

# 8341

Diag. Cht. No. 1245

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

## DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. FBS-2456 Office No. H-8341

### LOCALITY

State Florida

General locality Atlantic Ocean

Locality North of Cape Canaveral

19 ~~56~~

CHIEF OF PARTY

J. C. Ellerbe

LIBRARY & ARCHIVES

DATE March 21, 1957

8341

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. H-8341

Field No. PBS-2456

State Florida

General locality Atlantic Ocean

Locality North of Cape Canaveral

Scale 1:20000 Date of survey 10/30/56 - 12/19/56  
~~10/32/56 - 1/3/57~~

Instructions dated 24 August 1956

Vessel PARKER - BOWEN - STIRNI - Launch #180

Chief of party ~~K.S. Ulm, C.R. Reed, & J.C. Ellerbe~~

Surveyed by ~~R.C. Darling, D.G. Rushford, O.L. Doster, W.M. Lee,~~  
C.R. Reed, E.R. Scyoc, L.L. Seal, & J.S. Baker

Soundings taken by ~~fathometer, graphic recorder, hand lead, wire~~

Fathograms scaled by Field Party

Fathograms checked by Norfolk District Processing Office

Protracted by A.G. Atwill

Soundings penciled by A.G. Atwill

Soundings in ~~fathoms~~ feet at MLW ~~MLW~~ and are true depths

REMARKS: This survey was smooth plotted in the Hyarographic  
Section of the Norfolk District Office.

HB

## Descriptive Report to Accompany Hydrographic Surveys

H-8340 (Field No. PBS-1156)  
H-8341 ✓ (Field No. PBS-2456)  
H-8342 (Field No. PBS-2556)  
H-8343 (Field No. PBS-2656)  
H-8344 (Field No. PBS-2756)  
H-8345 (Field No. PBS-4556)  
(Field No. PBS-4556 WD)  
(Field No. PBS-4656 WD)

These Surveys were accomplished by Coast & Geodetic Survey Ships PARKER, BOWEN, STIRNI, and Launch No. 180. Chiefs of Party during the project were CDR. Kenneth S. Ulm, CDR. Clarence R. Reed, and CDR. John C. Ellerbe.

A. PROJECT: Project No. 10000-804. Original instructions dated 24 Aug. 1956. Supplemental instructions dated 3 October 1956 and 9 October 1956.

B. SURVEY LIMITS AND DATES: This project is in the general vicinity of Cape Canaveral, Florida. Field work was begun on 12 October 1956 and ended 3 January 1957. The progress of the work was hampered as the project was in a restricted area of the guided missile range. Work could only be accomplished when missile tests were not being conducted. At other times, shoran operations had to be stopped, because it was causing some interference with the Air Force. As a result, long hours and weekend work was necessary.

C. VESSELS AND EQUIPMENT: The Ships PARKER, BOWEN, STIRNI, and Launch No. 180 were used in the survey. All vessels based at Port Canaveral, Florida, in the immediate project area. The majority of soundings were taken with 808 type fathometers. The following instruments being used: 100S, 1125, 151 SPX, 160 SPX, and 164. Edo Fathometer No. 215 was used for part of the work on Launch No. 180.

D. TIDE AND CURRENT STATIONS: A portable automatic tide gage was maintained at the Air Force Wharf, Port Canaveral, Florida. MLW as furnished by the Washington Office was 1.0 Ft. on the Tide Staff. No other time or range corrections were applied. Three current stations were occupied by the Ship STIRNI using a combination of Roberts Radio Current Buoys and Current Pole. Currents were very weak at all three stations.

E. SMOOTH SHEET: Smooth sheet projections were constructed by hand at the Norfolk District Processing Office.

F. CONTROL STATIONS: Shoran control was used for the entire project. Three shoran stations were erected. Each station was located near a triangulation station. The shoran mast was located by azimuth and distance from the adjacent triangulation station and G.P.'s computed using standard methods. This location work was done by Lt. Nygren's Geodetic Party based at Patrick Air Force Base.

G. SHORELINE AND TOPOGRAPHY: Shoreline details will be taken from Topographic Manuscripts compiled from recent photographs. *Review, P1*

H. SOUNDINGS: All depths were measured by fathometers using standard methods.

I. CONTROL OF HYDROGRAPHY: Shoran control was used for the entire project. Three stations were used in various combinations as the work progressed.

