H10623

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey: Hydrographic
Side Scan Sonar

Field No.: MI-10-5-95

Registry No.: H-10623

LOCALITY

State: Florida

General Locality: Tampa Bay

Sublocality: 5 NM South of Interbay
Peninsula

19 95-96

CHIEF OF PARTY
CDR R. L. Parsons

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DATE: MAR 17 1997

☆U.S. GOV. PRINTING OFFICE: 1987—756-980

NOAA FORM 77-28
(11-72)

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

REGISTRY NUMBER:

H-10623

HYDROGRAPHIC TITLE SHEET

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 NUMBER: MI-10-05-95 (G)

State: Florida

General locality: Tampa Bay

Locality: 5 ~~Nautical Miles~~ NM South of Interbay Peninsula

Scale: 1: 10,000

Date of survey: 26 June to 25 August 1995 / 6 MAY TO 10 MAY '96

Instructions dated: 03 March 1995 & 30 March 1995

Project Number: OPR-J343-MI-95

Vessel: NOAA Ship MT MITCHELL S-222 / AHP 2

Chief of Party: CDR Roger L. Parsons

Surveyed by: J.A. Ferguson, T. Duffy, E.J. Van Den Ameele, J.D. Swallow, J.A. Mann, E.J. Sipos, R.H. Aldridge, R.C. Jones, S.A. Shaulis, U.L. Gardner,Jr., P.G. Lewit, M.J. Annis, E.R. Yniguez, C.A. Neely, S.L. Scherer, M.S. Platz and M. Wiseman.

Soundings taken by echo sounder, hand lead-line, or pole: DSF 6000N fathometer

[illegible]ic record scaled by: MT MITCHELL personnel

[illegible]c record checked by: MT MITCHELL personnel

Protracted by: N/A

Automated plot by: Zeta 936 Plotters (FIELD)

Verification by: ATLANTIC Hydrographic Surveys Branch PERSONNEL

Soundings in: Feet: ✓ (AHB) Fathoms: ____ Meters: (*) at MLW: ____ MLLW: (*):

Remarks: Basic Hydrographic and 200% Side Scan Sonar coverage of CUT "D", CUT "E", CUT "F", Gadsen Pt. CUT "G" CUT, the Temporary Explosive Anchorage, Quarantine Anchorage and adjacent waters including spoil areas. Item investigations of AWOIS Item #'s 189, 8800-8802, 8805(partially), 8806-8808 and 8811. Time zones used: +0 for data collection and tidal data. Electronic Data Processing (EDP) numbers involved in data acquisition: 2223, 2225 and 2226. NOTES IN THE DESCRIPTIVE REPORT WERE MADE IN RED DURING OFFICE PROCESSING.

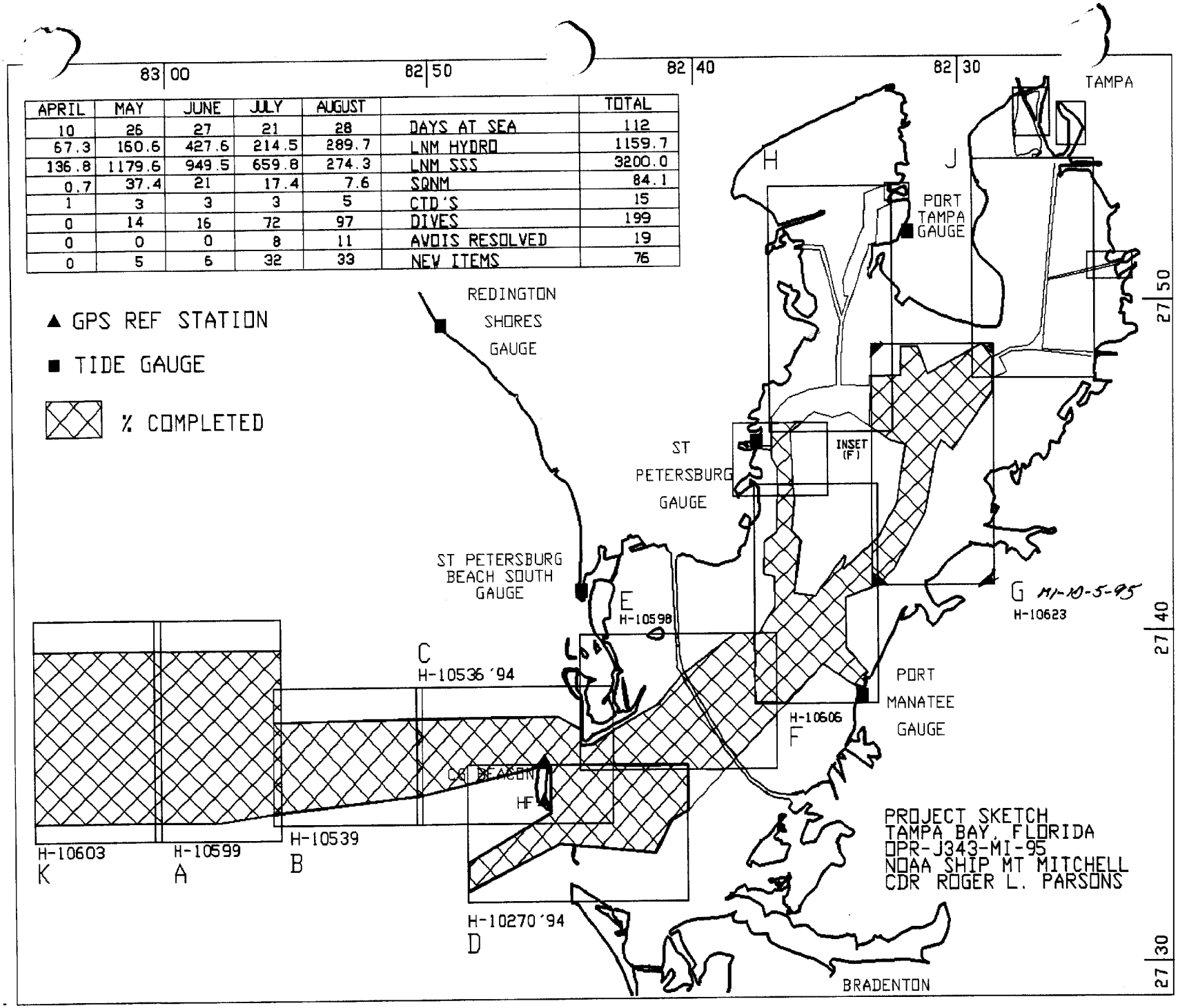
SurA/AWOIS
11/6/96 MCR

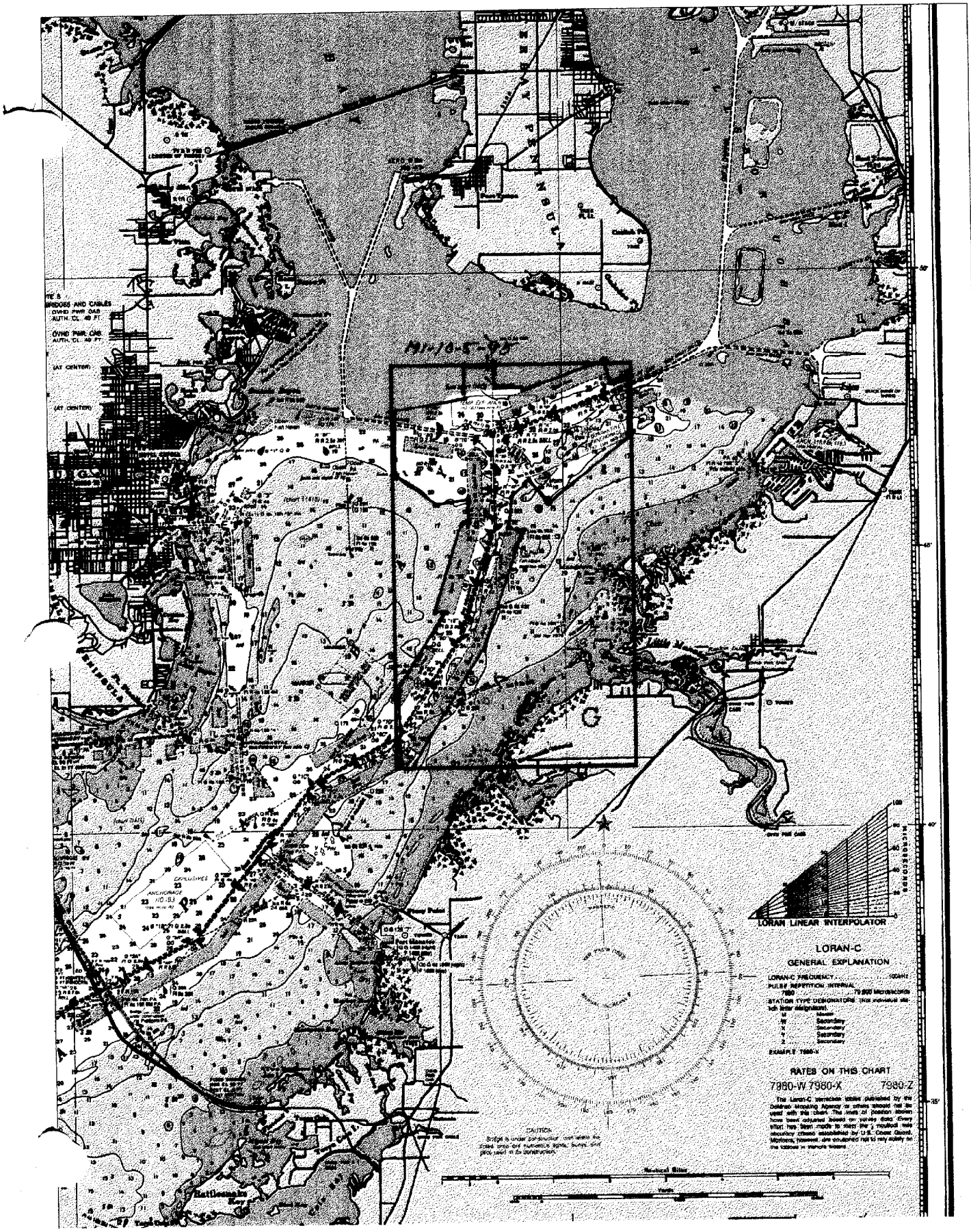
MAR 17 1997 SC

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

* U.S. GOVERNMENT PRINTING OFFICE: 1976-665-661/1222 REGION NO.6

APRIL	MAY	JUNE	JULY	AUGUST		TOTAL
10	26	27	21	28	DAYS AT SEA	112
67.3	160.6	427.6	214.5	289.7	LNM HYDRO	1159.7
136.8	1179.6	949.5	659.8	274.3	LNM SSS	3200.0
0.7	37.4	21	17.4	7.6	SQNM	84.1
1	3	3	3	5	CTD'S	15
0	14	16	72	97	DIVES	199
0	0	0	8	11	AVOIS RESOLVED	19
0	5	6	32	33	NEW ITEMS	76




LORAN LINEAR INTERPOLATOR
LORAN-C
GENERAL EXPLANATION
RATES ON THIS CHART
7980-W 7980-X 7980-Z
CAUTION

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APPENDICES

* FILED WITH THE ORIGINAL FIELD RECORDS

A. PROJECT

A.1 This survey was conducted in accordance with Project Instructions OPR-J343-MI-95, Approaches to Tampa Bay, Florida.

A.2 The original date of these project instructions is March 3, 1995.

A.3 Change No. 1, dated March 30, 1995, updates section 5.0 of the project instructions (TIDES).

A.4 This survey corresponds to project sheet letter "G".

A.5 Project OPR-J343-MI responds to requests from the Tampa Bay Pilots, the Tampa Bay Marine Advisory Council, local port authorities, the seventh U. S. Coast Guard District, and the U.S. Army Corps of Engineers (USACE), to obtain modern hydrography under the navigable area concept plus 200% side scan sonar coverage of the safety fairway and fairway anchorages adjacent to USACE dredged channels at the approaches to Tampa Bay, Florida. It is anticipated that knowledge of these depths will allow some relief for shipping traffic from these narrow and heavily used channels.

B. AREA SURVEYED

B.1 This survey is located in Tampa Bay, south of Interbay Peninsula and east of the port of St. Petersburg. The survey area includes waters in and adjacent to channels maintained by the U.S. Army Corps of Engineers, the spoil areas adjacent to these waters, the Quarantine Anchorage south of Gadsden Point, and the Temporary Explosives Anchorage south of Interbay Peninsula. The frequent traffic in this area includes large cargo and petroleum ships, cruise ships, tugs and barges, commercial fishing vessels, and pleasure craft.

B.2 The survey sheet is rectangular and is delineated to the north by latitude 27° 48' ~~18~~ 42", to the south by latitude 27° 41' 00", to the east by longitude 082° 28' ~~35~~ 30", and to the west by longitude 82° 33' 11".

B.3 Survey operations on this sheet began 26 June 1995 (DN 177) and concluded 25 August 1995 (DN 237).

C. SURVEY VESSELS

C.1 The following vessels participated in this survey:

Vessel	Electronic Data Processing Number	Primary Function
JENSEN LAUNCH 1004	2223	Side Scan Sonar, Hydrography, Dive Operations
JENSEN LAUNCH 1021	2225	Side Scan Sonar, Hydrography
JENSEN LAUNCH 1008	2226	Side Scan Sonar, Hydrography, Detached Positions, Dive Operations

D. AUTOMATED DATA ACQUISITION AND PROCESSING

SEE ALSO THE EVALUATION REPORT

D.1 Survey data acquisition and processing were accomplished using the HDAPS system with the following software versions:

Program Name	Version	Date Installed
BACKUP	2.00	March 8, 1995
BASELINE	1.14	March 8, 1995
BIGABST	2.07	March 8, 1995
BIGAUTOST	3.01	March 8, 1995
BLKEDIT	2.02	March 8, 1995
CARTO	2.17	March 8, 1995
CLASSIFY	2.12	April 12, 1995
CONTACT	2.48	April 12, 1995
CONVERT	3.65	March 8, 1995
DAS_SURV	6.80	April 12, 1995
DIAGNOSE	3.05	March 8, 1995
DISK_UTIL	1.00	March 8, 1995
DP	2.18	March 8, 1995
DPCONVERT	1.03	March 8, 1995
DSNEDITS	1.04	March 8, 1995
EXCESS	4.32	March 8, 1995
FILESYS	3.31	March 8, 1995
GRAFEDIT	1.06	March 8, 1995
HIPSTICK	1.01	March 8, 1995
HPRAZ	1.26	March 8, 1995
INVERSE	2.02	March 8, 1995
LISTDATA	1.02	March 8, 1995
LOADNEW	2.13	March 8, 1995
LSTAWOIS	3.10	March 8, 1995
MAINMENU	1.20	March 8, 1995
MAN_DATA	3.02	March 8, 1995
NEWPOST	6.13	March 8, 1995
PLOTALL	2.32	March 8, 1995
POINT	2.12	March 8, 1995
PREDICT	2.01	March 8, 1995

PRESURV	7.11	March 8, 1995
PRINTOUT	4.04	March 8, 1995
QUICK	2.07	March 8, 1995
RAMSAVER	1.02	March 8, 1995
REAPPLY	2.12	March 8, 1995
RECOMP	1.04	March 8, 1995
SCANNER	1.00	March 8, 1995
SELPRINT	2.05	March 8, 1995
SYMBOLS	2.00	March 8, 1995
VERSIONS	1.00	March 8, 1995
ZOOMEDIT	2.33	March 8, 1995

A *LOTUS 1-2-3* spreadsheet was used in calculating DGPS performance checks. A copy of this spreadsheet program is included in Separate III.

D.2 Velocity corrections were determined using the programs *VELOCITY*, version 2.11, dated March 15, 1994; and *CAT*, version 2.00, dated December 18, 1992. These programs were used to process CTD data obtained from Seacat casts. Least depths obtained during dives using the MOD III diver least depth gauge were processed using the program *SMLGAUGE*, version 2.2. Data quality assurance tests for the MOD III gauge utilized the program *DAILYDQA*, version 2.2.

D.3 No non-standard automated data acquisition or processing methods were used in this survey.

E. SIDE SCAN SONAR EQUIPMENT

E.1 Side scan sonar (SSS) operations used an EG&G Model 260-TH slant range corrected side scan recorder and a model 272-T (single frequency) towfish. All launches utilized this configuration. The following list summarizes the equipment serial numbers and corresponding dates of side scan sonar equipment used in this survey.

VESSEL	EQUIPMENT	SERIAL NUMBER	DAY NUMBERS
2223	Towfish	11591	177 - 237
2223	Recorder	012102	177 - 237
2225	Towfish	10823	177 - 237
2225	Recorder	016672	177 - 237
2226	Towfish	0011904	177 - 237
2226	Recorder	016669	177 - 237

E.2 Side scan sonar operations used a 20° beam depression, which is the normal setting.

E.3 The frequency used for side scan sonar operations was 100 kHz. All vessels used this

frequency throughout all SSS operations.

E.4 a. The 50 meter range scale was used in side scan sonar operations throughout the survey, in all depths of water. Line spacing used was 70 meters to ensure sufficient overlap on adjacent swaths. When crossing dredged channels, cable length was adjusted accordingly to ensure that the towfish height remained between 8% and 20% of the range scale. Two hundred percent coverage was accomplished by "splitting" the line spacing of one hundred percent coverage, therefore resulting in an effective sounding line spacing of 35 meters. This also enabled side scan sonar coverage to satisfy main scheme hydrography line spacing requirements. When conducting side scan operations in discontinued spoil areas, the water depth was often insufficient to achieve full coverage because the effective swath width was reduced. Therefore, in some portions of the spoil areas, complete two hundred percent coverage was not achieved. Because depths in these areas are too shallow to permit deep draft navigation, additional coverage was not deemed necessary.

b. Both vessels obtained confidence checks twice daily, once at the commencement of sonar operations, and again and the close of sonar operations. Sand waves along the dredged channels, and legs from range markers in the survey area provided excellent confidence checks.

c. Two hundred percent coverage was obtained in the entire survey area, including AWOIS items #189, #8800, #8801, #8802, #8806, #8808, and #8811. Four hundred percent coverage was obtained in the portion of AWOIS #8805 which was included within the limits of this sheet (not all of this item lay within this sheet), and within the entire search area for item #8807.

d. There were a few problems encountered during side scan sonar operations, which are described below:

1. Occasionally, extremely calm conditions caused an excess amount of "noise" returned from the water surface to the towfish. When the image was poor enough to obscure contacts, data was rejected and the area was resurveyed.

2. When surveying in spoil areas or other areas with an irregular bottom, the towfish would occasionally have difficulty tracking the bottom. In these instances the bottom tracking function on the side scan sonar was placed in manual mode, and was monitored closely and adjusted accordingly.

e. All vessels used a block and electric winch attached to the stern to deploy and tow the SSS towfish.

E.5 All contacts detected during side scan sonar operations were entered into contact tables in the HDAPS system. All contacts were evaluated and judged based upon contact height,

appearance on the sonar record, and depth of water. All contacts deemed significant which lay outside of the dredged channels were assigned a contact number, G-1 through G-62 (Refer to Separates for contact listings). Several contacts were investigated further by running additional sonar coverage at a reduced range scale (25 meter), and one was investigated by divers. All significant contacts which correlated to AWOIS items were resolved by divers. Time constraints precluded further investigation of the remaining contacts. Refer to Section N for a discussion of item investigations and contact developments. Time constraints also precluded further investigation of contacts discovered within the dredged channels. Additionally, a dense cluster of what appeared from sonar records to be rocks, was located north of the Temporary Explosives Anchorage, near the front range marker for "F" Cut. Because this area was outside of any area used for navigation by commercial traffic, and because the depths in this area were too shallow for commercial traffic (generally less than 5.0 meters), this area of densely clustered contacts was determined to have low priority based on the limited amount of time MT MITCHELL had to complete this survey, and this area was not further investigated. MT MITCHELL recommends that the Atlantic Hydrographic Party investigate these areas further with their planned operations in Tampa Bay in the upcoming years.

E.6 Overlap was checked on-line using the real-time plot and the edited swath plot for gaps. Gaps of 100% and 200% coverage were covered by running additional survey lines.

