

# 10053

Diagram No. 1015-3

NOAA FORM 76-35A

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

## DESCRIPTIVE REPORT

Type of Survey ..... Hydrographic  
Field No. .... HSB-40-1-82  
Office No. .... H-10053

### LOCALITY

State ..... Florida—Alabama  
General Locality .. Gulf of Mexico  
Locality ..... 30 Miles SE of Mobile Point

1982-85

CHIEF OF PARTY  
LCDR K.W. Perrin

### LIBRARY & ARCHIVES

DATE ..... May 27, 1986

☆U.S. GOV. PRINTING OFFICE: 1980-766-230

10053

*Area 37*  
*CH 7*  
*10053*  
*on Form 10*  
*1986*

NOAA FORM 77-28 (11-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	REGISTER NO.  H-10053						
<b>HYDROGRAPHIC TITLE SHEET</b>								
INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.		FIELD NO. HSB-40-1-82						
State <u>Florida-Alabama</u>								
General locality <u>Gulf of Mexico</u>								
Locality <u>30 MILES SE Southeast of Mobile Point</u>								
Scale <u>1:40,000</u> Date of survey <u>24 Sept. 82 - 17 Apr. 85</u>								
Instructions dated <u>13 July 1981</u> Project No. <u>OPR-J217-HSB-81</u>								
Vessel <u>NOAA Launch 1257 (EDP 1257)</u>								
Chief of party <u>LCDRs Jamerson (until Dec. 82), Jones (until Jan. 85), &amp; Perrin (from Jan. 85)</u>								
Surveyed by <u>LT S. P. DeBow, LT C. B. Greenawalt, and LTJG P. M. Kenul</u>								
Soundings taken by echo sounder, <del>Handwritten notes</del>								
Graphic record scaled by <u>PARTY PERSONNEL: PMK, GSL, GLM, GDH, MMO, TAT</u>								
Graphic record checked by <u>LTJG Philip M. Kenul</u>								
Protracted by <u>-</u> Field Sheet Automated plot by <u>PDP8/e Computer</u>								
Verification by <u><del>AMC Hydrographic Surveys Branch</del> N. A. WIKE</u>								
Soundings in <del>meters</del> feet at <del>MHW</del> MLLW								
<p>REMARKS: <u>As per Change No. 2, dated 15 January 1985, under OPR-J217-HFP-84,</u>  <u>operations on the 1:40,000 scale sheets have been deferred and hydrography on Survey</u>  <u>H-10053 has been squared off at the western limit of mainscheme hydrography.</u></p> <p><u>A list of Raydist and Hydrotrac strip charts sent with Surveys H-10041 and</u>  <u>H-10114 which included data for this survey is enclosed with the submitted strip</u>  <u>charts.</u></p> <table style="width:100%; border: none;"> <tr> <td style="width:50%; border: none;"><u>PMK - LTJG Philip M. Kenul, NOAA</u></td> <td style="width:50%; border: none;"><u>GDH - Glenn D. Hendrix</u></td> </tr> <tr> <td style="border: none;"><u>GSL - George S. Lloyd</u></td> <td style="border: none;"><u>MMO - Maria Mangual-Ortiz</u></td> </tr> <tr> <td style="border: none;"><u>GLM - Gary L. Merrill</u></td> <td style="border: none;"><u>TAT - Terri A. Taylor</u></td> </tr> </table>			<u>PMK - LTJG Philip M. Kenul, NOAA</u>	<u>GDH - Glenn D. Hendrix</u>	<u>GSL - George S. Lloyd</u>	<u>MMO - Maria Mangual-Ortiz</u>	<u>GLM - Gary L. Merrill</u>	<u>TAT - Terri A. Taylor</u>
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\* DATA REMOVED FROM DESCRIPTIVE REPORT.

OPR-J217-HSB-81

Pensacola

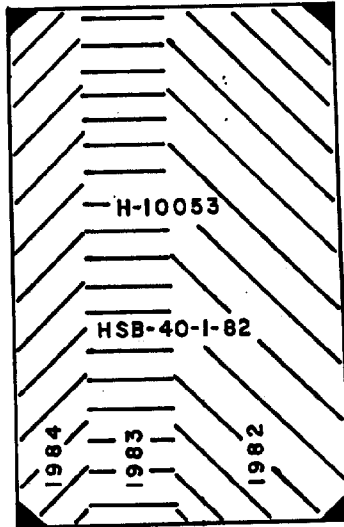
T.G.  
(872-9840)

MOBILE BAY

T.G.  
(873-5180)

30°00'

88°00'



GULF OF MEXICO

From Chart 11360

29°30'

87°30'

DESCRIPTIVE REPORT  
TO ACCOMPANY  
HYDROGRAPHIC SURVEY H-10053  
HSB-40-1-82

Scale: 1:40,000

Chief of Party: Lt. Cdr. George W. Jamerson (until Dec. 82)  
Lt. Cdr. Ronald W. Jones (until Jan. 85)  
Lt. Cdr. Kenneth W. Perrin (from Jan. 85)

Officer-in-Charge: Lt. Samuel P. DeBow (until June 83)  
Lt. C. B. Greenawalt (until Nov. 84)  
Lt. (jg) Philip M. Kenul (from Nov. 84)

Hydrographic Field Parties Section, Hydrographic Field Party #1  
Launch: 1257

A. PROJECT

This survey was accomplished under Project Instructions OPR-J217-HSB-81, dated 13 July 1981, and amended by:

Change No. 1, dated 23 July 1981,  
Change No. 2, dated 26 October 1981,  
Change No. 3, dated 23 December 1981,  
Change No. 4, dated 10 February 1982,  
Change No. 5, dated 02 March 1982, and  
Change No. 6, dated 29 March 1983.

This survey was also amended under Project Instructions OPR-J217-HFP-84, dated 29 November 1984, as per Change No. 2 dated 15 January 1985.

B. AREA SURVEYED

The area surveyed began approximately 12 nautical miles south of Perdido Key then continued south approximately 15 nautical miles and bounded by the following points:

Lat. 30°05'00.00" N, Long. 87°28'00.00" W  
Lat. 29°49'50.00" N, Long. 87°28'00.00" W  
Lat. 29°49'50.00" N, Long. 87°37'30.00" W  
Lat. 30°04'20.00" N, Long. 87°35'00.00" W  
~~Lat. 30°04'20.00" N, Long. 87°35'00.00" W~~  
~~Lat. 30°05'00.00" N, Long. 87°35'00.00" W~~

This survey was conducted from 24 September 1982 to 17 April 1985.

