) is satisfactory.

4. Comparison with Prior Surveys.

a. T-1510 (1883).

Since the time of this survey dredging and jetty construction have changed this area very considerably. There is a marked shift in the outer coast line at lat. $26^{\circ}04.5'$. It appears to have shifted about 70 meters westward.

b. T-4357 (1928).

This survey shows good agreement in the shore line from the north to lat. 26°05.0'; From here south there has been considerable change due probably to the new Intra-Coastal Waterway. An inlet at lat. 26°04.8' has been closed entirely and the outer coast line has shifted about 70 meters to the west. The tendency appears to be to shift the narrow strip of sand so that the water immediately inshore is being filled up.

c. T-4527 (1927).

This is an air photo compilation on 1:20,000 scale. A comparison was made and the agreement is good except where dredging operations have caused changes since the time of the present survey. This sheet is to be used for the location of the submerged jetties north and south of the entrance to Port Everglades.

5. Field Drafting.

The field inking of the sheet is satisfactory.

6. Additional Field Work Recommended.

The survey is complete and no additional work is necessary.

7. Superseding Prior Surveys.

Insofar as the topography actually included in the present survey is concerned, it supersedes the following surveys for charting purposes:

T-1510 (1883)	In part.
T-4357 (1928)	" " ←
T-4527 (1927)	" "

8. Reviewed by A. F. Jankowski, February 1935.

Inspected by A. L. Shalowitz.

Examined and Approved:

C. K. Green, *C. K. Green*
Chief, Section of Field Records.

J. B. Borden
Chief, Section of Field Work.

L. O. Pollock
Chief, Div. of Charts.

G. W. ...
Chief, Div. of H & T.