8844

Diag.Cht.No.1251-2.

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey ..... Hydrographic .....

Field No. ..... HY-10-1-65 .....

Office No. ..... H-8844 .....

LOCALITY

State ..... Florida .....

General Locality .... Florida Keys .....

Locality .... Key West Naval Anchorage Area .....

1965

CHIEF OF PARTY
H.D.Reed,Jr.

LIBRARY & ARCHIVES

DATE ..... Oct.19,1965 .....

☆ U.S. GOV. PRINTING OFFICE: 1976—669-441

8844

FORM C&GS-537
(8-15-59)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

REGISTER NO.

H-8844

HYDROGRAPHIC TITLE SHEET

FIELD NO.

HY-10-1-65

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

State Florida

General locality Florida Keys

Locality Key West Naval Anchorage Area

Scale 1:10,000 Date of survey July 22 - 31, 1965

Instructions dated June 14, 1965 Project No. SP 5-65

Vessel Launch HY-1

Chief of party Harry D. Reed, Jr., CDR, USC&GS

Surveyed by K.E. Taggart, C.E. Huss, W.Y.S. Williams, W. R. Klesse

Soundings taken by echo sounder, ~~xxxxxxxxxx~~ Raytheon Survey Fathometer DE-723, No. 555

Graphic record scaled by Ship Personnel

Graphic record checked by Ship Personnel

Protracted by D. E. Youngdahl Automated plot by

Soundings penciled by D. E. Youngdahl

Soundings in fathoms feet at MLW ~~xxxxx~~

REMARKS: This survey is a harbor survey using Raydist for control. All data recorded in sounding volumes.

(18)

USCOMM-DC 19086-P65

PROGRESS SKETCH

KEY WEST AREA, FLORIDA

PROJECT SP 5-65

HYDROGRAPHIC OPERATIONS

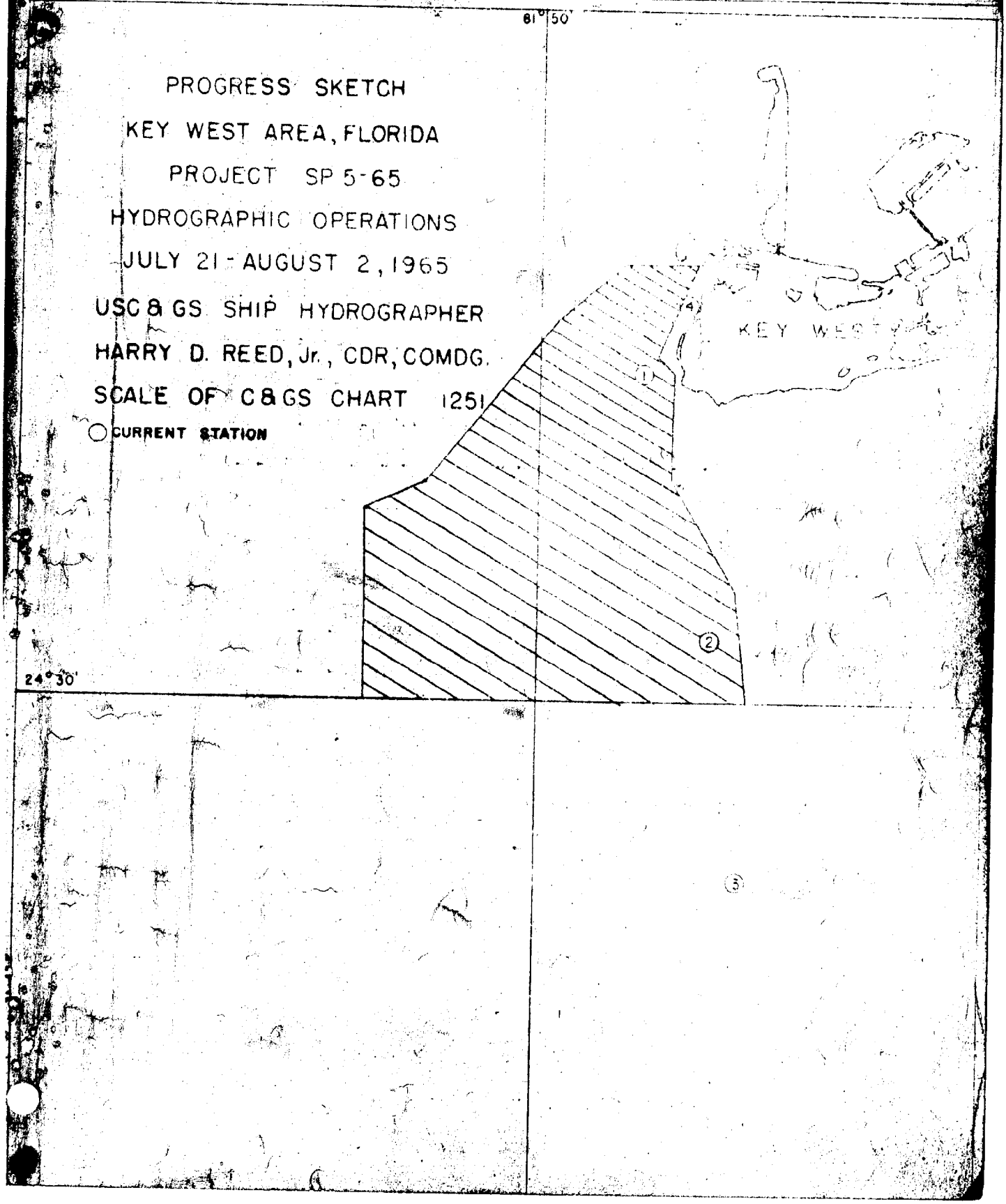
JULY 21 - AUGUST 2, 1965

USC & GS SHIP HYDROGRAPHER

HARRY D. REED, Jr., CDR, COMDG.

SCALE OF C & GS CHART 1251

○ CURRENT STATION



DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY (HY-10-1-65)

REGISTRY NO. 8844

1965

USC&GS SHIP HYDROGRAPHER - LAUNCH HY-1 SCALE 1:10,000

HARRY D. REED, JR., CDR, USC&GS CHIEF OF PARTY

A. PROJECT

This survey was carried out in accordance with instructions dated June 14, 1965, Project SP 5-65, Key West, Florida.

B. AREA SURVEYED

This survey covers the Naval Anchorage Area west of the Main Ship Channel at Key West. The area is irregular in shape and lies between Latitudes 24°30' and 24°34' North and Longitudes 81°48' and 81°52' West.

All hydrography was accomplished during the period July 22 through July 31, 1965.

C. SOUNDING VESSEL

All hydrography on this survey was accomplished by Launch HY-1.

D. SOUNDING EQUIPMENT

All hydrography was in depths less than 45 feet using the Raytheon Survey Fathometer, Model DE-723, Serial Number 555. The initial setting on the echo sounder was maintained at 0.0 throughout the entire survey.

Depths encountered ranged from 1 foot to 42 feet.