F. SOUNDING EQUIPMENT

F.1 All vessels participating in this survey used a Raytheon DSF-6000N echo-sounder to obtain soundings. The following list summarizes the serial numbers and dates used of all sounding equipment used in this survey.

VESSEL	SERIAL NUMBER	DATES USED
2223	B054N	DN 177 - 193
2223	A108N	DN 193 - 202 (a.m.)
2223	B047N	DN 202 - 237
2225	B042N	DN 177-201
2225	B054N	DN 202 -214
2225	A110N	DN 215 - 237
2226	B046N	DN 177 - 237

F.2 No other sounding equipment was involved in this survey.

F.3 There were no instances in which sounding equipment presented problems with data

acquisition.

F.4 The Raytheon DSF-6000N is a dual beam echo-sounder, with both a high frequency (100 kHz) and a low frequency (24 kHz) beam. Soundings from both the high frequency and low frequency were recorded; however only the high frequency sounding was used for plotting. Low frequency soundings were examined for spikes and nearby items, and, if encountered, were inserted in the digital records and plotted.

G. CORRECTIONS TO SOUNDINGS

G.1 The following is a summary of corrections applied to echo-soundings, and the methods used to obtain them. For detailed information and tables used to determine corrections to soundings, refer to the SOUNDING EQUIPMENT CALIBRATION AND CORRECTION REPORT included in the separates. *

a. Velocity of sound through the water

1) The velocity of sound through the water was determined by a Seacat conductivity, temperature, and depth (CTD) gage. The serial numbers of the gages used were 192472-0284, and 192472-285, both calibrated 24 February 1995. On DN 114, a simultaneous cast was made using both Seacat units to ensure agreement between both. Agreement between both was -0.01%. Another comparison was made on DN 122, and comparison between both on this date was 0.00% difference (refer to Separates* for results of all CTD casts). Both CTD units were used throughout the survey, each on different occasions, to determine the velocity of sound through the water, without concern of disagreement between the two instruments.

A data quality assurance test, performed using hydrometers manufactured by H-B Instrument Company, was run for each velocity cast to ensure that the Seacat unit was within tolerance. All data were processed using *VELOCITY* version 2.11 and *CAT* version 2.00 software. The computed velocity correctors were entered into HDAPS sound velocity tables and applied on-line to digitized high-frequency soundings.

2) The following list summarizes the positions and dates of all CTD casts used to determine the velocity of sound through the water, for application in this survey.

Cast #	DN	Latitude	Longitude	HDAPS Table #	Applied Day #'s
10b	170	27°39'01"N	082°36'39"W	6	177-186
16	187	27°39'02"N	082°36'40"W	8	187-201
21b	202	27°37'30"N	082°38'30"W	10	202-215
26a	216	27°38'04"N	082°37'33"W	11	216-220

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30a	221	27°39'01"N	082°36'38"W	12	221-226
31a	227	27°47'06"N	082°31'18"W	13	227-231
33b	232	27°39'36"N	082°36'07"W	15	232-237

Refer to Separate IV* for cast results and copies of the HDAPS velocity tables.

b. Variations in the instrument initial

None.

c. Other instrument corrections

None.

d. Corrections determined from direct comparisons

Leadline comparisons were usually performed at the beginning, middle and end of each leg by all vessels involved in survey operations. All comparisons of the fathometer against leadline checks were within ±0.2 meters. These differences were all attributed to human error or wire angle; therefore no correctors were applied to echo-soundings due to fathometer error. A table of leadline comparisons from each vessel is included in Separate IV. *

e. Application of sounding correctors

Correctors were applied to both high frequency and low frequency echo-soundings.

f. Static draft of vessels used

The static drafts of launches MI-3 (VesNo 2223), MI-5 (VesNo 2225) and MI-6 (VesNo 2226) were determined in February 1995, the Atlantic Marine Center in Norfolk, Virginia, while the launches were in their davits. A calibrated steel tape was used to measure the vertical distance from the transducer to an arbitrary reference line on each launch. The launches were then placed in the water and the difference between this reference line and the water line was measured, and the static draft subsequently determined. These corrector were applied to raw echo-soundings using the HDAPS offset tables, and were used to determine settlement and squat correctors. There was no significant difference between the static draft measured in the Elizabeth River and the static draft measured in the project area.

g. Settlement and squat (dynamic draft) of vessels used

The dynamic draft of vessels MI-3 and MI-6 were determined 28 February 1995 on the Elizabeth River in Norfolk, Virginia. The static draft of launch MI-5 was determined 02 April 1995 at the same location. An observer stationed on a pier used a level to determine relative changes in height of the launches as they ran toward and away from the observer at various speeds. These correctors were applied to raw soundings through the HDAPS offset tables, based upon survey launch speed. Refer to Separate IV* for complete results.

h. Heave, roll and pitch

No vessels in this survey used heave, roll, and pitch sensors.

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G.2 No unusual methods or instruments were used to determine corrections to echo-soundings.

G.3 There was no need for special sounding correctors in this survey.

G.4 A pneumatic depth gauge was not used in this survey.

G.5 There were no other factors which affected corrections to soundings

G.6.a Mean-lower-low-water (MLLW) served as the tidal datum for this survey. Predicted tide data for Tampa Bay were provided on magnetic floppy disk at the start of the survey, and were applied as correctors to echo-soundings during the course of survey operations.

Two Next Generation Water Level Measurement system (NGWLMS) tide gages were used to measure water levels for use in datum determination. These were located at Port Manatee, Florida (station 872-6384), and at the U.S. Coast Guard Station in St. Petersburg, Florida (station 872-6520).

b. Refer to Appendix V, "Tides and Water Levels" for information on zoning and tide correctors. APPROVED TIDES AND ZONES WERE APPLIED DURING OFFICE PROCESSING.

H. CONTROL STATIONS SEE ALSO THE EVALUATION REPORT.

H.1 The horizontal datum for this project is the North American Datum of 1983 (NAD 83).

H.2 Two DGPS reference stations were used to control this survey. The list of horizontal control stations is located in **Appendix III.**

H.3 Station TAMPA PILOTS on Egmont Key, Florida was recovered and position verified by MT. MITCHELL personnel in April, 1995. This position was used to set up a NOAA High Frequency (HF) DGPS system for secondary position control of the project. Program *MONITOR* version 3.0 was run for 24 hours once the system was established to confirm the position and ensure that no multi-path or other site specific problems existed. This was done by setting up an Ashtech M-XII receiver connected to a Magnavox MX-50R beacon receiver over the mark and comparing the known position to the computed position. The MX-50R received the differential correctors from the U.S. Coast Guard beacon on Egmont Key. See **Appendix III** for the *MONITOR* output.

H.4 The TAMPA PILOTS station mark was recovered in Egmont Key, Florida using the North American Datum of 1983 (NAD 83).

H.5 No horizontal control stations were established during this project.

H.6 No position anomalies, problems, or unconventional survey methods occurred during recovery of horizontal control for this project.

I. HYDROGRAPHIC POSITION CONTROL

I.1 The primary method of sounding position control was the Differential Global Positioning System (DGPS).

I.2 In accordance with the Field Procedures Manual (FPM), the maximum expected positional error (EPE) for this survey was 15 meters (1.5 mm at a survey scale of 1:10,000). At no time in this survey did the EPE consistently exceed 15 meters.

I.3 The NOAA HF DGPS shore system consists of :

Ashtech M-XII GPS receiver	S/N 700354B2501
L1/L2 GPS antenna	S/N 700228D2311
Raytheon 152 transceiver	S/N BS29252
LRD-2 Long Range Data Modulator	S/N 613

On each launch there is an Ashtech GPS receiver, a Magnavox MX-50R DGPS beacon receiver for U.S.C.G. differential beacons, and a LRD-1 long range data receiver for the NOAA HF DGPS system. The ship also has the same equipment but is set up to monitor two reference stations simultaneously. The units used are as follows:

VESSEL #	MODEL	S/N
2220	Ashtech GPS Receiver "A"	700417B1129
	Ashtech GPS Receiver "B"	700417B1004
	Magnavox MX-50R Beacon Receiver "A"	315
	Magnavox MX-50R Beacon Receiver "B"	316
	LRD-1 HF Receiver	205
	GPS Antenna (starboard)	700391A0270
	GPS Antenna (port)	700391A0451
2223	Ashtech GPS Receiver	700417B1196
	Magnavox MX-50R Beacon Receiver	168
	LRD-1 HF Receiver	249
	GPS Antenna	700371A0533

2225	Ashtech GPS Receiver	700417B1182
	LRD-1 HF Receiver	299
	Magnavox MX-50R Beacon Receiver	219
	GPS Antenna	700391A0509
2226	Ashtech DGPS Receiver	700417B1197
	LRD-1 HF Receiver	299
	Maxon MX-50R Receiver	219
	GPS Antenna	700391A0509

I.4 As stated in section **H.2**, two DGPS reference stations were used: U.S.C.G. Egmont Key beacon and a NOAA HF DGPS shore system also on Egmont Key. To ensure EPE's of less than 15 meters the following $HDOP_{max}$'s were determined using the formula from FPM section 3.4.2.

Station	ESE	EDE	Max. HDOP
NOAA HF	4	0.3	3.7
USCG Egmont Key	4	0.3	3.7

DGPS performance checks were performed by comparing positioning of two independent DGPS stations. The inverse distance between the two independent stations' positions was computed to ensure it did not exceed the EPE_{max} of 15 meters. For the comparison, the launches would lay dead in the water alongside each other with their GPS antennae as close together as possible. The launches would then simultaneously mark their position by dumping the on-line HDAPS screen to the printer. The Easting and Northing values from each launch, along with the HDOP, and number of satellites used were entered into a *LOTUS 1-2-3* spreadsheet for computation of position error. The performance checks were done with each launch on a different DGPS reference station for most of the checks but occasionally on the same station. When the same station was used a performance check was obtained aboard MT.MITCHELL using the *SHIPDIM* program which monitored two independent stations. These checks were attempted once per week but were subject to equipment problems and bad weather. A copy of the performance checks are included in **Separate III.***

MT. MITCHELL monitored two reference stations and recorded performance checks with the *SHIPDIM* program Version 2.1 during all periods of hydrography. The outlier files produced by the program were reviewed daily. A printed copy of the performance checks are included in **Separate III.***

I.5 No calibration data were applied to the DGPS raw positioning data.

I.6.a No unusual methods of calibrating the electronic positioning equipment were used.

b. No equipment malfunctions were encountered.

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c. Localized thunderstorms occasionally downgraded the signals of the DGPS stations and correctors would not be received for a few seconds at a time. After 30 seconds of losing correctors, HDAPS goes into a dead reckoning (DR) mode. After 30 seconds of being in DR mode, HDAPS stops data collection. Survey operations would stop until the signal returned or the control was changed. If the signal was lost for only a few seconds, and it was felt that the course was steady through the period, data collection would continue.

d. Weak signals were only observed during the strong thunderstorms associated with this project area.

e. No systematic errors were observed.

f. Antenna positions were corrected for offset and layback, and referenced to the position of the DSF-6000N transducer. These correctors were located in the HDAPS Offset table, and applied on-line to the positioning algorithm. Refer to **Separate III*** for a copy of offset tables used during this survey. *FILED WITH THE ORIGINAL FIELD RECORDS

g. Offset and layback distances for the boom (tow point) were located in the HDAPS Offset table and applied on-line. The values of the offsets and laybacks are included in the same tables as discussed in section **f** above. These values, along with the cable length, towfish height, and depth of water, were used by the HDAPS system to compute the position of the towfish.

J. SHORELINE

J.1 Shoreline is obtained from enlargements of the latest editions of NOS charts 11413 and 11414.

J.2 Shoreline verification was not required for this survey.

J.3 Detached positions were obtained on all United States Coast Guard maintained range markers located within the survey limits. These positions were compared with positions obtained by the Field Surveys Unit by relative static GPS methods. In no instances did hydrographic positions differ significantly from the surveyed positions.

K. CROSSLINES

K.1 Crosslines on survey H-10623 equaled 6.4 percent of total mainscheme hydrographic coverage.

K.2 Agreement of crosslines with mainscheme sounding lines in areas having a regular bottom was excellent, with all soundings at intersections agreeing within 0.3 meters, and the majority within 0.2 meters. Agreement in spoil areas and other areas of irregular bottom often was poor, with differences commonly exceeding one meter, and this is attributed to large differences in depth over small horizontal distances.

K.3 Because the agreement of crosslines in areas having an even bottom was excellent, no reconciliation of differences was necessary.

K.4 The vessel used to run crosslines (2226) was the same vessel used to run a significant portion of the mainscheme hydrography.

L. JUNCTIONS *See also the Evaluation Report.*

L.1 Survey H-10623 junctions with survey H-10606 (1:10,000, April-August 1995) at its extreme southwestern corner. These two surveys were conducted concurrently by MT MITCHELL.

L.2 Sounding comparisons were made by overlaying sounding plots from each of the surveys and comparing the overlap areas. The general agreement between H-10606 and H-10623 is good. In areas having a regular bottom, all soundings agreed within 0.4 meters, and the majority within 0.3 meters or less.

L.3 Because of good junction agreement, no further investigation is warranted.

L.4 No adjustments to soundings, depth curves, or features are recommended at this junction.

M. COMPARISON WITH PRIOR SURVEYS *See also the Evaluation Report*

M.1 The following prior surveys apply to this survey area:

Registry Number	Scale	Year of Survey
H-8411	1:10,000	1957-1958
H-8429	1:20,000	1958

M.2 This survey was compared with survey H-8411 and H-8429, both which cover the survey area of H-10623. In areas outside of the dredged channels and spoil areas, sounding agreement is excellent, with nearly all soundings agreeing within one foot (0.3 meters). Soundings in the spoil areas are as much as 2.0 meters shoaler on this survey than in prior

surveys. No prior surveys depict these areas as spoil areas, so this can be attributable to the continued dumping of dredge spoil after the dates of the prior surveys. In the dredged channels, depth on the current survey are as much as 10 feet (3.0 meters) deeper than prior surveys, and this is most likely attributable to deeper current controlling depth of the channels. The shoal areas south of Gadsden Point Cut in the Quarantine anchorage appear to have shifted slightly since the prior surveys. This may be attributable to the action of tidal currents within the area.

M.3 All significant features from prior surveys have been addressed by this survey.

M.4 All deepening and shoaling is discussed in section **M.2** above.

M.5 No contemporary non-NOS or non-USC&GS surveys have been identified which pertain to this survey.

THE PRESENT SURVEY IS ADEQUATE TO SUPERCEDE THE PRIOR SURVEYS IN THE COMMON AREA.

N. ITEM INVESTIGATION REPORTS

This survey contained investigations of nine AWOIS items. In addition, one new item was discovered and investigated by divers. Several contacts were discovered but, due to time constraints, were not investigated by divers, and a few exist which require further side scan sonar development. These items are all discussed below.

AWOIS Item 189

State and Locale	Tampa Bay, Florida
Charted Position	27° 46' 31.09" N 082° 32' 42.34" W
Datum	NAD 83
Feature Type	Submerged Wreck
Source	Not provided in AWOIS listing. Listing describes a tug, 125 feet in length, with a least depth of 10 feet.
Survey Requirements	200% side scan sonar, bottom drag, salvage documentation
Investigation Method	MT MITCHELL accomplished 200% coverage with mainscheme side scan sonar coverage of the area.

Results	Two contacts were located within the search area-- G53 and G54 (refer to contact tables in the Separates). These items were further investigated on DN 235 by obtaining additional SSS coverage. The contacts were not located again during these developments.
Prior Survey Comparison	This item is not included in any prior surveys.
Chart Comparison	Charts 11412 an 11413 depict a wreck with a least depth of 10 feet, annotated "ED."
Recommendation	Delete the submerged wreck symbol from the chart in this position. CONCUR. ALSO DELETE THE NOTE ED (10FT REP)

AWOIS Item 8800

State and Locale	Tampa Bay, Florida
Charted Position	27° 42' 37.350"N 082° 32' 54.160"W
Datum	NAD 83
Feature Type	Shoal reported
Source	LNM15/85--7th CGD. A mound in Tampa Bay temporary "D" Cut channel discovered with a least depth of 18 feet.
Survey Requirements	200% side scan sonar, echo-sounder development
Investigation Method	Echo-sounder development
Results	MT MITCHELL located this shoal during mainscheme coverage of the area. The shoal was located close to its charted position, at 27° 42' 34.506" N, 082° 32' 54.167" W. The actual depth discovered was 19 feet.
Prior Survey Comparison	This item is not included in any prior surveys.
Chart Comparison	The chart depicts a reported shoal with a depth of 18 feet in this position.

Recommendation	Delete the shoal of 18 feet in position 27° 42' 37.35" N, 082° 32' 54.16"W, and chart a shoal of 19 feet (or otherwise after smooth tides are applied during office processing) in position 27° 42' 34.506"N, 082° 32' 54.167"W. CONCUR

AWOIS Item 8801

State and Locale	Tampa Bay, Florida
Charted Position	27° 42' 37.10"N 082° 32' 59.40"W
Datum	NAD 83
Feature Type	Submerged wreck
Source	LNM31/89--7th CGD: Sunken wreck, dangerous to navigation, reported in this position.
Survey Requirements	200% side scan sonar, echo-sounder development, diver investigation, salvage documentation.
Investigation Method	The search area was covered with 200% SSS coverage as part of mainscheme coverage.
Results	Two contacts were discovered within the search area. Contact 5426.60 had a computed height of 0.5 meters and was considered insignificant. Contact 1201.255 was further developed by obtaining additional sonar coverage and was not located again.
Prior Survey Comparison	This item is not included in any prior surveys
Chart Comparison	The chart depicts a submerged wreck, annotated "PA."
Recommendation	Delete the submerged wreck charted in this position. CONCUR. ALSO DELETE THE NOTE PA (REP 1985)

AWOIS Item 8802

State and Locale	Tampa Bay, Florida
Charted Position	27° 45' 18.10"N

	082° 31' 05.34"W
Datum	NAD 83
Feature Type	Submerged wreck
Source	NM20/58--The 110 foot dredge "Dania" has been reported sunk in 23 feet of water about 500 yards 90 degrees from Tampa Bay "F" Cut buoy "2F," with approximately 20 feet of superstructure above the water. The wreck is marked with fixed white lights at either end, and two fixed red lights, vertically disposed.
Survey Requirements	200% side scan sonar, bottom drag, diver investigation, salvage documentation.
Investigation Method	MT MITCHELL accomplished 200% sonar coverage over the search area during mainscheme SSS coverage.
Results	The dredge was located in its charted position. On DN 236 divers investigated the wreck and obtained its dimensions and least depth. The dive description and least depth reading are included in Appendix I. FILED WITH THE ORIGINAL FIELD RECORDS.
Prior Survey Comparison	OPR-505-HFP-745: Wreck not located in a chart evaluation survey, noted on chart section.
Chart Comparison	The charts depict a submerged wreck in this position.
Recommendation	Retain the SUNKEN wreck charted in this position. DO NOT CONCUR. CHART A 8 WK IN LAT: 27-45-17.45 N. LON: 82-31-05.745 W
AWOIS Item 8805	DELETE SUNKEN WRECK SYMBOL
State and Locale	Tampa Bay, Florida
Charted Position	This item contains three piles; only one was included in the limits of this sheet: 27° 46' 23"N 082° 33' 11"W
Datum	NAD 83
Feature Type	Submerged piles
Source	Survey H-8429: piles discovered, described as survey markers

	Survey OPR-505-HFP-745: Chart evaluation survey; piles not located by field party.
Survey Requirements	400% side scan sonar, bottom drag, visual search, diver investigation. Conduct search about a 30 meter radius of the position of each pile.
Investigation Method	MT MITCHELL accomplished 400% SSS coverage in the search area of the one pile.
Results	No contacts were discovered in the search area of this one pile.
Prior Survey Comparison	Refer to "*Source*," above.
Chart Comparison	The chart depicts three submerged piles:
Recommendation	Because only one of the three piles fall within the limits of this survey, but all three are entirely within the limits of sheet "H," MT MITCHELL recommends that this item be considered unresolved, and a search for this item conducted once again if sheet "H" is surveyed in the future by another NOAA field unit. NO CHANGE IN CHARTING IS RECOMMENDED.

