10187

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-5-3-83

Office No. ... H-10187

LOCALITY

State ... Florida

General Locality ... Gulf of Mexico

Locality ... N.W. Approach to Calda Channel

19 83-84

CHIEF OF PARTY
LCDR R.W. Jones

LIBRARY & ARCHIVES

DATE ... March 28, 1986

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

10187

ACPC
L-253(86)
CHTS:
11441 } to sign off see
11442 } Recaid off Application

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H-10187

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 NO.

HFP 05-3-83

State Florida

General locality Gulf of Mexico

Locality N.W. Approach to Calda Channel

Scale 1:5,000 Date of survey Dec. 9, 14 & 20, 1983 Jan. 31 & Nov. 20, 1984

Instructions dated Nov. 7, 1983, Nov. 10, 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 and T.R. Owens

Soundings taken by echo sounder, hand lead, pole all

Graphic record scaled by JMH, JMR, MJM, TAT & TRO

Graphic record checked by JHW, JMR

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

Evaluation by A.A. Luceno

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

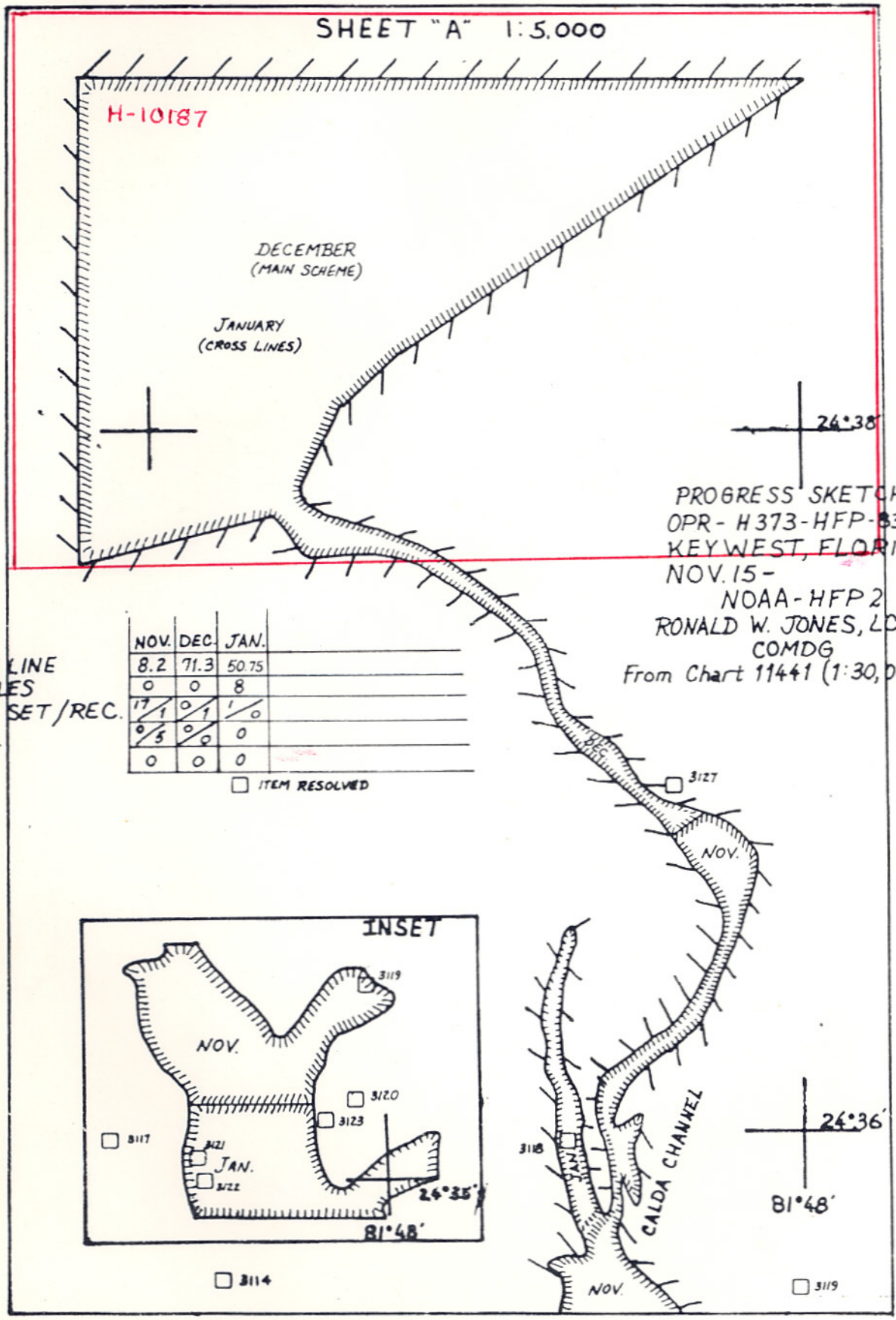
REMARKS: Marginal notes in black by Evaluator. Separates are filed with the hydrographic data. This Descriptive Report for H-10187 is a copy of the original report for H-10120. Pertinent data for H-10120 are crossed out in this report. The original Descriptive Report, records and field sheets are submitted with survey H-10120.

