

4266

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
<div></div>	
State: Florida.....	
DESCRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. 4266
LOCALITY	
Charlotte Harbor	
Gasparilla Island and	
La Costa Island	
1927	
CHIEF OF PARTY	
R. P. Eyman	

GOVERNMENT PRINTING OFFICE

4266

DESCRIPTIVE REPORT

to

ACCOMPANY

TOPOGRAPHIC SHEET NO. 1

4266

DESCRIPTIVE REPORT TO ACCOMPANY TOPOGRAPHIC SHEET NO. 1

1. Authority. Instructions from the Director, dated October 21, 1926.

2. General Description of Coast.

This sheet comprises the Gulf Coast of Florida from Latitude 26-36 N to 26-49 N.

(a) La Costa Island.

The Gulf Coast of this island is a gently curving hard sand and shell shore sloping from the line of vegetation to the water. The general trend of the shore line is north westward. Vegetation along the gulf shore of this island consists chiefly of a dense growth of palmetto and tropical grass. Along this shore there are two prominent sand points that are free from vegetation, the points being the result of deposition.

The shore around Pelican Bay consists of a dense growth of mangrove growing to the water's edge. All of the east coast of La Costa Island in general is covered with dense mangrove

(b) Gasparilla Island.

The gulf coast of this island is a hard sand and shell shore, sloping rather gently from the storm water escarpment to the high water mark. The coast in the vicinity of Boca Grande makes a vertical rise of about 12 feet, 15 meters from the high water mark. The rise decreases as one goes northward or southward, having a rise of 1-1/2 foot at South Boca Grande and 2 feet slightly to the northward of a lone white house north of Boca Grande. The gulf coast of the northern part of the island is hard sand and generally free from

vegetation. There are two prominent sand ridges in this area, the first ridge near the gulf being about 6 feet high and the second 13 feet high. A small pond is found in this area.

The east coast of Gasparilla Island is low, very irregular, and cut up; the chief vegetation between latitudes $26^{\circ}43' N$ and $26^{\circ}45' N$ being palmetto and tropical grass. The remainder of the coast northward is covered with a dense growth of mangrove, growing to the water's edge.

3. Landmarks.

The city of Boca Grande has a heavy growth of tall pine. The clumps of pine growth make a good landmark as that is the only pine growth in this vicinity.

Steaming well off shore northward the first prominent land mark is a tall black water tank, 145 feet high at South Boca Grande.

The next object of importance is a tall brick chimney at South Boca Grande, 120 feet high. The stack is about 100 meters south of the water tank and these two landmarks are usually picked up simultaneously.

In the afternoon a long gray phosphate shed at South Boca Grande shows very well.

Next in importance to the above is a squat water tank at Boca Grande, 20 meters north of First Street and 20 meters ^{west} east of the Seaboard Air Line Railroad. Altho the tank is only 60 feet high it is seen well off-shore as the growth in that immediate locality is low.

A very conspicuous mark is a steel skeleton tower that is under construction on the golf links at Boca Grande. This tower is to be the rear range beacon for the range line in entering Boca Grande. Entrance from the sea. The tower is 60 feet high at present but construction is still underway. This beacon is situated on a golf course near the beach which tends to make it very prominent off shore.

Close inshore a school house with a yellow spire shows up well.

A lone white house 1350 meters north of ^{Fourth} First Street is a very conspicuous mark when inshore as it is the only house on the beach in that locality.

4. Changes in Coast Line.

(A) La Costa Island.

(a) Gulf Coast.

Several pronounced changes have been noted on the Gulf Coast of La Costa Island. A prominent sand point has been built up in latitude $26^{\circ} 41' N$. The point is free from vegetation which gave sufficient evidence that it has built up since the previous survey. The deposition is still in progress, continually building up that section of the Coast.

A similar change has taken place in latitude $26^{\circ} 39' N$. A small pond exists on this point. The point is covered with innumerable low sand ridges about 1 to 2 feet high which resulted from the various stages of deposition.

Immediately below this point erosion has taken place to

some extent. In one or two cases it is possible to see the eastern shore line as the width of the island is less than 75 meters.

(b) East Coast.

No appreciable change occurred in Pelican Bay or the east coast of La Costa Island in general. A difference was noted just north of Pelican Bay and south of latitude $26^{\circ} 42' N$. A pass has formed in this area making a good entrance to Pelican Bay from the north.

(B) Gasparilla Island.

Considerable change has taken place in the shore line of Gasparilla Island. According to instructions it was intended to run topography only as far north as latitude $26^{\circ} 45' N$, but such a radical change was noted that it was deemed necessary to run the whole island as it would be impossible to match the two surveys.

On the Gulf Coast the old shore line was considerable to the westward of the present shore. It is impossible to believe that such an erosion has taken place. In view of the fact that such a difference was noted rod readings were taken from the tanks, beacons, and stacks to the shore, verifying the present survey.