J. ADEQUACY OF SURVEY: This survey is considered complete and adequate to supersede prior surveys for charting. Some additional development could have been made of the shoal areas if time had permitted. Junctions with adjoining surveys are satisfactory and depths curves can be adequately drawn at the junctions. ✓

K. CROSSLINES: Approximately 5 - 8% crosslines were ran. ✓

L. COMPARISON WITH PRIOR SURVEYS: No comparison had been made at the time of this report. Comparisons will be made after smooth sheets are plotted. Review, P5

M. COMPARISON WITH CHART: See Section "L". Review, P6

N. DANGERS AND SHOALS: No new dangers or shoals were found. All charted dangers, shoals, and bare rocks were found as charted; no shoaler depths were found except for those listed in L, M, and N. ✓

O. COAST PILOT INFORMATION: This information will be submitted as a separate report. ✓

P. AIDS TO NAVIGATION: All floating aids to navigation were located by shoran or sextant fixes. Form 567 was submitted to W. O. 1/3/57. ✓

Q. LANDMARKS FOR CHARTS: Washington Office requested CDR. James C. Tison, C&GS liaison officer with U. S. Air Force, to furnish information for landmarks directly. ✓

R. GEOGRAPHIC NAMES: This information will be submitted on a separate report. ✓

S. SILTED AREAS: Not applicable. ✓

T. BY-PRODUCT INFORMATION: Wire Drag investigations were made of several items in the area in conjunction with the hydrographic surveys. A separate report "Investigation of Wrecks" was submitted to the Washington Office on 12/11/56, covering this phase of the work. Standard wire drag methods were used. Shoran provided the control for both the guide and end vessels. The STIRNI was used as tender and tests were made according to standard procedures. } C.L. 21 (1957)

The following Wire Drag Investigations were Made:

Sheet PBS-4556 WD, Wreck Nos. 495, 501, 845, & 1221

Sheet PBS-4656 WD, Wreck No. 502

WRECK NO. 495: Wreck located at latitude 28° 34.22' - longitude 80° 18.95'.

A least depth of 60 feet was obtained on the wreck by fathometer. Wreck was hung at 65.0 feet effective depth and cleared at 56.0 feet effective depth.

WRECK NO. 501: Wreck located at latitude 28° 23.30' - longitude 80° 17.72'. A least depth of 46 feet was obtained on the wreck by fathometer. Wreck was hung at 55.5 feet effective depth and cleared at 43.0 feet effective depth.

WRECK NO. 845: Wreck is in two sections. The northern and shoalest section lies at latitude 28° 28.70' - longitude 80° 22.90'. The deeper section lies at latitude 28° 28.66' - longitude 80° 21.95'. The wreck was hung at 49.5 feet effective depth and cleared at 46.0 feet effective depth. The deeper section has a depth of 53 feet by fathometer. Wreck is marked by obstruction buoy WR8A. Buoy location at time of survey: latitude 28° 28.51' - longitude 80° 21.84'.

WRECK NO. 1221 (Obstruction): This obstruction was not found by sonar search or dragging operations. The immediate area of the reported position was dragged to an effective depth of 41.5 feet in a general bottom depth of 44 to 50 feet.

Not applicable to the pres. survey  
See F. E. No. 3 (1957) W.D.

WRECK NO. 502: This wreck was not found. The area was dragged by four strips with effective depths ranging from 60.0 to 66.5 feet with negative results. F.E. #4  
(1957)  
W.D.

U. TABULATION OF APPLICABLE DATA: See following pages.

Respectfully submitted,

*William R. Kachel*

William R. Kachel  
Lt., C&GS

NOTE: The above named officer was not present during any of the work covered by this report. This report was written prior to the plotting of the smooth sheets.

APPROVED AND FORWARDED:

(with additional note, see below:)

*Clarence R. Reed*

Clarence R. Reed  
CDR., C&GS

WRK:fl

Conditions under which hydrography was accomplished on the Cape Canaveral project were a little unusual. Early completions of the project was urgent and work "around the clock" was often necessary in order to dovetail the work to avoid interference with military operations. The ships were not designed for continuous operation and, due to shortage of personnel and time, the records were not as complete as could be desired for submission to the Norfolk Processing Office. However, on this date (7 February 1957) it is believed that records have been placed in good condition by office personnel under the supervision of Lt. W. R. Kachel. Although Mr. Kachel was not present during the Florida field season, his previous experience has proved very valuable.

