# 9968

Diagram No. 1265-3

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-10-3-81

*Office No.* H-9968

## LOCALITY

*State* Florida

*General Locality* Gulf of Mexico

*Locality* Entrance to Pensacola Bay

1981

CHIEF OF PARTY
LCDR G.W. Jamerson

LIBRARY & ARCHIVES

DATE October 25, 1984

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

9968

Area 4
CHTS
11383
11384
11382
11372-SC-A
11360
11006-INC

See "Record of Application" to sign off

INDEX



* Removed from the Descriptive Report and filed with original field records.

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

# HYDROGRAPHIC TITLE SHEET

H-9968

**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-10-3-81

**State** Florida

**General locality** ~~Northwest, Florida~~ Gulf of Mexico

**Locality** ~~Approaches~~ Entrance to Pensacola Bay

**Scale** 1:10,000 **Date of survey** Aug 31, to Dec 9, 1981
Additional work May 5 & Aug 9&13, 1982

**Instructions dated** July 13, 1981 **Project No.** OPR-J217

**Vessel** NOAA Launches 1257 and 1278

**Chief of party** Lt. Cdr. G. W. Jamerson, NOAA

**Surveyed by** Lt. Cdr. A.A. Armstrong, NOAA, Lt. S. P. De Bow, NOAA

**Soundings taken by echo sounder, ~~hand lead~~, pole**

**Graphic record scaled by** AA, SI, GL, GH, MM, GM, LN, SPD

**Graphic record checked by** AA, SI, SPD

**Protracted by**

**Automated plot by** Field Sheet PDP8/e AMC Xynetics ~~1200~~ 1201

**Verification by** AMC Verifications Branch

**Soundings in ~~Fathoms~~ feet at ~~MLW~~ ~~MLLW~~** ~~yyyyy~~ Mean Lower Low Water ~~Gulf Coast Low Water Datum~~

**REMARKS:** AA.-Lt. Cdr. Andrew A. Armstrong

SPD - Lt. Samuel P. De Bow

SI - Lt. Stanley Iwamoto

GL - George Lloyd

GH - Glenn Hendrix

MM - Maria Mangual

GM - Gary Merrill

LRN - Linda R. Noyes

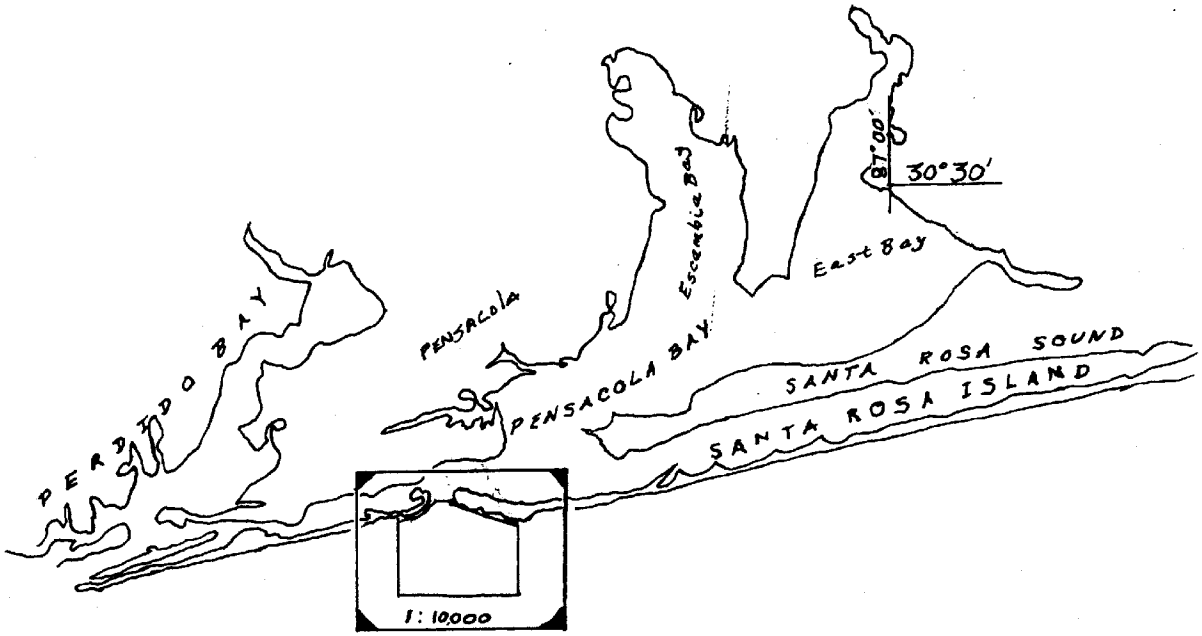
STANDARDS CK'D 10-31-84 C.Loy

AW 015/SVRF ✓ 2/6/89 SJV

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

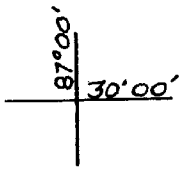
NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

☆ U.S. GPO: 1974-0-768-081/1207




OPR - J - 217
HSB 10 - 3 - 81
H - 9968
CHART # 11360





DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY H-9968
HSB-10-3-81

Scale: 1:10,000
Chief of Party: Lt. Cdr. George W. Jamerson
Officer-in-Charge: Lt. Cdr. Andrew A. Armstrong and
Lt(jg) Samuel P. De Bow
Hydrographic Surveys Branch, Hydrographic Field Party #1
Launches 1257 and 1278

A. PROJECT

This survey was accomplished under Project Instructions OPR-J217, dated July 13, 1981 and amended by Change No. 1, dated July 23, 1981 and Change No. 2, dated October 26, 1981.

B. AREA SURVEYED

The area surveyed was Pensacola Bay Entrance and bounded by the following points:

| | | | |
|---|---|---|---|
| Lat. | 30°19'00"N | Long. | 87°14'15"W |
| Lat. | 30°19'24"N | Long. | 87°18'45"W |
| Lat. | 30°19'39"N | Long. | 87°19'42"W |
| Lat. | 30°15'45"N | Long. | 87°19'30"W |
| Lat. | 30°15'45"N | Long. | 87°15'15"W |

The main portion of this survey was conducted from August 31, 1981 to December 9, 1981 (JD 243 to 343) inclusive. Additional hydro was run on May 5,1982 (JD125), August 9,1982 (JD 221) and August 13,1982 (JD225).

C. SOUNDING VESSEL

All soundings obtained on this survey were obtained from NOAA Launches 1257 and 1278 (EDP # 1257 and 1278). All survey records are annotated with the vessel numbers above.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following Raytheon fathometer equipment was used during the survey:

JD 243 - 321 and 125:
VESNO: 1278
Recorder Model #DE719B
Serial 5784

JD 264-343:
VESNO: 1257
Recorder Model DE723-D
Serial 2042
ECU Model DE723-D
Serial 37009
Digitizer Model DE723-D
Serial 2772

No unusual problems were encountered with this equipment. The fathometer was monitored continuously while sounding and was under constant adjustment to insure that no initial corrections were necessary except on rare occasions. These corrections were applied during scanning.

Settlement and squat tests on Launches 1278 and 1257 were run on 5/18/81, 8/25/81 and 6/11/82 respectively at Pensacola Bay Entrance. The results of these tests are included in the Appendix of this report. Settlement and squat corrections for 1278 will be applied via the TC/TI tape during plotting of the smooth sheet at the Atlantic Marine Center and were not applied to the field sheets. Settlement and squat corrections for 1257 were applied to the field sheet as dynamic draft on the correction tapes.

Velocity and instrument corrections were determined by barcheck and TDC casts. Field sheets were plotted using approximate velocity curves developed by moving the TDC curves to coincide with and extend the barcheck curves.* Final velocity curves and tables were constructed from the TDC curves. Instrument correction is shown on the TRA abstracts and applied by TC/TI. The lengths of the line on the bar for 1278 were checked on August 25, 1981 and for 1257 on February 26 and December 15, 1981. The results of this inspection showed that no corrections were necessary. The TDC used to obtain velocity corrections was a Martek Instrument Model 101-10, Serial #477.

* Not in accordance with section 4.9.5.3 of the Hydrographic Manual. A sound/kg pde was also used.

E. SURVEY SHEETS

The field sheets were prepared in the field using a PDP8/e computer and a DP-3 Complot Plotter. Work sheets, semi-smooth sheets, smooth field sheets, and overlay sheets are included with this survey. Mainscheme hydrography, splits, and crosslines are plotted on the smooth field sheets while developments, bottom samples, prior survey soundings, junctions soundings, presurvey review items, and aids to navigation are shown on overlay sheets. Chart 11384 itself was used as a charted sounding underlay sheet. Projection parameter tape listing for the field sheets is included in the Appendix of this report. The final smooth sheet and verification of this survey will be accomplished at the Atlantic Marine Center on the Harris/7 computer and the Xynetics 1201 plotter.

