

4844

Diag. Cht. No. 1255

4844

Form 504	
DEPARTMENT OF COMMERCE	
U. S. COAST AND GEODETIC SURVEY	
....., Director	
State: Florida	
DESCRIPTIVE REPORT	
<i>Topographic</i> <i>Hydrographic</i>	} Sheet No. ^C 4844
LOCALITY	
West Coast	
Little Carlos Pass to San Carlos Bay	
1928	
CHIEF OF PARTY	
C. Shaw	

TIDAL DATA

For Hydrographic Sheet "C"

4844

Location:

Punta Rasa, Fla. Automatic gauge used for entire sheet.

Reading on tide staff of M. L. W. is 3.3 ft. (Office letter, Oct. 19, 1928, No. 25 ACB)

Highest tide observed from May 19, 1928 to Jan. 14, 1929 is 6.2 ft. on each of the following dates: May 22; Aug. 10; Sept. 29, 30, 1928.

Lowest tide observed from May 19, 1928 to Jan. 14, 1929 is 1.7 ft. on Dec. 26, 1928.

March 16, 1929.

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in
13 volumes of sounding records for

HYDROGRAPHIC SHEET 4844

Locality: San Carlos Bay, Gulf Coast of Florida.

Chief of Party: Charles Shaw in 1928

Plane of reference is Mean low water, reading
3.3 ft. on tide staff at Punta Rasa, Florida

~~XXXXXXXXXXXX~~

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

Paul C. Whitney

Chief, Division of Tides and Currents.

Report on H4844

Chief of Party - Charles Show
Surveyed by - Charles Show and J.C. Sammons
Protracted and soundings plotted by - J.N. Hosenfuss
Verified and inked by - John G. Hadley

1. The records conform to the requirements of the general instructions.
2. The plan and character of development fulfill the requirements of the general instructions.
3. The sounding line crossings are adequate.
4. The usual depth curves could be drawn.
5. The field plotting was complete to the extent prescribed in the general instructions.
6. No part of the work had to be done over. A very small number of positions were found to be in error.
7. Junctions with adjacent sheets were satisfactory.
8. The character and scope of the surveying was excellent as was the field drafting.
9. The distortion of the smooth sheet, which was very irregular in the two directions, north and south, and east and west, was very noticeable in the plotting of the positions.

most distance from the shore-line.
as these new plottings were all in
same relative position to the original
it was decided by E.P.E. to make no
correction.

Edmund
Paul
Ellis.

C

John S. Radd
jr. Coast Eng.
Aug 8 1929,

Section of Field Records
Report on Hyd. Sheet No. 4844
Little Carlos Pass to San Carlos Bay, Florida
Surveyed in 1928

Instructions dated Oct. 21, 1926 and May 26, 1928 (Hydrographer)

Chief of Party - Charles Shaw

Surveyed by - Charles Shaw and J. C. Sammons

Protracted and plotted by - J. N. Hasenfuss

Verified and inked by - J. G. Ladd

1. The records are well kept and conform to the requirements.
2. The plan and character of development conform to the requirements of the General Instructions.
3. The plan and extent of the survey satisfy the specific instructions, but the

vicinity of the two 12 ft. spots, described in par. 6, should have been more closely examined.

4. The sounding line crossings are satisfactory.
5. The information is sufficient for drawing the usual depth curves. Considerable irregularity in the curves is caused by differences of one foot and sometimes less than a foot in the soundings.
6. The junction with H. 4845^a, on the north is satisfactory and the junction with the old work on the south, H. 1479^a, H. 1478^a and H. 1592^a, is satisfactory. A comparison with H. 917, was made and some differences noted. The work on this sheet, H. 4844, should supersede the old work.