C. SOUNDING VESSEL

The soundings on this survey were collected from NOAA Launch 1257 (EDP 1257), a 59-foot High Speed Launch.

D. SOUNDING EQUIPMENT AND CORRECTION TO ECHO SOUNDINGS

All soundings were recorded with a Model DE723D Raytheon Fathometer:

UNIT	SERIAL NUMBER	INCLUSIVE DATES
=====	=====	=====
Recorder	2042	JD 267 (1982) - 281 (1982)
	2934	JD 285 (1982) - 322 (1982)
	37018	JD 326 (1982) - 107 (1985)
Digitizer	2772	JD 267 (1982) - 107 (1985)
	ECD	37009

The above equipment was used to measure depths ranging from about 77 feet to about 135 feet.

The DE723D Fathometers aboard Launch 1257 developed several problems during this survey. On JD 285 and 322 (1982), fathometer problems caused single fine line spikes to occur over regular intervals of the trace. The fathometer was replaced after JD 322 (1982), and this problem was no longer observed.

On JD 288 and 298 (1982), the trace on the fathometer recorder chart paper was periodically vague and indistinct. Parts of this data were rejected and rerun. The problem was attributed to several rolls of faulty chart paper.

The chart drive continually stalled on several days. This problem was alleviated when the fathometer was changed after JD 322 (1982). Most of these data were rejected and rerun at a later date.

Much of the data collected before JD 195 (1983) were collected with the analog recorder out of adjustment (i.e. the stylus length was incorrect). The differences between the analog depths and the digital depths varied by as much as  $\pm 0.6$  ft. The digital depth was assumed correct; the difference between the analog and digital depths was applied to the analog depths when the fathograms were scanned. SEE ALSO SECTION 4. a. OF THE EVALUATION REPORT.

The instrument initial was monitored continuously. Adjustments were made either on-line or when the fathograms were scanned.

All fathomgrams were scanned for peaks and deeps and for the effects of heave. The appropriate changes were made on the corrector tapes.

Bar checks were taken when weather and sea conditions permitted. Corrections to echo soundings for velocity of sound through water were determined from 25 TDC casts and 50 bar checks. The dates, positions of the TDC casts, and location of data are abstracted in the Appendix. The velocity corrector tables were generated by PDP8/e program RK530, Layer Correctors for Velocity, using the data from these casts. SEE also SECTION 4. d. of the EVALUATION REPORT.

Three Martek Mark VII, Model 167, instruments were used for TDC casts during this survey. Serial Number 130 was used for all TDCs taken in 1984, and Serial Number 232 was used in 1985. The latest calibration dates are 28 April 1983 and 03 February 1984, respectively. No calibration report is available for Serial Number 232 at this time. Copies of the calibration data are included in the Appendix. COPIES NOT IN DESCRIPTIVE REPORT AND ONLY TWO(2) TDC INSTRUMENTS LISTED.

The instrument corrections for Launch 1257 were determined from the graphs of bar check and velocity corrector data and have been applied to the soundings on the final field sheet via the field velocity corrector tapes. The instrument correctors have not been included in the final velocity tapes submitted with this survey, but will be applied to the soundings on the final smooth sheet through the TC/TI tapes.

Settlement and squat for Launch 1257 was measured using the level instrument method described in Section 4.9.4.2, of the Hydrographic Manual. Two sets of trials were used for this survey. The results of these measurements are included in the Appendix. Data accumulated prior to 28 October 1983 will use the results from the trials run on 11 June 1983, while data accumulated after 28 October 1983 will use the results from trials run on 05 January 1984. Settlement and squat correctors were not applied to the final field sheet, but have been included on the TC/TI tapes and will be applied to the soundings on the final smooth sheet.

A launch draft correction of 2.7 feet was applied. A copy of the Sounding Correction Abstract is included in the Appendix, along with printouts of the velocity and TC/TI tapes.

#### E. HYDROGRAPHIC SHEETS

Field sheets used during this survey were prepared in the field using a PDP8/e computer and a Houston Instrument DP-3 Complot Plotter. Worksheets, preliminary plotter sheets, final field sheets, and overlay sheet are included with this survey. Main scheme soundings and crosslines are plotted on the final

field sheet. Bottom samples, charted soundings, junction soundings, and prior survey soundings are plotted on the overlay sheet.

Several problems developed in the field office computer system that caused pen drift during the semi-smooth field sheet plots. These problems were traced to a bad plotter-interface circuit board. The final field sheet was spot checked for evidence of drift; all soundings appear to be within 1.5 mm of their true position. Attempts to provide a more accurate plot with the present system proved impossible.

The projection parameter tapes are included with the project data. Parameter tape listings are included in the Appendix.

All records will be forwarded to the Hydrographic Surveys Branch at the Atlantic Marine Center for verification and smooth plotting.

F. CONTROL STATIONS

Control stations used during this survey were either existing geodetic control published by the National Geodetic Survey or control established by the Hydrographic Field Parties Support Group. All stations meet a minimum of Third-order, Class I standards. All positions are based on the North American 1927 Datum.

A listing of control stations used during this survey is included in the Appendix.

G. HYDROGRAPHIC POSITION CONTROL

The Hastings-Raydist DR-S system, operated in the Range-Range mode, provided position control for Launch 1257 through JD 145 (1984). The HYDROTRAC system provided position control after that date.

The following Hasting-Raydist equipment was used at frequency 3306.40 KHz for JD 267 (1982) - 145 (1984):

LOCATION	S/N	JULIAN DAY
=====		
Left Shore Station:	68	267 (1982) - 334 (1982)
Green Raydist/Model AA-60 (Signal #910)	69	206 (1983) - 145 (1984)
Right Shore Station:	119	267 (1982) - 032 (1984)
Red Raydist/Model AA-60 (Signal #900)	84	045 (1984) - 046 (1984)
	119	145 (1984)



H-10053

LOCATION	S/N	JULIAN DAY
Launch Equipment:		
Navigator/Model ZA-67B	67	267 (1982) - 145 (1984)
Antenna Loading Coil Model QB-52	81	267 (1982) - 145 (1984)
Transmitter/Model TA96	87	267 (1982) - 145 (1984)

The left shore station used was a 100-foot aluminum tower. The right shore station was a 120-foot tower previously used as a Loran-A antenna. The launch antenna was a 35-foot whip located over the fathometer transducer. Problems encountered with the Raydist system occurred during the summer months when afternoon thunderstorms would interfere with the signal.

