10120

Diagram No. 1251-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey ..... Navigable Area Hydrographic

Field No. HFP-5-2-83

Office No. H-10120

LOCALITY

State ..... Florida

General Locality ..... Calda Channel

Locality ..... Key West

19 83-84

CHIEF OF PARTY
LCDR R.W. Jones

LIBRARY & ARCHIVES

DATE ..... April 15, 1986

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

NOAA FORM 77-28 (11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-10120

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

HFP 05-2-83

State Florida

General locality Calda Channel

Locality Key West

Scale 1:5,000 Date of survey Nov. 11, 1983 - Apr. 6, 1984 ~~Oct. 30 - Nov. 27, 1984~~

Instructions dated Nov. 7, 1983 Project No. OPR-H373-HFP-83

Vessel Hydrographic Field Party 2

Chief of party LCDR R.W. Jones

Surveyed by LT J.W. Humphrey, OIC, J.M. Robinett, J.M. McMann, T.A. Taylor, T.R. Owens

Soundings taken by echo sounder, hand lead, pole all

Graphic record scaled by JWH, JMR, MJM, TAT, TRO

Graphic record checked by JWH, JMR

Verification by R.N. Mihailov Automated plot by PMC Xynetics Plotter

Evaluation by A.A. Luceno

Soundings in ~~fathoms~~ feet at ~~MLW~~ MLLW

REMARKS: Marginal notes in black by evaluator. Separates are filed with the hydrographic data.

This report contains information pertinent to H-10187. These references have been lined-out but are properly shown in the H-10187 Descriptive Report.

STANDARDS CK'D 4-17-86
C. Loy

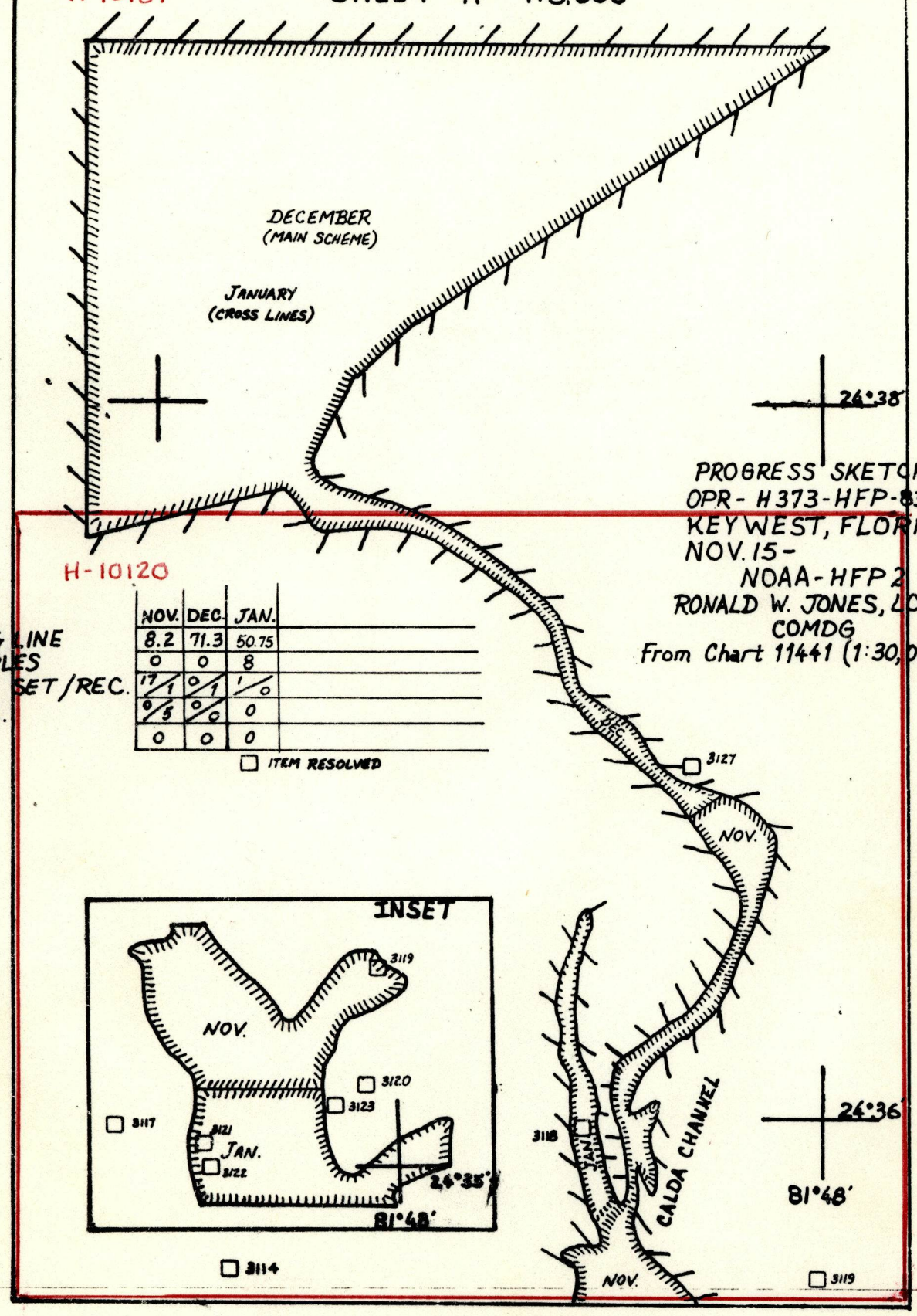
4-15-97 AWOIS and SURF ✓ 4/97 RMD

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

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978-665-010-1174

H-10187

SHEET "A" 1:5,000



PROGRESS SKETCH
OPR-H373-HFP-83
KEY WEST, FLORIDA
NOV. 15-
NOAA-HFP 2
RONALD W. JONES, LCDR.
COMDG
From Chart 11441 (1:30,000)

H-10120

	NOV.	DEC.	JAN.
SOUNDING LINE	8.2	71.3	50.75
BOTTOM SAMPLES	0	0	8
CONTROL STA. SET/REC.	17/1	0/1	1/0
BM SET/REC.	0/5	0/0	0
TIDE GAGES	0	0	0

☐ ITEM RESOLVED

LEGEND

(2.)

Descriptive Report to Accompany

Hydrographic Survey H-10120

HFP-5-2-83

Scale : 1:5,000
Chief of Party: Ronald W. Jones, LCDR, NOAA
Officer in Charge: John W. Humphrey, Jr, LT, NOAA
Hydrographic Field Party Section
Hydrographic Field Party Two

A. PROJECT

This survey was accomplished in accordance with project instructions for OPR-H373-HFP-83 dated November 7, 1983 and amended by change No. 1 dated November 10, 1983. Change No. 1 was the AWOIS printout to supplement the project instructions.

B. AREA SURVEYED

This survey was conducted in the Calda Channel leading northwest from Key West, Florida to the Gulf of Mexico. The southern survey limit is 24°34'53"N, bounded on the east by Fleming Key shoreline as far north as Garrison Bight Channel Daybeacon "6". Entering the Calda Channel from the south between Daybeacons "24" and "25", north to Calda Channel Light "1", the channel limits of navigation are also survey limits. ~~The survey limit for the open water area northeast and west of Calda Lt. "1" is defined by connecting the following geographic points in a clockwise direction: 1. Lat. 24°37'21.00" N, Lon. 81°50'13.00" W; 2. Lat. 24°39'01.00" N, Lon. 81°50'13.00" W; 3. Lat. 24°39'01.00" N, Lon. 81°47'58.00" W; 4. Lat. 24°37'45.00" N, Lon. 81°49'15.00"~~ W. H-10187

The Jack Channel was also surveyed with the limit of navigation being the survey limits for the east, west and north. There are no floating or fixed navigational aids in the Jack Channel and there is a very low volume of use in the Jack Channel.

The narrow parts of the Calda and Jack Channels are bounded by coral shoals on the east and west. The shoreline of Fleming Key in the southeastern survey area is characterized by mangrove and coral beach front. Bottom composition in the survey area is coarse textured sand and broken shell. The bottom varies from soft to hard and rocky.

The area is affected by a tidal range of 1.3 ft. This tidal range is influenced by prevailing winds from the northwest and the southeast. Depths in the survey area range from 0 to 2~~8~~6 ft.

The first portion of this survey was conducted between 17 November 1983 (JD321) and ~~23 May~~ 6 April 1984. The project was resumed in the fall of 1984 on ~~29~~ 30 October 1984 (JD 303) and completed on ~~9 December~~ 27 November 1984 (JD 338).

C. SOUNDING VESSEL

NOAA Launch 0519, a 21 ft MonArk, was used to collect all survey data for this project.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

Raytheon Fathometer Model 719C, S/N 9955, was the only echo sounding equipment was used on Vessno 0519.

All survey records were scanned and checked by trained field survey personnel. Peaks and deeps considered significant that occurred between regular interval soundings were inserted on the generated master tapes.

Fathometer calibration checks were made at frequent intervals on each day of hydrography. Any necessary adjustments were made and noted on the fathogram. Any departure of the trace from the initial zero was corrected during the scanning process. Velocity correctors were derived from bar check data (See Appendix D for velocity correction printout). Bar checks were taken each day of hydrography, two whenever possible using Launch 0519. Pole sounding data were also obtained using Launch 0519. Bar check chains were measured prior to the start and at the end of the project and no correction was needed.

Velocity Table #1 is based on bar checks from 17 November 1983 (JD 321) to 23 May 1984 (JD 144). Velocity Table #2 is based on bar checks from 29 October 1984 (JD 303) to 3 December 1984 (JD 338). A preliminary velocity table was used to plot the field sheet.

A transducer draft of 1.2 ft was applied to all Fathometer soundings. Settlement and squat correctors were determined on 17 November 1983 and again 22 October 1984 using the level method. A copy of field data and a graph of Settlement & Squat correctors vs RPM for Launch 0519 are included with this report in Appendix "D". Settlement and squat correctors will be applied via the TC/TI tape during the final processing of data at the ~~Atlantic~~ Pacific Marine Center.

Refer to sect. I of Eval. Report

The field sheet ~~This survey~~ was plotted using unverified actual tides reduced to Mean Low Water values based on the gage in Key West Harbor (Station #872-4580). Julian Days 061, 094 and 097 are plotted with predicted tides on the final field sheet. Smooth tides were requested from Tidal Requirements Section (OMS/121) in letters dated 12 June 1984 and 8 January 1985.

E. HYDROGRAPHIC FIELD SHEETS

All data are plotted by a PDP/8e computer and a Complot plotter on 7 mylar field sheets divided as follows:

No. of Sheets	Type	Skew
2 (east-west)	Mainscheme, splits signals.	90,21,70-east 90,21,30-west
2 (east-west)	Crosslines, detached positions, bottom samples, PSR items, signals	90,21,70-east 90,21,30-west
1 (east)	Crosslines, channel lines, developments	90,21,70-east
2 (east-west)	Bottom samples	90,21,70-east 90,21,30-west

Mainscheme hydrography was plotted continuously on the east field sheet, while the southern portion of this survey will be plotted as an inset on the smooth sheet at AMC. A list of positions included on the inset is included in the Appendix of this report.

