8016

Orig

Diag. Cht. Nos. 1002 and 1007-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

Preliminary Notes
for

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. HY-10452 *Office No.* H-8016

LOCALITY

State Florida

General locality Gulf of Mexico

Locality Dry Tortugas

19XX 52-53-54

CHIEF OF PARTY
Jack C. Sammons - 1952
L.S. Hubbard - 1953 - 1954

DATE

8-1870-1 (1)

Form 537
(Ed. June 1946)

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

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

REGISTER No. H-8016

Field No. Hy-10452

State FLORIDA

General locality GULF OF MEXICO

Locality DRY TORTUGAS

Scale 1:100,000 Date of survey 22 July - 9 Nov. 1952
14 July - 11 Nov. 1953
10 July - 19 Nov. 1954

Instructions dated 20 March 1952
9 March 1953 & 27 Jan. 1954

Vessel SHIP HYDROGRAPHER

Chief of party Jack C. Sammons -- 1952
L.S. Hubbard -- 1953-54

Surveyed by R.A. Earle, I.R. Rubottom, R.M. Stone, M.T. Paulson
G.E. Morris & E.E. Jones

Soundings taken by ~~echometer~~, graphic recorder, ~~hand lead~~

Fathograms scaled by PERSONNEL OF SHIP HYDROGRAPHER

Fathograms checked by PERSONNEL OF NORFOLK DISTRICT OFFICE

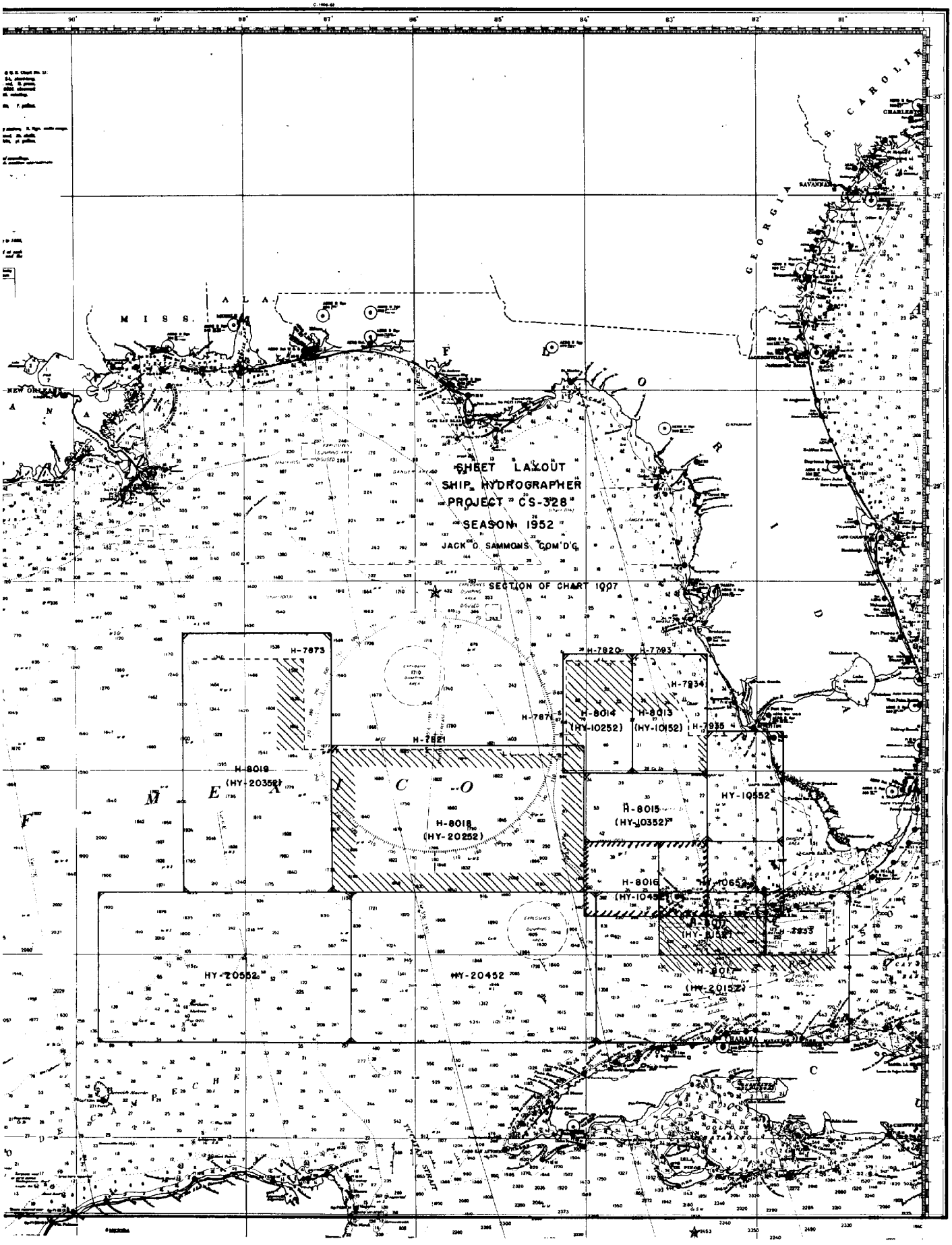
Protracted by A.G. ATWILL (Norfolk District Office)

Soundings penciled by A. G. ATWILL (Norfolk District Office)

Soundings in fathoms ~~feet~~ at MLW ~~XXXXX~~

REMARKS: Offshore survey controlled by EPI system.

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1


SHEET LAYOUT
SHIP HYDROGRAPHER
PROJECT "CS-328"
SEASON 1952
JACK O. SAMMONS COM'D'G
SECTION OF CHART 1007
H-7873
H-7820
H-7793
H-7834
H-7821
H-8014
(HY-10252)
H-8013
(HY-10152)
H-7935
H-8019
(HY-20352)
H-8018
(HY-20252)
H-8015
(HY-10352)
HY-10552
H-8016
(HY-10452)
H-8017
(HY-10352)
H-7933
HY-20552
HY-20452
H-8017
(HY-20152)
MISS.
ALA.
GEORGIA
CAROLINA
FLORIDA
MEXICO
CUBA
YUCATAN STRAIT

PRELIMINARY NOTES

FOR

DESCRIPTIVE REPORT

TO Accompany

Hydrographic Survey H-8016 (HY-10452)

22 July to 9 November 1952

14 July to 11 November 1953

10 July to 19 November 1954

Ship HYDROGRAPHER Scale 1:100,000

Chief of Party Jack C. Sammons - - 1952

L. S. Hubbard 1953- 1954

A. PROJECT:

This survey was made under Instructions for Project CS-328 and dated 20 March 1952, 9 March 1953, and 27 January 1954.