The two 12 foot spots shown on Chart 1255 in Lat. $26^{\circ}26.7'$, Long $81^{\circ}58.3'$ and Lat $26^{\circ}26.45'$, Long $81^{\circ}58.03'$, are from H. 917. While the present survey shows no soundings exactly over these spots, the generally flat bottom makes such shoaling improbable. In addition, these soundings on H. 917 occur on a line which is generally

2 to 3 feet shoaler than several cross lines, indicating the possibility of a lead line or some other error. No note in the records regarding lead line corrections. In view of these facts, it is recommended that these two 12 foot soundings be removed from the chart. (Approved by A.M.S.)

The low water spot in Lat. $26^{\circ}-24.03'$, Long. $82^{\circ}-53.55'$, was not on the sheet as submitted, but was transferred from Topo. 4289.

7. The usual amount of field plotting was well done by the field party.

8. Character and scope of survey - Very good.

9. Additional work within the limits of this sheet is not necessary.

Reviewed by R. L. Johnston. Aug. 10, 1929.

Approved
A. M. Sobieralski

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REG. NO.
4844

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. "C"

REGISTER NO. 4844

State Florida

General locality West Coast

Locality Little Carlos Pass to San Carlos Bay
~~San Carlos Bay and Vicinity~~

Scale 1:10,000 Date of survey Sept. 12 to Oct. 18, 1928

Vessel Ship HYDROGRAPHER

Chief of Party Charles Shaw

Surveyed by Charles Shaw and J. C. Sammons

Protracted by J. N. Hasenfuss

Soundings penciled by J. N. Hasenfuss

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W. { Office letter of Oct. 19/28 #25 A.C.B. states
5.5 feet on Punta Rasa tide staff is M.L.W.

Subdivision of wire dragged areas by

Inked by J. G. Ladd

Verified by J. G. Ladd

Instructions dated Oct. 21, 1926 and May 26, 1928

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4844

The following statistics will be submitted with the
cartographer's report on the sheet:

Number of positions on sheet .4164
Number of positions checked .721
Number of positions revised . . . 28
Number of soundings recorded 18084
Number of soundings revised . 110
Number of signals erroneously
plotted or transferred . . . none

Date: --- July 22 1929 ---
Cartographer: --- John G. Ladd ---

C. & G. SURVEY
L & A
MAR 8 1929
Acc. No.

DESCRIPTIVE REPORT

To Accompany
HYDROGRAPHIC SHEET "C"

San Carlos Bay
Florida
1928

SHIP HYDROGRAPHER
Charles Shaw, H. & G. Eng'r.,
Commanding.

1.

DESCRIPTIVE REPORT
To Accompany
HYDROGRAPHIC SHEET "C".

1. DATE OF INSTRUCTIONS:

The instructions for this hydrography were dated Oct. 21, 1926, and May 26, 1928.

2. LIMITS OF SHEET:

The area sounded is from Bowditch Point, Estero Island to Point Ybel, Sanibel Island, and from a line drawn $2\frac{3}{4}$ miles south of this latter point to the south end of Carlos Island, and to the southeast end of Estero Island. The hydrography is completed from San Carlos Bay out to the 18 foot curve. This sheet joins on to sheet "D" to the northward.

3. SURVEY METHODS:

The usual handlead survey methods were used by the ship and launch parties. Signals located in 1927 on Estero Island were recovered as far as possible. Some new signals were located by triangulation, and sextant fixes on triangulation signals.

The scale of the sheet is 1:10,000. All soundings were referred to the automatic tide gauge at Punta Rasa which has been maintained for two years and 2 days.

4. DISCREPANCIES:

Topographic signal "Ad" located 1927 is now located 55 meters east of the topographic signal by sextant cuts, and is known as "Ad 1928". There may have been an error in the original location or this change may be due to relocating the advertising billboard on account

of storms since its original establishment.

The two 12 foot spots 1 mile S.S.W. of Bowditch Point shown on chart No. 1255, were not found although searched for. Present soundings show depths of 14 to 15 feet hereabouts.