F. CONTROL STATIONS

Control stations used during this survey were either existing third order or better geodetic control stations published by NGS or were established by HFP-1 and HSB to third order or better standards. All stations are referred to the North American 1927 datum. A list of all control stations used during this survey is included in the Appendix of this report. Horizontal control data were submitted via the NGS computer terminal system. Positions can be verified by Hydrographic Surveys Branch of AMC.

G. HYDROGRAPHIC POSITION CONTROL

Three methods were used to control this survey. Launch 1257 used Raydist range-range. Launch 1278 used Del Norte range-range and range-azimuth. Hasting Raydist DR-S System:
Left Station - Green Model AA-60, S/N 68
Right Station - Red Model AA-60, S/N 84
Navigator Model ZA-67B, S/N 67
Ant. Loading Coil Model QB-52, S/N 81
Transmitter Model TA-96, S/N 87

No problems were encountered with the use of this equipment.

Del Norte System:
Remote Transponder Model 217C Code 78, S/N 174
Remote Transponder Model 217C Code 76, S/N 247
Master Transponder Model 217C Code 78, S/N 185
Distance Measuring Unit S/N 162

No problems were encountered with the use of this equipment.

The Raydist control equipment was calibrated at three point sextant fixes with check angles. Calibrations were taken before and after each period of hydrography. A strip chart recorder was monitored between calibrations to check for lane gains or losses. On JD 221 the Raydist power supply was not turned on at the start of the day. Eventually the batteries went dead, causing the system to go off the air. All data was rejected up to that point (see strip chart). The Raydist was turned on and recalibrated. No other problems were encountered. The Del Norte equipment was calibrated on a third-order base-line before and after the survey. It was checked twice daily at a known point of third order control.

H. SHORELINE See also section 2.b of the Evaluation Report.

Shoreline detail for this survey was obtained from Florida Coastal Zone Maps T00545 and 00547 prepared from photos of 1978 and field edited 1979.

Shoreline corrections were necessary at latitude 30°19.5', longitude 87°17.8' where the shoreline has receded up to 80 m. Another apparent change is at latitude 30°19.6', longitude 87°18.8' where the shoreline has receded approximately 20m. The top of a small sand spit at latitude 30°19.7', longitude 87°19.1' was located at position 612. In the vicinity of latitude 30°18.9', longitude 87°16.1' an apparent recession of the shoreline was noted. These changes are indicated in dashed red lines on the field sheet shoreline.

Photogrammetric locations of two jetties from the manuscript were checked by hydrographic range-range means with the following results and recommendations: Agreement is excellent. Photogrammetric data should be used for the chart.

I. CROSSLINES See also section 3.a of the Evaluation Report.

Crosslines constitute 9% of the mainscheme hydrography. Ninety-nine point nine percent (99.9%) of the crossings agree within one feet. No soundings are in disagreement at crossing by more than two feet. The reasons for the disagreement of

sounding at crossings is due to the fact that real tides may vary somewhat from predicted tides due to wind conditions or other variables.

J. JUNCTIONS - See also section 5 of the Evaluation Report

This survey junctions with the following surveys:

H-9943 to the east
H-9971 to the south (in progress).

No junction is available to the north inside Pensacola Bay.

Ninety-five percent (95%) of these junction soundings agree within one foot when compared with the current survey and none of the junction soundings are in disagreement by more than two feet. Since the junction to the south is with a survey in progress, comparison was made between uncorrected soundings. This may account for some discrepancies.

The hydrographer recommends that in the junction area, the soundings from the present survey be charted and that the depth curves be smoothed together, favoring the shoaler of any two overlapping soundings.

K. COMPARISON WITH PRIOR SURVEYS See also sections 6.a and 6.b of the Evaluation Report.

This survey was previously covered by the following surveys: H-6633 (1940), 1:10,000 scale; H-6635 (1940), 1:20,000 scale and H-5730 (1935), 1:20,000 scale.

Comparison showed that the area has changed a great deal since 1940. Pensacola Bay Entrance is an opening in a chain of sand barrier islands. It is therefore subject to a great deal of change. The channel is also dredged periodically and the spoils have apparently been dumped nearby. The most significant changes have been in the channel itself, and landward of the 24-foot contour. Seaward of the 24-foot contour the change has been much less drastic. Since the changes are so wide spread, specific comparisons will not be made, except to note that East Bank and Middle Ground are now essentially one continuous shoal, the hydrographer recommends that soundings from the present survey completely supersede those of any prior surveys.

COMPARISON WITH CORPS OF ENGINEERS CONDITION SURVEY

Representative soundings from a recent Corps of Engineers condition survey, dated July 22, 1981 (enclosed), were compared with the present survey. Of the 166 soundings compared, approximately 80% agreed to within 0-1 foot. The remaining soundings agreed to within 3 feet. Considering the fact that the soundings were taken in the dredged channel, agreement could be considered excellent. The hydrographer recommends that the soundings from the present survey supersede all other previous surveys. The Corps of Engineers has responsibility for controlling depths in maintained channels. We will only describe conflicts found in comparisons with our present surveys.

L. COMPARISON WITH THE CHART - See also section 7 of the Evaluation Report (see CL 1814/76)

Presurvey review item 163, shoaling to 11 ft, was confirmed and developed during the normal course of soundings. 9ft sounding in φ 30° 19' 16.92"N, λ 87° 18' 04.55"W; most S'ly 11ft sounding in φ 30° 18' 22.44"N, λ 87° 17' 45.63"W - Chart the present survey depths. AWOIS # 7082

Presurvey review item 164, the wreck of the old battleship MASSACHUSETTS was located as charted by positions 10 and 11. All that remains two massive iron cylinders, probably gun turrets that bare about five feet at datum. The remains are not visible far to sea, but are definitely above water and should be charted as a visible awash rather than a submerged dangerous wreck. Bulk of the wreck is submerged; iron cylinders bare 3ft at MLLW - see also appended Dive Report - chart as shown on smooth sheet.

Presurvey review item 309, a reported sunken 60-foot barge was not located. Salvage companies in the area were contacted, but none had any knowledge of the sinking or possible salvage. Local dive shops, generally a good source of information, had no knowledge of the wreck. The hydrographer recommends that the wreck remain "PD". Source - L&M 74/76 in φ 30° 19' 17"N, λ 87° 18' 46"W - Do not concur - hydrographer did not investigate; however, the shifting shoal (Middle Ground) may have covered the wreck - Recommend charting "ED." AWOIS # 7086

Presurvey review item 330, two submerged wrecks, was not located. Again local dive shops have no knowledge of the wrecks. The water depths in the area have deepened from four feet to ~~fourteen~~ thirteen feet. If these wrecks existed, they have probably been dispensed by sea and currents. The hydrographer recommends the wrecks be designated "PD". Do not concur - hydrographer did not investigate - source of wreck is BP 41339 and T. 7812 b (1946) and revised to submerged by CL-398/48 - Recommend charting as Existence Doubtful. 30° 18' 50" - 87° 19' 27" AWOIS # 7085

A wreck located at latitude 30°19'.2 1/2" longitude 87°19.2 1/16" was not indicated during normal sounding lines, but should remain as charted. - concur

This survey was compared as the survey progressed with Chart 11384, 24th Edition 1981. The following changes in the chart were detected:

The major shoals have been altered considerably both in extent and depth. Concur - Middle Ground and East Bank have merged to form a large shoal with no opening to the deep water.

The small channel between Perdido Key and a sand island, connecting Big Lagoon and the entrance to Pensacola Bay was developed although it is outside the western limits of the survey. The controlling depth was found to be ten feet. The channel is currently navigated by small boats using local knowledge.

A previously uncharted wreck was located at Latitude 30°18'44.6"; longitude 87°15'59.7" with position 3086. The wreck is known locally as the "Catherine" and is thought to be the remains of a wooden sailing vessel. A least depth could not be determined, but it was clearly visible in 14 foot of water and did not appear to sit more than two feet above the surrounding bottom. It is not a hazard to navigation. - Recommend charting as non-dangerous sunken wreck.

Additional hydrography was run in the vicinity of Caucus Channel to verify or disprove certain charted soundings which were significantly shoaler than the present survey soundings.

None of the charted least depths were observed when the hydro was run by Launch 1257 on JD 221 and JD 225 (1982). Consequently, additional development in the area was deemed unnecessary by the hydrographer.

The 24-foot sounding found on the outer edge of the channel by Launch 1278 on JD 125 (May 5, 1982) at latitude 30°18.15'N, longitude 87°18.13'W, was investigated by Launch 1257 on JD 221 (1982). A 27-foot sounding was observed at this position which is the tabulated depth on the chart. The original 24-foot sounding probably arrived at that GP due to the fact that the data was obtained in the non-automated mode and because of the T&C function in the off-line plotting program (RK211). Since the automated on line system has a position update of one second, versus one and one-half minutes in the non-automated mode, it is recommended that the 27-foot sounding be charted at this GP.