B. SURVEY LIMITS AND DATES:

This survey is an offshore survey in the Gulf of Mexico. The northeastern corner of the sheet lies approximately 140 miles south of the entrance to Tampa Bay, and approximately 40 miles northeast of Dry Tortugas. See Sheet Index.

This survey is joined by prior surveys as follows:

1. On the east by Survey 1076, 1:80,000; 1871
2. On the southeast by Survey 954, 1:80,000; 1867-68

This survey junctions with contemporary surveys as follows:

1. On the north; Survey H-8015, 1:100,000
2. On the west; Survey H-8018, 1:200,000
3. On the southwest; Survey H-8061, 1:200,000.
4. On the south; Survey H-8017, 1:200,000.
5. On the southeast, Survey H-8011, 1:80,000

Surveys H 8011 and H 8018 were completed during the 1952 season.

Field work on this survey was done during the following dates:

22 July through 9 November 1952
14 July through 11 November 1953
10 July through 19 November 1954

C. VESSEL AND EQUIPMENT:

All work on this survey was done from the ship. The ship has a turning radius of 80 to 120 meters, depending on wind and/or current.

No sub-parties were operated from the ship.

The fathometers used in this survey were 808J Numbers 132 and 153, NMC II Number 86, and Edo Number 3. The 808s were used throughout their range in fathoms and the NMC and Edo in deeper water.

D. TIDES & CURRENTS:

No tide or current stations were occupied.

Tidal data from the primary tide station at Key West was used for the reduction of soundings. Observed tides were used for the 1952 and 1954 seasons, and predicted tides for the 1953 season.

E. SMOOTH SHEET:

The smooth sheet is to be plotted by the Norfolk Processing Office.

F. CONTROL STATIONS:

Control was by EPI, using stations EPI E & F in 1952-53, and EPI F & G in 1954.

Station EPI E was located at RM No. 3 of triangulation station KEY 1934 and was established as an EPI station in 1952 under J. C. Sammons, Chief of Party. The location is on Grassy Key, Monroe County, Florida.

Station EPI F was located close to triangulation station EAT 1951 and was established as an EPI station in 1952 under J. C. Sammons, Chief of Party. The location is at Boca Ciega Bay, West Coast of Florida.

Station EPI G was located at Key West as triangulation station EPI G 1954, under L. S. Hubbard, Chief of Party. The station is on the grounds of the U. S. Naval Station, Key West, Florida.

G. SHORELINE & TOPOGRAPHY:

None

H. SOUNDINGS:

The soundings were by fathometer. For information relative to the corrections, see the Velocity Correction Reports and Fathometer Correction Reports for 1952, 1953, and 1954.

In 1954, in two instances, (pos 31JA Through 32 KA) the fathogram is missing, and the soundings must be taken from the sounding volume.

I. CONTROL OF HYDROGRAPHY:

Control of hydrography was by EPI for all of the field work, as was covered in section F.

J. ADEQUACY OF SURVEY:

This survey is incomplete. The area along the western edge of the sheet, east to Long. 83° 35' W is covered and the junctions are satisfactory, as most are continuations of sounding lines from one sheet to the other. The eastern portion of the sheet has been generally covered west to Long. 83° 10' W from Long. 82° 49' W - with additional lines around the shoals. The crossings are generally in agreement.

K. CROSSLINES:

Sheet is not completed; additional cross lines to be run.

L. COMPARISON WITH PRIOR SURVEYS:

M. COMPARISON WITH CHARTS:

Not done. Chart has been revised to B.S apparently

N. DANGERS & SHOALS:

Shoal; 8 fathoms, 24° 41.3' 83° 00.5' Charted depth 11-13 fm

O, P, Q, R, S, T: Not applicable

Z. TABULATION OF APPLICABLE DATA:

1/21/53	Fathometer Corrections 1952
1/22/53	Computation of Velocity Corrections 1952
12/13/54	Fathometer Corrections 1953
3/25/54	Computation of Velocity Corrections 1953
4/19/55	Fathometer Corrections 1954
4/19/55	Velocity Corrections 1954

The body of this report was prepared by an officer who was not present during any of the field work, and should be considered as a review of the field work and records, rather than a complete Descriptive Report.

H. W. Keith, Jr.
Lieut., USC&GS

1952

STATISTICS

For Hydrographic Survey H-8016 (HY-10452)

Date	Day Letter	Volume Number	Number of Positions	Statute Miles of Sounding
1952				
22 July	A	1	83	115.6
30 July	B	1	24	44.3
31 July	C	1	35	61.6
5 Aug.	D	1	35	54.3
9 Nov.	E	1	61	103.5
		1	238	379.3

Number of Temperature and Salinity Observations in the area ----7*

(* Refer to Computation of Velocity Correction Report ---1952")

Total area surveyed 123 Square Statute Miles.

- Rnd.

