10125

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-5-2-84

Office No.: H-10125

LOCALITY

State: Florida

General Locality: Key West

Locality: Northwest Channel & Vicinity

1984

CHIEF OF PARTY
LCDR R.W. Jones

LIBRARY & ARCHIVES

DATE: April 1, 1986

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

10125

ACPG
CHTS
11441
11447
11445
11442
11439
11434-NC

TO SIGN OFF SEE "RECORD OF APPLICATION"

NOAA FORM 77-28
(11-72)

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

HYDROGRAPHIC TITLE SHEET

REGISTER NO. H-10125

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 5-2-84

State: Florida

General locality: Key West

Locality: Northwest Channel and Vicinity

Scale: 1:5,000 Date of survey: 2 March to 30 November 1984

Instructions dated: 7 Nov. 1983; 11 Nov. 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, Jr. (OIC)

Soundings taken by echo sounder, hand lead, pole: all

Graphic record scaled by: LT J.W. Humphrey, Jr., J.M. Robinett, M.J. Mann, T.A. Taylor, T.R. Owens

Graphic record checked by: JWH, JMR

Verification by ~~Protracted by~~: R.N. Mihailov Automated plot by: PMC Xynetics Plotter

Evaluation by ~~Verification 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.

SC 4-15-97 AWOIS and SURF ✓ 4/87 RWD

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

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

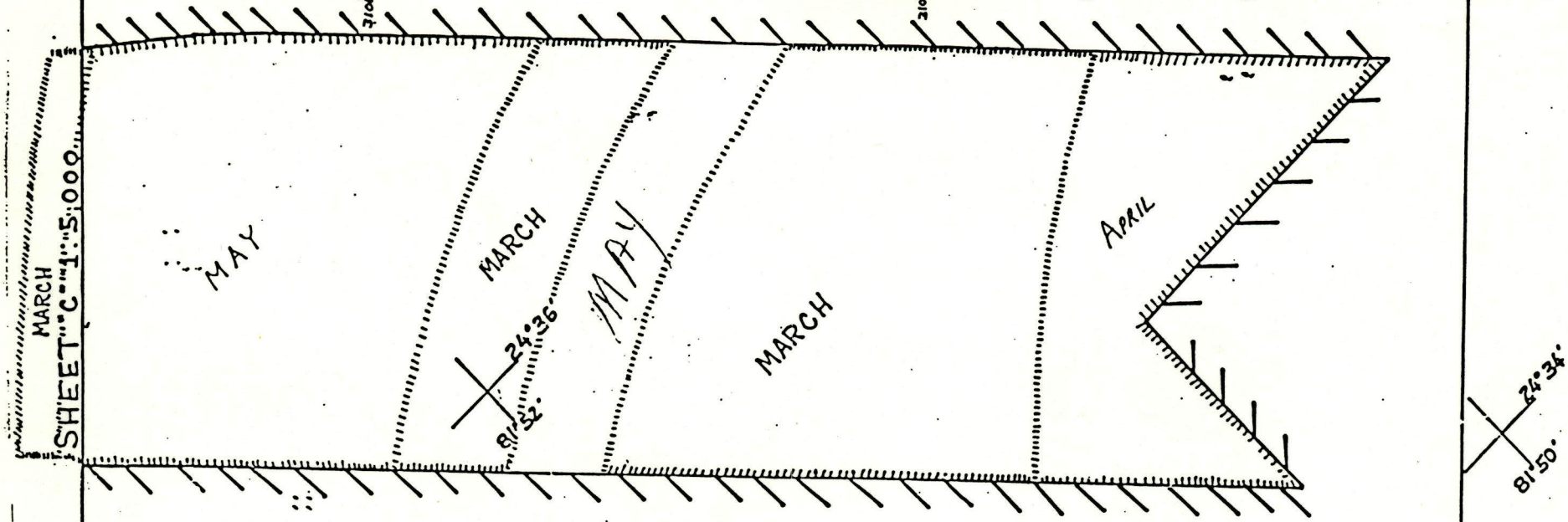
PROGRESS SKETCH
OPR-H373-HFP-83
KEY WEST, FLORIDA
MAR.2-
NOAA-HFP2
RONALD W. JONES, LCDR.
COMDG
From Chart 11441 (1:30,000)

H-10125
HFP-5-2-84

LEGEND
LNM SOUNDING LINE
BOTTOM SAMPLES
CONTROL STA. SET/REC.
BM SET/REC.
TIDE GAGES
☐ ITEM RESOLVED

MAR	APR	MAY		
72.6	59.6	97.4		
0	0	3		
%	%	%		
%	%	%		
0	0	0		

FIELD WORK COMPLETED



(2)

Descriptive Report to Accompany

Hydrographic Survey H-10125

HFP-5-2-84

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 ~~3~~ 2

A. PROJECT

This survey was carried out 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 Northwest Channel, Gulf of Mexico. The channel leads northwest from the island of Key West, Florida.

The survey area is bounded by the following geographic points connected in a clockwise manner:

1. Lat. 24°37'~~26.0~~ 30.0" N, Lon. 81°52'~~09.0~~ 11.0" W
2. ~~Lat. 24°37'14.1" N, Lon. 81°51'54.5" W~~
3. Lat. 24°34'55.3" N, Lon. 81°49'~~30.0~~ 25.0" W
4. ~~Lat. 24°34'53.5" N, Lon. 81°50'25.8" W~~
5. Lat. 24°34'~~16.8~~ 19.0" N, Lon. 81°50'~~29.5~~ 3.0" W
6. Lat. 24°38'~~12.0~~ 46.0" N, Lon. 81°5~~5~~3'~~09.0~~ 12.0" W

The survey area is bordered on the north~~west~~ east and south~~east~~ west by coral shoal areas, a portion of which expose during periods of low tides. The south end of the survey area encompasses Northwest Channel and the northern end of Middle Ground Shoal. The north end of the survey area junctions with the contemporary survey H-10086.

