

8342

Diag. Cht. No. 1245.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PBS-2556 Office No. H-8342

LOCALITY

State FLORIDA

General locality ATLANTIC OCEAN

Locality CAPE CANAVERAL

194/56

CHIEF OF PARTY

John C. Ellerbe

LIBRARY & ARCHIVES

MAR 23 1957

DATE

8342

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-8342

Field No. PBS-2556

State Florida

General locality Atlantic Ocean

Locality Northeast of Cape Canaveral

Scale 1:20000 Date of survey 10/30/56 - 11/15/56

Instructions dated 24 August 1956

Vessel PARKER - BOWEN - STIRNI - Launch #180

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

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

Soundings taken by ~~fathometer, graphic recorder, hand lead, etc.~~

Fathograms scaled by Field Party

Fathograms checked by Norfolk District Processing Office

Protracted by W.L. Jonns

Soundings penciled by W.L. Jonns

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

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

Handwritten mark

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. Ull, 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, 112S, 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. (Review, P5)

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° 22.00'. 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 WRSA. 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 pres. survey
See F.E. # 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 notes, 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
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	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. WRECKS:

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 near-by 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.

Station DUM was computed using DUMMIT, 1934

Station COR was computed using COURTENAY, 1953

Final G.P.'s for Shoran Stations:

PAT Lat. $28^{\circ} 15' 08.602''$
Long. $80^{\circ} 36' 30.550''$

DUM Lat. $28^{\circ} 41' 47.565''$
 $80^{\circ} 43' 20.268''$

COR Lat. $28^{\circ} 28' 20.532''$
 $80^{\circ} 42' 34.733''$

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 observations.

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:	EDC 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.

A tabulation was made of the phase shift ^{error} 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>I 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 0.1 to 40.0	-1.4 all	-1.4 all
-0.2 to 15.8	-1.2 to 50.0		
-0.4 to 20.0	-1.4 to 80.0		
-0.6 to 25.4			
-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	1.8 to 60.0	0.0 to 71.4	-0.5 all
0.2 to 17.4	1.6 to 62.4	-0.2 to 75.4	
0.4 to 22.0	1.4 to 64.0	-0.4 to 80.0	
0.6 to 27.4	1.2 to 65.8	-0.6 to 83.2	
0.8 to 40.0	1.0 to 67.2	-0.8 to 87.4	
1.0 to 47.6	0.8 to 68.4	-1.0 to 125.0	
1.2 to 52.0	0.6 to 69.6		
1.4 to 55.0	0.4 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	* Corrections additive
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	

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. PATH.

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

PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8342 (Field No. PBS-2556)

GENERAL

With the exception of the discrepancies listed below, this appears to be an excellent basic survey. Soundings checked very well at crossings and agree generally with charts 1245 and 1246, except in shoal areas where depths are usually less than those charted. ✓

DISCREPANCIES

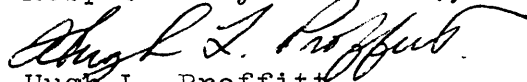
There are quite a few discrepancies between recorded time and that indicated on the fathograms, however, fathometer time and plotting time are usually in agreement. Corrected time intervals between positions are shown in red in the records. ✓

Positions 148 & 149D; 155 & 156D; 1 thru 6E
Soundings were not penciled between these positions because of faulty fathometer operation. ✓

Positions 333 thru 342B
Soundings were penciled on the smooth sheet by using plotted time and surrounding hydro. The fathogram was re-marked in green in the Processing Office to correspond with plotted time. ✓

Norfolk, Va.
27 March 1957

Respectfully submitted,


Hugh L. Proffitt
Cartographer.

FLOATING AIDS TO NAVIGATION
H-8342

<u>BUOY</u>	<u>LATITUDE</u>	<u>LONGITUDE</u>	<u>DEPTH</u>	<u>POS. NO.</u>	<u>DATE</u>
Cape Canarval Danger Zone Buoy A	28-31.17	80-29.28	46' <i>Estimated distance</i>	253H	11/13/56

STATISTICS
H-8342

SHIP BOWEN

<u>VOL. NO.</u>	<u>DAY LTR.</u>	<u>DATE</u>	<u>NO. POS.</u>	<u>H.L. SDGS.</u>	<u>MI. HYDRO</u>
1	A	10/30/56	69	0	31.3
1,2,3,	B	10/31/56	399	0	166.0
3,4,5	C	11/ 1/56	371	0	158.3
6,7	D	11/ 6/56	156	0	84.6
7,8,9	E	11/ 7/56	322	0	177.6
10,11	F	11/ 8/56	181	0	79.1
11,12,13	G	11/12/56	292	0	117.0
13,14,15	H	11/13/56	358	0	202.6
15,16	J	11/14/56	71	36	20.0
16	K	11/15/56	17	17	00.0
			-----	-----	-----
	GRAND TOTALS		2236	53	1036.6

