



Diag. Cht. No. 1114 & 1257-2.

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

# DESCRIPTIVE REPORT

(HYDROGRAPHIC)

Type of Survey ... HYDROGRAPHIC

Field No. ... HSL-20-1-73

Office No. ... H-9351

LOCALITY

State Florida

General Locality . Northwest Coast

Locality ... Indian Rocks Beach, Florida

1973

CHIEF OF PARTY

Fidel T. Smith, Lt. Cdr., NOAA

LIBRARY & ARCHIVES

DATE ... March ... 1977

**☆U.S. GOVERNMENT PRINTING OFFICE: 1974-763-098** 

FORM 77-28

# U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

RIEGISTER NO.

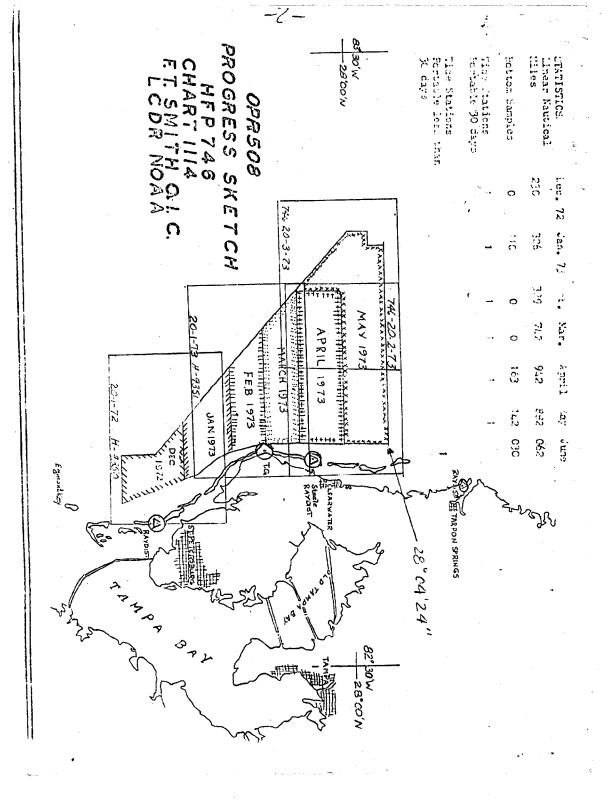
# **HYDROGRAPHIC TITLE SHEET**

H-9351

illed in as completely as pos	sible, when the sheet is forwarded to the Office. HSL-20-1-73
Scate	Florida
General locality	Northwest Coast
Locality	Indian Rocks Beach Florida
Scale	1:20,000 Date of survey 01/31/73 - 04/09/73
Instructions dated	
Vessel	NOAA Launch 1257
Chief of party	F.T. Smith, LCDR, NOAA
Surveyed by	F.T. Smith, W. Adams, F. Saunders, & D. Mason
Soundings taken by echo s	sounder, hand load, pole. Raytheon DE-723D
Graphic record scaled by _	·
Graphic record checked by	Launch Personnel
Protracted by	Hydroplot Automated plot by AMC-EDP
	Charles Meekins
Soundings in fathoms	feet at MLW MLLW_
REMARKS:	Raydist DRS used for position, Hydroplot survey
	equipment used for logging and plotting.
	Changed to category I survey
	Changed to category 1 survey
	Changed to category I survey
	Changed to category 1 survey
	Changed to colegary 1 survey  applied to stale 3-16-71

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#### DESCRIPTIVE REPORT

FOR

# HYDROGRAPHIC SURVEY H-9351

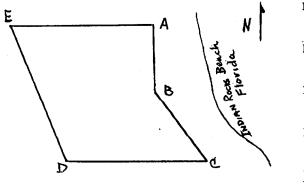
HSL-20-1-73

# A. Project

This survey was completed as a part of OPR 508 in accordance with the Project Instructions OPR-508-HSL-72, Gulf Coast of Florida, dated September 11, 1972.

#### B. Area Surveyed

This survey covers an area offshore of Indian Rocks Beach, Florida. The area lies from 2 miles to 11 miles offshore. The preceding page shows the boatsheet layout. The following sketch and coordinates give the limits of hydrography:



PT. A Lat. 27° 56' 00" -Long. 82° 52' 00" -

PT. B Lat. 27° 51' 45" '
Long. 82° 52' 00" "

PT. C Lat. 27° 48' 00" '
Long. 82° 50' 00" '

PT. D Lat. 27° 48' 00" -Long. 82° 57' 30" -

PT. E Lat. 27° 56' 00" -Long. 83° 06' 00" -

Project Instructions state that this survey should junction with contemporary surveys. There was some doubt as to what the contemporary survey were and it was concluded that the surveys of 1950 were not contemporary surveys. The limits of the survey were taken to be the limits shown on the Project Instructions as the limits of Area I.

The project area I is the area bound by a 1950 survey. This survey junctions with the 1950 surveys even though it was considered a prior survey by the field party.

# C. Sounding Vessel

NOAA Launch 1257 of HFP was the only vessel used to obtain soundings on this boatsheet.

#### D. Sounding Equipment

Two Raytheon DE 723Ds were used as sounding units. Both recorders were model number 723-40. One had serial number 1704 and the other was serial number 37024. Also used with the above units was a Tracor Precision Frequency - Square Wave - Power Module for AC power to the fathometers and the computer real time clock. The ECU on the fathometer was a model 723-42 with the serial number 1910.

Soundings were taken from 10 to 58 feet.

Echo sounding corrections were determined by bar check and temperature/salinity readings. See the Report on Corrections to Echo Soundings OPR-508-1972-1973.

#### E. Smooth Sheet

The smooth sheet will be plotted by the Processing Division at the Atlantic Marine Center in Norfolk, Virginia. Field records consisting of fathograms, strip chart for Raydist, hard copy printouts of on line logging, corrector tapes, master data tapes, TC/TI tapes, velocity table, etc. are being transferred to AMC with this report.

A "field smooth sheet" consisting of a composite plot of field data is being submitted with the original field sheets. The composite plots (complot) show the field data as corrected for final electronic correctors, scanning for peaks and deeps and predicted tides. The composite plot being submitted for this boatsheet consists of A and B plotter sheets and several overlays. Notes have been made on the plotter sheets as to errors noted.