AWOIS Item 8806

State and Locale	Tampa Bay, Florida
Charted Position	27° 46' 30.59"N 082° 32' 38.84"W
Datum	NAD 83
Feature Type	Visible wreck
Source	NM2/60: The wreck of the 72 foot fishing vessel "Louanna" lies sunk with 15 feet of boom above the water. Lighted buoy "WR1" marks the position. OPR-505-HFP-73: Listed as "gone."
Survey Requirements	200% side scan sonar, bottom drag, salvage documentation. This search was to be conducted in conjunction with AWOIS item 189.

Investigation Method	MT MITCHELL accomplished 200% SSS coverage as part of mainscheme sonar coverage.
Results	One contact was located within the search area, contact "G-53" (refer to separates). This contact was further investigated on DN 235 but was not relocated. No other contacts were discovered in this search area.
Prior Survey Comparison	OPR-505-HFP-73 listed the item as "gone."
Chart Comparison	This item is not depicted on the chart.
Recommendation	Do not chart. CONCUR. USE CHARTING RECOMMENDATION FOR AWOIS # 189, PG 14.

AWOIS Item 8807

State and Locale	Tampa Bay, Florida
Charted Position	27° 46' 19.00"N 082° 30' 59.00"W
Datum	NAD 83
Feature Type	Submerged piles
Source	CL650/71--U.S. Power Squadron; piles observed in this position.
Survey Requirements	400% side scan sonar, visual search, bottom drag
Investigation Method	MT MITCHELL accomplished 400% SSS cover in the search area.
Results	Three significant contacts were located in the search area. These items are described on dive records as 8807.1, 8807.2, 8807.3. On DN 236 divers investigated all three contacts. The dive descriptions are in Appendix I.* Piles were located corresponding to 8807.1 and 8807.3. Divers conducted a 30' circle search around item 8807.2 but located nothing. A pile with a height of 9' off the bottom was found corresponding to contact 8807.1. Three piles lying side by side, 1.5' off the bottom, were located corresponding to contact 8807.3.

* FILED WITH THE ORIGINAL FIELD RECORDS.

Prior Survey Comparison	This item is included in no prior surveys.
Chart Comparison	Chart 11413 depicts a pile reported in this position.
Recommendation	Delete a "pile reported" in position 27° 46' 19"N 082° 30'59"W, and chart a submerged pile in position 27° 46' 20"N 082° 31' 03"W with a least depth of 4.5 meters (uncorrected for smooth tides). CONCUR. CHART AS 11 OBSTN. ALSO CHART 18 OBSTN IN LAT: 27-46-18.871N. LON: 82-31-00.348 W.

AWOIS Item 8808

State and Locale	Tampa Bay, Florida
Charted Position	27° 46' 16.69"N 082° 30' 22.74"W
Datum	NAD 83
Feature Type	Submerged wreck
Source	LNM12/86: The fishing vessel "Anna B" reported sunk in this position in 15 feet of water with 20 feet of mast above the water. The wreck was expected to be salvaged soon after this notice.
Survey Requirements	200% side scan sonar, bottom drag, salvage documentation
Investigation Method	MT MITCHELL accomplished 200% SSS coverage in the search area as part of mainscheme SSS coverage.
Results	Nothing was located in the search area of this item.
Prior Survey Comparison	This item is not included in any prior surveys.
Chart Comparison	The chart depicts a wreck, annotated "Masts PA."
Recommendation	Delete the SUNKEN wreck charted in this position. Concur

AWOIS Item 8811

State and Locale	Tampa Bay, Florida

Charted Position	27° 47' 11.09"N 082° 29' 29.34"W
Datum	NAD 83
Feature Type	Submerged wreck
Source	LNM 50/78: The 123 foot dredge Breton II reported sunk in 10 feet of water in this position.
Survey Requirements	200% side scan sonar, bottom drag, echo-sounder development, diver investigation, salvage documentation.
Investigation Method	MT MITCHELL accomplished 200% SSS coverage in the search area as part of mainscheme SSS coverage.
Results	The dredge was located outside the search area during mainscheme SSS coverage of the Quarantine Anchorage. Divers investigated the dredge on DN 236. The dive report is included in Appendix I. FILED WITH TO ORIGINAL FIELD RECORDS.
Prior Survey Comparison	This item is not included in any prior surveys.
Chart Comparison	The chart depicts a submerged wreck, annotated "PA."
Recommendation	Delete the wreck charted in position 27° 47' 11.09"N 082° 29' 29.34"W, and chart a ~~submerged~~ SUNKEN wreck in position 27° 46' 55.894"N ~~56"N~~, 082° 29' 38.384"W with a least depth of 3.6 meters (8 FT) (uncorrected for smooth tides). CONCUR. CHART AS SWK

New Item G-30

Location	27° 44' 06"N 082° 32' 18"W
Water Depth	5.0 m to 7.3 m
SSS Contact Height	0.6 m

History

DN	Fix Number	Activity
187	5052.37	100% SSS
219	5506.30	200% SSS

Investigation Results — Divers discovered a pipe, 99 feet in length and 2.5 feet in diameter, lying on its side. The pipe was resting on a mound, so that in the center it was flush with the bottom, but on either end it was suspended from the bottom (see accompanying sketch). The pipe had an orientation of 150°/330°. the least depth of this item was obtained by MOD III depth gauge.

Recommendation — Chart a pipe with a least depth of ~~5.0~~ 3.8 (12FT) meters (uncorrected for smooth tides) in position 27° 44' 06" N 082° 32' 18" W.
DO NOT CONCUR. CHART SHOALER DEPTHS IN THE IMMEDIATE VICINITY.

The following are items which MT MITCHELL had planned to investigate using divers, but did not have the opportunity:

Contact #	Easting	Northing	Contact Height	Depth
1003.22 (G-5)	60338.5	27034.6	1.9m	8.9m
1008.19 (G-26)	61347.3	28568.3	2.4	7.8
1012.44 (G-28)	61403.5	28446.8	0.5	8.0
1170.87 (G-9)	61506.6	28633.0	2.2	7.8
1254.24 (G-29)	59717.5	27750.2	0.3	7.8
1344.56 (G-13)	62176.1	30833.1	1.7	6.6
1379.70 (G-24)	61402.3	29826.2	0.4	7.7
1527.64 (G-20)	61468.9	30556.1	5.0	10.2
3119.17 (G-26a)	61344.3	28575.3	1.0	8.8
5151.658 (G-34)	61820.3	34097.4	1.0	4.5
5154.22 (G-62)	61794.1	34051.1	1.5	5.0
5396.54 (G-49)	61105.0	28604.5	1.9	8.3
5487.60 (G-50)	59744.0	27775.8	1.3	4.9
5792.56 (G-32)	64405.8	34176.1	1.0	6.3
10295.88 (G-36)	61547.7	33076.2	0.6	5.4
10440.64 (G-1)	59736.3	25901.0	1.3	7.8
10441.51 (G-3)	59953.4	26171.5	1.1	7.2
10532.80 (G-14)	62667.9	31731.0	1.0	6.3
10619.87 (G-7)	61378.0	28337.4	2.3	6.6
11240.27 (G-27)	61434.5	28569.8	1.3	6.6

Additionally, MT MITCHELL had planned to further develop the following contacts to determine suitability for diver investigation, but was not able to do so due to time constraints:

Contact	Easting	Northing	Height	Depth
1365.58	62420.1	33458.3	1.3m	14.0m

1796.02 (G-35)	61794.6	35159.6	0.9	9.7
2142.67 (G-57)	61493.5	37546.4	1.2	6.5
3015.27	61489.4	30498.7	1.2	8.6
5515.37 (G-51)	61784.2	33208.7	3.0	4.1
5845.40 (G-31)	62878.8	33896.7	1.0	6.5
10132.81 (G-33)	64278.7	34858.5	2.4	7.0
10654.81 (G-46)	61273.9	28507.5	1.0	7.1
11240.85 (G-48)	61236.2	28359.2	1.3	7.1

O. COMPARISON WITH CHARTS

SEE ALSO THE EVALUATION REPORT

O.1 This survey affects the following NOS charts:

Chart No.	Latest Edition	Scale	Date
~~11411 SC~~	~~8th~~	~~1:40,000~~	~~14 NOV 92~~
11412	36th	1:80,000	04 JUN 94
11413	40th	1:40,000	01 JAN 94
11414	35th	1:40,000	26 FEB 94

There were no Notice to Mariner updates corresponding to these charts during the time of this survey.

O.2 Dangers to Navigation

a) No danger to navigation reports were filed by MT MITCHELL pertaining to this survey.

b) No new dangers to navigation were located. However, a number of potential dangers were located during mainscheme coverage, but not further developed or investigated by divers due to time constraints. Refer to Section N for a discussion of these items.

A SSS contact plot is included with the separates.

O.3 Comparison of Soundings

This section includes a comparison of this survey with charts 11412, 11413 and 11414 only. The remaining charts affected by this survey are at a scale too small to allow a meaningful comparison.

a) Sounding agreement between this survey and the largest scale charts of the survey area

(NOS charts 11413 and 11414) are generally excellent, with nearly all soundings agreeing within 0.5 meters. There are a few shoals depicted on these charts which were not located by MT MITCHELL. Additionally, MT MITCHELL located a small number of shoals which were not indicated on the chart. The source of this shoaling appears to be "short dumping" of spoil material.

b) No general shoaling or deepening was observed within the survey area.

c) In numerous areas within the survey, it appears that spoil material has been dumped outside of the delineated spoil areas, causing observed soundings in some cases to be shoaler than charted soundings. This was determined from the fathograms of sounding lines run in these areas, which are very similar in appearance to fathograms from lines run within charted spoil areas. Additional sounding lines were run over the spoil area, reducing the effective line spacing to 18 meters in these areas, to ensure adequate coverage.

d) All dredged channels were surveyed by running additional hydrography perpendicular to the channels, out to 200 meters on either side of the channels, using 50 meter line spacing. In all dredged channels maintained by the USACE, observed soundings were in all cases equal to or deeper than the controlling depths of the channel. Concur.

Numerous side scan sonar contacts were located in the dredged channels. the largest concentration of which were located at the intersection of Cut "D" and Cut "E." Time constraints precluded further development or investigation of these items. However, because extensive soundings were obtained in this area, both from 200% side scan sonar coverage, and from additional cross channel hydrography, MT MITCHELL is confident that all depths in the channel are in fact deeper than the controlling depths of the channel, and these contacts are a result of uneven dredging of the channel, and do not pose a danger to navigation.

e) Sounding lines were run along all range lines and along all dredged channels as part of mainscheme coverage. In all cases survey depths along these lines equal to or deeper than the controlling depths of the channel.

O.4 Comparison of non-sounding features

a) Detached positions were obtained on all U.S. Coast Guard range markers within the sheet limits. These positions were compared with the charted positions of the range markers. All range markers within the survey limits are charted accurately.

The following item was not located during the survey. Although a disproval DP was not obtained, the location was visited numerous times during 100% and 200% SSS coverage.

White Beacon "WR" 27° 48' 03"N 082° 30' 09"W ~~DELETE FROM CHART~~. PRESENTLY SHOWN AS G "3 WR" ON 42ND EDITION OF CHART 11413. NO CHANGE IN CHARTING IS RECOMMENDED.

The following privately maintained buoy marks a fish haven in the survey limits. The fish

haven was located using side scan sonar and is properly charted. A detached position was obtained on the buoy and compared to its charted position:

Charted Position	Survey Position	Diff (m)
27° 44' 52"N 082° 31' 00"W	27° 44' 57.013"N 082° 30' 56.206"W	186.0

b) All PA, ED, or PD items within the survey limits have been discussed under Section N, Item Investigation Reports.

c) No additional wrecks or obstructions were included in this survey which were not discussed under Section N, Item Investigation Reports.

O.5 No changes to scale, coverage, or format are recommended for charts affected by this survey.

P. ADEQUACY OF SURVEY

Hydrography is adequate and complete for purposes of updating soundings on nautical charts affected by this survey. Hydrography within charted spoil areas is sufficient to chart soundings in the denoted spoil areas. AWOIS Items #189, #8800, #8801, #8802, #8806, #8807, #8808, and #8811 have been resolved.

All significant contacts discovered during side scan sonar operations were not properly investigated due to time constraints. AWOIS item #8805 was not fully resolved. MT MITCHELL recommends that the Atlantic Hydrographic Party further investigate these items with its anticipated arrival in Tampa Bay in the next few years.

Q. AIDS TO NAVIGATION

Q.1 There was no correspondence between MT MITCHELL and the U.S. Coast Guard regarding the location, maintenance, or establishment of floating aids to navigation within the limits of this survey.

Q.2 The following table is a comparison between the charted position and surveyed position of floating aids to navigation located within the survey limits.

Floating ATON	Charted Position	Survey Position	Difference (m)
G "3D"	27-42-37N	27-42-38-27N	42.8

	Charted	Surveyed	
	082-32-45W	082-32-44.35W	
R "4D"	27-42-35N 082-32-41W	27-42-35.68N 082-32-40.21W	30.0
G "5D"	27-43-20N 082-32-09W	27-43-20.38N 082-32-13.82W	132.5
R"6D"	27-43-26N 082-32-03W	27-43-26.72N 082-32-02.47W	26.4
G"1E"	27-43-32N 082-32-07W	27-43-38.25N 082-32-04.42W	205.1
G"3E"	27-44-28N 082-31-47W	27-44-27.47N 082-31-46.31W	25.0
R "4E"	27-44-26N 082-31-41W	27-44-25.84N 082-31-40.69W	9.8
G"5E"	27-45-18N 082-31-28W	27-45-17.27N 082-31-27.75W	23.5
R"6E"	27-45-25N 082-31-22W	27-45-25.13N 082-31-19.52W	68.1
G"1F"	27-45-37N 082-31-25W	27-45-35.26N 082-31-24.99W	53.5
G"3F"	27-46-06N 082-31-25W	27-46-05.10N 082-31-25.69W	33.6
R"4F"	27-46-04N 082-31-21W	027-46-04.85N 082-31-19.66W	45.2
R"6F"	27-46-32N 082-31-22W	27-46-31.34N 082-31-19.85W	62.1
G"7F"	27-46-45N 082-31-26	27-46-44.71N 082-31-26.16W	10.1
R"8F"	27-46-51N 082-31-15W	27-46-48.51N 082-31-15.74W	79.1

R"10F"	27-47-02N 082-31-07W	27-47-00.25N 082-31-06.56W	55.1
GR"G"	27-47-05N 082-31-24W	27-47-04.01N 082-31-23.11W	39.1
G"1"	27-47-15N 082-30-52W	027-47-14.66N 082-30-52.35W	14.3
R"2"	27-47-10N 082-30-50W	27-47-10.13N 082-30-50.06W	157.1
G"3"	27-47-31N 082-30-10W	27-47-29.96N 082-30-08.51W	52.0
R"4"	27-47-26N 082-30-06W	27-47-24.57N 082-30-06.06W	44.2
G"5"	27-47-50N 082-29-10W	27-47-49.84N 082-29-09.82W	6.9
R"6"	27-47-45N 082-29-10W	27-47-44.03N 082-29-09.71W	30.7
G"1G"	27-47-02N 082-31-43W	27-47-02.12N 082-31-42.57W	12.5
G"3G"	27-47-06N 082-32-28W	27-47-08.52N 082-32-28.16W	77.8
R"4G"	27-47-11N 082-32-26W	27-47-12.96N 082-32-27.30W	69.9

THESE AIDS APPEAR ADEQUATE TO SERVE THEIR INTENDED PURPOSES

Q.3 No floating aids to navigation exist on this survey sheet which are not in the Light List. The characteristics of all floating aids to navigation (light and sound) are described correctly in the light list and on the nautical chart.

Q.4 There are no bridges, overhead cables, or overhead pipelines within the survey limits.

Q.5 There are no submarine cables, pipelines, or ferry routes within the survey limits. One contact was discovered, item G-36, which appeared on sonar records as if it might be a pipeline. However, divers did not have an opportunity to investigate this item, due to time constraints.

R. STATISTICS

Statistic	2223	2225	2226	**Total**
Positions	1946	2054	1739	**5739**
Linear NM Hydrography*	123.3	54.1	53.9	**231.3**
Square NM Hydrography*	3.3	1.5	1.4	**6.2**
Square NM SSS	7.6	14.4	12.9	**34.9**
Production Days	16	16	16	**29**
Detached Positions	5	0	35	**40**
Bottom Samples	0	0	0	**0**

*Includes dredged-channel and crossline hydrography only. Mainscheme soundings were collected in conjunction with side scan sonar coverage.

S. MISCELLANEOUS See also the Evaluation Report.

S.1 Items of significant scientific value

a) No silting was noticed during this survey.

b) No unusual submarine features were discovered during this survey.

c) No anomalous tide conditions were discovered during this survey.

d) No strong currents were noticed within the survey limits which were not accurately described in Tidal Current Predictions.

e) No magnetic anomalies were noticed at any time during this survey.

S.2 Bottom samples were not acquired during this survey.

T. RECOMMENDATIONS

T.1 MT MITCHELL recommends that items discovered during side scan sonar operations which were not fully resolved, described in Section N, should be further investigated by the Atlantic Hydrographic Party, or another NOAA field unit.

T.2 MT MITCHELL knows of no planned dredging within the limits of this survey.

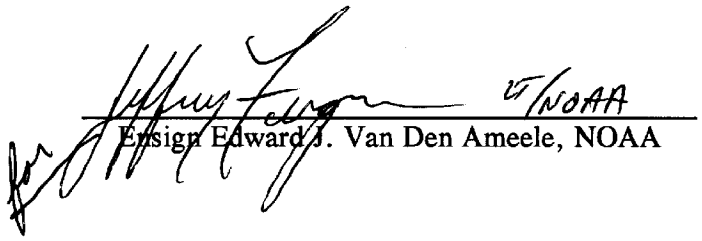
T.3 There were no unusual conditions or sea features which require further investigation.

U. REFERRAL TO REPORTS

None.

SUBMITTAL SHEET
Survey H-10623

This descriptive report accurately describes all activities pertaining to the control, collection, and processing of data for hydrographic survey H-10623, and is respectfully submitted by:

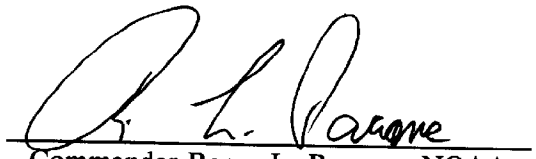


Ensign Edward J. Van Den Ameele, NOAA

Letter of Approval

Registry Number H-10623

Field operations contributing to the accomplishment of this survey were conducted under my supervision with frequent personal checks of progress and adequacy. This report, final field sheets, and all accompanying data have been closely reviewed and are considered complete (with the exception of the unresolved side scan contacts listed in Section N) and adequate for updating nautical charts and the AWOIS database.



Commander Roger L. Parsons, NOAA
Commanding Officer
NOAA Ship MT MITCHELL

#1

DIVE INVESTIGATION REPORT

DATE: 5/6/96 DN: 127 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR, CALM WIND 5K NNE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "J 32" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 1 : 2 NO. SATS: 7 EPE: 8 HDOP: 1.2

REFERENCE STATION: EGMONT KEY BEACON

Pos. Fix #2

LATITUDE: 027° 46' 29.641" ✓ EASTING: 64407.5 ✓

LONGITUDE: 082° 30' 08.526" ✓ NORTHING: 34180.3 ✓

ITEM INVESTIGATION:

DESCRIPTION: 48" DIA STEEL PIPE, ½ BURIED IN SAND.