AWOIS and SURF ✓ RWD 4/86

LC 48-97

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

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


SHEET "A" 1:5,000
H-10187
DECEMBER
(MAIN SCHEME)
JANUARY
(CROSS LINES)
24°38'
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)
LEGEND
SOUNDING LINE
ITOM SAMPLES
CONTROL STA.
BM SET/REC.
TIDE GAGES
SET/REC.
NOV. DEC. JAN.
8.2 71.3 50.75
0 0 8
17/1 0/1 1/0
0/5 0/0 0
0 0 0
ITEM RESOLVED
3127
NOV.
INSET
3119
NOV.
3120
3123
3117
3121
JAN.
3122
24°35'
81°48'
3114
3118
JAN.
CALDA CHANNEL
24°36'
81°48'
NOV.
3119

Descriptive Report to Accompany

Hydrographic Survey H-10187

HFP-5-3-83

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.~~ H-10120
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. Refer to Sect. 1 of Eval. Report

~~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.~~ H-10120

~~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.~~ H-10120

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 01 to 23 ft. ✓

~~H-10120~~

The first portion of this survey was conducted between 9 December ~~17 November~~ 1983 (~~JD327~~) and 31 January ~~23 May~~ 1984. The project was resumed ~~in the fall of 1984 on 29 October 1984 (JD 303)~~ 20 November and completed on ~~3 December~~ 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 Vesno 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.

filed with hydrographic data.

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. Vel. table #1 used for 1983 & 1984 work. Vel. table #2 used for 1984 work starting october.

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.

Filed with hydrographic data.

~~This survey~~ The field sheet 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.

Refer to sect. 1 of Eval. Report

~~H-10120~~

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

Refer to Remarks in title sheet & Sect. I of Eval. Report

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.

filed with hydrographic data

~~The following Prosurvey Review items are shown on the east crossline overlay sheet: 3012, 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:

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

~~H-10120~~

F. CONTROL STATIONS

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

SIGNAL # & NAME	LATITUDE	LONGITUDE	
100: Key West Lighthouse, ~~Esc~~ 1849	24°33'00.725"N	81°48'03.811"W	
~~106: Key West Harbor Front Range Light~~	~~24°34'44.135"N~~	~~81°48'00.049"W~~	H-10120
108: ~~Man-O-War Light 3, 1983 Harbor Light "S"~~ Garrison Bight Channel	24°35'20.670"N	81°48'16.490"W	
109: MAN-O-WAR, 1983	24°35'07.425"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	
112: CALDA LIGHT NO. 1	24°37'46.531"N	81°49'43.736"W	
~~118: NORTH MOLE~~	~~24°33'16.185"N~~	~~81°48'48.769"W~~	H-10120
~~120: NORTH MOLE~~	~~24°33'36.026"N~~	~~81°48'52.493"W~~	
~~121: Cut B Front Range Light~~	~~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. ✓

~~H-10120~~

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.