Some additional notes for the processing personnel and cartographic technicians:

- 1. The inshore (east end) of the survey area was originally sounded at 190 meter intervals. These lines were split at a later date. Due to rough seas (2-4 foot) on one day there is some problem with getting contour agreement. The fathograms were rescanned but this failed to resolve the problem. Smooth tides(to adjust for storm tides) might resolve this difference. The bottom is flat and one foot of difference shifts the contour a significant distance. The area referred to here is between latitude 27° 49.8' and 27° 51.1'.
- 2. The inshore area between latitude 27° 52.5' and 27° 53.7' was sounded on several different days. The last set of lines were splits to reduce line spacings to 95 meters. These lines were misplotted on the field "smooth sheet" due to the plotter pen not starting at the origin. Contouring of this area was examined on the field sheet.

3. The inshore area north of latitude 27° 52' was sounded and resounded at 95 meter intervals on several days.

The area was first sounded just using Raydist for control. In this area the Raydist signal from the southern station has passed over land and the relative signal strength of the two stations is near 5 to 1. There was warbling in the tones and some jitter in the dials on the inshore end.

Day 082 was run just using Raydist. It was decided to rerun the area using Raydist and 3 pt. sextant fixes. This procedure was used on several days on the inshore end of lines. Examination of the two sets of data showed the 3 pt. fixes to be less accurate than the Raydist. Days 082 and 089 were originally rejected. However they have been retained since they are necessary to completely cover the area. There is duplication of position numbers and there will be a congestion soundings in this area.

Posa. Nos. revised during verification, See Notes pagents 8; Us report. Tapes for both the visual control and the Raydist control have been submitted. The visual control may be of interest to the verifier. It is recommended that the Raydist control be used for the final plot. Overlays of the visual data has been submitted.

Raydist Control was used for all of final Smooth Sheet.

Additional information on this sam be found in the report on electronic control.

#### F. Control

Hastings Raydist electronic positioning equipment (DRS) used in a rangerange mode was used for position on this survey. Shore sites were located by Mr. Jim Shea from NOS-AMC Operations Division. The stations were located at

Station	Latitude	Longitude
Steele Raydist	27° 56' 32.724" ′	82° 50' 13.464" -
Ruscoe	27° 42' 28.830" ~	82° 44' 16.570" -

Calibrations were by three point sextant fixes taken to signals on shore that were third order triangulation or traverse stations. See the Report on Corrections to Electronic Control on OPR 508 1972-1973. Attempts were made to calibrate offshore in the survey area. These calibrations proved to be misleading since the strength of the fixes were very poor.

In that portion of the survey where the Raydist signal passed over land and the ratio of signal strength was getting poor, sextant fixes were taken in conjunction with the Raydist. Several plots were made of both sets of data. The Raydist plot proved to be the better of the two. Both sets (range-range and visual) of records have been submitted for the day. It is recommended that the Raydist data be accepted as the final.

The Hastings Raydist DRS system was a model number ZA 673 with the serial number 67. It was tuned to 3296.495 kHz. This equipment was used in conjunction with the DEC PDP81 Hydroplot System.

G. Shoreline Olso See attached letter from office of Marine Survey. \* Maps, Child hb. 5 76.

There is no shoreline available for this boatsheet. The inshore area is to be surveyed at a later date by a different boat.

## H. Crosslines

Crosslines were run to the extent of 10% of the regular sounding lines. Agreement was good. There were cases of disagreements of 2-3 feet. These disagreements were not uniform and are due to rough sea conditions.

This survey junctions with H-9350 on the south and with H-9390 on the north. Both are contemporary surveys. The junctions are good and there are no holidays. The depths agree and there is no displacement of depth curves.

This survey junctions with prior survey H-7908 on the inshore end of the survey. Agreement is good with the maximum difference being 2 feet.

Junction Made on Smooth Shart bul Curus Not Mode identical.

H-9351 junctions with prior survey H-7793 on the west. H-7793 was a 1:100,000 survey from 1950 using EPI. The junction is not a real good one. This is a relatively flat area and soundings disagree by as much as 4 feet. Approximately 80% of the compared junction soundings agree within 2 feet. This is not a junction - H-9351 Covers part of Same area as prior Survey.

# J. Comparison with Prior Surveys

This survey was compared to the 1924-1927 surveys reg. no. 4580 and 4581. The 1973 survey has shoaler depths than the prior surveys. The controlling depths were up to 5 foot shoaler than the prior surveys indicated in the offshore area.

On the inshore areas the size of the shoals have increased and some have shifted. They are shoaler in some cases by 2-3 feet.

### K. Comparison with Chart

A comparison was made with C&GS chart 1257. This chart area was compiled from prior surveys 4580 & 4581 which were surveyed in 1924-

Most of the charted soundings were verified by identical soundings within a radius of 400m. There were some soundings which could not be verified.

- The charted 16 foot sounding on a shoal at lat.  $27^{\circ}$  54' 30". long.  $82^{\circ}$  55' 16". A shoal exists in this area but the least depth was  $16^{\circ}$  feet.  $\rho_{05}$   $\rho_{05}$
- A 17 foot sounding was located at lat. 27° 54' 20" long. 82° 56' 36". This area is charted as 23 to 26 feet deep. Posis. No. 2416 - 2417 ... day No. 073
- The pre survey review item (dashed circled sounding) of a 13 foot sounding at lat. 27° 51.35' long. 82° 54.1' was not found. The area was sounded at 100 m spacing. The shoal previously charted in this area has broken up and the area now ranges between 21 and 19 Feet. There is a 15 foot sounding about 200 m Poru. No. 1227-1228 + 3552 ... day No. 053 + 088
- The pre survey review sounding of 22 feet at lat. 27° 48.5 and long. 82° 55.0 was verified. 1031 depth 21 H... pos., 3801-3818 ... day 089
- 5. The pre survey review sounding of 36 feet at lat. 27° 53.6' long. 83° 01.8' was verified. | least depth 33 | 1. posta. 2119 2120 ... day 072. See bottom of page 7.

The inshore end of this survey (H-9351) shows changes in the charted 18 foot contour. The area is sand and there is some tidal action and extensive sand bars have shifted in some areas. The minimum depths observed were close to the previous charted minimum depths.

### L. Adequacy of Survey

This survey is considered complete and adequate to supersede prior surveys for charting.