The following ODOM HYDROTRAC survey equipment was used at frequency 1718.59 KHz for JD 166 (1984) - 107 (1985):

LOCATION	HYDROTRAC UNIT	S/N	JULIAN DAY
Left Shore Station: (Signal #911) (Signal #912) (Signal #911)  (Signal #912)	Slave Drive	215	166 - 201 (1984)
	Model 701	214	254 (1984)
		215	107 (1985)
	Power Amplifier	540	166 (1984)
	Model 74-87	539	201 - 254 (1984)
		540	107 (1985)
Right Shore Station: (Signal #901)	Slave Drive	214	166 (1984)
	Model 701	226	201 (1984) - 107 (1985)
	Power Amplifier	537	166 (1984)
	Model 74-87	540	201 (1984)
		538	254 (1984) - 107 (1985)
	Launch Equipment:	Master Drive	122
	Model 702	121	107 (1985)
	Power Amplifier	539	166 (1984)
	Model 74-87	538	201 (1984)
		536	254 (1984)
		537	107 (1985)
	Receiver	327	166 (1984)
	Model 700	328	201 (1984)
		326	254 (1984)
		327	107 (1985)

The existing Raydist shore station antennae were utilized by the HYDROTRAC positional system in the change over after JD 145 (1984).

The Raydist and HYDROTRAC equipment were calibrated by three-point sextant fixes with check angles using HYDROPLOT Program RK561, Range-Range Geodetic Calibration. Calibrations were taken before and after each period of hydrography with the following exceptions and problems:

JD 300 (1982) - One lane was lost during hydrography after Position 527. Positions 527 (+1) - 531 were rejected. A one lane corrector was applied at Position 532 (193008 UTC) The lane loss was verified at the evening calibration.

JD 322 (1982) - No ending calibration was taken because of poor visibility. A lane count was taken on Pensacola Bay Entrance Lighted Buoy 4. The whole lane count was correct.

JD 208 (1983) - No ending calibration was taken due to poor visibility and rough seas. A lane count check was taken on Pensacola Bay Entrance Lighted Buoy 4. The whole lane count was correct.

JD 032 (1984) - The red station (signal #900) went off the air after the last position was taken. The evening calibration was taken but corrections for this station were not used to compute the daily corrector.

JD 166 (1984) - No ending calibration was taken because the signals from both shore stations were lost due to thunderstorm interference. The strip chart was carefully scanned and the lane count is believed to be correct throughout this day's hydrography.

Other problems encountered were with the strip chart recorders. The event or pattern pens were not working properly on JD 267, 270, 288, 333, and 334 of 1982, JD 208 of 1983, and JD 166 and 201 of 1984.

The ANDIST correctors for Launch 1257 was 0.0 meters. An Electronic Corrector Abstract is presented in the Appendix. All raw calibration data are included in the supplemental data folder.

H. SHORELINE

No shoreline exists in the project area.

I. CROSSLINES

Crosslines totaled 99.6 nautical miles or 8% of the hydrography. Ninety-eight percent (98%) of all crossline soundings agreed within one foot of the main scheme soundings. No soundings disagreed by more than two feet. This 2-foot difference occurred when the main scheme hydrography was run in seas greater than two feet. These comparisons meet the criterion listed Section 1.1.2, Part B.II.1 of the Hydrographic Manual. *SEE ALSO SECTION 5. OF THE EVALUATION REPORT.*

J. JUNCTIONS

This survey junctions well with the following surveys:

- H-9954 (1982), 1:40,000 scale, to the east
- H-10041 (1983), 1:20,000 scale, to the north
- H-10114 (1985), 1:20,000 scale, to the north
- H-10001 (1982), 1:40,000 scale, to the south

The junction soundings are in excellent agreement. No soundings disagreed by more than two feet. This disagreement can be attributed to the three to five foot seas. The comparisons meet the criterion listed in Section 1.1.2, Part B. II.1 of the Hydrographic Manual.

K. COMPARISON WITH PRIOR SURVEYS

*SEE ALSO SECTION 6. OF THE EVALUATION REPORT.*

No Presurvey Review (PSR) items exist in the survey area.

The survey area was previously covered by the following surveys:

SURVEY	YEAR	SCALE
H-4133	1920	1:80,000
H-4139	1919-1920	1:80,000
H-6554	1941	1:40,000

Representative soundings from Survey H-4133 were plotted on the final field overlay sheet in the color orange. The agreement between soundings from H-4133 and H-10053 is poor. Over fifty-five percent of the soundings disagreed by more than three feet. The soundings at the following positions were at least ten feet shallower on the present survey:

H-10053

Lat. 30°02'12.00" N, Long. 87°33'00.00" W  
Lat. 30°01'42.00" N, Long. 87°31'00.00" W  
Lat. 29°56'42.00" N, Long. 87°30'24.00" W

Some of the discrepancies may be attributed to the position control used for Survey H-4133. The position control was visual sextant angles taken to buoys.

Representative soundings from Survey H-4139 were plotted on the final field overlay sheet in the color blue. Eight-five percent of the soundings from Survey H-4139 agreed within five feet. Generally, the soundings further offshore (south of latitude 29°55'00"N) were deeper on Survey H-4139. The sounding at lat. 29°54'30.00" N and long. 87°28'24.00" W (position 40 (+3)) was 20 feet deeper on Prior Survey H-4139.

Sounding comparisons with Prior Survey H-6554 (plotted on the final field overlay sheet in the color brown) were very good with ninety-seven percent of the soundings agreeing within five feet. Generally, the prior soundings were shallower than those on the present survey.