H8342

COMPARISON WITH CHART 1245

1)	19 18 FT	Sounding located at Lat. $28^{\circ} 30.01'$ Long $80^{\circ} 25.96'$ in charted	19 FT
2)	11 FT ✓	" " " " $28^{\circ} 31.04'$ " $80^{\circ} 25.80'$ " " "	14 FT
3)	11 12 FT	" " " " $28^{\circ} 31.75'$ " $80^{\circ} 25.48'$ " " "	17 FT
4)	26 FT ✓	" " " " $28^{\circ} 32.34'$ " $80^{\circ} 25.68'$ " " "	28 FT
5)	32 FT ✓	" " " " $28^{\circ} 31.80'$ ✓ " $80^{\circ} 24.72'$ " " "	60 FT
6)	38 FT ✓	" " " " $28^{\circ} 31.92'$ ✓ " $80^{\circ} 24.62'$ " " "	60 FT
7)	15 FT ✓	" " " " $28^{\circ} 32.80'$ ✓ " $80^{\circ} 28.30'$ ✓ " " "	18 FT
8)	57 FT ✓	" " " " $28^{\circ} 32.68'$ ✓ " $80^{\circ} 22.93'$ " " "	60 FT
9)	22 FT ✓	" " " " $28^{\circ} 35.64'$ ✓ " $80^{\circ} 23.82'$ " " "	26 FT
10)	18 17 FT	" " " " $28^{\circ} 36.08'$ " $80^{\circ} 23.50'$ " " "	19 FT
11)	17 18 FT	" " " " $28^{\circ} 36.72'$ " $80^{\circ} 23.37'$ " " "	20 FT
12)	17 18 FT	" " " " $28^{\circ} 36.80'$ ✓ " $80^{\circ} 24.33'$ " " "	18 FT
13)	21 FT ✓	" " " " $28^{\circ} 36.53'$ ✓ " $80^{\circ} 23.80'$ ✓ " " "	27 FT
14)	23 25 FT ✓	" " " " $28^{\circ} 36.72'$ ✓ " $80^{\circ} 23.66'$ " " "	36 FT
15)	13 12 FT	" " " " $28^{\circ} 37.55'$ ✓ " $80^{\circ} 25.40'$ " " "	15 FT
16)	17 18 FT	" " " " $28^{\circ} 38.05'$ ✓ " $80^{\circ} 25.58'$ ✓ " " "	21 FT
17)	56 FT ✓	" " " " $28^{\circ} 41.90'$ ✓ " $80^{\circ} 26.00'$ ^{25.97} " " "	58 FT
18)	58 FT ✓	" " " " $28^{\circ} 41.40'$ ✓ " $80^{\circ} 26.80'$ " " "	59 FT

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. .8342..

Records accompanying survey:

Boat sheets 1...; sounding vols. .16...; wire drag vols.; bomb vols.; graphic recorder rolls 12-Envelopes special reports, etc. 1-Descriptive report. 1-Smooth sheet,.... 1-Shoran calibration sheet, and (5 Vols.-Shoran Calibrations and bar checks, 1-Cahier. Shoran Computations, and 1-Observation of Horizontal Directions filed with H-8343.)

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

Number of positions on sheet	.....	2236
Number of positions checked	.....	11
Number of positions revised	.....	2
Number of soundings revised (refers to depth only)	.....	10
Number of soundings erroneously spaced	.....	12
Number of signals erroneously plotted or transferred	.....	0
Topographic details	Time	0
Junctions	Time	8
Verification of soundings from graphic record	Time	1

Verification by... *C.R. Helmer* Total time 119... Date 4/2/57 - 4/23/57

Reviewed by... *J. A. Dinsmore* Time 20... Date 5/3/57

GEOGRAPHIC NAMES

Survey No. H-8342

Name on Survey											
	A	B	C	D	E	F	G	H	K		
<u>Atlantic Ocean</u>											1
<u>Cape Canaveral</u>											2
<u>Chester Shoal</u>											3
<u>Hetzel Shoal</u>											4
<u>Ohio Shoal</u>											5
<u>The Bull</u>											6
											7
											8
											9
											10
											11
											12
											13
											14
											15
											16
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											20
											21
											22
											23
											24
											25
											26
											27

Names approved
5-3-57
A.J.W.