1953

STATISTICS

For Hydrographic Survey No. H-8016 (HY-10452)

Date 1953	Day Letter	Volume Number	Number of Positions	Statute Miles of Sounding
14 July	F	II	56	105.1
22 July	G	II	17	36.0
26 July	H	II	28	37.0
28 July	J	II	23	47.2
30 July	K	II	30	47.8
7 August	L	II	30	52.1
21 August	M	II	28	51.2
27 August	N	II	24	43.5
4 September	P	II	64	118.0
11 September	Q	II	29	52.7
22 September	R	II	31	54.4
22 October	S	II	48	83.9
26 October	T	III	40	58.6
7 November	U	III	33	52.9
11 November	V	III	30	52.9
			511	893.3

Ck'd: PH

Number of temperature and salinity observations in the area: 5 *

Total area surveyed: 720 square statute miles

*---Refer to "Computation of Velocity Corrections"

Copy

Statistics 1954

Sheet H-8016

Date	Day Letter	Volume Number	No. of Positions	Statute Miles of Sounding
10 July	W	IV	30	50.8
14	X	IV	31	56.5
22	Y	IV	38	54.7
25	Z	IV	34	61.0
9	AA	IV	56	95.1
23 Aug.	BA	IV	71	62.1
29	CA	IV	32	55.9
10 Sep.	DA	IV	31	54.5
13	EA	IV	120	224.2
14	FA	IV	43	81.0
25	GA	IV	34	59.5
26	HA	IV	44	84.0
27	JA	IV	33	56.8
28	KA	IV	59	97.5
7 Oct.	LA	V	89	141.0
6	MA	V	76	130.5
18	NA	V	62	85.8
18 Nov.	PA	V	53	90.3
19	QA	V	175	240.6
TOTAL:			1111	1781.8

32 B. T. 18 B. S. Total Area Surveyed 1395 sq. stat. miles

Tide Note

H-8016

Tide Station:	Key West, Florida
Latitude	24° 33.2' N
Longitude	81° 48.5 W
Plane of Reference:	MLW = 6.0 ft. on tide staff - 1952
	(Ltr. Dir. 15 Aug 52)
	MLW = 4.3 ft. on tide staff - 1954
	(Ltr. Dir. 9 Aug 54)
Area covered:	Entire area of sheet
Time Correction:	None)
Height Correction:	None) -Director's Letter 31 July 1952

Tide reducers for the sheet were determined as follows:

1952 - Observed tides from Office

1953 - Predicted tides from Office

1954 - Observed tides from Office

VELOCITY CORRECTION TEMPLATES 1952

AREA B

SURVEYS: H-8013 (HY-10152), H-8014 (HY-10252), H-8015 (HY-10352), H-8016 (HY-10452), H-8018 (HY-20252) & H-8019 (HY-20352).

PERIOD: 22 July through 7 August 1952
(Surveys concurrently with work in Area A during this period.)

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	48.0 - - - - - - -	1545
48.2	153 - - - - - - -	1530
154	267 - - - - - - -	1515
268	and deeper - - - -	1500

PERIOD: 13 August through 9 October 1952

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	37.0 - - - - - - - -	1545
37.2	131 - - - - - - - -	1530
132	267 - - - - - - - -	1515
268	and deeper - - - - -	1500

PERIOD: 16 October through 23 November 1952

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	98.0 - - - - - - -	1530
98.2	267 - - - - - - -	1515
268	and deeper - - - - -	1500

VELOCITY CORRECTION TEMPLATES

1953

AREA B

Gulf of Mexico

SURVEYS: H - 8013, (HY-10152) H-8016, (HY-10452) H-8061, (HY-20153)
H-8014, (HY-10252) H-8017, (HY-20152) H-8062, (HY-20252)
H-8015, (HY-10352) H-8019, (HY-20352)

PERIOD: 13 July through 25 September 1953

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	28.6	1545
28.8	94.0	1530
94.2	210	1515
211	and deeper	1500

PERIOD: 6 October through 25 November 1953

DEPTH FATHOMS From	To	TEMPLATE Meters per second
00.0	111.5	1530
112	210	1515
211	and deeper	1500

Comp by: RMS
Ck'd by: GWT

C324
Chambers

ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

AIR MAIL

Director, Pacific Marine Center
Coast and Geodetic Survey, ESSA
1801 Fairview Avenue, East
Seattle, Washington 98102

May 18, 1966

C32

Chief, Marine Chart Division

Velocity correctors for 1952-1954 Hydrographic Surveys - Straits of Florida

The Office of Hydrography and Oceanography has orally approved (telephone conversation: R. Starr/E. Thomas) the Straits of Florida Velocity Correction Tables I and II as adequate for use to correct data in the area shown on attachment.

Table I should be used north of the Gulf Stream axis and Table II south of the axis. These tables are based on a calibration velocity of 800 fms./sec. and must be converted for use of the 808 fathometers which are calibrated for a velocity of sound of 820 fms./sec. The printout of each survey should contain the converted table used.

Tables I and II are enclosed.

(Signed) Lorne G. Taylor

Lorne G. Taylor

Enclosures: 3

C324 Chambers: pr 5/18/66

VELOCITY CORRECTIONS

800 fm./sec.
NMC-2 EDO

Table 1

Corrections to Depth

∤ 0.1 fm.	5.0 fm.	∤ 4.0 fm.	86.0 fm.
∤ 0.2	7.0	∤ 4.2	91.0
∤ 0.3	9.0	∤ 4.4	96.0
∤ 0.4	10.0	∤ 4.6	101.0
∤ 0.5	12.0	∤ 5.0	117.0
∤ 0.6	16.0	∤ 5.5	130.0
∤ 0.8	20.0	∤ 6.0	143.0
∤ 1.0	24.0	∤ 6.5	156.0
∤ 1.2	27.0	∤ 7.0	183.0
∤ 1.4	31.0	∤ 8.0	219.0
∤ 1.6	35.0	∤ 9.0	272.0
∤ 1.8	39.0	∤10.0	345.0
∤ 2.0	43.0	∤11.0	433.0
∤ 2.2	47.0	∤12.0	509.0
∤ 2.4	51.0	∤13.0	569.0
∤ 2.6	55.0	∤14.0	636.0
∤ 2.8	59.0	∤15.0	736.0
∤ 3.0	64.0	∤17.0	850.0
∤ 3.2	68.0	∤19.0	950.0
∤ 3.4	72.0	+21.0	1063.0
∤ 3.6	77.0	+23.0	1165.0
∤ 3.8	82.0	+25.0	1275.0
		+27.0	1378.0
		+29.0	1481.0
		+31.0	1580.0
		+33.0	168.0