Refer to sect. I of Eval. Report

The following Presurvey Review items are shown on the east crossline overlay sheet: 3312, 3117, 3118, 3119, 3120, 3121, 3122, 3123, 3124, 3126 and 3127. Soundings on the final field sheet are corrected for draft, actual tides (unverified) and sound velocity. All field records and the following tapes have been forwarded to the Atlantic Marine Center for verification and subsequently to the Pacific Marine Center.

Generated Master Tapes
Electronic Corrector Tapes
Velocity Corrector Tapes
Parameter Tapes
ASCII Signal Tapes
TC/TI Tape

F. CONTROL STATIONS

~~Nine~~ Ten control stations of Third-Order accuracy were used for this survey:

SIGNAL # & NAME	LATITUDE	LONGITUDE
99: Key West Lighthouse Ecc, 1981	24°33'00.727"N	81°48'03.875"W
100: Key West Lighthouse, ~~Ecc~~ 1849	24°33'00.72~~7~~5"N	81°48'03.81~~1~~2"W
106: Key West Harbor Front Range Light	24°34'44.135"N	81°48'00.0~~49~~50"W
108: ~~Man-O-War~~ Garrison Bight ~~Harbor~~ channel Light "3", 1983	24°35'20.670"N	81°48'16.490"W
109: MAN-O-WAR, 1983	24°35'07.42~~5~~4"N	81°48'02.847"W
110: Cut A Range Light	24°33'34.451"N	81°50'21.269"W

SIGNAL # & NAME	LATITUDE	LONGITUDE	
114:	24° 34' 53.457"N	81° 50' 25.777"W	
~~112: CALDA NO. 1~~	~~24°37'46.531"N~~	~~81°49'43.736"W~~	H-10187
118: NORTH MOLE, 1981	24°33'16.185"N	81°~~38~~48 38.769"W	
120: NORTH MOLE RM 1, 1981	24°33'~~36.026~~17.619"N	81°48'~~52.493~~35.917"W	
121: Cut B Front Range Light, 1981	24°33'36.026"N	81°48'52.493"W	

Station number 118, NORTH MOLE, was destroyed by personnel from Hydro Field Party-2 on January 17, 1984 prior to construction at that location. AMC Requirements Staff was informed on the same day. ✓

All signals were located by personnel from AMC Program Services Division, Geodetic Control Group. ✓

G. HYDROGRAPHIC POSITION CONTROL

Range/Azimuth position control was used with Del Norte electronic range equipment and a Nikon NT-2D 20" theodolite for all days of hydrography. ✓

The following Del Norte equipment was used:

EQUIPMENT	SERIAL #
DMU/MASTER	188/1060
DMU/MASTER	188/263
DMU/MASTER	123/1060
DMU/MASTER	123/263
REMOTE	222
REMOTE	1322
REMOTE	247

Baseline distances were determined by repetitive observations with a Hewlett Packard 3808A EDMI. Daily system checks were made laying alongside lights in the survey area; distances for these checks were determined through geodetic inverse computations. ✓

Baseline calibration data sheets are included in the survey support data in the accordion file. Abstracts of corrections to electronic control, baseline calibrations and daily checks are included in Appendix E of this report. Final correctors were determined in accordance with AMC OP-Order 79.

Filed with the hydrographic data.

~~The majority of hydrography run north of Calda Channel Light "1", was controlled from a range/azimuth eccentric set-up. Station 112, CALDA NO. 1 was used as the azimuth station with the range (Del Norte) on station 109 (MAN O WAR).~~

~~Calda Light "1" has a very small platform, with over half the available space taken up by 2 USCG battery boxes and the pipe supporting the light. Thus, only the azimuth station could be set on Light "1" and this was the only station suitable for occupying, with visibility of the working area.~~

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~~Azimuths were recorded to one-tenth of a minute to reduce positioning error. With the vessel never more than 6100 meters away from the azimuth station, the largest error would not exceed 1.8 meter per 1 minute of error in azimuth.~~

~~When the survey vessel was to the east or west of the azimuth station, the angle of intersection varied and became small at the east and west extremes of the sheet. The hydrographer was aware of the small angle of intersection and informed the HFPS office of the setup being used. There was no alternative setup that would improve this situation.~~

H. SHORELINE

The short section of shoreline that junctions with the hydrography is located in the southeastern area of the survey on the east field sheet. The shoreline is the north western side of Fleming Key, south of station MAN-O-WAR (signal # 109)

Refer to sect. 2 of Eval. Report

near the FAA VORTAC on Fleming Key. The ends of the hydrographic lines show good agreement with the shoreline transferred from manuscript TP-00485 (1:10,000 enlarged to 1:5,000).

I. CROSSLINES

Crosslines were run at 45° to 90° to the mainscheme hydrography and accounted for 10% of the total hydro mileage. Comparison shows good agreement in the Calda Channel from Daybeacons 24 and 25 to Calda Light #1 at the north end of the channel. Mainscheme arcs between daybeacons "21" and "20" cross the channel parallel to the contours. In this section radials were run normal to the contours and may be considered the mainscheme and the arcs the crosslines.

The same situation occurs in the south end of the survey between 24°35'07"N, the southern survey limit, 81°48'30"W and the 3' contour on the western survey limit. The southern end of the arcs run from signal 106 (Key West Harbor Range Front Light) and begin to parallel the contour. Additional mainscheme arcs were run from signal 120 (NORTH MOLE RM 1) in order to cross the contour normally in this area on JD 061, 1984.

Offshore soundings show good agreement, 1 to 2 ft, with crosslines. Some discrepancies of 2 ft were noted and it was found that the PDP8/e computer was randomly dropping tide correctors during the plotting of the final field sheet.

J. JUNCTION SOUNDINGS

This survey does not junction with any contemporary surveys.

Refer to Sect. 5 of Eval. Report

K. COMPARISON WITH PRIOR SURVEYS

Presurvey Review item numbers 3112, 3113, 3114, 3117, 3118, 3120, 3121, 3122, 3123, 3124, 3126 and 3127 were addressed as part of this survey. Descriptions and recommendations for each item are on the item investigation reports in the Appendix of this report. The following prior surveys were used for comparison with H-10120:

Refer to AWOIS item investigation forms appended to this report & sect. 6 of the Eval. Report

SURVEY	SCALE	DATE
H-5908	1:10000	Feb.-June 1935
H-5935	1:10000	Dec. -June 1935

Prior survey H-5935 was used for comparison on the entire west field sheet, as well as most of the east field sheet. H-5908 was used offshore from 81°49'00"W to the eastern survey limit of the east field sheet. ✓

Comparison of the east sheet from the southern survey limit, including Garrison Bight Channel west of Fleming Key, to the junction of the Jack and Calda Channels shows:

1. Depths in the vicinity of signal 109 (MAN-O-WAR) vary from agreement to 8 ft shoaler on the current survey. ~~in areas~~. This area has been affected by man-made shoreline changes including the fill of the area to create the short causeway to the Federal Aviation Administration VORTAC near signal 109. *Refer to sect. C of Eval. Report*

2. The channel running from the southern survey limit north to the Garrison Bight Channel and the junction of the Calda and Jack Channels ranges from agreement to 2 to 4 ft deeper on the current survey. On the west side of ~~MAN-O-WAR~~ *Fleming Key* prior and current surveys show agreement to 1 ft ~~????~~? to the western survey limit.

3. Garrison Bight Channel from Light "3" to light "8" shows good agreement.

Comparison of the Jack and Calda Channels ~~with~~ shows:

1. The Jack Channel from it's south end shows a 1 to 2 ft deepening in the center of the channel up to Latitude 24°36'07.5"N; here the center of the channel is now 50 meters west of the channel shown on the prior survey; current depths from 24°36'07.5" are up to 6 ft deeper in isolated spots to latitude 24°36'19.5"N. *channel is in coincidence between the two surveys.*

2. Comparison of the Calda Channel beginning at 24°35'45"N, shows center channel depths averaging 6 to 7 ft deeper on the current survey and in some spots 10 ft deeper to Latitude 24°36'07"N. The remainder of the channel up to Calda Light "1" shows prior and current depths differing by 1 to 3 ft with no pattern of either the prior or the current survey being completely shoaler or deeper. Channel orientation appears consistent with the prior survey. In some areas, a shift of the center of the channel to the west was observed. *Depths are in good agreement except as mentioned in Sect. C of the Eval. Report.*

~~Offshore East Field sheet:~~

~~1. On the current survey north of 24°38'45"N, depths are 1 to 3 ft deeper and isolated 6 ft shoals have eroded as much as 3 ft. An exception is the six foot shoal at Lat. 24°39'09.00" N, Lon. 81°48'30.00" W. This shoal still appears on H-10120, but has greatly reduced in size. The movement of bottom material appears to be to the south; below 24°38'45"N in the survey limits, current depths range from agreement to 5 ft shoaler than the prior. The 6 ft shoals are more prevalent here as well as some 2 to 3 ft shoals.~~ H-10187

~~Offshore-West field sheet:~~

~~1. Below Lat. 24°38'00.00" N, Lon. 81°49'45.00" W, most compared soundings are 1 to 3 ft deeper than the prior soundings; east of 81°49'45" current soundings agree from 0 to 2 ft with the current soundings being shoaler.~~

~~2. North of 24°38'00"N, current soundings average 1 to 3 ft deeper with some observed differences of 8 ft deeper near Lat. 24°38'45.00" N, Lon. 81°50'10.00" W.~~ H-10187

~~3. One major 6 ft shoal extending from Lat. 24°38'15" to 24°38'30.00" N and Lon. 81°49'45.00" W appears to have very little change in the shape of it's contour. In general there doesn't appear to be the major shift of shoals migrating from north to south as in the offshore area of the east field sheet.~~

L. COMPARISON WITH THE CHART

CHART	EDITION	DATE	SCALE
11441	31st	5 July 1980	1:30000

A Danger to Navigation letter was sent on 16 May 1984 for chart 11441. The letter was sent to the Commander, Seventh Coast Guard District, Miami, FL with a copy also sent to NOAA Chart Information Section, Rockville, MD. The letter also included a chartlet of 11441 and soundings from the current survey of the area of the following danger:

1. Uncharted 4 ft sounding among 19 and 22 ft soundings on the west edge of the Garrison Bight Channel in the vicinity of Light "3".

2. Presurvey Review item 3124 was also included in the above letter. An uncharted ~~submerged~~ wreck awash with a least depth of 0.4 ft @ MLW was found in 4.4 ft of water. *Refer to AWOIS item investigation form appended to this report.*

~~The Hydrographic Field Parties Section office submitted a Danger to Navigation letter on 6 August 1984 regarding an uncharted obstruction. This obstruction was later confirmed through diver investigation as a coral head with a least depth of 4.1 ft @MLW. A revised geographic position was provided in a Danger to Navigation letter dated 2 November 1984. This same information was telephoned to the Seventh U. S. Coast Guard District in Miami, FL.~~ H-10187

Copies of the letters, chart sections and a representative sections of current survey H-10120 are appended to this report.

The "Obstr Fish Haven, auth min depth 14 ft" in the Jack Channel, PSR item 3118, was investigated with reduced line spacing (pos 1360-1373 and 1728-1738). No evidence of any obstruction was found (see PSR Item 3118 investigation report *Refer to AWOIS item investigation form appended to this report.*

appended). The Jack Channel is used by recreational fishermen and has a low volume of traffic.