**RECOMMENDATION:** Survey H-10053 should supersede surveys H-4133, H-4139, and H-6554 for all common areas.

**L. COMPARISON WITH THE CHART** See also section 7.9 of the EVALUATION REPORT.

Survey H-10053 was compared with NOS Chart 11360, 28th ED., 10 December 1983. Generally, the charted soundings (plotted on the final field overlay sheet in the color violet) did not compare well with Survey H-10053. Only sixty-five percent of the soundings agreed within five feet and only twenty-four percent agreed within three feet. All the charted soundings except one were shallower than those on the present survey. Differences by more than ten feet were found at the following locations:

Lat. 29°57'<sup>45</sup>24.00" N, Long. 87°33'<sup>5</sup>50.00" W 16 fm  
Lat. 29°52'36.00" N, Long. 87°32'00.00" W 19 fm  
1 30 See also section 7.9.2) of the EVALUATION REPORT.

There are no non-sounding features, or AWOIS items in the surveyed area of the chart. No dangers to navigation were discovered during the course of this project.

**M. ADEQUACY OF SURVEY** See also section 4. d. of the EVALUATION REPORT.

The maximum allowable distance of the 5 cm between consecutively numbered positions along a sounding line was exceeded during most of this survey. This does not adversely affect the quality of the survey since position data was

recorded for every sounding. This survey is adequate to supersede prior surveys for charting.

As per Change No. 2, dated 15 January 1985, under OPR-J217-HFP-84, operations on the 1:40,000 scale sheets have been deferred and hydrography on Survey H-10053 has been squared off at the western limit of mainscheme hydrography.

N. AIDS TO NAVIGATION:

No fixed or floating aids exists within the survey area. No bridges, overhead or submarine cables, pipelines, or ferry routes exist in the survey area.

O. STATISTICS

	<u>TOTAL</u>
Number of positions.....	1347
Nautical miles of sounding lines.....	1263.3
Mainscheme.....	1163.7
Crosslines.....	99.6
Square nautical miles of hydrography.....	120.1
Bottom samples.....	15
Velocity casts.....	25

P. MISCELLANEOUS

Numerous fish havens exist in the survey area, none of which were found during this survey. These fish havens consist of automobiles, dumpsters, automobile and heavy equipment tires, large household appliances (e.g. washing machines, dryers, refrigerators), etc. The fishermen who place these fish havens are reluctant to reveal the locations. These fish havens have been placed in deep water and are not hazardous to navigation. *SEE ALSO SECTION 7.a.) OF THE EVALUATION REPORT.*

LORAN-C verification data were not routinely collected during this survey. After JD 145 (1984), with the HYDROTRAC positioning system installed aboard Launch 1257, the LORAN-C unit would not operate properly. The strength of the LORAN-C signal varied continuously while the HYDROTRAC system was operating. The electrical ground connections and antenna couplers were cleaned and checked to insure good connections. This did not solve the problems. The LORAN-C receivers used were as follows:

Internav LC-204,  
S/N 0466B

JD 267 (1982) - JD 306 (1982)

Raytheon Raynav 6000,  
S/N R3152

JD 314 (1982) - JD 107 (1985)

*SEE ALSO SECTION 4.e. OF THE EVALUATION REPORT.*

A two sounding holiday at lat. 29°50'00.00"N, long. 87°32'24.00"W was found during the final field review of the survey. This was attributed to a fathometer problem due to a faulty chart drive. This area was not rerun and should not degrade the overall quality of the survey.

No anomalous currents were observed in the survey area.

#### G. RECOMMENDATIONS

No additional field work is necessary. See Section K for additional recommendations.

#### R. AUTOMATED DATA PROCESSING

The following HYDROPLOT system programs were used during this survey:

##### PROGRAM

RK112	Range-Range and Hyperbolic Real-Time HYDROPLOT	03/18/81
RK112	Range-Range and Hyperbolic Real-Time HYDROPLOT	08/04/81
RK112	Range-Range and Hyperbolic Real-Time HYDROPLOT	04/23/84
RK201	Grid, Signal, and Lattice Plot	04/18/75
RK211	Range-Range Non-Real Time Plot	02/02/81
RK211	Range-Range Non-Real Time Plot	02/13/84
RK300	Utility Computations	10/21/80
RK330	Reformat and Data Check	05/04/76
PM360	Electronic Corrector Abstract	02/02/76
RA362	RK330 and AM602 Combined	08/20/84
RK407	Geodetic Inverse/Direct Computation	09/25/78
RK409	Geodetic Utility Package	09/20/78
AM500	Predicted Tide Generator	11/10/72
RK530	Layer Corrections for Velocity	05/10/76
RK561	H/R Geodetic Calibration	02/19/75
RK561	H/R Geodetic Calibration	12/01/82
AM602	Extended Line Oriented Editor	05/20/75
AM602	Extended Line Oriented Editor	12/08/82

#### S. REFERENCES TO REPORTS

Horizontal Control Reports, OPR-J217-HSB-81, dated 20 October 1983, and 23 July to 18 September 1984, submitted to N/MOA233.

H-10053

Respectfully submitted,

*Philip M. Kenul*  
Philip M. Kenul  
Lt. (jg), NOAA  
OIC, HFP-1

SIGNAL TAPE LISTING  
 OPR-J217-HSB-81  
 HSB-40-1-82  
 H-10053  
 VESNO 1257

104	7	30	19	55434	087	08	29067	139	0000	000000	PENSACOLA BEACH WATER TANK, 1983 QUAD 3008721	**
106	7	30	21	35304	087	10	56110	139	0000	000000	GULF BREEZE TANK, 1981, QUAD 3008721	*
109	7	30	19	02193	087	15	26539	139	0000	000000	FIXED 2 1981 QUAD 3008721	*
110	7	30	19	18468	087	17	06200	139	0000	000000	H-73-FL-80, 1980 QUAD 3008724	*
111	7	30	20	47316	087	16	06799	139	0000	000000	PENSACOLA USN AIR STA PWR STK, 1934, QUAD 3008724 STATION 1137	****
114	7	30	20	45346	087	18	29205	139	0000	000000	PENSACOLA LIGHT- HOUSE CENTER, 1867, QUAD 3008724 STATION 1120	****
120	3	30	19	30910	087	18	46772	139	0000	000000	FORT MCREE LEADING LT., 1981 QUAD 3008724	*
124	7	30	20	49164	087	18	37418	139	0000	000000	SHERMAN FIELD TANK, 1982 QUAD 3008724	**
134	7	30	19	08570	087	25	32462	139	0000	000000	ESCAMBIA COUNTY TANK, 1982 QUAD 3008724	**
136	7	30	17	42156	087	29	07647	139	0000	000000	ONO ISLAND TANK, 1982, QUAD 3008724	**
146	6	30	17	30887	087	34	12079	139	0000	000000	ORANGE BEACH TANK, 1983, QUAD 3008731	**