VELOCITY CORRECTIONS

800 fm./sec.
NMC-2 EDO

Table 2

Corrections to Depth

± 0.1 fm.	5.0 fm.	± 4.3 fm.	91.0 fm.
± 0.2	7.0	± 4.5	95.0
± 0.3	9.0	± 4.7	100.0
± 0.4	11.0	± 4.9	105.0
± 0.5	14.0	± 5.0	112.0
± 0.7	18.0	± 5.5	123.0
± 0.9	22.0	± 6.0	135.0
± 1.1	26.0	± 6.5	148.0
± 1.3	30.0	± 7.0	160.0
± 1.5	34.0	± 8.0	195.0
± 1.7	38.0	± 9.0	222.0
± 1.9	42.0	±10.0	254.0
± 2.1	46.0	±11.0	289.0
± 2.3	50.0	±12.0	327.0
± 2.5	54.0	±13.0	367.0
± 2.7	58.0	±14.0	408.0
± 2.9	62.0	±15.0	462.0
± 3.1	66.0	±16.0	542.0
± 3.3	70.0	±17.0	615.0
± 3.5	74.0	±18.0	722.0
± 3.7	78.0	±20.0	835.0
± 3.9	83.0	±22.0	933.0
± 4.1	87.0	±24.0	1018.0

Table above submitted by Starr, Oceanographic Analysis Branch, is extended to greater depths from field corrections in sounding volumes, H-8061 (1953-54)

+26.0 fm.	1035 fm	+38.0 fm		1435 fm	+50.0 fm		1750 fm
+28.0	1115	+40.0		1495	+52.0		1840
+30.0	1185	+42.0		1545	+56.0		Deepest
+32.0	1250	+44.0		1605			
+34.0	1315	+46.0		1655			
+36.0	1380	+48.0		1705			

VELOCITY CORRECTIONS

820 fm./sec.
808 Fmtr.

Table 3

Gulf Stream Axis -- Florida Keys

Correction	to	Depth
0.0 fm.		2.5 fm.
∔ 0.1		7.0
∔ 0.2		11.0
∔ 0.3		14.0
∔ 0.4		21.0
∔ 0.6		28.0
∔ 0.8		36.0
∔ 1.0		45.0
∔ 1.2		55.0
∔ 1.4		65.0
∔ 1.6		76.0
∔ 1.8		89.0
∔ 2.0		119.0
∔ 2.5		180.0

VELOCITY CORRECTIONS

820 fm./sec.
808 Fmtr.

Table 4

Gulf Stream Axis-----Cuba and the Bahamas

Correction	to	Depth
0.0 fm.		2.5 fm.
+ 0.1		7.5
+ 0.2		11.0
+ 0.3		14.0
+ 0.4		21.0
+ 0.6		29.0
+ 0.8		36.0
+ 1.0		44.0
+ 1.2		51.0
+ 1.4		59.0
+ 1.6		67.0
+ 1.8		75.0
+ 2.0		83.0
+ 2.2		92.0
+ 2.4		101.0
+ 2.5		120.0
+ 3.0		152.0
+ 3.5		Deeper than 152.0 fms.

JUNCTIONAL SURVEYS
H-8016

H 8015 N
* H-8630
* H-8017 S
* H-8018 NW
* H-8061 SW
H-8628 E

8011 ???

Ref. Sta. EPI G, 1954
Lat. 24° 32' (1420.2)
Long. 81° 48' (903.4)
Tria NONE
Topo NONE
Hydro NONE
Project. Gerber Digital Plotter

1954

VELOCITY TEMPLATE ABSTRACT

1954

Ship HYDROGRAPHER Project CS-328

Sheets H-8017, H-8015, H-8104, H-8112, H-8013, H-8015, H-8016, H-8018, H-8061

No. 1		No. 2		Gulf of Mexico Mean	
Depths fm	Template m/s	Depths fm	Template m/s	Depths fm	Template m/s
0-55	1545	0-75	1545	0-101	1545
55-155	1530	75-220	1530	101-280	1530
155-325	1515	220-400	1515	280-530	1515
325 & over	1500	400 & over	1500	530-2000	1500
				2000 & over	1515

Sheets H-8017, H-8105, H-8013, H-8015, H-8016, H-8018, H-8061
Gulf of Mexico Mean

Sheet H-8104
A thru M day, 5 May thru 17 May - No. 1
N thru T day, 21 May thru 26 May - No. 2
U thru end, 8 June thru end, Gulf of Mexico Mean

Sheet H-8112
A thru C day, 5 May thru 17 May - No. 1
D day, 21 May - No. 2
E day thru end, 16 June thru end - Gulf of Mexico Mean

FATHOMETER INSTRUMENTAL CORRECTIONS

1952

PERIOD "B"
(5 August to end of season, 1952)

Surveys: H-8013 (HY-10152) H-8014 (HY-10252)
H-8015 (HY-10352) H-8016 (HY-10452)
H-8018 (HY-20252) H-8019 (HY-20352)

Fathometer, 608-J, No. 132-SG:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.2	+0.4	0.0
Correctors to 0.5 fathoms:	---	---	+0.5	0.0

Fathometer, 608-J, No. 131-SG:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.4	-0.2	-1.2
Correctors to 0.5 fathoms:	---	---	-0.5	-1.5

Fathometer, NMC-2:

Correctors to 0.5 fathoms:

Before 21 Sept. 1952, 1429, pos. 59 U .... -1.0
After 21 Sept. 1952, 1429, pos. 59 U ..... -0.0

Comp: EEJ
Ck'd: WVW

FATHOMETER INSTRUMENTAL CORRECTORS

1952

PERIOD "A"
(25 April to 5 August)

Surveys: H-8011 (HY-8152) H-8013 (HY-10152)
H-8015 (HY-10352) H-8016 (HY-10452)
H-8017 (HY-20152)

Fathometer, 808-J, No. 132-SC:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.2	+0.2	-0.2
Correctors to 0.5 fathoms:	----	----	0.0	0.0

Fathometer, 808-J, No. 131-SC:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.4	0.0	-1.2
Correctors to 0.5 fathoms:	----	----	0.0	-1.0

Fathometer, NMC-2: (Refer: Fathometer Comparisons)

Correctors to 0.5 fathoms -1.0

Comp: EWJ
Ck'd: RTK

1953

PATOMETER INSTRUMENTAL CORRECTIONS

PERIOD "B"
(03 July to 25 November, 1953)