INVENTORY OF DATA - PROJECT 10000-804

1. BOAT SHEETS:

1 ea. Sheet	Field No.	PBS-1156
1 ea.	"	PBS-2456 - H-8341 (1956)
1 ea.	"	PBS-2556
1 ea.	"	PBS-2656
1 ea.	"	PBS-2756
1 ea.	"	PBS-4556
1 ea.	"	PBS-4556 WD
2 ea.	"	PBS-4656 W.D.
1 ea. Sheet,	Dinaplex,	Calibration

2. <u>Sounding Volumes:</u>	<u>PARKER</u>	<u>BOWEN</u>	<u>STIRNI</u>	<u>Launch 180</u>	<u>Total</u>
PBS 1156	0	0	0	1	1
PBS 2456 - H-8341	12	0	3	3	18
PBS 2556	0	16	0	0	16
PBS 2656	11	1	3	6	21
PBS 2756	0	11	0	0	11
PBS 4556	4	1	0	0	5
PBS 4656	0	1	0	0	1
PBS 4556 WD	1	2	1	0	4
PBS 4656 WD	1	1	0	0	2
Calibrations & Bar Checks	1	1	2	1	5

TOTAL - 84 Volumes

3. Fathograms:

Ship PARKER	26 Envelopes
Ship BOWEN	36 Envelopes
Ship STIRNI	7 Envelopes
Launch 180	14 Envelopes

TOTAL - 83 Envelopes

4. TIDES:

Marigrams 15 Oct. - 17 Nov. 1956 Sent to W. O. 12-1-56  
Marigrams 17 Nov. - 3 Jan. 1957 " 1-21-57  
lea. Level record and lea. Report of Tide Station for Air Force  
Wharf, Port Canaveral, Florida - Sent to W. O. 10-23-56

5. CURRENTS:

3 ea. Form 270, Record of Current Observations and 28 ea. Tapes,  
Chronograph Sent to W. O. 1-22-57

6. MAGNETICS:

Special Report - Magnetism Sent to W. O. 1-10-57

7. TRIANGULATION:

Mis. Triangulation data for location of Shoran Stations.

INVENTORY OF DATA - PROJECT 10000-804 (cont.)

8. WRECKES:

Special Report - Investigation of Wrecks - Sent to W. O. 12-11-56

SHORAN CORRECTIONS

Numerous calibrations were made by each vessel during the course of project to determine the correctors to be applied to the shoran distances.

The calibration was accomplished by taking a series of simultaneous visual (sextant) and shoran fixes. The visual fixes were then plotted on a dinaplex calibration sheet. The values were scaled off in statute miles and compared with the values as read on the shoran. The corrections thus determined were fairly consistent and a mean correction was determined for each vessel for the entire project.

Three station sites were occupied during the course of the work. In each case, the G.P. of the shoran mast was determined by computation using a nearby triangulation station and measuring azimuth and distance to the mast itself.

The positions were determined as follows:

Station PAT (Also known as BASE in some of the computations) was computed using Patrick Air Force Base, SOUTH WATER TANK, *not used on H-8341*

Station DUM was computed using DUMMIT, 1934 ✓

Station COR was computed using COURTENAY, 1953 ✓

Final G.P.'s for Shoran Stations:

PAT	Lat.	28° 15' 08.602"
	Long.	80° 36' 30.550"
DUM	Lat.	28° 41' 47.565"
		80° 43' 20.268"
COR	Lat.	28° 28' 20.532"
		80° 42' 34.733"

The same shoran monitors were used at Stations COR and DUM during the entire project. Monitor #2 at COR and Monitor #4 at DUM. At station PAT, Monitor #3 was used except on 10, 11, & 12 December when Monitor #1 was put in use to facilitate repairs on Monitor #3. Corrections were computed for all four monitors where necessary.