SIGNAL TAPE LISTING (CONTINUED)  
 OPR-J217-HSB-B1  
 HSB-40-1-82  
 H-10053  
 VESNO 1257

147	6	30	16	23259	087	35	02928	139	0000	000000	COTTON BAYOU STANDPIPE, 1984 QUAD 3008731	*
148	6	30	15	30316	087	39	05519	139	0000	000000	GULF STATE PARK TK, 1983 QUAD 3008731	***
150	6	30	16	05984	087	41	12517	139	0000	000000	GULF SHORES TANK, 1983, QUAD 3008731	***
152	1	30	14	25841	087	44	15601	139	0000	000000	JONES 1983 QUAD 3008732	***
154	1	30	13	49506	087	48	06182	139	0000	000000	SMITH 1983 QUAD 3008733	***
900	7	29	40	09229	085	21	26851	250	0000	330640	CAPE SAN BLAS LORAN TR, 1956 QUAD 2908513 STATION 1018	****
901	7	29	40	09229	085	21	26851	250	0000	171859	CAPE SAN BLAS LORAN TR, 1956 QUAD 2908513 STATION 1018	****
910	7	30	19	45842	087	17	42886	250	0000	330640	H-82-FL, 1982 QUAD 3008724	**
911	7	30	19	45842	087	17	42886	250	0000	171859	H-82-FL, 1982 QUAD 3008724	**
912	2	30	15	20065	087	38	18945	250	0000	171859	BRANYON 2, 1983 QUAD 3008731	*

CONTROL LOCATED BY:

\* HYDROGRAPHIC FIELD PARTY #1  
 \*\* HYDROGRAPHIC FIELD PARTY SECTION  
 \*\*\* OPERATIONS DIVISION  
 \*\*\*\* NATIONAL GEODETIC SURVEY

Replaces C&GS Form 567.

**NON-FLUORESCENT LANDMARKS FOR CHARTS**

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

ORIGINATING ACTIVITY

- HYDROGRAPHIC PARTY
  - GEODETIC PARTY
  - PHOTO FIELD PARTY
  - COMPILATION ACTIVITY
  - FINAL REVIEWER
  - QUALITY CONTROL & REVIEW GRP.
  - COAST PILOT BRANCH
- (See reverse for responsible personnel)

REPORTING UNIT  
(If field party, ship or office)

STATE  
Alabama

LOCALITY  
Gulf of Mexico  
Alabama Pt. to Gulf Shores

DATE  
Jan. 85

REPORTING UNIT  
HFPS - HFPI

STATE  
Alabama

The following objects HAVE  HAVE NOT  been inspected from seaward to determine their value as landmarks.

DATUM  
NAD 1927

SURVEY NUMBER  
H-10114

OPR PROJECT NO.  
OPR-J217

JOB NUMBER  
-----

CHARTING NAME  
TANK

DESCRIPTION  
(Record reason for definition of landmark or aid to navigation.  
Show triangulation station names, where applicable, in parentheses.)  
(ORANGE BEACH TANK)  
elevated tank supported by five legs  
with a central pipe. ht = 125(148)

DATUM  
30 17

LATITUDE  
//  
D.M. Meters  
30.887

LONGITUDE  
° /  
D.P. Meters  
087 34

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

CHARTS  
AFFECTED  
11378  
11382

CHARTING NAME  
TANK

DESCRIPTION  
(COTTON BAYOU STANDPIPE)  
standpipe tank  
ht=99.5(119)

DATUM  
30 16

LATITUDE  
//  
D.M. Meters  
23.259

LONGITUDE  
° /  
D.P. Meters  
02.928

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

CHARTS  
AFFECTED  
11378  
11382

CHARTING NAME  
TANK

DESCRIPTION  
(GULF STATE PARK TANK)  
elevated tank supported by six legs  
with a central pipe. ht=130(\*)

DATUM  
30 15

LATITUDE  
//  
D.M. Meters  
30.316

LONGITUDE  
° /  
D.P. Meters  
05.519

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

CHARTS  
AFFECTED  
11376  
11360

CHARTING NAME  
TANK

DESCRIPTION  
(GULF SHORES TANK)  
elevated tank supported by four legs  
with a central pipe. ht=118(136)

DATUM  
30 16

LATITUDE  
//  
D.M. Meters  
05.984

LONGITUDE  
° /  
D.P. Meters  
12.517

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

CHARTS  
AFFECTED  
11376  
11360

CHARTING NAME  
TANK

DESCRIPTION  
(GULF SHORES TANK NORTH)  
elevated tank supported by six legs  
with a central pipe. ht=122.5(140)

DATUM  
30 16

LATITUDE  
//  
D.M. Meters  
08.278

LONGITUDE  
° /  
D.P. Meters  
12.398

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

CHARTS  
AFFECTED  
11376  
11360

\*Note: Height above MHW will be obtained and added to this form.

See L-385(85)

NOAA FORM 76-40  
(8-74)

Replaces CGCS Form 567.