A reduced line spacing investigation at the junction of the Calda and Jack Channels was conducted (pos. #'s 97-105; 138-143; 1348-1349; 2112-2128). The bottom in this area is irregular and the reduced line spacing helped in defining the contours. A shoal in the lower Calda Channel was also investigated with reduced line spacing for delineation of it's limits. This is found in pos 155-174 and 2099-2111. ✓

Presurvey Review item 3123, 2 ft sounding, was investigated. Drift soundings and reduced line spacing were used to locate the least depth of the shoal and define it's limits. The charted 2 ft sounding was verified and is located in the immediate vicinity of Garrison Bight Approach Channel Light "2" (see item investigation report of #3123 appended to this report) Chart representation of the navigable area surveyed is accurate.

Refer to AWOIs item investigation form appended to this report.

The Bluefish Channel to the northeast of the Calda Channel was not addressed during this survey because of the observed low volume of traffic and the amount of higher priority work yet to be completed on OPR-H373-HSB-83.

M. ADEQUACY OF THE SURVEY

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

N. AIDS TO NAVIGATION

Except for items marked by asterisks, all landmarks listed below fall outside the limits of the survey.

There are no floating aids to navigation within the limits of this survey. The following landmarks were inspected from seaward and verified as presently charted:

LANDMARK (charting name)	LATITUDE	LONGITUDE
Aero R Bn	24°32'52.417"	81°47'11.700"
~~Main Channel Rear R~~ *Range Rear* Light (CGLL # 907, Vol 2)	24°32'52.610"	81°48'26.473"
~~Main Channel Front R~~ *Range Front* Light (CGLL #906, Vol 2)	24°32'15.908"	81°48'23.663"
~~Key West Naval Station~~ Tank	24°32'56.609"	81°48'26.917"
~~Key West LtHo (ABAND)~~ *Tower (Abandd Lt Ho)*	24°33'00.630	81°48'03.860"
~~Key West Courthouse~~ Cup	24°33'14.79"	81°48'14.69"
~~Radio TWR~~ *R TR*	24°33'22.71"	81°48'23.33"

LANDMARK (charting name)	LATITUDE	LONGITUDE	
Stack (~~Ctr~~ Center of 3)	24°33'43.72"	81°47'52.73"	
~~Key West Cut B Rge R Lt~~ Cut B Range Rear Light (CGLL #912.20,Vol 2)	24°33'44.92"	81°48'51.93"	
~~Key West Cut B Rge Fr LT~~ Cut B Range Front Light (CGLL #912.10, Vol 2)	24°33'36.~~06~~ 026"	81°48'52.~~44~~ 493"	*
Tank	24°34'42.37"	81°46'19.65"	
~~Sigsbee Park~~ Tank	24°34'48.416"	81°46'27.348"	
Key West ~~Hrbr Rge R Lt~~ Harbor Range Rear Light (CGLL #917,Vol 2)	24°35'05.~~071~~ 158"	81°47'49.~~715~~ 670"	*
~~Airport VOR Cupola~~ CUP	24°35'07.63"	81°48'02.36"	

The positions of landmarks listed above from the FFA printout are for identification purposes only and should not supersede any existing position of higher accuracy. ✓

Chart 11441 shows a cable crossing area in the northeast corner of the survey area. However, no cable crossing signs were observed during the course of the survey.

O. STATISTICS

Linear Nautical Miles of Hydrography	~~149.0~~	44.0
Linear Nautical Miles of Crossline	~~24.5~~	6.5
Linear Nautical Miles of Hydrography (total)	~~173.5~~	50.5
Number of Positions	~~2262~~	1047
Bottom Samples	~~86~~	38
Bar Checks	~~46~~	18
Presurvey Review Items Investigated	13	

P. MISCELLANEOUS

Early in the project several problems were encountered with the Digital PDP-8/e computer malfunctioning. All automated editing and plotting was halted for 2 weeks. Over a period of 2 ½ months the computer was erratic and at times would not function at all. Personnel from Digital Section, AMC made trips to Key West on four separate occasions to repair the computer throughout the course of the project. ✓

Currents in the vicinity of Key West were observed and compared with the 1984 Tidal Current Tables. No anomalies were observed.

HFP-2 began keeping it's own weekly tide station report for station 872-4580 because of the unreliability of the contractor's observer (see Field Tide Note, Appendix B). At one point in the project, the gage had not officially been observed by the hired observer for 9 days. HFP-2 personnel checked the gage continuously throughout the entire project.

On January 17, 1984 control station NORTH MOLE (AMC, 1981; signal #118) was destroyed by HFP-2 personnel prior to demolition of the bulkhead where it was located. Mr. Gary Frederick, AMC, Program Services Division was informed by the OIC.

Hydrography from JD 354, 1983 was rerun on JD 031, 1984. ✓

The survey scale of 1:5,000 in the Project Instructions required range-azimuth positioning control. However, due to the distance offshore from land, only a few isolated horizontal control stations were available. These were not available in ideal geometric locations, but were the only ones possible. This forced the use of range/azimuth eccentric set-ups.

Q. RECOMMENDATIONS

See descriptions of individual Presurvey Review Items for recommendations for each item (descriptions are appended to this report). The hydrographer recommends deleting the "PA" (position approximate) notation on Garrison Bight Approach Channel Light "2". This light was located to third-order standards in the fall of 1983 by AMC Geodetic Control Group personnel. Light "2" is signal #107 on the signal list appended to this report (unadjusted field position).

concur

Refer to AWOIS item investigation forms appended to this report

R. AUTOMATED DATA PROCESSING

PROGRAM	VERSION
RK 210 Grid, Signal & Lattice Plot	4/18/75
RK 212 Visual Table Load	4/01/74
RK 216 R/Az Non Real Time Plot	2/09/81
RK 300 Utility Computation	2/05/76
RK 330 Data Reformat and Check	5/04/76
AM 602 ELINORE	5/20/75
AM 500 Predicted Tide Generators	11/10/72

S. REFERRAL TO REPORTS

Horizontal Control Report for OPR-H373-HSB-83

Respectfully Submitted,

John W. Humphrey Jr.
LT NOAA
Officer-In-Charge, Hydrographic Field Party 2

FIELD TIDE NOTE

OPR-H373-HSB-83

Field tide reduction of soundings was based on unverified actual heights from the Key West Harbor tide gage (Station #872-4580), and were interpolated using Program AM-500 on a PDP/8e computer. Tide records were recorded in Eastern Standard Time (EST), while the computer output was in GMT.

SITE	LATITUDE	LONGITUDE	PERIOD
Key West	24°33.2'N	81°48.5'W	Entire period of survey

The gage in Key West is under contract to Chapin & Associates, Tallahassee, FL. Chapin & Associates was contacted upon arrival of the field party in Key West and on several other occasions when their gage observer failed to check the gage. Intermittent problems with the contractor's observer did not hinder surveying work by the field party due to the fact that personnel from HFP-2 checked the gage and made separate observation on the days of hydrography. Weekly tide station reports recorded by HFP-2 are contained in the fan folder with other survey material. (Survey H- 10120)

Although field party personnel checked the gage on these days, separate weekly tide station reports did not begin until January 15, 1984. On January 9, 1984, the gage battery failed and was replaced by HFP-2. In the process of restarting the gage, the digital counter slipped one foot, making the difference between the staff and the gage 11 feet instead of 10 feet. This extra foot remained unchanged for the entire project. The Chapin representative responsible for the Key West gage was informed of the situation as soon as possible.

After the incident with the dead battery and seeing that the gage observer was not reliable, HFP-2 began keeping their own records.

LEVELS

Inspection levels were run at the beginning and at the end of the project. Closures between the beginning and the end of the project were less than 0.011 ft.

ZONING

Zoning information should be furnished by Tides and Water Levels, N/OMS12, Rockville, MD.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Atlantic Marine Center
Hydrographic Field Parties Section

June 12, 1984 N/MOA233/BAL

To: N/OMS121 - Joe Mullin

From: N/MOA233 - Ronald W. Jones Robert Lewis

Subject: Request for Tide Data

Please furnish smooth tide correctors and zoning information to Atlantic Marine Center, Electronic Data Processing Section (N/MOA231) for survey H-10120 (HFP-5-2-83), OPR-H373.

Smooth tide correctors should be obtained from Tide Station No. 872-4580, at Key West, Florida.

The following times of hydrography include two hours before and after actual on line times:

JD (1983)	Begin (UTC)	End (UTC)
321	1300	2100
322	1200	2000
326	1500	1930
346	1545	2215
347	1215	2115
348	1230	2130
353	1315	2100
354	1245	2130
356	1200	1730
JD (1984)	Begin (UTC)	End (UTC)
005	1330	2115
013	1500	2130
017	1315	2100

(17.)

Subject: Request for tide data

JD (1984)	Begin (UTC)	End (UTC)
018	1345	1915
019	1530	2145
024	1530	2100
025	1300	1845
027	1430	1945
031	1230	2130
061	1430	2015
094	1225	1630
097	1200	2030
144	1145	1645

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Atlantic Marine Center
Hydrographic Field Parties Section
8 January 1985 N/MOA233 JWH

TO : N/OMS121 - Joe Mullin
FROM : N/MOA233 - Ronald W. Jones Robert Jones
Subject: Request for Tide Data

Survey work on OPR-H373-HFP-83 was continued during the fall of 1984. Please furnish smooth tide correctors and zoning information to Atlantic Marine Center, Electronic Data Processing Section (N/MOA231) for surveys H-10120,H-10086 and H-10125.

Smooth tide correctors should be obtained from Tide Station # 872-4580, at Key West Florida.

The following times of hydrography include 4 hours before and after actual on-line times.

Julian Day	Begin(UTC)	End(UTC)
	H-10120	
303	1100	2200
304	1420	0030
305	1431	2339
325	1400	0000
331	1357	2230
332	1211	2202
338	1150	2151
	H-10086	
304	1135	1935
306	1052	2032
321	1125	2137
333	1138	2336
	H-10125	
310	1248	2353
319	1120	2232
335	1215	2326

1

(19)

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Hydrographic Field Parties Section
Hydro Field Party #2
439 W. York St.
Norfolk, VA 23510

TO : LCDR Ron W. Jones, Chief, Hydro Field Parties Section
FROM : LT John W. Humphrey Jr., OIC Hydro Field Party #2
SUBJECT : Condition of tide station, Key West, FL (Station # 872-4580)
DATE : 12 November 1984

Before conducting our first day of hydro in the Calda Channel on October 29 (JD 303) we found the following upon inspection of the tide gage: 1) the digital timer was set at 0906 Eastern Standard Time, correct time of the day; 2) the foil-back paper on the gage was set at 1318 hours, 4 hours 12 minutes ahead of EST; 3) the local gage observer show the correct time and gage time agreeing on all of his daily records, this is incorrect, at least from October 29 to the 31st.
At this time we did not reset the gage, it being under contract to Chapin and Assoc. but did note the time correction for application of these tides to our current hydrography. Field party personnel checked the gage on all days of field work to insure that the time difference remained constant.
October 30 I telephoned Chapin &Assoc. office in Tallahassee,FL and informed them of the incorrect time setting on the gage. Chapin assurred me he would have his representative, Buddy Robson, in Key West on the 31st of October. No one from Chapin showed up on the 31st.
On the 1st of November I pulled the tape from the gage and reset the paper to match the correct Eastern Standard Time on the digital timer. HFP-2 scanned the tide tape and replaced in the tide house the same day. No one from Chapin showed up in Key West up to the 9th of November.
On the 9th of November I spoke with Buddy Robson on the telephone and he informed me that he would not be coming down to Key West to inspect the gage nor would he be employed by Chapin after the 13th of November.
After this conversation I informed the HFPS office of what had occurred regarding the monthly tide tape not being mailed to the Tides and Water Levels office in Rockville, MD and that no one from Chapin showed up to inspect the gage. As of 11/9 the observer had not been able to be located by personnel from the field party.
The pictures enclosed are the staff from the Key West gage. This staff was in the same condition in November 1983 when HFP-2 first arrived in Key West.

