4288

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

....., Director

U. S. C. & G. SURVEY
L. & A.
DEC 15 1927
Acc. No.

State: Florida

DESCRIPTIVE REPORT

Topographic
~~Hydrographic~~ } Sheet No. 3 4288

LOCALITY

San Carlos Bay and Caloosahatchee R.

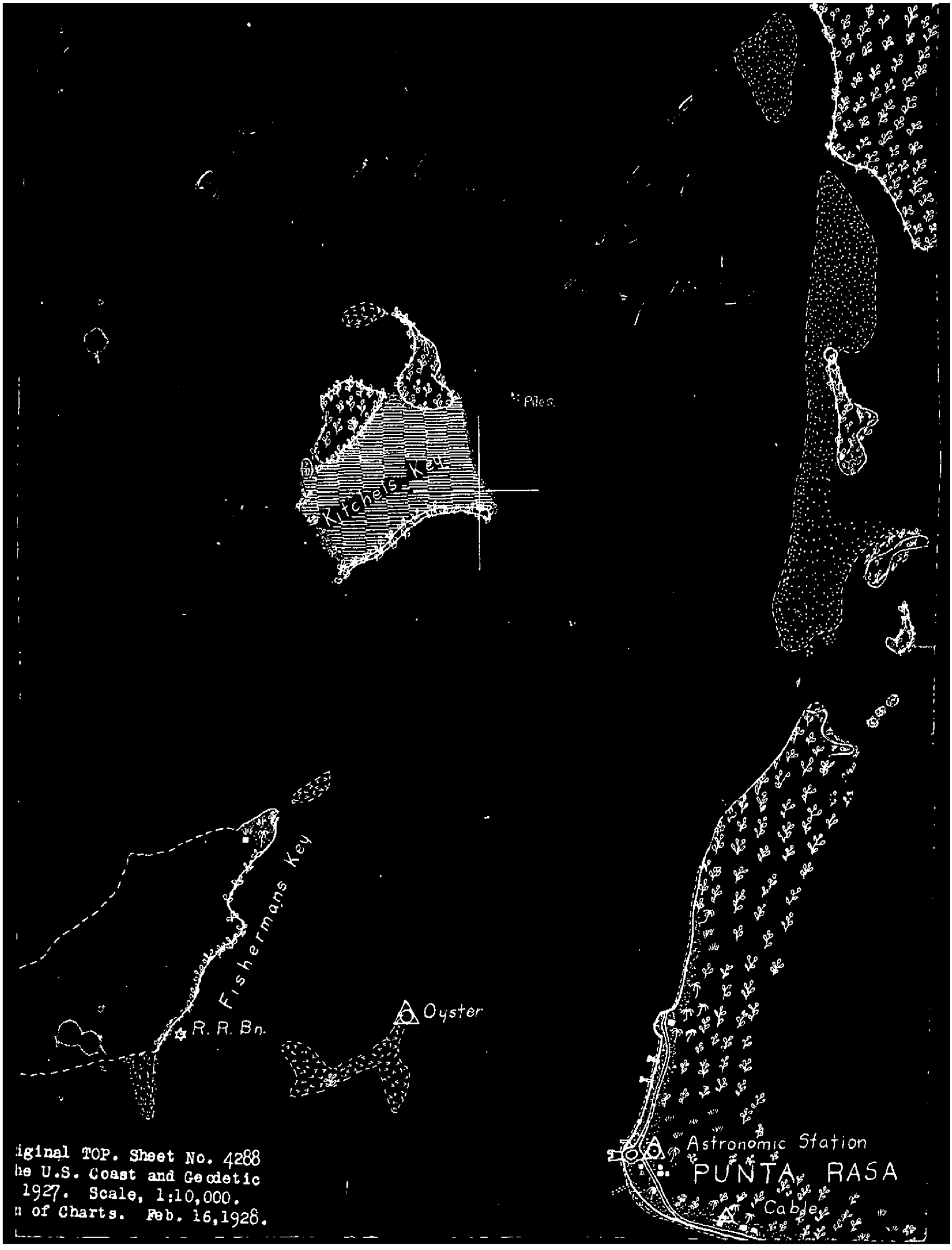
Estero Island to Iona

1927

CHIEF OF PARTY

R.P. Eyman.