Additional lines were requested to be run on the east plotter sheet to ascertain the existence of a 19-foot sounding at latitude 30°18.58'N, longitude 87°15.83'W. Three small lines of hydro were run to split the mainscheme in this area on JD 225, but due to the fact that the Raydist stations had been shifted since the original mainscheme was run, these lines were on the baseline between the two stations and are of dubious value. Consequently, the lines were rejected and no further investigation was made. It is the opinion of the hydrographer that when smooth tides are applied to the original hydrography, the existence of this sounding will be proven. An fathometer depth of 24 ft exists in latitude 30°18'32.69"N, longitude 87°15'50.70"W.

No new hazards to navigation were detected in the survey area.

## M. ADEQUACY OF SURVEY

This survey is complete and adequate to warrant its use to supersede prior surveys for charting in the common areas.

## N. AIDS TO NAVIGATION

All floating and fixed aids to navigation in the survey area were located and comparisons between their charted, Light List (Vol II, 1982) and surveyed positions and descriptions were made. All aids were found to adequately serve the apparent purpose for which they were established. The Fort Barrancas Range Rear Light (L.L. #1659) is inaccessible to either hydrographic method location or third order location without an extensive traverse. The Front Light (L.L. #1658) was located to third order and a range line was run.

Aids to Navigation Team (ANT) Pensacola USCG was notified that the buoy 8 was off station. It was reset in the charted position. Thr hydrographer further recommended to ANT Pensacola the following changes to their buoyage scheme: Buoy 10 be relocated at the tip of a shoal encroaching from the E point of the bay entrance. After completion of the survey, Buoy 10 (L.L. #1660) was relocated to approximate position 30°19'45", 87°18'24", (8 CGD LNM 53-81). No cables or bridges cross the survey area. Buoy is plotted at position 723, in latitude 30°19'43.63"N, longitude 87°18'23.27"W.

The automated chart listing provided to the field ~~have~~ has an erroneous position for Ft. McRee leading light (L.L. #1661) even though the aid is correctly charted. A third order position was obtained for the light. The hydrographer does not understand the discrepancy, as it was thought that the listing reflected the position used in charting the object.

## O. STATISTICS

| | |
|---|---|
| Number of positions | 2351 |
| Nautical miles of sounding line | 328.3 |
| Nautical miles of crossline | 29.1 |
| Nautical miles of development | 52.9 |
| Total miles of hydrography | 410.32 |
| Number of bottom samples | 51 |
| Number of barchecks | 17 |
| Number of TDC casts | 3 |

## P. MISCELLANEOUS

Launch 1257 has operated daily from Pensacola during 1981. No currents even approaching 11 knots were experienced in the bay or channel. A maximum estimated current of 3-5 knots was experienced at the entrance. The navigator of the aircraft carrier USS LEXINGTON, home ported in Pensacola, was questioned about the currents. He indicated that the maximum current encountered by the LEXINGTON has been about three knots.

On a number of the inshore lines run by Launch 1257 which junction with those lines that were run by Launch 1278, a 2-3 foot discrepancy was observed. This difference is believed to be caused by the predicted tide reducer applied to the soundings and will probably be rectified when smooth tides are applied at AMC.

One of the Pensacola Harbor Pilots, Captain Schaefer, was also contacted. He feels that maximum ebb currents under normal circumstances ran at 2-4 knots, but that a maximum current of 5-7 knots occurs in worst case conditions of north winds and max ebb. He thought that an old report of an 8-10 knot tug losing headway in the channel was probably unreliable. He feels that the reported 11 knots is also very unlikely.

Some reliable, systematic, quantitative measurements will have to be done to completely resolve the uncertain current prediction. The hydrographer feels that warning mariners of possible 7 knot current would be reasonable and prudent at this time.

Loran-C comparisons were conducted by recording LORAN values simultaneously with Raydist rates at bottom sample sites. The comparison forms are submitted in the appendix to this report. The harbor pilots and the USS LEXINGTON navigation department were contacted to solicit comments concerning the adequacy and the accuracy of the charts in the area. No dissatisfaction was expressed. The commanding officer of the LEXINGTON was shown the completed field sheet. He was anxious that the newly acquired soundings be shown on the chart as soon

possible, since much of the information was relevant to the safe navigation of his ship.

A copy of the smooth sheet should be sent to:

Gulf Island National Seashore
P. O. Box 100
Gulf Breeze, FL 32561

Attn: Mr. Buck Thackery
Resource Manager

and

Lt. Cdr. Smith
Port Services Officer
Pensacola Naval Air Station
Pensacola, FL

Additional copies of the smooth sheet has been requested by the following organizations who aided the hydrographers during the accumulation of the field data:

Chief
U. S. C. G. Aids to Navigation Team
P. O. Box 1349
Gulf Breeze, FL 32561

and

U. S. Army Corps of Engineers
District Mobile
P. O. Box 2288
Mobile, AL 36628

Attn: S AMFO MO

Q. RECOMMENDATIONS

See Sections H, J, K, L, M, and P for specific recommendations.

R. AUTOMATED DATA PROCESSING

Programs used during the field data acquisition and field processing of this survey are as follows:

| PROGRAM | DESCRIPTION | VERSION DATE |
|---|---|---|
| RK112 | Range-range Real Time Hydroplot | 08/04/81 |
| RK201 | Grid, Signal, and Lattice Plot | 04/18/75 |
| RK211 | Range-range Non-real Time Plot | 02/02/81 |
| RK212 | Visual Station Table Load | 04/01/74 |
| RK216 | Range-azimuth Non-real Time Plot | 02/05/76 |
| RK300 | Utility Computations | 02/05/76 |
| RK330 | Reformat and Data Check | 05/04/76 |

R. AUTOMATED DATA PROCESSING (Cont'd)

| | | |
|---|---|---|
| PM360 | Electronic Corrector Abstract | 02/02/76 |
| RK407 | Geodetic Inverse/Direct Computation | 09/25/78 |
| AM500 | Predicted Tide Generator | 11/10/72 |
| RK530 | Layer Corrections for Velocity | 05/10/76 |
| RK561 | H/R Geodetic Calibration | 02/19/75 |
| AM602 | Extended-line Oriented Editor | 05/20/75 |

S. REFERENCE TO REPORTS

None

Respectfully submitted,

Samuel P. De Bow, Lt, NOAA

Lt. Samuel P. De Bow
OIC, HFP-1, NOAA

APPROVAL SHEET
SURVEY H-9968 (HSB-10-3-81)

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

Direct daily supervision was not given by me during the field work.

Approved and forwarded,

Geo. W. Jamerson

George W. Jamerson
Lt. Cdr., NOAA
Chief, Hydrographic Surveys Branch

Signal Tape Listing
OPR J217
HSB 10-3-81
H-9968
VESNO 1257 and 1278

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 106 | 7 | 30 | 21 | 35305 | 087 | 10 | 56109 | 139 | 0000 | 000000 | Gulf Breeze Tank, 1981* |
| 107 | 7 | 30 | 19 | 07174 | 087 | 15 | 18724 | 139 | 0000 | 000000 | Park Rangers ANT Pole, 1981* |
| 109 | 7 | 30 | 19 | 02194 | 087 | 15 | 26539 | 250 | 0004 | 000000 | Fixed No. 2, 1942, 1981* |
| 110 | 7 | 30 | 19 | 18469 | 087 | 17 | 06198 | 250 | 0018 | 000000 | H-73-FL-80, 1981* |
| ~~112~~ | ~~7~~ | ~~30~~ | ~~20~~ | ~~47641~~ | ~~087~~ | ~~17~~ | ~~21230~~ | ~~139~~ | ~~0000~~ | ~~000000~~ | ~~Bar Pilots Lookout Tower, 1981~~* |
| 114 | 7 | 30 | 20 | 45346 | 087 | 18 | 29205 | 139 | 0000 | 000000 | Pensacola Lighthouse Cntr, 1934*** |
| 115 | 7 | 30 | 20 | 45277 | 087 | 18 | 29162 | 250 | 0054 | 000000 | Pensacola Lighthouse ECC E, 1981* |
| 118 | 7 | 30 | 19 | 53274 | 087 | 18 | 52129 | 250 | 0004 | 000000 | Caucus Channel F. Rng. Lt, 1981* |
| 120 | 7 | 30 | 19 | 30907 | 087 | 18 | 46774 | 250 | 0008 | 000000 | Fort McRee Leading Light, 1981* |
| 900 | 7 | 29 | 40 | 09229 | 085 | 21 | 26851 | 250 | 0000 | 330640 | Cape San Blas Loran Tower, 1956*** |
| 902 | 7 | 30 | 19 | 15517 | 087 | 13 | 24115 | 250 | 0000 | 330640 | H-62-01, 1980** (Pensacola Beach) |
| 908 | 7 | 30 | 22 | 45075 | 086 | 52 | 47698 | 250 | 0000 | 330640 | H-4-FL-77, 1980** (Navarre) |
| 910 | 7 | 30 | 19 | 45842 | 087 | 17 | 42885 | 250 | 0000 | 330640 | H-82-FK, 1982* (Pensacola Ent) |
| 911 | 7 | 30 | 19 | 08693 | 087 | 15 | 27037 | 139 | | | FIXED, 1942 |
| 912 | 7 | 30 | 20 | 43058 | 087 | 17 | 25528 | 139 | | | FERRY, 1942 |

Control located by:

* Hydrographic Surveys Branch
** Operations Division
*** National Geodetic Survey

All control recovered by HFP-1 1981-1982

NOAA FORM 76-40 (8-74)
Replaces C&GS Form 567.