Depth corrections were derived from bar checks made twice daily at the beginning and end of each day.

E. SMOOTH SHEET

The smooth sheet has been plotted by one of the ship's officers. The projection was constructed by the Washington Office and checked by ship's officers.

F. CONTROL

Raydist was used for control during the survey. The method of determining Raydist corrections is discussed in Sections O and P.
R1 Boca Chica R2 - Fleming Key 2 RM 4 1934-1962

G. SHORELINE

No shoreline was in the hydrographic area.

H. CROSSLINES

Approximately 10% of all sounding lines were run as crosslines. All crossings were in good agreement.

I. JUNCTIONS

No junctions were made with other surveys.

J. COMPARISON WITH PRIOR SURVEYS

No prior surveys were provided.

K. COMPARISON WITH CHARTS

A comparison was made with C&GS Chart 576, 7th Edition, March 8, 1965, Revised May 29, 1965. Excellent agreement was found between charted depth curves and those obtained by this survey.

Along the southern edge of the survey area, several shoals were found which do not appear on the chart; however, they are located in an area of numerous charted shoals, and they are south of the anchorage areas.

A sounding of 26 feet was found in the DELTA 17 anchorage area (Latitude 24°30'49" North Longitude 81°50'07" West) whereas, the shoalest charted sounding is 34 feet. The sounding is believed to be a reflection off mooring buoy anchor chains.

← Sdg. Deleted from Smooth Sheet

An area awash (Latitude 24°31'13" North Longitude 81°48'58" West) was located slightly west of a charted spoil area.

The "Notice to Mariners" No. 49, 1964, states that a 12 foot shoal was found in the DELTA 3 anchorage area. This survey found depths of over 30 feet throughout that area using 45 meter spacing of sounding lines.

L. ADEQUACY OF SURVEY

The portion of survey north of 24°30'30" is complete, and it is adequate to supersede prior surveys of the area. The portion of the survey between 24°30'00" and 24°30'30" should be used in conjunction with prior surveys for charting purposes because the line spacing used during this survey does not insure detection of all the coral heads known to exist.

M. AIDS TO NAVIGATION

All aids to navigation were in agreement with C&GS Chart 576 as revised by "Notice to Mariners" No. 31 of July 31, 1965.

N. STATISTICS

Number of Positions	1671
Miles of Sounding Line (nautical)	285.4
Area in Square Nautical Miles	10
Number of Bottom Samples	64

Within the limits of the sheet one 200 hour Current Station (No. 1) and four 100 hour Current Stations (No. 2, 3, 4, 5) were observed.

Positions of the Current Stations are as follows:

No. 1 - Latitude 24°32.9' North Longitude 81°49.0' West

No. 2 - Latitude 24°30.5' North Longitude 81°48.3' West

No. 3 - Latitude 24°28.4' North Longitude 81°48.1' West

No. 4 - Latitude 24°33.5' North Longitude 81°48.6' West

No. 5 - Latitude 24°34.0' North Longitude 81°48.25'West

O. RAYDIST ATTENUATION CHECKS

Im lieu of supplementing Raydist fixes with sextant cuts to check attenuation of signal, calibrations were made in representative sections

of the survey during the day. Three triangulation stations (light structures) within the survey area were used for this purpose. Two of the stations were at the northern extremities of the survey area, and the other in the southern corner. The calibrations indicated uniform Raydist reception throughout the survey area. Consequently, no corrections were made for attenuation. frequency 3307.4 KC.

P. RAYDIST CALIBRATION

Before beginning hydrography, the launch was brought alongside one of the triangulated light structures and the dials were set to coincide with the plotted values of the structure. The dials could not be brought into exact coincidence with the plotted values because of the index errors in the Raydist set. From these calibrations and other calibrations during the day, the index errors were determined.

A table of corrections is included at the end of this report.

Q. MISCELLANEOUS

The corrections to echo soundings were entered in the sounding volumes in the following manner:

Under the columns with the heading "CORRECTIONS"

Left Column - Velocity (Bar Check) corrections

Center Column - Tide Reducer corrections

Right Column - Initial correction

R. RECOMMENDATIONS

The area of the survey between Latitude 24°30'00" and 24°30'30" North could not be covered adequately by a system of sounding lines. The area has numerous charted coral heads and is south of the charted anchorage areas. The area would need to be wire dragged to locate all of the coral growths.

In reference to Paragraph 22 of the instructions concerning submerged pilings in the vicinity of Boca Chica Channel entrance buoy, no indication of the pilings was found. A fathometer search was conducted by drifting over the area in a launch. Approximately three man hours were spent

diving in the area without finding any indication of the pilings. It was noticed that the pilings have been deleted from C&GS Chart 584, and it is recommended that they be deleted from all other charts of the area.

Respectfully submitted:

Dennis E Youngdahl

Dennis E. Youngdahl, ENS, USC&GS

Approved and Forwarded:

Harry D. Reed, Jr., CDR, USC&GS
Commanding Officer

TIDE NOTE

Field No. HY-10-1-65

Registry No. H-8844

Tide Station:	Key West, Florida	Latitude	24°33.2' N.
		Longitude	81°48.5' W.
Plane of Reference:	MLW = 4.5 feet on the staff		
Time Meridian:	75° West		
Time Correction:	None		
Height Correction:	None		
Area Covered:	Entire area of Boatsheet HY-10-1-65		

An abstract of tide corrections is appended to this report. Hourly heights were furnished by the Washington Office.

FORM C8 9502
(5-64)
USCOMM-C - 6812-P64

ABSTRACT OF TIDE CORRECTIONS

(See instructions on reverse side)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

PAGE 1

1. HYDRO. SURVEY NO.	2. FIELD NO.	3. SURVEY LOCATION	4. TIME MERIDIAN
H-8844	HY-10-1-65	Key West Area - Florida	75° West

a. MO. DAY YR. OR DAY NO. (Date)	b. POSITION NUMBER	c. TIME FROM	c. TIME TO	d. TIDE REDUCERS FT.	e. MACHINE ENTRY FT.	e. MACHINE ENTRY FMS.	f. TIDE STATION USED (As Form 681)	g. CORRECTION USED ZONE DESIGNATION
22 July 65 a (203)		0901	1150	0.0			All data on this sheet is derived from the Standard Tide Gage installed at Key West, Florida.	
		1151	1242	-0.2				
		1243	1345	-0.4				
		1346	1502	-0.6				
		1503	1740	-0.8				
23 July 65 b (204)		0822	0900	-0.2				
		0901	0934	0.0				
		0935	1300	+0.2				
		1301	1400	0.0				
		1401	1500	-0.2				
		1501	1605	-0.4				
24 July 65 c (205)		0830	0845	-0.8				
		0846	0920	-0.6				
		0921	0958	-0.4				
		0959	1025	-0.2				
		1026	1059	0.0				
		1100	1150	+0.2				
		1151	1259	+0.4				
		1300	1403	+0.2				
		1404	1505	0.0				
		1506	1600	-0.2				
25 July 65 d (206)		0800	0831	-1.2				
		0832	0857	-1.0				
		0858	0920	-0.8				
		0921	0948	-0.6				
		0949	1018	-0.4				
		1019	1047	-0.2				
		1048	1114	0.0				
		1115	1144	+0.2				
		1145	1223	+0.4				
		1224	1500	+0.6				
		1501	1543	+0.4				
		1544	1600	+0.2				

5. CHECKED

APPROVED

INSTRUCTIONS FOR PREPARATION AND SUBMITTAL

The information entered on this form shall be derived from associated tide records and together with those records be forwarded to the Washington Office for administrative approval by Tides and Currents Branch, Marine Data Division, Office of Oceanography.