The survey area is affected by a tidal range of 1.3 ft, but is influenced by both prevailing northwest and southwest winds. In the south end of the survey area, choppy sea conditions of 2 to 3 ft were observed during contrary tide and wind conditions. This is where the channel forks into the marked channel to the west of Middle Ground Shoal and an unmarked channel to the east.

Bottom composition in the survey area is fine sand, coral, grass and shell. Depths in the survey area range from 0 to 48 ft. The channel is used primarily by small commercial fishing vessels and recreational craft.

This survey was conducted from 2 March 1984 to 30 November 1984.

C. SOUNDING VESSEL

NOAA Launch 0519 was used to collect all data for this survey. ✓

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

A Raytheon Fathometer Model 719C, Serial #9955 was the only echo sounding equipment used on Launch 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 on each day of hydrography, two whenever possible using Launch 0519. Bar check chains were measured prior to the start of the project and no correction was needed. ✓

A transducer draft of 1.2 ft was applied to all Fathometer soundings. Settlement and Squat correctors were determined on November 17, 1983 and again on October 22,1984 using the level method. A copy of the field data and a graph of Settlement and Squat Correctors vs. RPM for Launch 0519 are appended to this report in Appendix "D". Settlement and Squat correctors will be applied via the TC/TI Tape during the final processing of data at ~~Atlantic~~ Pacific Marine Center. *Refer to sect. 1 of Eval. Report*

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). Smooth tides were requested from Tides and Water Levels Branch N/OMS121 in letters dated June 26, 1984 and January 8, 1985.

E. HYDROGRAPHIC FIELD SHEETS

All work was plotted by a PDP/8e computer and a Complot plotter on 3 mylar field sheets divided as follows:

No. of Sheets	Type	Skew
1	Mainscheme, Signals	134,21,60
1	Crosslines, Detached Positions, Bottom Samples, Signals	134,21,60
1	Developments, Bottom Samples	134,21,60

Soundings on the final field sheet are corrected for draft, unverified actual tides and sound velocity. All field records and the following tapes have been forwarded to the Atlantic Marine Center:

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

F. CONTROL STATIONS

Three control stations of third-order accuracy were used for this survey:

Signal # and Name	Latitude	Longitude
110 Cut A Range Rear Light	24/33/34.451	81/50/21.269
114 Northwest Channel LT "15A"	24/34/53.457	81/50/25.777
119 Fort Taylor	24/32/51.515	81/48/39.011

Refer to sect. 2 of Eval. Report

Signals 110 and 114 were located in the Fall of 1983 and signal 119 in 1981. All signals were located by personnel from the AMC Geodetic Control Group.

G. HYDROGRAPHIC POSITION CONTROL

Range-azimuth position control was used with Del Norte electronic positioning equipment and a Nikon NT-2D 20 second theodolite for all days of hydrography. The following Del Norte equipment was used:

Refer to sect. 1 of Eval. Report

EQUIPMENT	SERIAL NO.
DMU/Master	123/263
DMU/Master	188/1060
Remote	222
Remote	247
Remote	253
Remote	1322

Baseline calibration data sheets are located in the fan folder with the survey support data. 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 OpOrder 79.

Baseline distances were determined by repetitive observations with a Hewlett-Packard 3808A (modified with theodolite yoke) EDMI. Daily system checks were made laying alongside lights in the survey area. Distances for daily checks were determined through geodetic inverse computation.

Refer to sect. 1 of Eval. Report

H. SHORELINE

There is no shoreline within the survey limits of survey H-10125.

I. CROSSLINES

Crosslines were run as close to 90° of the mainscheme hydrography as possible and accounted for 10% of the total Hydro mileage. All crosslines on this survey were run in a northwest-southeast direction parallel to the marked channel. Comparison of the crosslines and the mainscheme show good agreement on all six crosslines over the length of the survey area. In cases where the crosslines ran along the rise from the channel to the shoal area on the east and west side of the survey area, some differences of 2 ft are seen with the crosslines deeper. When running the radial crosslines, the vessel moved off the radial slightly and into the channel area, but was back on the radial at the time of the fix. This jog in the line is not seen on the plot. When the crossline crosses this rise, a small horizontal distance on the surface results in a large depth change depending on the grade of the rise in the channel sides.

Refer to sect. 3 of Eval. Report

J. JUNCTION SOUNDINGS

This survey junctions with one contemporary survey and one junction survey.

AREA OF JUNCTION	FIELD #	REGISTRY #	SCALE	DATE
North ~~South~~	HFP-5-1-84	H-10086	1:5,000	Feb.-May 1984
south ~~North~~	HY-20-1-66	H-9505	1:10,000	1966

Data for surveys H-10086 and H-10125 was collected with Launch 0519 from February to May, 1984. The junction between surveys H-10086 and H-10125 is consecutive arcs controlled from the same station setup. The range and azimuth station were located on signal # 110 (Cut A Range Rear LT.) initialed on signals #114 (Northwest Ch. Lt. "15A"). Survey H-10125 ends with the 7700 meter arc on JD 122 at it's northern limit. The 7750 meter arc starts at the southern end of survey H-10086 and was run on JD 109. The area of the junction from JD 109 and 122 shows good agreement when the two surveys are joined together.

Refer to sect. 5 of Eval. Report

Junction soundings from survey H-9505 were compared with soundings from H-10125. Comparison shows a good junction between the northernmost soundings from H-9505 and soundings in that area from H-10125.