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

# NONFLOATING AIDS [redacted] FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

| [X] TO BE CHARTED / [ ] TO BE REVISED / [ ] TO BE DELETED | REPORTING UNIT (Field Party, Ship or Office) | STATE | LOCALITY | DATE |
|---|---|---|---|---|
| | HFP-1 | Florida | Pensacola Bay | 12/81 |

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

| OPR PROJECT NO. | JOB NUMBER | SURVEY NUMBER | DATUM |
|---|---|---|---|
| OPR-J217 | HSB-10-3-81 | H-9968 | North American 1927 |

| CHARTING NAME | DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses) | POSITION LATITUDE ° ′ | LATITUDE ″ D.M. Meters | POSITION LONGITUDE ° ′ | LONGITUDE ″ D.P. Meters | METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE | FIELD | CHARTS AFFECTED |
|---|---|---|---|---|---|---|---|---|
| LIGHT | Caucus Channel Range Front Lt LL#1650 (Sig 118) (Caucus Channel F. Rng Lt) | 30 19 | 53.274 | 87 18 | 52.129 | | F-3-6-L 10-23-81 | 11378 11382 11383 11384 |
| LIGHT | Caucus Channel Range Rear Lt LL#1651 (Sig 116) (Caucus Channel R Rng Lt) | 30 20 | 12.536 | 87 18 | 59.500 | | F-3-6-L 10-23-81 | 11378 11382 11383 11384 |
| LIGHT | Pensacola Light LL#1652 (Sig 114) (Pensacola Lighthouse Center) | 30 20 | 45.346 | 87 18 | 29.205 | | F-6-V Triang Recov 10-19-81 | 411, 11383, 11360, 11384 11378, 11382 |
| LIGHT | Fort Barrancas Range Front Light LL#1658 (Fort Barrancas F Rng Lt) | 30 20 | 34.187 | 87 18 | 29.236 | | F-3-6-L 9-3-81 | 11378 11382 11383 11384 |
| LIGHT | Fort Barrancas Range Rear Light LL#1659 | 30 20 | 44.56 | 87 18 | 29.23 | | V-VIS 12-15-81 Pos. from Chart Listing | 11378 11382 11383 11384 |
| LIGHT | Fort McRee Leading Light LL#1661 (Sig 120) | 30 20 | 30.907 | 87 18 | 46.774 | | F-3-6-L 2-27-81 | 11378 11382 11383 11384 |
| LIGHT | Navy Range Front Light LL#1665 (Navy Front Rng Lt) | 30 20 | 03.932 | 87 19 | 03.293 | | F-3-6-L 9-2-81 | 11378 11382 11383 11384 |
| LIGHT | Navy Range Rear Light LL#1666 (Navy Rear Rng Lt) | 30 20 | 04.313 | 87 19 | 09.058 | | F-3-6-L 9-2-81 | 11378 11382 11383 11384 |
| | | | | | | | | |
| | SecL-914(82) | | | | | | | |

52

| RESPONSIBLE PERSONNEL | | |
|---|---|---|
| **TYPE OF ACTION** | **NAME** | **ORIGINATOR** |
| OBJECTS INSPECTED FROM SEAWARD | A.A. ARMSTRONG, LCDR., NOAA | ☐ PHOTO FIELD PARTY<br>☒ HYDROGRAPHIC PARTY<br>☐ GEODETIC PARTY<br>☐ OTHER *(Specify)* |
| POSITIONS DETERMINED AND/OR VERIFIED | A.A. ARMSTRONG, LCDR., NOAA | FIELD ACTIVITY REPRESENTATIVE |
| | | OFFICE ACTIVITY REPRESENTATIVE |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | | ☐ REVIEWER<br>☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE |

**INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'**

*(Consult Photogrammetric Instructions No. 64,*

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:

| | |
|---|---|
| F - Field | P - Photogrammetric |
| L - Located | Vis - Visually |
| V - Verified | |
| 1 - Triangulation | 5 - Field identified |
| 2 - Traverse | 6 - Theodolite |
| 3 - Intersection | 7 - Planetable |
| 4 - Resection | 8 - Sextant |

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED
When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
Enter 'V-Vis.' and date.
EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

NOAA FORM 76-40 (8-74)

Replaces C&GS Form 567.

# NONFLOATING AIDS [redacted] FOR CHARTS

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

ORIGINATING ACTIVITY
- [x] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [x] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

| REPORTING UNIT (Field Party, Ship or Office) | STATE | LOCALITY | DATE |
|---|---|---|---|
| HFP-1 | Florida | Pensacola Bay | 12/81 |

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

| OPR PROJECT NO. | JOB NUMBER | SURVEY NUMBER | DATUM |
|---|---|---|---|
| OPR-J217 | HSB-10-3-81 | H-9968 | North American 1927 |

| CHARTING NAME | DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses) | POSITION LATITUDE ° ′ | ″ D.M. Meters | POSITION LONGITUDE ° ′ | ″ D.P. Meters | METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE | FIELD | CHARTS AFFECTED |
|---|---|---|---|---|---|---|---|---|
| | THE FOLLOWING LIGHTS ARE NOT WITHIN THE SURVEY LIMITS BUT WERE LOCATED BY GROUND SURVEY OR THEIR EXISTENCE WAS VERIFIED: | | | | | | | |
| LIGHT | Range Front Light, LL #1671 (Pensacola Bay Channel F. Rng Lt) | 30 24 | 24.860 | 87 11 | 35.931 | | F-3-6-L 10-23-81 | 11378 11382 11382 |
| LIGHT | Range Rear Light, LL #1672 (Pensacola Bay Channel R. Rng Lt) | 30 25 | 13.028 | 87 11 | 00.165 | | F-3-6-L 10-23-81 | |
| LIGHT | Fair Point Light, LL #1676 | 30 21 | 56.558 | 87 12 | 49.833 | | F-3-6-L 10-23-81 | |
| LIGHT | Pensacola Bay E Channel Outer Rng F.Lt LL #1678.40* (Pensacola Bay E Channel F Rng Lt) | 30 22 | 45.408 | 87 12 | 19.400 | | F-3-6-L 10-23-81 | |
| LIGHT | Pensacola Bay E Channel Outer Rng R Lt LL #1678.42* (Pensacola Bay E Chan R Rng Lt) | 30 22 | 39.819 | 87 12 | 18.154 | | F-3-6-L 10-23-81 | |
| LIGHT | Pensacola Bay W Channel Inner Rng F Lt LL #1680.30* | 30 23 | 58.6 | 87 13 | 03.5 | | Existence Verified 12-15-81 Pos. from 8th CG LNM 43-81 | |
| LIGHT | Pensacola Bay W Channel Inner Rng R Lt LL #1680.32* | 30 24 | 04.5 | 87 13 | 04.6 | | Existence Verified 12-15-81 Pos. from 8th CG LNM 43-81 | |
| | * New Lights: refer to 8th CG LNM # 29-81, 33-81 and 43-81. | | | | | | | |

SEL-914(82)

53

| RESPONSIBLE PERSONNEL | | |
|---|---|---|
| **TYPE OF ACTION** | **NAME** | **ORIGINATOR** |
| OBJECTS INSPECTED FROM SEAWARD | A.A. ARMSTRONG, LCDR., NOAA | ☐ PHOTO FIELD PARTY<br>☒ HYDROGRAPHIC PARTY<br>☐ GEODETIC PARTY<br>☐ OTHER *(Specify)* |
| POSITIONS DETERMINED AND/OR VERIFIED | A.A. ARMSTRONG, LCDR., NOAA | FIELD ACTIVITY REPRESENTATIVE |
| | | OFFICE ACTIVITY REPRESENTATIVE |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | | ☐ REVIEWER<br>☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE |

**INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'**

*(Consult Photogrammetric Instructions No. 64,*

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.

EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

| | |
|---|---|
| F - Field | P - Photogrammetric |
| L - Located | Vis - Visually |
| V - Verified | |
| 1 - Triangulation | 5 - Field identified |
| 2 - Traverse | 6 - Theodolite |
| 3 - Intersection | 7 - Planetable |
| 4 - Resection | 8 - Sextant |

A. Field positions* require entry of method of location and date of field work.

EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.

EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED

When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



☆ U.S.GPO:1975-0-665-080/1155

NOAA FORM 76-40 (8-74)

Replaces C&GS Form 567.

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

# [redacted] LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

| [X] TO BE CHARTED / [ ] TO BE REVISED / [ ] TO BE DELETED | REPORTING UNIT (Field Party, Ship or Office) | STATE | LOCALITY | DATE |
|---|---|---|---|---|
| | HFP-1 | Florida | Pensacola Bay | 12/81 |

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

| OPR PROJECT NO. | JOB NUMBER | SURVEY NUMBER | DATUM |
|---|---|---|---|
| OPR-J217 | HSB-10-3-81 | H-9968 | North American 1927 |

| CHARTING NAME | DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses) | POSITION LATITUDE ° ′ | LATITUDE ″ D.M. Meters | POSITION LONGITUDE ° ′ | LONGITUDE ″ D.P. Meters | METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE | FIELD | CHARTS AFFECTED |
|---|---|---|---|---|---|---|---|---|
| STACK | Brick stack on USN Air Station Pensacola (Pensacola USN Air Sta Pwr Stk) | 30 20 | 47.316 | 87 16 | 06.799 | | V-VIS Triang Recov 12-15-81 | 11378, 11382 11383, 11384 |
| TOWER | Skeletal Steel Pilot Lookout Tower (Sig 112) (Bar Pilots Lookout Tower) | 30 20 | 47.650 | 87 17 | 21.236 | | F-6-V Triang Revoc 10-23-81 | 11378, 11382 11383, 11384 |
| TANK | Six-legged tank at Sherman Field on USN Air Sta Pensacola (Sherman Field Tank) | 30 20 | 49.163 | 87 18 | 37.416 | | F-3-6-L 10-2-81 | 11378, 11382 11383, 11384 |
| RADOME * | Spherical Radar Dome mounted on steel skeletal tower at USN Air Sta Pensacola (Sherman Field Radar Tower) | 30 20 | 48.536 | 87 18 | 52.944 | | F-3-6-L 10-2-81 | 11378, 11382 11383, 11384 |
| TANK | Tank in NE part of USNAS Pensacola | 30 20 | 48.97 | 87 16 | 25.09 | | Existence Verified 12-15-81 Pos from Chart List 6-19-81 | 11378 11382 11383 |
| RADIO TOWER | East of three radio towers | 30 21 | 27.80 | 87 17 | 00.26 | | " " | 11378 11382 11383 |
| RADIO TOWER | South of three radio towers | 30 21 | 24.00 | 87 17 | 01.91 | | " " | 11378 11382 11384 |
| RADIO TOWER | West of three radio towers | 30 21 | 27.25 | 87 17 | 04.87 | | " " | 11378 11382 11383 |
| TANK | Water tank in Warrington area (Warrington Water Tank) | 30 23 | 08.714 | 87 16 | 46.945 | | Existence Verified Triang Recov 10-15-81 | 11378 11382 11383 |
| TANK | Tank in Warrington area | 30 23 | 12.05 | 87 17 | 21.54 | | Existence Verified 10-15-81 Pos from Chart List 6-19-81 | 11378 11382 11383 |

*NOT presently charted

SL L-914(82)

| RESPONSIBLE PERSONNEL | | |
|---|---|---|
| **TYPE OF ACTION** | **NAME** | **ORIGINATOR** |
| OBJECTS INSPECTED FROM SEAWARD | A.A. ARMSTRONG, LCDR., NOAA | ☐ PHOTO FIELD PARTY<br>☒ HYDROGRAPHIC PARTY<br>☐ GEODETIC PARTY<br>☐ OTHER *(Specify)* |
| POSITIONS DETERMINED AND/OR VERIFIED | A.A. ARMSTRONG, LCDR., NOAA | FIELD ACTIVITY REPRESENTATIVE |
| | | OFFICE ACTIVITY REPRESENTATIVE |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | | ☐ REVIEWER<br>☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE |

**INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'**

*(Consult Photogrammetric Instructions No. 64,*

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:

| | |
|---|---|
| F - Field | P - Photogrammetric |
| L - Located | Vis - Visually |
| V - Verified | |
| 1 - Triangulation | 5 - Field Identified |
| 2 - Traverse | 6 - Theodolite |
| 3 - Intersection | 7 - Planetable |
| 4 - Resection | 8 - Sextant |

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED
When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
Enter 'V-Vis.' and date.
EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



☆ U.S.GPO:1975-0-665-080/1155

NOAA FORM 76-40 (8-74)

Replaces C&GS Form 567.

[redacted]

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

# LANDMARKS FOR CHARTS

**ORIGINATING ACTIVITY**
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

| [X] TO BE CHARTED<br>[ ] TO BE REVISED<br>[ ] TO BE DELETED | REPORTING UNIT (Field Party, Ship or Office) | STATE | LOCALITY | DATE |
|---|---|---|---|---|
| | HFP-1 | Florida | Pensacola Bay | 12/81 |

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

| OPR PROJECT NO. | JOB NUMBER | SURVEY NUMBER | DATUM |
|---|---|---|---|
| OPR-J217 | HSB-10-3-81 | H-9968 | North American 1927 |

| CHARTING NAME | DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses) | POSITION LATITUDE ° ′ | LATITUDE ″ D.M. Meters | POSITION LONGITUDE ° ′ | LONGITUDE ″ D.P. Meters | METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE | FIELD | CHARTS AFFECTED |
|---|---|---|---|---|---|---|---|---|
| TOWER* | Steel and concrete observation tower on Fort Pickens National Park (Sig 110) (H-73-FL-80) | 30 19 | 18.469 | 87 17 | 06.198 | | F-2-6-L | 11378 11382 11383 11384 |
| CONTROL TOWER | USNAS Pensacola Sherman Field Control Tower. To be useful, this landmark must be charted as Control Tower, since | 30 20 | 56.10 | 87 19 | 01.20 | | Existence Verified 12/15/81 | 11378 11382 11383 11384 |
| | many more visible towers are nearby. This landmark is not visible to most vessels since it is not tall and is | | | | | | Pos from Chart List 6/19/81 | |
| | behind trees. It can probably only be seen from very high vessels. | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | * NOT previously charted. | | | | | | | |
| | See L-914(82) | | | | | | | |

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V

| RESPONSIBLE PERSONNEL | | |
|---|---|---|
| **TYPE OF ACTION** | **NAME** | **ORIGINATOR** |
| OBJECTS INSPECTED FROM SEAWARD | A.A. ARMSTRONG, LCDR., NOAA | ☐ PHOTO FIELD PARTY<br>☒ HYDROGRAPHIC PARTY<br>☐ GEODETIC PARTY<br>☐ OTHER *(Specify)* |
| POSITIONS DETERMINED AND/OR VERIFIED | A.A. ARMSTRONG, LCDR., NOAA | FIELD ACTIVITY REPRESENTATIVE |
| | | OFFICE ACTIVITY REPRESENTATIVE |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | | ☐ REVIEWER<br>☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE |

**INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'**

*(Consult Photogrammetric Instructions No. 64,*

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:

| | |
|---|---|
| F - Field | P - Photogrammetric |
| L - Located | Vis - Visually |
| V - Verified | |
| 1 - Triangulation | 5 - Field Identified |
| 2 - Traverse | 6 - Theodolite |
| 3 - Intersection | 7 - Planetable |
| 4 - Resection | 8 - Sextant |

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED
When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
Enter 'V-Vis.' and date.
EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



☆ U. S. GPO:1975-0-665-080/1155

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

[redacted]

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

# LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY
- [X] HYDROGRAPHIC PARTY
- [ ] GEODETIC PARTY
- [ ] PHOTO FIELD PARTY
- [ ] COMPILATION ACTIVITY
- [ ] FINAL REVIEWER
- [ ] QUALITY CONTROL & REVIEW GRP.
- [ ] COAST PILOT BRANCH

(See reverse for responsible personnel)

- [X] TO BE CHARTED
- [ ] TO BE REVISED
- [ ] TO BE DELETED

| REPORTING UNIT (Field Party, Ship or Office) | STATE | LOCALITY | DATE |
|---|---|---|---|
| HFP-1 | Florida | Pensacola Bay | 12/81 |