Instructions by item number.

1. Enter the survey number
2. Enter the field number.
3. Enter the survey locality.
4. Enter the time meridian used.
5. Checked: Enter field approval
   Approved: Indicate Washington Office approval.

Instructions by columns (letters):

a. Enter the day of the year. A coded entry must be identifiable in the Washington Office.

b. Enter the position number of the sounding line where the reducer is to first apply.

c. Enter the time in hours and minutes that the reducer listed in "d" is used.

d. Enter the tide reducer necessary to correct the sounding to the plane of the reference.

The value entered by the field personnel shall be certified by the Washington Office, or corrected and returned to the originator. Only approved information can be entered into the smooth (edited) tape.

e. Enter the tide value from the previous column (Tide reducer) applied to a tide base of +60.0.

Example:
+60.0
- 3.1 (from column d.)
+56.9 (into column e.)

This summed value shall be punched into the paper tape.

f. Enter the origin of the tidal record from which the reducers in column "d" were derived. The entry must be identical with the terminology expressed in form 681.

g. Enter the additional information used to determine the corrections: Ratio of Range, ± time necessary to correct for the gage position, and zone designation.

FORM C& 3502
(5-64)
USCOMM-L- 6812-P64

ABSTRACT OF TIDE CORRECTIONS

(See instructions on reverse side)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

1. HYDRO. SURVEY NO:	2. FIELD NO.	3. SURVEY LOCATION	4. TIME MERIDIAN
H- 8844	HY-10-1-65	Key West Area - Florida	75° West

a. MO. DAY YR. OR DAY NO. (Date)	b. POSITION NUMBER	c. TIME FROM	c. TIME TO	d. TIDE REDUCERS FT.	e. MACHINE ENTRY FT. FMS.	f. TIDE STATION USED (As Form 681)	g. CORRECTION USED ZONE DESIGNATION
26 July 65		0800	0838	-1.6		All data on this sheet is derived from the Standard Tide Gage installed at Key West, Florida.	
e (207)		0839	0910	-1.4			
		0911	0937	-1.2			
		0938	1000	-1.0			
		1001	1024	-0.8			
		1025	1047	-0.6			
		1048	1108	-0.4			
		1109	1128	-0.2			
		1129	1149	0.0			
		1150	1211	+0.2			
		1212	1243	+0.4			
		1244	1318	+0.6			
		1319	1540	+0.8			
		1541	1600	+0.6			
27 July 65		0800	0850	-1.8			
f (208)		0851	0937	-1.6			
		0938	1010	-1.4			
		1011	1036	-1.2			
		1037	1058	-1.0			
		1059	1119	-0.8			
		1120	1138	-0.6			
		1139	1158	-0.4			
		1159	1216	-0.2			
		1217	1236	0.0			
		1237	1300	+0.2			
28 July 65							
g (209)		0800	1011	-2.0			
		1012	1048	-1.8			
		1049	1118	-1.6			
		1119	1142	-1.4			
		1143	1205	-1.2			
		1206	1223	-1.0			
		1224	1240	-0.8			
		1241	1300	-0.6			

5. CHECKED

APPROVED

INSTRUCTIONS FOR PREPARATION AND SUBMITTAL

The information entered on this form shall be derived from associated tide records and together with those records be forwarded to the Washington Office for administrative approval by Tides and Currents Branch, Marine Data Division, Office of Oceanography.

Instructions by item number.

1. Enter the survey number
2. Enter the field number.
3. Enter the survey locality.
4. Enter the time meridian used.
5. Checked: Enter field approval
   Approved: Indicate Washington Office approval.

Instructions by columns (letters):

a. Enter the day of the year. A coded entry must be identifiable in the Washington Office.

b. Enter the position number of the sounding line where the reducer is to first apply.

c. Enter the time in hours and minutes that the reducer listed in "d" is used.

d. Enter the tide reducer necessary to correct the sounding to the plane of the reference.

The value entered by the field personnel shall be certified by the Washington Office, or corrected and returned to the originator. Only approved information can be entered into the smooth (edited) tape.

e. Enter the tide value from the previous column (Tide reducer) applied to a tide base of +60.0.

Example:

+60.0	
- 3.1	(from column d.)
+56.9	(into column e.)

This summed value shall be punched into the paper tape.

f. Enter the origin of the tidal record from which the reducers in column "d" were derived. The entry must be identical with the terminology expressed in form 681.

g. Enter the additional information used to determine the corrections: Ratio of Range, ± time necessary to correct for the gage position, and zone designation.

FORM C& 3502
(5-64)
USCOMM-DC 6812-P64

ABSTRACT OF TIDE CORRECTIONS

(See instructions on reverse side)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

1. HYDRO. SURVEY NO:	2. FIELD NO.	3. SURVEY LOCATION	4. TIME MERIDIAN
H- 8844	HY-10-1-65	Key West Area - Florida	75° West

a. MO. DAY YR. OR DAY NO. *(Date)*	b. POSITION NUMBER	c. TIME FROM	c. TIME TO	d. TIDE REDUCERS FT.	e. MACHINE ENTRY FT. FMS.	f. TIDE STATION USED *(As Form 681)*	g. CORRECTION USED ZONE DESIGNATION
28 July 65 g (209) (Cont'd)		1301	1318	-0.4		All data on this sheet is derived from the Standard Tide Gage installed at Key West, Florida.	
		1319	1337	-0.2			
		1338	1359	0.0			
		1400	1422	+0.2			
		1423	1500	+0.4			
		1501	1700	+0.6			
30 July 65 h (211)		0000	0020	-0.8			
		0021	0103	-0.6			
		0104	0140	-0.4			
		0141	0217	-0.2			
		0218	0252	0.0			
		0253	0505	+0.2			
		0506	0535	0.0			
		0536	0602	-0.2			
		0603	0629	-0.4			
		0630	0658	-0.6			
		0659	0731	-0.8			
		0732	0802	-1.0			
		0803	0840	-1.2			
		0841	0921	-1.4			
		0922	1002	-1.6			
		1003	1150	-1.8			
		1151	1222	-1.6			
		1223	1256	-1.4			
		1257	1322	-1.2			
		1323	1347	-1.0			
		1348	1410	-0.8			
		1411	1430	-0.6			
		1431	1449	-0.4			
		1450	1508	-0.2			
		1509	1531	0.0			
		1532	1558	+0.2			
		1559	1634	+0.4			
		1635	1837	+0.6			
		1838	1914	+0.4			

5. CHECKED

APPROVED

INSTRUCTIONS FOR PREPARATION AND SUBMITTAL

The information entered on this form shall be derived from associated tide records and together with those records be forwarded to the Washington Office for administrative approval by Tides and Currents Branch, Marine Data Division, Office of Oceanography.