SURVEYS: H-8013, (HY-10352) H-8017, (HY-20252)
H-8014, (HY-10252) H-8019, (HY-20352)
H-8015, (HY-10352) H-8061, (HY-20253)
H-8016, (HY-10452) H-8062, (HY-20253)

Fathometer, 808-J, No. 132-CG:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	-0.6	-1.4	-1.4
Correctors to 0.5 fathoms:	----	----	-1.5	-1.5

Fathometer, 808-J, No. 153-SPX:

Scale (phase)	A	B	C	D
Correctors to 0.2 fathoms:	-0.2	+0.8	+1.0	+0.6
Correctors to 0.5 fathoms:	----	----	+1.0	+0.5

Fathometer, NMC-2:

Correctors to 0.5 fathoms: -1.5

Comp by: RMS
Ck'd by: PH

1954

INSTRUMENTAL CORRECTIONS

1954

SHIP HYDROGRAPHER L. S. Hubbard, Comdg.

808 Fathometers

	No. 132					No. 153			
Scale	0.1	0.2	0.5	1.0 fm. corr.	Scale	0.1	0.2	0.5	1.0 fm. corr.
A	∠0.2	∠0.2			A	-0.2	-0.2		
B	-0.6	-0.6	-0.5		B	∠1.1	∠1.0	∠1.0	
C	-1.1	-1.2	-1.0		C	∠1.7	∠1.6	∠1.5	
D		-1.2	-1.5	-1.0	D		∠0.8	∠0.5	∠1.0

NMC Fathometer

Scale	0.2	0.5	1.0	2.0	4.0 fm. corr.
0-400, 400-800	-1.2	-1.5	-1.0	-2.0	
Deep			-3.0	-4.0	-4.0

Edo Fathometer

Scale	0.2	0.5	1.0	2.0	4.0 fm. corr.
0-600, 600-1200	-4.6	-4.5	-5.0	-4.0	
1200-1800				~~-22.0~~ -30.0	
Deep					~~-20.0~~ -40.0

Revised from comparison ~~of~~ along 50g. lines

5-19-44

Draft Correctors - 1952

Correctors in ±0.2 fms. & ±0.5 fms.

1952

Trip No.	Time & Date		±0.2	±0.5
1	1930-26 April	to 2000-26 April	0.0	0.0
	2001-26 April	to 1530-28 April	-0.2	0.0
2	0900- 7 May	to 2400- 7 May	0.0	0.0
	0001- 8 May	to 1900-12 May	-0.2	0.0
3	1100-24 May	to 1200-27 May	0.0	0.0
	1201-27 May	to 1500- 1 June	-0.2	0.0
4	0500- 9 June	to 0400-10 June	0.0	0.0
	0401-10 June	to 1600-13 June	-0.2	0.0
5	1200-24 June	to 2400-29 June	0.0	0.0
	0001-30 June	to 1230- 3 July	-0.2	0.0
6	0850-17 July	to 1610-23 July	-0.2	0.0
7	1600-29 July	to 2400- 2 August	0.0	0.0
	0001- 3 August	to 0800- 7 August	-0.2	0.0
8	1600-13 August	to 2400-16 August	0.0	0.0
	0001-17 August	to 2400-20 August	-0.2	0.0
	0001-21 August	to 1600-22 August	-0.2	-0.5
9	0800-28 August	to 2400- 4 September	0.0	0.0
	0001- 5 September	to 1545- 5 September	-0.2	0.0
10	0800-16 September	to 0800-22 September	0.0	0.0
	0801-22 September	to 1545-25 September	-0.2	0.0
11	0800- 1 October	to 2400- 5 October	0.0	0.0
	0001- 6 October	to 1050- 9 October	-0.2	0.0
12	0745-16 October	to 2400-22 October	0.0	0.0
	0001-23 October	to 0925-24 October	-0.2	0.0
13	0800- 5 November	to 0800-10 November	0.0	0.0
	0801-10 November	to 0940-13 November	-0.2	0.0
14	0750-18 November	to 2400-20 November	0.0	0.0
	0001-21 November	to 0800-24 November	-0.2	0.0
	0801-24 November	to 0915-25 November	-0.2	-0.5

Comp: RTK
Ck'd: EEJ

1953

ABSTRACT OF DRIFT CORRECTORS - - 1953
(Correctors in ±0.2 fms. and ±0.5 fms.)

Trip No.	Time and Date		±0.2	±0.5
1	0000 - 20 April	to 1200 - 22 April	-0.2	0.0
	1201 - 22 April	to 2400 - 24 April	-0.2	-0.5
2	0000 - 26 April	to 1200 - 27 April	0.0	0.0
	1201 - 27 April	to 1200 - 28 April	-0.2	0.0
	1201 - 28 April	to 2400 - 1 May	-0.2	-0.5
3	0000 - 5 May	to 2400 - 9 May	0.0	0.0
	0000 - 10 May	to 0800 - 15 May	-0.2	0.0
	0800 - 15 May	to 2400 - 15 May	-0.2	-0.5
4	0000 - 18 May	to 1200 - 20 May	0.0	0.0
	1201 - 20 May	to 2400 - 29 May	-0.2	0.0
5	0000 - 9 June	to 0800 - 13 June	0.0	0.0
	0801 - 13 June	to 0800 - 18 June	-0.2	0.0
	0801 - 18 June	to 2400 - 19 June	-0.2	-0.5
6	0000 - 23 June	to 2400 - 25 June	0.0	0.0
	0000 - 26 June	to 2400 - 2 July	-0.2	0.0
7	0000 - 13 July	to 2400 - 15 July	0.0	0.0
	0000 - 16 July	to 2400 - 17 July	-0.2	0.0
8	0000 - 21 July	to 0400 - 22 July	0.0	0.0
	0401 - 22 July	to 2400 - 26 July	-0.2	0.0
	0000 - 27 July	to 2400 - 31 July	-0.2	-0.5
9	0000 - 6 August	to 1200 - 9 August	0.0	0.0
	1201 - 9 August	to 0400 - 12 August	-0.2	0.0
	0401 - 12 August	to 2400 - 14 August	-0.2	-0.5
10	0000 - 20 August	to 0800 - 26 August	0.0	0.0
	0801 - 26 August	to 2400 - 28 August	-0.2	0.0
11	0000 - 3 September	to 2400 - 7 September	0.0	0.0
	0000 - 8 September	to 2400 - 12 September	-0.2	0.0
12	0000 - 21 September	to 2400 - 27 September	0.0	0.0
13	0000 - 6 October	to 2400 - 10 October	0.0	0.0
14	0000 - 12 October	to 2400 - 15 October	0.0	0.0
	0000 - 16 October	to 2400 - 16 October	-0.2	0.0
15	0000 - 21 October	to 1800 - 28 October	0.0	0.0
	1801 - 28 October	to 2400 - 29 October	-0.2	0.0
16	0000 - 4 November	to 1200 - 9 November	0.0	0.0
	1201 - 9 November	to 2400 - 12 November	-0.2	0.0
17	0000 - 19 November	to 1200 - 21 November	0.0	0.0
	1201 - 21 November	to 2400 - 25 November	-0.2	0.0

