8345

Diag. Cht. Nos. 1001-3 and 1245, 1246.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. PBS- 4556 Office No. H-8345

LOCALITY

State FLORIDA

General locality ATLANTIC OCEAN

Locality CAPE CANAVERAL

194 56

CHIEF OF PARTY

John C. Ellerbe

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DATE MAR 25 1957

B-1870-1 (1)

8345

Form 537
(Ed. June 1946)

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-8345

Field No. PBS-4556

State Florida

General locality Atlantic Ocean

Locality East of Cape Canaveral

Scale 1:40000 Date of survey 11/16/56 – 12-18/56 ~~10/12/56 - 1/3/57~~

Instructions dated 24 August 1956

Vessel PARKER - BOWEN - STIRNI - Launch #180

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

Surveyed by ~~R.C. Darling~~ C.R. Reed, D.G. Rushford, ~~O.L. Duster~~, W.M. Lee, 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. Kaupa

Soundings penciled by A. Kaupa

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

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

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

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: 1008, 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. (offshore sheet, no topo)

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. Review, #5

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

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, #5

M. COMPARISON WITH CHART: See Section "L". Review, #6

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. (Shoaler depths generally found on present survey)

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.

The following Wire Drag Investigations were Made:

Sheet PBS-4556 WD, Wreck Nos. 495, 501, 845, & 1221 (F.E. 3, 1957 W.D.)
Sheet PBS-4656 WD, Wreck No. 502 (F.E. 4, 1957 W.D.)

WRECK NO. ~~495~~ 845: 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~~ 495: 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 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 present survey
See F.E. No. 3 (1957) W.D.

WRECK NO. 502: This wreck was not found. The area was dragged by four strips F.E. 4, with effective depths ranging from 60.0 to 66.5 feet with negative results. 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
1 ea.	"	PBS-2556
1 ea.	"	PBS-2656
1 ea.	"	PBS-2756
1 ea.	"	PBS-4556 ✓
1 ea.	"	PBS-4556 WD
1 ea.	"	PBS-4656 W.D.
2 ea.		
1 ea. Sheet, Dinaplex,		Calibration

2. Sounding Volumes:

	PARKER	BOWEN	STIRNI	Launch 180	Total
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. Pathograms:

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 - Magnetics Sent to W. O. 1-10-57

7. TRIANGULATION:

Mis. Triangulation data for location of Shoran Stations.

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. Variations in corrections due to distance not determined or applied

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° 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 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. 1128	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. 1518PX	Entire project
Launch No. 180:	EDO No. 215	26 Nov. thru 10 Dec. 1956
	Model 808 No. 1008	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.

Note applies to this survey. Fath. corrections on this date not used.

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

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

SHIP PARKER — SOS FATH. #1125 — 19 Oct. thru 8 Nov. 1956

A SCALE	B SCALE	C SCALE	D SCALE
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			

not applicable this survey

SHIP PARKER — SOS FATH. #164 — 16 Nov. thru 18 Dec. 1956

A SCALE	B SCALE	C SCALE	D SCALE
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			

SHIP PARKER — SOS Fath. #164 — * 17 December 1956 only

A SCALE	B SCALE	C SCALE	D SCALE
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		

* Applies to this survey - Corrections Not used -

*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.

SHIP BOWEN — SOS FATH. 160 XPS — ENTIRE PROJECT

A SCALE	B SCALE
-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 [illegible] — **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

LAUNCH 180 — **808 FATH. 1008** — **11 DEC. 1956 only**

A SCALE

-0.8 to 19.0'
-0.6 to 23.2'
-0.4 to 26.8'
-0.2 to 39.0'
-0.4 to 40.0'

LAUNCH 180 — **808 FATH. 1008** — **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-8345

SHIP PARKER

DAY LTR.	DATE	VOL. NO.	STAT. MI.	NO. POS.
A	11/16/56	1	60.7	84
B	11/19/56	1	-	1
C	11/26/56	1&2	55.9	86
D	11/28/56	2	46.0	77
E	12/ 1/ 56	2	4.0	13
F	12/ 6/56	2	49.7	66
G	12/11/56	3	9.9.	13
H no bar checks	12/12/56	3	89.7	118
J no bar checks	12/14/56	3&4	34.5	64
K	12/17/56	4	68.4	117
L	12/18/56	4	27.6	54
		TOTALS	446.4	693