TO BE CHARTED  
 TO BE REVISED  
 TO BE DELETED

REPORTING UNIT  
(Field Party, Ship or Office)  
HFP-1

STATE  
FLORIDA/ALABAMA

LOCALITY  
GULF OF MEXICO  
PERDIDO KEY AREA

DATE  
OCT. 83

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

**NON-EXISTING OR LANDMARKS FOR CHARTS**

ORIGINATING ACTIVITY

HYDROGRAPHIC PARTY  
 GEODETIC PARTY  
 PHOTO FIELD PARTY  
 COMPILATION ACTIVITY  
 FINAL REVIEWER  
 QUALITY CONTROL & REVIEW GRP.  
 COAST PILOT BRANCH

(See reverse for responsible personnel)

DATUM  
NAD 1927

METHOD AND DATE OF LOCATION  
(See instructions on reverse side)

CHARTS  
AFFECTED

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	DATUM		POSITION		LONGITUDE // D.P. Meters	OFFICE	FIELD	CHARTS AFFECTED
		• /	° /	D.M. Meters	D.P. Meters				
TANK (elevated)	(ESCAMBIA COUNTY TANK) is a silver elevated tank supported by four legs with a central pipe. 128 ft. tall and top is 140 ft. above MLLW.	30	19	08.57	087 25	32.46		F-3-6-L Feb. 1981	11378 11360
TANK (elevated)	(ONO ISLAND TANK) is a white ball-shaped tank atop a single stem. 120 ft. tall and top is 131 ft. above MLLW.	30	17	42.156	087 29	07.647		F-3-6-L Feb. 1981	11378 11360
TANK (elevated)	(ORANGE BEACH TANK) is an orange tank supported by five legs with a central pipe. 125 ft. tall and top is 149 ft. above MLLW.	30	17	30.887	087 34	12.079		F-3-6-L Mar. 1983	11378 11360
	NOTE: The above tanks are correctly charted on Chart 11378.								
	See 6-1483(82)								

NOTE: Previously submitted with H-10014

NOAA FORM 76-40  
(10-74)

Replaces C&GS Form 567.

**WONELONG BEACH LANDMARKS FOR CHARTS**

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

ORIGINATING ACTIVITY

- HYDROGRAPHIC PARTY
  - GEODETIC PARTY
  - PHOTO FIELD PARTY
  - COMPILATION ACTIVITY
  - FINAL REVIEWER
  - QUALITY CONTROL & REVIEW GRP.
  - COAST PILOT BRANCH
- (See reverse for responsible personnel)

TO BE CHARTED <input type="checkbox"/>	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
TO BE REVISED <input type="checkbox"/>		Alabama	Gulf of Mexico	Jan. 85
TO BE DELETED <input checked="" type="checkbox"/>	HFPs - HFP-1		Gulf Shores	

The following objects HAVE  HAVE NOT  been inspected from seaward to determine their value as landmarks.

DATUM

NAD 1927

SURVEY NUMBER

H-10114

OPR-J217-HSB-81

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION				METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED
		LATITUDE		LONGITUDE		OFFICE	FIELD	
		° /	'	° /	'			
TOWER	Tower is a small lighthouse atop Motel. Tower is surrounded by taller buildings and is no longer a good landmark. Delete from chart.	30	14	087	40	V-Vis	Dec. 1984	11376

*See L-385(85)*

APPROVAL SHEET  
SURVEY H-10053  
HSB-40-1-82

The hydrographic records transmitted with this report are complete and adequate to supersede prior surveys for charting with no additional field work recommended.

I did not give direct daily supervision during the field work.

Approved and forwarded,

*Kenneth W. Perrin*  
Kenneth W. Perrin  
LCDR, NOAA  
Chief, Hydrographic Field Party Section

DATE: 04/17/85

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Atlantic

OPR: J 217

Hydrographic Sheet: H-10053

Locality: Offshore Perdido Bay, Florida

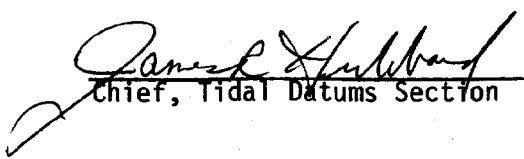
Time Period: September 24, 1982 - September 10, 1984

Tide Station Used: 872-9678 Navarre Beach, Florida

Plane of Reference (Mean Lower Low Water): 25.64 ft.

Height of Mean High Water Above Plane of Reference: 1.3 ft.

Remarks: Recommended zoning:  
apply + 1 hour time correction to all heights

  
Chief, Tidal Datums Section

GEOGRAPHIC NAMES

H-10053

Name on Survey	Source											
	A	B	C	D	E	F	G	H	K			
	ON CHART NO.	ON PREVIOUS SURVEY NO.	ON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	GRAND McNALLY ATLAS	U.S. LIGHT LIST				
ALABAMA (title)												1
FLORIDA (title)												2
GULF OF MEXICO												3
MOBILE POINT (title)												4
												5
												6
												7
												8
												9
												10
												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25

Approved:

*Charles E. Harrington*  
Chief Geographer - N/CG2x3

APR 8 1986

HYDROGRAPHIC SURVEY STATISTICS  
REGISTRY NO.: H-10053

Number of positions	<u>1317</u>
Number of soundings	<u>12343</u>
Number of control stations	<u>5</u>

	<u>TIME-HOURS</u>	<u>DATE COMPLETED</u>
Preprocessing Examination	<u>29</u>	<u>20 SEPT 1985</u>
Verification of Field Data	<u>217</u>	<u>6 MAR 1986</u>
Quality Control Checks	<u>47</u>	
Evaluation and Analysis	<u>24</u>	<u>1 MAY 1986</u>
Final Inspection	<u>5</u>	<u>28 APR 1986</u>
TOTAL TIME	<u>322</u>	
Marine Center Approval		<u>30 APR 1986</u>

Transmittal letter of survey and survey records will be included in the Descriptive Report to identify the records accompanying the survey.



ATLANTIC MARINE CENTER  
EVALUATION REPORT

SURVEY NO.: H-10053

FIELD NO.: HSB-40-1-82

Florida--Alabama, Gulf of Mexico, 30 Miles SE of Mobile Point

SURVEYED: 24 September through 30 November 1982, 25 July through 17 November 1983, 1 February through 10 September 1984, 17 April 1985

SCALE: 1:40,000

PROJECT NO.: J217-HSB-81

SOUNDING: RAYTHEON DE-723D  
Fathometer

CONTROL: HASTINGS-RAYDIST  
DR-S (Range  
-Range), ODOM  
HYDROTRAC  
(Range-Range)

Chief of Party.....G. W. Jamerson  
.....R. W. Jones  
.....K. W. Perrin

Surveyed by.....S. P. DeBow  
.....C. B. Greenawalt  
.....P. M. Kenul  
.....G. S. Lloyd  
.....G. D. Hendrix  
.....T. A. Taylor  
.....G. L. Merrill  
.....M. Mangual-Ortiz

Automated Plot by.....XYNETICS 1201 Plotter (AMC)

1. INTRODUCTION

a. No unusual problems were encountered during office processing.

b. Notes in the Descriptive Report were made in red during office processing.