K. COMPARISON WITH PRIOR SURVEYS

Six presurvey review items were addressed. They are items 3106-3111. These items are plotted on the semi-smooth field sheet for this survey but not on the final field sheet. The corresponding position numbers are:

ITEM	POS#
3106	1528
3107	1527
3108	237
3109	1526
3110	1525
3111	1524

Refer to sect. 7 of Eval. Report

Items 3106 thru 3111 are charted as "Navy Maintd". These are old radar reflectors no longer maintained by the Navy. As the attached pictures indicate, the majority of reflectors are missing and the pipe supports are in disrepair. Individual item investigation reports are appended to this report. Items 3106 thru 3111 are not plotted on the final field sheet because the plotted origin was adjusted to include the maximum amount of hydrography on one field sheet. The new origin excluded the plotting of these PSR items. (These items are plotted on the semi-smooth field sheet). PSR Items not within the survey limits were not searched for.

The following prior survey was used for sounding comparison:

SURVEY	SCALE	DATE
H-5935	1:10,000	Dec '34-June '35

The soundings from the prior survey show differences of 0 to 5 ft in comparison to the soundings on the contemporary survey. The 5 ft difference between a prior and current sounding is an isolated case. Most soundings differ by 1 to 2 ft. The depth differences between the compared soundings of two surveys show no pattern of either the current survey or the prior survey being deeper or shoaler. There is also no apparent pattern of deeps being filled or any action of scouring down of shoal areas. ✓

L. COMPARISON WITH THE CHART

No dangers to navigation reports were filed for this survey. The following chart was used for comparison with survey H-10125.

Refer to Sect. 7 of Eval. Report.

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

Chart comparison shows the following:

1. The north end of the 18 ft contour of Middle Ground Shoal shows movement from it's charted limit of Lat. 24°35'30.0" N, Lon. 81°50'41.2" W to Lat. 24°35'22.1" N, Lon. 81°50'28.5" W in southeastward direction. ✓

2. The shoal area charted as an indentation in the 18 ft contour (oriented north-south), with it's southern limit at Lat. 24°36'32.0" N, Lon. 81°51'52.0" W has eroded northward to a new limit of Lat. 24°36'43.5" N, Lon. 81°52'03.0" W. ✓

3. Another extension of the 18 ft curve into deeper water is centered at Lat. 24°36'31.0" N, Lon. 81°51'28.5" W and shows a narrowing from 300M to 200 M. ✓

4. The isolated shoal centered at Lat. 24°35'56.0" N, Lon. 81°51'11.9" W has deepened by 3 to 4 ft and the previously charted 18 ft shoal area now shows depths of 20 to 22 ft. ✓

5. Other charted, isolated 17 and 18 ft contour shoals at Lat. 24°35'12.5" N, Lon. 81°50'48.0" W, Lat. 24°34'56.0" N, Lon. 81°50'41.0" W and Lat. 24°34'41.0" N, Lon. 81°50'34.1" W are no longer 18 ft shoals. These areas also have worn down 3 to 4 ft from their charted depths. ✓

Contour shape representations seem to remain constant for the survey area and only the size of the areas change. Most changes are in the 18 ft contour which shows a deepening throughout the survey area. ✓

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 and fixed navigation aids were inspected from seaward and verified as presently charted: Listed positions from dipfile. These landmarks are outside the survey limits.

LANDMARK (charting name)	LATITUDE	LONGITUDE
Aero R Bn	24°32'52.417"	81°47'11.700"
Main Channel Rear R Light (CGLL # 907, Vol 2)	24°32'52.610"	81°48'26.473"
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"
Stack (Ctr of 3)	24°33'43.72"	81°47'52.73"
Key West Cut B Rge R 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"

LANDMARK (charting name)	LATITUDE	LONGITUDE
Key West Hrbr Rge R Lt (CGLL #917, Vol 2)	24°35'05.071"	81°47'49.715"
Airport VOR Cupola	24°35'07.63"	81°48'02.36"

All USCG Light List numbers are from VOL II, 1984. The positions of landmarks and fixed navigation aids listed above from the FFA printout are for identification purposed only and should not supersede any existing position of higher accuracy. concur

O. STATISTICS

Linear Nautical Miles of Hydrography.....186.5
Linear Nautical Miles of Crosslines.....19.5
Linear Nautical Miles of Hydrography (Total).....206.0
Number of Positions.....2613 89
Bottom Samples.....~~30~~ 54
Bar Checks.....39
Presurvey Review Items Investigated.....6

P. MISCELLANEOUS

A dog ear is included with the semi-smooth sheet for JD 067. The following positions were not within the parameters for automated plotting, but are hand plotted on the dog ear: Pos #'s 107-111; 149-152; 192-196. Presurvey Review items 3106-3111 are plotted on the semi-smooth sheet. These items are not plotted on the final field sheet because the plotter origin was moved to the southwest to include the maximum amount of hydrography on one field sheet. All soundings that have not been smooth plotted are seen on the rough sheets and the semi-smooth sheet. These soundings on the northeastern side of the sheet are east of the survey limit. ✓

Tidal currents in the survey area flowed fastest in the area near Middle Ground Shoal with an approximate speed of 1.5 knots varying to slack water. Currents in the vicinity of Key West were observed and compared with the 1984 Tidal Current Tables. No anomalies were observed. ✓

Q. RECOMMENDATIONS

See descriptions of individual Presurvey Review items for specific recommendations for each item (appended to this report). ✓

R. AUTOMATED DATA PROCESSING

PROGRAMS VERSION

==========

RK 210 Grid, Signal and 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 Computations	2/05/76
RK 330 Data Reformat and Check	5/04/76
AM 500 Predicted Tide Generator	11/10/72
AM 602 ELINORE	5/20/75

S. REFERRAL TO REPORTS

Horizontal Control Report for OPR-H373-HFP-83.
Descriptive Report for contemporary survey H-10086.