Instructions by item number.

1. Enter the survey number
2. Enter the field number.
3. Enter the survey locality.
4. Enter the time meridian used.
5. Checked: Enter field approval
   Approved: Indicate Washington Office approval.

Instructions by columns (letters):

a. Enter the day of the year. A coded entry must be identifiable in the Washington Office.

b. Enter the position number of the sounding line where the reducer is to first apply.

c. Enter the time in hours and minutes that the reducer listed in "d" is used.

d. Enter the tide reducer necessary to correct the sounding to the plane of the reference.

The value entered by the field personnel shall be certified by the Washington Office, or corrected and returned to the originator. Only approved information can be entered into the smooth (edited) tape.

e. Enter the tide value from the previous column (Tide reducer) applied to a tide base of +60.0.

Example:

+60.0	
- 3.1	(from column d.)
+56.9	(into column e.)

This summed value shall be punched into the paper tape.

f. Enter the origin of the tidal record from which the reducers in column "d" were derived. The entry must be identical with the terminology expressed in form 681.

g. Enter the additional information used to determine the corrections: Ratio of Range, ± time necessary to correct for the gage position, and zone designation.

FORM C&GS-8502
(5-64)
USCOMM- 6812-P64

ABSTRACT OF TIDE CORRECTIONS

(See instructions on reverse side)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

1. HYDRO. SURVEY NO:	2. FIELD NO.	3. SURVEY LOCATION	4. TIME MERIDIAN
H. 8844	HY-10-1-65	Key West Area - Florida	75° West

a. MO. DAY YR. OR DAY NO. (Date)	b. POSITION NUMBER	c. TIME FROM	c. TIME TO	d. TIDE REDUCERS FT.	e. MACHINE ENTRY FT.	f. TIDE STATION USED (As Form 681)	g. CORRECTION USED ZONE DESIGNATION
30 July 65 h (211) (Cont'd)		1915	1944	+0.2		All data on this sheet is derived from the Standard Tide Gage installed at Key West, Florida.	
		1945	2019	0.0			
		2020	2100	-0.2			
		2101	2138	-0.4			
		2139	2220	-0.6			
		2221	2400	-0.8			
31 July 65 j (212)		1002	1040	-1.4			
		1041	1116	-1.6			
		1117	1230	-1.8			
		1231	1300	-1.6			
		1301	1330	-1.4			
		1331	1357	-1.2			
		1358	1422	-1.0			
		1423	1450	-0.8			
		1451	1514	-0.6			
		1515	1539	-0.4			
		1540	1600	-0.2			
		1601	1623	0.0			
		1624	1700	+0.2			
		1701	1901	+0.4			
		1902	1947	+0.2			
		1948	2022	0.0			
		2023	2100	-0.2			
		2101	2143	-0.4			
		2144	2218	-0.6			
		2219	2300	-0.8			
		2301	2400	-1.0			

5. CHECKED

APPROVED

INSTRUCTIONS FOR PREPARATION AND SUBMITTAL

The information entered on this form shall be derived from associated tide records and together with those records be forwarded to the Washington Office for administrative approval by Tides and Currents Branch, Marine Data Division, Office of Oceanography.

Instructions by item number.

1. Enter the survey number
2. Enter the field number.
3. Enter the survey locality.
4. Enter the time meridian used.
5. Checked: Enter field approval
   Approved: Indicate Washington Office approval.

Instructions by columns (letters):

a. Enter the day of the year. A coded entry must be identifiable in the Washington Office.

b. Enter the position number of the sounding line where the reducer is to first apply.

c. Enter the time in hours and minutes that the reducer listed in "d" is used.

d. Enter the tide reducer necessary to correct the sounding to the plane of the reference.

The value entered by the field personnel shall be certified by the Washington Office, or corrected and returned to the originator. Only approved information can be entered into the smooth (edited) tape.

e. Enter the tide value from the previous column (Tide reducer) applied to a tide base of +60.0.

Example:

+60.0	
- 3.1	(from column d.)
+56.9	(into column e.)

This summed value shall be punched into the paper tape.

f. Enter the origin of the tidal record from which the reducers in column "d" were derived. The entry must be identical with the terminology expressed in form 681.

g. Enter the additional information used to determine the corrections: Ratio of Range, ± time necessary to correct for the gage position, and zone designation.

FORM C&GS-946A
(REV. 11-65)
(PRES. BY HYDROGRAPHIC MANUAL, 6-94)

U.S. DEPARTMENT OF COMMERCE
ESSA
COAST AND GEODETIC SURVEY

VERIFIER'S REPORT

HYDROGRAPHIC SURVEY, H-8844

INSTRUCTIONS - This form serves to identify items of a check list in verification together with items which are separately reported to the Reviewer. The form is not to be forwarded to the Reviewer. A report, which is prepared for the Reviewer, should identify items by number and letter and will be filed in the Descriptive Report until the survey is reviewed.

CL - Check List Items: should be checked as having been completed during the verification processes.

R - Report Item: This column refers to those items reported to the reviewer and is used to indicate the items discussed.