(See the Field Tide Note, Appendix B, from the Descriptive Report for survey H-10120, OPR-H373-HFP-83 for a summary of problems encountered with the Key West gage, observer/contractor, during the winter of 83-84.

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10120

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
~~Bluefish Channel~~	~~11441~~	} outside sheet limits								1
~~Galda Bank~~	~~11441~~									2
Calda Channel	11441									3
Fleming Key	11441									4
Garrison Bight Channel	11441									5
Jack Channel	11441									6
Man of War Harbor	11441									7
Florida (title)										8
Key West (title)										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
		APPENDIX "C"								25

NOAA FORM 76-155 SUPERSEDES C&GS 197

SIGNAL TAPE LISTING
H-10120
OPR-H373-H~~S~~FF-83

099 0 24 33 00727 081 48 03875 250 0027 000000 Key West Lighthouse Eccentric, ~~(AMC 1981)~~ 1981

100 0 24 33 00725 081 48 03812 139 0000 000000 Key West Lighthouse, ~~(NGS 1849)~~ 1849

~~105 0 24 35 38418 081 48 02129 139 0000 000000 Garrison Bight Channel Light "8" (AMC 1983)~~

106 0 24 34 44135 081 48 00050 250 0000 000000 Key West Harbor ~~Range Front~~ Front Range Light, ~~(AMC 1983)~~ 1983

~~107 0 24 35 02545 081 48 17342 139 0000 000000 Garrison Bight Approach Channel Light "2" (AMC, 1983)~~

108 0 24 35 20670 081 48 16490 139 0000 000000 Garrison Bight Channel Light "3", ~~(AMC 1983)~~ 1983

109 0 24 35 07424 081 48 02847 250 0000 000000 Man-O-War, ~~(AMC 1983)~~ 1983

110 0 24 33 34.451 081 ~~48~~ 50 21269 139 0000 000000 Cut A Range Light

~~112 0 24 37 46531 081 49 34736 139 0000 000000 Calda No. 1, (AMC 1983)~~

118 0 24 33 16185 081 48 38769 250 0000 000000 North Mole, ~~(AMC 1981)~~ 1981

120 0 24 33 17619 081 48 35917 250 0000 000000 North Mole RM 1, ~~(AMC 1981)~~ 1981

121 0 24 33 36026 081 48 52493 139 0000 000000 Cut B Range Front Light, ~~(AMC 1981)~~ 1981

All stations listed above with the exception of Station 100 were located by AMC Geodetic Control Group - Station 100 is a NGS published position.

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

NONFLOATING AIDS ~~OR LANDMARKS FOR CHARTS~~

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

(See reverse for responsible personnel)

[XX] TO BE CHARTED
[ ] TO BE REVISED
[ ] TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
HFP-2	Florida	Key West	5/84

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
H373-HSB-83		H-10120	North American 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT	Key West Harbor Range Front Light CGLL 916 Pg. 92 Sig.106	24°34'	44.135	81°48	00.050		F-3-6-L 11/83	11441 11447
LIGHT	Garrison Bight Approach Channel Light "2"; CGLL 923, Pg. 93 Sig.107	24 35	02.545	81 48	17.342		F-3-6-L 11/83	11441
LIGHT	Garrison Bight Channel Light "3" CGLL 924, Pg. 93 Sig.108	24 35	20.670	81 48	16.490		F-3-6-L 11/83	11441
LIGHT	Garrison Bight Channel Light "8" CGLL 925, Pg. 93 Sig.105	24 35	38.418	81 48	02.129		F-3-6-L 11/83	11441
LIGHT	Calda Channel Light "1" CGLL 944, Pg. 94	24 37	46.516	81 49	34.740		F-3-6-L 11/83	11441

(49)

Dep. 7-6-95 (85)

RESPONSIBLE PERSONNEL

TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	LT(j.g.) John W. Humphrey Jr., OIC-HFP-2	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	LT(j.g.) John W. Humphrey Jr., OIC-HFP-2	FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

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

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

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

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

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

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

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

FIELD (Cont'd)

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

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

II. TRIANGULATION STATION RECOVERED

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

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

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

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-665-073/1030 Region 6

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

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

~~NONFLOATING AIDS OR~~ LANDMARKS FOR CHARTS

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

(See reverse for responsible personnel)

- ☐ TO BE CHARTED
- ☐ TO BE REVISED
- ☒ TO BE DELETED

REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
Hydro Field Party 2	Florida	Key West	12/84

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

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM
Opr-H373-HFP-83		H-10120, 10125	North American 1927

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	POSITION LATITUDE ° ′	LATITUDE ″ D.M. Meters	POSITION LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
TANK	No value as a navigational landmark Not visible from seaward	24 33	40.87	81 48	49.98			1411 11441
TANK	No value as a navigational landmark Not visible from seaward	24 33	38.38	81 48	50.98			11441

(50.)

Rep 7 L-95(85)

RESPONSIBLE PERSONNEL

TYPE OF ACTION	NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	LT. John W. Humphrey	☐ PHOTO FIELD PARTY ☒ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER *(Specify)*
POSITIONS DETERMINED AND/OR VERIFIED	LT. John W. Humphrey	FIELD ACTIVITY REPRESENTATIVE
		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES		☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE

INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'

(Consult Photogrammetric Instructions No. 64,

OFFICE

I. OFFICE IDENTIFIED AND LOCATED OBJECTS

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

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

FIELD

I. NEW POSITION DETERMINED OR VERIFIED

Enter the applicable data by symbols as follows:

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

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

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

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

FIELD (Cont'd)

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

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

II. TRIANGULATION STATION RECOVERED

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

EXAMPLE: Triang. Rec.
8-12-75

III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH

Enter 'V-Vis.' and date.

EXAMPLE: V-Vis.
8-12-75

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

☆ U. S. GPO:1975-0-665-080/1155

NOAA FORM 77-27(H)
(9-83)

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER
H-10120

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	5
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	7

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDION FILES	1					
ENVELOPES						
VOLUMES	9					
CAHIERS						
BOXES						

SHORELINE DATA

SHORELINE MAPS (List):

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List):

NAUTICAL CHARTS (List):

OFFICE PROCESSING ACTIVITIES
The following statistics will be submitted with the cartographer's report on the survey

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			1047
POSITIONS REVISED			132
SOUNDINGS REVISED			89
CONTROL STATIONS REVISED			

	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	16.5		16.5
VERIFICATION OF SOUNDINGS	73.0		73.0
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	35.5		35.5
COMPARISON WITH PRIOR SURVEYS AND CHARTS		19.0	19.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		39.0	39.0
GEOGRAPHIC NAMES			
OTHER* Digitizing	15.0		15.0
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	140.0	58.0	198.0

Pre-processing Examination by A.A. Luceno	*Beginning Date* 4/17/85	*Ending Date* 5/13/85
Verification of Field Data by R.N. Minailov	*Time (Hours)* 115.0	*Ending Date* 1/23/86
Verification Check by S. Otsubo, B. Olmstead, J. Green	*Time (Hours)* 83.5	*Ending Date* 3/5/86
Evaluation and Analysis by A.A. Luceno	*Time (Hours)* 74.0	*Ending Date* 3/5/86
Inspection by D. Hill	*Time (Hours)* 2	*Ending Date* 3/13/86

☆ U.S. GOVT. PRINTING OFFICE 1983: 764-006/6061

DATE: 5/7/84

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Atlantic

OPR: H373

Hydrographic Sheet: H-10120

Locality: Calda Channel, Key West, Florida

Time Period: November 17, 1983 - March 1, 1984

Tide Station Used: 872-4580 Key West, Florida

Plane of Reference (Mean Lower Low Water): 4.33 Ft.

Height of Mean High Water Above Plane of Reference: 1.6 Ft.

Remarks: Recommended Zoning:

Zone Direct

James R. Hubbard
Chief, Tidal Datums Section

DATE: 07/09/84

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Atlantic

OPR: H373

Hydrographic Sheet: H-10120

Locality: Calda Channel, Key West, Florida

Time Period: November 17, 1983 - May 23, 1984

Tide Station Used: 872-4580 Key West, Florida

Plane of Reference (Mean Lower Low Water): 4.33 feet

Height of Mean High Water Above Plane of Reference: 1.6 feet

Remarks: Recommended Zoning:

Zone Direct

James R. Hubbard
Chief, Tidal Datums Section

DATE: 02/12/85

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Atlantic

OPR: H 373

Hydrographic Sheet: H-10120

Locality: Calda Channel, Key West, Florida

Time Period: October 29-December 3, 1984

Tide Station Used: 872-4580 Key West, FL

Plane of Reference (Mean Lower Low Water): 4.33 ft.

Height of Mean High Water Above Plane of Reference: 1.6 ft.

Remarks: Recommended Zoning:

Zone Direct

James R Hubbard
Chief, Tidal Datums Section

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10120

1. INTRODUCTION

H-10120 was accomplished by the Hydrographic Field Party 2 in accordance with the following project instructions:

OPR-H373-HFP-83, dated November 7, 1983
Change No. 1, dated November 10, 1983

This is a navigable area survey covering the upper portion of Man of War Harbor, bounded by latitude 24°34'54"N to the south, the shores of Fleming Key to the east and longitude 81°48'45"W to the west. Man of War Harbor is a good anchorage for medium draft vessels where depths range from 14 to 26 feet. The best access to the harbor is from the Straits of Florida in the south. Controlling depths for the southern approach to the harbor from the Corps of Engineers Reports to May 7, 1980 range from 30 to 34 feet. The bottom consists of broken shells, sand, mud, grass and seaweed. The northern portion of the surveyed area covers the entire stretch of Calda Channel to latitude 24°37'42"N. Calda Channel is a narrow and crooked passage from the Gulf of Mexico leading to Man of War Harbor. Some depths of over 20 feet are available in some parts of the channel, however, depths to only 3 feet are available in shoaling areas. The channel is well marked by daybeacons. The bottom consists of broken shells, mud and seaweed.

This survey originally included also the northwest approach to Calda Channel from the Gulf of Mexico. However, the survey plot exceeded the maximum allowable dimensions specified in section 1.2.4 of the Hydrographic Manual and the capability of the PMC automated plotter. The original sheet was divided into two surveys with Registry Number H-10187 and field number HFP 05-3-83 assigned to the sheet covering the northwest approach to Calda Channel.