Respectfully submitted,

John W. Humphrey, Jr.
LT, NOAA
Officer-in-Charge
Hydrographic Field Party Two

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 John W. Humphrey
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 c 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 remainec constant.
October 30 I telephoned Chapin &Assoc. office in Tallahassee,FL and rmed them of the incorrect time setting on the gage. Chapin assurred n 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 Wes

(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.

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

Date: 26 June 1984

To: Chief, Tides and Water Levels Branch, N/OMS 12

From: John W. Humphrey Lt.jg, NOAA
Officer-in-Charge
Hydrographic field party-2

John W. Humphrey Jr.

Subj: Tidal Data for OPR-H373-HSB-8~~4~~3; H-10125

It is requested that verified hourly heights of Tides, using Greenwich Mean Time, from the operating tide gage listed below, be forwarded to the Atlantic Marine Center, Norfolk,Va. 23510, MOA/23

GAGE NAME	NUMBER	LATITUDE	LONGITUDE
Key West Harbor,FL.	872-4580	24°33'N	81°48'W

This information is requested for the following Times and Dates:

J.D. 062	Mar. 2,'84	1400 GMT - 2030 GMT
J.D. 067	Mar. 7,'84	1200 GMT - 1930 GMT
J.D. 072	Mar.12,'84	1300 GMT - 1900 GMT
J.D. 073	Mar.13,'84	1200 GMT - 2000 GMT
J.D. 076	Mar.16,'84	1230 GMT - 2130 GMT
J.D. 082	Mar.22,'84	1200 GMT - 2200 GMT
J.D. 087	Mar.27,'84	1230 GMT - 1730 GMT
J.D. 093	Apr. 2,'84	1330 GMT - 2100 GMT
J.D. 100	Apr. 9,'84	1530 GMT - 2200 GMT
J.D. 104	Apr.13,'84	1200 GMT - 1900 GMT
J.D. 109	Apr.18,'84	1200 GMT - 2100 GMT
J.D. 116	Apr.25,'84	1400 GMT - 2200 GMT
J.D. 123	May 2,'84	1230 GMT - 1900 GMT
J.D. 130	May 9,'84	1100 GMT - 1900 GMT
J.D. 131	May 10,'84	1430 GMT - 2100 GMT
J.D. 135	May 14,'84	1130 GMT - 2130 GMT
J.D. 142	May 21,'84	1400 GMT - 2000 GMT
J.D. 145	May 24,'84	1400 GMT - 1830 GMT

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 Lewis
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

(11-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

SURVEY NUMBER

OPR-H373
H-10125

GEOGRAPHIC NAMES

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	
Florida (title) Gulf of Mexico										1
Key West (title) Middle Ground										2
Northwest Channel										3
Pearl Bank										4
Pearl Basin										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
APPENDIX "C"										20
										21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

SIGNAL TAPE LISTING

H-10125

OPR-H373-HSB-83

110	0	24	33	34451	081	50	21269	250	0000	000000	Cut A Range Rear Light (AMC 1983)
114	0	24	34	53457	081	50	25777	139	0000	000000	Northwest Channel Light 15A (AMC 1983)
119	0	24	32	51515	081	48	39011	250	0000	000000	Fort Taylor (AMC 1981)

All the above listed control was located by AMC Geodetic Control Group and has been entered into the NGS Data Base.

APPENDIX "F"

CHART # 11441

PRE-SURVEY REVIEW ITEM # 3106
PIPE, OLD RADAR REFLECTOR
(REMAINS)

SOURCE CL 899/62

INVESTIGATION DATE 18 APRIL 1984 TIME 184000 VESSEL LAUNCH 0519

OIC LT. (jg) JOHN W. HUMPHREY

REFERENCE

POSITION # 1528 VOLUME: 5 PAGE: 63

CORRECTORS APPLIED:

VELOCITY: XX TRA CORRECTORS: XX

PREDICTED TIDES: ACTUAL TIDES: XX
(UNVERIFIED)

GEODETIC POSITION:

	LATITUDE	LONGITUDE
CHARTED:	24/37/08.54	81/51/31.12
OBSERVED:	24/37/06.97	81/51/32.90

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 ~~3.0'~~ 2.0' AT ~~MLLW~~ MHW AND SITS IN 11.0' OF WATER AT MLW.

CHARTING RECOMMENDATIONS: ~~[illegible]~~
CHART AS PIPE AT ABOVE OBSERVED POSITION, DELETE "RADAR REFLECTOR, NAVY MAINTAINED" NOTE.
concur

COMPILATION USE

CHART	APPLIED AS

CHART # 11441

PRE-SURVEY REVIEW ITEM # 3107
PIPE, OLD RADAR REFLECTOR (REMAINS)

SOURCE CL 899/62

INVESTIGATION DATE 18 APRIL 1984 TIME 183500 VESSEL LAUNCH 0519

OIC LT (jg) JOHN W. HUMPHREY

REFERENCE

POSITION # 1527 VOLUME: 5 PAGE: 63

CORRECTORS APPLIED:

VELOCITY: XX TRA CORRECTORS: XX

PREDICTED TIDES: ACTUAL TIDES: XX (UNVERIFIED)

GEODETIC POSITION:	LATITUDE	LONGITUDE
CHARTED:	24/36/47.18	81/51/08.12
OBSERVED:	24/36/45.98	81/51/09.79

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 ~ ~~4.6'~~ 4.0' AT ~~MLW~~ MHW AND SITS IN 4.4' OF WATER AT M.L.W.