GOVERNMENT PRINTING OFFICE



iginal TOP. Sheet No. 4288
he U.S. Coast and Geodetic
1927. Scale, 1:10,000.
n of Charts. Feb. 16,1928.

Form 537a
11e-5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4288

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. 3

REGISTER NO. 4288

State Florida

General locality ~~Gulf Coast~~ San Carlos Bay and Caloosahatchee R.

Locality ~~San Carlos Bay and Caloosahatchee River~~ Estero Island to Iona

Scale 1 -10,000 Date of survey July 1 to 31st, 1927

Vessel HYDROGRAPHER

Chief of Party Raymond P. Eyman

Surveyed by Curtis Le Fever

Inked by Curtis Le Fever

Heights in feet above ____ to ground to tops of trees

Contour, Approximate contour, Form line interval ____ feet

Instructions dated October 21st, 1926

Remarks:

GPO

DESCRIPTIVE REPORT

To Accompany Topographic Sheet Number 3 4288

Caloosahatchee River,

Vicinity of Fort Myers, Florida.

Party of Steamer HYDROGRAPHER,

Raymond P. Eyman, H.& G.E. Com'dg.

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET # 3,
CALOOSAHATCHEE RIVER SURVEY.

Authority.

The Instructions for this survey from the Director of the U.S. Coast & Geodetic Survey, were dated Oct. 21, 1926.

Limits:- Geographic Latitude 26°- 27' to 26°- 33', Long. 81°- 56' to 82°- 03'.

This sheet covers the shore line from Triangulation Station Bowditch Point on the outer beach of Estero Island to Punta Rasa on the South bank of the entrance to the Caloosahatchee River and up the river for 2 miles.

The shore line of the North bank of the river is shown from Sword Point up the river 3½ miles to the Triangulation Station"Piney Point". There are also included the tip of Sanibel Island and the islands off Punta Rasa.

Scale: 1 -10,000

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET NUMBER 3,
CALOOSAHATCHEE RIVER SURVEY

General description of coast and approach

The coast is very flat and marshy, most of it is lined with mangrove. In many cases the mangrove extends into the water beyond the high water line. The outside beach of Estero Island is white sand and shows up good from off shore. The beach from Estero Pass to Punta Rasa is of the same character but with mangrove running to the water edge in some stretches. The outer beach of Sanibel Island is white sand and shell.

The approach to the Caloosahatchee River is from the S.E. running almost parallel with the shore of Estero Island. It is marked by lighted buoys and lighted range beacons . The most prominent object marking this approach is Sanibel Light house on the eastern extremity of Sanibel Island, it is a white flashing light. The channel passes about $\frac{3}{4}$ miles to the N.E. of this light.

Out lying dangers

There is a broad shoal area extending roughly parallel to the channel along its S.W. side from the end of Sanibel island seaward for about $1\frac{1}{2}$ miles. Along the N.E. side of the dredged stretch of channel between buoy number 6 and beacon number 10, there is a long bare sand spoil bank, running parallel to the channel and very close to it. This bank ranges from 1 to 3 feet in height above H.W.M.

Currents

Currents

There are strong tidal currents running along the north side of Sanibel Island and out into the channel. The tidal currents are very strong in the river from off Punta Rasa up through and beyond the cut around Shell Point. At the lower end of this cut the current runs in from the north making the entrance to the narrow dredged channel very dangerous. Just below Shell Point the water flows in and out of the channel across an extensive shoal making this another dangerous area for navigation. Up river from this area just beyond the small shell island, strong currents set in and out normal to the channel.

Land Marks

The shore line is not marked by any distinctive vegitation except at Punta Rasa and just up river from there on the opposite side of the channel there are cocanut palms surrounded by mangrove There are several large houses at Punta Rasa which are rather prominent from out in the channel.

In Shore Dangers

The channel to the north of Kitchel Key is bordered on both sides by oyster bars. These bars combined with the strong current in this area make it dangerous for a ship of any draft.

Bars and Channels

There are numerous oyster and sand bars in the mouth of this river which make navigation with any kind of boat very dangerous unless the marked channel is followed religiously. The channel is filled in in places so that a ship drawing 8 feet can enter only with great difficulty at low tide. There is a shallow dredged channel into the small bay just north of Estreo Pass. The creek along the

beach from Estero Pass to Punta Rasa and also those running into the river have pretty good water in them but have shallow bars across their mouths. Boats of light draft can enter the bight just up river from Punta Rasa. There is a shallow dredged channel running into Iona Cove.