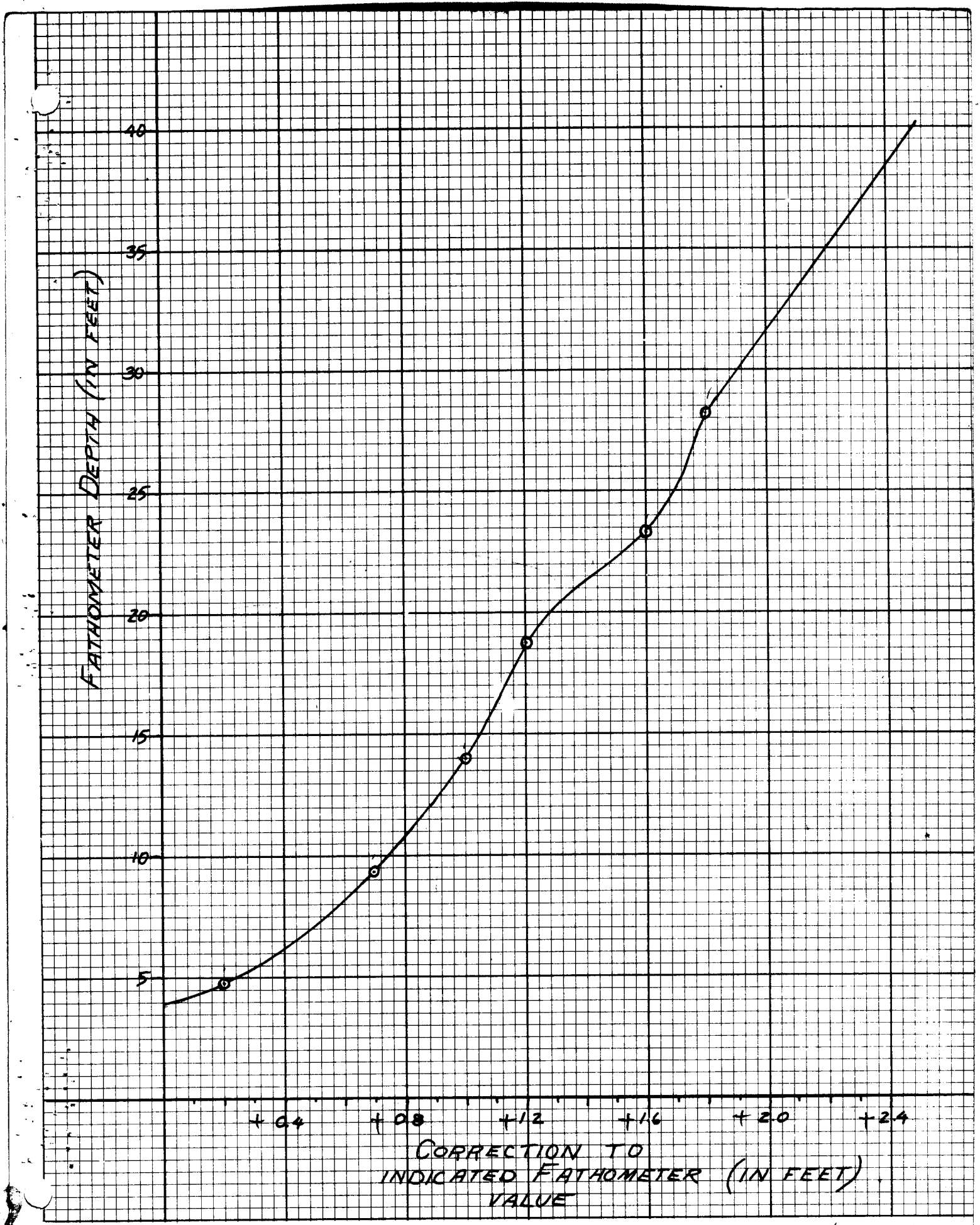
Part I - DESCRIPTIVE REPORT	CL	R
Note: The verifier should first read the Descriptive Report for general information and problems.		
1. The Descriptive Report was consulted, paragraphs checked if found satisfactory, and notations were made in soft black pencil regarding action taken. Remarks Required: -- None		
2. Soundings originating with the survey and mentioned in the Descriptive Report have been verified and checked in soft black pencil, including latitude and longitude, together with position identification. Remarks Required: -- None		
3. All reference to survey sheets mentioned in the Descriptive Report should include registry number and year. Remarks Required: -- None		
Part II - SHORELINE AND SIGNALS		
4. Source of shoreline signals Remarks Required: -- List all surveys a. Give earliest and latest dates of photographs b. Field inspection date c. Field Edit date d. Reviewed-Unreviewed		
5. The transfer of contemporary topographic information was carefully examined and reconciled with the hydrography. Remarks Required: -- Discuss remaining differences.		
6. The plotting of all triangulation stations, topographic stations and hydrographic signals has been checked and noted in processing stamp No. 42 on the smooth sheet. Remarks Required: -- None		
7. Objects on which signals are located and which fall outside of the high-water line have been described on the sheet. Remarks Required: -- List those signals still unidentified.		
Part III - JUNCTIONS		
Note: Make a cursory comparison preliminary to inking soundings in area of overlap.		
8. All junctions of contemporary or overlapping sheets were transferred in colored ink and overlapping curves were made identical. Remarks Required: -- None		
9. The notation in slanted lettering "JOINS H---- (19)" was added in colored ink for all verified contemporary adjoining or overlapping sheets. Those not verified are shown in pencil. Remarks Required: -- None		

Part III - JUNCTIONS (Continued)	CL	R
10. Junctions with contemporary surveys were satisfactory except as follows: Remarks Required: -- Consider conditions after adjustments have been made; note adjustments made. Make special notes of **Butt** junctions and areas which are **SUPERSEDED.**		
Part IV - VOLUMES		
11. All items affecting the plotting of the survey which are entered in the remarks columns of the sounding records were noted and check marked. In all cases appropriate action was taken and exceptions noted in the volumes. Remarks Required: -- None		
12. Condition of sounding records was satisfactory except as follows: Remarks Required: -- Mention deficiencies in completeness of notes or actions for the following: (a) rocks (b) line turns (c) position values of beginning and ending of lines (d) bar check or velocity correctors (e) time recording (f) notes or markings on fathograms (g) was reduction of soundings accurately done ? (h) was scanning accurate? (i) were peaks at uneven intervals missed? (j) were stamps completed? (k) references to adjacent features		
Part V - PROTRACTING		
13. All positions verified instrumentally were check marked in color in the sounding records, and verifier initialed the processing stamp. Remarks Required: -- None		
14. The protracting and plotting of all unsatisfactory crossings were verified. Remarks Required: -- None		
15. All detached positions locating critical soundings, rocks, buoys, breakers, obstructions, kelp, etc., were verified and the position numbers are legible. Remarks Required: -- None		

Part V - PROTRACTING (Continued)	CL	R
16. The protracting was satisfactory except as follows: Remarks Required: -- Refers to protracting in general except for specific faults repeated often, or faults in control information, which required considerable replotting or adjustments.		
17. The protractor has been checked within the last three months. Remarks Required: -- Date of check, type of protractor and number.		
Part VI - SOUNDINGS		
18. All soundings are clear and legible, and critical soundings are a little larger than adjacent soundings. Remarks Required: -- None		
19. Sounding line crossings were satisfactory except as follows: Remarks Required: -- Discuss adjustments.		
20. The spacing of soundings as recorded in the records was closely followed; Remarks Required: -- None		
21. The scanning, reduction, spacing, plotting of questionable soundings have been verified. Remarks Required: -- None		
22. The smooth plotting of soundings was satisfactory except as follows: Remarks Required: -- Refer to legibility, errors in spacing, and errors in numbers - but not to errors in scanning.		
Part VII - CURVES		
23. The depth curves have been inspected **before** inking. Remarks Required: -- By whom was the penciled curves inspected.		
24. The low-water line and delineation of shoal areas have been properly shown in accordance with the following: a. From T-Sheet in dotted black lines b. From soundings in orange c. Approximate position of sketched curve is dashed orange d. Approximate position of shoal area **not sounded** in black dashed Remarks Required: -- None		
25. Depth curves were satisfactory except as follows: (This statement should not refer to the manner in which the curves were drawn). Remarks Required: -- Indicate areas where curves could not be drawn completely because of lack of soundings. For some inshore areas a general statement is sufficient.		