Refer to Sect. I of Eval. Report

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.

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.

Data with small arc intersection appears consistent with adjoining data

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)~~

H-10120

near the FAA VORTAC on Flaming 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

Refer to sect. 3 of Eval. Report

Crosslines were run at 45° to 90° to the mainscheme hydrography and accounted for 6.5% 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. H-10120

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. H-10120

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. H-10120 (1983-84)

K. COMPARISON WITH PRIOR SURVEYS

Refer to sect. 6 of Eval. Report

Preasurvey 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: H-10120

SURVEY	SCALE	DATE
H-5908	1:10000	Feb.-June 1935
H-5935	1:10000	Dec. -June 1935 (1934-35, Add WK 37)

~~H-10120~~

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.~~

~~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 prior and current surveys show agreement to 1 ft ???? to the western survey limit.~~

~~3. Garrison Bight Channel from light "2" to light "8" shows good agreement.~~

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

~~1. The Jack Channel from its 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.~~

~~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 2 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.~~

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 exceed~~ in the prior survey deepened as much as 3 ft. An exception is the six foot shoal at Lat. 24°39'05.00" N, Lon. 81°48'~~38~~28.00" 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.

Refer to Sect. 6 of Eval. Report

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. ✓

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. *Refer to Sect. 6.c of Eval. Report*

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 dangers:~~ *H-10120*

~~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".~~ *H-10120*

~~2. Preservey Review item 3124 was also included in the above letter. An uncharted submerged wreck with a least depth of 0.4 ft @ MLW was found in 4.4 ft of water.~~ *H-10120*

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. *Pos. 2309 φ = 24°38'38.62"N λ = 81°50'16.07"W*

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

~~The "Obadin Fish Haven, auth min depth 14 ft" in the Jack Channel, PSR item 3118, was investigated with reduced line spacing (pos 1860-1870 and 1728-1738). No evidence of any obstruction was found (see PSR Item 3118 investigation report~~ *H-10120*

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. H-10120

Prosurvey Review item 03123, 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. H-10120

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

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°47'11.706"
Main Channel Rear R Light (CGLL #907, Vol 2)	24°32'52.610"	81°48'26.478"
Main Channel Front R 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)	24°33'00.630	81°48'03.860"
Key West Courthouse Cup	24°33'14.79"	81°48'14.69"
Radio TWR	24°33'22.71"	81°48'23.33"

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LANDMARK (charting name)	LATITUDE	LONGITUDE
~~Steak (Ctr of 3)~~	~~24°33'43.72"~~	~~81°47'52.73"~~
~~Key West Cut B Rge Rear Lt (CGLL #912.20, Vol 2)~~	~~24°33'44.92"~~	~~81°48'51.93"~~
~~Key West Cut B Rge Fr LT (CGLL #912.10, Vol 2)~~	~~24°33'36.06"~~	~~81°48'52.44"~~
~~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 (CGLL #917, Vol 2)~~	~~24°35'05.071"~~	~~81°47'49.715"~~
~~Airport VOR Cupola~~	~~24°35'07.69"~~	~~81°48'02.36"~~

H-10120

~~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~~	115.0
Linear Nautical Miles of Crossline	~~24.5~~	7.5
Linear Nautical Miles of Hydrography (total)	~~173.5~~	122.5
Number of Positions	~~2262~~	1291
Bottom Samples	~~86~~	36
Bar Checks	~~46~~	28
Presurvey Review Items Investigated	~~13~~	0

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. ✓

~~H-10120~~

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 Fredericks, AMC, Program Services Division was informed by the OIC.~~ H-10120

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 1982 by AMC Geodetic Control Group personnel. Light "2" is signal #107 on the signal list appended to this report (unadjusted field position).~~ H-10120

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

APPROVAL SHEET

For

SURVEY H-10127 (HFP-5-3-83)

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

SIGNAL TAPE LISTING
~~H-10120~~ HFP
OPR-H373-~~HSB~~-83

~~099 0 24 33 00727 081 48 03875 250 0027 000000 Key West Lighthouse Eccentric, (AMC 1981)~~ H-10120