Cross soundings check in almost all cases to the foot. Occasionally there are differences of one or two feet. This may be due in most instances to the leadsman estimating soundings when waves or chop are present. Tide reducers could also account for a foot variation.

5. DANGERS:

The main danger on this hydrographic sheet is the broad shallow shoal about $1\frac{1}{2}$ mile wide making out approximately southeast from Sanibel Island Lighthouse a distance of 3 miles at which distance the depth is 10 feet. The greater part is less than 6 feet. In heavy weather the whole shoal breaks. In ordinary ground swell weather breakers appear first at Lat. $26^{\circ} 26'$ N, Long. $81^{\circ} 58.6'$ W where the least depth is 3 feet, and at Lat. $26^{\circ} 26.5'$ N, Long. $81^{\circ} 59'$ W, least depth 1 foot, just west of the channel entrance to the Caloosahatchee River. A 6 to 9 foot channel from 200 to 800 yards wide runs north and south through the middle of this shoal.

Vessels making the channel from the westward should keep clear of the southeast end of this shoal and should make the buoy "C 1" before turning northward to river channel. Strong cross currents of perhaps 1 knot are usual here off the toe, and may set a vessel onto the shoal if not guarded against.

Vessels entering the dredged channel to the river should run on the range established west of Punta Rasa to avoid the spoil banks.

Currents are strong in the vicinity of beacon 4 and upstream amounting to about one knot about parallel with the channel. At flood tide the current runs in the river and ebb tide out.

About 1.6 mile S 15° E from Bowditch Point is an area about 100 yards square containing 25 piles about 10 feet above water. This is the remains of an old fish trap.

6. BIG CARLOS PASS:

The four beacons are single 12 inch diameter piles with no markings standing about 6 ft. above water. The three easternmost beacons are stub piles. It is not known whether any of these beacons were placed by the lighthouse department.

The 5 ft. channel is about 100 yards wide at the narrowest part. There are 4 ft. spots 200 yards south and 100 yards north of the westernmost entrance beacon. South of Pelican Shoal another channel, unmarked, almost straight, about the same width, but 2 feet deeper, leads to the southwest point of Estero Island on about a 22° true course passing Carlos Island 75 yards on starboard hand. At this pass^m the current is strongest, perhaps about 1.5 knots.

7. DREDGED CHANNEL OF PUNTA RASA RANGE:

On this sheet on the range the least depth is 11.5 feet about 150 yards west of beacon No. 4. The narrowest channel of 10 feet and deeper is about 200 yards wide and is about 700 yards N 65° W of beacon No. 4. Here there is a 9 foot spot 120 yards west of the range. This spot is 9.7 feet after being reduced. It lacks 0.1 foot of being plotted 10 feet.

The usual draft of vessels using the channel is about 8 or 9 feet.

The "Gulf Spray" of the Gulf Refining Company runs up the river to the south side of the Gulf Refining Co. dock at Fort Myers drawing 10 feet.

The San Carlos Bay channel according to the Tampa Office of the U. S. Army Engineers is to be redredged in the spring of 1929, and the material taken to sea.

8. ANCHORAGES:

The 75 foot sailing vessels of the Cuban fishing fleet off these waters seek San Carlos Bay in stormy weather. When possible to sail in it anchors just northwest of Sanibel Island Lighthouse, Point Ybel. When unable to sail inside it anchors east of the Punta Rasa range southeast of beacon No. 4 in 14 or 15 feet of water with broken shell and sand, hard bottom. About a dozen of the vessels at this latter anchorage rode out the September 1928 hurricane which struck the east coast of Florida at West Palm Beach and Lake Okeechobee before swinging north. Wind at Fort Myers registered 60 miles per hour, and barometer 29:10. One vessel broke off her two masts with the roll and dragged. The others held fast.

However, all the Cuban crews in storms regularly go ashore in their small boats and pull them above high water and stay there until the storm abates, I am informed. There is said to be a liquor and immigration smuggling angle to this custom.

