

8328

Dist. Sht. Nos. 1002.1254, & 1255-1

1002 13280

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHER
Field No. HY-8156 Office No. H-8328

LOCALITY

State FLORIDA

General locality Gulf of Mexico

Locality Off Cape Romano to Sanibel I
~~West Coast of Florida~~

19 56

CHIEF OF PARTY

Walter J. Chovan

LIBRARY & ARCHIVES

DATE MAR 26 1957

COMM-DC 61300

IMPORTANT

PAGE 44 WAS ADDED

IT IS NOT A PAGE IN THE REPORT

IT SHOWS DETAIL FROM

ORIGINAL DOCUMENT MISSING

FROM THE SCAN OF PAGE 43

8153



*Verifier - ink
alternate edges of
same value*

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-8328

Field No. HY-8156

State Florida

General locality Gulf of Mexico

Locality Off Cape Romano to Sanibel I.
~~West Coast of Florida~~

Scale 1:80,000 Date of survey 29 July - 13 September 1956

Instructions dated 29 December 1955, 1 March 1956, 14 July 1956

Vessel Ship HYDROGRAPHER

Chief of party Walter J. Chovan

Surveyed by CDR. C.A. George, CDR. J.E. Waugh, LT. H.W. Keith, Jr., LT(jg)
E.K. McCaffrey, ENS. R.J. Black, ENS. A.M. Cook, ENS. V.C. Ahlrich

Soundings taken by fathometer, graphic recorder, hand lead, wire Graphic Recorder

Fathograms scaled by Personnel; Ship HYDROGRAPHER

Fathograms checked by Personnel; Ship HYDROGRAPHER

Protracted by ENS. A.M. Cook, ENS. V.G. Ahlrich

Soundings penciled by ENS. V.C. Ahlrich

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

REMARKS:

78

DESCRIPTIVE REPORT

To Accompany

Hydrographic Survey H-8328 (Field No. HY-8156)

29 July - 13 September 1956

Ship HYDROGRAPHER Scale 1:80,000

Walter J. Chovan

Chief of Party

A. PROJECT:

This survey was made under Instructions 222/MEK, S-2-HY dated 29 December 1955, and accomplished in accordance with Supplemental Instructions 22/MEK, S-2-HY dated 1 March 1956, and 22/MEK, S-2-HY dated 11 July 1956. These are instructions for Project 13280 from the Director to the Commanding Officer, Ship HYDROGRAPHER.

B. SURVEY LIMITS AND DATES:

This survey includes the area off the West Coast of Florida, South of Sanibel Island. It is bounded as follows: on the east by the 5 fathom curve; on the west by longitude $82^{\circ} 30'$; on the north by latitude $26^{\circ} 21'$; and on the south by latitude $25^{\circ} 50'$.

Adjacent hydrographic sheets are H-7935 (1951) - 1:80,000; H-8013 (1952) - 1:100,000; and H-8015 (1952) - 1:100,000. A satisfactory junction was made with H-7935 on the north. No junction was made with the western sheets, as these were beyond shore limits. A hydrographic sheet, H-8328 (1956) on the south has been recently completed. The junction with this sheet is satisfactory.

The Survey on H-8328 was begun on 29 July 1956 and completed 13 September 1956.

C. VESSELS AND EQUIPMENT:

The hydrography on this survey was accomplished by the Ship HYDROGRAPHER. The turning radius at sounding speed (120 RPM or approximately 10 Kn) is 80 to 120 meters.

The sounding was done with two 808J type graphic recorders

(GS-153 SPX and GS-156 SPX). These units are so mounted in the Ship That either could be used at will and neither is considered as a standby unit. Fathometer comparisons, wire soundings, and temperature salinity stations were observed throughout the season to obtain corrections for soundings. Details are contained in the Velocity and Instrumental correction Reports.

The ship's gyroscope compass was used throughout the survey. Its error was checked throughout the season by sun azimuths and amplitudes and found to be negligible.

Wire drag investigations on this sheet were made using the ships launches CS 114 and CS 117.

D. TIDE AND CURRENT STATIONS:

No tide or current stations were observed within the limits of hydrography of this sheet.

Tide reducers for the reduction of soundings are referenced to the standard gage at St. Petersburg, Tampa Bay, Florida, Hourly heights were furnished by the Washington Office.

Tidal differences were furnished by the Washington Office for the area. (Directors Letter 36-338-982h of 24 July 1956).

Predicted tide curves for the reduction of boat sheet soundings were also furnished by the office.