The area between latitude 27° 55' and 27° 56' and longitude 82° 52' and 82° 58' did not have any bottom samples.

#### M. Aids to Navigation high hist do. 117.50 - pp. 14 Volume No. II

There are no landmarks or fixed aids to navigation on this boatsheet. There is one floating aid and it is RN "20". It marks a 17 foot shoal at Lat.  $27^{\circ}$  53.05' Long.  $82^{\circ}$  56.0'. It was located as it is charted. Position no. 3819 on day 99 gives the location.

4425 The pre survey reivew item of a fish haven at  $27^{\circ}$  55' 40" and  $83^{\circ}$  00' 20" was not detected. Fathograms in the vicinity were examined and no indications of obstructions was found.

N. St	atistics					
1973	Time	Time	Starting	Final	N.M. of	B.S.
Day	GMT From	GMT To	<u>Position</u>	Position	Sdgn. Line	
031	1456	2147	1	319	98.5	
032	1632	1813	320	423	29.0	
043	1503	1647	424	480	16.0	
045	1605	1834	481	595		Rejected
046	1545	1957	596	820	66.4	
052	1454	1803	821	1006	53.1	
053	1449	1904	1007	1261	66.0	
054	1527	2040	1262	1500	67.0	
067	1715	2018	1501	1683	51.0	
068	1737	2142	1684	1885	66.0	
072	1318	2233	1886	2318	145.0	
073	1310	1915	2319	2562	76.1	
074	1424	1834	2563	2808	80.0	
078	1338	2026	2809	3203	122.0	
079	1607	1706	3204	3263	12.0	,
082	1405	2008	3264	3 50.2	68.1	
880	1441	1825	3203 3203	3372 *	46.4	
089	1335	2100	3 <del>37</del> 3 <sup>36</sup>	3679 39 10	75.6	
092	1454	1954	3 <del>373</del> 3,974	3 <del>699</del> <b>* *</b> <sup>430</sup>	. 74.6	
096	1335	2213	3700 <sup>4306</sup>	3 <del>78</del> 6 4392		87
099	1837	2312	<del>3781</del> <sup>4343</sup>	-3863 A46°		<u>47</u>
	led 306 to	all positions	por day 088	# 089	1217.3	134
	ded 606 to a	Il positions	ju doys 092,	096, \$ 099		
The	ese Changer	WITE WARE (1)	aring pre-veryi	cation to Correc	1 duplicate	005 a. Numberts
Lineal	l n. miles of	sounding 1	ines	* 089 096, * 099 cation to Correc 1217		
Square	e n. miles of	survey are	a	74		
Total	number of bo	ttom sample	s	134		
Tide S	Stations			1		

<sup>\*</sup> positions 3203-3502 on days 088 and 089 duplicate positions on day 082.

positions 3373-3672 on day 092 duplicate positions on day 082 and day 089 and as such is a reduplication of positions 3373-3502.

#### O. Miscellaneous

This area has pleasure craft and small boat traffic. There is no deep draft ocean going traffic in the area.

Bottom samples are listed in the Form 275 accompanying the survey records.

# P. Recommendations

None

# Q. References to Reports

Reports not included with this report which have been submitted seperately include:

- 1. Report on Corrections to Echo Soundings OPR-508 1972-1973
- 2. Report on Corrections to Electronic Control OPR-508 1972-1973
- 3. Report on Horizontal Control OPR-508 1972-1973.

#### APPROVAL SHEET

Respectfully submitted,

Fidel T. Smith Lt. Cdr., NOAA Chief, AHP

# APPENDIX

# ATLANTIC MARINE CENTER

# PROJECTION PARAMETERS

# POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. <u>OPR-508</u> 4. Requested By <u>Verification Branch (FLS)</u>
2. Reg. No. H-9351 5. Ship or Office AMC
3. Field No. HSL-20-1-73 6. Date Required ASAP
7. Polyconic x Modified Transverse Mercator 8. Central Meridian of Projection 82 58 00 "
9. Survey Scale: 1: 20,000
10. Size of Sheet (check one):
36 x 54 36 x 60 x Other Specify
11. Sheet Orientation (check one):
NYX = 1
N
N
CMER
12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)
Latitude 27 ° 47 ' 00 "
Longitude 83 ° 07 15 "
13. G.P.'s of triangulation and/or signals attached
14. Material Desired: Tracing Paper Mylar x
Smooth Sheet Other Specify Sounding Overlay.
15. Remarks: Sheet Sheet
and the control of t

# ATLANTIC MARINE CENTER

# ELECTRONIC CONTROL PARAMETERS

1.	Project # OPR-508 2. Reg. # H-935/ 3. Field # AHP-20-1-73
4.	Type of Control: Raydist (Hi-Fix, Raydist, EPI, etc.)
5.	Frequency 3296,495 (for conversion of electronic lanes to meters)
6.	Mode of Operation (check one):
	Range-Range Range-Visual
	Range One (R <sub>1</sub> ) Station I.D. Steele Raydist Range Two (R <sub>2</sub> ) Station I.D. Ruscoe  Lat. 27 ° 56 ' 32.724"  Long. 82 ° 50 ' 13.464"  Lat. 27 ° 42 ' 28.830"  Long. 82 ° 44 ' 16.570"
	Hyperbolic (3-station) Hyper-Visual
	Slave One Station I.D. Long. "  Master Lat. "  Station I.D. Long. "  Station I.D. Long. "  Slave Two Lat. "  Station I.D. Long. "
7.	Location of Survey:
	Range-Range $\square$ Imagine an observer is standing at R <sub>1</sub> Station and looking directly at R <sub>2</sub> (check one):
	Survey area is to observer's Right $\bigwedge$ $\Lambda=\emptyset$
	Survey area is to observer's Left A=1
	Hyperbolic Looking from survey area toward Master Station:
	Slave One must be to observer's Left;
	Slave <u>Two</u> <u>must</u> be to observer's <u>Right</u>
8.	This form is submitted as an aid in preparing a boat sheet.
	This form applies to all data on this survey.
	This form applies to part of the data on this survey.
	VesselFromToPosition NumbersEDP #TimeDayTimeDay(inclusive)
	1257 1450 031 2330 099 0001 to 3787
9.	Remarks:
	-/2-