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

| OPR PROJECT NO. | JOB NUMBER | SURVEY NUMBER | DATUM |
|---|---|---|---|
| OPR-J217 | HSB-10-3-81 | H-9968 | North American 1927 |

| CHARTING NAME | DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses) | POSITION LATITUDE ° ′ | LATITUDE ″ D.M. Meters | POSITION LONGITUDE ° ′ | LONGITUDE ″ D.P. Meters | METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE | FIELD | CHARTS AFFECTED |
|---|---|---|---|---|---|---|---|---|
| (TWIN) TANKS | Twin elevated tanks have been removed (Fort Barrancas East Tank - lost) | 30 21 | 06.198 | 87 17 | 28.051 | | Triang Lost | 11378 11382 11383 11384 |
| | | | | | | | | |
| | | | | | | | | |
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| | | | | | | | | |
| | SeeL-914(82) | | | | | | | |

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| RESPONSIBLE PERSONNEL | | |
|---|---|---|
| **TYPE OF ACTION** | **NAME** | **ORIGINATOR** |
| OBJECTS INSPECTED FROM SEAWARD | A.A.ARMSTRONG, LCDR., NOAA | ☐ PHOTO FIELD PARTY<br>☒ HYDROGRAPHIC PARTY<br>☐ GEODETIC PARTY<br>☐ OTHER *(Specify)* |
| POSITIONS DETERMINED AND/OR VERIFIED | A.A.ARMSTRONG, LCDR., NOAA | FIELD ACTIVITY REPRESENTATIVE |
| | | OFFICE ACTIVITY REPRESENTATIVE |
| FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES | | ☐ REVIEWER<br>☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE |

**INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'**

*(Consult Photogrammetric Instructions No. 64,*

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object.
EXAMPLE: 75E(C)6042
8-12-75

FIELD

I. NEW POSITION DETERMINED OR VERIFIED
Enter the applicable data by symbols as follows:

| | |
|---|---|
| F - Field | P - Photogrammetric |
| L - Located | Vis - Visually |
| V - Verified | |
| 1 - Triangulation | 5 - Field identified |
| 2 - Traverse | 6 - Theodolite |
| 3 - Intersection | 7 - Planetable |
| 4 - Resection | 8 - Sextant |

A. Field positions* require entry of method of location and date of field work.
EXAMPLE: F-2-6-L
8-12-75

*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.

FIELD (Cont'd)

B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object.
EXAMPLE: P-8-V
8-12-75
74L(C)2982

II. TRIANGULATION STATION RECOVERED
When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery.
EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH
Enter 'V-Vis.' and date.
EXAMPLE: V-Vis.
8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



☆ U. S. GPO:1975-0-665-080/1155

Form Approved. OMB No. 41-R2455

NOAA FORM 77-6
(10-72)

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

# COAST PILOT REPORT

**PLEASE MAIL TO:**

Director
National Ocean Survey
National Oceanic and Atmospheric Administration
ATTENTION: C324
Rockville, Maryland 20852

This record of your experience and observations when coasting, entering port, and/or following inside channels will be used to correct, amplify, or confirm the description now given in the Coast Pilot.

Please use additional sheets if more space is needed.

Additional report forms will be provided upon receipt of each report.

GEOGRAPHIC LOCATION

Pensacola Bay

| LATITUDE | LONGITUDE | CHART NUMBER | COAST PILOT NUMBER |
|---|---|---|---|
| | | 11384, 11383, 11382 | 5 |

| VESSEL | MASTER/COMMANDING OFFICER |
|---|---|
| NOAA Launch 1257 | Lt. Cdr. A. A. Armstrong, NOAA |
| **DATE OF OBSERVATION** | **OBSERVER** |
| throughout 1981 | Lt. Cdr. A. A. Armstrong, NOAA |

**I. LANDMARKS:** Mention those visible from seaward and useful for navigation (day and/or night); include natural ranges and indicate the pair of marks forming a range. Photographs of landmarks difficult to describe are solicited; each view should be labeled with the distance off and the direction towards which the camera was pointed.

| TYPE | CHARTED YES | CHARTED NO | LATITUDE (Approximate) | LONGITUDE (Approximate) | DESCRIPTIVE INFORMATION HELPFUL IN IDENTIFICATION |
|---|---|---|---|---|---|
| Tank | | X | 30 17 42 | 87 29 08 | Spherical elevated white tank 9.2 miles West of entrance visible from sea when approaching from West. (NOAA Form 76-40 will be submitted to be charted.) |
| | | | | | |
| | | | | | |
| | | | | | |

**II. RADAR:** List best radar targets and, if known, give maximum useful radar range at which the object can be positively identified and used. Mention under remarks places you have observed radar returns to be misleading.

| NAME OR TYPE OF FEATURE *(Include approximate latitude and longitude if necessary to identify on chart)* | MAXIMUM USEFUL RANGE |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |

**III. ROUTES:** Where entrance and inside routes are not marked by aids to navigation, show recommended directions for Coast Pilot (latitude and longitude of entrance point, and distances and true courses made good); include natural steering ranges if available.

USCOMM-DC 4694-P73

CHART # 11383 ITEM # 164

ITEM DESCRIPTION: U.S.S. MASSACHUSETTES

SOURCE: 1976 Chart Adequacy Survey, Chart Letter 1810/1976

INVESTIGATION DATE: TIME: VESSEL: 1278
Diver Date: 21 February 1982

OIC: LT(jg) Samuel P. De Bow

REFERENCES:

HSB 10-3-81
Position No: 10 & 11 Volume pg.

CORRECTORS APPLIED:

☐ Velocity ☐ TRA Correctors

☐ Predicted or ☐ Actual Tide Correctors

GEODETIC POSITION:

| | Latutide | Longitude |
|---|---|---|
| Charted: | 30-17-47.9 | 87-18-42.3 |
| Observed: | " " " | " " " |

POSITION DETERMINED BY: Del Norte R/R

METHOD OF ITEM INVESTIGATION: Position determined during survey operations on HSB 10-3-81. Diver investigated on 21 Feb. 1982.

Wreck has two large gun turrets awash at most stages of tide. Axis of the wreck on the bottom is basically E-W . Wreckage extends along the axis for about 200 feet in either direction from the turrets. Appears that the vessel was purposely scuttled or demolished. A local divers guide lists the wreck as a WW1 battleship, 500 feet in length, sunk by the Navy in 1927.

CHARTING RECOMMENDATIONS: Presently a submerged dangerous wreck symbol with the notation "awash at MLW" is shown on the chart. It is recommended that this symbol remains or be changed to a visable wreck awash symbol.

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Compilation Use Only

| CHART | APPLIED AS |
|---|---|

DATE: February 25, 1982

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

Tide Station Used (NOAA Form 77-12): 872-9678 Navarre Beach, FL

Period: August 31-December 9, 1981

HYDROGRAPHIC SHEET: H-9968

OPR: J217

Locality: Pensacola Bay Entrance, Florida

Plane of reference (mean lower low water): 25.64 ft.

Height of Mean High Water above Plane of Reference is 1.38 ft.

REMARKS: Recommended Zoning:

Zone Direct

Chief, Tidal Datums and Information Branch

DATE: August 5, 1982

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

Tide Station Used (NOAA Form 77-12): 872-9678 Navarre Beach, FL

Period: May 5, 1982

HYDROGRAPHIC SHEET: H-9968

OPR: J217

Locality: Pensacola Bay Entrance, Florida

Plane of reference (mean lower low water): 25.64 ft.

Height of Mean High Water above Plane of Reference is 1.38 ft.

REMARKS: Additional Tides for H-9968

Recommended Zoning:

Zone Direct

Chief, Tidal Datums and Information Branch

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

Tide Station Used (NOAA Form 77-12): 872-9678 Navarre Beach, Florida

Period: August 9-13, 1982

HYDROGRAPHIC SHEET: H-9968

OPR: J-217

Locality: Pensacola Bay Entrance, Florida

Plane of reference (mean lower low water): 25.64 ft.

Height of Mean High Water above Plane of Reference is 1.38 ft.