CHARTING RECOMMENDATIONS: ~~RETAIN AS CHARTED WITH MARKER SYMBOL AT ABOVE~~
CHART AS PIPE AT ABOVE OBSERVED POSITION. DELETE "RADAR REFLECTOR, NAVY MAINTAINED" NOTE.

concur

COMPILATION USE

CHART	APPLIED AS

CHART # 11441

PRE-SURVEY REVIEW ITEM # 3108
PIPE, OLD RADAR REFLECTOR (REMAINS)

SOURCE CL 899/62

INVESTIGATION DATE 7 MARCH 1984 TIME 172500 VESSEL LAUNCH 0519

OIC LT (j.g.) JOHN W. HUMPHREY

REFERENCE

POSITION # 237 VOLUME: 1 PAGE: 52

CORRECTORS APPLIED:

VELOCITY: XX TRA CORRECTORS: XX

PREDICTED TIDES: ACTUAL TIDES: XX (UNVERIFIED)

GEODETIC POSITION:

	LATITUDE	LONGITUDE
CHARTED:	24/36/26.06	81/50/45.18
OBSERVED:	24/36/24.9	81/50/46.4

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 1.0' AT MHW~~ UNCOVER 2.0' AT ~~MHW~~ AND SITS IN 6.4' OF WATER AT MLW.

CHARTING RECOMMENDATIONS: RETAIN AS CHARTED WITH MARKER SYMBOL
CHART AS PIPE AT ABOVE OBSERVED POSITION. DELETE "RADAR REFLECTOR, NAVY MAINTAINED" NOTE.

concur

COMPILATION USE

CHART	APPLIED AS

CHART # 11441

PRE-SURVEY REVIEW ITEM # 3109
PIPE, OLD RADAR REFLECTOR

SOURCE CL 899/62

INVESTIGATION DATE 18 APRIL 1984 TIME 182700 VESSEL LAUNCH 0519

OIC LT (j.g.) JOHN W. HUMPHREY

REFERENCE

POSITION # 1526 VOLUME: 5 PAGE: 63

CORRECTORS APPLIED:

VELOCITY: XX TRA CORRECTORS: XX

PREDICTED TIDES: ACTUAL TIDES: XX (UNVERIFIED)

GEODETIC POSITION:

	LATITUDE	LONGITUDE
CHARTED:	24/36/05.12	81/50/22.12
OBSERVED:	24/36/03.88	81/50/23.37

POSITION DETERMINED BY: RANGE (DEL NORTE) - AZIMUTH (NIKON NZZD)

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 ~11.0' AT ~~MLLW~~ MHW AND SITS IN 0.4' OF WATER AT MLW.

CHARTING RECOMMENDATIONS:
CHART AS PIPE AT ABOVE OBSERVED POSITION. DELETE "RADAR REFLECTOR, NAVY MAINTAINED." NOTE.

COMPILATION USE

CHART	APPLIED AS

CHART # 11441

PRE-SURVEY REVIEW ITEM # 3110
PIPE, OLD RADAR REFLECTOR

SOURCE BP 111755 -- TP00485/74-77, CHART MAINT. PRINT

INVESTIGATION DATE 18 APRIL 1984 TIME 182000 VESSEL LAUNCH 0519

OIC LT (jg) JOHN W. HUMPHREY

REFERENCE

POSITION # 1525 VOLUME: 5 PAGE: 62

CORRECTORS APPLIED:

VELOCITY: XX TRA CORRECTORS: XX

PREDICTED TIDES: ACTUAL TIDES: XX
(UNVERIFIED)

GEODETIC POSITION:

	LATITUDE	LONGITUDE
CHARTED:	24/35/43.52	81/50/00.00
OBSERVED:	24/35/42.94	81/50/00.31

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 ~11.6 FEET AT ~~MLLW~~ MHW AND SITS IN 2.7' OF WATER AT MLW.

CHARTING RECOMMENDATIONS: CHART AS PIPE AT ABOVE OBSERVED POSITION. DELETE "RADAR REFLECTOR, NAVY MAINTAINED" NOTE.

concur

COMPILATION USE

CHART	APPLIED AS

CHART # 11441 ITEM # 3111

ITEM DESCRIPTION: PIPE, OLD RADAR REFLECTOR

SOURCE: ~~CE~~ BP 111755 -- TP 00485/74-77 CHART MAINT. PRINT

INVESTIGATION DATE: 18 APRIL 1984 TIME: 181500 VESSEL: 0519

OIC: LT (JG) JOHN W. HUMPHREY JR.

REFERENCE:

Position No: 1524 Volume: 5 Page: 62

CORRECTORS APPLIED:

[XX] Velocity [XX] TRA Correctors

[ ] Predicted or [XX] Actual Tide Correctors (UNVERIFIED)

GEODETIC POSITION:

	Latitude	Longitude
Charted:	24/35/22.36 N	81/49/37.25 W
Observed:	24/35/21.96	81/49/37.21

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 ~12.0' at ~~AALW~~ MHW and sits in 9.8' of water at MLW.