# ABSTRACT OF CORRECTORS TO ELECTRONIC CONTROL HSL 20-1-73 H-9351

Day	From	То	Pat I	Pat II
031	145629	214445	- 15	- 55
032	163247	181326	- 30	- 40
043	150344	164754	- 30	- 60
045	Rejected	•		•
046	154506	195656	- 10	- 55
052	145436	155954	- 25	55
052 -	160004	180228	- 15	<b>~</b> 55
053	144956	190354	- 15	- 45
054	152721	1.55711	+ 10	- 110
054	171004	185955	+ 20	- 130
0.54	190005	203911	+ 30	<b>-</b> 140
067	171549	201729	- 10	<b>-</b> 25
068	173758	214256	+ 40	+ 20
072	131833	223300	+ 45	- 60
073	131026	170943	+ 45	- 760
073	174617	191457	+ 45	- 60
074	142445	183305	+ 55	+ 30
078	133832	194035	+ 40	+ 25
07ε	194146	202554	+ 40	<b>-</b> 375
079	160730	170536	+ 40	<b>-</b> 80 ·
082	140554	200822	+ 50	+ 15
088	144107	182445	<b>-</b> 20	<del>-</del> 45
089	133538	172602	+ 00	<b>-</b> 35
089	190842	205950	+ 60	- 60
092	171624	195337	+ 45	+ 55
096	133543	165745	- 10	<b>-</b> 35
096	134710	181254	- 05	- 35
099	183736	231159	+ 35	<b>-</b> 50

#### SIGNAL NAME LISTING

- 100 EGMONT KEY LIGHTHOUSE (REAR RANGE) 1873
- 105 PINK HOTEL (DON CESAR'S)
- 107 SW CORNER, HAPPY DOLPHIN
- 103 PENTHOUSE ELEV. SHAFT
- 110 CROSS ATOP ST. JOHN'S CATHOJIC CHURCH
- 111 BLIND PASS TANK
- 122 U S VETERANS HOSPITAL (NORTHWEST OF ST) PETERSEUFGG SQUAT WHITE TANK 1934
- 133 MADELRA BEACH TANK
- 135 LIGHT, 17408 GULF BLVD
- 144 BELLEAIR BEACH TANK
- 137 FUBLIC FISHING FIER(SOUTH)
- 139 PUBLIC FISHING PIER(NORTH)
- 155 BELLEAIR SILVER MUNICIPAL TANK 1926
- 156 CLEARWATER, BELLEVIEW HOTEL, WHITE BRICI STAC, 1925
- 166 CLEARVATER BEACH TANK
- I'V MANDALAY SHORES
- 171 MI CRO WAVE TO WER
- 172 DUNEDIN MUNICIPAL TANK
- 173 TRI FO DC FINKO
- 18 6 TARHON SPRINGS MUN TANK (TAR 1929)
- 19 6 TARFON SPRINGS MUN TANK (FON 1925)
- 200 AVCLOTE KEYS LIGHTHOUSE

```
VELOCITY TABLE
```

060047 0 0000 0002 000 125700 009 351 000094 0 0002 000141 0 0004 000133 0 0006 000235 0 0008 000282 0 0010 000329 0 0012 000376 0 0014 000422 0 0016 000470 0 0018 000515 0 0020 2562 Ø ØØ22 66669 6 6624 000656 0 0026 000702 0 0023 000749 6 6030 999999 @ @@3@

TC/TI LISTING

000000 0 0000 0002 031 125700 009351

# U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY

# TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for Form 362

Tide Station Used (NOAA Form 77-12): Indian Rocks Beach

Period: January-May, 1973

HYDROGRAPHIC SHEET: H-9351

OPR: 508

Locality: Off the west coast of Florida

Plane of reference (mean xxxxx low water): 1.3 ft. diwrnal

Height of Mean High Water above Plane of Reference:
2.1 ft.

Remarks: Zone direct

Chief, Tides Branch

Use more than one line SERIAL NO. VESSEL FORM C&GS-733M o more than one line per sample if necessary. 3706 3700 3715 3702 3113 3711 3709 3708 3701 3714 3712 3710 3705 3704 3701 3703 AUNCH apr. 11. 12 21. 51. 51. 82. 51. 6. 004.6.73 apr. 4.73 apr. 6, 73 Apr. 6,73 Apr. 6 73 apr. 6, 73 Opr. 6.73 Opr. 6. 73 Apr. 6,73 Opr. 6. 73 apr. 6,73 Opr. 6. 73 Upr. 6. 73 0pr. 6. 73 apr. 6. 13 DATE 1257 21.52' 54" 82.53' 26" 27.51.53" 27° 52' 57" 82° 52' 31" 21052 25" 82" 52' 16" 27052' 24" 82053' 59" 27"52" 25" 82"54"59" 27 51 53" 82 56 36" 27.51.53" 82.55.01" 27.51.53 21.52 24 82 53 01" 21.52 25" 82.54 34" 27.51.54" 82.55.48" 21.51.53 82.54.15" 21.52.25" 82.55.21" 21.52.25 82.56.14 LATITUDE LONGITUDE SAMPLE POSITION OPR- 508 82" 53" 24" 82° 52' 31" (Fathoms) DEPTH WEIGHT ı YEAR 73 PLER ŧ ı į 4-9351 OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA TRAP ì Ĺ LENGTH CORE 1 99 CIS 94 5 & M. J. Pas. M. 9322 Not 205 A. T T COLOR OF SEDI-MENT HSL-20-1-73) # # 11 S 4 but 54 5 2 CES E 3 CES 5 brk Su -100 7 ue gy 5 & box 56 94 S F 84 5 Sh & Crs gy J 94 5 8 FIELD DESCRIPTION # # 1 94 3 4 b ბი Bu Sh bri Sh brk K CHECKED BY Box 100 day flot usid same (Unusual conditions, cohesiveness, dented OBS. cutter, stat.no., type of bottom relief i.e., INIT. slope, plain, disposition, etc.) E.  $\mathcal{P}_{\mathbf{p}}$ Pos. . O Bs Pas. Bs. Bi B 30 É Pas. No. 4314 No. 4306 Mr. 4318 Ma. 4317 No. 4315 No. 4316 10 4313 10. 4309 No. 4301 Ma. 4319 na. 4310 10. 4308 No. 4311 U.S. DEPARTMENTOF COMMERCE COAST AND GEODETIC SURVEY Mo. 4312 USC 0MM-DC 8220-P62 DATE CHECKED 005 1426