Part VIII - AIDS TO NAVIGATION	CL	R
26. All fixed aids located together with those on the contemporary topographic sheets, have been shown on the survey. Remarks Required: -- Conflicts of any nature listed.		
27. All floating aids listed in the Descriptive Report should be verified and checked in soft black pencil, including latitude and longitude and position identification. Remarks Required: -- None		
Part IX - BOAT SHEET		
28. The boat sheet was constantly compared with the smooth sheet with reference to notes, position of sounding lines and supplemental information. Remarks Required: -- None		
29. Heights of rocks awash were correctly reduced and compared with topographic information. Remarks Required: -- Note excessive conflicts with topographic information.		
Part X - GENERAL		
30. All information on the sheet is shown in accordance with figures 82 and 83 in the Hydrographic Manual (Pub. 20-2). Remarks Required: -- None		
31. Unnecessary pencil notes have been removed from the sheet. Remarks Required: -- None		
32. Degree, minute values and symbols have been checked; also electronic distance arcs have been properly identified and checked on the smooth sheet. Remarks Required: -- None		
33. The bottom characteristics are adequately shown. Remarks Required: -- None		
Part XI - NOTES TO THE REVIEWER		
34. Unresolved discrepancies and questionable soundings.		
35. Notation of discrepancies with photogrammetric survey inserted in report of unreviewed photogrammetric survey or on copy.		
36. Supplemental information.		

Verified by	Date



BEE 10x10

Drawn CPH

INDEX OF BOTTOM SAMPLES

All of the samples listed below are in Volume V

Day Letter	Date	Position Number	Day Letter	Date	Position Number
f	July 27	01	f	July 27	40
f	"	02	f	"	42
f	"	03	f	"	44
f	"	04	f	"	46
f	"	05	f	"	48
f	"	06	f	"	51
f	"	07	f	"	53
f	"	08	f	"	55
f	"	10	f	"	57
f	"	12	f	"	59
f	"	16	f	"	61
f	"	18	f	"	63
f	"	21	f	"	65
f	"	23	f	"	71
f	"	25	f	"	73
f	"	27	f	"	75
f	"	29	f	"	77
f	"	30	f	"	79
f	"	32	f	"	81
f	"	34	f	"	83
f	"	36	f	"	85
f	"	38	f	"	87

All of the samples listed below are in Volume VIII

j	July 31	149	j	July 31	379
j	"	150	j	"	380
j	"	151	j	"	381
j	"	152	j	"	382
j	"	162	j	"	383
j	"	373	j	"	384
j	"	374	j	"	385
j	"	375	j	"	386
j	"	376	j	"	387
j	"	377	j	"	388
j	"	378	j	"	389

VELOCITY CORRECTIONS

ABSTRACT OF BAR CHECKS

All entries in feet and tenths

Table 1

July 22 through July 31

Depth	Correction
4.2 to 5.4	+ 0.2
5.5 to 7.2	+ 0.4
7.3 to 9.3	+ 0.6
9.4 to 12.3	+ 0.8
12.4 to 16.2	+ 1.0
16.3 to 20.2	+ 1.2
20.3 to 22.2	+ 1.4
22.3 to 25.1	+ 1.6
25.2 to 29.8	+ 1.8
29.9 to 33.3	+ 2.0
33.4 to 36.7	+ 2.2
36.8 to 40.2	+ 2.4

RAYDIST CORRECTIONS

The following listed corrections apply to all hydrography accomplished on Sheet HY-10-1-65 (H-8844). Corrections are listed for the whole day without regard to time with the exception of "h" day. No lane losses or gains were observed during the course of the survey.

Day	Date	From	To	Corrections (R1)	Corrections (R2)
a	7-22	All day		- 0.7	+ 0.5
b	7-23	All day		- 0.7	- 1.5
c	7-24	083230-085145		- 0.7	+ 0.5
		~~All~~ Rest of	day	- 0.7	- 1.5
d	7-25	All day		- 0.7	- 1.5
e	7-26	All day		- 0.7	- 1.5
f	7-27	All day		- 0.7	- 1.5
g	7-28	All day		- 0.7	- 1.5
h	7-30	0612	1145	+ 0.3	- 0.5
		1425	1630	- 0.7	- 1.5
j	7-31	All day		- 0.7	+ 0.5

SIGNAL NAMES

Signal Name	Triangulation
EAST	East Triangle Light 1934 1953
KING	Kingfish Shoal Light 1934 1956
WEST	Northwest Channel Inner Range Light 1934

APPROVAL SHEET

Field No. HY-10-1-65

Registry No. H-8844

The smooth sheet and accompanying records have been examined by me and are approved. During the progress of the field work, the boatsheet was inspected daily.

Wire dragging to locate coral heads in the area of this survey has been assigned to the Ships HILGARD and WAINWRIGHT. When this work is completed, it is believed that the survey will be complete and adequate for charting purposes.

Harry D. Reed

Harry D. Reed, Jr., CDR, USC&GS
Commanding Officer
USC&GS Ship HYDROGRAPHER

10/7/75

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for Form 411 (8 Volumes)

Tide Station Used (NOAA Form 77-12): Key West

Period: July 22 - 31, 1965

HYDROGRAPHIC SHEET: H-8844

OPR: SP 5-65

Locality: Key West Naval Anchorage Area

Plane of reference (mean ~~lower~~ low water): 4.5 ft.

Height of Mean High Water above Plane of Reference: 1.3 ft.

Remarks: Zone direct.

James R Hubbard
for Chief, Tides Branch

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8844

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
East Triangle										1
Florida (title)										2
Florida Keys										3
Key West Naval Anch. (title)										4
Kingfish Shoals										5
Main Ship Channel										6
West Triangle										7
										8
					Names approved					9
					3-10-66					10
					A. J. Wright					11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

FORM C&GS-946
(REV. 3-1-64)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
NAUTICAL CHART DIVISION

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. 8844

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS	1
DESCRIPTIVE REPORT	1	OVERLAYS	

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS						
VOLUMES	~~8~~ 871					
BOXES						