INVESTIGATION METHODS USED: DLS-1 HAND HELD SONAR

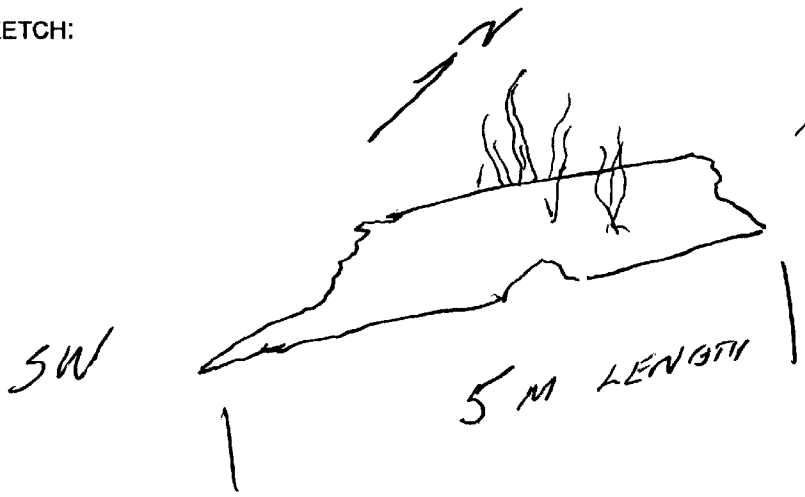
SEARCH TIME: 15 MIN SEARCH RADIUS: 25 M DEPTH: 6M-7M

WATER VISIBILITY: 1M CONTACT HEIGHT: 0.4M DIST. FROM BUOY: 5M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: PIPE FLAT ON BOTTOM

SKETCH:



DIVER DEPTH GAUGE

BOTTOM = 25.07 PSI

LEAST DEPTH = 24.88 PSI

SCATTERED DEBRIS ON BOTTOM FOUL 10 M RADIUS

SURFACE ~~Deck~~ PSI = 15.04

#1

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-32
DAY-OF-THE-YEAR 127 LATITUDE 27/46/29 N
START TIME 15:27 LONGITUDE 082/30/08 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.04 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 24.88 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.77 decibars
COMPUTED LEAST DEPTH 6.89 meters

Time of LD Measurement (UTC): 13:45

LD Measurement (m): 6.9'

Tide Corrector (m): -.4

Corrected Least Depth (m): 6.5' (21.5') 20 FT

Comments: 48" DREDGE PIPE (BROKEN) ½ BURIED IN SAND, SCATTERED DEBRIS ON BOTTOM RSL 10M. RAD.

Recommendation: NONE CHART SHOALER DEPTHS IN THE IMMEDIATE VICINITY

#2

DIVE INVESTIGATION REPORT

DATE: 5/6/96 DN: 127 PROJECT/SHEET: OAR-J343, H-10623

VESSEL NO.: 0519 DIVERS: B. RAMSEY, P. WOLF

WEATHER OBS/SEA STATE: CLEAR, CALM WIND 5K. NVE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "033" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 314 NO. SATS: 8 EPE: 8 HDOP: 1.0

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 46 ~~19.333~~ 51.734 " EASTING: ~~64328.4~~ 64280.3

Pos. #4

LONGITUDE: 082° 30 ~~11.370~~ 13.122 " NORTHING: ~~34786.3~~ 34860.1

ITEM INVESTIGATION:

DESCRIPTION: SHELL MOUND 8M DIA.

INVESTIGATION METHODS USED: DLS-1 HAND HELD SONAR

SEARCH TIME: 25 MIN SEARCH RADIUS: 50 M DEPTH: 7-8M

WATER VISIBILITY: 1M CONTACT HEIGHT: 1.0M DIST. FROM BUOY: 80M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SHELL MOUND CHART A 19 OBSTN

SKETCH:

LEAST DEPTH BY LEADLINE 7.9M 5.' (19 FT)

NO. D.D.G.

FEATURE SUBJECT TO CHANGE!

3

DIVE INVESTIGATION REPORT

DATE: 5/6/96 DN: 127 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR, CALM, WIND 5K. NNE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "051" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 5 & 6 NO. SATS: 6 EPE: 6 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

Pos. #6

LATITUDE: 27° 45' 58.161" EASTING: 61789.6

LONGITUDE: 082 31' 44.207" NORTHING: 33206.3

ITEM INVESTIGATION:

DESCRIPTION: UNKNOWN, REPORTED AS 3.0m OFF BOTTOM IN 4.0m OR LESS

INVESTIGATION METHODS USED: DLS-1, & 40m. DIVER CIRCLE SEARCH

SEARCH TIME: 15MIN DLS / 30MIN G.S. SEARCH RADIUS: 40m DEPTH: 4m

WATER VISIBILITY: 1-2m CONTACT HEIGHT: Ø DIST. FROM BUOY: Ø

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: NEGATIVE CONTACT, NOTHING FOUND! CONCUR

SKETCH:

SEARCH WITH DLS-1, HAND HELD SONAR & 40m. DIVER CIRCLE SEARCH!

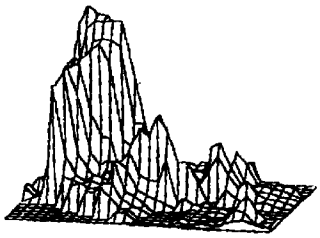
NEGATIVE

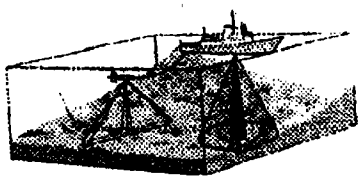
05/08/96 09:28 ☎804 441 6601 AHB - N/CS33

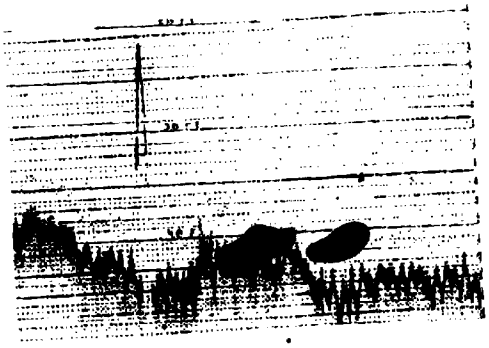
FAX COVER SHEET

NOAA ATLANTIC HYDROGRAPHIC BRANCH
OFFICE OF COAST SURVEY - CS33
439 W. YORK ST
NORFOLK VA. 23510

PHONE 804-441-6746 FAX 804-441-6601







TO: Dave Elliott

FAX NUMBER: (813) 645-8401 PHONE NUMBER: (813) 645-5826

FROM: Pam Haries

DATE: 5/8/96 TIME 0930

Comments Call if you have any questions - Pam.

This FAX CONTAINS 2 PAGES INCLUDING COVER SHEET.

5792.56(G-32)	64405.8	34176.1	1.0	6.3
10295.88(G-36)	61547.7	33076.2	0.6	5.4
10440.64(G-1)	59736.3	25901.0	1.3	7.8
10441.51(G-3)	59953.4	26171.5	1.1	7.2
10532.80(G-14)	62667.9	31731.0	1.0	6.3
10619.87(G-7)	61378.0	28337.4	2.3	6.6
11240.27(G-27)	61434.5	28569.8	1.3	6.6

3. Add section 6.12.4 as follows:

The following items from MT. MITCHELL junctional survey H-10623 (1995) were identified as requiring additional investigation. Locate the contacts listed and determine suitability for diver investigation. If diver investigation is warranted, identify the item and least depth. Project parameters will be provided by N/CS33.

Contact	Easting	Northing	Height(m)	Depth(m)
1365.58	62420.1	33458.3	1.3m	14.0m
1796.02(G-35)	61794.6	35159.6	0.9	9.7
2142.67(G-57)	61493.5	37546.4	1.2	6.5
3015.27	61489.4	30498.7	1.2	8.6
* 5515.37(G-51)	61784.2	33208.7	3.0	4.1
5845.40(G-31)	62878.8	33896.7	1.0	6.5
10132.81(G-33)	64278.7	34858.5	2.4	7.0
10654.81(G-46)	61273.9	28507.5	1.0	7.1
11240.85(G-48)	61236.2	28359.2	1.3	7.1

4. Acknowledge receipt of this CHANGE.

Frank W. Maloney
Director
Coast Survey

Dave, Marilyn checked the records on this contact: the SSS sonagram shows it as a scour or similar "feature" with nothing on the yatho (the fish went right over it). Therefore, 3 of us concurred that it's a non-feature due to proximity to towfish & no feature on yatho.

#4

DIVE INVESTIGATION REPORT

DATE: 5/6/96 DN: 127 PROJECT/SHEET: OAR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR, CALM, WIND 5K, NNE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G36" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: ~~6~~ 7, 8, 9 NO. SATS: 7 EPE: 5/6 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 8, 9

LATITUDE: 27°45'54.146" / 27°45'53.032" EASTING: 61567.7 / - Pos. #8 / 61445.5 / - Pos. #9

LONGITUDE: 082°31'52.319" / 082 31'56.784" NORTHING: 33082.3 / #8 / 33047.8 / #9

ITEM INVESTIGATION:

DESCRIPTION: 30" DIA. STEEL DREDGE PIPE

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 28 MIN SEARCH RADIUS: 100M DEPTH: 6M

WATER VISIBILITY: 1M CONTACT HEIGHT: 0.5M DIST. FROM BUOY: 20M.

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: PIPE FLAT ON BOTTOM

SKETCH:

#4

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-36
DAY-OF-THE-YEAR 127 LATITUDE 27/45/54 N
START TIME 15:27 LONGITUDE 082/31/52 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.05 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 23.42 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 5.76 decibars
COMPUTED LEAST DEPTH 5.87 meters

Time of LD Measurement (UTC): 18:10
LD Measurement (m): 5.18
Tide Corrector (m): -.7
Corrected Least Depth (m): 5.1 (17.05') (16 FT)

Comments: 30 INCH DIA. STEEL DREDGE PIPE
106 M. LONG. COMPUTED BY INVERSE
FATHOMETER POS. 11374+3

Recommendation: SUBM. CHART OBSTRUCTION! CONCUR
CHART A 16 OBSTN IN LAT. 27-45-53.596N
LON. 82-31-54.040W

#4

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-36
DAY-OF-THE-YEAR 127 LATITUDE 27/45/53 N
START TIME 15:27 LONGITUDE 082/31/56 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.05 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 23.42 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 5.76 decibars
COMPUTED LEAST DEPTH 5.87 meters

Time of LD Measurement (UTC): 18:18

LD Measurement (m): 5.98

Tide Corrector (m): -.7

Corrected Least Depth (m): 5.2 (~~17.2~~ 16 FT)

Comments: 30 INCH DIA. STEEL DREDGE PIPE
106 M. LONG (COMPUTED) BY INVERSE

Recommendation: CHART OBSTRUCTION. CONCUR

HDAPS Inverse computation: 2.02 Choose Project/Sheet for Inverse Computation

ATIONS AVAILABLE

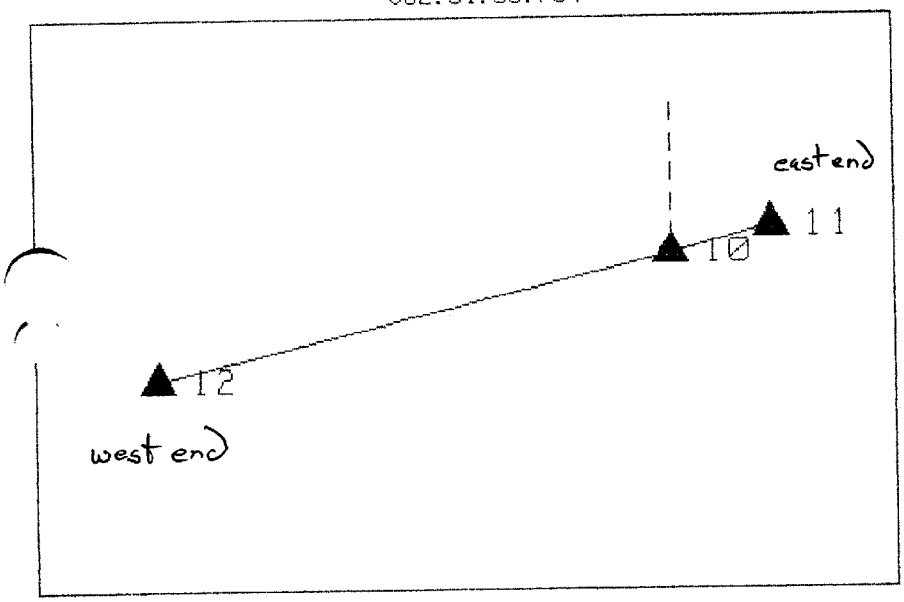
2
3
4
5
6
7
8

G-36

Projects	Sheets
H-10HHH	Sheet0
H-10JJJ	
H10623AHP	

FROM Station	TO Station	Distance	Forward azimuth
10 027:45:53.950	11 027:45:54.146	20.906	073:13:33.472
082:31:53.050	082:31:52.319		
	TO		
	12 027:45:53.032	106.077	254:33:02.058
	082:31:56.784		

Angle 11 to 12
181:19:28.586



#5

DIVE INVESTIGATION REPORT

DATE: 5/6/96 DN: 127 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR, CALM, WIND NNE 4K.

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G62" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 101'11 NO. SATS: 7 EPE: 6 HDOP: 1.0

REFERENCE STATION: EGMONT KEY BEACON

Pos #11

LATITUDE: 27°46'26.109"✓ EASTING: 61803.5✓

LONGITUDE: 082°31'43.643"✓ NORTHING: 34066.6✓

ITEM INVESTIGATION:

DESCRIPTION: RECTANGULAR PIPE PLATFORM BASE

INVESTIGATION METHODS USED: DLS-1

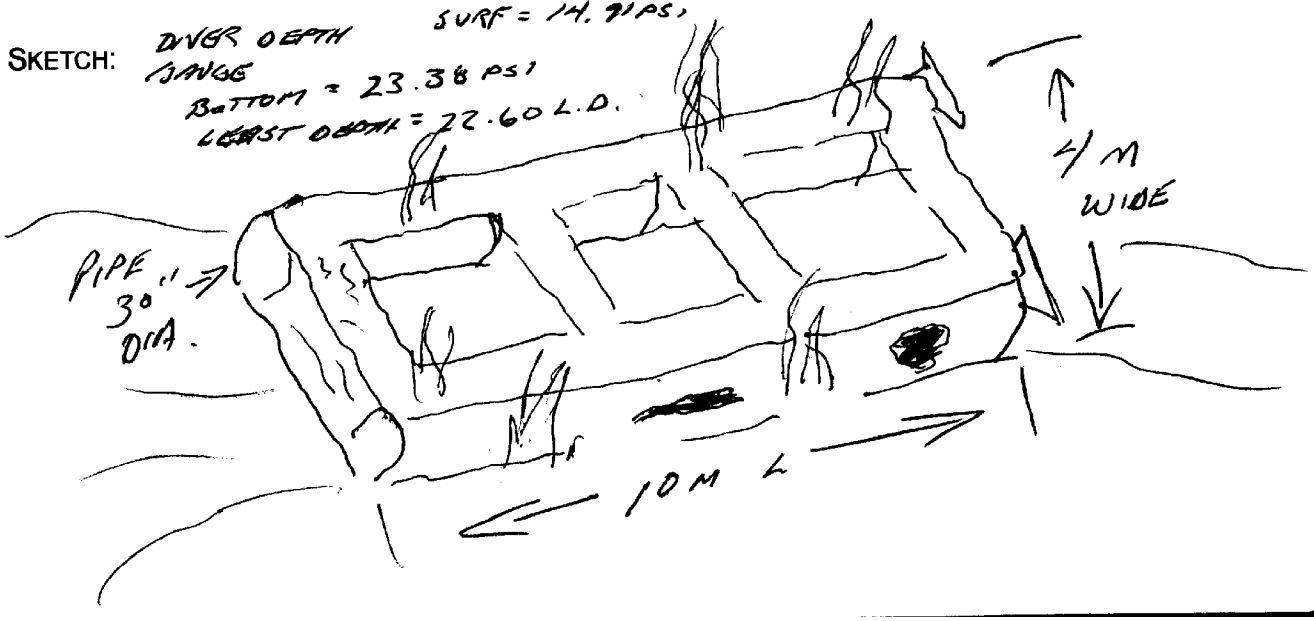
SEARCH TIME: 19 MIN. SEARCH RADIUS: 50M DEPTH: 6-7M

WATER VISIBILITY: 1M CONTACT HEIGHT: ~0.4M DIST. FROM BUOY: 18M.

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: _____

SKETCH:



5

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-62
DAY-OF-THE-YEAR 127 LATITUDE 27/46/26 N
START TIME 15:27 LONGITUDE 082/31/43 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.91 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 22.60 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 5.29 decibars
COMPUTED LEAST DEPTH 5.40 meters

Time of LD Measurement (UTC): 19:00

LD Measurement (m): 5.4 ✓

Tide Corrector (m): -.8 ✓

Corrected Least Depth (m): 4.6 ✓ (15 FT)

Comments: RECTANGULAR PIPE PLATFORM BASE
PIPING IS 30" DIA. CONSTRUCTION.
POSITION IS LEAST DEPTH @ CENTER.
10 M. L X 9 M. W.

Recommendation: SUBM. CHART OBSTRUCTION!
DO NOT CONCUR. CHART SHOALER DEPTHS
IN THE IMMEDIATE VICINITY.

#6

DIVE INVESTIGATION REPORT

DATE: 5/7/96 DN: 128 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR / CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "J 57" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: DUP. Pos. ⇒ 11512 NO. SATS: 6 EPE: 10 HDOP: 1.5

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 48' 19.X"587 EASTING: ~~61493.5~~ 61482.2

Post #12 LONGITUDE: 082° 31' ~~54.74~~ 55.152" NORTHING: ~~37546.4~~ 37559.1

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.2M OFF BOTTOM IN 6.5M OF WATER

INVESTIGATION METHODS USED: DLS-1 & 50M. DIVER CIRCLE SEARCH.

SEARCH TIME: 10 MIN / 20 MIN SEARCH RADIUS: 50M DEPTH: 6-7M.

WATER VISIBILITY: 1M CONTACT HEIGHT: Ø DIST. FROM BUOY: Ø

GENERAL BOTTOM TERRAIN: MUD

SPECIFIC FEATURE: NEGATIVE CONTACT, NOTHING FOUND! CONCUR

SKETCH:

SEARCH WITH DLS-1, HAND HELD SONAR & 50M. DIVERS CIRCLE SEARCH.

NEGATIVE

#7

DIVE INVESTIGATION REPORT

DATE: 5/7/96 DN: 128 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: B. RAMSEY, P. WOLF

WEATHER OBS/SEA STATE: CLEAR / CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G 35" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 13 & 14 NO. SATS: 6 EPE: 5 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 47 01.560" EASTING: 61799.4

Pos # 14

LONGITUDE: 082° 31' 43.721" NORTHING: 35158.1

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 0.9M OFF BOTTOM IN 9.7M OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 20 MIN SEARCH RADIUS: 25M DEPTH: 9-10M

WATER VISIBILITY: 1M CONTACT HEIGHT: 0.3M. DIST. FROM BUOY: 5M.

GENERAL BOTTOM TERRAIN: MUD

SPECIFIC FEATURE: WOODEN PILE 14" DIA. FLAT ON BOTTOM 14M L. (42')

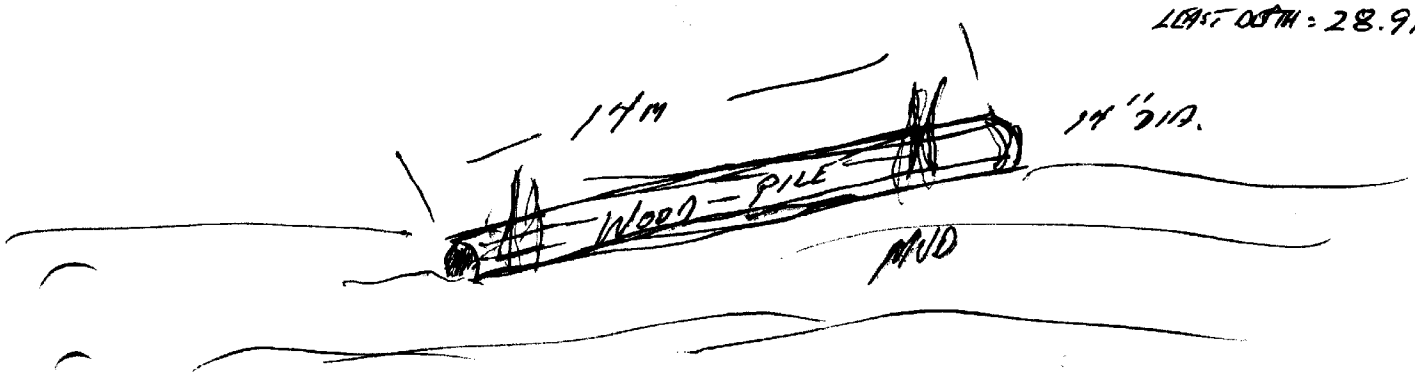
SKETCH:

DIVER DEPTH GAUGE

SURF. 14.97 PSI

BOTTOM - 29.29 PSI

LEAST DEPTH = 28.91 PSI



#7

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-35
DAY-OF-THE-YEAR 127 LATITUDE 27/47/01 N
START TIME 15:27 LONGITUDE 082/31/43 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.97 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 28.91 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 9.60 decibars
COMPUTED LEAST DEPTH 9.73 meters

Time of LD Measurement (UTC): 14:20

LD Measurement (m): 9.7

Tide Corrector (m): -.4

Corrected Least Depth (m): 9.3 (30.5')

Comments: Wooden Pile Float on Bottom
14" Dia. 14 meter Long.