SHIP BOWEN

A	11/26/56	5	9.8	15
	GRAND TOTALS		456.2	708

FLOATING AIDS TO NAVIGATION
H-8345

BUOY	LATITUDE	LONGITUDE	DEPTH	POS. NO.	DATE
Hetzel Shoal Ltd. Whistle Buoy 8	28-37.95	80°-21.00'	~~84~~ 78	25C	11/26/56
Marker Buoy 8	28-38.06	80°-21.~~10~~ 07"	~~74'~~ 7	24C	11/26/56

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8345 (Field No. PBS-4556)

GENERAL

The few sounding lines run on this survey appear to check very well with chart 1245. The following shows a comparison of the few shoal areas developed:

	CHART	H-8345
Lat. 28-~~34~~42.2 Long. 80-19.5	56'±	53'± Review, #5
Lat. 28-34.23' Long. 80-22.~~1~~2	34' -	30'± (charted)
Lat. 28-21.8 Long. 80-22.5	39'	36' chart 36

SOUNDINGS

All fathograms were scaled and the soundings reduced with templates by personnel of the Norfolk District Office. Hydrographic lines were run during choppy sea conditions and by carefully meaning wave action during the scaling process, good crossings were obtained in a rather irregular bottom.

Norfolk, Va.
19 March 1957

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer.

GEOGRAPHIC NAMES

Survey No. H-8345

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Florida										1
Atlantic Ocean										2
Cape Canaveral										3
				Names approved 4-23-57. L. Heck						4
										5
										6
										7
										8
Canaveral Harbor			(tide station)							9
										10
										11
										12
										13
										14
										15
										16
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										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8345...

Records accompanying survey:

Boat sheets 1...; sounding vols. ..5..; wire drag vols. .....;

bomb vols. .....; graphic recorder rolls 7-Envelopes

special reports, etc. 1-Smooth sheet, 1-Descriptive report, and

(1-Observation of Horizontal Directions, 5-Vols. Shoran Calibrations and Bar Checks, and 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		708
Number of positions checked		15
Number of positions revised		3
Number of soundings revised (refers to depth only)		60
Number of soundings erroneously spaced		—
Number of signals erroneously plotted or transferred		Shoran
Topographic details	Time	none
Junctions	Time	8
Verification of soundings from graphic record	Time	4

Verification by A.J. Hoffman Total time 72 hrs. Date 4-8-57

Reviewed by J.A. Dismore Time 40 Date 4/17/57

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8345 FIELD NO. PBS-4556

Florida, Atlantic Ocean, East of Cape Canaveral

Project No. 10000-804

Surveyed - 11/16/56 - 12/18/56 Scale 1:40,000

Soundings: Control:

808 Fathometer Shoran

Chief of Party - J. C. Ellerbe
Surveyed by - C. R. Reed, D. G. Rushford, W. M. Lee, E. R. Scyoc and L. L. Seal
Protracted by - A. Kaupa
Soundings plotted by - A. Kaupa
Verified and inked by - A. J. Hoffman
Reviewed by - T. A. Dinsmore 17 April 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 very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. Except for the 30-ft. shoal in lat. 28°34.1', long. 80°22.1', and the 36-ft. shoal spot in lat. 28°21.9', long. 80°22.05', the bottom is relatively smooth and featureless.

4. Junctions with Contemporary Surveys

The junctions with H-8342 (1956) and H-8344 (1956) on the west will be considered in the reviews of those surveys. Charted soundings at the limits of the present survey on the north, east and south are in harmony with the present survey depths.

5. Comparison with Prior Surveys

a. H-770 (1860) 1:400,000

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

b. H-1410 (1878-91) 1:20,000 H-1488a (1881) 1:40,000
H-1411a (1878) 1:20,000

Inasmuch as these early surveys have been compared with and considered in the reviews of the 1929-31 surveys, no further consideration is deemed necessary in the present review.

c. H-4931 (1929) 1:120,000 H-5120 (1931) 1:40,000
H-4946 (1929) 1:40,000 H-5138 (1931) 1:120,000
H-5034 (1930) 1:40,000

These prior surveys taken together cover the area of the present survey. A comparison of the prior and present surveys reveal some differences in depths. In the offshore area on the east, sporadic differences can be attributed largely to the dead-reckoning control and less accurate sounding methods on the prior surveys. Along the western margin of the present survey in depths of less than 70 ft., some bottom changes are indicated. In this area, present depths are generally 1 to 6 ft. shoaler than the prior depths and it appears that the shoals have shifted somewhat in position. The present survey coverage, however, is inadequate to entirely supersede the prior surveys. The present survey should supplement the prior surveys, and where differences occur, the present survey depths should be charted in preference to the prior depths.