The Descriptive Report for H-10120 includes items pertaining to H-10187. All items not applicable to H-10120 are crossed out and annotated with marginal notes. The data package and smooth field sheet which are integral part of both H-10120 and H-10187 are submitted with the H-10120 report.

Unverified actual tides at Mean Low Water based on Key West Harbor, Florida tide gage were used during field processing. Tide correctors used for the reduction of final soundings reflect approved hourly heights at Mean Lower Low Water zoned from the Key West, Florida tide gage.

The field sheet parameters were revised to fit the hydrography selected for H-10120 on the smooth sheet and to change the projection to polyconic. The electronic correctors determined by baseline calibration were used to plot the smooth sheet. The TRA correctors were revised to combine the settlement and squat correctors and the transducer draft during office processing. The revised data is listed in the smooth position/sounding printout.

A digital file for this survey has been generated and includes categories of information required to comply with N/CG2 Hydrographic Survey Guideline No. 23, Completion of Digital Hydrographic Surveys, September 7, 1983. Certain descriptive information, however, may not be included in the digital record due to the restrictions of the presently available cartographic codes. The user should refer to the smooth sheet for complete information.

2. CONTROL AND SHORELINE

Hydrographic control and positioning are adequately discussed in sections F and G of the hydrographer's report and in the Horizontal and Electronic Control Reports for OPR-H373-HFP-83.

Horizontal control station positions used during hydrography are either published or field positions based on the North American Datum of 1927.

T-Sheet	Scale	Date of Photography
TP-00480	1:10,000	March and November 1974
TP-00485	1:10,000	March and November 1974

The TP sheets listed above were verified by field edit in 1977. The shoreline for Fleming Key was transferred from TP-00485. There were some discrepancies in the plotted position of some daybeacons between the TP sheet and the smooth sheet. Daybeacons 13, 14 and 16 through 20 in the H-10120 plotting are from 7.5 meters to 15 meters northeast of the plotted positions on TP-00485. The remaining plotted daybeacons agree to within 5 meters between the two sheets. Since these daybeacons are supported only on piles subject to frequent changes, the hydrographic detached positions obtained in the present survey (latest position available) were used to plot these aids on the smooth sheet. (See section 4.2.2 of the project instructions). It is recommended that the position of all the daybeacons obtained in the present survey be used for charting.

3. HYDROGRAPHY

Soundings at line crossings are in good agreement. The depth curves could be completely and adequately drawn. Delineation of the bottom configuration and the determination of least depths are adequate.

4. CONDITION OF SURVEY

The hydrographic records and reports are adequate and conform to the requirements of the Hydrographic Manual, 4th Edition, revised through Change 3, except as noted in the Preprocessing Examination Reports, dated May 13, 1985 and as follows:

Charted soundings originating from prior surveys not confirmed during the present survey were not investigated. These items requiring further development are:

(1) The 14-foot sounding plotted on prior survey H-5935 at latitude 24°35'16"N, longitude 81°48'20"W in adjacent depths of 19 to 24 feet was not developed in the present survey. The 14-foot depth was carried forward to the smooth sheet.

(2) A 17-foot depth plotted on prior survey H-5935 at latitude 24°35'08"N, longitude 81°48'21"W in surrounding depths of 20 to 23 feet was not developed in the current survey. The 17-foot depth was carried forward to the smooth sheet.

5. JUNCTIONS

H-10120 junctions with contemporary survey H-10187 to the north at the entrance to the Gulf of Mexico. Depths in the junction area are in good agreement and depth curves are in coincidence. The junction has been adequately effected.

H-10120 adjoins H-9505 (1966) to the south. Soundings between the two surveys agree to within ±1 foot and depth curves are in good agreement except:

a. The 18-foot depth curve in the vicinity of latitude 24°34'54"N, longitude 81°48'12"W is shown as an isolated curve. This depth curve is shown as a continuous curve on H-10120.

b. There is no evidence on record that a wreck plotted on junction sheet H-9505 (1966) at latitude 24°34'56"N, longitude 81°48'26"W was investigated. This wreck was carried forward to H-10120.

The present survey supersedes H-9505 in the junctional area. Depth curves on H-9505 should be adjusted to conform with those from H-10120.

There are no surveys to junction H-10120 to the west of Man of War Harbor and around Calda Channel. However, plotted depths on H-5935 and charted depths around these areas agree to within ±1 foot.

6. COMPARISON WITH PRIOR SURVEYS

H-5908 (1935) 1:10,000
H-5934A (1934-36, Add Wk 37) 1:10,000
H-5935 (1934-35, Add Wk 37) 1:10,000

Good agreement exists between the present survey and the prior surveys except as noted in section K of the Descriptive Report and as follows:

On H-5935, depths of 7 to 15 feet in mid-channel in the vicinity of daybeacon 22 were found to be 17 to 21 feet in the present survey.

Fleming Key is presently a much larger feature than at the time of prior survey H-5908. The appreciable differences between depths in the two sheets in the area just south of Man of War Harbor pier could have been caused by man-made filling during the expansion of Fleming Key after the accomplishment of the prior survey.

AWOIS items originating from the prior surveys are adequately discussed and disposed of in the item investigation forms appended to the Descriptive Report.

H-10120 is adequate to supersede the prior surveys within the area of common coverage.

H-2933 WD (1908, Add Wk 1907, 1913-15) 1:15,000

AWOIS items 03117 and 03119 originating from H-2933 WD are adequately discussed and disposed of in the item investigation forms appended to the Descriptive Report.

Depths of 18' at latitude 24°35'08"N, longitude 81°48'17"W and at latitude 24°34'57"N, longitude 81°48'12"W were found to be 16-foot depths and between 12 to 18-foot depths in the present survey. Data from H-10120 supersedes the two 18-foot soundings from H-2933 WD.

7. COMPARISON WITH CHART

Chart 11441, 31st Edition, dated July 5, 1980; scale 1:30,000.

a. Hydrography - Most charted information originates with prior surveys discussed in section 6 of this report. AWOIS items originating from miscellaneous sources are adequately discussed and disposed of in the item investigation forms appended to the Descriptive Report.

The features listed below were located during the present survey and fall outside the limits of the sheet:

a. A visible wreck, mast bares 15 feet above MHW, was found at latitude 24°34'12.48"N, longitude 81°48'31.78"W (Position 1740). Chart this feature according to this survey.

b. A visible wreck, partially floating, was found at latitude 24°34'05.56"N, longitude 81°48'32.64"W (Position 1741). Chart this feature according to this survey.

c. Two piles, 1 foot in diameter baring 18 feet at MHW, were found at latitude 29°34'28.30"N, longitude 81°48'47.87"W and latitude 24°34'28.27"N, longitude 81°48'98.77"W (Positions 1744 and 1745). These features confirm a row of piles presently charted. The row of piles should be retained as charted.

d. A sunken wreck, mast bares 18 feet at MHW, at latitude 24°34'06.25"N, longitude 81°48'50.19"W was found during this survey (Position 1749). This feature is located 150 meters north of two charted wrecks, one of which is position approximate. The charting source for these two wrecks should be re-examined and the positional accuracies evaluated. If it can be determined that this feature is one of the presently charted wrecks, that wreck should be charted as found during this survey. If not, an additional wreck, mast visible, should be added to the chart at the position found during this survey.

Geographic names appearing on the smooth sheet are plotted in accordance with this chart.

A Danger to Navigation Report (copy attached) was sent to the Seventh Coast Guard District, Miami, Florida by the Hydrographic Field Party. No other dangers to navigation were identified during office processing.

H-10120 is adequate to supersede the charted hydrography within the common area.

b. Controlling Depths - Depths of 12 to 13 feet were obtained along the portion of Garrison Bight Channel covered by the present survey. A depth of 7 feet on the center line of this channel is shown on the chart.

c. Aids to Navigation - There are 25 fixed aids within the limits of this survey. Charted aids to navigation have been located and adequately serve their intended purpose.

8. COMPLIANCE WITH INSTRUCTIONS

H-10120 adequately complies with the project instructions noted in section 1 of this report.

9. ADDITIONAL FIELD WORK

This is a good navigable area survey. Additional field work is recommended on a non priority basis for the investigation of the items listed under section 4 and 5.b of this report.

Arsenio A. Luceno
Arsenio A. Luceno
Cartographer

This survey has been examined and it meets Charting and Geodetic Services standards and requirements for use in nautical charting. The survey is recommended for approval.

Dennis Hill
Dennis Hill
Chief, Hydrographic Section

ATTACHMENT TO DESCRIPTIVE REPORT FOR H-10120

I have reviewed the smooth sheet, accompanying data, and reports of this hydrographic survey. Except as noted in the Evaluation Report, the hydrographic survey meets or exceeds Charting and Geodetic Services (C&GS) standards, complies with instructions, and is accurately and completely represented by the smooth sheet and digital data file for use in nautical charting.

Thomas W Richards
Chief, Nautical Chart Branch (Date)

CLEARANCE: SIGNATURE AND DATE:

N/MOP2:LWMordock

After review of the smooth sheet and accompanying reports, I hereby certify this survey is accurate, complete, and meets appropriate standards with only the exceptions as noted above. The above recommendations are forwarded with my concurrence.

Robert L Sanford
Director, Pacific Marine Center (Date)

CHART # 11441 **ITEM #** 3112

ITEM DESCRIPTION: Pipe, old radar reflector

SOURCE: BP111755 TP-00485/74-77

INVESTIGATION DATE: 25 Jan 1984 **TIME:** 162900 **VESSEL:** Launch 0519

OIC: LT(j.g.) John W. Humphrey Jr.

REFERENCE:

Position No: 1748 **Volume:** 6 **Page:** 43

CORRECTORS APPLIED:

[XX] **Velocity** [XX] **TRA Correctors**

[ ] **Predicted or** [XXX] **Actual Tide Correctors**
(unverified)

GEODETIC POSITION:

	Latitude	Longitude
Charted:	24°35'01.3"N	81°49'14.32"W
Observed:	24°35'01.2"N	81°49'14.4"W
	.20	.37

POSITION DETERMINED BY: Range (Del Norte) - Azimuth (Nikon NT2D)

METHOD OF ITEM INVESTIGATION: A hydro detached position was taken on the item in question. The item is a pipe, 3" in diameter and ~~bares~~ uncovers 2.8' at ~~MLW~~ MLLW and sits in 6.6' of water at ~~MLW~~ MLLW.

CHARTING RECOMMENDATIONS: uncovers 2 feet of MLLW. concur Chart as pipe at observed position.