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 Light, (AMC 1983)~~ } H-10120

~~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)~~ 3 1983

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

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

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

~~120 0 24 33 17619 081 48 35917 250 0000 000000 North Mole RM 1, (AMC 1981)~~ } H-10120

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

110 0 24 33 34451 081 50 21269 139 0000 00000 cut A Range Light

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

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 87

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

(CB)

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Atlantic Marine Center
Hydrographic Field Parties Section (MOA233)
439 W. York St.
Norfolk, VA 23510

Date : 2 November 1984

To : Chief, Chart Information Section, N/CG222

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

From : LT John W. Humphrey Jr., OIC, Hydrographic Field Party #2

Subject : Danger to Navigation report for OPR-H373-HFP-84, Calda and Northwest Channels, Key West, FL; Registry # H-10120 and ~~H-10086~~.

The attached letter and chart section was sent to the Commander of the Seventh Coast Guard District, Miami, FL for inclusion in the Local Notice to Mariners, concerning two uncharted dangers to navigation. The coral shoal was located on H-10120 and the wreck on H-10086.

Information on the wreck was called into USCG Miami via USCG Key West on 31 October 1984. USCG Miami was informed of the shoal via telephone on 31 July 1984 by the Hydrographic Field Parties Section office, Norfolk, VA.

CC: N/CG24
N/MOA2X1

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Atlantic Marine Center
Hydrographic Field Parties Section
439 W. York St. (MOA 233)
Norfolk, VA 23510
804-441-6593

Date : 2 November 1984

To : Commander, 7th Coast Guard District, Miami, Florida

From : LT John W. Humphrey Jr., OIC Hydrographic Field Party #2

Subject : Danger to Navigation report for Chart 11441 (Key West Harbor and Approaches)

The following coral shoal and wreck have been found and positioned while conducting survey operations in the vicinity of the Calda and Northwest Channels. These obstructions are not charted and pose a danger to navigation.

o Coral shoal submerged 4.1' at Mean Low Water at
position: 24°38'38.62"N
81°50"16.07"W
Depth of surrounding water is 13'.

~~o Wreck, commercial fishing vessel approximately 60'x15' oriented northwest southeast. The wreck is submerged 22.2' at Mean Low Water at position: 24°39'22.26"N~~
~~81°53'03.95"W~~
~~Depth of surrounding water is 30'~~

H-10086

All positions were obtained using range/azimuth control, third-order horizontal control stations, Nikon NT2D theodolite and Del Norte electronic range equipment. The least depth measurement on the coral shoal and the wreck were obtained by NOAA divers. Soundings were reduced using unverified actual tides from the Key West tide station, Key West Harbor.

Preliminary information regarding the wreck, relayed in person to QM1 Stansberry, USCG Key West and forwarded to USCG Miami on 31 October 1984 should be superseded by the above geographic position and least depth.

The geographic position and least depth on the coral shoal listed above should supersede preliminary information sent to USCG Miami from LCDR Ronald W. Jones, Chief, Hydrographic Field Parties Section, Atlantic Marine Center, Norfolk, Virginia in a letter dated 6 August 1984.