2. CONTROL AND SHORELINE

a. Control is adequately discussed in sections F., G., and S. of the Descriptive Report.

b. There is no shoreline within the limits of this survey.

3. HYDROGRAPHY

a. Soundings at crossings are in excellent agreement and comply with the criteria found in sections 4.6.1. and 6.3.4.3. of the HYDROGRAPHIC MANUAL.

b. The standard 120 foot depth curve could be drawn in its entirety. The supplemental 90 foot curve was drawn to show additional bottom relief. Additionally, some brown and dashed curves were also drawn to delineate bottom relief.

c. The development of the bottom configuration and determination of least depths is considered adequate.

#### 4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records and reports are adequate and conform to the requirements of the HYDROGRAPHIC MANUAL with the following exceptions:

a. During office verification it was discovered that fourteen (14) days of hydrography were run with the fathometer being out of adjustment. It is noted by the hydrographer section D., page 4 of the Descriptive Report that the stylus length was not correct. Analog depths were found to be plus or minus ( $\pm$ ) .6 of a foot different from the digital depths. It is imperative that the hydrographer maintain a closer watch on the fathometer in order to insure that the analog records and digital records are synonymous.

b. The graph for velocity table number eight (8) submitted with this survey was a poor xerographic copy of the original graph. The original graph can be found in the records for H-10041 (1982). The field unit should make every effort to provide the processing office with quality data to help expedite processing of the hydrographic data.

c. The hydrographer did not take twice daily bar checks as required by sections 1.5.2. and 4.9.5.1.1. of the HYDROGRAPHIC MANUAL. Data for five (5) out of a possible fifty-six (56) bar checks were sent in with this survey. The bar check abstract in Descriptive Report of this survey shows that eleven (11) other bar checks were taken. However, no raw data or copies of fathograms and/or direct comparison forms were submitted with this survey. This does not meet with requirements as stated in section 6.13. of the Project Instructions.

d. LORAN-C data for this survey was not collected as required by section 8.4. of the Project Instructions. There is no explanation for not acquiring LORAN-C data in 1982, 1983, or 1985. Section P. of the Descriptive Report describes problems encountered with LORAN-C data acquisition in 1984.

e. The hydrographer did not submit sufficient data in NOAA Form 77-44 ("SOUNDINGS"), to meet the requirements in section 4.8.3.1. of the HYDROGRAPHIC MANUAL. Data in NOAA Form 77-44 is used to support the automated survey records.

#### 5. JUNCTIONS

H-9954 (1982) to the east  
H-10041 (1982-85) to the northeast  
H-10114 (1983-85) to the northwest  
H-10001 (1982) to the south

Adequate junctions were effected with surveys H-10041 (1982-85) to the northeast, and H-10114 (1985) to the northwest.

Standard junctions could not be effected with H-10001 (1982) which junctions to the south, or H-9954 (1982) which junctions to the east. The junctional surveys H-10001 (1982) and H-9954 (1982) are archived at National Ocean Service (NOS) Headquarters, Rockville, Maryland. Any adjustments to the depth curves in the junctional areas will need to be made at headquarters during chart compilation.

Soundings in the following junctional areas of present survey and survey H-9954 differ by eight (8) to ten (10) feet:

- a) Latitude 30°04'00"N, Longitude 87°28'06"W
- b) Latitude 29°58'06"N, Longitude 87°28'00"W
- c) Latitude 28°57'40"N, Longitude 87°28'00"W

An examination of the present survey records showed indications of irregularities in these areas.

There are no contemporary surveys to the west of the present survey. The charted depths and the present survey soundings are in harmony to the west.

#### 6. COMPARISON WITH PRIOR SURVEYS

H-4133 (1919) 1:80,000  
H-4139 (1919-20) 1:80,000  
H-6554 (1941) 1:40,000

Prior surveys H-4133 (1919) and H-4139 (1919-20) were not compared with present survey. Both surveys were superseded by a butt junction with prior survey H-6554 (1941) in the areas common to the present survey.

Prior survey H-6554 (1941) covers the present survey in its entirety. This survey shows a general trend of being one (1) to five feet (5) feet shoaler than the present survey.

The present survey's deeper depths may be attributed to the advancement of survey technology; more accurate positioning systems and better sounding equipment.

The present survey is adequate to supersede the above prior surveys within the common area.

#### 7. COMPARISON WITH CHART 11360 (28th Edition DEC 10/83)

a. HYDROGRAPHY

The charted hydrography originates with the previously discussed prior survey, H-6554 (1941). The following should be noted:

1) The charted Obstruction, Fish Haven, (auth min depth 12 fms), in Latitude  $30^{\circ}04'30.00''N$ , Longitude  $87^{\circ}34'30.00''W$ , was searched for with negative results. During office processing the fathograms were examined for indications of the Obstruction, Fish Haven, (auth min depth 12 fms) in the charted position. No evidence of this obstruction was apparent. All sounding in the area of the obstruction are deeper than the authorized minimum depth. Assuming a beam width of  $34^{\circ}$  for the transducer used in conjunction with the DE-723D Fathometer, the width of the area insonified at a depth of 90 feet is 55 feet. This does not provide sufficient bottom coverage to verify or disprove the charted obstruction with a line spacing of 200 meters. It is recommended that the Obstruction, Fish Haven, (auth min depth 12 fms) be retained as charted.

2) In the hydrographer's comparison with chart 11360 two soundings were discussed on page 10 of the Descriptive Report. It was stated that the two soundings were ten (10) feet shoaler than present survey depths. The two sounding were examined during office processing. The charted 19-fm sounding in Latitude  $29^{\circ}52'36''N$ ,  $87^{\circ}31'30''W$ , falls in present survey depths of 121 to 130 feet. There was no indication of a shoaler depth on the echograms. The charted 16-fm sounding in Latitude  $29^{\circ}57'45''N$ , Longitude  $87^{\circ}33'55''W$  falls in present survey depths of 95 to 100 feet. It is recommended that these two depths be superseded by present survey depths in their respective areas.

