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	Form 504 Ed. June, 1928 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY		
	R.S. Patton , Director		
	6. & 6. SURV	Y	
	SEP 22 1090		
	State: Florida Acc. No.	 	
			
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	LOCALITY		ļ
	Indian River	}	
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-	G.D. Cowie		<u> </u>
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Graphic Control

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DESCRIPTIVE REPORT TO ACCOMP.	ANY
TOPOGRAPHIC SHEET "B", EAST COAST	OF FLORIDA
SEASON - SPRING, 1930.	
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PROJECT #50	
INSTRUCTIONS, STR. LYDONIA, DATED DEC	. 31. 1959
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GEORGE D. COWIE: CHIEF OF PAR	TY
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DESCRIPTIVE REPORT TO ACCOMPANY

TOPOGRAPHIC SHEET "B", EAST COAST OF FLORIDA

SEASON - SPRING, 1930.

PROJECT # 50

INSTRUCTIONS DATED DEC. 31, 1929.

PURPOSE OF SURVEY

This topographic survey was executed for two purposes: to locate signals along the shore for the control of hydrographic surveys, and to furnish control for aerial surveys.

The control for aerial surveys consisted in locating structures, roads -- and particularly crossroads -- which could be readily spotted on the aerial photographs. This was supplemental to triangulation which determined the position of the most outstanding objects in the area and of stations on points of land conspicuous in the aerial photographs.

GENERAL DESCRIPTION

This is a low, flat, sandy country with no landmarks other than man-made structures. The coastal strip is covered by palmetto growth, with a few groups of pine trees and palm trees. From the sea an almost continuous stretch of trees on the west side of Indian River shows in the background.

The shore line of the entire coast consists of sandy beach.

DETAILED DESCRIPTION

The area between \(\triangle \text{Blue} \) and ORush is partly improved. It is still covered with palmetto, however. There is a grove of pine trees near O Quack. The bank along the shore is from 10 feet high at \(\triangle \text{Blue} \) Blue to 6 feet high at O Rush. The palmetto growth is 3 meters inshore from M.H.W. line

From O Rush to O Gal the land is improved. It is level, grass-covered, and has paved roads bordered by trees. The Indialantic Hotel and Indialantic Casino are large, orange-stucco finished buildings. Indialantic tank can be seen far out at sea. There are also many houses in this area. The bank along the beach is about 6 feet high. The edge of the grass is about 3 meters inshore from M.H.W. line.

South of O Gal, the terrain consists of sand ridges parallel to the shore, covered with palmetto. From O Gal to A Winter

the sandbank bordering the beach averages 5 feet in height. The edge of the palmette is 5 meters inshere from M.H.W. line.

An old, unpainted shed is situated near A Winter. Between A Winter and A Steel, the bank along the beach is about 6 feet high; the edge of the palmetto about 2 meters inshore from M.H.W. line.

Between \triangle Steel and \triangle Short the shore bank diminishes in height from 7 feet to 4 feet; the edge of the palmette is 2 meters from M.H.W. line.

South of \(\triangle \) Short the bank is low and the edge of the palmetto growth 3 meters inshore from M.H.W. line.

groves West of \$\triangle\$ Floridagold are tall pine trees surrounding rews of orange trees.

SURVEY METHODS

The topographic beach signals were located by traverse between the triangulation stations near the beach. The distances between plane-table set-ups were measured with a 500 ft. steel tape. The plane-table set-ups were spaced 600 meters apart. All traverse closures were within the required limits. The closing errors of the section are listed on a sheet attached to this report.

Due to the height of the sandbank bordering the beach, it was impractical to rod the roads parallel to the beach while the beach traverse was in progress. The location of these roads necessary for the aerial photo control was determined later. Many parts of these roads were in low ground between growths of palmetto, making the seeing of signals from the ground difficult. Therefore the plane-table was mounted on the truck. The truck was stopped wherever it was desired to secure topographic detail, the table leveled, and the position determined by 3-point fix.

A shorttraverse was executed along the shore from Peter Wright. The eastern end of the Indialantic Bridge was determined by a 3-point fix on 4 triangulation stations.

The shere-line around definite points of land projecting into Indian River was rodded from set-ups at the triangulation stations on the point.