On the north western end of Gasparilla Island the Island has a width of over twice that shown on old topo sheet. However, there is evidence that it has been built up since over half of that portion consists of sand ridges and hills that have been deposited since the previous survey. If Gasparilla 1909 is plotted on the previous ^{Topo} sheet it will be found that the plotted position will be in the water, where-as it is on the second row of sand hills from Gulf as shown on the present ^{Topo} sheet. Sufficient evidence was therefore derived to prove the difference between the two surveys.

The two surveys seemed to check fairly good in one locality that being the east shore of the Island between latitudes $26^{\circ} 45' N$ to $26^{\circ} 48.5' N$.

West of triangulation station Palayo the shore line makes a much larger and pronounced bow than shown previously, showing that the old shore line was to the eastward of the present survey. It is believed that there is no cause for this change.

In area $26^{\circ} 45' N$ to $26^{\circ} 46' N$ there are two lagoons, one long bayou and southward a yacht basin, where-as previously only one large lagoon was shown.

For comparative purposes the width of Gasparilla Island on Latitude $26^{\circ} 45' N$ as taken on the old topo sheet was 160 meters wider than the width of the present survey. Scaling the width of an authentic map of this locality disclosed that the width was exactly the same as that surveyed on present topo sheet. ^P All changes have been verified.

5. Survey Methods.

(a) La Costa Island

La Costa Island was surveyed by plane table traverse using fore sights and back sights of not more than 400 meters. The traverse was run from the Δ Quarantine Station around the out-side coast to Δ Captiva Pass, a traverse about 7 miles and resulted in a closing error of 23 meters. The traverse was then adjusted.

(b) Gasparilla Island

All triangulation stations were occupied and cuts taken to all tanks, chimneys, beacons and tripod signals on Gasparilla Island. The survey was then continued with short plane table traverse and 3 point fixes.

After being instructed to run the whole Island and not

stop at latitude $26^{\circ} 45'$ N additional control was necessary. A plane table traverse starting from the intersection of Fourth Street and the Seaboard Air Line R. R. was run to Gasparilla 1909. The traverse was run along the railroad track using the plane table and alidade for azimuths and a piece of sounding wire 150 meters long with toggles on both ends for measuring purposes. Great care was taken in taking good azimuths along the curves on the track. The traverse position of Gasparilla 1909 plotted 5 meters N.E. of the triangulation position Gasparilla 1909. The traverse was about 4 miles long and the error 5 meters was well within the limits. The track was marked with kiel every 150 meters and several of the large tanks were seen from the railroad so that the topographer was at liberty to set up at any place on the track, orient on track or tanks, and take offsets or readings to the important topographic details.

6. Dangers.

A treacherous sand spit makes out west of the northern end of La Costa Island. The sand spit keeps shifting daily and proves to be treacherous. On one occasion several stakes were driven on the spot for topography and the next day nothing could be found that could be identified. It seemed to have shifted.

North of the phosphate dock there is a group of piles. The outside piles, ^{however} are well above the water.

In the vicinity of Δ Pelayo there are several large oyster reefs which are covered at high ~~low~~ water. Care should be taken when cruising in that vicinity.

A treacherous sand spit exists at approximately Lat. $26^{\circ} 41'$ N and $82^{\circ} 16'$ W.

7. New Place Names. Bocagrande popularly spelled Boca Grande and likewise South Boca Grande.

8. General.

All area enclosed in blue pencil on attached plat has a definite street system as shown on plat. The remainder is either plotted or proposed and shows no street systems as seen on plat. Only that area that is enclosed in blue pencil should show on chart.

At Eleventh Street the railroad is shown to make quite a ~~sharp~~ decided change in direction. No such curve exists in the track. It appears to be the proposed location. The track from Boca Grande to Eighteenth Street is straight and exhibits no curve as shown.

This ^{plat} ~~chart~~ appears to be fairly accurate with the exception of the curve at Eleventh. *st.*

9. Organization.

Survey of the Gulf Coast of La Costa Island by Paul A. Smith, Lieut.(j.g.). The remainder of the survey by Joseph P. Lushene, Aid, of the party of the Steamer HYDROGRAPHER, Raymond P. Eymann, Commanding.

Joseph P. Lushene
Joseph P. Lushene
Fort Myers, Florida. *aid*
April 1927.