Compilation Use Only

CHART **APPLIED AS**

CHART # 11441 ITEM # 3113

ITEM DESCRIPTION: obstruction, *pipe, old radar reflector*

SOURCE: BP111755 TP00485/74-77 Chart maint. print

INVESTIGATION DATE: 25 Jan 1984 TIME: 162100 VESSEL: Launch 0519

OIC: LT(j.g.) Humphrey

REFERENCE:

Position No: 1746 Volume: 6 Page: 43

CORRECTORS APPLIED:

[XX] Velocity [XX] TRA Correctors

[ ] Predicted or [XXX] Actual Tide Correctors (unverified)

GEODETIC POSITION:

	Latitude	Longitude
Charted:	24°34'40.47"N	081°48'51.53"W
Observed:	24°34'40.~~8~~ 34"N	081°48'51.~~2~~ 24"W

POSITION DETERMINED BY: Range (Del Norte) - Azimuth (Nikon NT2D)

METHOD OF ITEM INVESTIGATION: A hydro detached position was taken on the item. The item is a pipe, 3" in diameter and ~~bares~~ *uncovers* 2.~~2~~0' @ ~~MLW~~ *MLLW* and sits in 7.~~8~~6' of water @ ~~MLW~~ *MLLW*.

uncovers 2 feet at MLLW *concur*

CHARTING RECOMMENDATIONS: Chart as pipe at observed position.

Compilation Use Only

CHART APPLIED AS

CHART # 11441 ITEM # 3114

ITEM DESCRIPTION: Obstruction, *pipe, old radar reflector*

SOURCE: BP111755 TP00485/74-77 Chart Maint. Print

INVESTIGATION DATE: 25 Jan 1984 TIME: 160800 VESSEL: Launch 0519
160900

OIC: LT(j.g.) Humphrey

REFERENCE:

Position No: 1742 Volume: 6 Page: 42
1743 6 42

CORRECTORS APPLIED:

[XXX] Velocity [XXX] TRA Correctors

[ ] Predicted or [XXX] Actual Tide Correctors
(unverified)

GEODETIC POSITION:

		Latitude	Longitude
Charted:		24°34'19.5"N	081°48'28.54"W
Observed:	Pos. 1742	24°34'18.~~7~~69"N	081°48'29.~~0~~04"W
	Pos. 1743	24°34'19.~~4~~40"N	081°48'28.~~3~~32"W

POSITION DETERMINED BY: Range(Del Norte) - Azimuth (Nikon NT2D)

METHOD OF ITEM INVESTIGATION: A hydro detached position was taken at both of the above obstructions. Pos # 1742 is 3" in diameter and bares ~~3.8~~ 2' @ ~~MLW~~ MHW in 1.~~6~~7' of water @ ~~MLW~~ MLLW; Pos # 1743 is also a pipe, 3" in diameter and bares ~~10.2~~ 9' @ ~~MLW~~ MHW in 0.~~9~~8' of water @ ~~MLW~~ MLLW.

(features fall outside limits of H-10120)

CHARTING RECOMMENDATIONS: Chart as pipes at observed positions. bares 2' & 9' above MHW concur

---

Compilation Use Only

CHART	APPLIED AS

CHART # 11441 ITEM # 3117

ITEM DESCRIPTION: stranded wreck

SOURCE: H-5934A, H-5935 BP111755 - TP00485/74-77 Chart Maint. Print

INVESTIGATION DATE: 25 Jan 1984 TIME: 162600 VESSEL: Launch 0519

OIC: LT(j.g.) Humphrey

REFERENCE:

Position No: 1747 Volume: 6 Page: 43

CORRECTORS APPLIED:

[XXX] Velocity [XXX] TRA Correctors

[ ] Predicted or [XXX] Actual Tide Correctors (unverified)

GEODETIC POSITION:

	Latitude	Longitude
Charted:	24°35'02.64"N	081°49'09.63"W
Observed:	24°35'02.~~7~~"N .75	081°49'09.~~8~~"W .79

POSITION DETERMINED BY: Range (Del Norte) - Azimuth (Nikon NT2D)

METHOD OF ITEM INVESTIGATION: A detached position was taken on the center of the item. Item is remains of a wreck, exposed, with metal debris and lies in an east-west orientation. The wreck bares ~~4.2~~ 3.0 ' @ ~~MLW~~ MHW in 3.7' of water @ ~~MLW~~. MLLW

CHARTING RECOMMENDATIONS: Retain as charted as exposed wreck at the above observed position. concur

---

Compilation Use Only

CHART APPLIED AS

CHART # 114411 **ITEM #** 3118

ITEM DESCRIPTION: Obstruction, Fish haven

SOURCE: Charts Letter 451/72 6/1427/68

INVESTIGATION DATE: Jan.5,25, 1984 **TIME:** (JD 5) 175200 (JD25) 151500 **VESSEL:** 0519

OIC: LT(j.g.) John W. Humphrey Jr.

REFERENCE:

Position No: (JD 5) 1360-1373 JD 25 1728-1738 **Volume:** 5 6 **Page:** 26 39

CORRECTORS APPLIED:

[XX] **Velocity**

[ ] **Predicted or**

[XX] **TRA Correctors**

[XX] **Actual Tide Correctors** (unverified)

GEODETIC POSITION:

	Latitude	Longitude
Charted:		
Observed:	24°35'58.0"N .00	81°48'44"W 44.00"

POSITION DETERMINED BY: Range (Del Norte equipment)/Azimuth(Nikon NT2D Theodolite)

METHOD OF ITEM INVESTIGATION: A fathometer search was conducted running 25 meter splits inside the 50 meter mainscheme. Coverage of the area at 25 meter line spacing extended 175 meters south and 200 meters north of the geographic center of the charted fish haven as listed in the AWOIS printout
The charted authorized minimum depth for the fish haven is 14'. During sounding operations no evidence of any obstructions existed at this depth nor did bottom characteristics show any evidence of obstructions.
Depths observed in the charted fish haven range from 19' on the east and west edges where the channel begins rising up to meet the shoal,to 20'-22' in the center of the channel.

CHARTING RECOMMENDATIONS: Retain charted fish haven. (concur Reevaluate "authorized minimum depth 14'" note based on soundingsfrom the current survey of the Jack Channel upon verification.)
BM 2 J. McCrodden, USCG Chart Officer for USCG station Key West was questioned about the fish haven and reported that the Coast Guard had not seen any evidence ~~of obstructions~~ during their patrols in the Jack Channel.

Compilation Use Only

CHART **APPLIED AS**

Authorized minimum depth of 14 feet for the fish haven not exceeded at the time of the survey.

CHART # 11441 PRE-SURVEY REVIEW ITEM # 3119

Item description: Wreck

SOURCE BP111755 - TP00485/74-77 Chart Maint. Print , H-2933 (WD) , H-5935

INVESTIGATION DATE 17 January 1984 TIME 182500 GMT VESSEL Launch 0519

OIC LT(j.g.) John W. Humphrey Jr.

REFERENCE

POSITION # 1601-1602 VOLUME: 6 PAGE: 7

CORRECTORS APPLIED: N/A

VELOCITY: TRA CORRECTORS:

PREDICTED TIDES: ACTUAL TIDES:

GEODETIC POSITION:		LATITUDE	LONGITUDE
CHARTED:		24°35'32"N	81°47'58"W
OBSERVED:	(NWest end of wreck)	24°35'32.43"N	81°47'59.52"W
	Seast end of wreck)	24°35'31.58N	81°47'57.73"W

POSITION DETERMINED BY: Range (Del Norte) Azimuth(Nikon NT2D Theodolite)

METHOD OF ITEM INVESTIGATION: Both ends of the exposed wreck (see pictures) were located verifying the item. Description of the wreck in the AWOIS is confirmed by the hydrographer and the wreck is exposed at all stages of the tide.

CHARTING RECOMMENDATIONS: Retain exposed wreck symbol for charting and show the wreck symbol at 24°35'32"N
81°47'58.5"W concur
This position is the midway point on the line between the two observed positions above

---

COMPILATION USE

CHART	APPLIED AS

CHART # 11441

PRE-SURVEY REVIEW ITEM # 3120
Item description: Subm Wk

SOURCE Unknown
BP49638 Print of T8490/43 from 1952 photos (annotated on T sheet)

INVESTIGATION DATE 17 January 1984 TIME 185200 GMT VESSEL Launch 0519

OIC LT(j.g.) John W. Humphrey Jr.

REFERENCE

POSITION # N/A VOLUME: 6 PAGE: 8

CORRECTORS APPLIED: N/A

VELOCITY: *Yes* TRA CORRECTORS: *Yes*

PREDICTED TIDES: ACTUAL TIDES: *Yes*

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	24°35'16.2"N	81°48'04.8"W
OBSERVED:	N/A	N/A

POSITION DETERMINED BY: Search was controlled by Range-Az (Del Norte-Nikon NT2D)

METHOD OF ITEM INVESTIGATION: A visual search was conducted in a 100 meter radius of the given Geographic Position, on the Awois, at 25 meter spacing. Entire area of the search was in 3' of water or less and the clarity of the water at the time of the search was excellent.
No obstruction or wreck was sighted in the area.

CHARTING RECOMMENDATIONS: Delete dangerous wreck symbol from chart at above charted submerged position
concur

COMPILATION USE

CHART	APPLIED AS

CHART # 11441 PRE-SURVEY REVIEW ITEM # 3121

Item description: wreck

SOURCE Wreck - H5935/34-35; T8490/43

INVESTIGATION DATE 27 January 1984 TIME 173500 GMT VESSEL Launch 0519

OIC LT(j.g.) John W. Humphrey Jr.

REFERENCE

POSITION # 1751 VOLUME: 6 PAGE: 46

CORRECTORS APPLIED:

VELOCITY: ~~N/A~~ yes TRA CORRECTORS: ~~N/A~~ Yes

PREDICTED TIDES: N/A ACTUAL TIDES: Yes

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	24°35'11.08"N	81°48'35.5"W
OBSERVED:	24°35'11.31"N	81°48'34.55"W

POSITION DETERMINED BY: Range-Azimuth (Del Norte- Nikon NT2D)

METHOD OF ITEM INVESTIGATION: The wreck was investigated by divers from HFP-2 and the position determined over the least depth. The least depth on this wreck was a 7.2' at ~~MLW~~ MLLW. The wreck is approximately 50' long by 9' wide lying in a northeast-southwest orientation. The depth of the surrounding water is 9.4' at MLLW.

CHARTING RECOMMENDATIONS: Retain dangerous submerged wreck symbol and chart at the above observed position. Concur

---

COMPILATION USE

CHART	APPLIED AS

CHART # 11441 PRE-SURVEY REVIEW ITEM # 3122

SOURCE Wreck(wooden schooner) OPR-435-HY-66

INVESTIGATION DATE 27 January 1984 TIME 164000 VESSEL Launch 0519

OIC LT(j.g.) John W. Humphrey Jr.

REFERENCE

POSITION # 1750 VOLUME: 6 PAGE: 46

CORRECTORS APPLIED:

VELOCITY: ~~N/A~~ Yes TRA CORRECTORS: ~~N/A~~ Yes

PREDICTED TIDES: N/A ACTUAL TIDES: YES

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	24°35'08.74"N	81°48'32.17"W
OBSERVED:	24°35'09.~~3~~ .43"N	81°48'32.~~6~~ .62"W

POSITION DETERMINED BY: Range-Azimuth (Del Norte - Nikon NT2D)

METHOD OF ITEM INVESTIGATION: The wreck was investigated by divers from HFP-2 and the position determined over the least depth. The wreck is approximately 60-70' in length and 6-7' in width and lies in a north-south orientation in 7' of surrounding water.
The least depth measured by pole is 6.~~3~~0' @ ~~MLW~~ MLLW

CHARTING RECOMMENDATIONS: Retain dangerous submerged wreck symbol and chart at the above observed position. concur

---

COMPILATION USE

CHART	APPLIED AS

CHART # 11441 **ITEM #** 3124

ITEM DESCRIPTION: Obstruction, *pipes awash 1 foot at MLW.*

SOURCE: BP-111755 - TP-00485/74-77 Chart Maint. Print

INVESTIGATION DATE: April 6 1984 **TIME:** 165000 GMT **VESSEL:** 0519

OIC: LT(j.g.) John W.Humphrey Jr.