Recommendation: None! Concur Do Not Chart

8

DIVE INVESTIGATION REPORT

DATE: 5/7/96 DN: 128 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR / CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G34" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 15 5/16 NO. SATS: 7 EPE: 4 HDOP: 1.0

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 16

LATITUDE: 27° 46' 27.261" ✓ EASTING: 61822.6 ✓

LONGITUDE: 082° 31 42.943" ✓ NORTHING: 34102.1 ✓

ITEM INVESTIGATION:

DESCRIPTION: 1.0M OFF BOTTOM IN 4.5M. OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 15 MIN SEARCH RADIUS: 25M. DEPTH: 5-6M

WATER VISIBILITY: 1M CONTACT HEIGHT: 1.8M DIST. FROM BUOY: 5M

GENERAL BOTTOM TERRAIN: SAND

SPECIFIC FEATURE: 2M. DIA STEEL MOORING BALL

SKETCH:

#8

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-34
DAY-OF-THE-YEAR 127 LATITUDE 27/46/27 N
START TIME 15:27 LONGITUDE 082/31/43 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 21.89 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 4.74 decibars
COMPUTED LEAST DEPTH 4.84 meters

Time of LD Measurement (UTC): 15:05

LD Measurement (m): 4.8

Tide Corrector (m): -.4

Corrected Least Depth (m): 4.4 (14.4') (14 FT)

Comments: 2 METER DIA. STEEL MOORING BALL.

Recommendation: CHART SUBM. OBSTRUCTION.
DO NOT CONCUR. CHART SHOALER DEPTHS
IN THE IMMEDIATE VICINITY

V

9

DIVE INVESTIGATION REPORT

DATE: 5/7/96 DN: 128 PROJECT/SHEET: OAR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR / CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "J31" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 17/18 NO. SATS: 7 EPE: 6 HDOP: 1.0

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 36' 20.642" EASTING: 62877.5

Pos # 18

LONGITUDE: 082° 31' 64.927 NORTHING: 33900.3

ITEM INVESTIGATION:

DESCRIPTION: 1.0 M OFF BOTTOM IN 6.5 M OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 11 MIN SEARCH RADIUS: 25M DEPTH: 6M

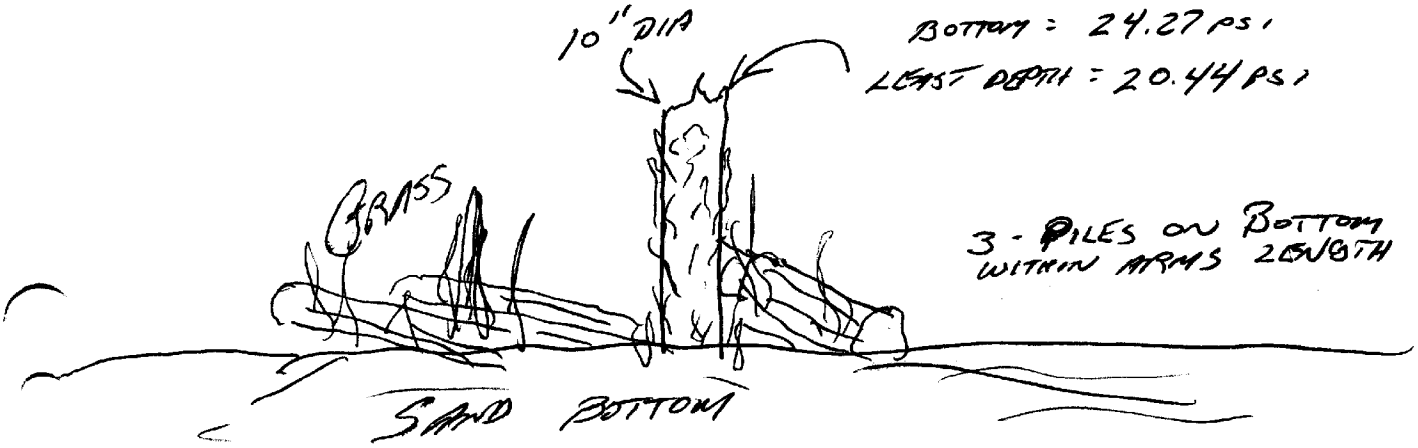
WATER VISIBILITY: 3M CONTACT HEIGHT: 2.5M DIST. FROM BUOY: 4M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. PILE (WOODEN)

SKETCH:

DIVER DEPTH GAUGE
DECK PRESS = 15.00 PSI
BOTTOM = 24.27 PSI
LEAST DEPTH = 20.44 PSI



9

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-31
DAY-OF-THE-YEAR 127 LATITUDE 27/46/20 N
START TIME 15:27 LONGITUDE 082/31/04 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 20.44 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 3.74 decibars
COMPUTED LEAST DEPTH 3.84 meters

Time of LD Measurement (UTC): 15:45

LD Measurement (m): 3.8

Tide Corrector (m): -.X5

Corrected Least Depth (m): 3.X3 (~~11.1~~ 10.8 !) (11 FT)

Comments: SUBM. 10" DIA. WOODEN PILE BROKEN OFF ABOUT 8.3' (2.5M) OFF BOTTOM!

Recommendation: CHART SUBM. PILE! DO NOT CONCUR. TAKE AS AWOIS 8807 PAGE 19 OF THE DESCRIPTIVE REPORT

#10

DIVE INVESTIGATION REPORT

DATE: 5/7/96 DN: 128 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR / CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "1365.58" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 19.20 NO. SATS: 6 EPE: 6 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

Pos # 20

LATITUDE: 27° 46' 06.544" EASTING: 62422.3

LONGITUDE: 082° 31' 21.082" NORTHING: 33465.5

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.3M OFF BOTTOM IN 14.0M OF WATER

INVESTIGATION METHODS USED: DLS-1

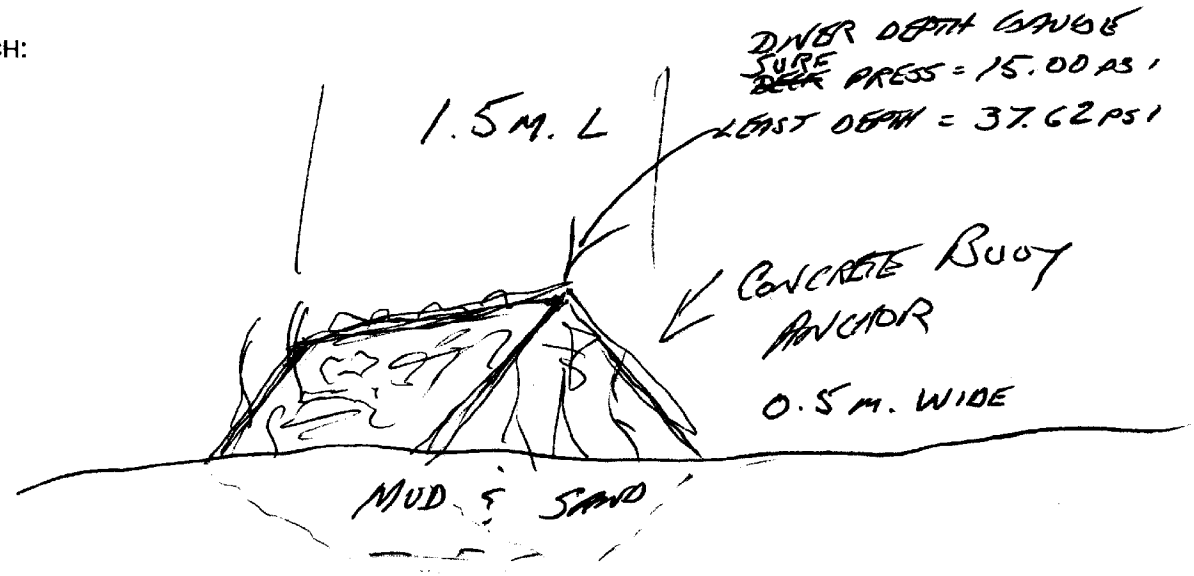
SEARCH TIME: 17 MIN SEARCH RADIUS: 25M DEPTH: 15-16 M.

WATER VISIBILITY: 0 CONTACT HEIGHT: 0.5M DIST. FROM BUOY: 7.5M

GENERAL BOTTOM TERRAIN: MUD / SAND

SPECIFIC FEATURE: CONCRETE BLOCK - BARNACLE ENCRUSTED

SKETCH:



#10

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: 1365.58
DAY-OF-THE-YEAR 127 LATITUDE 27/46/06 N
START TIME 15:27 LONGITUDE 082/31/21 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 37.62 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 15.59 decibars
COMPUTED LEAST DEPTH 15.69 meters

Time of LD Measurement (UTC): 16:45

LD Measurement (m): 15.7

Tide Corrector (m): -.5

Corrected Least Depth (m): 15.2 (49.9')

Comments: CONCRETE BLOCK 1.5M. L x 0.5M. W
MOST LIKELY AN OLD BUOY ANCHOR!

Recommendation: NONE! NO DANGER TO NAVIGATION. ✓
CONCUR, DO NOT CHART

3.

#11

DIVE INVESTIGATION REPORT

DATE: 5/7/96 DN: 128 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: B. RABY, P. WOLF

WEATHER OBS/SEA STATE: CLEAR/CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G14" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 21 & 22 NO. SATS: 7 EPE: 6 HDOP: 1.2

REFERENCE STATION: EGMONT KEY BEACON

P#22

LATITUDE: 27° 45' 10.269" EASTING: 62668.5

LONGITUDE: 082° 31' 12.209" NORTHING: 31733.7

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.0M OFF BOTTOM IN 6.3M OF WATER

INVESTIGATION METHODS USED: DLS-1

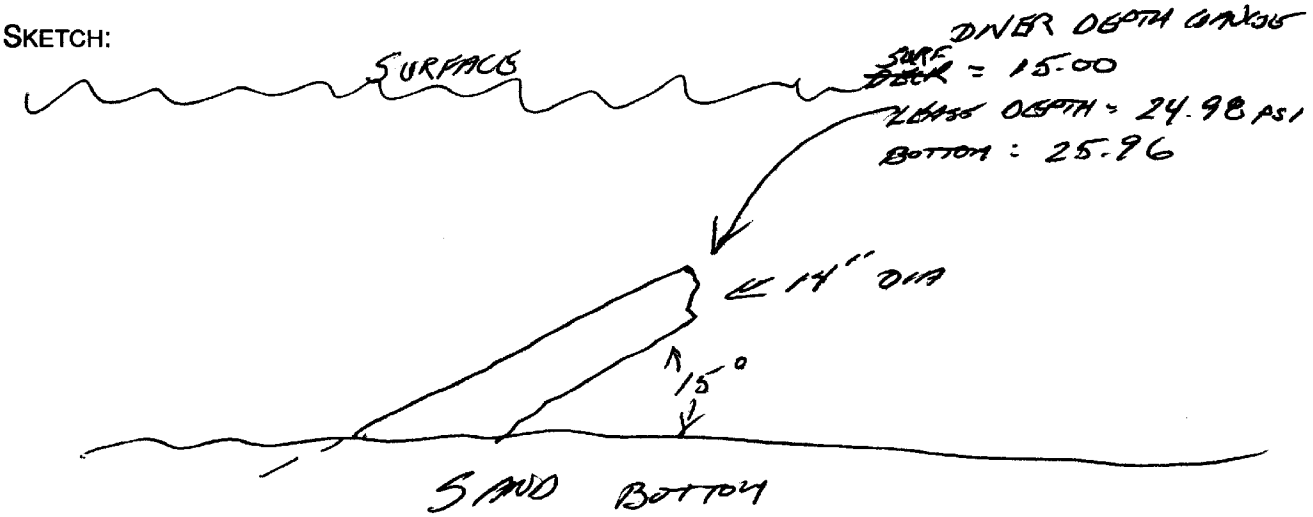
SEARCH TIME: 14 MIN SEARCH RADIUS: 25M DEPTH: 7-8m

WATER VISIBILITY: 1M CONTACT HEIGHT: 1.0M DIST. FROM BUOY: 3M.

GENERAL BOTTOM TERRAIN: SAND

SPECIFIC FEATURE: SUBM. WOODEN PILE (14" DIA) @ 15° ANGLE

SKETCH:



#11

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-14
DAY-OF-THE-YEAR 127 LATITUDE 27/45/10 N
START TIME 15:27 LONGITUDE 082/31/12 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 24.98 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.87 decibars
COMPUTED LEAST DEPTH 6.98 meters

Time of LD Measurement (UTC): 17:30

LD Measurement (m): 7.0

Tide Corrector (m): -.6

Corrected Least Depth (m): 6.4 (20.9')(21 FT)

Comments: SUBM. WOODEN PILE (14" DIA) @ 15° ANGLE

Recommendation: CHART SUBM. PILE
DO NOT CONCUR. CHART SHOALER DEPTHS IN THE IMMEDIATE VICINITY

#12

DIVE INVESTIGATION REPORT

DATE: 5/7/96 DN: 128 PROJECT/SHEET: OAR-1343, H10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR / CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G 13" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 23:24 NO. SATS: 7 EPE: 6 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 24

LATITUDE: 27° 44' 41.115" EASTING: 62183.4

LONGITUDE: 082° 31' 29.983" NORTHING: 30835.4

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.7M OFF BOTTOM IN 6.6M OF WATER

INVESTIGATION METHODS USED: DLS-1

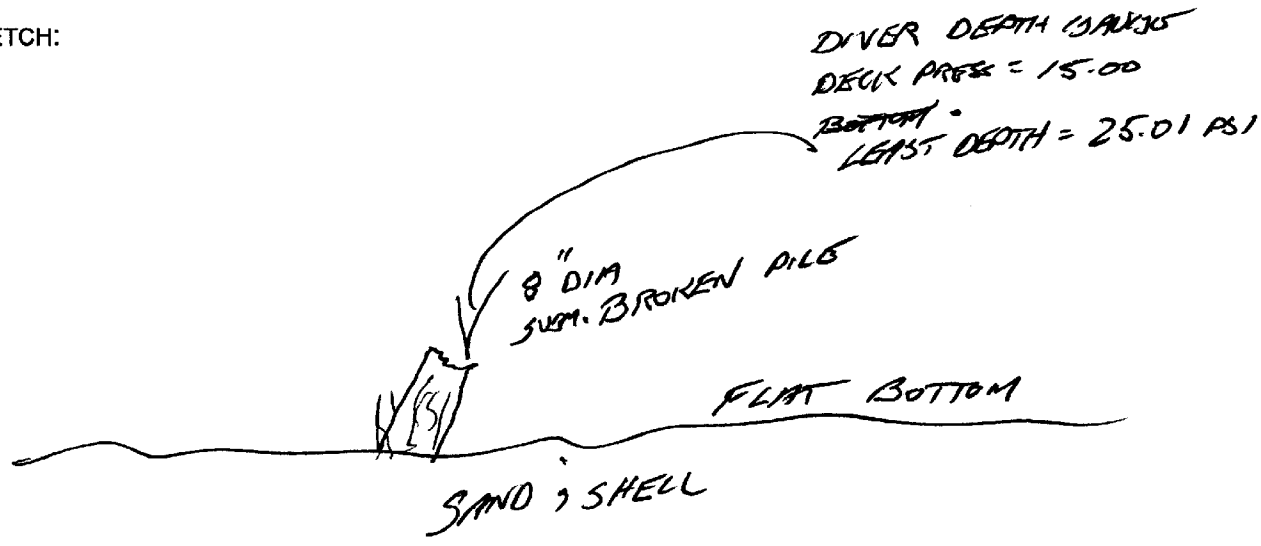
SEARCH TIME: 30 MIN SEARCH RADIUS: 25M. DEPTH: 7M

WATER VISIBILITY: 1M CONTACT HEIGHT: 1.0M DIST. FROM BUOY: 5M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. BROKEN PILE

SKETCH:



#12

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: ~~9 24~~ "613"
DAY-OF-THE-YEAR 127 LATITUDE 27/44/41 N
START TIME 15:27 LONGITUDE 082/31/30 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 25.01 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.89 decibars
COMPUTED LEAST DEPTH 7.00 meters

Time of LD Measurement (UTC): 18:25

LD Measurement (m): 7.0

Tide Corrector (m): -.~~3~~7

Corrected Least Depth (m): 6.~~4~~3 (20.~~4~~') (20FT)

Comments: SUBM. WOODEN BROKEN PILE (8" DIA.)
RAPIDLY DETERIORATING!

Recommendation: ~~NONE!~~
DUE TO THE CONDITION OF THIS FEATURE
THE SUBM. PILE SHOULD NOT BE CHARTED! CONCUR

#13

DIVE INVESTIGATION REPORT

DATE: 5/8/96 DN: 129 PROJECT/SHEET: OPR:J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR/LT. CHOP WIND 8 K, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G1" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 25 & 26 NO. SATS: 6 EPE: 7 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

Pos #26

LATITUDE: 27° 42' 00.769" EASTING: 59735.6

LONGITUDE: 082° 32' 59.656" NORTHING: 25895.5

ITEM INVESTIGATION:

DESCRIPTION: REPOSTED 1.3M OFF BOTTOM IN 7.8M OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 22 MIN SEARCH RADIUS: 25M DEPTH: 8M.