REMARKS: Additional Tides

Recommended Zoning:

Zone Direct

James R Hubbard
Chief, Datums and Information Branch

NOAA FORM 76-155
(11-72)

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

# GEOGRAPHIC NAMES

SURVEY NUMBER

H-9968

| Name on Survey | A ON CHART NO. 11384 & 11383 | B ON PREVIOUS SURVEY NO. | C ON U.S. QUADRANGLE MAPS | D FROM LOCAL INFORMATION | E ON LOCAL MAPS | F P.O. GUIDE OR MAP | G RAND MCNALLY ATLAS | H U.S. LIGHT LIST | K | |
|---|---|---|---|---|---|---|---|---|---|---|
| CAUCUS CHANNEL | X | | | | | | | | | 1 |
| CAUCUS SHOAL | X | | | | | | | | | 2 |
| EAST BANK | X | | | | | | | | | 3 |
| FLORIDA (Title) | X | | | | | | | | | 4 |
| (Title) GULF OF MEXICO | X | | | | | | | | | 5 |
| MIDDLE GROUND | X | | | | | | | | | 6 |
| (Title) PENSACOLA BAY | X | | | | | | | | | 7 |
| PERDIDO KEY | X | | | | | | | | | 8 |
| SANTA ROSA ISLAND | X | | | | | | | | | 9 |
| | | | | | | | | | | 10 |
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| | | | | | Approved: | | | | | 19 |
| | | | | | | | | | | 20 |
| | | | | | Charles E. Harrington | | | | | 21 |
| | | | | | Chief Geographer - N/CG2x5 | | | | | 22 |
| | | | | | JUL 23 1984 | | | | | 23 |
| | | | | | | | | | | 24 |
| | | | | | | | | | | 25 |

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27 | U.S. DEPARTMENT OF COMMERCE | REGISTRY NUMBER H-9968

# HYDROGRAPHIC SURVEY STATISTICS

RECORDS ACCOMPANYING SURVEY: To be completed when survey is processed.

| RECORD DESCRIPTION | AMOUNT | RECORD DESCRIPTION | AMOUNT |
|---|---|---|---|
| SMOOTH SHEET | 1 | SMOOTH OVERLAYS: POS., ARC, EXCESS | 3 |
| DESCRIPTIVE REPORT | 1 | FIELD SHEETS AND OTHER OVERLAYS | 10 |

| DESCRIPTION | DEPTH/POS RECORDS | HORIZ. CONT. RECORDS | SONAR-GRAMS | PRINTOUTS | ABSTRACTS/ SOURCE DOCUMENTS | |
|---|---|---|---|---|---|---|
| ACCORDIAN FILES | 1 | | | | | |
| ENVELOPES | | | | | 4 | |
| VOLUMES | 6 | | | | | |
| CAHIERS | 2 | | | | | |
| BOXES | | | | | | |

SHORELINE DATA

SHORELINE MAPS(List):

PHOTOBATHYMETRIC MAPS(List):

NOTES TO THE HYDROGRAPHER(List):

SPECIAL REPORTS(List):

NAUTICAL CHARTS(List):

*OFFICE PROCESSING ACTIVITIES*

*The following statistics will be submitted with the cartographer's report on the survey*

| PROCESSING ACTIVITY | AMOUNTS | | |
|---|---|---|---|
| | *VERIFICATION* | *EVALUATION* | *TOTALS* |
| POSITIONS ON SHEET | | | 2232 |
| POSITIONS REVISED | 81 | | 81 |
| SOUNDINGS REVISED | 299 | 6 | 305 |
| CONTROL STATIONS REVISED | | | |
| | TIME - HOURS | | |
| | *VERIFICATION* | *EVALUATION* | *TOTALS* |
| PRE-PROCESSING EXAMINATION | 33 | | 33 |
| VERIFICATION OF CONTROL | 4 | | 4 |
| VERIFICATION OF POSITIONS | 33 | | 33 |
| VERIFICATION OF SOUNDINGS | 86 | | 86 |
| VERIFICATION OF JUNCTIONS | 4 | 2 | 6 |
| APPLICATION OF PHOTOBATHYMETRY | 3 | | 3 |
| SHORELINE APPLICATION/VERIFICATION | | | |
| COMPILATION OF SMOOTH SHEET | 73 | | 73 |
| COMPARISON WITH PRIOR SURVEYS AND CHARTS | | 46 | 46 |
| EVALUATION OF SIDESCAN SONAR RECORDS | | | |
| EVALUATION OF WIRE DRAGS AND SWEEPS | | | |
| EVALUATION REPORT | | 41 | 41 |
| OTHER | | 2 | 2 |
| DIGITIZING | 16 | | 16 |
| TOTALS | 252 | 91 | 343 |

| | | |
|---|---|---|
| *Pre-processing Examination by* R.D. Sanocki, R.G. Roberson | *Beginning Date* 6 DEC 1982 | *Ending Date* 15 DEC 1982 |
| *Verification of Field Data by* R.L. Keene, D.V. Mason | *Time(Hours)* 252 | *Ending Date* 16 APR 1984 |
| *Verification Check by* R.R. Hill, Jr., M.B. Hickson, III | *Time(Hours)* 75 | *Ending Date* 27 JUL 1984 |
| *Evaluation and Analysis by* M.B. Hickson, III, R.G. Roberson | *Time(Hours)* 91 | *Ending Date* 17 AUG 1984 |
| *Inspection by* R.D. Sanocki | *Time(Hours)* 12 | *Ending Date* 15 AUG 1984 |

ATLANTIC MARINE CENTER
EVALUATION REPORT

SURVEY NO.: H-9968 FIELD NO.: HSB 10-3-81

Florida, Gulf of Mexico, Entrance to Pensacola Bay

SURVEYED: 31 August to 9 December 1981
5 May to 13 August 1982

SCALE: 1:10,000 PROJECT NO.: OPR-J217-HSB-81

SOUNDINGS: Raytheon DE-723D and Raytheon DE-719B Fathometers and Sounding Pole

CONTROL: Raydist (Range/Range), Del Norte (Range/Range) Del Norte/Theodolite (Range/Azimuth)

Chief of Party.....G. W. Jamerson

Surveyed by.....A. A. Armstrong
.....S. P. DeBow
.....S. R. Iwamoto
.....G. S. Lloyd
.....G. D. Hendrix
.....G. M. Merrill
.....L. R. Noyes
.....M. Mangual

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

## 1. INTRODUCTION

a. No unusual problems were encountered during office processing of the survey.

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

## 2. CONTROL AND SHORELINE

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

b. Shoreline originates with registered Coastal Zone Maps (photogrammetric) TP-00545 and TP-00547 of 1978-79 except in areas where the hydrographer noted changes along the shoreline. These changes are shown in dashed red on the smooth sheet.

3. HYDROGRAPHY

a. Soundings at crossings agree within the limits prescribed in sections 4.6.1 and 6.4.3.4 of the Hydrographic Manual and section 6.6 of the Project Instructions.

b. The standard depth curves could be drawn in their entirety. The zero (0) curve was not delineated by the hydrographer probably due to the limits of safe navigation. Supplemental, dashed and brown curves were added to better portray the bottom topography.

c. Development of the bottom configuration and determination of least depths is considered adequate except for the southern portion of the survey west of Longitude 87°17'00"W where it is felt that reduced line spacing should have been run to better define the bottom configuration.

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 except as follows:

a. The hydrographer did not make an adequate junction with H-9943 (1981). A junctional holiday of approximately 1500 meters by 200 meters centered in Latitude 30°18'18"N, Longitude 87°15'12"W exists. Another junctional holiday exists between the present survey and H-9971 (1981) in the vicinity of Latitude 30°15'45"N, Longitude 87°15'30"W.

b. The electronic corrector abstracts appended to the Descriptive Report were not complete. This was corrected during office processing.

c. The survey data package was not submitted within the six (6) week time limit prescribed in section 6.13 of the Project Instructions. The survey was completed on 5 May 1982 and received at the Marine Center on 16 July 1982.

d. Twice daily bar checks required by section 1.4.2 of the Hydrographic Manual were not completed. Launch 1257 completed four (4) bar checks during ten (10) days of hydrography and launch 1278 completed twelve (12) bar checks during ten (10) days of hydrography.

e. Values for correctors on velocity table number four (4) were incorrectly scaled. This problem was corrected during office verification.

f. Launch 1278 ran ten (10) days of hydrography. One (1) day was run in a range/azimuth mode, the remainder were run in a range/range mode. On eight (8) of the ten (10) days there were no closing daily system calibrations as required by sections 1.3.3.2.4 and 4.4.3.3 of the Hydrographic Manual.

g. The field unit did not complete closing baseline calibrations for the Del Norte used to control launch 1278. A discussion of baseline calibrations is found in section AD.1.3 of the Hydrographic Manual.

h. The hydrographer did a commendable job with regard to the requirement for investigation of currents found in sections 8.2.1 and 8.2.2 of the Project Instructions.

i. Launch 1278 is a MONARK launch and is not automated. As a result, all hydrographic data acquired by this vessel must meet the requirements found in sections 1.4.5.1 and 1.4.6 of the Hydrographic Manual for position frequency and sounding interval. Many positions substantially exceed the four (4cm) centimeter distance between position fixes and many soundings exceed the six (6mm) millimeter criteria. Numerous soundings were inserted into the survey records during office processing to better delineate the bottom configuration where the six (6mm) millimeter criteria was exceeded.

j. Numerous position fixes taken by launch 1257 exceeded the maximum distance between fixes of five (5cm) centimeters found in section 1.4.5.1 of the Hydrographic Manual. Since launch 1257 is an automated launch and each sounding has a discrete position, it is not considered a factor that seriously degrades the accuracy of the information.

k. Forty-one (41) lines of range/azimuth hydrography were run alongshore west of Longitude 87°16'45"W. Twenty-eight (28) of the forty-one (41) sounding lines exceed the three point five (3.5cm) centimeter position interval found in section 1.4.5.1 of the Hydrographic Manual by one-half (0.5cm) centimeter to three and one-half (3.5cm) centimeters.

l. Presurvey Review Items 309 and 330 were not adequately investigated by the hydrographer. The hydrographer's effort to contact individuals and/or organizations that might have pertinent information concerning these and other items should be commended.

m. The hydrographer failed to obtain a leadline least depth on the wreck found in Latitude 30°18'44.72"N, Longitude 87°15'59.76"W.