3733 Opr. 6. 73 27'53'59' E VESSEL SERIAL NO. FORM C&GS-733M 4116 3111 3119 April 13 21 3/ 3/ 3/ 3/ 3/ 3728 3121 3726 3720 3731 3730 3729 3724 3723 3122 3732 3725 3721 aunch 401. 6 13 27 52 59" 62" 36 28 apr. 6. 73 apr. 4. 73 DOC 6. 73 apr. 6, 13 27 53 59 82 53 57" apr. 6, 79 27°53 25" 82.52 45" apr. 4,73 Dar. 6. 73 Opr. 6, 73 27°53' 25" Apr. 4. 73 apr. 6. 73 Apr. 6. 73 27. 54. 02" 82. 53' 12" Opt. 6, 13 21-53' 26" 101. 6. 73 apr. 6, 73 27:53 59" DATE 1251 27.53 27°53′59″ 27 53 26 27.53' 59" 82.54 44" 27053 25 82.54.49" 27:53 27 82:58 11" 27" 52" 55" LATITUDE LONGITUDE 27.55 26 82.55.46 SAMPLE POSITION PROJ. NO. 82.56 19" 82.57.20" 82.55 33" 82° 54' 16" 82° 54' 36" 82 " 55 31" 82.52 26" 82. 53 32" (Fathoms) DEPTH YEAR 1973 WEIGHT SAM-OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA H-9351 PROX. TRA-TION ١ LENGTH OF CORE ١ HSL- 20-1-73 COLOR OF SEDI-MENT 10 转 10 - A74 33 - total Crs crs gy 5 \$ Ø CKS 5.5 bk Sok & but Sh 5 Jul 11 94 5 46 94 5 % brk 54 34 3 FIELD DESCRIPTION 94 11 94 5 6 5 & bt Sot S & bk Spt co & bk Spk buk Sh bre brk Sh 8 CHECKED BY Par Mar 1974 May 100 AA2 REMARKS
(Unusual conditions, cohesiveness, denied cutter, stat. no., type of bottom relief i.e., slope, plain, disposition, etc.)  $\tilde{\omega}$ Š Rs. Pos.  $\mathcal{B}_{\mathbf{k}}$ Pos  $\rho_{s}$ B3. 30 20 Pos  $\tilde{\phi}_{\mathcal{O}}$ Pos. no. 4326 Mo. M. 4338 Do. Ma. 4339 M. Ma. 4333 Bo Ma. 4331 no. 4330 Do. Da. 4327 Mo. 4323 U.S. DEPARTMENT OF COMMERCE B Ma. 4328 4332 4334 4335 4329 4337 4336 USCOMM-DC 8220-P62 DATE CHECKED NIT.

Use more than one line per sample if necessary. SERIAL NO. VESSEL 3749 3750 3148 3744 3746 3743 FORM C&GS-733M (8-23-60) 3747 3745 3742 3741 3732 3137 3735 3740 3739 3738 3736 ar 6 73 apr. 6. 73 Opr. 6. 73 apr. 6. 73 apr. 6. 73 apr. 6. 73 Apr. 6. 13 21.51'09" 82.54'48" apr. 6. 73 ar 6 73 Opr. 6. 73 apr. 4. 73 27:51 01" 82:52:50" apr. 6. 73 Opr. 6 73 27 51 07" Jac. 6. 73 Apr. 6. 73 27°51'08" 82°53' 45" apr. 4, 13 27.51 09" 82°52'02" Opt. 6, 73 DATE 1237 27:49 58 " 82:53 31" 27.50 34" 82.52'09" 27049 58 270 50 35 82 53 10 27.51 10" 82°55 42" 27.50 35 82.55 11 27.50 00 82.51 32" 21050 34 82.54 07 27°53'58" 27.30 31 82.54 06" 27.50 38" 82.56.52" 27 53 58" LATITUDE LONGITUDE OPR . 508 82.54.45 82.52 29 82.38 05" 82° 57' 09" (Fathom: DEPTH YEAR 1973 WEIGHT SAMŧ i ı { ŧ ţ H-9351 OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA j ſ í ì ١ ( 1 CORE MENT 4 ı HSL-20-1-73) 74 7 200 74 # Crs 44 CES 2 8 Crs Crs S S crs CS IME B 55 146 111 gy 5 CA 94 5 ts FIELD DESCRIPTION \$ 8 \$ ٠,٥٥ fue gy S crs 5 \$ SU ţ, \$ 8 brk CHECKED BY 83 (Unusual conditions, conseiveness, dented OBS, cutter, stat.no., type of bottom relief i.e., INIT. slope, plain, disposition, etc.) Bs. Bas 30 30 Pas. No. 4353 Bs. 10. 4346 Pas. No. 4344 20 Bs. M. 4349  $\mathcal{R}_{s}$ Bs. No. 9345 Bs. B. 4341 Pas. No. 4354 Pos. Kos. No. 4356 Da. 4352 No. 4342 Do. 4340 Ma 4351 n. 4355 no 4347 U.S. DEPARTMENT OF CONMERCE COAST AND GEODETIC SURVEY Mr. 4348 No. 4343 No. 4350 REMARKS USCOMM-DC 8220-P62 DATE CHECKED