TIDE NOTE

A portable automatic recording tide gage was in operation at Port Canaveral, Fla. for the entire project. The plane of mean low water corresponds to 1.0 feet on the staff for this station as furnished by the Washington Office in letter of 7 December 1956.

All tides needed for the periods of hydrography and wire drag were scaled from the marigrams before submitting the marigrams to the Washington Office. Curves were drawn after applying the 1.0 foot correction and tides were tabulated to 0.2 feet for hydrography and 0.5 ft. for wire drag.

TIDE NOTES (CONT.)

The tide gage was continued in operation after the project was finished and was transferred to Lt. Nygren's Geodetic Party for servicing in order to obtain a longer series of obserations.



## FATHOMETER CORRECTIONS

Numerous bar checks were taken by each vessel as the work progressed. These bar checks were limited primarily to the A & B scales. The bar checks were meaned, curves drawn, and correctors tabulated for each fathometer used. Correctors were tabulated to 0.2 ft. for hydrography and 0.5 ft. for wire drag.

The following fathometers were used:

Ship PARKER:	Model 808 No. 112S	19 Oct. thru 8 Nov. 1956
	Model 808 No. 164	16 Nov. thru 18 Dec. 1956
Ship BOWEN:	Model 808 No. 160XPS	Entire project
Ship STIRNI:	Model 808 No. 151SPX	Entire project
Launch No. 180:	EDO No. 215	26 Nov. thru 10 Dec. 1956
	Model 808 No. 100S	11 Dec. to End

On 17 Dec. 1956 two bar checks were taken by the PARKER using fathometer 808, No. 164. These were taken on the edge of the Gulf Stream in order to have sufficient water depth for C & D scale check. Due to the difference in temperature and salinity, the correctors resulting from these two bar checks were considerably different from the other correctors determined for this fathometer. It was decided not to use this set of correctors for reducing the soundings unless difficulty was encountered in obtaining satisfactory line crossing. *Does not apply to this survey.*

A tabulation was made of the phase shift <sup>error</sup> even between C & D scales to determine the D scale corrections.

FATHOMETER VELOCITY CORRECTIONS  
 SHIPS PARKER, BOWEN, & STIRNI  
 PROJECT 10,000-804  
 CAPE CANAVERAL, FLORIDA

<u>SHIP PARKER</u>	<u>808 FATH. #1128</u>	<u>19 Oct. thru 8 Nov. 1956</u>	
<u>A SCALE</u>	<u>B SCALE</u>	<u>C SCALE</u>	<u>D SCALE</u>
0.0 to 15.0	-1.2 to 40.0	-1.6 all	-1.6 all
-0.2 to 25.0	-1.4 to 60.0		
-0.4 to 35.0	-1.6 to 90.0		
-0.6 to 55.0			

<u>SHIP PARKER</u>	<u>808 FATH. #164</u>	<u>16 Nov. thru 18 Dec. 1956</u>	
<u>A SCALE</u>	<u>B SCALE</u>	<u>C SCALE</u>	<u>D SCALE</u>
0.0 to 11.8	-1.0	-1.4 all	-1.4 all
-0.2 to 15.8	<del>0.1</del> to 40.0		
-0.4 to 20.0	-1.2 to 50.0		
-0.6 to 25.4	-1.4 to 80.0		
-0.8 to 30.4			
-1.0 to 40.0			
-1.2 to 43.4			
-1.4 to 46.2			
-1.6 to 48.4			
-1.8 to 49.6			
-2.0 to 51.0			

<u>SHIP PARKER</u>	<u>808 Fath. #164</u>	<u>*17 December 1956 only</u>	
<u>A SCALE</u>	<u>B SCALE</u>	<u>C SCALE</u>	<u>D SCALE</u>
0.0 to 12.4	<del>1.8</del> to 60.0	0.0 to 71.4	-0.5 all
<del>0.2</del> to 17.4	<del>1.6</del> to 62.4	-0.2 to 75.4	
<del>0.4</del> to 22.0	<del>1.4</del> to 64.0	-0.4 to 80.0	
<del>0.6</del> to 27.4	<del>1.2</del> to 65.8	-0.6 to 83.2	
<del>0.8</del> to 40.0	<del>1.0</del> to 67.2	-0.8 to 87.4	
<del>1.0</del> to 47.6	<del>0.8</del> to 68.4	-1.0 to 125.0	
<del>1.2</del> to 52.0	<del>0.6</del> to 69.6		
<del>1.4</del> to 55.0	<del>0.4</del> to 71.0		

\* These correctors determined from bar checks taken outside the working area on edge of Gulf Stream. Not to be used for reducing soundings unless other correctors for Fath. No. 164 give poor crossings.