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

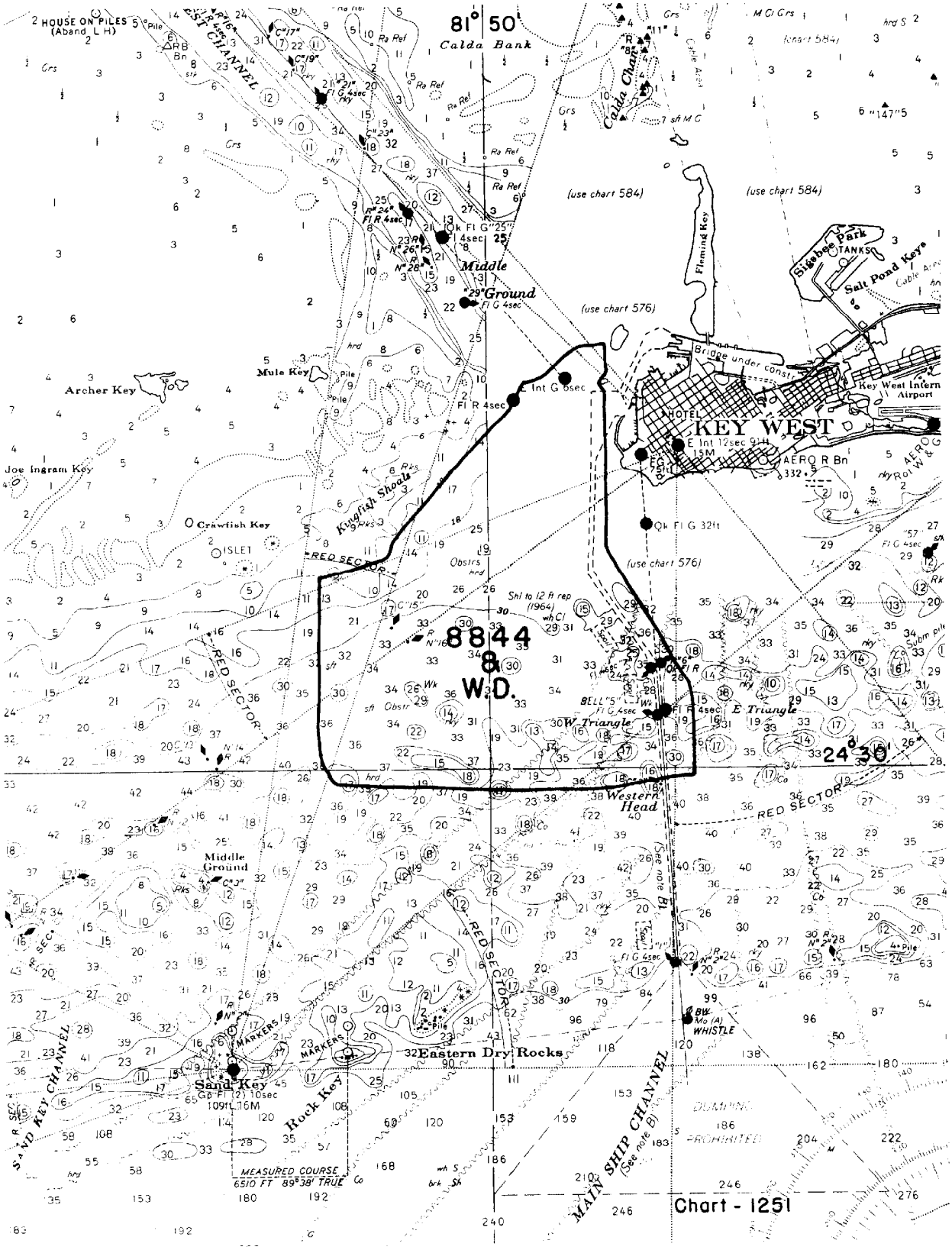
OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK				
TOTALS				

PRE-VERIFICATION BY	BEGINNING DATE	ENDING DATE
VERIFICATION BY	BEGINNING DATE	ENDING DATE
REVIEW BY	BEGINNING DATE	ENDING DATE

USCOMM-DC 6641-P64


81° 50'
Calda Bank
Middle Ground
Ground
Mule Key
Archer Key
Joe Ingram Key
Crawfish Key
ISLET
Knoefish Shoals
Fleming Key
Sigsbee Park
Salt Pond Keys
Bridge under const.
Key West Intern Airport
HOTEL
KEY WEST
AERO R Bn
AERO R Bn
8844
W.D.
E Triangle
W Triangle
Western Head
RED SECTOR
Middle Ground
Eastern Dry Rocks
Sand Key
Rock Key
SAND KEY CHANNEL
MAIN SHIP CHANNEL
MEASURED COURSE
6510 FT 89°38' TRUE
DUMPING PROHIBITED
(use chart 584)
(use chart 576)
Chart - 1251

81° 51'

81° 50'

81° 49'

24° 32'

25.0'

28.0'

27.5'

25.5'

24° 31'

14.5'

27.5'

29.2'

14.5'

27.5'

29.5'

17.0'

31.0'

33.5'

24° 30'

WIRE DRAG
AREA & DEPTH SHEET
SPECIAL PROJECT 5-65
KEY WEST, FLORIDA
WAINWRIGHT & HILGARD
DONALD R. TIBBIT COMDG.
SCALE 1:20,000

H8844

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8844

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
576	3/16/66	J. Rivera	~~Full~~ Part Before ~~After Verification Review Inspection Signed~~ Via
			Drawing No. Added one sounding.
854	5/12/66	HK	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. No corr. at this time.
1112	8-2-66	H. Ladden	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. 26 Examined from Ch. 584 #22 No Corr. (See history Ch. 584)
1002	8/66	C Mosfeldt	~~Full Part~~ Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. no corr hydro deleted Adequate
576 (11449)	7/29/76	Thomas J. Kerr II	~~Full Part~~ Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. Category I Application - Critical of Fill in soundings
(11441) 584	1-23-79	Stephen J. Kerry	~~Full Part~~ Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. 38638 M ADEQUATE
(11443) 854	1-26-79	Stephen J. Kerry	~~Full Part~~ Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. 208 (9-19-77)
(1261) 11442	1-27-79	Stephen J. Kerry	~~Full Part~~ Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. 44 (7-13-78) ADEQUATE
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-971

USCOMM-DC 8558-P63

8844
WIRE DRAG

Diag. Cht. No. 1251-2.

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Wire Drag - SP 5-65

To be transferred to

Field No. HY 10-1-65 *Office No.* H-8844

LOCALITY

State FLORIDA

General locality Atlantic

Locality Key West, Florida

19 65

CHIEF OF PARTY

LCDR Donald R. Tibbitt

LIBRARY & ARCHIVES

DEC 9 - 1965

DATE

USCOMM-DC 5087

8844

DESCRIPTIVE REPORT

To
Accompany

Wire Drag Investigations

PROJECT SP 5-65

K E Y W E S T, F L O R I D A

1965

Donald R. Tibbitt - Chief of Party

- - - - - - - - - - - - - - - - - -

A. AUTHORITY:

SUPPLEMENTAL INSTRUCTIONS: SPECIAL PROJECT 5-65 CURRENT OBSERVATIONS AND GROUNDING INVESTIGATIONS, KEY WEST, FLORIDA, dated September 13, 1965, served as authority for the work on this prlject.

B. DATES

Field work was begun on October 10, 1965 and were completed on October 15, 1965.

C. CHARACTER AND LIMITS OF THE WORK

The purpose of the survey was to investigate certain discrepancies between survey H-8844 (HY 10-1-65) and the chart C&GS 584. Any shoals or obstructions verified were to be cleared to within 2 feet of its least depth. The investigations were in an area extending from one to four miles to the southwest of Key West, Florida.

D. SURVEY METHODS

Standard wire drag procedures were used thoughout the project. SCUBA divers were used to investigate hangs and facilitate drag work. A report on the season's diving operation is in preparation and will be forwarded upon completion.

E. CONTROL

Visual control, with 3-point sextant fixes, was used throughout the project. Signals used were prominent charted objects. Standard dual control methods were used, and cuts to the end buoy and the opposite vessel were taken immediately after the regular fix. The cuts were desiginated plus (+) if the object was to the right of the signal used, and minus (-) if the object was to the left. Length of the towline was from the center of the wheelhouse to the end buoys in each case.