Comp by: RMS
Ck'd by: PH

1954

DRAFT CORRECTIONS

1954

Ship HYDROGRAPHER L. S. Hubbard, Comdg.

From	To	0.1 fm. corr.	0.2 fm. corr.
5 May	0936 10 May	0.0	0.0
0936 10 May	17 May	-0.1	-0.2
21 May	1912 25 May	0.0	0.0
1912 25 May	29 May	-0.1	-0.2
7 June	1424 12 June	0.0	0.0
1424 12 June	17 June	-0.1	-0.2
21 June	0448 22 June	∠0.1	0.0
0448 22 June	0000 27 June	0.0	0.0
0000 27 June	30 June	-0.1	-0.2
9 July	16 July	0.0	0.0
21 July	0000 26 July	0.0	0.0
0000 26 July	31 July	-0.1	-0.2
5 August	0000 7 August	∠0.1	0.0
0000 7 August	0330 12 August	0.0	0.0
0330 12 August	15 August	-0.1	-0.2
21 August	0000 26 August	0.0	0.0
0000 26 August	30 August	-0.1	-0.2
9 Sept.	1320 13 Sept.	0.0	0.0
1320 13 Sept.	16 Sept.	-0.1	-0.2
21 Sept.	1312 27 Sept.	0.0	0.0
1312 27 Sept.	30 Sept.	-0.1	-0.2
6 October	0000 7 October	∠0.1	0.0
0000 7 October	9 October	0.0	0.0
15 October	2136 17 October	0.0	0.0
2136 17 October	20 October	-0.1	-0.2
23 October	0448 26 October	0.0	0.0
0448 26 October	30 October	-0.1	-0.2
6 Nov.	1200 10 Nov.	0.0	0.0
1200 10 Nov.	12 Nov.	-0.1	-0.2
16 Nov.	0400 20 Nov.	-0.1	-0.2
0400 20 Nov.	21 Nov.	-0.2	-0.2

DRAFT CORRECTORS

1954

Ship HYDROGRAPHER L. S. Hubbard, Comdg.

From	To	0.5 fm. corrector
5 May	0712 30 July	0.0
0712 30 July	31 July	-0.5
5 August	1424 29 August	0.0
1424 29 August	30 August	-0.5
9 September	1000 29 October	0.0
1000 29 October	30 October	-0.5
6 November	0500 19 November	0.0
0500 19 November	21 November	-0.5

Draft correction zero for 1.0, 2.0, and 4.0 fathom correctors for all days.

1952

EPI CORRECTORS

Ship HYDROGRAPHER - Season 1952

Dates		EPIF	EPIE
25 June to 1 July (Sheet 8152 only)		----	-4.1
17 July to 21 July (Sheet 8152 only)		-7.8	-5.7
21 July to 23 July		-6.9	-5.2
30 July to 4 August		+2.7	+1.8
4 Aug. to 5 Aug.	2350 to 0225	+2.7	+1.8
	0226 to 0450	+2.7	+1.6
	0451 to 0715	+2.7	+1.4
	0716 to 0940	+2.8	+1.2
	0941 to 1205	+2.8	+1.0
	1206 to 1430	+2.8	+0.8
5 August to 7 August		+2.8	+0.8
13 August to 2140		-3.3	-3.7
14 August to 0510		-2.8	-0.8
14 August after 1230 to 24 November (end of hydrography)		-3.3	-3.7

EPI CORRECTORS
(in microseconds)

1953

Ship HYDROGRAPHER - - Season of 1953

Period "B"- - Gulf of Mexico

SURVEYS: H-8013, (HY-10152) H-8017, (HY-20152)
H-8014, (HY-10252) H-8019, (HY-20352)
H-8015, (HY-10352) H-8061, (HY-20153)
H-8016, (HY-10452) H-8062, (HY-20253)

DATE	SURVEYS	EPI CORRECTOR			
		EPIE		EPIF	
		Regular Set #31	Spare Set #11	Regular Set #32	Spare Set #20
13 July through 25 November 1953	All Surveys	(-5.1)	(-3.7)	(-4.8)	(-3.8)

Comp by: IRR
Ck'd by: RMS

EPI CORRECTORS

(in microseconds)

GULF OF MEXICO

Surveys: H-8013, (HY-10152) H-8017, (HY-20152)
H-8015, (HY-10352) H-8062, (HY-20253)
H-8016, (HY-10452)

Date	EPI Corrector			
	F		G	
	Regular Set #32	Spare Set #10	Regular Set #31	Spare Set #11
10 July - 19 Oct.	-3.3	-4.5	-6.1	-9.7
23 Oct. - 11 Nov.	-6.7		-6.0	
16 Nov. - 19 Nov.	-7.9		-4.0	

Comp: GEM
Chkd: JDH

APPROVAL SHEET

This survey is not complete and the approval sheet should be written after the smooth sheet has been plotted.

The field work accomplished on this survey was under the immediate supervision of Captain Jack C. Sammons in 1952 and Captain Leonard S. Hubbard in 1953 and 1954. They made daily inspections of the records, fathograms and boat sheet as the survey progressed.

The Boat Sheet and all pertinent field records have been transmitted to the Norfolk Processing Office.