E. SMOOTH SHEET:

The sheet projection and shoran arcs were hand ruled by the Norfolk Processing Office. The soundings were smooth penciled aboard the ship.

This is an offshore survey and contains no shoreline or topographic details.

F. CONTROL STATIONS:

All the hydrography on this sheet was controlled entirely by shoran. Stations were located on:

Sanibel Island Lighthouse - Lee County, Florida, W.B.F., 1909.

Naples Tank - Collier County, Florida, R.P.E., 1928.

Caximba School Cupola - Collier County, Florida. This station

was recovered by W.J.C. in 1956. As a result of this recovery, the published position of this station as listed in the Geographic Positions was found to be in error. (29 October 1956, Letter from Commanding Officer, Ship HYDROGRAPHER to the Director.) The hydrographic station, Caxambas was used as a shoran station. It was located by sextant angles using Caxambas Pass Light, 1955; Beach, 1955 (exc.); and Cape Romano 3, 1955 (exc.) and the geographic position computed by third-order computations.

G. SHORELINE AND TOPOGRAPHY:

Shoreline shown on the boat sheet is from charts 1254 and 1255 (1:80,000). No shoreline or topographic details were verified by this survey, as it was an offshore survey.

H. SOUNDINGS:

Soundings on this survey were made using 808J type depth recorders, Nos. 153 SPX and 156 SPX. All soundings were made on the foot scale using an initial setting of 12.0 feet for both fathometers.

The stylus arm radii for the two machines was determined at the start of the field season and corrected as necessary.

Several prominent strays are evident on the fathograms. These occur on both fathometers (156 and 153) and also are not limited to any specific survey area. The majority of them appear as dark streaks attached to the bottom. Their cause may be either fish or vegetation.

The most prominent of these strays occurs on "D" day, 1 August 1956 between positions 148 - 149; also immediately following position 202. These raise to a depth of 26 feet in general depths of 45 feet. To disprove the existence of any shoals in this area, a wire drag having an effective depth of 38 feet was made over the spots in question (28 August 1956). No shoal indications were found during this operation. A smooth sheet of this special investigation is being forwarded with this report.

I. CONTROL OF HYDROGRAPHY:

The intersection of the shoran arcs approached a minimum of 32° at the western limits of the sheet. In order to develop the 5 fathom curve on the eastern limits of the sheet, some of the hydrography was run on or near the base line of the two principal stations. While plotting is difficult in this area, it is considered that a careful plott will produce a satisfactory position.

Shoran sets aboard the ship were changed once for repairs while

using shore stations "San" and "Nap". For this reason, two sets of correctors are required for the period those stations were in use. For details refer to the shoran calibration report. Correctors are entered in two parts. The first is the deviation of the zero check from the zero set. The second is the range correction as determined by a mean of periodical calibration, and is a function of the distance.

The control of the wire drag by the launches was accomplished on 1:20,000 plotting sheets. Control consisted of one shoran distance and a gyro bearing. Bearings and arcs had their origin at the same center which represented the ships anchored position. The shoran zero set of the launches was adjusted to give zero correction to distances read from the ships transmitting station. The ship maintained its relative position by frequent fixes from the shore stations (which could not be received on the launch sets. Positions consisted of range readings on the launches vs. simultaneous gyro bearings taken from the ship to the two launches. These readings and bearings were radioed to the plotting officers on the launches.

The shoran antennas of the stations were at all times trained to cover the working area.

J. ADEQUACY OF SURVEY:

This survey is considered complete and adequate to supersede prior surveys of this area. It is noted in section B that no junction was made with the prior surveys to the west (H-8013)(1952);(H-8015 (1952). This area will probably have to be developed with EPI control at a later date. There is generally good agreement with prior survey H-7935 (1951) to the north and recent survey H-8328 (1956) to the south. The depth curves can be adequately drawn at the junctions.

K. CROSSLINES:

Approximately 7.0% of the total hydrography on this sheet are crosslines. No major discrepancies were found.

L. COMPARISONS OF PRIOR SURVEYS:

The prior survey of this area was made in 1884 (H-1592^{+1592b}, 1:40,000). In general, no differences were noted. However, because of age and wide line spacing of H-1592, no detailed comparison is attempted.

M. COMPARISON WITH CHART:

The survey area is shown on charts 1254 and 1255, 1:80,000. Soundings from the most recent correction of these charts (February

25, 1956) were transferred to the boat sheet and shown in green. In general good agreement was noted between the depth curves and soundings of this survey and the charts except in the case of the 30 foot curve on 1255 which seems to have moved off shore approximately $\frac{1}{2}$ mile.