DIVISION OF CHARTS
REVIEW SECTION - NAUTICAL CHART BRANCH
REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8342

FIELD NO. PBS-2556

Florida, Atlantic Ocean, Northeast of Cape Canaveral

Project No. 10,000-804

Surveyed - 10/30/56 - 11/15/56

Scale 1:20,000

Soundings:

Control:

808 Fathometer

Shoran

Chief of Party - J. C. Ellerbe
Surveyed by - J. C. Ellerbe, D. G. Rushford and W. M. Lee
Protracted by - W. L. Jonns
Soundings plotted by - W. L. Jonns
Verified and inked by - C. R. Helmer
Reviewed by - T. A. Dinsmore 3 May 1957
Inspected by - R. H. Carstens

1. Shoreline and Control

No shoreline falls within the limits of this offshore survey sheet.

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

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated.

Several prominent, named shoals fall within the area of this offshore survey. Except for these shoal areas, the bottom is relatively smooth and featureless.

4. Junctions with Contemporary Surveys

Adequate junctions were effected with H-8343 (1956) and H-8344 (1956) on the south and with H-8341 (1956) on the west. In the junction between the present survey and H-8345 (1956) on the east, the soundings from the two surveys do not overlap except in the vicinity of lat. $28^{\circ}34.5'$, long. $80^{\circ}22.4'$. At the project limits on the north, charted depths are in harmony with the depths at the limits of the present survey.

5. Comparison with Prior Surveysa. H-234 (1850) 1:20,000

This early reconnaissance survey may be disregarded as lacking sufficient reliable information for a comparison of any cartographic value.

b. H-1409 (1878) 1:40,000 H-4916 (1929) 1:40,000
H-1410 (1878-91) 1:20,000 H-4946 (1929) 1:40,000

The surveys of 1929 provide the most complete prior coverage of the surveyed area. A comparison of the prior and present surveys reveals only minor bottom changes of 1 to 3 ft. Lesser depths were generally found on the shoals than shown on the prior surveys. The crests of the shoals throughout the area also appear to have shifted slightly westward since the earlier surveys.

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 previously discussed surveys which need no further consideration.

The 10-ft. sounding charted by hand correction in lat. $28^{\circ}31.6'$, long. $80^{\circ}25.55'$, originates with advance information of the present survey reported in H. O. Notice to Mariners No. 16 (1957). The 10 has been subsequently revised to 11 ft.

The present survey entirely supersedes the charted information.

B. Aids to Navigation

The buoy charted in lat. $28^{\circ}31.05'$, long. $80^{\circ}29.53'$, was located about 460 meters northeastward on the present survey. The charted position adequately serves the purpose intended. No other aids to navigation are charted within the limits of the 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

Max G. Ricketts
Chief, Nautical Chart Branch

Charles A. Schanck

Charles A. Schanck
Chief, Division of Charts

Karl B. Jeffers

Karl B. Jeffers
Chief, Hydrographic Branch

Samuel B. Grenell
by J. Bowie

Samuel B. Grenell
Chief, Division of Coastal Surveys

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

1 April 1957

Plane of reference approved in
16 volumes of sounding records for

HYDROGRAPHIC SHEET 8342

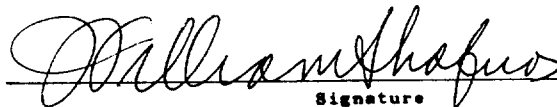
Locality Cape Canaveral, Florida

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.

Condition of records satisfactory except as noted below:



Signature

Chief, Tides Branch

80° 30'

28° 40'

A T L A N T I C O C E A N

8342

Hetzl Shoal

Ohio Shoal

The Bull

False Cape

De Soto Beach

CANAVERAL HARBOR
 Channel depths - Jan. 1956
 Object width 400 to 300 ft.
 Outside quarter 24½ ft.
 Half 24½ ft.
 Inside quarter 9½ ft.



Fl 15sec 137ft 18M
 R. Bn. 316
 20m-30m & 50m-60m

CAPE CANAVERAL

Chart - 1245



MAGNETIC

VAR 0° 30' E (1957)

ANNUAL DECREASE

Ok Fl R "WRBA"

gy S wreck

69

74

66

74

67

71

66

69

Fl 4sec WHIS

74

79

87

81

80

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81

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NAUTICAL CHARTS BRANCH

SURVEY NO. H-8342

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
10/16/57	457	S. J. McGinnis	Before After Verification and Review Completely applied.
1/28/58	1245	Burgoyne	Before After Verification and Review Fully applied
4-27-58	1112	R. K. de Lande	Before After Verification and Review area N of 25°38' only than Ch 1245 Before After Verification and Review
7/7/58	1007	H. W. Burgoyne	Before After Verification and Review thru Ch 1112 CP drawing # 17 - Completely applied.
7/9/58	1111	S. J. McGinnis	Before After Verification and Review
12/17/58	1001	J. A. D.	Before After Verification and Review completely applied Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
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			Before After Verification and Review

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.