<u>SHIP BOWEN</u>	<u>808 FATH. 160 XPS</u>	<u>ENTIRE PROJECT</u>
<u>A SCALE</u>	<u>B SCALE</u>	
-0.2 to 14.4'	* 0.4 to 40.0'	
0.0 to 30.0	0.6 to 46.6'	
*0.2 to 36.4'	0.8 to 52.6	
0.4 to 43.0'		
0.6 to 50.0'	1.0 to 57.6'	
0.8 to 55.0	1.2 to 62.0	

\* Corrections additive

FATHOMETER  
VELOCITY CORRECTIONS

SHIP STIRNI

808 FATH. # 151SPX

ENTIRE PROJECT

A SCALE

0.0 to 20.0'  
/ 0.2 to 50.0'

---

LAUNCH 180

E.D.O. FATH.

BEGINNING TO 10 DEC. 1956

A SCALE

\*0.0 to 17.6'  
0.2 to 21.0'  
0.4 to 23.0'  
0.6 to 25.0'  
0.8 to 30.0'  
1.0 to 31.4'  
1.2 to 32.2'  
1.4 to 32.8'  
1.6 to 33.4'  
1.8 to 34.4'  
2.0 to 50.0'

\*Corrections additive

LANUCH 180

808 FATH. 100S

11 DEC. 1956 only

A SCALE

-0.8 to 19.0'  
-0.6 to 23.2'  
-0.4 to 26.8'  
-0.2 to 35.0'  
-0.4 to 40.0'

LAUNCH 180

808 FATH. 100S

12 DEC. 1956 to end

A SCALE

0.0 to 37.5'  
-0.2 to 50.0'

FINAL SHORAN CORRECTIONS - CAPE CANAVERAL PROJECT

Ship PARKER

Station PAT: (Monitor #1 used 10,11,12 Dec. only)  
/0.010 Monitor #1 Station on left dial (left side of page)  
-0.040 Monitor #1 Station on right dial (right side of page)  
/0.025 Monitor #3 Station on left dial (left side of page)  
-0.020 Monitor #3 Station on right dial (right side of page)

Station COR:  
-0.010 Monitor #2

Station DUM:  
-0.025 Monitor #4

Ship BOWEN

Station PAT:  
0.000 Monitor #3 Thru November 11, 1956  
/0.020 Monitor #3 12 November on

Station COR:  
-0.020 Monitor #2

Station DUM:  
-0.020 Monitor #4

Ship STIRNI

Station PAT: Monitor #3 0.000  
Station COR: Monitor #2 -0.025  
Station DUM: Monitor #4 -0.015

LUANCH NO. 180

Station PAT: Monitor #1 -0.010 (Monitor #1 used 10,11,12 Dec. only)  
Monitor #3 /0.005  
Station COR: Monitor #2 -0.025

Station DUM: Monitor #4 -0.025

STATISTICS  
H-8341

<u>DAY</u>	<u>VOL.</u>	<u>NO. POS.</u>	<u>DATE</u>	<u>MI. SDGS</u>	<u>SHIP</u>
A blue	1	56	10/30/56	15.8	Parker
B "	1,2,3	385	10/31/56	90.3	"
C "	3,4,5	358	11/ 1/56	109.8	"
D "	5,6	163	11/ 6/56	57.0	"
E "	6,7,8,9	362	11/7/ 56	141.9	"
F "	9,10	158	11/ 8/ 56	60.5	"
G "	10,11	184	11/14/56	66.4	"
H "	11,12	82	11/15/56	35.5	"
J "	12	20	11/28/56	4.0	"
A green	13	108	11/12/56	48.6	Stirni
B "	13,14,15	290	11/13/56	147.8	"
a "	16	137	12/12/56	59.7	Launch 180
b "	17	36	12/14/56	10.9	"
c "	17	75	12/18/56	25.1	"
d "	17,18	181	12/19/56	37.7	"
TOTALS		2595		922.0	