F. VESSELS & EQUIPMENT

The Ships WAINWRIGHT and HILGARD were used as guide and end launch respectively. The HILGARD's skiff was used as a drag tender.

Standard wire drag equipment was used throughout the project.

G. TIDAL CORRECTIONS

All soundings and effective depths are in feet at Mean Low Water. See Tide Note and List of Corrections attached to this project.

H. ADEQUACY OF THE SURVEY

This survey is considered complete and adequate to supercede all prior surveys. For specific recommendations, see attached List of Investigations.

I. COMPARISON WITH CHART AND PRIOR SURVEYS

The findings of this survey were compared with C&GS Chart 584 and prior survey H-8844 (HY 10-1-65. Discrepancies and recommendations are noted in the attached List Of Investigations.

J. BOAT AND SMOOTH SHEETS

Two 1:20,000 scale boat sheets supplied by the Washington Office were used for plotting during the project. Since it is intended to transfer the results of this survey to the smooth sheet of H-8844 (HY 10-1-65), no smooth sheet is submitted. Smooth sheet plotting procedures were incorporated in the final

plot being submitted on one of the original boat sheets (the one used by the end vessel). The original boat sheet used by the guide vessel (WAINWRIGHT) is also being forwarded for informational purposes.

K. LIST OF ATTACHMENTS

1. Statistics
2. Tide Note
3. Tide Corrections
4. List of Signals
5. List of Investigations

Respectfully submitted,

Donald R. Tibbitt

Donald R. Tibbitt
LCDR USESSA

APPROVAL SHEET

The attached report, related wire drag records and plotting sheets have been inspected and are approved.

Donald R. Tibbitt

Donald R. Tibbitt
LCDR ESSA
Commanding
WAINWRIGHT & HILGARD

Attachment No. 1

STATISTICS

SP 5-65

Vol No.	Day-Letter	1965 Date	Number of Positions	Statute Miles	Square Nautical Miles
1	A	10/10	53	2.3	0.45
1	B	10/11	38	0.8	0.07
1	C	10/15	30	1.7	0.21

Attachment No. 2

TIDE NOTE

Hourly tide heights were supplied by the Washington Office as observed at Key West, Florida, Standard Tide Gage - corrected to Sand Key Light. (75th Time Meridian)

Attachment No. 3

TIDAL CORRECTIONS

10 October 1965 A day

Time from - to	Correction (feet)
0900 - 1053	-1.5
1053 - 1220	-1.0
1220 - 1354	-0.5
1354 - 1700	0.0

- - - - - - - - - - - - - - - - - - - -

11 October 1965 B day

0900 - 1146	-1.5
1146 - 1320	-1.0
1320 -	-0.5

- - - - - - - - - - - - - - - - - - - -

15 October 1965 C day

0800 - 0937	0.0
0937 - 1220	-0.5
1220 - 1400	-1.0

Attachment No. 4

NAME		SOURCE
EAST	-	Eastern Triangle Light, 1913-19
KING	-	Kingfish Shoal Light, 1934
KEY	-	Key West Naval Station Water Tank, 1956
SAND	-	Sand Key Light, 1853, 1905, 1919, 1934, 1935
RAD	-	Key West, Department of Commerce East Radio Mast, 1943, 1956

Attachment No. 5

LIST OF INVESTIGATIONS

P.R. Item No. 1:

26 ft. sdg., Lat. 24° 31', 98", Long. 81° 49', 33"

The shoal was located with fathometer and verified by SCUBA divers with hand-lead line (Pos. 1 and 2 A). The least depth obtained was 26.5 feet. This is a sand shoal. An attempt was made to clear the shoal; but due to the position of a mooring bouy and the direction of the current, a clearance was not obtained with a normal bight in the drag. The drag was pulled over the area with a clearance of 25 feet, with a slack drag. This failure to obtain a good clearance over this shoal was not discovered until after the vessels had returned to Norfolk,and the smooth plot completed. It is recommended that this shoal be charted with a least depth of 25 feet.

P.R. Item No. 2X:

16 ft. sdg., Lat. 24° 31', 39", Long. 81° 49', 05"

The existence of this shoal was disproved by wire drag. The area was cleared in two directions.with an effective depth of 27.5 feet. (Pos. 5A thru 42A) It is recommended that this sounding not be charted.

P.R. Item No. 3:

25 ft. sdg., Lat 24° 30' 76", Long. 81° 50', 11"

The existence of this shoal was disproved by wire drag. Effective clearance in the area was 29.5 feet. (Pos. 1B thru 13B) Mooring buoy and excessive current in area prevented clearance in opposite direction. It is recommended that this sounding not be charted.

P.R. Item No. 4:

26 ft. sdg., Lat. 24° 30' 13", Long. 81° 51' 40"

The existence of this shoal was disproved by wire drag in two directions. Effective clearance was 33.5 feet. (Pos, 1C thru 30C) It is recommended that this sounding not be charted.

Misplotted on DS

P.R. Item No. 5:

15 ft. & 17 ft. sdgs., Lat 24° 31', 45", Long. 81° 49', 02"

The existence of this shoal was disproved by wire drag in two directions. Effective clearance was 27.5 ft. (Post 1B thru 13B) It is recommended that these soundings be removed from the chart.

P.R. Item No. 6:

Wreckage, Lat 24° 30', 68", Long 81° 48', 46"

The existence and/or location of this wreckage could not be positively proved or disproved. The area of the wreckage was cleared by wire drag. Effective clearance was 17.0 ft. Further investigation was complicated by numerous shoals, bouys and heavy currents in the area. Although it is doubtful that the wreck exists in this area at the present time, it must be recommended that it continue to be charted in the present location but shown as being cleared at 17 feet by wire drag.

P.R. Item No. 7:

14 ft. sdg., Lat 24° 30', 54", Long 81° 50', 42"

The existence of this shoal was verified by wire drag and SCUBA divers with hand-lead line. The shoal is a prominent coral head and is covered by 16.5 feet of water, as determined by divers with hand headline. Effective clearance was 14.5 feet (Pos. 30B thru 38B). It is recommended that the shoal be charted as cleared by 14.5 feet. The location of the shoal is 78 meters in a direction of 254°T from the charted position.

FORM C&GS-946
(REV. 3-1-64)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
NAUTICAL CHART DIVISION

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. 8844 W.D.

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET		BOAT SHEETS	2
DESCRIPTIVE REPORT	1	OVERLAYS	

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES	4					
CAHIERS	1					
VOLUMES	2					
BOXES						

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*
1-Area and Depth Sheet

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS				
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK				
TOTALS				

PRE-VERIFICATION BY	BEGINNING DATE	ENDING DATE
VERIFICATION BY	BEGINNING DATE	ENDING DATE
REVIEW BY	BEGINNING DATE	ENDING DATE

USCOMM-DC 6641-P64