W

216 / Apr. 6 73 27°46'30" 82'56'29" Use more than one line per sample if necessary. SERIAL NO. VESSEL 3763 3766 3765 3764 3762 3761 3760 3159 FORM C&GS-733M 3151 3758 3156 3755 3152 375 3753 3754 apr. 6, 73 001.6 apr. 6. 73 DOT. 6 73 apr. 6. 73 Opr. 6 73 apr. 6. 13 27-48' 28" Por. 6. 73 apr. 6 73 210-49 54" 1pr. 6. 73 27°49 19" 82°51'04" Upr. 6. 73 27°49'20" 82°53'09" apr. 6 73 21°49'20" DATE 1257 13 73 27 48 36 82 35 35 Z 73 27 48 30 27°48'30" 27 48 30" 27-48 30" 82°51 12" 27°49 20 21.49 19" 27.49 59" 27.49 19" 27049 55" 270-48 30 LATITUDE LONGITUDE SAMPLE POSITION " 82. 36. 39" 82.53.45" 82.20.27 82:5/ 39" 82.54.53 82.52.48" 82'54'09" 820 55 10" 82.34 15" 82.55 37" 82.21/58 82.54.3/ (Fathoms) DEPTH WEIGHT YEAR 1973 PLER ŧ ( ì ١ OCEANOGRAPHIC LOG SHEET - M BOTTOM SEDIMENT DATA ١ H 9351 ì LENGTH OF CORE COLOR OF SEDI-MENT # # (HSL - 20-1-73) 3 ine gu E 94 3 8 8h Jue 94 5 945, e 94 5 FIELD DESCRIPTION 24 4 94 8 S/2 \$ 54 m, CA Ŗ ar. 51 & but St 8 2 CHECKED BY REMARKS
(Unusual conditions, cohesiveness, dented CBS, cutter, stat. no., type of bottom relief i.e., stope, plain, disposition, etc.) . Z Š Ē 30 1.00 E Pos. no . 4373  $\vec{\sigma}$ Pas. 10. 4370 Pas. No. 4312 10.4366 DO. 4362 No. 4371 Ma. 4359 No. 4357 No. 4349 No. 9365 10. 4364 Mo. 4358 U.S. DEPARTMENTOF COMMERCE COAST AND GEODETIC SURVEY Ma. 4361 10. 4368 Ma. 4347 Do. 4363 A340 USCOMM-DC 8220-P62 DATE CHECKED 5

Use more than one line per sample if necessary. 3781 3779 3183 3782 3780 3718 3717 3176 3775 3174 3184 3113 3171 3112 3770 3769 3168 apr. Co apr. 6. 73 apr. 6. apr. 6 apr. 6. 73 21°49'55" 82°5952" Opr. 6, 73 27.51 16" 82.59 39" apt. 4. 73 27.50 41" 82"59 05" apr. 6, 73 27°50 41° 82°59'55" apr. 6. 73 Apr. 6 13 27 49 55" 82° 58 46" apr. 6, 13 Apr. 6, '13 27049'55" 82:58'00" apr. 6. 73 28.49 51 82.58 01" Apr. 6 73 2751 17" apr. 6. 73 27.50 41" apr. 6 73 73 27.49 20" 73 27049 22" 73 21 49 20 82 57 12" 27"50 43" 21°51 16" 27.51 16" 27050 41 82057 24" 27048 30" 82057 34" 83°00′39″ 82°57′59″ 82 58 23 1 82°57 24 82°59'01" 82.38.00 82.38 46 ١ Ĺ i PROX. l 94 C13 84 2 CIS crs crs 94 5, brk 54 CES CIS. Jue 84 S 3 5 E 9 5 ŧ \$ E 4 SHE brit Sh Dirk Si 40 2 2 5 Pos.  $B_{3}$ (Unusual conditions, cohesiveness, dented OBS. cuiter, stat.no., type of bottom relief i.e., elope, plain, disposition, etc.)  $\mathcal{Q}_{\vec{z}}$ E Pos.  $\mathcal{B}$ B S. Pos. **2**0 Pos. No. 4390 ĒO 1 No. 4386 No. 4379 no. 4374 No. 4383 No. 4378 M. 4376 no. 4385 Ma. 4377 no. 4381 B. 4382 No. 4389 No .4384 10.4381 10 4380 10.4388 4375 USCOMM-DC 8220-P62

U.S. DEPARTMENTOF COMMERCE COAST AND GEODETIC SURVEY

SERIAL NO.

DATE

LATITUDE | LONGITUDE (Fathoms)

(Fathoms) PLER

LENGTH CORE

COLOR OF SEDI-MENT

FIELD DESCRIPTION

SAMPLE POSITION

VESSEL

PROJ. NO. OPR - 508

YEAR 1973

H-9351

(HSL: 20.1-73)

CHECKED BY

DATE CHECKED

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

1257

FORM C&GS-733M (8-23-60)

Use more than one line per sample if necessary. 3198 3186 SERIAL NO. 3799 3196 3797 3187 3795 3185 3794 3793 3792 3791 3788 3800 3790 3789 Apr. 9 73 27°54 34" 82°58 58" apr. 6.73 275/17" 83°00 23" apr. 9, 73 Apr. 9. 73 Apr. 9. 73 27.54 36 83004 57" apr. 9. 13 21.55 36 8304 59" apr. 9. 73 21°55'34" 83"02'59" Apr. 9 73 27°54 36" 83°04 02" apr. 6. 73 21.51 16 83 01 08" Oper 9, 73 27°54 34" 83°02 58" apr. 9 73 2755 36 83°04 00" apr. 9. 11 21° 55 36" 83°02 02" apr. 9 19 27.55 34 82.35 59" 201.9, 73 apr. 9 13 27°55 36" apr.9 13 27.55 36" DATE 27:54 35 83 00 56 27.54 34" 83°01 59" 21.55 34" 83 04 00" LATITUDE LONGITUDE (Fathoms) 21.54 36 82.59 59" SAMPLE POSITION 83.2 82.39 38 DEPTH WEIGHT SAM-PLER ì ( į j TRAP ١ i í LENGTH COLOR
OF
SEDICORE MENT ſ ŧ # 74 B. i (6) ù rd SS S 94 · S. Crs ķ۸ Wd brk 1 ME ine brk Sh 5 ļς, C Eld. brk Sh. S FIELD DESCRIPTION ţs. C brk Sh 46 brk Drk Sh bik St 6 8 5 REMARKS
(Unusual conditions, cohesiveness, dented OBS. cutter, stat. no., type of bottom relief i.e., INIT. slope, plain, disposition, etc.) 23 25 Rs. No. 4392 30 Prs. no. 4907 B Bs 25 20 800 Pos 30  $\mathcal{Z}_{\mathcal{O}}$ 10. 4400 No. 4391 no. 4406 no. 4905 Ma. 4401 10. 4399 no. 4393 10. 4404 10. 1398 No. 4394 100. 4397 no. 9396 no. 4403 10. 4402 No. 4395 USCOMM-DC 8220-P62

VESSEL

Launch

1257

PROJ. NO.