CHARTING RECOMMENDATIONS: S/S by L 11/08/85 now subm pipe

CHART AS PIPE @ ABOVE OBSERVED POSITION. DELETE "RADAR REFLECTOR, NAVY MAINTAINED" NOTE.

concur

Compilation Use Only

CHART APPLIED AS

APPROVAL SHEET

For

SURVEY H-10125 (HFP-5-2-84)

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

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)

[x] TO BE CHARTED [ ] TO BE REVISED [ ] TO BE DELETED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
	HFP-2	Florida	Key West	7/84

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-HFP-83		H-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	LONGITUDE ° ′	LONGITUDE ″ D.P. Meters	METHOD AND DATE OF LOCATION (See instructions on reverse side) OFFICE	FIELD	CHARTS AFFECTED
LIGHT	Cut A Range Rear Light (Sig.110) CGLL 910.51 Pg. 92 Vol. 2 1984	24°33'	34.451	81°50'	21.269		11/83 F-3-6-L	11441 11447
DAYBEACON	Northwest Channel Daybeacon "11" CGLL Pg. 94 Vol. 2 1984	24°37'	09.33	81°52'	21.87		Hydrographic Detached Pos. 4/84	11441
LIGHT	Northwest Channel Light "12" CGLL 937, Pg. 94 Vol. 2 1984 ~~(Sig.116)~~	24°36'	9.780	81°51'	46.798		11/83 F-3-6-L	11441
LIGHT	Northwest Channel Light "14" CGLL 938, Pg. 94 Vol. 2 1984	24°35'	24.549	81°51'	12.887		11/83 F-3-6-L	11441
DAYBEACON	Northwest Channel Daybeacon "15" CGLL Pg. 94 Vol. 2 1984	24°35'	23.66	81°50'	34.62		4/84 Hydrographic Detached Pos.	11441
LIGHT	Northwest Channel Light "15A" CGLL 939, Pg. 94 Vol. 2 1984	24°34'	53.457	81°50'	25.777		11/83 F-3-6-L	11441
DAYBEACON	Northwest Channel Daybeacon "16" CGLL Pg. 94 Vol. 2 1984 ~~(Sig.114)~~	24°34'	27.053	81°50'	35.584		11/83 F-3-6-L	11441
	NC- L-95 (85)							
	APPENDIX "I"							

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.

DATE: 7/11/84

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-10125

Locality: NW Channel, Key West, Florida

Time Period: March 2 - May 24, 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

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

U.S. DEPARTMENT OF COMMERCE

HYDROGRAPHIC SURVEY STATISTICS

REGISTRY NUMBER
H-10125

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	3

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			2609
POSITIONS REVISED			577
SOUNDINGS REVISED			88
CONTROL STATIONS REVISED			
	TIME-HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION			
VERIFICATION OF CONTROL			
VERIFICATION OF POSITIONS	36.5		36.5
VERIFICATION OF SOUNDINGS	79.0		79.0
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION			
COMPILATION OF SMOOTH SHEET	46.5		46.5
COMPARISON WITH PRIOR SURVEYS AND CHARTS		39.0	39.0
EVALUATION OF SIDE SCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		15.0	15.0
GEOGRAPHIC NAMES			
OTHER* Digitizing	18.0		18.0
*USE OTHER SIDE OF FORM FOR REMARKS — TOTALS	180.0	54.0	234.0

Pre-processing Examination by C.R. Davies	*Beginning Date*	*Ending Date* 4/29/85
Verification of Field Data by R.N. Mihailov, C. Graupe	*Time (Hours)* 162.0	*Ending Date* 1/6/86
Verification Check by S. Otsubo, B. Olmstead, J. Green	*Time (Hours)* 56.5	*Ending Date* 1/28/86
Evaluation and Analysis by A.A. Luceno	*Time (Hours)* 55.0	*Ending Date* 1/28/86
Inspection by D. Hill	*Time (Hours)* 2	*Ending Date* 2/12/86

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

PACIFIC MARINE CENTER
EVALUATION REPORT
H-10125

1. INTRODUCTION

H-10125 was accomplished by Hydrographic Field Party 2, in accordance with the following project instructions:

OPR-H373-HFP-83, dated November 7, 1983
Change Number 1, dated November 10, 1983

This is a navigable area survey of the Northwest Channel and vicinity, Key West, Florida. The channel is the medium draft passage to Key West Harbor from the Gulf of Mexico. The surveyed area begins at the center of Middle Ground shoal and extends to the northwest 3.5 miles to the vicinity of latitude 24°37'15"N. A depth of 20 feet is available along the midchannel in the surveyed area. However, to the northwest beyond this survey's limits, depths to only about 12 feet, with local knowledge recommended by the Coast Pilot, are available at the channel entrance.

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 have been revised to center the hydrography on the smooth sheet and to change the projection to polyconic. Electronic correctors determined by baseline calibration were used to plot the smooth sheet except on day number 62 when the daily system check determined corrector exceeded the allowable limits. The electronic corrector was changed from 0 to -5 meters during office processing to reflect the average of the initial and ending system check corrector for this day. The TRA correctors were revised at times when depths were taken by leadline or sounding pole and for elevations of exposed features. 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.

Of the stations listed in the control file, only stations 110, 114 and 119 were used in the positioning of the survey vessel. Stations 102, 113, 115, 116 and 117 are fixed aids to navigation.

There are no photo manuscripts applicable to this survey.

3. HYDROGRAPHY

Soundings at line crossings are in good agreement except in steep slope areas where some soundings along the crosslines were 1 foot to 2 feet deeper. These differences could have been caused on some occasions by the positional displacement of the soundings between two successive fixes due to the sounding vessels jogging while running the crosslines. There is no evidence that cross-line discrepancies are caused by malfunction of the fathometer. Delineation of the bottom configuration and the determination of least depths are adequate, except as noted in Sections 4.e, and 6.