Changes of Coast Line

By comparing the present topography with that of an earlier date, it is apparent that there have been some changes on the east end of Sanibel Island, the shore line having receeded in most places. The islands in the mouth of the river off Punta Rasa have also been considerably cut away. The fact that the computed positions of most all of the old triangulation stations fall out in the river indicates a general recession of the shore line. The spoil banks along the north side of the channel around Shell Point are from 2 to 5 feet above high water and are covered with mangrove. They appear to be natural islands.

Survey Methods

The methods of survey used on this sheet were planetable triangulation, three point fixes and traverse with resections as a check on the accuracy of the work. The traverse was used on the outside beach from Punta Rasa to the triangulation station Bowditch Point. This traverse was checked at every planetable position by resecting on Sanibel Light House and on other triangulated objects when possible. The closing error at Bowditch Point was 13 meters. The last four traverse lines were adjusted so as to eleminate this error, most of it being thrown in the line accross Estero Pass as it was a much longer line and more subject to error due to conditions than any of the other lines.

OK 1/13.

Planetable triangulation and three point fixes werecused from Punta Rasa up the river to the limit of the sheet.

Magnetic meridians were determined at three points on the sheet; apoint along the beach between Estero Pass and Punta Rasa; A point on the north shore of the small island just opposite Shell Point and at triangulation station Piney Point. The difference between the deflection at Piney Point and at the other two points was evidently due to an old iron pipe driven in the ground about 5 feetrfrom the triamgulation station Piney Point.

New Places Named

The following are wellestablished names:- Kitchel Key, not Kitchel's Fisherman Key, not Fisherman's H.B.

Punta Blanca CreeK just to the east of Sword Point on the north side of the river. To be put on Charts. H.B. Blanco on T of 4288 and 4388 should be corrected

Jewfish Creek easterly from triangulation station Jewfish on north side of the river. To be put on Charts. H.B.

Glovers Bight north westerly from Piney Point on north side of river. To be put on charts. Omit the possessive s' H.B.

Iona Point south easterlyfrom Shell Point on south side of river.

↖ Position not shown on field sheet (Top. 4288) The most logical point is the one just east of Iona Cove. Iona Cove on the Top sheet evidently takes its name H.B. from the settlement "Iona" shown on chart 1255. Would chart the names Iona Cove and Iona Pt to the point just eastward of Iona Cove. H.B.

Respectfully Submitted,

Curtis Le Fever

Curtis Le Fever
Topographer.

Inspected and found adequate, except that the shoreline of Kitchel's Key, which differs from the old survey, should have been completed.

E. P. Ellis
Feb. 1928

D.M.s & D.P.s of Hydrographic stations on Topographic sheet No. 3

Name of Sta.	Latitude			Longitude			Remarks
	o	'	meters	o	'	meters	
Con	26	27	393) (1453)	81	57	898 (764)	Small flag on beach.
Pop		27	615 (1231)		57	1180. (482)	" " " "
Hot		27	914. (932)		57	1401. (261)	" " " "
Pog		27	1119 (727)		57	.1450. (212)	Small bldg. on point.
Trip		27	1272 (574)		58	112. (1550)	Site of old range light, submerged piling
Gate		27	755. (1091)		57	476. (1186)	Wooden frame over draw bridge.
Arch		27	915. (931)		57	351 (1311)	Stone arch over highway.
Met		28	321. (1525)		57	956. (706)	Palmeto tree on H.W.M.
Stump		28	713. (1133)		57	.1409. (253)	Mangrove tree fallen over into water.
Lap		28	1048. (798)		58	263. (1399)	Palmetto tree back of H.W.M.
Dead		28	1179. (667)		58	516 (1146)	Palmetto tree just eastof entrance to creek.
Low		28	1273. (573)		58	747. (915)	Signal cloth on mangrove tree
Kit		28	1389 (457)		58	1052. (610)	Palmetto tree.
Jug		28	1507. (339)		58	1342 (320)	Flag on mangrovetree
Hit		28	1584 (262)		58	1512. (150)	" " "
Boy		28	.1733. (113)		59	578 (1084)	" " "
Fop		29	75. (1771)		59	1107. (555)	Flag on mangrove stub.
Man		29	81. (1765)		59	.1371. (291)	" " " "
Jil		29	135. (1711)	82	00	214. (1448)	" " " "
Bat		29	167. (1739)		00	371. (1291)	Small flag at H.W.M.
Got		29	197. (1650)		00m	951. (711)	" " " "
End		29	264. (1582)		00	1201. (461)	" " " "
Fig		29	1170. (676)		00	1112. (550)	Flag on stake in water.
Fat		29	1568. (278)		00	939. (723)	" " " " "