YEAR 1973

H- 9351

(HSL- 20-1-73)

CHECKED

DATE CHECKED

U.S. DEPARTMENTOF COMMERCE COAST AND GEODETIC SURVEY

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

FORM C&GS-733M (8-29-60)

FORM C&GS-733M (8-23-60)		PROJ. NO.		√ √ → M → M → M → M → M → M → M → M → M	00	EANOG BOTT	RAPHIO OM SEC	OCEANOGRAPHIC LOG SHEET BOTTOM SEDIMENT DATA	SHEET - M
VESSEL	1. 1267	PROJ. NO	\$ 00 \$ 00 \$ 00 \$ 00 \$ 00 \$ 00 \$ 00 \$ 00	YEAR		H-935	3	18H )	
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3812	apr. 9 73	27'52'56"	83.01.51"		1	,	,	-	94
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38 8 8	Onr.9.73	_	27.52 56" 82.55 57"		1	ı	l	99	



# U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration

NATIONAL OCEAN SURVEY Rockville, Md. 20852

FEB 5 1976

CAN 31 yout look

TO:

Alfred C. Holmes 7

Director, Atlantic Marine Center

Chief, Processing Division Attention:

FROM:

Robert C. Munson Lobert C. Munson

Associate Director

Office of Marine Surveys and Maps

SUBJECT: Omission of High Water Line

In accordance with telephone communication with Mr. William L. Jonns on January 29, 1976, hydrographic surveys H-9390, H-9350, and H-9351 of Project OPR-508, Offshore, Florida West Coast, may be considered complete and forwarded to this Office without the application of the mean high water line. surveys inshore from these should have the high water line shown.





# ATLANTIC MARINE CENTER APPROVAL SHEET FOR AUTOMATED SURVEY H-935

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/has not been made. A new final sounding printout has/has not been made.

Date: Fab. 18 1977

Signed: william of tem

Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 2-22-7

Signed:

Title: Chief, Processing Division

# U.S. DEPARTMENT OF COMMERCE

(2-72) (PRES. BY HYDROGRAPHIC MANUAL, 6-94)

# VERIFIER'S REPORT NATION HYDROGRAPHIC SURVEY, H = 9351

NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

- CL Check List Items: should be checked as having been completed during the verification processes.
- R Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

Part ! - DESCRIPTIVE REPORT	CL	R	Part III - JUNCTIONS (Continued)	CL	R
Note: The verifier should first read the Descriptive Report for general information and problems.			10. Junctions with contemporary surveys were satisfactory except as follows:		
<ol> <li>The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken.</li> <li>Remarks Required: None</li> </ol>	х		Remarks Required: Consider conditions after adjustments have been made; note adjustments made. Make special notes of Butt junctions and areas which are SUPERSEDED. Note in D.R curves not	x iden	tica
<ol> <li>Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification.</li> <li>Lemarks Required:None</li> </ol>	х		Port IV - VOLUMES  11. 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 and exceptions noted in the volumes.	×	
<ol> <li>All reference to survey sheets mentioned in the Descriptive Report should include registry number and year.</li> </ol>			Remarks Required: None		
Remarks Required: None	X		12. Condition of sounding records was satisfactory except as follows:		
Part II - SHORELINE AND SIGNALS 4. Source of shoreline signals Remarks Required: List all surveys			Remarks Required: Mention deficiencies in completeness of notes or actions for the follow-ing:		
<ul> <li>Give earliest and latest dates of photo- graphs</li> </ul>			(a) rocks (b) line turns		
<ul><li>b. Field inspection date</li><li>c. Field Edit date</li></ul>	NA		(e) position values of beginning and ending of lines		
d. Reviewed-Unreviewed			(d) bar check or velocity correctors		
<ol><li>The transfer of contemporary topographic information was carefully examined and rec- onciled with the hydrography.</li></ol>	NA		(e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately	х	
Remarks Required: Discuss remaining ifferences.	NA		done?		
<ol> <li>The plotting of all triangulation stations, topo- graphic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet.</li> <li>Remarks Required: None</li> </ol>	х		(h) was scanning accurate?  (i) were peaks at uneven intervals missed?  (j) were stamps completed?  (k) references to adjacent features		
<ol> <li>Objects on which signals are located and which fall outside of the high-water line have been described on the sheet.</li> <li>Remarks Required: List those signals still</li> </ol>	NA		Part V - MACHINE PLOTTING  13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp.	x	
unidentified.			Remarks Required: None	^	
Part III - JUNCTIONS  Note: Make a cursory comparison preliminary to inking soundings in area of overlap.			14. The plotting of all unsatisfactory crossings was verified.		
8. All junctions of contemporary or overlapping sheets were compared and overlapping curves were made identical.	х		Remarks Required: None	Х	
Remarks Required: None See note	n D	R.	15. All detached positions locating critical sound-		
<ol> <li>The notation in slanted lettering "JOINS H (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil</li> </ol>	×		ings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible.	х	
Remarks Required: None			Remarks Required: None		

Part V - PROTRACTING (Continued) 16. The protracting was satisfactory except as	CL	R	Part VIII - AIDS TO NAVIGATION 26. All fixed aids located together with those on	CL	R
follows:  Remarks Required: Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.	NA		the contemporary topographic sheets, have been shown on the survey.  Remarks Required: Conflicts of any nature listed.	NA	
17. The protractor has been checked within the last three months.  Remarks Required: Date of check, type of protractor and number.	NA		27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification.  Remarks Required: None	х	
Part VI - SOUNDINGS  18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings.  Remarks Required: None	х		Port IX - BOAT SHEET  28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information.	х	
19. Sounding line crossings were satisfactory except as follows:  Remarks Required: Discuss adjustments.	х		Remarks Required: None  29. Heights of rocks awash were correctly reduced and compared with topographic infor-		
20. The spacing of soundings as recorded in the records was closely followed;  Remarks Required: None	х		mation.  Remarks Required: Note excessive conflicts with topographic information.	NA	
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified.  Remarks Required: None	х		Part X - GENERAL  30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2).  Remarks Required: None	х	
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: — Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.	NA		31. Unnecessary pencil notes have been removed from the sheet.  Remarks Required: None	Х	
Part VII - CURVES  23. The depth curves have been inspected before inking.  Remarks Required: By whom was the penciled curves inspected. GFT	х		32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet.	х	,
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following:			Remarks Required: None		
<ul> <li>a. From T-Sheet in dotted black lines</li> <li>b. From soundings in orange</li> <li>c. Approximate position of sketched curve is dashed orange</li> </ul>			33. The bottom characteristics are adequately shown.  Remarks Required: None	х	
d. Approximate position of shoal area not sounded in black dashed  Remarks Required: None	NA		Port XI - NOTES TO THE REVIEWER  34. Unresolved discrepancies and questionable soundings.	NA	
25. Depth curves were satisfactory except as follows:  (This statement should not refer to the manner in which the curves were drawn).  Remarks Required: Indicate areas where	NA		35. Notation of discrepancies with photogram- metric survey inserted in report of unreviewed photogrammetric survey or on copy.	NA	
curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.			36. Supplemental information.	NA	
Verified by  Charles Meekins			Date 07/13/7	76	

# Verification Note Category II Survey H-9351 (HSL-20-1-73) OPR-508

This appears to be an excellent basic survey. Soundings are in good agreement at crossings and the depth curves adequately delineate the features in this area of irregular bottom.