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 Three, except as noted in the Preprocessing Examination Report dated April 26, 1985, and:

a. No check measurements were taken for the detached position of features in this survey.

b. AWOIS items 03115 and 03116 charted markers within the limits of the surveyed area at latitude 24°34'47.85"N, longitude 81°49'53.05"W and at latitude 24°34'47.42"N, longitude 81°49'51.61"W were not investigated during this survey.

c. The present survey did not verify or disprove that portion of the submerged east jetty which is charted on Chart 11441 and located within the limits of the surveyed area.

d. Prior survey and charted shoal soundings supported by shoal indications on the present survey were not developed to determine if shoaler depths exist in the immediate vicinity. For example, a depth of 21 feet in surrounding depths of 23 to 29 feet was obtained in this survey at latitude 24°34'55"N, longitude 81°50'34"W. A depth of 15 feet is charted from prior wire drag

survey H-2933 near this position. Another depth of 24 feet in surrounding depths of 27 to 32 feet was obtained at latitude 24°36'02"N, longitude 81°51'29"W. A depth of 20 feet is charted from COE Blueprint 101290 (1977) in the vicinity of the 24-foot depth.

5. JUNCTIONS

H-10125 junctions with the following surveys:

Survey	Year	Scale	Color	Area
H-9505	1966	1:10,000	Violet	Southeast
H-10086	1984	1:5,000	Violet	Northwest

Junction was satisfactorily effected with H-10086, soundings and depth curves are in agreement. A portion of the submerged east jetty was transferred to the smooth sheet from H-10086.

Junction sheet H-9505 has been verified and submitted to Rockville for charting. Junction comparisons were made using copies. Soundings are in agreement. Depth curves should be adjusted to conform with those on H-10125.

There are no contemporary surveys to junction the eastern and western portions of the present survey. However, soundings and depth curves agree with prior survey H-5935 and the chart in these areas. Soundings were transferred from prior survey H-5935 to support some depth curves at the extremities of the present survey.

6. COMPARISON WITH PRIOR SURVEYS

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

The present survey is generally deeper by 1 to 3 feet with most of the greater differences in soundings located within the 18-foot curves west of longitude 81°51'30"W. In the northern portion of Middle Ground shoal, 11 and 12-foot depths were obtained in the present survey, in the immediate vicinities of the 12 to 14-foot plotted soundings on H-5935 and H-5934a.

H-10125 is adequate to supersede H-5934a and H-5935 within the areas of common coverage.

H-2933 WD (1908, Add Wk 1909, 1913-15) 1:15,000

Depths originating from H-2933 WD are generally 1 foot to 2 feet shoaler than the present survey. However, because of the general deepening within the survey area, H-10125 should be used for the charting of the area of common coverage except for the 15-foot sounding at latitude 24°34'55.5"W longitude 81°50'37"W. A depth of 21 feet in surrounding

depths of 23 to 29 feet on this survey verifies the existence of a shoal. Since the 21-foot sounding obtained in the present survey was not developed to determine the least depth in this area, the 15-foot sounding in the vicinity of the 21-foot sounding has been brought forward from H-2933 WD.

7. COMPARISON WITH CHART

Chart 11441, 31st Edition, dated July 5, 1980; scale 1:30,000.
Chart 11447, 24th Edition, dated November 6, 1982, scale 1:10,000.

a. Hydrography - Most soundings originate from prior survey H-5935. Charted soundings on the Middle Ground shoal originate from H-5934a and OPR-511-PE-75 CAS 1:20,000 blueprint 92342. Other charted soundings originate from H-2933WD and miscellaneous sources.

Charted information originating from NOS registered surveys is discussed in section 6 of this report.

AWOIS items 03106 thru 03111 inclusive, are charted radar reflectors previously maintained by the Navy. The radar reflectors were missing at the time of this survey; only the 3 inch diameter pipes supporting the reflectors remain. The charted positions of the reflectors were found to be displaced northeast from the positions obtained in the present survey, the displacement increasing gradually from 30 meters (AWOIS item 03111) located at the south portion of the surveyed area to 75 meters (AWOIS item 03106) at the north portion of the surveyed area.

It appears that the displacements are the result of a discrepancy in the azimuth used to locate these features.

These features should be charted according to this survey.

AWOIS item 03112 is a charted radar reflector which is within the physical limit of this sheet. This item was not investigated in the present survey. It was investigated instead on H-101~~80~~.20 This item is plotted on the present sheet from the data included in sheet H-101~~80~~.20 It is recommended that the charted notes "Ra Ref Navy maintd" for AWOIS items 03106 through 03112 be changed to "pipe".

Two markers, AWOIS item 03115 and 03116, are charted at latitude 24°34'47.5"N, longitude 81°49'53.0"W and latitude 24°34'47.0"N, longitude 81°49'51.5"W. These markers are within the limits of the surveyed area but there is no evidence in the records nor a mention in the Descriptive Report that these features were verified or disproven. It is recommended that the markers be retained as charted.

The submerged portion of the east jetty was transferred from junction survey H-10086. The chart shows that the end of this jetty extends further southeast than the position obtained in H-10086. Since there is no evidence in the records that the charted remaining portion of the jetty was investigated in this survey, it is recommended that this

missing portion of jetty on the smooth sheet be retained on the chart considering the position of the end of the jetty from the H-10086 survey.

A 6-foot sounding is charted at latitude 24°37'03"N, longitude 81°52'17"W. The chart markup indicates that this sounding should be corrected to 16 feet as shown on H-5935. A sounding of 17 feet was obtained in the present survey at this position. It is recommended that the 6-foot sounding be revised to 16 feet and subsequently superseded by the present survey.

A red daybeacon located in this survey at latitude 24°34'11.87"N, longitude 81°50'32.10"W is not charted on the edition of the charts used for this comparison. This daybeacon, however, is charted on 11447, 26th edition dated January 26, 1985 with a "PA" annotation at latitude 24°34'11.4"N, longitude 81°50'31.7"W. It is recommended that the daybeacon be charted at the position obtained in the present survey without the "PA" annotation.