5. JUNCTIONS

H-9943 (1981) to the east
H-9971 (1981) to the south and west
H-9995 (1982-83) to the north

A satisfactory junction was effected with H-9971 (1981).

A butt junction was effected with a portion of H-9943 (1981) in the vicinity of Latitude 30°19'00"N, Longitude 87°14'30"W and is discussed in section 5 of the Evaluation Report for H-9943 (1981). The remainder of the junction was satisfactorily effected.

The junction H-9995 (1982-83) and the present survey was not effected because H-9995 (1982-83) was not sufficiently processed. The adequacy of the junction between H-9995 (1982-83) and the present survey will be discussed in section 5 of the Evaluation Report for H-9995 (1982-83).

## 6. COMPARISON WITH PRIOR SURVEYS

### a. Hydrographic Surveys

H-5730 (1935) 1:20,000
H-6633 (1940) 1:10,000
H-6635 (1940) 1:20,000

The above surveys taken together cover the present survey area in its entirety.

H-5730 (1935) covers the inshore area of the present survey and shows the eastward migration of Caucus Shoal as much as two hundred (200) meters. At the most southern portion of Caucus Shoal present survey depths are up to five (5) feet deeper. On the southwestern tip of Perdido Key the shoreline has accreted approximately two hundred (200) meters. These changes can be attributed to the dredging of the entrance channel to Pensacola Bay and natural causes.

H-6633 (1940) shows a relatively stable bottom outside of the eighteen foot curve with prior survey depth being one (1) to two (2) feet deeper than present survey depths. There has been some eastward migration of East Bank and Middle Ground and a merging of these two (2) shoals at their southern ends. The thirty-one (31) to thirty-three (33) foot depths in the vicinity of Latitude 30°18'51"N, Longitude 87°17'42"W are no longer present and the deepest depth on the present survey in that area is twenty-eight (28) feet. The channel to Pensacola Bay has shifted westward approximately one hundred fifty (150) meters in the vicinity of Latitude 30°19'45"N, Longitude 87°18'30"W. The dredged channel has widened approximately one hundred eighty (180) meters in the vicinity of Latitude 30°18'20"N, Longitude 87°18'25"W. The shoreline in this area has changed considerably in some areas. Most notable areas are: the western end of Santa Rosa Island where the point has accreted approximately one hundred (100) meters and on the southeastern end of Perdido Key where the shoreline has accreted approximately two hundred (200) meters. These shoreline changes and other changes in the bottom configuration in the near shore area can probably be attributed to tropical storms in the Gulf of Mexico in recent years.

H-6635 (1940) covers the southern portion of the present survey and compares well with the present survey. In general present survey depths are one (1) to four (4) feet deeper than the prior survey depth. In an irregular area centered around Latitude 30°16'15"N, Longitude 87°18'45"W present survey depths are from five (5) to twelve (12) feet shoaler than prior survey depths. This area is now charted as two (2) Discontinued Disposal Areas and a Dump Site. The depositing of dredge spoil material is the most probable cause for the large difference in depths.

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

b. Wire Drag Survey

H-9466 WD (1974) 1:40,000

A comparison with H-9466 WD (1974) and the present survey shows three (3) submerged obstructions within the common area:

1) An anchor extending six (6) feet off the bottom with an estimated wire drag hang depth of twenty-seven (27) feet in Latitude 30°18'01"N, Longitude 87°16'40"W. It is recommended that a submerged obstruction be charted at this position.

2) A pile of metal blocks extending one (1) foot off the bottom with an estimated wire drag hang depth of thirty (30) feet in Latitude 30°17'27"N, Longitude 87°17'15"W. This obstruction was cleared in one direction at 25 feet. It is recommended that an obstruction with a clearance depth of 25 feet be charted at this position.

3) An old car body hung at thirty-six (36) feet and cleared, in one direction, by thirty-five (35) feet in Latitude 30°16'30"N, Longitude 87°16'58"W. It is recommended that an obstruction cleared by 35 feet be charted at this position.

The three (3) obstructions were brought forward to the present survey.

A comparison with H-9466 WD (1947) effective depths and the present survey shows seven (7) areas where present survey depths are in conflict with H-9466 WD (1974). These conflicts are from one (1) to four (4) feet. Considering the elapsed time between the present and prior survey, eight (8) years and the changeable nature of the bottom in the survey area these differences are not considered severe enough to adversely impact the present survey.

7. COMPARISON WITH CHART 11383 (38th Edition, APR 25/81)
11384 (24th Edition, FEB 28/81)

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys, Corps of Engineers surveys, and miscellaneous sources and requires no further discussion.

Two (2) charted Discontinued Disposal Areas and a DUMPSITE fall in the area surveyed. It is recommended that the Discontinued Disposal Area notes and limits be removed and present survey depths be charted in those areas, and that the DUMPSITE note remain charted with present survey depths being charted inside the DUMPSITE limits.

The charted wreck awash at MLW of the battleship "MASSACHUSETTS" in Latitude 30°17'47.9"N, Longitude 87°18'42.3"W was located by and

diver investigated by the hydrographer. The subsequent dive report indicated extensive submerged wreckage. The two (2) large iron cylinders are the only remaining visible features of the vessel. It is recommended that the wreck be charted exactly as shown on the survey smooth sheet because it is a more accurate portrayal of the extent of the vessel remains.

Specific recommendations concerning Presurvey Review Items and additional items located are addressed in section L of the Descriptive Report.

The present survey is adequate to supersede the charted hydrography except as noted in this report.

b. Controlling Depths

Several survey depths are in conflict with the tabulated controlling depths for Caucus Channel. In the right outside quarter there is a twenty-four (24) foot sounding in Latitude 30°18'09.22"N, Longitude 87°18'06.99"W. This sounding has additional shoal sounding both north and south of it inside the charted channel limits. In Latitude 30°18'55.03"N, Longitude 87°18'33.64"W a twenty-five (25) foot sounding encroaches on the left outside quarter of the dredged channel; several other shoal soundings falling within the channel limits are south of the twenty-five (25) foot sounding.

c. Aids to Navigation

The fixed and floating aids to navigation located by the hydrographer appear to be adequate for their intended purpose.

8. COMPLIANCE WITH PROJECT INSTRUCTIONS

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

9. ADDITIONAL FIELD WORK

This is an adequate basic survey; no additional field work is recommended. The holidays discussed in section 4.a. of this report are not considered so significant as to require additional work.

Reginald L. Keene
Cartographic Technician
Verification of Field Data

Robert G. Roberson
Cartographer
Evaluation and Analysis

Robert R. Hill, Jr.
Senior Cartographic Technician
Verification Check

Inspection Report
H-9968

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

R. D. Sanocki
Chief, Hydrographic Surveys
Processing Section
Hydrographic Surveys Branch

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

Approved August 17, 1984

Wesley V. 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

EXAMINED FOR NM
GDBU
Amd 9/29/89

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

## RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9968

### 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 Revie

| CHART | DATE | CARTOGRAPHER | REMARKS |
|---|---|---|---|
| 11384 | 9-8-86 | Pearce Hunt | Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via |
| | 9-30-86 | Reviewed | Drawing No. 28 |
| | | | |
| 11383 | 3-11-87 | Pearce Hunt ww | Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via |
| | | | Drawing No. 37 |
| | | | |
| 11378 | 3-19-87 | Pearce Hunt ww | Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via |
| | | | Drawing No. 22 |
| | | | |
| 11382 | 3-24-87 | Pearce Hunt ww | Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via |
| | | | Drawing No. 39 |
| | | | |
| 11360 | 3-25-87 | Pearce Hunt ww | Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via |
| | | | Drawing No. 44 |
| | | | |
| 11006 | 3-26-87 | Pearce Hunt ww | Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via |
| | | | Drawing No. 36 |
| | | | |
| 11383 | 2-4-91 | William B Hayes | Full Part Before After Verification Review Inspection Signed Via |
| | | | Drawing No. #39 Reapplication |
| | | | |
| | | | Full Part Before After Verification Review Inspection Signed Via |
| | | | Drawing No. |
| | | | |
| | | | Full Part Before After Verification Review Inspection Signed Via |
| | | | Drawing No. |
| | | | |
| | | | Full Part Before After Verification Review Inspection Signed Via |
| | | | Drawing No. |

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63