The present survey is adequate to supersede the charted hydrography in the common area.

b. Aids to Navigation

There are no fixed or floating aids to navigation within the limits of this survey.

8. COMPLIANCE WITH INSTRUCTIONS

This survey complies with the Project Instructions except as noted in section 4. of this report.

9. ADDITIONAL FIELD WORK

This is a good basic survey; no additional field work is recommended.

Norris A. Wike

Norris A. Wike  
Cartographer  
Verification of field data

Norris A. Wike

Norris A. Wike  
Cartographer  
Evaluation and Analysis

Robert R. Hill

Robert R. Hill  
Senior Cartographic Technician  
Verification Check

Inspection Report  
H-10053

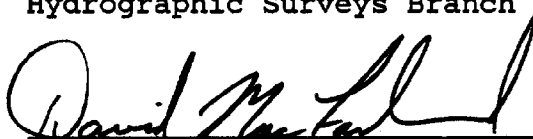
The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts of the survey have been made. The survey complies with National Ocean Service requirements except as noted in the Evaluation Report. The survey records comply with NOS requirements except where noted in the Evaluation Report.

Inspected



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Robert G. Roberson  
Chief, Evaluation Analysis Group  
Hydrographic Surveys Branch



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David B. MacFarland, Jr., CDR, NOAA  
Chief, Hydrographic Surveys Branch

Approved: 30 April 1986

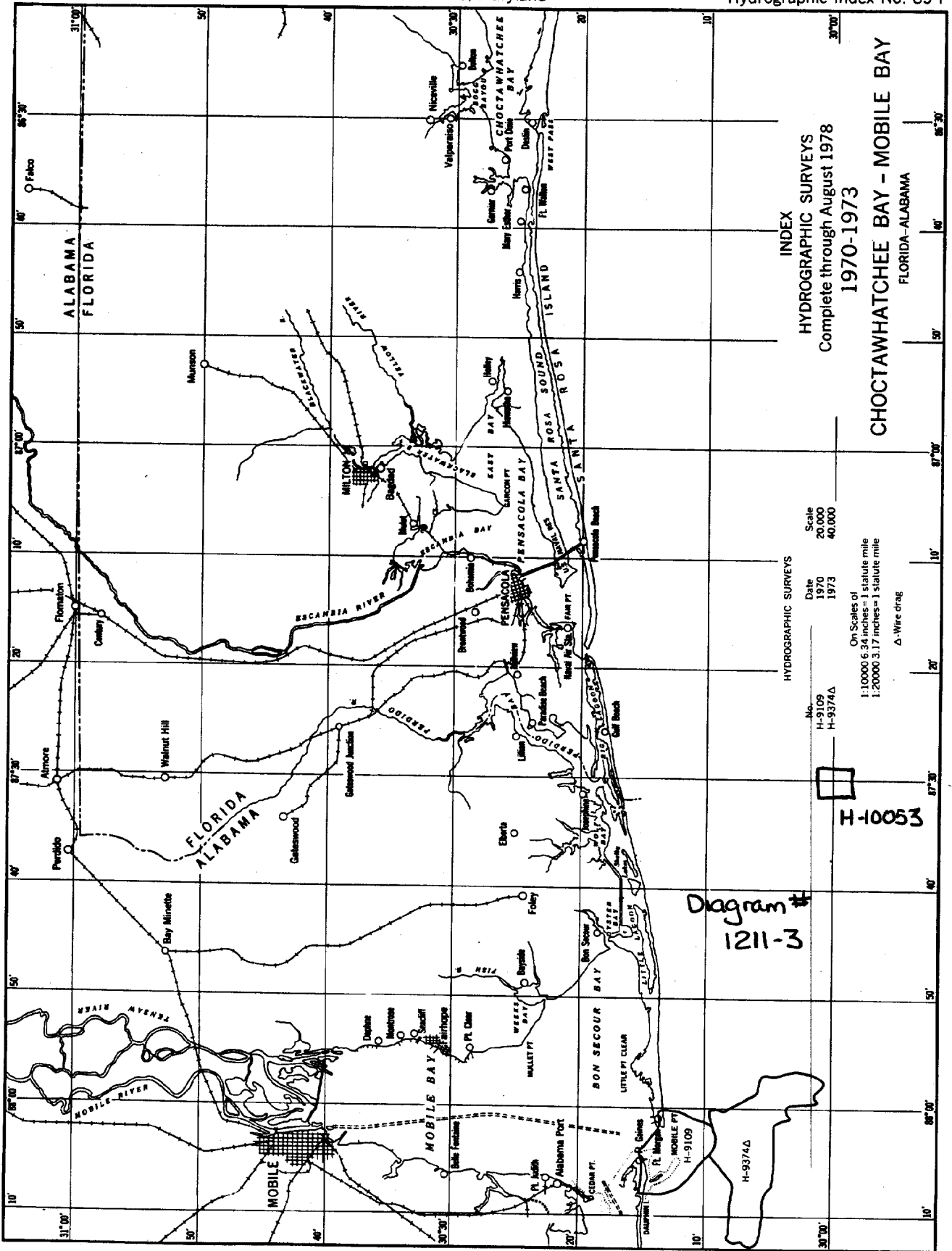


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Wesley P. Hull, RADM, NOAA  
Director, Atlantic Marine Center

DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
National Ocean Survey  
Rockville, Maryland

Hydrographic Index No. 85 F



MARINE CHART BRANCH  
RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10053

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.

CHART	DATE	CARTOGRAPHER	REMARKS
11360	8-21-86	Pearce Hunt <i>no sheet</i>	<del>Full</del> Part Before After Marine Center Approval Signed Via Drawing No. 43
11006	8-22-86	Pearce Hunt <i>no sheet</i>	<del>Full</del> Part Before After Marine Center Approval Signed Via Drawing No. 36
411	8-22-86	Pearce Hunt <i>no sheet</i>	<del>Full</del> Part Before After Marine Center Approval Signed Via Drawing No. 60
			Full Part Before After Marine Center Approval Signed Via Drawing No.
			Full Part Before After Marine Center Approval Signed Via Drawing No.
			Full Part Before After Marine Center Approval Signed Via Drawing No.
			Full Part Before After Marine Center Approval Signed Via Drawing No.
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