D.M. & D.P.s of Hydrographic signals on Topographic sheet No 3.

Name of Sta.	Latitude			Longitude			Remarks
	o	'	meters	o	'	meters	
Fi	26	30	1211	82	01	(92	Pile Bn. No. 5
			(635)			(1570)	
Pil		30	1392		00	1098	Signal cloth on old pile
			(454)			(564)	
Bar		31	53		00	1534	Tripod signal on sand bar
			(1793)			(128)	
Ham		31	234		00	1364	Front Range Bn.
			(1612)			(300)	
Cut		31	414		00	1201	Flag on stake
			(1432)			(461)	
Dad		31	485		00	964	Small wooden bldg on islet
			(1361)			(698)	
Tab		31	522		00	1072	Flag on stake
			(1324)			(590)	
Gra		31	463		00	840	" " "
			(1383)			(822)	
On		31	719		00	848	Lighted range Bn. Blown over.
			(1127)			(814)	
To		31	794		00	719	Channel Bn.
			(1052)			(943)	
Aft		31	938		00	406	Flag on stake
			(906)			(1256)	
Ka		31	915		00	180	Flag on mangrove tree
			(931)			(1482)	
Loo		31	958		00	36	" " " "
			(888)			(1626)	
Say		31	1173	81	59	1555	Flag on stake
			(673)			(107)	
Hach		31	1172		59	1470	" " "
			(674)			(192)	
Al		31	599		59	1392	Flag on mangrove tree
			(1247)			(270)	
Gain		30	1765		59	815	" " " "
			(81)			(847)	
Nee		30	1548		59	697	" " " "
			(298)			(965)	
Tusk		30	1382		58	1347	Tripod signal
			(464)			(315)	
Kay		30	1360		58b	1252	Flag on mangrove tree
			(486)			(410)	
Roar		30	1305		58	1276	" " " "
			(541)			(386)	
[redacted]		30	1822		58	1058	Tripod signal
			(24)			(604)	
Lamb		31	800		57		Old pile at N. E. corner
			(1046)			(28)	of row.
Art		32	57		59	328	Flag on mangrove tree
			(1789)			(1334)	
Shor		31	1732		59	1104	" " " "
			(114)			(558)	
Calf		31	1664		59	1311	Tripod signal
			(182)			(351)	

D.M.s &D.P.s of Hydrographic signals on Topographic sheet No. 3

Name of Sta.	Latitude			Longitude			Remarks
	o	'	meters	o	'	meters	
Dip	26	30	292 (1554)	82	00	857 (805)	Flag on mangrove tree.
Flag		30	741 (1105)		00	866 (796)	" " " "
Crab		30	467 (1379)		00	830 (832)	Flag on stake.
Dam		30	873 (973)		00	1041 (621)	" " "
Palm		29	1086 (760)		01	496 (1166)	Palm on H.W.M.
Mal		30	383 (1463)		01	260 (1405)	
Sal		29	1714 (132)		00	1116 (546)	
Ro		29	136 (1710)	81	59	1567 (95)	Flag on mangrove tree.
Cop		31	1779 (67)		59	1602 (60)	Flag on mangrove
Sam		32	254 (1592)		59	1266 (396)	Old pile
Lit		32	420 (1426)		59	1565 (97)	" "
Nay		32	257 (1589)	82	00	378 (1284)	" "
Spin		32	23 (1823)		00	579 (1083)	Flag on mangrove
Whit		31	1744 (102)		00	1202 (460)	Flag on stake
Kap		31	1597 (249)		00	1650 (12)	Flag on mangrove
Limb		31	1342 (514)		01	1046 (616)	Flad on old piling
Bo		31	1097 (749)		02	94	Tripod signal
Off		31	901 (945)		02	501	Old pile
Sword Pt.		31	890 (956)		02	790	Tripod signal
Bn. # 8	26	28	334 (1512)	82	00	246 (1416)	Pile channel beacon
Bn. # 10	26	28	1288 (558)	82	00	1093 (569)	" " "
Bn # 12	26	28	1698 (148)	82	00	1353 (309)	" " "