The 28 foot soundings charted in latitude $26^{\circ} 07' N$, longitude $81^{\circ} 54' W$ were verified by 27 foot soundings recorded on "J" day between positions 108 - 109 and 228 - 229.

The 22 foot sounding charted in latitude $26^{\circ} 07'$, longitude $81^{\circ} 52.8'$ was not investigated. It lies offshore from charted depths of 27 feet, and 400 meters east of the project limit, which shows a minimum depth of 28 feet and a regular bottom.

The 25 foot charted in latitude $26^{\circ} 08'$, longitude $81^{\circ} 54'$ was not verified by the present survey. The shoalest indication found was a 26 foot sounding (pos. 159-160 "H") which occurs 200 meters south of the charted 25. It is recommended that the 25 foot sounding be retained.

N. DANGERS AND SHOALS:

No new dangers or shoals for charting purposes were found in this survey. The 27 foot sounding in latitude $26^{\circ} 03'$, longitude $81^{\circ} 54.3'$, indicated on the preliminary review of 4 January 1956 was verified. Several 25 foot soundings were located 250 meters N W (pbs. 191-192 "N", 8-9 "AA").

The 30 foot sounding charted in latitude $26^{\circ} 23'$, longitude $82^{\circ} 23'$ was verified on survey H-7935 (1:80,000, 1951).

O. COAST PILOT INFORMATION:

This survey was accomplished by the Ship HYDROGRAPHER, operating out of Bayboro Harbor, St. Petersburg, Florida. No revisions for this area, Tampa Bay, or approaches are recommended in this report.

Coast Pilot revisions for this survey area are submitted in a separate report.

P. AIDS TO NAVIGATION:

No fixed or floating aids to navigation were located in this survey.

Q. LANDMARKS FOR CHARTS:

No additions or deletions to charted land marks are recommended by this survey.

R. GEOGRAPHIC NAMES:

Since this is an offshore sheet no investigation of geographic names was made.

U. PRELIMINARY REVIEW ITEMS:

Preliminary review items of 4 January 1956 are indicated on the boat sheet in red.

Item 18, wreck, latitude $26^{\circ} 10'$, longitude $82^{\circ} 51'$ was not investigated as it was inside the 30 foot curve.

Item 16, wreck, latitude $26^{\circ} 20.9'$, longitude $82^{\circ} 08'$ was covered with wire drag and was not found (see W.D. Report Item 4 under Z). It is recommended this wreck be deleted from chart. CW 1255

Item 3, Preliminary Review of 3 March 1952, the shoal reported in approximate position $26^{\circ} 20' N$, $82^{\circ} 20' W$ was not found. Depths within a mile radius of this position vary from 45 to 50 feet. The bottom is regular and it is extremely doubtful that a shoal exist in the area. It is recommended that the shoal be deleted from the chart. 1255

Item 4, Preliminary Review of 3 March 1952, (also item 3 of 3/9/51), shoal was searched for and not found by this survey. Three sounding lines, 300 meters apart were run over this spot, with no shoal indications found. Depths varied from 75 to 85 feet. It is recommended that this shoal be deleted from the chart. Shoal & wreck deleted from chart 1113 4-4-57 RKD

Item 5, Preliminary Review of 3 March 1952 (also item 6 of 3/9/51), wreck, latitude $25^{\circ} 52'$, longitude $82^{\circ} 20'$ was not found. 300 meter-spacing lines (150-190 "Y" day) were run in an area of 1 mile radius about this location. Depths were, in general, 80 feet with no wreck indications. It is recommended this wreck be deleted from the chart.

Z. TABULATION OF APPLICABLE DATA:

- Shoran Report*
1. Report on Shoran Calibration, forwarded on 30 November 1956 W.J. Chovan
1956/35
 2. Report on Instrumental Corrections, forwarded 17 December 1956. W.J. Chovan
1956/35
 3. Report on Velocity Corrections, forwarded 6 December 1956. W.J. Chovan
1956/37
 4. Descriptive Report for Field Examination No. 6, forwarded 17 October 1956, Wire Drag, Project 13280.
 5. Coast Pilot Report, Copy attached.
 6. Letter Relative to Tide Zones, Copy attached.

7. Shoran Correctors, Copy attached.
8. Velocity Correctors, Copy attached.
9. Instrumental Correctors, Copy attached.
10. Letter Relative to Tidal Data, Copy attached.