REFERENCE:

Position No: 2136 **Volume:** 7 **Page:** 47

CORRECTORS APPLIED:

☐ **Velocity** ☐ **TRA Correctors**

☒ **Predicted or** ☐ **Actual Tide Correctors**

GEODETIC POSITION:

	Latitude	Longitude
~~**Charted:**~~ AWOIS	24°35'04.71"N	81°48'42.05"W
Observed:	24°35'04.7~~X~~"N	81°48'41.~~X~~" W
	.70	67

POSITION DETERMINED BY: Range (Del Norte) Azimuth (Nikon NT2D Theodolite)

METHOD OF ITEM INVESTIGATION: Item was located visually and appears to be remains of a vessel. It is approximately 40' in length and 12'in width and is oriented in a North-South direction; remains are of wood and metal. The least depth on the wreck is 0.~~X~~' in 4.~~X~~' of water at ~~MLW~~.
0 3 MLLW

CHARTING RECOMMENDATIONS: Chart wreck *awash* ~~with dangerous submerged symbol~~ at the above observed position.

Compilation Use Only

CHART	APPLIED AS

CHART # 11441 PRE-SURVEY REVIEW ITEM # 3123

SOURCE 2'Sounding

INVESTIGATION DATE 19 January 1984 TIME 192200-193026 VESSEL Launch 0519

OIC LT(j.g.) John W. Humphrey Jr

REFERENCE

POSITION # 1712-1718 VOLUME: 6 PAGE: 31-32
1716 plotted on final sheet (only)

CORRECTORS APPLIED:

VELOCITY: ~~N/A~~ yes TRA CORRECTORS: ~~N/A~~ yes

~~PREDICTED TIDES: N/A~~ ACTUAL TIDES: Yes

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	24°35'00.98"N	81°48'16.52"W
OBSERVED:	24°35'02.~~0~~01"N	81°48'16.~~5~~55"W

POSITION DETERMINED BY: Range-Azimuth (Del Norte - Nikon NT2D Theodolite)

METHOD OF ITEM INVESTIGATION: A visual and fatho search was conducted during low water at 25 meter spacing inside the 50 meter mainscheme to isolate the shoal area. A visual search was made over the area taking fatho and pole drift soundings, each with position data.
The least depth obtained was a 3.0' pole sounding that reduced to a ~~1.8~~ 2.0' sounding when ~~actual tides~~ all correctors were applied. Water clarity was excellent at the time of the investigation.

CHARTING RECOMMENDATIONS: The 2' sounding in question was verified. ~~The hydrographer recommends retaining the 2' sounding and chart it at the above observed position.~~ chart shallower depth of 1 foot observed at latitude 24°35'01.39"N, longitude 81°48'16.51"W.

COMPILATION USE

CHART	APPLIED AS

CHART # 11441 **ITEM #** 3126

ITEM DESCRIPTION: Unknown (Wreck), bares 2 feet at MLW.

SOURCE: H5934A/34-36

INVESTIGATION DATE: April 6, 1984 **TIME:** 164300 GMT **VESSEL:** 0519

OIC: LT(j.g.) John W. Humphrey Jr.

REFERENCE:

Position No: 2135 **Volume:** 7 **Page:** 47

CORRECTORS APPLIED:

☐ **Velocity** ☐ **TRA Correctors**

☒ **Predicted or** ☐ **Actual Tide Correctors**

GEODETIC POSITION:

	Latitude	Longitude
Charted:	24°34'55.2"N	81°48'42.9"W
Observed:	24°34'55.5"N .46	81°48'43.3"W .34

POSITION DETERMINED BY: Range (Del Norte) - Azimuth (Nikon NT2D)

METHOD OF ITEM INVESTIGATION: Item was located visually converting after the AWOIS position to range-azimuth control to locate the general area of the search. The item appears to be debris of rusted metal 10' in length and 3' in width and oriented in east-west direction. The least depth is ~~0.2~~ 6.0', in surrounding water of 1.6' @ ~~Mean Low Water~~ MLLW.

CHARTING RECOMMENDATIONS: Show ~~obstruction~~ wreck awash symbol at the above observed position on the chart.

SUPERSEDED BY L-444(85)
ITEM C AIDS HISTORY 11441

Compilation Use Only

CHART **APPLIED AS**

CHART # 11441 PRE-SURVEY REVIEW ITEM # 3127

Item description: 3-inch dia. iron pipe, bares 2 feet at MLW.

SOURCE Obstruction H5935/34-35; BP111755 TP00485/74-77

INVESTIGATION DATE 25 January 1984 TIME 150200 GMT VESSEL Launch 0519

OIC LT(j.g.) John W. Humphrey Jr.

REFERENCE

POSITION # 1727 VOLUME: 6 PAGE: 39

CORRECTORS APPLIED:

VELOCITY: N/A TRA CORRECTORS: N/A

PREDICTED TIDES: N/A ACTUAL TIDES: Yes

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	24°36'52.17"N	81°48'23.04"W
OBSERVED:	24°36'50.1"N .93	81°48'22.1"W .95

POSITION DETERMINED BY: Range-Azimuth (Del Norte- Nikon NT2D Theodolite)

METHOD OF ITEM INVESTIGATION: A visual search was conducted in the area of the AWOIS position at low water and no sign of an exposed or submerged pipe was seen. An old piling was discovered laying flat on the bottom and is approximately 8 to 10 feet in length, 6 to 8 inches in diameter in 8.0' of water at ~~MLW~~ MLLW. This is in the vicinity of DBn 13 Calda Channel. The piling represents no danger to navigation and is not believed to have been the item. The piling described may have been a previous daybeacon.

Water clarity was excellent at the time of the search.

CHARTING RECOMMENDATIONS: The hydrographer recommends that the marker symbol at the above CHARTED position be deleted. *concur*

COMPILATION USE

CHART	APPLIED AS

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
439 W. York St.
Norfolk, VA 23510
ATTN: MOA233

DATE : 16 May 1984
TO : Chief, Chart Information Section, N/CG222
THRU : LCDR R.W. Jones, Chief, Hydrographic Field Parties Section
FROM : LT(j.g.) J.W. Humphrey Jr., OIC, Hydrographic Field Party #2 John W. Humphrey Jr.
SUBJECT : Danger to Navigation Report for OPR-H373-HSB-83, H-10120

The attached letter was sent to the Commander of the Seventh Coast Guard District, Miami, FL, for inclusion in the Local Notice to Mariners. The Local Notice to Mariners office was also notified via telephone regarding the 4' sounding and the wreck which are not currently charted.

Attached is a chart section of NOS chart 11441 showing the location of the 4' sounding and the wreck for immediate chart correction pending verification of survey H-10120.

A copy of the chart section also accompanied the the letter sent to the Coast Guard in Miami.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
439 W. York St.
Norfolk, VA 23510
ATTN: MOA233

DATE : 16 May 1984

TO : Commander, Seventh Coast Guard District, Miami, FL

THRU : LCDR R.W. Jones, Chief, Hydrographic Field Parties Section

FROM : LT(j.g.) J.W.Humphrey Jr., OIC, Hydrographic Field Party #2

SUBJECT : Danger to Navigation Notice for inclusion in the Local Notice to Mariners

The following information is a result of Navigable Area Survey OPR-H373-HSB-83, H-10120, Calda Channel, Key West, Florida.

A 4' sounding (Pos. 1541+05) among surrounding depths of 19' to 23' @ ~~Mean Low Water~~ MLLW exists at latitude 24°35'19.X"N - longitude 81°48'~~17.2~~16.87"W and presents a danger to navigation. Soundings were reduced using ~~un~~verified actual tidal heights from the Key West tide station.

The geographic position of the 4' sounding bears 210° and is approximately 32 meters from Garrison Bight Channel Light "3" (Fall, 1983, Third Order Horizontal Control position) where Garrison Bight Channel junctions with Man of War Harbor. The 4' sounding is on the western edge of the channel.

The vessel was positioned using range/azimuth control (Del Norte range equipment, Nikon NT2D Theodolite) from Third Order horizontal control stations.

Attached is a chart section showing the location of the sounding.

An obstruction (Pos. 2136) reported from Chart Maintenance Print (TP-000485/74-77) has been located and determined to be remains of a wreck at latitude 24°35'04.X"N - longitude 81°48'41.X"W.

A least depth of 0.4' in surrounding water of 4.4' @ ~~Mean Low Water~~ MLLW (~~un~~verified actual tide heights from Key West) presents a danger to navigation. This area is transited primarily by small shallow draft vessels.

The wreck was positioned using range/azimuth control from Third-Order horizontal control stations.

The wreck is currently not charted.(See attached chart section)

The above information was relayed by LT(j.g.) Humphrey via telephone to Ms. Victoria Taylor, Local Notice to Mariners, Marine Information Office, Seventh Coast Guard District, Miami, FL on this day.

This is advance information subject to office review.

(Key West Harbor and Approaches)

11441

SOUNDINGS IN FEET - SCALE 1:30.000

"DANGER TO NAVIGATION"
Submerged wreck remains - 0.4' least depth in 4.4' of water, at Mean Low Water

"DANGER TO NAVIGATION"
54' sounding at Mean Low Water. Surrounding depths 19' to 23'.

ADVANCE INFORMATION
Subject to office review

Calda Bank
Pearl Basin
Pearl Bank
Middle Ground
Jack Channel
Calda Channel
Garrison Bight Channel
MAN OF WAR HARBOR
Frankfort Bank
TURNING BASIN
KEY WEST HARBOR
RANGE
KEY WEST
HOTEL (PROMINENT)
TOWER (Aband Lt Ho)
Fort Taylor
RESTRICTED AREA 207.173
Cable & Pipeline Area
Spoil Area
Trumbo Pt
Garrison
FLEMING KEY
7 FEET ON CENTERLINE 10 FEB 1980
Ra Ref Navy maintd
Obstr Fish Haven (auth min 14 ft)
Outfalls
FIXED BRIDGE
MARKERS

Soundings from survey H-10120, TK-H373-HSB-83

*ADVANCE INFORMATION
SUBJECT TO OFFICE REVIEW*

105 Garrison Bight Channel
△ Lt"8"

4' sounding referenced in letter

MAN-O-WAR
HARBOR LT. "3", 1983

GARRISON BI
CHANN

081 48 15

24 35 30

24 35 15

(83)

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Atlantic Marine Center
439 W. York Street
Norfolk, Va. 23510

MOA233/BAL 31 July 1984

To: Chief, Chart Information Section, N/CG222

From: LCDR. Ronald W. Jones, MOA233 Ronald W Jones

Subject: Danger to Navigation Report from OPR-H373-HSB-83
Chart 11441, Hydrographic Survey H-10120

The attached letter, chart section, and field sheet section were sent to the Commander of the Seventh Coast Guard District, Miami, Florida, for inclusion in the Local Notice to Mariners, concerning two uncharted dangers to navigation found while conducting Navigable Area Survey H-10120.