4288a

Form 504

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

....., Director

State: Florida

DESCRIPTIVE REPORT

Topographic / ~~*Hydrographic*~~ *Sheet No.* 4288a

LOCALITY

San Carlos Bay

Estero Pass

1928

CHIEF OF PARTY

C. Shaw

GOVERNMENT PRINTING OFFICE

Form 537a
11—5813

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4288a

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. 4288a

State Florida

General locality ~~Gulf Coast~~ San Carlos Bay

Locality Estero Pass

Scale 1-10,000 Date of survey Dec. 3 & 4, 1928

Vessel U. S. C. & G. S. S. HYDROGRAPHER

Chief of Party Charles Shaw, H. & G. Engr.

Surveyed by Earle A. Deily, Jr. H.& G.Engr.

Inked by Earle A. Deily, Jr. H.& G.Engr.

Heights in feet above - - - to ground to tops of trees

Contour, Approximate contour, Form line interval - - - feet

Instructions dated Letter from Director of Nov. 27, 1928 Ref. 10-rs

Remarks: Revision

GPO

DESCRIPTIVE REPORT

To Accompany Topographic Revision Sheet

of

Estero Pass, San Carlos Bay, Florida.

Party of Ship HYDROGRAPHER

Charles Shaw, H. & G. Eng'r., Com'dg.

December 1928

DESCRIPTIVE REPORT

To Accompany Topographic Sheet

Estero Pass.

The limits of the topography are from Lat. 26°- 27'N to 26°- 29'N Long. 81°- 57'W to 81°- 58'W

The topography included on this sheet was run in order to more accurately determine the ends of sounding lines as run in Estero Pass. Many plotted positions fell either further from the shore line than noted by the hydrographer in the record books, or fell as much as 20 meters within the shore line of the previous topography run in 1927.

On careful rerunning an agreement was found with the hydrography.

The latest topography agreed with the 1927 work at many of the salient points, but it appears that the 1927 topography was far too sketchy in its details, especially where there were slight bends in the shore line.

The changes of the high water line on the Gulf side of Estero Island and around the point near Estero Pass Beacon are probably due to the erosion caused by the hurricane of the past summer.

The outstanding new feature on this sheet is the new Estero Pass bridge. This is now under construction and will be a swinging draw, open on one side, with a clearance of 50 feet. The bridge should be completed by the end of March when the use of the old bridge to the westward will be discontinued and the new bridge opened for traffic with a new road on the beach.

The positions of Bridge and Arch have now been located by triangulation. Arch was in error in the 1927 topography about 26 meters too far to the south.

The high water line is at the edge of the mangrove and was so shown.

Respectfully submitted,

Earle A. Deily

Earle A. Deily,
Jr. H.& G. Engr.

Respectfully forwarded,

Charles Shaw

Charles Shaw, H.& G.Engr.,
Chief of Party.

Dec 1928

Inspected and found adequate, except that the three cairns east of the bridge disagreed with T. 4288 and T. 4368 and have been erased.

E.P. Ellis, June, 1929

Station	Latitude	Seconds In Meters	Longitude	Seconds In Meters
Point	26° 27'	(699) 1147	81° 57'	(209) 1453
Di	26° 27'	(840) 1006	81° 57'	(463) 1199
Egg	26° 27'	(1189) 657	81° 57'	(1339) 323
Lam	26° 27'	(973) 873	81° 57'	(1349) 313
Met 1927	26° 28'	(1511) 335	81° 57'	(708) 954
Fuz	26 28	(1351) 495	81° 57'	(559) 1103

Point, Di, Egg, Lam not recoverable.
Met 1927 - Palmetto tree on H.W.M.
Fuz - old abandoned telephone pole about H.W.M.