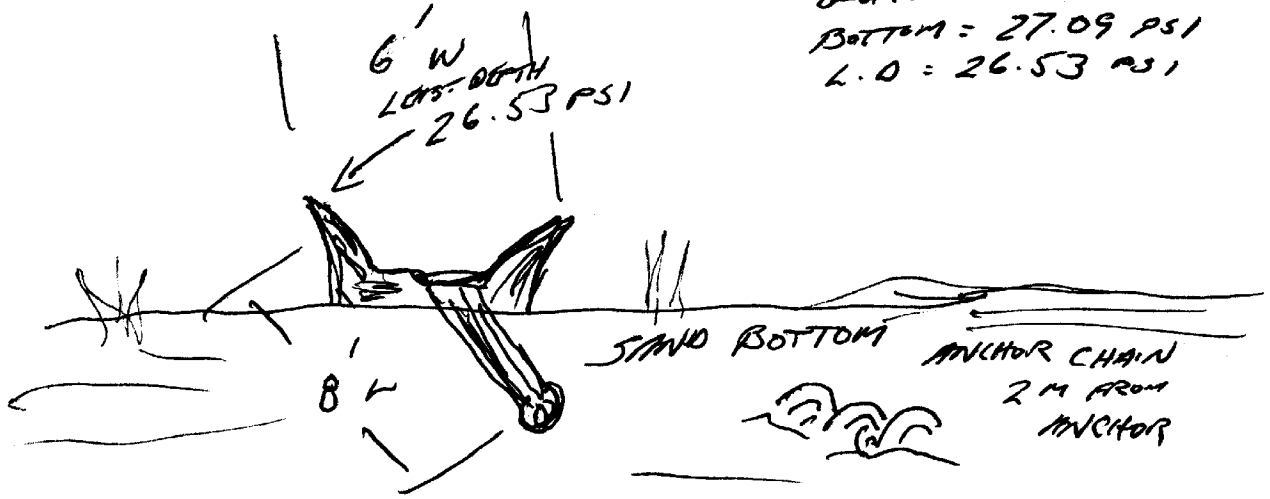
WATER VISIBILITY: 2M CONTACT HEIGHT: 0.5M DIST. FROM BUOY: 5.6M

GENERAL BOTTOM TERRAIN: SAND - FLAT

SPECIFIC FEATURE: 50GM. SHIP ANCHOR (DANFORTH) 6'W - 8'L

SKETCH:

DIVER DEPTH GAUGE
SURF. DECK PRESS = 15.00 PSI
BOTTOM = 27.09 PSI
L.O = 26.53 PSI



13

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-1
DAY-OF-THE-YEAR 129 LATITUDE 27/42/00 N
START TIME 15:27 LONGITUDE 082/32/59 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 26.53 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 7.94 decibars
COMPUTED LEAST DEPTH 8.06 meters

Time of LD Measurement (UTC): 13:50

LD Measurement (m): 8.X^{0}

Tide Corrector (m): -.4

Corrected Least Depth (m): 7.X^{6} (~~25.2'~~) (25 ft)

Comments: SUBM. SHIP ANCHOR

Recommendation: CHART SUBM. OBSTR. / ANCHOR! DO NOT CONSIDER CHART SHOALER DEPTHS IN THE IMMEDIATE VICINITY

5

#14

DIVE INVESTIGATION REPORT

DATE: 5/8/96 DN: 129 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: B. RAMSEY, P. WOLF

WEATHER OBS/SEA STATE: CLEAR/ LT. CHOP

CONTACT SOURCE: AWOIS: _____ SSS NO.: "53" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 27:28 NO. SATS: 7 EPE: 5 HDOP: 1.3

REFERENCE STATION: EGMONT KEY BEACON

Post 28

LATITUDE: 27° 42' 09.760" EASTING: 59953.9

LONGITUDE: 082° 32' 51.672" NORTHING: 26172.6

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.1M OFF BOTTOM IN 7.2 M OF WATER

INVESTIGATION METHODS USED: DLS-1

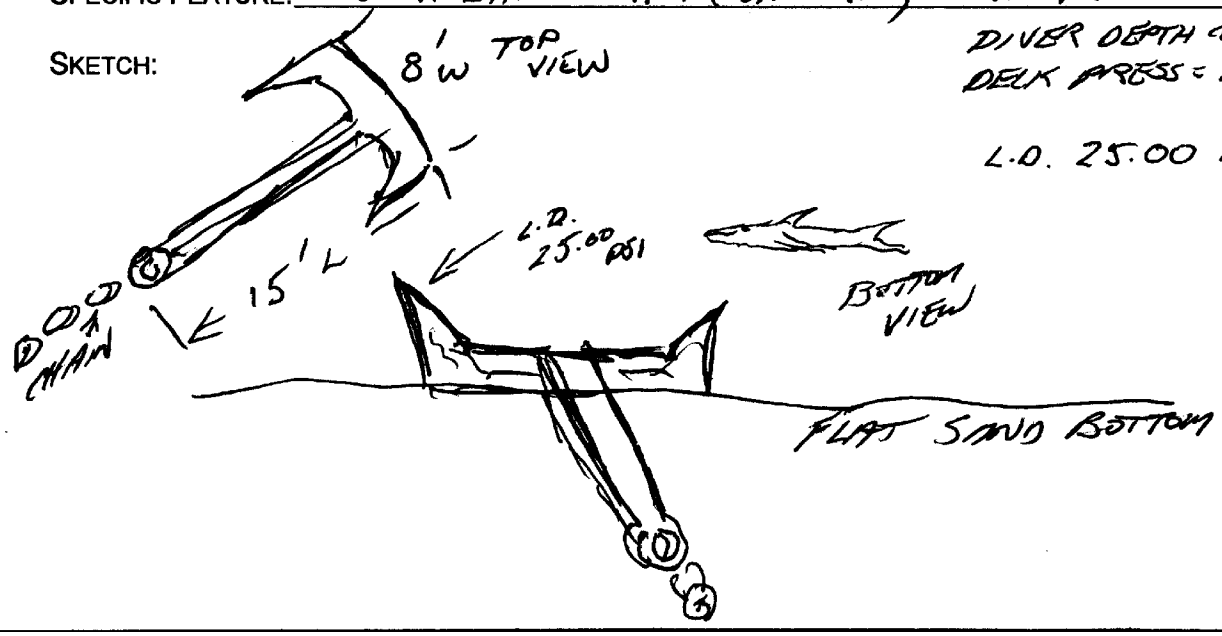
SEARCH TIME: 10 MIN SEARCH RADIUS: 25M DEPTH: 7-8 M

WATER VISIBILITY: 2M CONTACT HEIGHT: 0.8M DIST. FROM BUOY: 1.3M

GENERAL BOTTOM TERRAIN: SAND - FLAT

SPECIFIC FEATURE: SUBM. SHIP ANCHOR (DANFORTH) 8'W 15'L

SKETCH:



14

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-3
DAY-OF-THE-YEAR 129 LATITUDE 27/42/09 N
START TIME 15:27 LONGITUDE 082/32/51 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 25.00 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.88 decibars
COMPUTED LEAST DEPTH 7.00 meters

Time of LD Measurement (UTC): 14:30

LD Measurement (m): 7.0

Tide Corrector (m): -.4

Corrected Least Depth (m): 6.6 (21.7')

Comments: SUBM. SHIP ANCHOR!
8'W X 15'L

Recommendation: CHART SUBM OBSTR. / ANCHOR!
DO NOT CONCUR. CHART SHOALER DEPTHS
IN THE IMMEDIATE VICINITY

#15

DIVE INVESTIGATION REPORT

DATE: 5/8/96 DN: 129 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR/LT. CHOP WIND BK, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G5" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 29 & 30 NO. SATS: 7 EPE: 4 HDOP: 1.1

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 30

LATITUDE: 27° 42' 37.857" EASTING: 60338.4

LONGITUDE: 082° 32' 37.584" NORTHING: 77038.1

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.9M OFF BOTTOM IN 8.9M OF WATER

INVESTIGATION METHODS USED: DLS-1

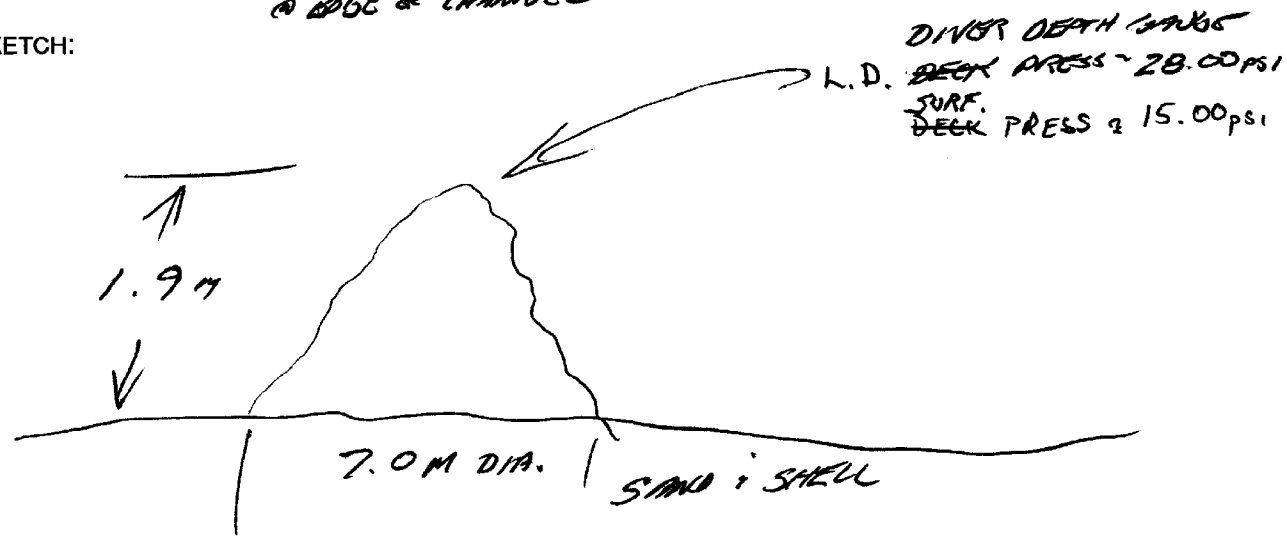
SEARCH TIME: 17 MIN SEARCH RADIUS: 25M DEPTH: 10M

WATER VISIBILITY: 2M CONTACT HEIGHT: ~~0.8M~~ 1.9M DIST. FROM BUOY: 3.6M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SHELL MOUND 7.0M DIA @ EDGE OF CHANNEL

SKETCH:



#15

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-5
DAY-OF-THE-YEAR 127 LATITUDE 27/42/37 N
START TIME 15:27 LONGITUDE 082/32/37 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 28.00 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 8.95 decibars
COMPUTED LEAST DEPTH 9.08 meters

Time of LD Measurement (UTC): 15:15

LD Measurement (m): 9.1

Tide Corrector (m): -.5

Corrected Least Depth (m): 8.6 (28.2') (28 FT)

Comments: SHELL MOUND!
7.0 M DIA.

Recommendation: CHART SUBM. OBSTR. CONCUR.
CHART A 28 OBSTN

#16

DIVE INVESTIGATION REPORT

DATE: 5/8/96 DN: 129 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: B. RAMSEY, P. WOLF

WEATHER OBS/SEA STATE: CLEAR, LT. CHOP, WIND 8K., SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "629" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 31 & 32 NO. SATS: 6 EPE: 5 HDOP: 1.3

REFERENCE STATION: EGMONT KEY BEACON

Pos.# 32

LATITUDE: 27° 43' 01.083" EASTING: 59710.5

LONGITUDE: 082° 33' 00.462" NORTHING: 27752.0

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 0.3 M OFF BOTTOM IN 7.8 M OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 20 MIN. SEARCH RADIUS: 100 M DEPTH: 8 M

WATER VISIBILITY: 2/M CONTACT HEIGHT: 0.3M DIST. FROM BUOY: 7M.

GENERAL BOTTOM TERRAIN: SAND

SPECIFIC FEATURE: 50BM. STEEL WRECK IN HOLE APPX. FOUL 35M. RAD.

SKETCH:

D.D.G.
SURFACE PRESS 15.00
L.D. = 24.01 PSI

16

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-29
DAY-OF-THE-YEAR 127 LATITUDE 27/43/01 N
START TIME 15:27 LONGITUDE 082/33/00 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 24.01 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.20 decibars
COMPUTED LEAST DEPTH 6.31 meters

Time of LD Measurement (UTC): 16:15

LD Measurement (m): 6.3

Tide Corrector (m): -.15

Corrected Least Depth (m): 5.48 (19.3')

Comments: SUBM. STEEL WRECKAGE FOUL 35M. RAD.

Recommendation: CHART SUBM. WRECK. DO NOT CONSIDER CHART SHOALER DEPTHS IN THE IMMEDIATE VICINITY

17

DIVE INVESTIGATION REPORT

DATE: 5/8/96 DN: 129 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR / CALM, WIND ≤ 5K, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G50" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 33 ! 34 NO. SATS: 6 EPE: 7 HDOP: 1.5

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 34

LATITUDE: 27° 43' 01.738" EASTING: 59740.7

LONGITUDE: 082° 32 59.539" NORTHING: 27772.2

ITEM INVESTIGATION:

DESCRIPTION: REARED 1.3M OFF BOTTOM IN 4.9M OF WATER

INVESTIGATION METHODS USED: DLS-1

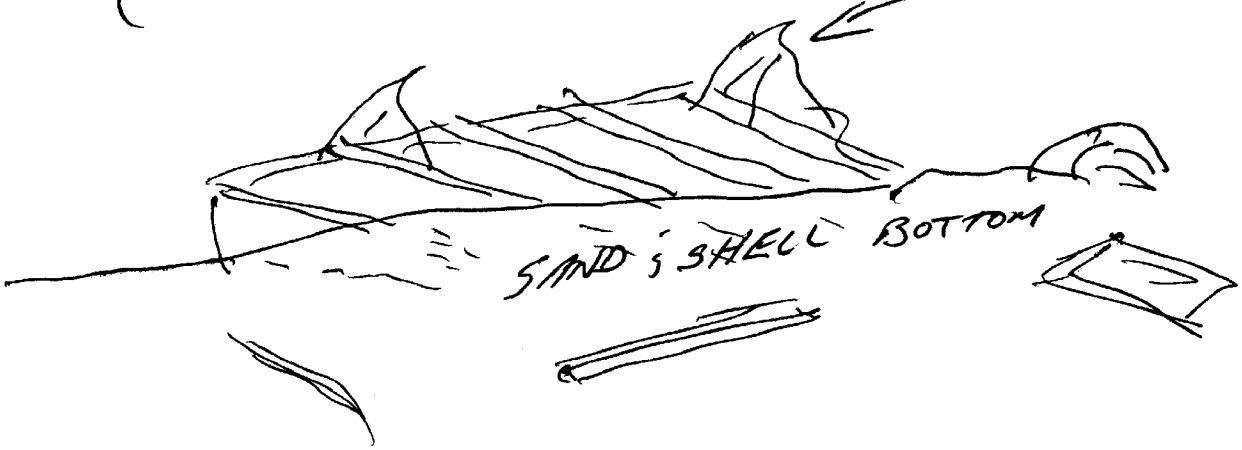
SEARCH TIME: 11 MIN SEARCH RADIUS: 100M DEPTH: 6-7M

WATER VISIBILITY: 2-3M CONTACT HEIGHT: 1.0M DIST. FROM BUOY: 5M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. STEEL BARGE & SCATTERED DEBRIS

SKETCH: AREA FOUR 40M RAD.! ("G29" POSSIBLY CONNECTED TO WHEN ORIGINALLY SUNK.)



#17

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-50
DAY-OF-THE-YEAR 127 LATITUDE 27/43/01 N
START TIME 15:27 LONGITUDE 082/32/59 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 15.00 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 24.08 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.25 decibars
COMPUTED LEAST DEPTH 6.36 meters

Time of LD Measurement (UTC): 17:00

LD Measurement (m): 6.43

Tide Corrector (m): -.5

Corrected Least Depth (m): 5.88 (19.3')

Comments: SUBM. STEEL BARGE & SCATTERED DEBRIS AREA FOUL 40 m. RADIUS.

Recommendation: CHART SUBM. WRECK DO NOT CONSIDER NOT A HAZARD. CHART SHOALER DEPTHS IN THE IMMEDIATE VICINITY

4

#18

DIVE INVESTIGATION REPORT

DATE: 5/8/96 DN: 129 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR/CALM, WIND 5K, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "97" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 35 i 36 NO. SATS: 6 EPE: 5 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

Pos.# 36 LATITUDE: 27° 43' 19.886" EASTING: 61374.0

LONGITUDE: 082° 31' 59.699" NORTHING: 28333.6

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 2.3 M OFF BOTTOM IN 6.6 M OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 20 MIN SEARCH RADIUS: 50M DEPTH: 8 M.

WATER VISIBILITY: 2 M CONTACT HEIGHT: 2.7M DIST. FROM BUOY: 5.6M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: BARNACLE ENCRUSTED MOUND/BOULDER 5M. DIA

SKETCH:

#18

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-7
DAY-OF-THE-YEAR 127 LATITUDE 27/43/19 N
START TIME 15:27 LONGITUDE 082/31/59 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.99 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 23.27 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 5.70 decibars
COMPUTED LEAST DEPTH 5.81 meters

Time of LD Measurement (UTC): 17:50

LD Measurement (m): 5.8

Tide Corrector (m): -.5

Corrected Least Depth (m): 5.3 (17.4')

Comments: SUBM. BOULDER 5M. DIA.

Recommendation: CHART SUBM. OBSTR. CONCUR
CHART A 17' RK

#19

DIVE INVESTIGATION REPORT

DATE: 5/8/96 DN: 129 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR / CALM

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G9" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 37:38 NO. SATS: 7 EPE: 6 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

Pos # 38

LATITUDE: 27° 43' 30.361" EASTING: 61525.1

LONGITUDE: 082° 31' 54.162" NORTHING: 28656.3

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 2.2M OFF BOTTOM IN 7.8M OF WATER

INVESTIGATION METHODS USED: DLS-1, DIVER CIRCLE SEARCH W/ LINE

SEARCH TIME: 20 MIN. SEARCH RADIUS: 50M DEPTH: 8M.

WATER VISIBILITY: 1M CONTACT HEIGHT: ~~2.0M~~ 1.0M DIST. FROM BUOY: 22M

GENERAL BOTTOM TERRAIN: SAND

SPECIFIC FEATURE: SHELL MOUND

SKETCH: DO NOT CHART. CHART SHOALER DEPTHS IN THE IMMEDIATE AREA

D.D.G.
DECK PRESS = 14.99
LEAST DEPTH = 6.1M
BY FATHO
on survey as 19 obstr
NO DOG

#20

DIVE INVESTIGATION REPORT

DATE: 5/9/96 DN: 130 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0579 DIVERS: D. ELLIOTT, P. WOLF

WEATHER OBS/SEA STATE: CLEAR / LT. CHOP WIND 10K, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G27" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 39'40 NO. SATS: 7 EPE: 5 HDOP: 1.2

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 43' 27.757" EASTING: 61441.1

POS. # 40

LONGITUDE: 082° 31' 57.233" NORTHING: 28576.0

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.3M OFF BOTTOM IN 6.6M OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 15 MIN SEARCH RADIUS: 50M DEPTH: 7-8M

WATER VISIBILITY: 2M. CONTACT HEIGHT: 2.6M DIST. FROM BUOY: 8.8M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. BARNACLE ENCRUSTED MOUND / BOULDER 3M. DIA.

SKETCH:

#20

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-27
DAY-OF-THE-YEAR 127 LATITUDE 27/43/27 N
START TIME 15:27 LONGITUDE 082/31/57 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.93 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 22.60 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 5.28 decibars
COMPUTED LEAST DEPTH 5.38 meters

Time of LD Measurement (UTC): 13:10

LD Measurement (m): 5.4

Tide Corrector (m): -.5

Corrected Least Depth (m): 4.9M (16.1')

Comments: SUBM. BOULDER / BARNACLE ENCRUSTED MAINT / BOULDER 3M. DIA.