9. COMPARISON WITH PREVIOUS SURVEY- CHART 473:

Comparing the present soundings on this sheet with the soundings as given on chart 473 reissued December 1916 there is a very close agreement. With the few exceptions as noted below the soundings check to the foot or in some cases vary by only one foot. This is also true

to seaward where the present work will overlap old surveys.

On the toe of the shoal $2\frac{1}{2}$ miles southeast of Point Ybel it has shoaled up so that now 5 and 7 foot spots are where 9 and 14 foot spots respectively were. Such change on the toe is perhaps not an uncommon experience due to wave and current action.

On the western part of Pelican Shoal off Big Carlos Pass the depths have changed in two instances about 4 foot deepening in one spot and 3 foot shoaling in the other.

10. LIST OF SIGNALS:

There is attached to this report a list of signals, beacons, and buoys for this sheet showing how located and when.

Submitted by

Charles Shaw

Charles Shaw, H. & G.E.

Fort Myers, Fla.,
February 26, 1929.

SIGNALS FOR SHEET "C"

1928

Name of station	Located by	Date	Remarks
"Hel"	Δ	1928	Located by Δ in 1927, but as some doubt about it then the Δ data not forwarded then but used as hydro. signal only. Recovered and relocated 1928 by Δ. Positions differ very slightly.
"Tea"	Δ	1928	As above.
"Life"	Hyd.	1928	Cuts Vol.1, P.3; Vol.2, P.10;24; Vol.5, P.8, Sheet "C".
Sanibel Id L.H. "San"	Δ	1909	Recovered 1928.
Bn. 6 "Cone"	Δ	1928	Not in place in 1927.
Bn. 4 "Ben"	Δ	1928	Not in place in 1927.
"Bar"	Hyd.	1928	Fix and check angles Vol.1, P.26, Sheet "C". Not used. <i>Temp. signal put up by launch.</i>
"Tom"	Hyd.	1928	Fix and check angles Vol.1, P.26, Sheet "C". Not used. <i>Temp. signal put up by launch.</i>
Estero Pass Lt. Bn. "Lit"	Δ	1928	Topo. o "Trip" 1927 is old Bn. of same name removed. New Bn. built slightly different location. Relocated 1928 by Δ.
Bowditch Pt.2 "Bow"	Δ	1883	Recovered 1928.
"Bath"	Topo.	1927	See Note "A". Recovered and checked. Called S.W. gable and is really S. gable. Faces San Carlos Bay.
"Swim"	Hyd.	1928	West Gable of Bath house. Cuts Vol.5, P.8,23; Vol.3, P.33,54.; Vol.4, P.21. Sheet "C".
"Yel"	Topo.	1927	See Note "D". Recovered and checked 1928.
"Sign"	Topo.	1927	See Note "D". Recovered and checked 1928.

Note "A" - D.M's. and D.P's. in Descriptive Report of Topo. sheet #3, 1927.
 Note "D" - " " " " " " " " " " #2, 1927.