PLANE TABLE POSITIONS

Object and Description	Latitude	D.M.	Longitude	D.P.	Name on Hydro-sheet
<u>La Costa Island</u>					
Tripod Signal	26-42	960	82-15	352	Brak
Tripod Signal	26-42	356	82-15	797	Cheese
Tripod Signal	26-41	1285	82-15	630	Goat
*Tripod Signal	26-41	17	82-15	720	*Fi
Tripod Signal	26-40	859	82-15	353	Ell
Large Signal	26-40	25	82-14	1641	Dog
Beacon	26-42	60	82-14	380	Bin
Sig. on E. side La Costa Id	26-41	1139	82-14	727	Cost
Sig. on E. side La Costa Id	26-41	411	82-14	214	Duc
Signal	26-41	999	82-13	1009	Rik
Signal in Water	26-41	58	82-13	242	Oat
*Sig. E. side La Costa Id.	26-40	1773	82-13	1413	*Smok
Dock Signal	26-40	1253	82-13	895	Doc
Pole Mch Shop, Punta Blanco	26-40	1201	82-13	941	Fag
Signal	26-40	1194	82-12	1514	Too
E. gable House	26-40	1057	82-13	1147	Zig
Flag in Pelican Bayou	26-40	1122	82-14	110	Whit
Flag on Punta Blanca	26-40	1039	82-13	1169	Sta
Tripod on House	26-40	960	82-13	880	
House in Water	26-40	657	82-13	1097	
House in Water	26-40	605	82-13	1056	
Beacon WNW of Useppa	26-40	605	82-13	338	Pi
Signal	26-40	535	82-14	365	Ham
Signal on Gulf beach	26-39	1090	82-14	1469	Caf
Signal on Gulf beach	26-38	1756	82-14	1270	Bee
Stake No. 18	26-38	1424	82-14	670	
30 ft Tripod Signal	26-36	1206	82-13	798	Ad
<u>Gasparilla Island</u>					
Lg Mangrove tree with banners & flag	26-43	1292	82-15	973	Man
Sm Water Tank, wood 30'	26-44	375	82-15	1394	Lik
Sm Water Tank, wood 30'	26-44	576	82-15	1407	Gulf
Sm Water Tank, wood 30'	26-44	876	82-15	1358	Wod
Small Water Tank, wood chim wh house, edge of breakwater	26-44	1114	82-15	1362	Tan
Tripod Signal	26-44	1453	82-15	1425	Whi
Black Tank	26-44	27	82-15	863	Sig
Red Light House	26-44	1430	82-15	1077	Wat
Stack	26-43	930	82-15	1358	Red
Tank	26-43	450	82-15	1256	Chim
	26-43	533	82-15	1242	Tank

* Signal over bronze tablet.

PLANE TABLE POSITIONS

Object and Description	Latitude	D.M.	Longitude	D.P.	Name on Hydro-sheet
Gasparilla Island (cont'd)					
Tripod Signal	26-45	434	82-15	396	Rat
Flagpole on Dock	26-45	37	82-15	255	Pol
Tripod Signal	26-44	936	82-15	590	Tri
Beacon-white slats	26-44	1648	82-15	238	Pyle
Bathing Pavilion	26-45	138	82-15	1456	Bath
Tripod Signal	26-43	1266	82-15	1460	Pod
Pile Beacon	26-44	1681	82-15	399	Tip
Red Slatted	26-43	1121	82-12	1017	Beacon
	26-45	1378	82-15	1567	Wh House
White Circular Structure enclosed in wh wall	26-45	429	82-15	1376	
Schhol House-Yellow spire	26-44	1430	82-15	1295	
Dredge Range Bn, Rear	26-42	1682	82-17	228	
Dredge Range Bn, Rear	26-42	1628	82-17	155	
Dredge Range Bn, Front	26-42	371	82-17	1067	
✓ Front Range Beacon	26-42	402	82-17	1105	Mid ✓
Dredge Range Beacon, Front	26-42	426	82-17	1143	
Bee (bronze tablet)	26-39	106	82-14	1015	
Nek (bronze tablet)	26-46	1415	82-16	149	
Front Range Light	26-42	1806	82-15	1218	For
Bn # 5, Pine Id Sound	26-37	1005	82-12	910	
Lighted Bn, Pine Id Sound	26-36	719	82-12	226	
Small Flag	26-40	271	82-13	1210	Egg
Beacon	26-40	560	82-12	1086	Con
	26-41	26	82-14	1097	Fish
Small Red Flag	26-40	1461	82-14	860	Bum
Red Flag	26-41	634	82-14	1230	Red
Stake 2 x 2 with flag	26-41	1344	82-14	1116	Flag
Stake 2 x 2	26-41	781	82-14	747	For
Stake with Flag	26-41	115	82-14	652	Id
Stake with Flag	26-40	1537	82-14	168	Fop
Red Range Light	26-44	1705	82-15	563	
White Range Light	26-44	1718	82-15	604	

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.
4266

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. 1

REGISTER NO. **4266**

State Florida

General locality Charlotte Harbor
Boon Granda & Vicinity

Locality Gasparilla & La Costa Islands

Scale 1:20,000 Date of survey March, 1927

Vessel Steamer HYDROGRAPHER

Chief of Party Raymond P. Eyma

Surveyed by Paul A. Smith & Joseph P. Lushene

Inked by Joseph P. Lushene

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated October 21st, 1926

Remarks: _____

LANDMARKS FOR CHARTS

U. S. S. Hydrographer

March 19 **27**

SUPERINTENDENT, 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:

RAYMOND P. EYENH

Chief of Party.

[illegible]

* 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, flagstaves and like objects are not sufficiently permanent to chart.