The Coast Guard Office was also informed of these dangers by telephone on 31 July 1984.

cc: MOA2X1
CG241

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE

Atlantic Marine Center
439 West York St.
Norfolk, Virginia 23510
MOA233/BL

August 6, 1984

To: Commander, Seventh CoastGuard District
Miami, Florida

From: LCDR. Ronald W. Jones Ronald W Jones
Chief, Hydrographic Field Parties Section

Subject: Danger to Navigation Notice
Chart 11441, Key West, Florida

The following dangers to navigation were found while conducting a navigable area survey of the Calda and Jack Channels, Key West, Florida:

~~An uncharted obstruction was found in 13 feet of water with a least depth of 5 feet at Mean Low Water, at Latitude 24° 38' 38.7"N, Longitude 81° 50' 16.0"W, bearing 324° true and 1.07 nautical miles (1980 meters) from Calda Channel Light 1~~. H-10187

Shoaling to ~~Awash~~ 3 feet at ~~Mean Low Water~~ MLLW exists in the Jack Channel at Latitude 24° 36' 11.4"N, Longitude 81° 48' 46.8"W, bearing 342° true and 0.5 nautical miles from Caulda Channel Daybeacon 24. The shoal extends north to Latitude 24°36'14.4"N, Longitude 81°48'46.8"W, south to Latitude 24°36'10.2"N, Longitude 81°48'46.8"W, and is on the approximate centerline of the channel and 25 meters wide. Depths range from 3 feet on the north end, zero feet on the center, and sloping to 8 feet on the south end (~~at Mean Low Water~~ at MLLW). Pos. 2314 & 2317

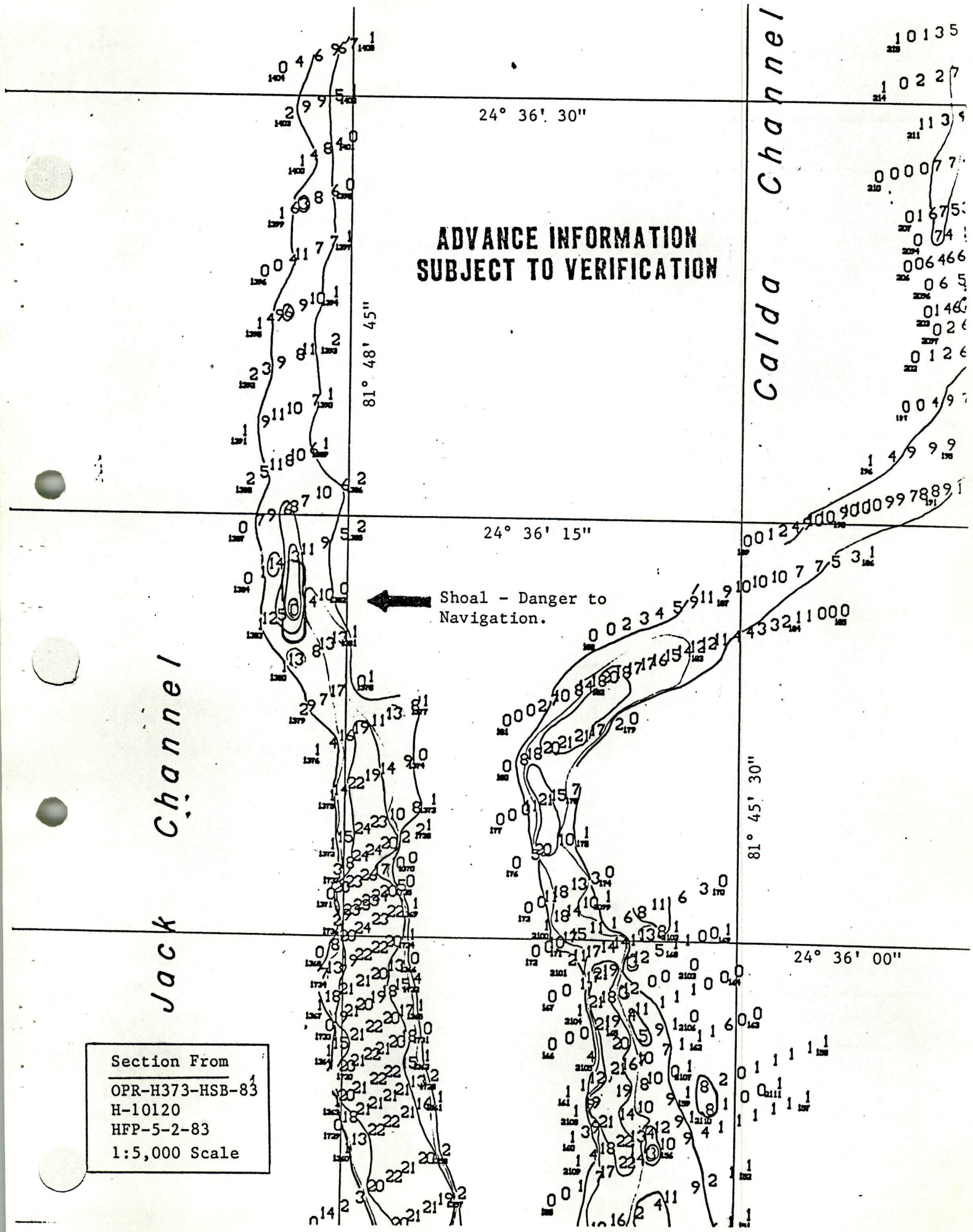
These dangers to navigation were located using range/azimuth positioning methods from third order control stations. Del Norte Electronic positioning system was used to obtain the range and a Nikon NT2D 20" theodolite for the azimuths. Depths were recorded with a Raytheon 719C survey fathometer and were reduced to ~~Mean Low Water~~ MLLW using ~~un~~verified actual tide heights from the Key West Tide Station.

Subject: Danger to Navigation Notice
Chart 11441, Key West, Florida

Attached is a chart section showing the location of both dangers, and a section of the survey field sheet in the area of shoaling.

Information on these dangers were relayed by telephone to Ms. Victoria Taylor, Local Notice to Mariners Office, Seventh Coast Guard District, Miami, Fl. on 31 July 1984.

This is advance information subject to verification.


24° 36' 30"
ADVANCE INFORMATION
SUBJECT TO VERIFICATION
81° 48' 45"
Calda Channel
24° 36' 15"
Shoal - Danger to Navigation.
Jack Channel
81° 45' 30"
24° 36' 00"
Section From
OPR-H373-HSB-83
H-10120
HFP-5-2-83
1:5,000 Scale

APPROVAL SHEET

For

SURVEY H-10120 (HFP-5-2-83)

The hydrographic records transmitted with this survey are complete and adequate.

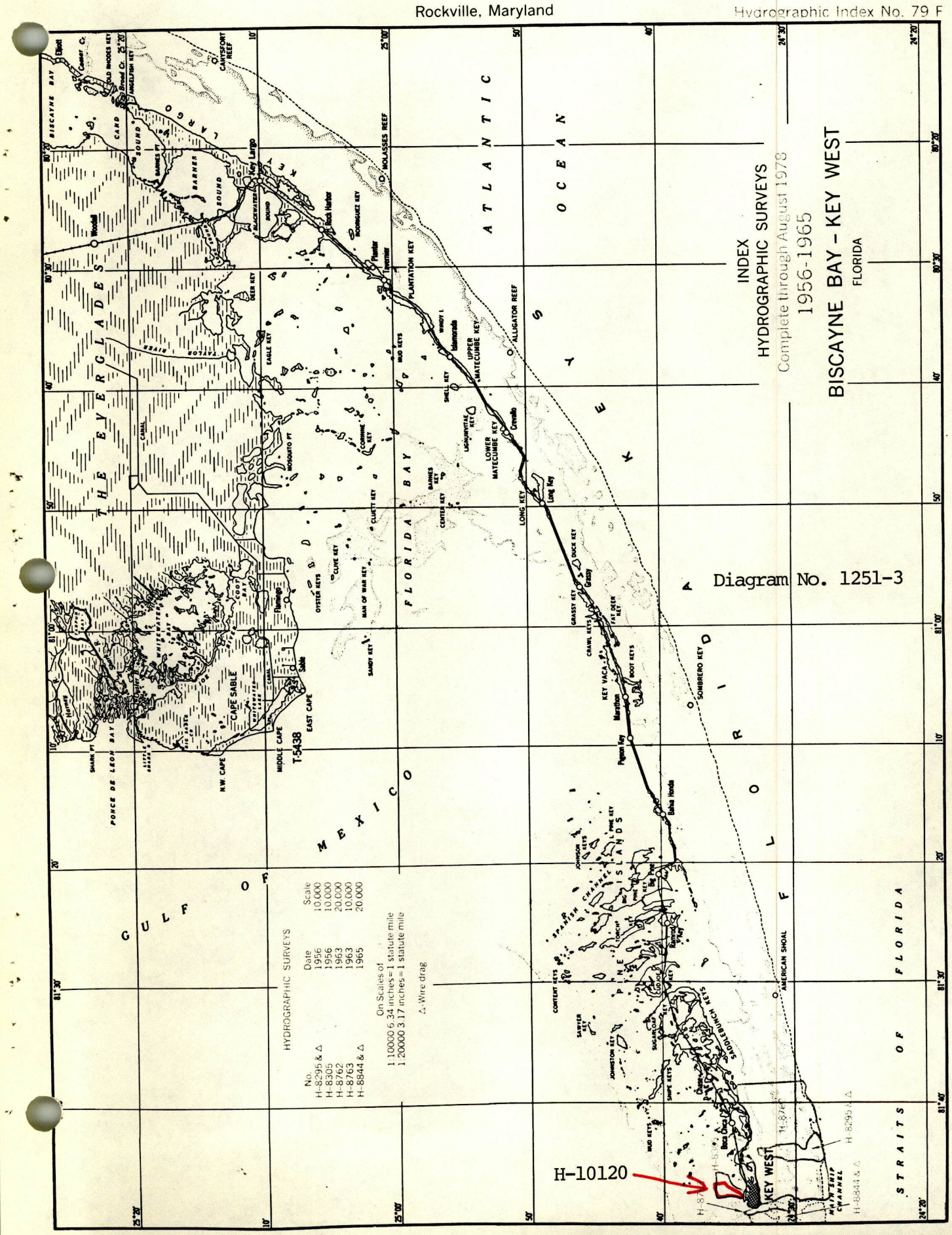
No direct supervision was given by me during the field work.

The survey is complete and adequate, with no additional field work recommended.

Ronald W. Jones, LCDR, NOAA
Chief, Hydrographic Field Parties Section

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

Hydrographic Index No. 79 F



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-10120

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
11441	11/4/86	Peter Shuman	Full ~~Part~~ ~~Before~~ After Marine Center Approval Signed Via
			Drawing No. 41
11445	2-23-88	Fy—Wut	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 26
11442	4-5-88	Ernest V. Monti	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 50
11447	6-20-90	Betty J. Dyatkowski	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 40
			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.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.