Walter J. Chovan
CDR, C&GS
Commanding, Ship HYDROGRAPHER

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8016 (Hy-10452)

GENERAL

This survey was considered complete and was smooth plotted in accordance with the Director's letter dated 1 April 1960, 839: hrm

No unusual conditions were encountered during the smooth plot and soundings are in good agreement at crossings.

SOUNDINGS

All fathograms, excepting positions 31JA thru 32KA which were lost in the field, were check scanned and the soundings reduced with templates using the velocity corrections indicated on the fathograms. The corrected soundings were recorded in red pencil under corresponding field readings. Ship personnel applied appropriate corrections to soundings scaled from the lost fathograms.

Norfolk, Va.
1 November 1960

Respectfully submitted,

Hugh L. Proffitt
Cartographer

FORM C&GS-712
(10-67)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

February 27, 1969

~~Nautical Chart Division~~: R. H. Carstens

Plane of reference approved ~~in~~ ~~tidal records~~ for

HYDROGRAPHIC SHEET 8016

Locality: Loggerhead Key, Florida

Chief of Party: J. C. Sammons, L. S. Hubbard } 1952-54

Plane of reference is

Tide Station Used (Form C&GS-681):

Key West

at the working grounds

Height of Mean High Water above Plane of Reference is as follows:

1.0 feet

Remarks

J. M. Symons

Chief, Tides and Currents Branch

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8016

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	
Florida									RGH	1
Gulf of Mexico										2
Dry Tortugas										3
										4
(No named features)										5
										6
										7
Tide station:										8
Key West									RGH	9
				Names approved						10
				11-24-60						11
				L. Heck						12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Form 946

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8016

Records accompanying survey: Smooth sheets 1....;
boat sheets 1....; sounding vols. 5....; wire drag vols. .....;
Descriptive Reports ..1..; graphic recorder envelopes 13....;
special reports, etc. 1 Cahier-EPI Plotting Abstracts 1952,
1953 and 1954.....2 Boxs of Printouts in Vault.....

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

Number of positions on sheet		.....
Number of positions checked		.....
Number of positions revised		.....
Number of soundings revised (refers to depth only)		.....
Number of soundings erroneously spaced		.....
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	.....
Verification of soundings from graphic record	Time	.....
Special adjustments	Time	.....

Verification by ..... Total time ..... Date .....

Reviewed by ..... Time ..... Date .....

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H-8016

The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

1. The descriptive report was consulted and appropriate notes were made in soft pencil regarding action taken.

2. Soundings originating with the survey and mentioned in the descriptive report have been verified, including latitude and longitude.

3. All reference to survey sheets mentioned in the descriptive report include the registry number and year.

4. Geographic names of hydrographic features if on sheet are in slanting lettering and of topographic features in vertical lettering.

5. 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.

6. All positions verified instrumentally were check marked in the sounding records.

7. All critical soundings are clear and legible and are a little larger than the adjacent soundings.

8. The metal protractor has been checked within the last three months.

9. The protracting and plotting of all bad crossings were verified.

10 All detached positions locating critical soundings, rocks or buoys were verified.

11. The boat sheet was compared with the smooth sheet.

12 The spacing of soundings as recorded in the records was closely followed.

13. The bottom characteristics were shown on outstanding shoals.

14. The reduction and plotting of doubtful soundings were checked.

15. The transfer of contemporary topographic information was carefully examined.

16. All junctions were transferred and overlapping curves made identical.

17. The notation "JOINS H- (19--)" was added in ink for all contemporary adjoining or overlapping sheets now registered. Those not verified are shown in pencil.

18. The depth curves have been inspected before inking.

19. All triangulation stations and transfer of topographic and hydrographic signals were checked.

20. Heights of rocks were checked against range of tide.

21. Rocks transferred from topographic surveys have a dotted curve where shown thereon. Rocks located accurately by hydrographer are encircled by dotted red curve.