This survey compares favorably with the prior surveys H-7968 and H-7793 and the charted depths. It junctions with H-9350 on the south and H-9390 on the north. No displacement of depth curves were noted on these surveys.

No shoreline was applied to this Smooth Sheet as per memo of C323 dated February 5, 1976.

Norfolk, Virginia February 18, 1977 William L. Johns

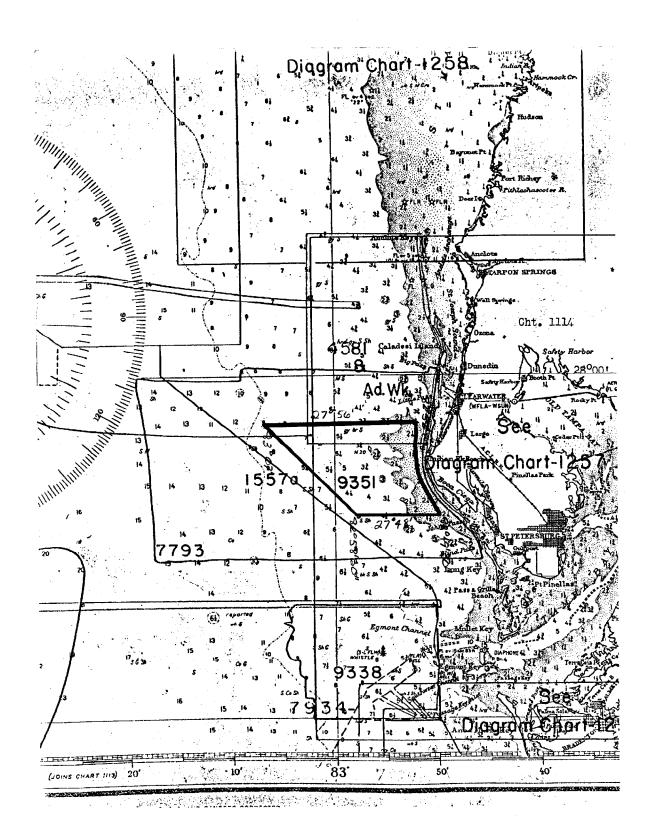
Chief, Verification Branch

AMC

NOAA FORM 76-155 (11-72)	NATIONAL	OCEANIC	U.S. DI	EPARTME DSPHERIC	NT OF CO	MMERCE TRATION	SU	RVEY NU	MBER	
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Name on Survey	/^ `	IN CHART HE	A E TOUS S	J.F. GUADRA	MGLE OCALI ME ORMATI	or we	P.S. GAIDE	P MAP	S. Licht L	,51
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# HYDROGRAPHIC SURVEY STATISTICS HYDROGRAPHIC SURVEY NO. $\frac{H-9351}{2}$

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered. AMOUNT AMOUNT RECORD DESCRIPTION RECORD DESCRIPTION mylar & with smooth PNO (3 parts 1 BOAT SHEETS SMOOTH SHEET paper & excess overlay 1 OVERLAYS (preliminary) 4 **\*** DESCRIPTIVE REPORT ABSTRACTS/ SOURCE DOCUMENTS HORIZ, CONT. RECORDS DEPTH PRINTOUTS TAPE ROLLS PUNCHED CARDS DESCRIPTION RECORDS 2 ENVELOPES 2 with X CAHIERS printouts 2 VOLUMES 1-smooth BOXES <del>so,data</del> printouts.m T-SHEET PRINTS (List) SPECIAL REPORTS (List) OFFICE PROCESSING ACTIVITIES The following statistics will be submitted with the cartographer's report on the survey AMOUNTS PROCESSING ACTIVITY PRE-TOTALS REVIEW VERIFICATION VERIFICATION POSITIONS ON SHEET 4469 468 129 POSITIONS CHECKED POSITIONS REVISED DEPTH SOUNDINGS REVISED DEPTH SOUNDINGS ERRONEOUSLY SPACED SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED TIME (MANHOURS) 0 0 TOPOGRAPHIC DETAILS JUNCTIONS 9 4 VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS 24 8 SPECIAL ADJUSTMENTS 0 0 ALL OTHER WORK 133 81 TOTALS 166 93 BEGINNING DATE ENDING DATE PRE-VERIFICATION BY Franklin L. Saunders, Robert R. Hill 04/14/75 04/06/76 BEGINNING DATE VERIFICATION BY ENDING DATE 07/12/76 ENDING DATE Charles Meekins 06/18/76 BEGINNING DATE REVIEW BY



# NAUTICAL CHART DIVISION

# **RECORD OF APPLICATION TO CHARTS**

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.	9351
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#### INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.

2. In "Remarks" column cross out words that do not apply.

3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts"	in the Review.
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CHART	DATE	CARTOGRAPHER	REMARKS
858	3-18-77	J. OW YANG	Full Part Before After Verification Review Inspection Signed Via
030	7.07.	9,000	Drawing No. 22 EXAMINED FOR CRITICAL CORRECTIONS.
	1		NO CORRECTION.
11411	3/03/81	Dieuse	Full Pare Bufere After Verification Review Inspection Signed Via
11711	1000	was part	Drawing No. 1 (CAT # 1 3/23/81 RRK)
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1412	5-8-84	Lie Tartan	Full Chr. Delore, After Verification Region Ingracion Signed Via
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11400	7-31-91	L. ARKENAN	Full Par Before After Verification Review Inspection Signed Via
		• •	Drawing No. 37 Applied They Chart 7-31-11
			Full Part Before After Verification Review Inspection Signed Via
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