The 56-ft. sounding charted in lat. 28°42.25', long. 80°19.5', from H-4946 should be disregarded. Falling in depths of 63 - 66 ft. on the present survey, the prior sounding and a subsequent 60-ft. sounding on line were obtained at a time when the ship was rolling severely according to remarks in the prior sounding volume. Present development is considered adequate to discredit the prior sounding.

d. F. E. No. 3 (1957) W.D.

This wire-drag field examination investigated certain wrecks within the area of the present survey. No conflicts are noted between the present depths and the effective drag depths on the field examination. The least depths obtained at the wreck positions have been carried forward to the present survey.

6. Comparison with Chart 1111 (Latest print date 11/5/56)
Chart 1245 (" " " 1/28/57)
Chart 1246 (" " " 10/29/56)

A. Hydrography

Charted hydrography originates principally with the previously discussed surveys which need no further consideration.

The 18-fm. sounding charted in lat. 28°34.4', long. 80°09.1', on Chart 1111 should be disregarded. The sounding which has been charted since 1912 from an unidentified source, falls in smooth-bottom depths of 28 fms. (168 ft.) on both the prior and present surveys. The charted sounding is probably 10 fms. in error.

The charting of the area covered by the present survey should be governed by the information given in paragraph 5 of this review.

B. Aids to Navigation

The buoy charted in lat. 28°38.2', long. 80°21.04', was located about 400 meters southward on the present survey. The marker buoy located northwestward on the present survey approximates the position of the charted buoy.

The charted aid adequately serves the purpose intended. No other 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.

c. No variations for distances were determined or applied to shoran distances. Differences in shoran positions on this survey at maximum distances from the stations would be about 4 millimeters based on an assumed variation of .003 mile per linear mile.

8. Compliance with Project Instructions

The survey substantially complies with the Project Instructions. Differences with depths on the preceding surveys are generally less than 6 ft. and therefore the two-mile spacing of the regular system of lines was not decreased.

9. Additional Field Work

No additional field work is recommended for this supplementary survey.

Examined and Approved:

Max G. Ricketts
Chief, Nautical Chart Branch

Charles A. Schanck
Chief, Division of Charts

Karl B. Jeffers
Chief, Hydrography Branch

Samuel B. Grenell
by J. Bowie
Chief, Division of Coastal Surveys

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

26 March 1957

Plane of reference approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 8345

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)