Recommendation: CHART SUBM. OBSTR. DO NOT CONCUR. CHART SHOALER DEPTHS IN THE IMMEDIATE AREA

#21

DIVE INVESTIGATION REPORT

DATE: 5/9/96 DN: 130 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: B. RAMSEY, T. WOLF

WEATHER OBS/SEA STATE: CLEAR, LT. CHOP, WIND 8-10K. SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G28" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 41542 NO. SATS: 6 EPE: 6 HDOP: 1.4

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 43' 23.588" EASTING: 61406.0

Pos. # 42 LONGITUDE: 082° 31' 58.523" NORTHING: 28447.6

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 0.5 m OFF BOTTOM IN 8.0 m OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 8 MIN SEARCH RADIUS: 50M DEPTH: 8-9m

WATER VISIBILITY: 1M CONTACT HEIGHT: 0.9M DIST. FROM BUOY: 2.5M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. ROCK, 16'L x 10'W L.D. @ N. END

SKETCH:

D.D.G7
DECK PRESS: 14.95
BOTTOM = 27.53
LEAST DEPTH: 26.07

#21

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-28
DAY-OF-THE-YEAR 127 LATITUDE 27/43/23 N
START TIME 15:27 LONGITUDE 082/31/58 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.95 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 26.07 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 7.66 decibars
COMPUTED LEAST DEPTH 7.78 meters

Time of LD Measurement (UTC): 13:49

LD Measurement (m): 7.8

Tide Corrector (m): -.5

Corrected Least Depth (m): 7.3 (~~23.9'~~) (24 FT)

Comments: SUBM. ROCK
16'L X 10'W

Recommendation: CHART SUBM. OBSTR.
DO NOT COVER. CHART SHOALER DEPTHS
IN THE IMMEDIATE VICINITY

#22

DIVE INVESTIGATION REPORT

DATE: 5/9/96 DN: 130 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: P. WOLF, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR, LT. CHOP, WIND 8-10K, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G48" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 43 ; 44 NO. SATS: 8 EPE: 4 HDOP: 0.9

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 43' 21.195" EASTING: 61206.8

Pos. # 44

LONGITUDE: 082° 32' 05.800" NORTHING: 28373.6

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.3M OFF BOTTOM IN 7.1M OF WATER

INVESTIGATION METHODS USED: DLS-1

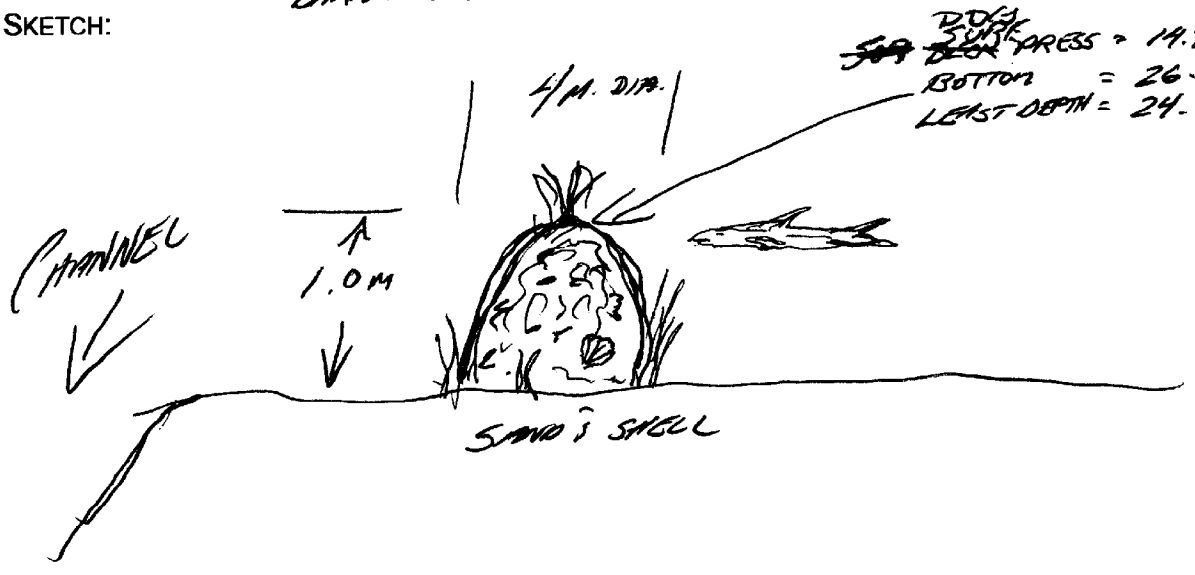
SEARCH TIME: 10 MIN SEARCH RADIUS: 50M. DEPTH: 8M.

WATER VISIBILITY: 1-2M CONTACT HEIGHT: 1.0M DIST. FROM BUOY: 32.6M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: LARGE SUBM. ROCK 4M. DIA. BARNACLE ENCRUSTED

SKETCH:



LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-48
DAY-OF-THE-YEAR 127 LATITUDE 27/43/21 N
START TIME 15:27 LONGITUDE 082/32/05 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.94 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 24.61 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.66 decibars
COMPUTED LEAST DEPTH 6.77 meters

Time of LD Measurement (UTC): 14:25

LD Measurement (m): 6. ~~8~~ 7

Tide Corrector (m): - . ~~4~~ 5

Corrected Least Depth (m): 6. ~~4~~ 2 (~~21.1~~ 20.3') (20 FT)

Comments: SUBM. ROCK 4 M. DIA.

Recommendation: CHART SUBM. OBSTR. / ROCK
CONCUR. CHART A 20 Rk

23

DIVE INVESTIGATION REPORT

DATE: 5/9/96 DN: 130 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS:

WEATHER OBS/SEA STATE: CLEAR, LT. CHOP, WIND 8-10K, SG

CONTACT SOURCE: AWOIS: SSS NO.: "G346" TEST:

POSITIONING INFORMATION:

POSITION NO.: 45 & 46 NO. SATS: 7 EPE: 4 HDOP: 1.0

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 46

LATITUDE: 27° 43' 25.233" EASTING: 61270.8

LONGITUDE: 082° 32' 03.456" NORTHING: 28498.0

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.0M OFF BOTTOM IN 7.1M OF WATER

INVESTIGATION METHODS USED: DLS-1

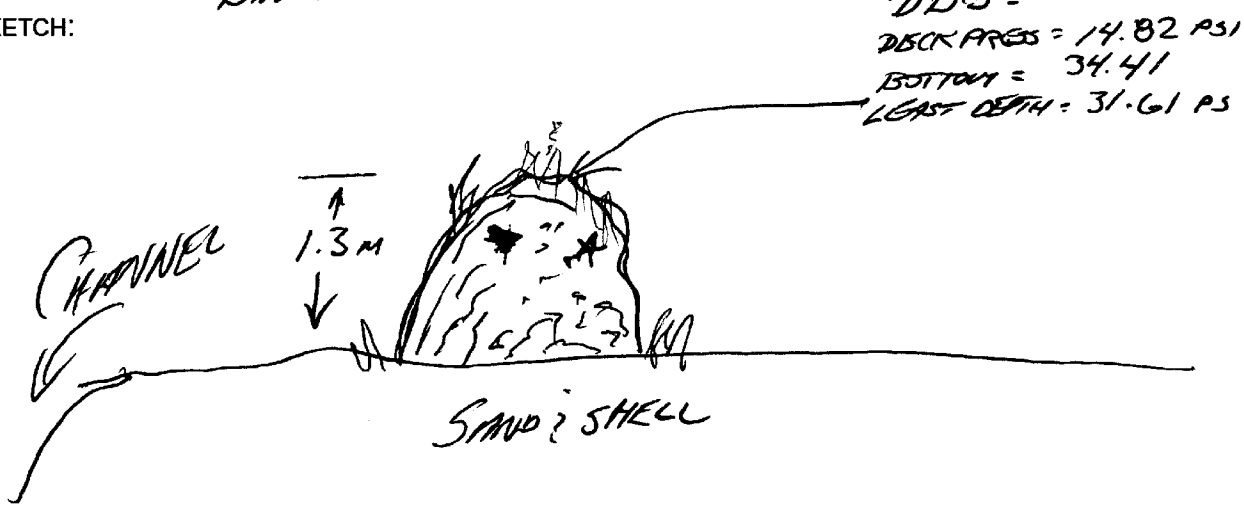
SEARCH TIME: 20 MIN SEARCH RADIUS: 50M DEPTH: 14-15M (45')

WATER VISIBILITY: 1M CONTACT HEIGHT: 1.3M DIST. FROM BUOY: 10M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: LARGE SUBM. ROCK, 5M. DIA BARNACLE ENCRUSTED

SKETCH:



#23

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-46
DAY-OF-THE-YEAR 127 LATITUDE 27/43/25 N
START TIME 15:27 LONGITUDE 082/32/03 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.82 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 31.61 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 11.57 decibars
COMPUTED LEAST DEPTH 11.71 meters

Time of LD Measurement (UTC): 15:03

LD Measurement (m): 11.7

Tide Corrector (m): ~~- .X5~~ 6.7

Corrected Least Depth (m): ~~11.52 (37.8')~~

Comments: SUBM. ROCK, 5M. DIA.

Recommendation: CHART SUBM. OBSTR./ROCK
DO NOT CONSID. CHART SHOALER
DEPTHS IN THE IMMEDIATE VICINITY

#24

DIVE INVESTIGATION REPORT

DATE: 5/9/96 DN: 130 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: D. ELLIOTT, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR, LT. CHOP WIND 5-6K, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G26" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 47148 NO. SATS: 7 EPE: 5 HDOP: 1.7

REFERENCE STATION: EGMONT KEY BEACON

Pos # 47 48

LATITUDE: 27° 43' 27.831" EASTING: 61350.5

LONGITUDE: 082° 32' 00.541" NORTHING: 28578.1

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 2.4 OFF BOTTOM IN 7.8 OF WATER IN JUNCT. W/ "G26A"

INVESTIGATION METHODS USED: DLS-1

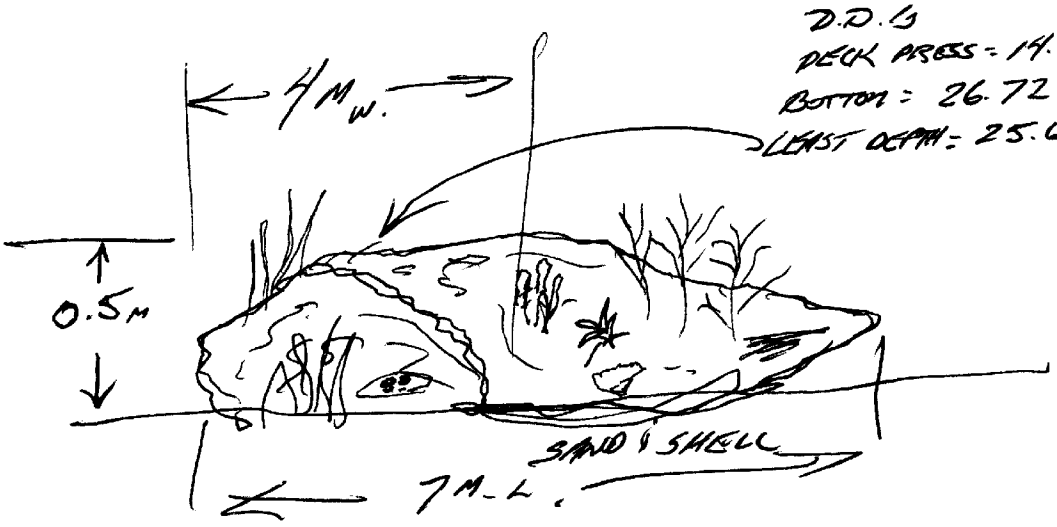
SEARCH TIME: 9 MIN SEARCH RADIUS: 50M DEPTH: 8-9M.

WATER VISIBILITY: 1-2M CONTACT HEIGHT: 0.5M DIST. FROM BUOY: 10M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. ROCK SLAB (IRREGULAR SHAPED) 7M. L X 4M. W

SKETCH:



#24

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-26
DAY-OF-THE-YEAR 127 LATITUDE 27/43/27 N
START TIME 15:27 LONGITUDE 082/32/00 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.85 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 25.63 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 7.42 decibars
COMPUTED LEAST DEPTH 7.54 meters

Time of LD Measurement (UTC): 15:59

LD Measurement (m): 7.5

Tide Corrector (m): -.15

Corrected Least Depth (m): 7.40 (23.3')

Comments: SUBM. ROCK SLAB
7M L.X 4M W.

Recommendation: CHART SUBM. OBSTR./ROCK
DO NOT CONCUR. CHART SHOALER DEPTHS
IN THE IMMEDIATE VICINITY

#25

DIVE INVESTIGATION REPORT

DATE: 5 / 9 / 96 DN: 130 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: P. WOLF, D. ELLIOTT

WEATHER OBS/SEA STATE: CLEAR / CALM WIND 5 K, SE

CONTACT SOURCE: AWOIS: ______ SSS NO.: "G26A" TEST: ______

POSITIONING INFORMATION:

POSITION NO.: 49 & 50 NO. SATS: 6 EPE: 7 HDOP: 1.3

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 50 LATITUDE: 27° 43' 27.753" EASTING: 61349.9

LONGITUDE: 082° 32' 00.563" NORTHING: 28575.7

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.0m OFF BOTTOM IN 8.8m. OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 7 MIN SEARCH RADIUS: 50 M DEPTH: 7-8M (25')

WATER VISIBILITY: 2 M CONTACT HEIGHT: 0.5M DIST. FROM BUOY: 5.7m

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. ROCK SLAB (IRREGULAR SHAPED) 5m L x 3m. W

SKETCH:

D.D.G
SURF. PRESS = 14.90
BOTTOM = 27.05
LEAST DEPTH = 25.60

item

#25

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-26a
DAY-OF-THE-YEAR 127 LATITUDE 27/43/27 N
START TIME 15:27 LONGITUDE 082/32/00 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.90 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 25.60 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 7.37 decibars
COMPUTED LEAST DEPTH 7.49 meters

Time of LD Measurement (UTC): 17:00

LD Measurement (m): 7.5

Tide Corrector (m): -.15

Corrected Least Depth (m): 7.35 (23.5')

Comments: SUBM. ROCK SLAB
5M. L X 3M. W

Recommendation: CHART SUBM. OBSTR./ROCK
DO NOT CONCUR; CHART SHOALER
DEPTHS IN THE IMMEDIATE VICINITY

26

DIVE INVESTIGATION REPORT

DATE: 5/9/96 DN: 130 PROJECT/SHEET: OAR-J343, H-10623

VESSEL NO.: 0519 DIVERS: P. WOLF, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR / CALM WIND 3K. SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G49" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 51/52 NO. SATS: 6 EPE: 5 HDOP: 1.5

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 52

LATITUDE: 27° 43' 28.815" EASTING: 6119.9

LONGITUDE: 082° 32' 08.958" NORTHING: 28608.0

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.9M OFF BOTTOM IN 8.3 M. OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 9 MIN SEARCH RADIUS: 50M DEPTH: 8-9M

WATER VISIBILITY: 2M CONTACT HEIGHT: 0.5M DIST. FROM BUOY: 15M.

GENERAL BOTTOM TERRAIN: SAND

SPECIFIC FEATURE: SUBM. ROCK 2M. W x 4M. L

SKETCH:

D.D.O.
SURF. PRESS = 14.90
BOTTOM = 36.61
LEAST DEPTH = 35.93

#26

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-49
DAY-OF-THE-YEAR 127 LATITUDE 27/43/28 N
START TIME 15:27 LONGITUDE 082/32/09 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.90 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 35.93 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 14.50 decibars
COMPUTED LEAST DEPTH 14.65 meters

Time of LD Measurement (UTC): 17:45

LD Measurement (m): 14.76

Tide Corrector (m): -.15

Corrected Least Depth (m): 14.61 (46.3')

Comments: SUBM. ROCK
2M. W X 4M. L

Recommendation: CHART SUBM. OBSTR. / ROCK
DO NOT CONSIDER CHART SOUNDED DEPTHS
IN THE IMMEDIATE AREA

27

DIVE INVESTIGATION REPORT

DATE: 5/10/96 DN: 131 PROJECT/SHEET: OPR-J343, H-10623

VESSEL NO.: 0519 DIVERS: B. RAMSEY, P. WOLF, D. ELLIOTT

WEATHER OBS/SEA STATE: CLEAR / LT. CHOP, WIND 8-10K. SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "320" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 53;54 NO. SATS: 8 EPE: 6 HDOP: 1.0

REFERENCE STATION: EGMONT KEY BEACON

Pos. # 54

LATITUDE: 27° 44' 32.470" EASTING: 61463.4

LONGITUDE: 082° 31' 56.291" NORTHING: 30568.0

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 5.0M OFF BOTTOM IN 10.2M OF WATER

INVESTIGATION METHODS USED: DLS-1

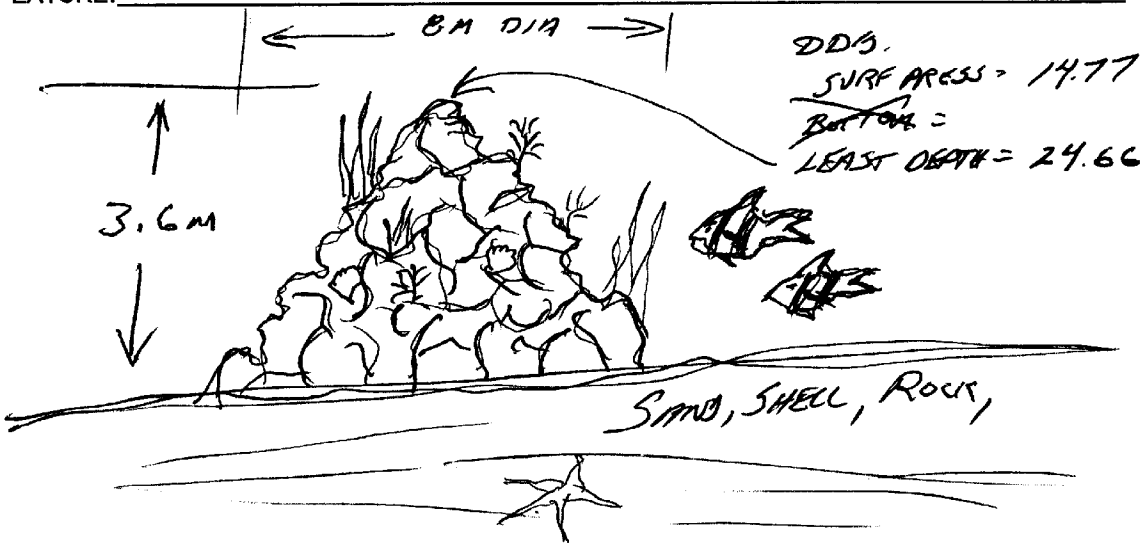
SEARCH TIME: 25 MIN SEARCH RADIUS: 50M DEPTH: 8-10M.

WATER VISIBILITY: 2/M CONTACT HEIGHT: 3.6M DIST. FROM BUOY: 13M

GENERAL BOTTOM TERRAIN: SAND & SHELL & ROCK

SPECIFIC FEATURE: SUBM. ROCK PILE 8M. DIA.

SKETCH:



#27

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-20
DAY-OF-THE-YEAR 127 LATITUDE 27/44/32 N
START TIME 15:27 LONGITUDE 082/31/56 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.77 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 24.66 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 6.81 decibars
COMPUTED LEAST DEPTH 6.92 meters

Time of LD Measurement (UTC): 13:42

LD Measurement (m): 6.9

Tide Corrector (m): -.5

Corrected Least Depth (m): 6.4 (20.9') (21 FT)

Comments: SUBM. ROCK PILE 8M. DIA.

Recommendation: CHART SUBM. OBSTR. / ROCK
DO NOT CONCUR. CHART SHOALER
DEPTHS IN THE IMMEDIATE VICINITY

#28

DIVE INVESTIGATION REPORT

DATE: 5/10/96 DN: 131 PROJECT/SHEET: OPR-J343-H-10623

VESSEL NO.: 0519 DIVERS: B. RAMSEY, P. WOLF

WEATHER OBS/SEA STATE: CLEAR, LT. CHOP, WIND 7-8K SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: J3015.27 " TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 55:56 NO. SATS: 7 EPE: 4 HDOP: 1.3

REFERENCE STATION: EGMONT KEY BEACON

LATITUDE: 27° 44' 29.931" EASTING: 61490.0

Pos. # 56 LONGITUDE: 082° 31' 55.325" NORTHING: 30489.9

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 1.2 M OFF BOTTOM IN 8.6 M OF WATER

INVESTIGATION METHODS USED: DLS-1

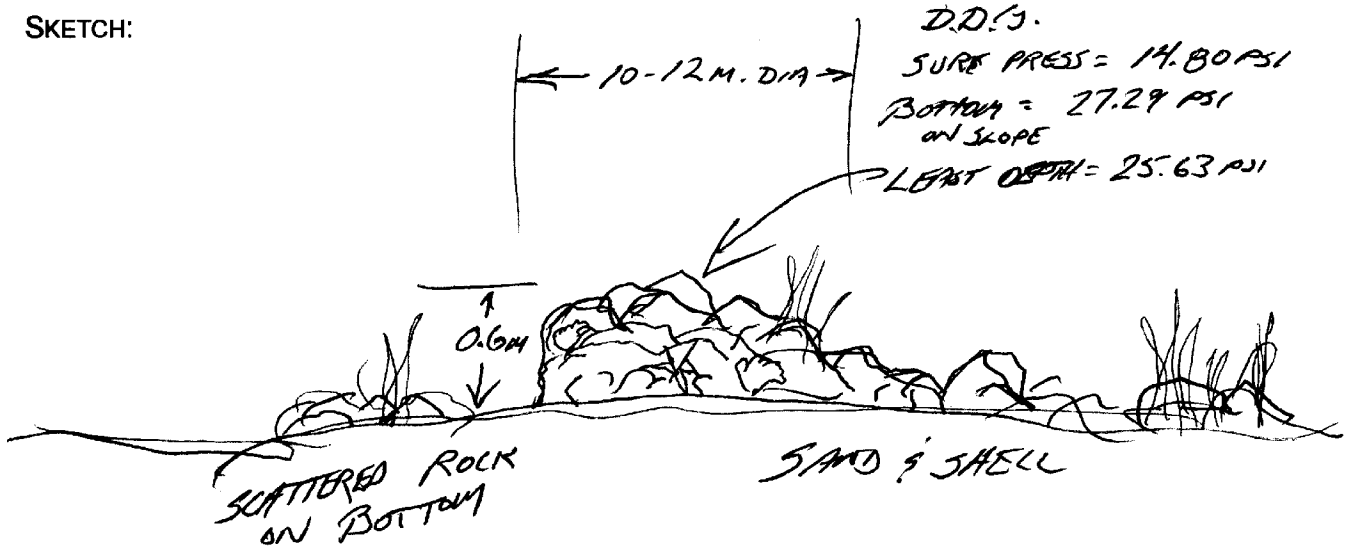
SEARCH TIME: 10 MIN. SEARCH RADIUS: 50M DEPTH: 8-9M

WATER VISIBILITY: <1M CONTACT HEIGHT: 0.6M DIST. FROM BUOY: 9M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: SUBM. ROCK PILE 10-12 M. DIA.