* INFORMATION SUBJECT TO OFFICE VERIFICATION*

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

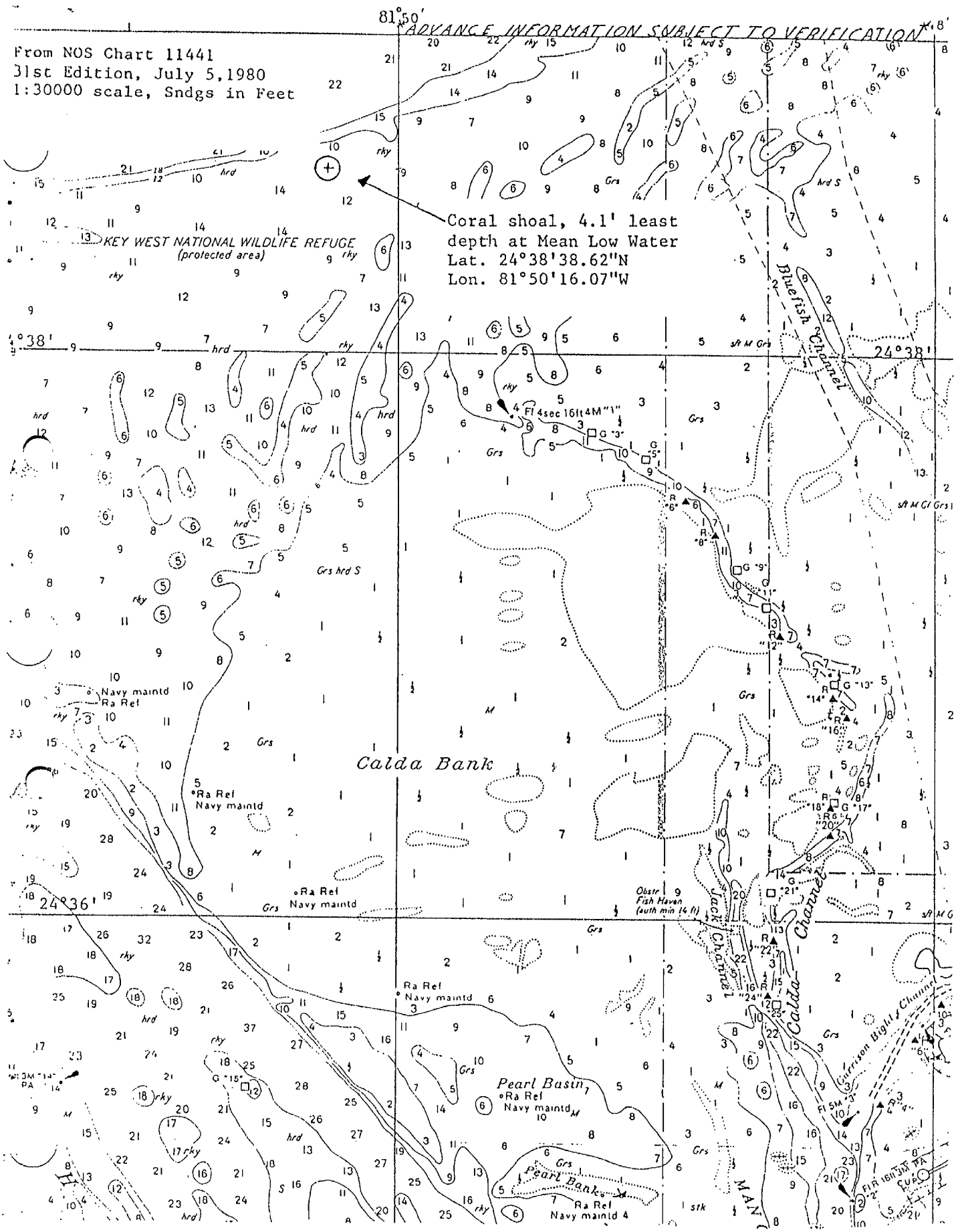
Subject: Danger to Navigation Notice
Chart 11441, Key West, Florida

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 ~~12~~ 11 feet at Mean Low Water, at Latitude 24° 38' 38.~~27~~"N, Longitude 81° 50' 16.~~87~~"W, bearing 324° true and 1.07 nautical miles (1980 meters) from Calda Channel Light 1.

~~Shoaling to Awash at Mean Low Water 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 Dayboacon 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).~~ H-10120

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 using unverified actual tide heights from the Key West Tide Station.