ADDENDUM  
To Accompany

HYDROGRAPHIC SURVEY H-8341 (Field No. PBS-2456)

GENERAL


This appears to be an excellent basic survey and no unusual conditions were encountered during the smooth plot. A comparison with chart 1245 shows only very minor changes in soundings and depth curves. ✓

SOUNDINGS

All fathograms were scaled and soundings reduced with templates by the Processing Office. Hydrography was accomplished under moderately heavy sea conditions, so every effort was made to mean out wave action and obtain accurate readings. This resulted in generally good agreement of soundings at crossings. ✓

Norfolk, Va.  
18 March 1957

Respectfully submitted,

  
Hugh L. Proffitt  
Cartographer.

GEOGRAPHIC NAMES

Survey No. H-8341

Name on Survey	Source										
	A	B	C	D	E	F	G	H	K		
<u>Atlantic Ocean</u>											1
<u>Florida</u>											2
<u>Cape Canaveral</u>											3
<u>False Cape</u>											4
<u>Chester Shoal</u>											5
											6
											7
											8
											9
											10
											11
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											26
											27

Names approved  
5-8-57  
afw

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8341...

Records accompanying survey:

Boat sheets 4...; sounding vols. 18...; wire drag vols. ....; bomb vols. ....; graphic recorder rolls 14... Envelopes special reports, etc. 1-Descriptive report, 1-Smooth sheet... and (1-Observation of Horizontal Directions, 5 Vols. Shoran Calibrations & Bar Checks, & 1 Cahier-Shoran Computations filed with H-8343).

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

Number of positions on sheet	2595
Number of positions checked	50
Number of positions revised	✓
Number of soundings revised (refers to depth only)	.....
Number of soundings erroneously spaced	..... ✓
Number of signals erroneously plotted or transferred	..... ✓
Topographic details	Time ..... ✓
Junctions	Time ...15...
Verification of soundings from graphic record	Time ...20...

Verification by *J. T. Sullivan* Total time 196... Date *April 30, 1957*  
 Reviewed by *J. A. Dinsmore* Time 19... Date *8 May 1957*



VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8341

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.
2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.
3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.
4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.
5. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken.
6. All positions verified instrumentally were check marked in the sounding records.
7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.
8. The metal protractor has been checked within the last three months.
9. The protracting and plotting of all bad crossings were verified.
10. All detached positions locating critical soundings, rocks or buoys were verified.
11. The boat sheet was compared with the smooth sheet.

12. The spacing of soundings as recorded in the records was closely followed.
13. The bottom characteristics were shown on outstanding shoals.
14. The reduction and plotting of doubtful soundings were checked.
15. The transfer of contemporary topographic information was carefully examined.
16. All junctions were transferred and overlapping curves made identical.
17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.
18. The depth curves have been inspected before inking.
19. All triangulation stations and transfer of topographic and hydrographic signals were checked.
20. Heights of rocks were checked against range of tide.
21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.
22. Unnecessary pencil notes have been removed.
23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.
24. The low water line and delineation of shoal areas have been properly shown.
25. Degree and minutes values and symbols have been checked.
26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).
28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.
29. All aids located, with those on contemporary topographic sheets, have been shown on survey.
30. Depth curves were satisfactory except as follows:
31. Sounding line crossings were satisfactory except as follows:
32. Junctions with contemporary surveys were satisfactory except as follows:
33. Condition of sounding records was satisfactory except as follows:
34. The protracting was satisfactory except as follows:
35. The field plotting of soundings was satisfactory except as follows:
36. Notes to reviewer:

Verified by

Date

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8341

FIELD NO. PBS-2456

Florida, Atlantic Ocean, North of Cape Canaveral

Project No. 10,000-804

Surveyed - 10/30/56 - 12/19/56

Scale 1:20,000

Soundings:

Control:

808 Fathometer

Shoran

Chief of Party - J. C. Ellerbe

Surveyed by - C. R. Reed, D. G. Rushford, O. L. Doster,  
E. R. Scyoc, L. L. Seal and J. S. Baker

Protracted by - A. G. Atwill

Soundings plotted by - A. G. Atwill

Verified and inked by - J. T. Gallahan

Reviewed by - T. A. Dinsmore 8 May 1957

Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with unreviewed air-photographic revision surveys RS-554 (T-9168) and RS-555 (T-9171) compiled from 1956 photographs.