A depth of 20 feet from COE Blueprint 101290 (July 77) is charted at latitude 24°36'02"N, longitude 81°51'28"N. A depth of 24 feet in surrounding depths of 27 to 32 feet was obtained in the present survey. Since the 24-foot depth was not developed to determine if it is the least depth in the area, it is recommended that the 20-foot depth be retained on the chart.

Geographic names appearing on the smooth sheet originate with these charts.

Except for the items mentioned above, H-10125 is adequate to supersede charted hydrography within the common area.

There have been no dangers to navigation identified or reports submitted by the hydrographer or PMC Nautical Chart Branch for this survey.

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

c. Aids to Navigation - There are 8 fixed aids within the limits of this survey. Charted aids to navigation have been located and adequately serve their intended purposes.

8. COMPLIANCE WITH INSTRUCTIONS

H-10125 adequately complies with the project instructions noted in section 1 of this report.

9. ADDITIONAL FIELD WORK

This is an adequate navigable area survey. Additional work, on an opportunity basis, is recommended to verify or disprove the existence of the charted markers under AWOIS items 03115 and 03116, the charted submerged end of the east jetty, the 15-foot sounding from H-2933WD at latitude 24°34'55"N, longitude 81°50'37"W and the 20-foot charted depth at latitude 24°36'02"N, longitude 81°51'28"W.

Respectfully submitted,

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-10125

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:

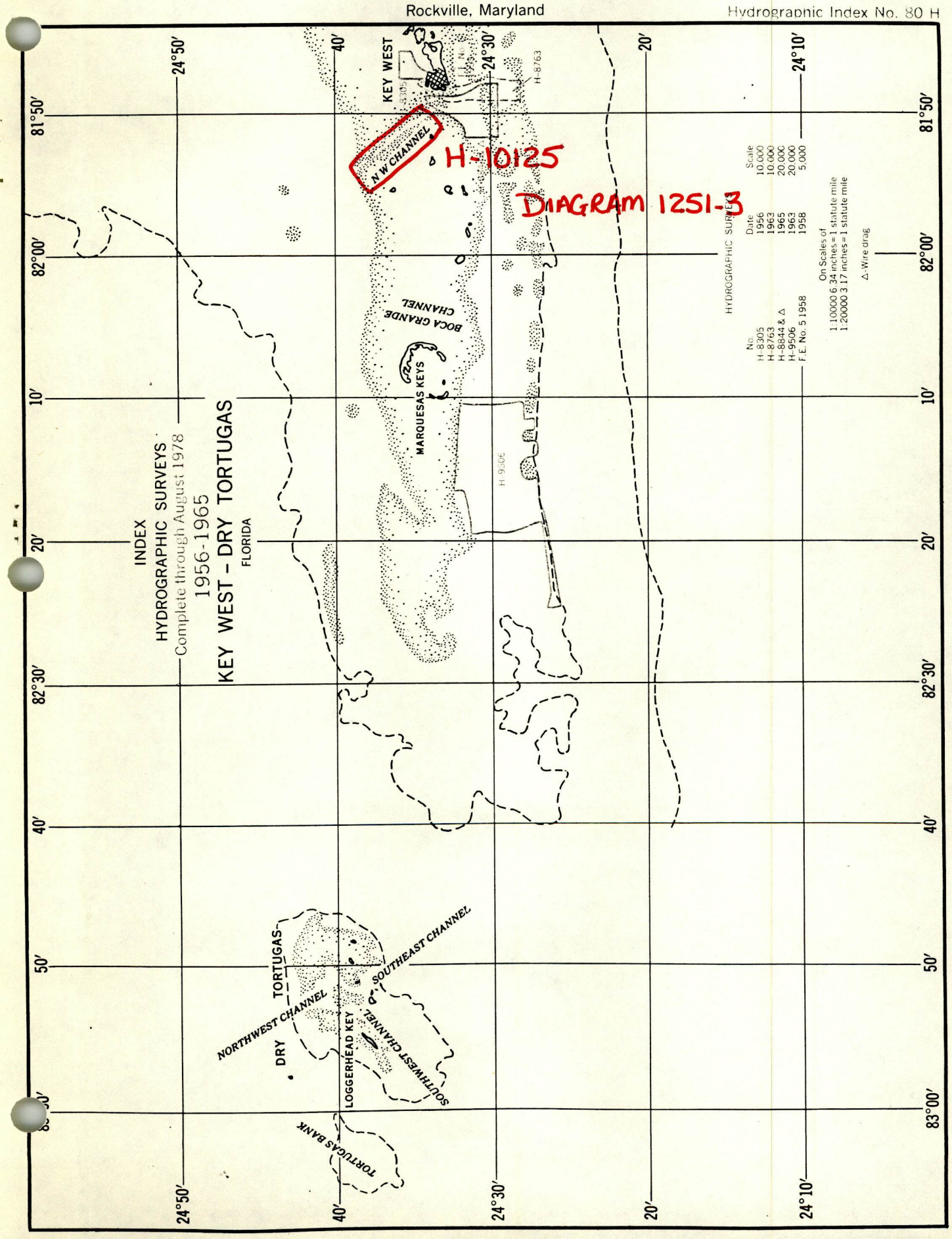
N/MOP2:LWMordock

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



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-10125

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
11447	11/3/86	Peter Shumar	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 38
11441	11/3/86	Peter Shumar	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 41
11445	2-18-88	Lynn West	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. ~~50~~ 26
~~11442~~			
11442	4-5-88	Ernest V. Monti	Full ~~Part Before~~ After Marine Center Approval Signed Via
			Drawing No. 50
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
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			Drawing No.
			Full Part Before After Marine Center Approval Signed Via
			Drawing No.

SUPERSEDES C&GS FORM 8352 WHICH MAY BE USED.

appd to Stds 4-3-86