A detached topographic survey was made in the vicinity of Aerial Beacon #16. This Beacon lies near the main road about 4 miles west of Melbourne. It apparently lies beyond the limits of the aerial photographs at hand. It was expected to locate this Beacon by triangulation from the triangulation stations, Water Tank Eau Gellie and Water Tank Melbourne, but this was not accomplished before the party left the field. The line Tank, Eau Gellie to Beacon #16 sees through the trees. A superstructure of at least 14 feet in height must be built on Beacon #16 in order for the stations Tank, Melbourne and Beacon #16 to be intervisible.

A detached topographic survey was made in the vicinty of Aerial Beacon #14, Roseland. Due to the slope on either side of the river at Roseland, but one shore triangulation station was visible from the Beacon; therefore the Beacon could not be located from the existing scheme of triangulation. The position of Beacon #14 has been spotted approximately on the Aerial Photograph #4cz6-4cf-649 A more accurate position may be spotted in the office where there are better means of studying the photographs.

MAGNETICS

Observations with a compass declinometer were taken at \triangle Blue and at \triangle Steel. Observations with a declinatoir were also taken at \triangle Steel. The results determined with the declinatoir checked closely with those obtained with the declinometer.

Magnetic Declination by Declinometer

△ Blue

0° 39.0 ' E

△Stee1

00 47.9 ' E

IS. Hubbard. H. + G. Engr.

TRAVERSE CLOSURES

Δ	BLUE		Δ	DOME		3	meters
**	DOME		-	ANT		4	Ħ
**	ANT		71	WINTER		6	Ħ
**	WINTER		٠,	STEEL		7	11
**	STEEL		**	SHORT		0	
**	SHORT	~-	•	SMITH		9	" _
41	SMITH		**	FLORIDA	GOLD	7	**

PLANE TABLE POSITIONS

OBJECT AND DESCRIPTION	LATITUDE	D.M.	LONGITUDE	D.P.	HEIGHT
Pavilion, small	o ' 28 05	467	o 80 3 3	1436	15
✓ Yellow house	•		80 33	853	
✓ Tank, small water-	28 04	17	8 0 33	1475	
Shed	28 01	1696	80 32	684	

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

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		August	, 19 30
Drawaran II S Co	Nam AND Choppens Strouge:		

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.

	1			_				D. Cowi		
		POSITION								
DESCRIPTION		Latitude			Long	zitude	Datum	METHOD OF DETER- MINATION	CHARTS AFFECTED	
	0		D. M. meters	٥	1	D. P. Metera	-			
Tank, Melbourne	28	05	84.0	80	36	1461.1	N.A.	Triang	3259, 162	
Dome, Melbourne Hotel	28	04	1343.0	80	36	334.3	N.A.	***	3259	
Center of Draw	28	04	1845.0	80	35	813.8	N.A.		3259	
Dome, Casino	28	05	1014.3	80	33	1607.0	N.A.		3259, 162	
Tank, Indialantic	28	05	283.3	80	34	178,4	N.A.	- 11	3259, 162	
E. Stack of 4 Stacks	28	04	20.9	80	36	441.3	N.A.		3259, 162	
Northeast Gable, High Point Garage	28	03	678.4	80	35	685.1	N.A.	Ħ	3259	
Stack gone (Cont Pilot Sec) Stack, Lumber Mill	28	00	302.1	80	<u>33</u>	1537.7	N.A.	. 11	3259, 162	
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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, flagstaffs and like objects are not sufficiently permanent to chart.

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 Letter B.

REGISTER NO.

4545

State	FLOR IDA			
General locali	tv. EAST CO.	AST OF FLORIDA	Indian	River
Locality	EAU GALLIE	TO FLOT IDAGOLD	_	
Scale	Date of	survey Apri	1 1930 * ,	19
VesselStr.	LYDONIA	~~~~		
Chief of Party	GEORGE D.C			
	L, S. HUBBARD			
Inked by	L.S.HUBBARD	·		
	t above M.H.W.			
Contour Appro	ximate contour	Form line in	terval	feet
Instructions d	ated Dec	ember 31,19 29	· · · · · · · · · · · · · · · · · · ·	19
Remarks:				
	W & GOVERNMEN	- Samerica average		