The origin of the control is given in the Descriptive Report.

2. Sounding Line Crossings

Depths at crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

The most prominent feature in the area is Chester Shoal which consists of a succession of shoal crests extending in a southeasterly direction from about lat.  $28^{\circ}39'$ , long.  $80^{\circ}35'$ . Other shoals to the northwestward and the conspicuous shoal in lat.  $28^{\circ}37.8'$ , long.  $80^{\circ}31.4'$  contribute to the bottom irregularities in much of this area. The bottom, however, smooths out in the offshore depths to the northeast.

4. Junctions with Contemporary Surveys

Adequate junctions were effected between the present survey and H-8342 (1956) on the east and H-8343 (1956) on the south. Charted depths at the project limits on the north are in harmony with the depths at the limits of the present survey.

5. Comparison with Prior Surveys

- a. H-1409 (1878) 1:40,000                      H-1410 (1878) 1:20,000

The widely spaced sounding lines on these early surveys do not afford a detailed comparison with the present survey. However, the comparison does indicate that the shoals in the area have shifted appreciably southwestward since 1878. Many of the shoals delineated on the present survey were either missed on the prior surveys or only generally indicated. These early surveys may be disregarded.

- b. H-4916 (1929) 1:40,000                      H-4946 (1929) 1:40,000  
H-4935 (1929) 1:40,000

These prior surveys afford the most complete prior coverage of the surveyed area. The southwestward movement of the shoals noted in the preceding paragraph is also noticed in comparing the 1929 surveys with the present survey except that the displacement is less pronounced. Present depths are generally 1 to 2 ft. shoaler than the prior depths and lesser depths were generally obtained on the shoals than shown on the prior surveys. However, on two stable shoals which were not closely developed on the present survey, several shoal soundings have been retained from H-4946 (1929).

With the indicated additions, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Chart 1245 (Latest print date 1/28/57)A. Hydrography

Charted hydrography originates principally with the prior surveys of 1929 which need no further consideration.

The present survey supersedes the charted information.

B. Aids to Navigation

No aids to navigation are charted within the limits of the present survey.

7. Condition of Survey

a. The sounding records are complete; the Descriptive Report covers all matters of importance.

b. The smooth plotting was accurately done.

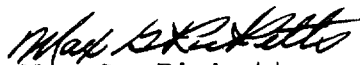
8. Compliance with Project Instructions

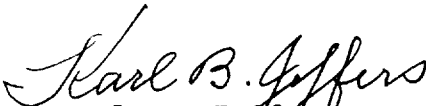
The survey adequately complies with the Project Instructions.


9. Additional Field Work

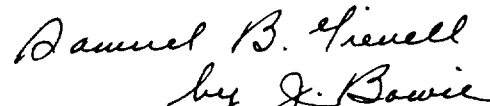
This is an excellent basic survey and no additional field work is required.

Examined and Approved:

  
Max G. Ricketts  
Chief, Nautical Chart Branch

  
Karl B. Jeffers  
Chief, Hydrography Branch

  
Charles A. Schanck  
Chief, Division of Charts

  
Samuel B. Grenell  
Chief, Division of Coastal Surveys

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

26 March 1957

Plane of reference approved in  
18 volumes of sounding records for

HYDROGRAPHIC SHEET 8341

Locality Cape Canaveral, Florida

Chief of Party: J. C. Ellerbe in 1956

Plane of reference is mean low water, reading

1.0 ft. on tide staff at Canaveral Harbor .

10.9 ft. below B.M. 1 (1956)

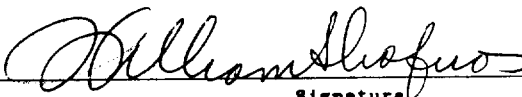
Height of mean high water above plane of reference is 3.5 feet.

NOTE: Tide reducers for the positions listed below have been  
revised in red and verified:

Vol.  
17

Positions  
64C-75C

Condition of records satisfactory except as noted below:

  
Signature

Chief, Tides Branch