SIGNALS FOR SHEET "C"
1928

Name of station	Located by	Date	Remarks
"High"	Topo.	1927	Recovered 1928. See Note "D".
"Red"	Δ	1928	Located by Δ 1927. Recovered and relocated by Δ 1928. Little change in position.
"Win"	Topo.	1927	See Note "D". Windmill recovered 1928.
"White"	Topo.	1927	See Note "D". Chimney on prominent white house. Recovered and checked 1928.
"Low"	Hyd.	1928	3 cuts. Vol.3, P.67. Cut Vol.4, P.21, Sheet "C".
"Ad"	Hyd.	1928	3 cuts Vol.3, P.67, sheet "C".
"Crazy" 1928	Hyd.	1928	Located 1927 by Δ. House burnt down 1928. New signal near same location given same name. Located by cuts, Vol.8, P.58; Vol.5, P.23, sheet "C".
"Shak"	Topo.	1927	See Note "D". Recovered and checked 1928.
"Jo"	Topo.	1927	See Note "D". Recovered 1928.
"Tall"	Hyd.	1928	Cuts Vol.5, P.8, 23; Vol.2, P.10, 24; Vol.4, P.21, sheet "C".
"How"	Topo.	1927	See Note "D". Recovered 1928. Tripod.
"Palm"	Topo.	1927	See Note "D". Recovered and checked 1928.
"Boob"	Δ	1927	Recovered 1928.
"Tree"	Topo.	1927	See Note "D". Recovered and checked 1928.
"Pile" (Br.)	Hyd.	1928	Fix and check angles Vol.9, P.57; ^{cuts} /Vol.9, P.58.
"Rob" "	Hyd.	1928	Fix, check angles, cuts - Vol.9, P.58.
"Lil" "	Hyd.	1928	" " " " " "
"At"	Hyd.	1928	" " " " " "
"Poor"	Hyd.	1928	" " " " " "
"Fair"	Hyd.	1928	" " " " " "
"Bum"	Hyd.	1928	" " " " " "

SIGNALS FOR SHEET "C"
1928

Name of stations	Located by	Date	Remarks
"Pug"	Δ	1927	Recovered 1928.
"Ho"	Topo.	1927	See Note "D". Recovered 1928.
"End"	Topo.	1927	See Note "D". Recovered 1928.
Carlos Pass Bn. "Carlos"	Δ	1928	
"Bell Buoy 2" "Bell"	Δ	1928	Checked by hydrography.
"Trap"	Hyd.	1928	Fix and check angles Vol.7, P.38. Cuts Vol.3, P.33, 54; Vol.4, P.21. Sheet "C".
Can Buoy "C1"	Hyd.	1928	Fix Vol.2, P.3. Cuts Vol.1, P.47; Vol.2, P.10, 24; Vol.3, P.33. Sheet "C".

Note "D" - D.M's. and D.P's. in Descriptive Report for Topo. sheet #2, 1927.

STATISTICS FOR SHEET "C"
1928

Date	Day	Vol.	Positions	Soundings	Miles (Stat)	Vessel
Sept. 12, 1928	A	1	127	537	23.0	Ship
" 13, "	B	1	170	893	32.0	"
" 14, "	C	2	256	836	35.5	"
" 19, "	D	2	98	419	18.3	"
" 20, "	E	3	43	170	8.2	"
" 21, "	F	3	255	1018	44.7	"
" 22, "	G	3	66	256	12.5	"
" 26, "	H	4	242	929	41.5	"
" 27, "	J	4	92	356	16.0	"
" 28, "	K	4-5	214	788	35.5	"
Oct. 18, "	L	5	193	769	27.5	"
Sept. 13, "	a	6	179	824	36.0	Launch
" 14, "	b	6-7	164	842	27.5	"
" 19, "	c	7	115	647	18.0	"
" 21, "	d	7-8	254	1355	39.5	"
" 22, "	e	8	61	340	10.8	"
" 25, "	f	8	119	558	18.0	"
" 26, "	g	8-9	242	1196	37.0	"
" 27, "	h	9	149	673	18.0	"
" 28, "	j	10	223	894	27.5	"
Oct. 1, "	k	10-11	135	716	21.5	"
" 2, "	l	11	212	714	23.0	"
" 3, "	m	11-12	169	756	26.0	"
" 4, "	n	12	188	815	31.0	"
" 5, "	p	12-13	198	783	28.0	"
Total		13	4164	18084	656.5	

APPROVAL OF RECORDS

Sheet "C" and Records have been inspected and are approved. Except for actually plotting the positions and soundings I have done everything possible to see that all data is complete and correct.

The sheet has been gone over carefully and close comparison with chart 473 soundings has been made.



Charles Shaw,
Chief of Party.

Fort Myers, Florida,
February 27, 1929.