ADVANCE INFORMATION SUBJECT TO VERIFICATION
From NOS Chart 11441
31st Edition, July 5, 1980
1:30000 scale, Sndgs in Feet
81°50'
24°38'
24°36'
Coral shoal, 4.1' least
depth at Mean Low Water
Lat. 24°38'38.62"N
Lon. 81°50'16.07"W
KEY WEST NATIONAL WILDLIFE REFUGE
(protected area)
Bluefish Channel
Calda Bank
Pearl Basin
Pearl Banks
Jack Channel
Calda Channel
Garrison Bight Channel
Navy maintd
Ra Ref
Obstr
Fish Haven
(auth min 14 ft)
Fl 4sec 16ft 4M "1"
Fl 5M "3"
Fl R 16ft 3M PA
Grs
hrd
rky
stk

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-101~~20~~ 87	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~~	H-10120
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~~	H-10120
LIGHT	Garrison Bight Channel Light "3" CGLL 924, Pg. 93 Sig.108	24 35	20.670 635.95	81 48	16.490 463.96		F-3-6-L 11/83	11441	
LIGHT	~~Garrison Bight Channel Light "8" CGLL 925, Pg. 93 Sig.105~~	~~24 35~~	~~38.418~~ 31	~~81 48~~	~~02.129~~ 36		~~F 3 6 L 11/83~~	~~11441~~	H-10120
LIGHT	Calda Channel Light "1" CGLL 944, Pg. 94	24 37	46.~~516~~ 1431.62	81 49	34.7~~40~~ 977.09		F-3-6-L 11/83	11441	

1-253(86)
(49)

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-10126 87

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: 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 87

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

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-10128~~29~~7

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

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.

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-10187

Name on Survey	A ON CHART NO. 11441	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	
Calda Channel	x									1
Gulf of Mexico	x									2
										3
										4
										5
										6
										7
										8
										9
										10
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										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

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

U.S. DEPARTMENT OF COMMERCE

REGISTRY NUMBER
H-10187

HYDROGRAPHIC SURVEY STATISTICS

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

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

(Duplicate copy of H-10120)

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

SHORELINE DATA

SHORELINE MAPS (List):

PHOTOBATHYMETRIC MAPS (List):

NOTES TO THE HYDROGRAPHER (List):

SPECIAL REPORTS (List): Note: Original Descriptive Report, records and field sheet submitted with H-10120

NAUTICAL CHARTS (List):

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS VERIFICATION	AMOUNTS EVALUATION	AMOUNTS TOTALS
POSITIONS ON SHEET			1291
POSITIONS REVISED			1926
SOUNDINGS REVISED			169
CONTROL STATIONS REVISED			
	TIME-HOURS VERIFICATION	TIME-HOURS EVALUATION	TIME-HOURS TOTALS
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	20.0		20.0
VERIFICATION OF SOUNDINGS	65.0		65.0
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	18.0		18.0
COMPARISON WITH PRIOR SURVEYS AND CHARTS		34.0	34.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		10.0	10.0
GEOGRAPHIC NAMES			
OTHER* Digitizing	7.0		7.0
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	110.0	44.0	154.0

Preprocessing Examination by A.A. Luceno	*Beginning Date*	*Ending Date*	May 31, 1985
Verification of Field Data by R.N. Mihailov	*Time (Hours)* 103.0	*Ending Date*	Jan. 22, 1986
Verification Check by S. Otsubo, B. Olmstead, J. Green	*Time (Hours)* 41.5	*Ending Date*	Feb. 10, 1986
Evaluation and Analysis by A.A. Luceno	*Time (Hours)* 44.0	*Ending Date*	Feb. 10, 1986
Inspection by D. Hill	*Time (Hours)* 2	*Ending Date*	2-14-86

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

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10187

1. INTRODUCTION

H-10187 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 of the area north of Calda Bank that is the northwest approach to Calda Channel, leading to Key West, Florida. The surveyed area is bounded on the south by latitude 24°37'30"N, on the north by latitude 24°39'12"N, on the east by a line joining latitude 24°37'30"N, longitude 81°49'45"W and latitude 24°39'12"N, longitude 81°47'42"W and on the west by longitude 81°50'24"W. Depths from the present survey range from 23 feet on the northwest to shoal soundings of one foot on Calda Bank. The bottom is composed of sand, broken shells and grass.

This survey was originally included on H-10120, HFP 5-2-83. 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. It was decided to divide H-10120 into two surveys. The registry number H-10187 and field number HFP-5-3-83 were assigned to this part of the survey.