22. Unnecessary pencil notes have been removed.

23. Objects on which signals are located and which fall outside of the low water line have been described on the sheet.

24. The low water line and delineation of shoal areas have been properly shown.

25. Degree and minutes values and symbols have been checked.

26. Questionable soundings have been checked on the fathograms.

27. Source of shoreline and signals (when not given in report).

28. All notes on sheet are in accordance with figure 171 in the Hydrographic Manual.

29. All aids located, with those on contemporary topographic sheets, have been shown on survey.

30. Depth curves were satisfactory except as follows:

31. Sounding line crossings were satisfactory except as follows:

32. Junctions with contemporary surveys were satisfactory except as follows:

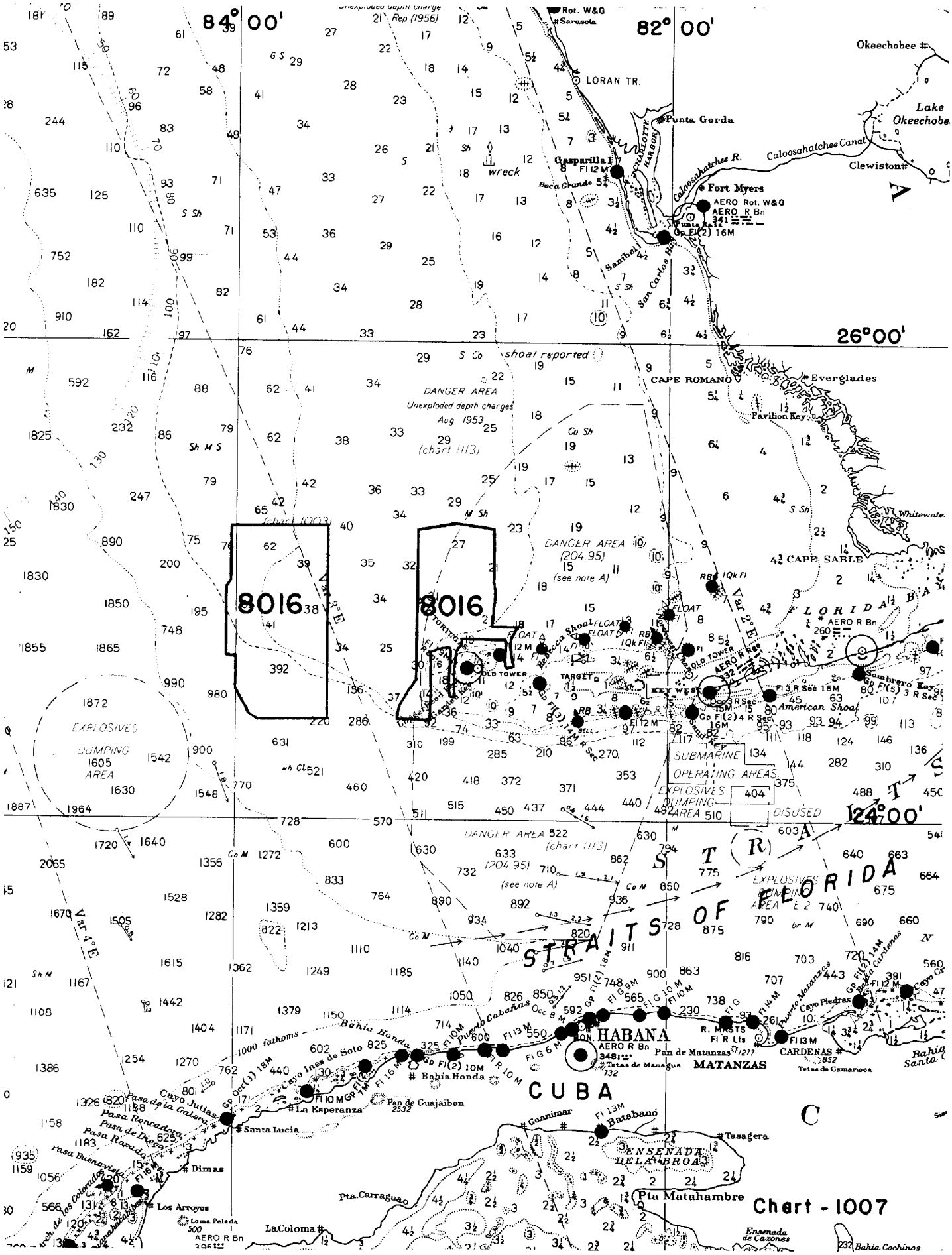
33. Condition of sounding records was satisfactory except as follows:

34. The protracting was satisfactory except as follows:

35. The field plotting of soundings was satisfactory except as follows:

36. Notes to reviewer:

Verified by Date


84° 00'
82° 00'
26°00'
24°00'
Rot. W&G
Sarasota
LORAN TR.
Okeechobee
Lake Okeechobee
Punta Gorda
CHARLOTTE HARBOR
Gasparilla I.
Fl 12 M
Boca Grande
wreck
Caloosahatchee R.
Caloosahatchee Canal
Clewiston
Fort Myers
AERO Rot. W&G
AERO R Bn
Gp Fl(2) 16M
Sanibel
San Carlos Bay
S Sh
shoal reported
DANGER AREA
Unexploded depth charges
Aug 1953
(chart 1113)
CAPE ROMANO
Everglades
Pavilion Key
Whitewater
CAPE SABLE
8016
8016
Var 2° E
DANGER AREA
(204.95)
(see note A)
RBB 1Qk Fl
FLOAT
Rebecca Shoal
OLD TOWER
TARGET
KEY WEST
AERO R Bn
Fl 5 R Sec 16M
Gp Fl(2) 4 R Sec
Sombrero Key
Gp Fl(5) 3 R Sec
American Shoal
FLORIDA
EXPLOSIVES DUMPING AREA 1605
SUBMARINE OPERATING AREAS
EXPLOSIVES DUMPING AREA 510
404
DISUSED
DANGER AREA 522
(chart 1113)
633
(204.95)
(see note A)
STRAITS OF FLORIDA
Var 4° E
1000 fathoms
Bahía Honda
Puerto Cabañas
Cayo Ines de Soto
Gp Fl(2) 10M
Fl 10 M
Fl 13 M
Fl G 6 M
Fl G 9M
Gp Fl(2) 18M
Gp Occ(3) 18M
Fl 10 M Gp Fl 1M
HABANA
AERO R Bn
348
Tetas de Managua
732
Pan de Matanzas
MATANZAS
Puerto Matanzas
Cayo Piedras
R. MASTS
Fl R Lts
CARDENAS
852
Tetas de Camarioca
Bahía de Cardenas
Bahía Santa
CUBA
Cayo Julias
Pasa de la Galera
Pasa Roncadores
Pasa de Diega
Pasa Ramadas
Pasa Buenaventura
Canal de los Colorados
La Esperanza
Pan de Cuajaibon
2532
Santa Lucia
Dimas
Los Arroyos
Loma Pelada
500
AERO R Bn
La Coloma
Guanimar
Batabanó
Tasagera
ENSENADA DE LA BROA
Pta. Carraguao
Pta Matahambre
Ensenada de Cazones
Bahía Cochinos
Chart - 1007

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8016

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
21 Dec 60	1007	Nichols	Before ~~After~~ Verification and Review Exam- no critical corrections
1/18/61	1003	Helmer	Before ~~After~~ Verification and Review Added critical sdgs & filled in for coverage.
7/24/61	1002	Svendsen	Before ~~After~~ Verification and Review
9/7/62	1351	W Evans III	Before ~~After~~ Verification and Review partial app'n - several "fill-in" sdgs. added
1/9/63	1113	H. Quimby	Before ~~After~~ Verification and Review partially applied - several sdgs added
6/6/63	585	J.S. McMillan	Before ~~After~~ Verification and Review partial applic - applied critical sdgs & revised 60 ft. curve
1-20-84	11420	JOE TURNER	ADEQUATE Before ~~After~~ Verification and Review
4-25-84	11006	Steve Tavtaris	Adequate Before ~~After~~ Verification and Review Applied thru Chart 11420 and Three Survey
8-10-84	11013	JOE TURNER	ADEQUATE Before ~~After~~ Verification and Review APPLIED THRU 11420 AND 11006
4-8-92	411	Ken Forster	Before ~~After~~ Verification and Review Adequately Applied. Cat I

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.