SKETCH:



#28

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: 3015.27
DAY-OF-THE-YEAR 127 LATITUDE 27/44/29 N
START TIME 15:27 LONGITUDE 082/31/55 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.80 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 25.63 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 7.46 decibars
COMPUTED LEAST DEPTH 7.58 meters

Time of LD Measurement (UTC): 14:20

LD Measurement (m): 7.6

Tide Corrector (m): -.5

Corrected Least Depth (m): 7.1 (23.3')

Comments: SUBM. ROCK PILE 10-12M. DIA.

Recommendation: CHART SUBM. OBSTR./ROCK
DO NOT CONCUR. CHART SHOALER DEPTHS
IN THE IMMEDIATE VICINITY.

#29

DIVE INVESTIGATION REPORT

DATE: 5/10/96 DN: 131 PROJECT/SHEET: OPR-J343-H-10623

VESSEL NO.: 0519 DIVERS: P. WOLF, B. RAMSEY

WEATHER OBS/SEA STATE: CLEAR, LT. CHOP, WIND 7-8K, SE

CONTACT SOURCE: AWOIS: _____ SSS NO.: "G24" TEST: _____

POSITIONING INFORMATION:

POSITION NO.: 57:58 NO. SATS: 8 EPE: _____ HDOP: 0.9

REFERENCE STATION: EGMONT KEY BEACON

Pos.# 58 LATITUDE: 27° 44' 08.293" EASTING: 61404.4

LONGITUDE: 082° 31' 58.493" NORTHING: 29823.7

ITEM INVESTIGATION:

DESCRIPTION: REPORTED 0.4M OFF BOTTOM IN 7.7M OF WATER

INVESTIGATION METHODS USED: DLS-1

SEARCH TIME: 15 MIN. SEARCH RADIUS: 50M. DEPTH: 8M

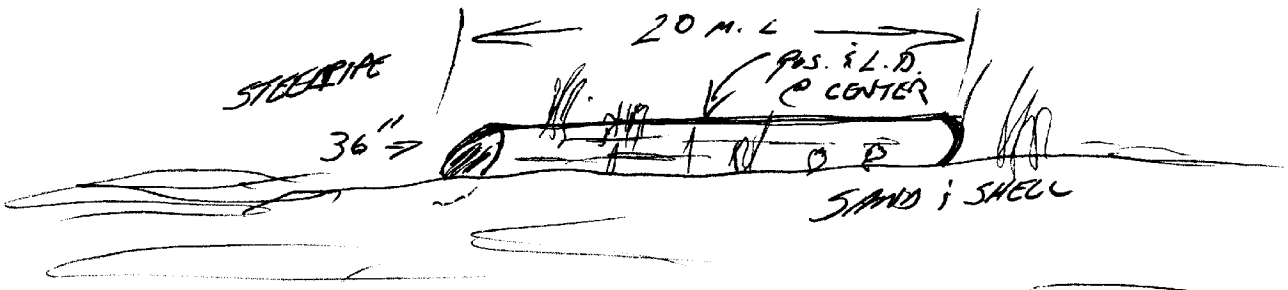
WATER VISIBILITY: 1M CONTACT HEIGHT: _____ DIST. FROM BUOY: 3M

GENERAL BOTTOM TERRAIN: SAND & SHELL

SPECIFIC FEATURE: 36" DIA. STEEL PIPE, 20M. L. AXIS SE-NW

SKETCH:

R.D.V.D.
SURF = 14.81 MSL
BOTTOM = 26.59 "
LEAST DEPTH = 25.74
@ CENTER.



#29

LEAST DEPTH USING SMLGAUGE PROGRAM, VERSION 2.3

NOAA UNIT: HYDRO FIELD PARTY 2 YEAR 1996
AWOIS NUMBER: none CONTACT NUMBER: g-24
DAY-OF-THE-YEAR 127 LATITUDE 27/44/08 N
START TIME 15:27 LONGITUDE 082/31/58 W

CAST MEASUREMENT INSTRUMENT SEACAT S/N:1477 CD: 12/22/9
LEAST DEPTH DIVER GAUGE, SERIAL NUMBER 68338

DIVER'S PREDIVE GAUGE PRESSURE 14.81 psia
DIVER'S GAUGE PRESSURE AT DESIGNATED LEAST DEPTH 25.74 psia

COMPUTED PRESSURE AT DESIGNATED LEAST DEPTH 7.53 decibars
COMPUTED LEAST DEPTH 7.65 meters

Time of LD Measurement (UTC): 14:55

LD Measurement (m): 7.7

Tide Corrector (m): -.5

Corrected Least Depth (m): 7.2 (23.6')

Comments: 36" DIA. STEEL PIPE
20m. L AXIS SE-NW

Recommendation: NONE! CONCUR) CHART SHOALER DEPTHS IN THE IMMEDIATE VICINITY)

APPENDIX III
List of Horizontal Control Stations

1. List of Horizontal Control Stations.

2. Copy of *MONITOR* program output plot and statistics.

Horizontal Control Stations

Station 000 - United States Coast Guard, Egmont Key, Florida Differential Beacon

Lat: 27° 36' 01.488" N
Long: 082° 45' 37.170" W
Transmission Rate: 200 bps
Transmission Frequency: 310 KHz
Source: USCG DGPS Radio beacon Prototype Status & Operating Specifications

Station 001 - TAMPA PILOTS, Egmont Key, Florida (NOAA-HF System)

Lat: 27° 35' 06.214" N
Long: 082° 45' 40.512" W
Transmission Rate: 100 bps
Transmission Frequency: 2774.50 KHz
Antenna Elevation: 14.0 meters
Source: NGS, established in 1981 and position confirmed by MT. MITCHELL in 1995

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: July 26, 1996

HYDROGRAPHIC BRANCH: Atlantic

HYDROGRAPHIC PROJECT: OPR-J343

HYDROGRAPHIC SHEET: H-10623

LOCALITY: Tampa Bay, Florida

TIME PERIOD: May 6 - 10, 1996

TIDE STATION USED: 872-6520 St. Petersburg, Fl.
Lat. 27° 45.6'N Lon. 82° 37.6'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.17 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.0 ft.

REMARKS: RECOMMENDED ZONING

1. Southwest of a line from Mermaid Point to Mangrove Point, times and heights are direct using St. Petersburg, Fl. (872-6520).

2. Northeast of a line from Mermaid Point to Mangrove Point, apply a +10 minute correction to times and a X1.05 range ratio to heights using St. Petersburg, Fl. (872-6520).

Notes: Times are tabulated on Greenwich Mean Time.
Data for St. Petersburg, Fl. (872-6520) are stored in temporary file #672-6520.

William M. Hobson

CHIEF, DATUMS SECTION

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of Ocean and Earth Sciences
Silver Spring, Maryland 20910

TIDE NOTE FOR HYDROGRAPHIC SURVEY

DATE: February 9, 1996

MARINE CENTER: Atlantic

HYDROGRAPHIC PROJECT: OPR-J343

HYDROGRAPHIC SHEET: H-10623

LOCALITY: Tampa Bay, Florida

TIME PERIOD: June 26 - August 25, 1995

TIDE STATION USED: 872-6520 St. Petersburg, Fl.
Lat. 27° 45.6'N Lon. 82° 37.6'W

PLANE OF REFERENCE (MEAN LOWER LOW WATER): 3.17 ft.

HEIGHT OF HIGH WATER ABOVE PLANE OF REFERENCE: 2.0 ft.

REMARKS: RECOMMENDED ZONING

1. Southwest of a line from Mermaid point to Mangrove Point, times and heights are direct using St. Petersburg, Fl. (872-6520).

2. Northeast of a line from Mermaid Point to Mangrove Point, apply a +10 minute correction to times and a X1.05 range ratio to heights using St. Petersburg, Fl. (872-6520).

Notes: Times are tabulated on Greenwich Mean Time.
Data for St. Petersburg, Fl. (872-6520) are stored in temporary file #672-6520.

Wilbur M. Hobson

CHIEF, DATUMS SECTION

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER
H-10623

Name on Survey	A ON CHART NO. 11413, 11414, 11412	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	K U.S. LIGHT LIST	
FLORIDA (title)	X		X							1
INTERBAY PENINSULA	X		X							2
(title)										3
TAMPA BAY	X		X							4
TAMPA BAY CHANNEL	X		X							5
TAMPA BAY CUT D CHANNEL	X									6
TAMPA BAY CUT E CHANNEL	X									7
TAMPA BAY CUT F CHANNEL	X									8
TAMPA BAY CUT G CHANNEL	X									9
TAMPA BAY GADSDEN										10
POINT CUT CHANNEL	X									11
										12
										13
										14
										15
										16
										17
										18
					Approved:					19
										20
					Chief Geographer					21
										22
					APR 29 1996					23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 61-29
(12-71)

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

LETTER TRANSMITTING DATA

REFERENCE NO.

N/CS33-113-96

DATA AS LISTED BELOW WERE FORWARDED TO YOU BY *(Check)*:

☐ ORDINARY MAIL ☐ AIR MAIL

☐ REGISTERED MAIL ☒ EXPRESS

☐ GBL *(Give number)* _____

TO:

NOAA/National Ocean Service
Chief, Data Control Group, N/CS3x1
SSMC3, Station 6815
1315 East-West Highway
Silver Spring, MD 20910-3282

DATE FORWARDED

Octaober 23, 1996

NUMBER OF PACKAGES

1 Box, 1 Tube

NOTE: A separate transmittal letter is to be used for each type of data, as tidal data, seismology, geomagnetism, etc. State the number of packages and include an executed copy of the transmittal letter in each package. In addition the original and one copy of the letter should be sent under separate cover. The copy will be returned as a receipt. This form should not be used for correspondence or transmitting accounting documents.

H-10623

Florida, Tampa Bay, 5 NM South of Interbay Penninsula

1 Box Containing:

1 Original Descriptive Report for H-10623
1 Envelope with HISTORY OF CARTOGRAPHIC WORK (NOAA form 76-71) for H-10623 for charts 11413 and 11414

1 Tube Containing:

1 Original Smooth Sheet for H-10623
1 Paper Composite plots of Survey H-10623 for NOS chart 11413
1 Paper Composite plots of Survey H-10623 for NOS chart 11414
1 Mylar H-DRAWING of H-10623 for NOS chart 11413
1 Mylar H-DRAWING of H-10623 for NOS chart 11414

FROM: *(Signature)* R. H. Whitfield

Richard H. Whitfield

RECEIVED THE ABOVE
(Name, Division, Date)

Return receipted copy to:

Atlantic Hydrographic Branch N/CS331
439 W. York Street
Norfolk, VA 23510-1114

☆U.S.GPO:1983-0-664-006/1192

10/22/96

HYDROGRAPHIC SURVEY STATISTICS
REGISTRY NUMBER: H-10623

NUMBER OF CONTROL STATIONS	2
NUMBER OF POSITIONS	5739
NUMBER OF SOUNDINGS	30876

	TIME-HOURS	DATE COMPLETED
PREPROCESSING EXAMINATION	3	03/15/96
VERIFICATION OF FIELD DATA	229.50	08/14/96
QUALITY CONTROL CHECKS	0	
EVALUATION AND ANALYSIS	54	
FINAL INSPECTION	45	08/20/96
COMPILATION	153	10/22/96
TOTAL TIME	484	

ATLANTIC HYDROGRAPHIC BRANCH APPROVAL 08/30/96

ATLANTIC HYDROGRAPHIC BRANCH
EVALUATION REPORT FOR H-10623 (1995-96)

This Evaluation Report has been written to supplement and/or clarify the original Descriptive Report. Sections in this report refer to the corresponding sections of the Descriptive Report.

D. AUTOMATED DATA ACQUISITION AND PROCESSING

The following software was used to process data at the Atlantic Hydrographic Branch:

Hydrographic Processing System (HPS)
AUTOCAD, Release 12
QUICKSURF, version 5.1
MicroStation, version 5.0
NADCON, version 2.10
I/RAS B, version 5.01

The smooth sheet was plotted using an ENCAD NovaJet III plotter.

H. CONTROL

Horizontal control used for this survey during data acquisition is based upon the North American Datum of 1983 (NAD 83). The smooth sheet has been annotated with ticks showing the computed mean shift between the NAD 83 and the North American Datum of 1927 (NAD 27).

To place this survey on the NAD 27, move the projection lines 1.103 seconds (33.96 meters or 3.40 mm at the scale of the survey) north in latitude, and 0.655 seconds (17.95 meters or 1.79 mm at the scale of the survey) east in longitude.

L. JUNCTIONS

H-10606 (1995) to the southwest
H-10685 (1996) to the northwest

A standard junction could not be effected with surveys H-10606 (1995) and H-10685 (1996). Survey H-10606 has not reached the sounding stage of office processing and survey H-10685 was in the field during processing of the present survey. In these cases the note "ADJOINS" has been shown on the present survey smooth sheet. Any adjustments to the depth curves in the junctional areas will have to be made on the chart during compilation.

An unregistered survey to the northeast is in the field and adjustments to the depth curves in the junctional areas will have to be made on the chart during compilation.

There are no contemporary surveys to the north, and south of the present survey. Present survey depths are in harmony with the charted hydrography to the north and south.

M. COMPARISON WITH PRIOR SURVEYS

An adequate comparison was made with prior surveys H-8411 (1957-58) and H-8429 (1958) in section M., pages 12-13, of the Descriptive Report. A comparison with prior surveys was not done during office processing in accordance with section 4. of the memorandum titled *Changes to Hydrographic Survey Processing*, dated May 24, 1995.

N. ITEM INVESTIGATIONS

Additional work from the 1995 field season was assigned to the Atlantic Hydrographic Party (AHP). This consisted of unresolved side scan sonar contacts listed in the Descriptive Report on pages 21 and 22. Dive Investigations for the 1996 work for these items are appended to the Descriptive Report.

O. COMPARISON WITH CHARTS 11412 (36th Edition, June 04/94) 11413 (40th Edition, Jan. 01/94) 11414 (35th Edition, Feb. 26/94)

Hydrography

The charted hydrography originates with the previously discussed prior surveys and needs no further discussion. The hydrographer makes an adequate chart comparison with Charts 11413 and 11414 in section O.3 of the Descriptive Report. A comparison of the survey with Chart 11412 yielded good agreement. The following should be noted:

1. Six charted Spoil Areas in the vicinities of Latitude 27°43'30"N, Longitude 82°31'45"W, Latitude 27°44'45"N, Longitude 82°32'10"W, Latitude 27°46'15"N, Longitude 82°31'45"W, Latitude 27°46'54"N, Longitude 82°32'45"W, Latitude 27°48'00"N, Longitude 82°30'00"W, and Latitude 27°48'50"N, Longitude 82°30'50"W were developed by the field unit. It is recommended that the charted limits and the notations Spoil Area be retained. It is also recommended that the blue tint be deleted within the limits of the spoil areas and depths from the present survey be charted as shown on the present survey.

2. The charted Spoil Area in the vicinity of Latitude 27°42'50"N, Longitude 82°33'00"W has not been fully developed by the present survey. A charting recommendation for the spoil area will be made in the Evaluation Report for H-10606

(1995) upon completion of that survey.

3. The charted Spoil Area, in the vicinity of Latitude 27°47'40"N, Longitude 82°28'30"W, has not been fully developed by the present survey. A charting recommendation for the spoil area will be made in the Evaluation Report for the presently unregistered survey upon completion of that survey.

4. A charted visible Pile, in Latitude 27°47'57"N, Longitude 82°32'36"W, is considered disproved by the present survey. It is recommended that the pile be deleted from the chart.

5. A charted Pipe, in Latitude 27°47'02"N, Longitude 82°29'30"W, is considered disproved by 200% side scan sonar. It is recommended that the Pipe be deleted from the chart.

6. The charted Daymarker, R "6", in Latitude 27°48'36"N, Longitude 82°31'48"W was not located by the field unit. The daymarker was noted in the field records. No change in charting is recommended.

7. The following charted fixed aids to navigation were located by the field unit.

Aid to Navigation	Latitude N	Longitude W
Cut E Channel Lower Range Front Light	27°42'45.352"	82°32'20.585"
Cut E Channel Lower Range Rear Light	27°42'12.526"	82°32'32.569"

These aids to navigation are presently charted as Position Approximate (PA). It is recommended that the notations PA be removed from the chart.

8. A charted sunken wreck PA, in Latitude 27°47'00.0"N, Longitude 82°30'00.0"W, originates with Local Notice to Mariners 15/95 and is shown on the 42nd Edition of chart 11413. The notice is dated April 11, 1995 and is prior to the hydrographer conducting hydrography in the area. The present survey shows no indication of a wreck in the immediate area. It is recommended that the sunken wreck PA be deleted from the chart.

9. A charted 33-ft sounding in Latitude 27°46'38.0"N, ← WRONG GP (FOR SECTION E)
Longitude 82°31'25.5"W, originates with an unknown source subsequent to the present survey. It is recommended that the

33-ft sounding be retained as charted.

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

P. ADEQUACY OF SURVEY

This is an adequate hydrographic/side scan sonar survey. No additional work is recommended.

S. MISCELLANEOUS

Chart compilation using the present survey was done by Atlantic Hydrographic Branch personnel in Norfolk, Virginia. Compilation data will be forwarded to Marine Chart Division, Silver Spring, Maryland.

MT MITCHELL Processing Team

Marilyn Schlüter

Marilyn L.Schlüter
Cartographic Technician
Verification and Evaluation and Analysis

APPROVAL SHEET
H-10623

Initial Approvals:

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 digital data for this survey. The survey records and digital data comply with NOS requirements except where noted in the Evaluation Report.

Richard H. Whitfield Date: August 30, 1996
Richard H. Whitfield
Cartographer
Atlantic Hydrographic Branch

I have reviewed the smooth sheet, accompanying data, and reports. This survey and accompanying digital data meet or exceed NOS requirements and standards for products in support of nautical charting except where noted in the Evaluation Report.

Nicholas E. Perugini Date: August 30, 1996
Nicholas E. Perugini, CDR, NOAA
Chief, Atlantic Hydrographic Branch

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Final Approval:

Approved: Andrew A. Armstrong, III Date: Mar 17, 1997
Andrew A. Armstrong, III
Captain, NOAA
Chief, Hydrographic Surveys Division

NOAA FORM 75-96
(10-83)

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

MARINE CHART BRANCH

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10623

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
11413	9/17/96	R. H. Whitfield	Full Part Before After Marine Center Approval Signed Via
			Drawing No.
11414	8/24/96	R. H. Whitfield	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No.
11417	5/29/97	Louis Angeles	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No.
11412	7/29/97	Charles James	Full ~~Part Be~~fore 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
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			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.