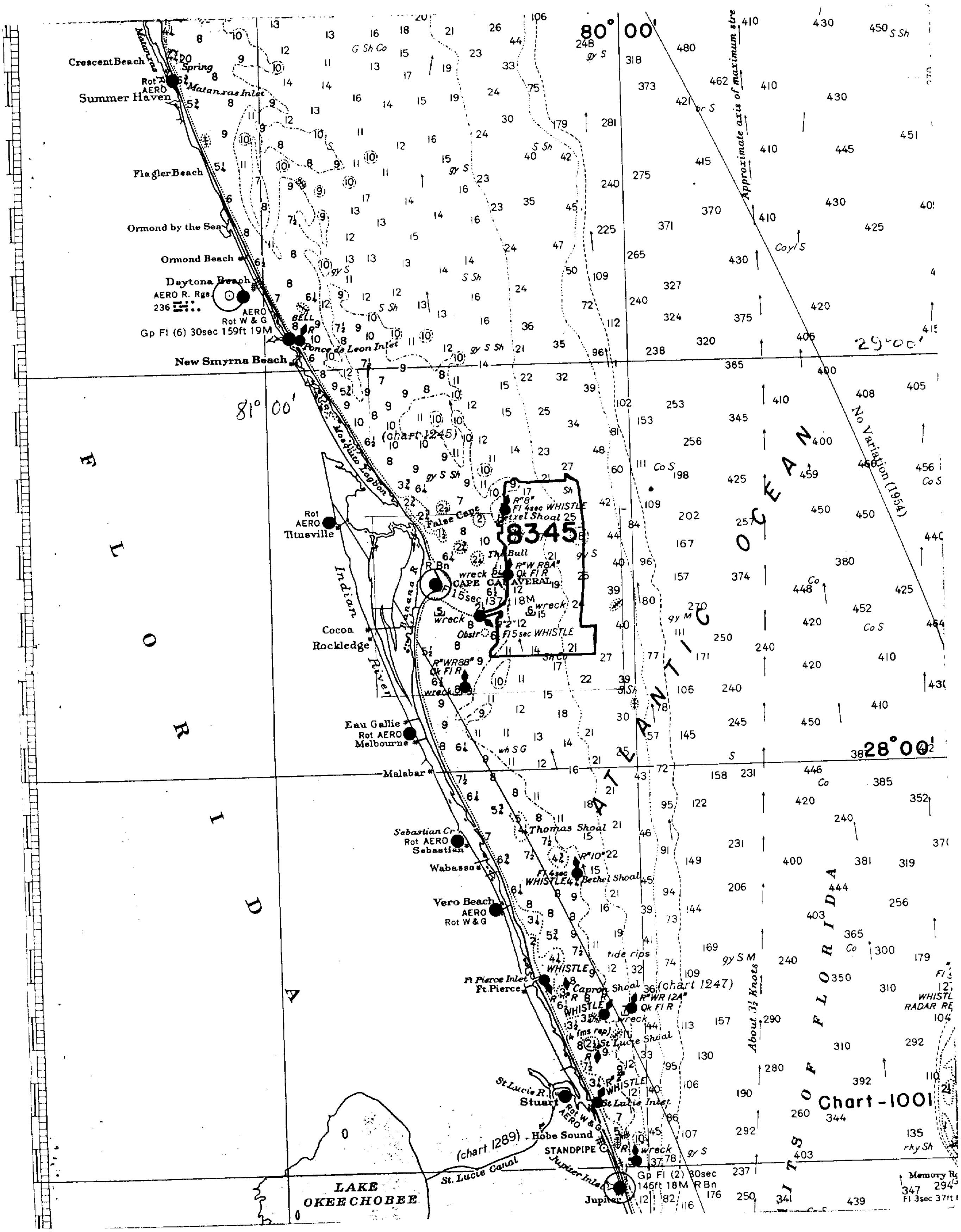
Height of mean high water above plane of reference is 3.5 feet.

Condition of records satisfactory except as noted below:

William Shofnos
Signature

Chief, Tides Branch

Comm-DC 34330


80° 00'
81° 00'
29°00'
28°00'
Crescent Beach
Summer Haven
Matanzas Inlet
Flagler Beach
Ormond by the Sea
Ormond Beach
Daytona Beach
Ponce de Leon Inlet
Gp Fl (6) 30sec 159ft 19M
New Smyrna Beach
Mosquito Lagoon
(chart 1245)
Titusville
False Cape
Bethel Shoal
8345
The Bull
CAPE CANAVERAL
Cocoa
Rockledge
Indian River
Banana R
Eau Gallie
Rot AERO
Melbourne
Malabar
Thomas Shoal
Sebastian Cr
Sebastian
Wabasso
Vero Beach
Ft Pierce Inlet
Ft. Pierce
Capron Shoal
(chart 1247)
St Lucie Shoal
St Lucie R.
Stuart
St Lucie Inlet
Hobe Sound
STANDPIPE
(chart 1289)
St. Lucie Canal
Jupiter Inlet
Gp Fl (2) 30sec
146ft 18M R Bn
Jupiter
LAKE
OKEECHOBEE
FLORIDA
ATLANTIC OCEAN
STRAITS OF FLORIDA
Approximate axis of maximum stream
No Variation (1954)
About 3½ Knots
Chart-1001

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8345

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6/7/57	1246	N. Burgoyne	~~Before~~ After Verification and Review partially applied. Added a few shoal sdgs.
10/28/57	457	CRW & JW	~~Before~~ After Verification and Review Completely
1/28/58	1245	H. Benson	~~Before~~ After Verification and Review Fully applied
4-24-58	1112	R.K.D.	Before After Verification and Review In part via cht 457 area N of 28°58' & W of 80°18' only - thru Cht 1245
			Before After Verification and Review
7/7/58	1007	H.W. Burgoyne	~~Before~~ After Verification and Review Fully applied thru Ch 1112 C [illegible] #17 thru Ch 1245 #12
7/9/58	1111	[illegible]	~~Before~~ After Verification and Review
Dec. 1958	1246	T.A.D.	~~Before~~ After Verification and Review Completely thru Cht. 457
12-17-58	1001	T.A.D.	~~Before~~ After Verification and Review completely applied
			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.