The descriptive report for H-10187 is a copy of the report for H-10120 with sections not applicable to H-10187 deleted and annotated as applicable to H-10120. The data package and field sheets are included with the records for H-10120.

Unverified actual tides at Mean Low Water based on the 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-10187 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 except on day number 348 when the daily system check determined that range values exceeded the allowable limits. The electronic correctors were changed from 0 to minus 5 meters to reflect the average of the initial and ending system check correctors. The TRA correctors were revised during office processing to include the settlement and squat correctors to the transducer draft.

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.

There are no photo manuscripts applicable to this survey and no reference shoreline is displayed on the smooth sheet due to this survey's offshore location.

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 Report, dated May 13, 1985 and as follows:

> The field sheet with a length of 183cm exceeded the maximum allowable size for a hydrographic survey sheet. An attempt to plot half of the surveyed area as an inset to fit the survey on one sheet during office processing was not successful as the size of the survey still exceeded the capability of the PMC Xynetics Plotter.

5. JUNCTIONS

H-10187 junctions with H-10120 (1983-84) to the south at the entrance to Calda Channel. The junction has been adequately effected.

There are no other contemporary surveys to junction the present survey. However, soundings are in agreement with charted and prior survey depths after taking into consideration the general deepening by 1 to 3 feet of the bottom in some areas.

6. COMPARISON WITH PRIOR SURVEYS

H-5935 (1934-35, Add Wk 37) 1:10,000

Depths in the present survey are generally deeper by 1 to 3 feet in some areas. Other depths differing by more than 4 feet are as follows:

a. The 4 to 5-foot depths centered at latitude 24°38'42"N, longitude 81°49'22"W on H-5935 were found to be 9 to 10-foot soundings on the present survey.

b. The 5 to 6-foot depths centered at latitude 24°38'33"N, longitude 81°49'42"W were also found to be 9 to 10 foot depths in the present survey.

c. The 6-foot depth curve centered at latitude 24°38'16"N, longitude 81°49'43"W on the prior survey was found shifted about 100 meters northwest.

H-5908 (1935) 1:10,000

Soundings from the present survey are generally deeper by 1 to 2 feet in some areas. Other depths differing by more than 4 feet are as follows:

a. The 2 to 6-foot depths inside the 6-foot depth curve centered at latitude 24°38'54"N, longitude 81°49'06"W on H-5908 were found to be 7 to 11-foot depths in the present survey.

b. The 5 and 6-foot soundings between latitudes 24°38'45"N and 24°39'07"N and between longitudes 81°48'00"W and 81°49'00"W were found to be generally 9 to 11-foot depths in the present survey.

Depths from the regular sounding lines in the present survey did not indicate the existence of shoals or features at the locations mentioned above. Although no investigation of these shoal depths in the present survey was accomplished by the hydrographer, these features are believed changed in the fifty years since the prior surveys. Therefore, H-10187 is adequate to supersede the prior surveys within their common areas.

There are no applicable AWOIS items within the limits of the surveyed area.

7. COMPARISON WITH CHART

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

a. Hydrography - All charted information originates with the prior surveys discussed in section 6 of this report. Refer to section 6 of this report for the disposition of the charted shoaler depths.

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, for an uncharted coral head with a least depth of 4 feet in 13 feet of water at latitude 24°38'38.62"N, longitude 81°50'16.07"N. No additional dangers were identified during office processing.

H-10187 is adequate to supersede the charted hydrography within the common area.

b. Controlling Depths - There are no controlling depths within the limits of this survey.

c. Aids to Navigation - There are two 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-10187 adequately complies with the project instructions noted in section 1 of this report.

9. ADDITIONAL FIELD WORK

This is a good navigable area survey. No additional field work is recommended.

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
Chief, Hydrographic Section

ATTACHMENT TO DESCRIPTIVE REPORT FOR H-10187

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.

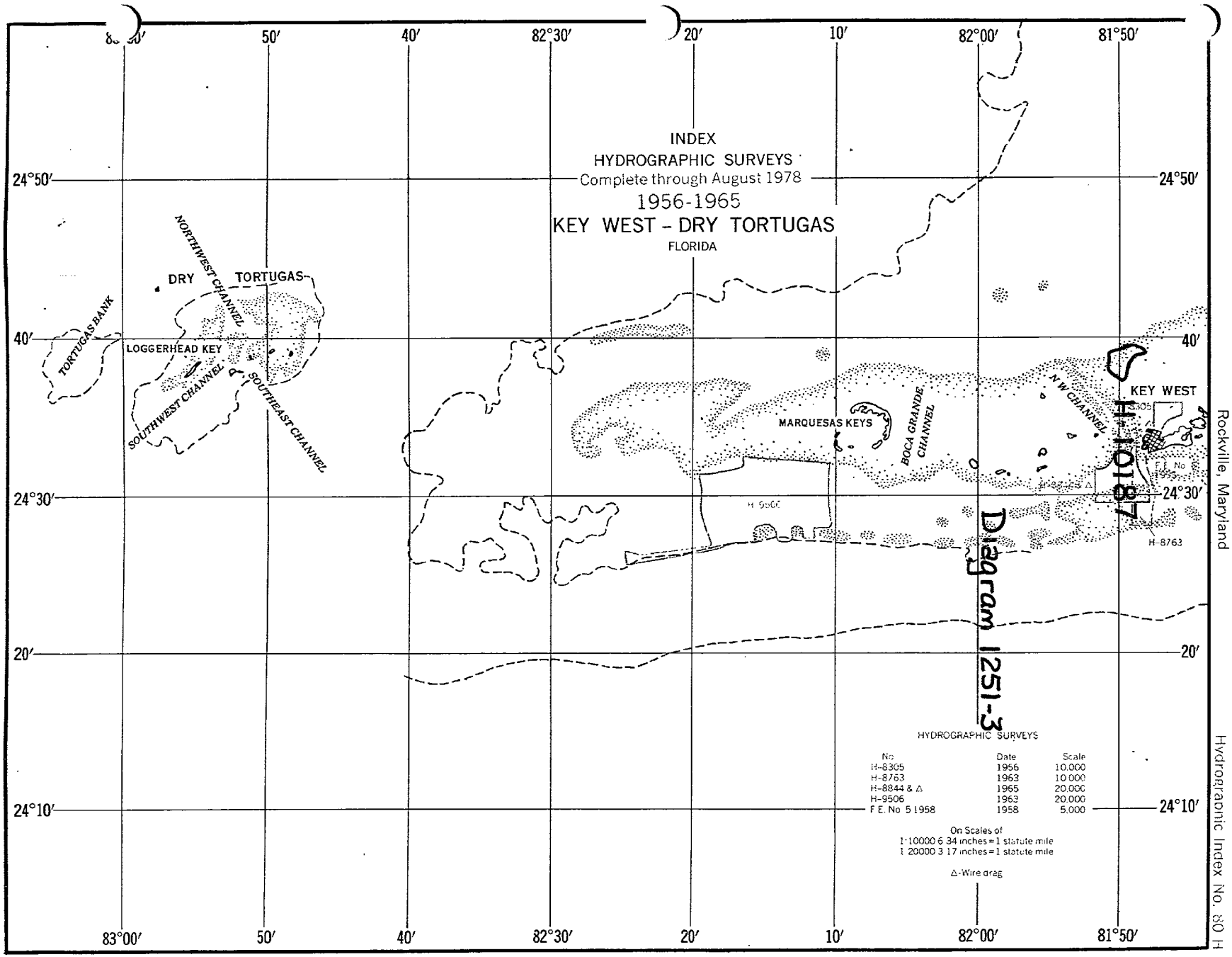
Chief, Nautical Chart Branch (Date)

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.

Director, Pacific Marine Center (Date)



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

Hydrographic Index No. 80 H

H-10187

Diagram 1251-3

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-10187

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	8/18/86	[signature]	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 41
11442	8/18/86	[signature]	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. #50
11445	2-22-88	[signature]	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 26
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
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SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED. appd 4-1-86 [initials]