The list of applicable correctors for this survey are attached.

Respectfully Submitted

Vastine C. Ahlrich

Vastine C. Ahlrich
ENS., C&GS

APPROVED AND FORWARDED:

Walter J. Chovan
Walter J. Chovan, CAPT., C&GS
Comdg., Ship HYDROGRAPHER

TIDE NOTE

To Accompany

Hydrographic Survey H-8328 (HY-8156)

TIDE STATION: St. Petersburg, Tampa Bay, Florida

LATITUDE: 27° 46' N

LONGITUDE: 82° 37' W

PLANE OF REFERENCE:

Mean low water 3.4 feet on tide staff (Assistant
Directors letter of 8 October 1956; 36-477-982ho)

AREA COVERED: See attached copy of letter from assistant Director,
24 July 1956; 36-338-98zh

TIME CORRECTION: See attached letter

HEIGHT CORRECTION: See attached letter

This gage was serviced 28 February - 2 March 1956 by East
Coast Tide Party; LT(jg) Floyd J. Tucker, Jr.- Officer in Charge.

24 July 1956

To: The Commanding Officer
 U.S.C.&G.S. Ship HYDROGRAPHER
 c/o U. S. Naval Station
 Key West, Florida

Subject: Tide Zones - Project 13280

Reference is made to your letter of 16 July 1956.

Listed below are the tidal differences to be used in the reduction of soundings for the area requested, referred to St. Petersburg, Florida.

<u>Position</u>	<u>Time Difference</u>	<u>Height Difference</u> (H.W.)
1. (South of Lat. $26^{\circ} 00'$) (East of Long. $82^{\circ} 00'$)	-1 Hr.	1.0 Ft.
2. (North of Lat. $26^{\circ} 00'$) (East of Long. $82^{\circ} 20'$)	-1 Hr.	0.5 Ft.
3. (Lat. $25^{\circ} 00'$ - Lat. $26^{\circ} 00'$) (West of Long. $82^{\circ} 00'$)	-2 Hr.	0
4. (North of Lat. $26^{\circ} 00'$) (West of Long. $82^{\circ} 20'$)	-2 Hr.	0

/s/ S. B. Grenell
 (Acting) Assistant Director

36-477-982ho

October 8, 1956

To: The Commanding Officer
U. S. C. & G. S. Ship HYDROGRAPHER
P. O. Box 1259
St. Petersburg, Florida

Subject: Tidal Data, St. Petersburg

In order to refer the heights of the tide at St. Petersburg, Florida to mean low water, subtract 3.4 feet from the tabulated hourly heights previously furnished.

/s/ Robert W. Knox
Assistant Director

Ship HYDROGRAP HER
P.O. Box 1259
St. Petersburg, Fla.

19 March 1957

To: The Director
Coast and Geodetic Survey
Washington 25, D. C.

Subject: Coast Pilot Notes - Sheet H-8328 (HY-8156)
Project 13280.

Gulf Coast - Key West to Rio Grande Third (1949) Edition

Page 206 - line 31 Add. The elevated tank at Fort Myers
Beach can be seen for a considerable distance
offshore.

Page 202 - Line 41 Add. A flashing red light on top of
the radio tower at Naples (WNOG) is visible
15 to 18 miles on a clear night.

Walter J. Chovan
CAPT., C&GS
Comdg., Ship HYDROGRAPHER

STATISTICS TO ACCOMPANY

SHEET H-8328 (HY-8156)

<u>Date</u> 1956	<u>Day</u> <u>Letter</u>	<u>Volume</u>	<u>No. of</u> <u>Pos.</u>	<u>Naut. Mi</u> <u>of Sdgs.</u>
29 July	A	1	84	54.9
30 "	B	1-2	287	206.2
31 "	C	2-3	292	229.6
1 August	D	3-4	290	221.4
2 "	E	4	35	29.1
8 "	F	5	250	186.0
9 "	G	5-6-7	293	226.9
10 "	H	7-8	298	233.4
11 "	J	8-9	258	187.7
12 "	K	9-10	278	218.6
13 "	L	10	18	13.0
21 "	M	10	48	40.1
22 "	N	10-11	295	202.0
23 "	P	11-12	240	182.0
24 "	Q	12	53	38.0
28 "	R	13	109	75.4
29 "	S	13-14	285	229.2
30 "	T	14	17	11.6
7 September	U	15	29	22.6
8 "	V	15-16	298	224.8
9 "	W	16-17	306	213.3
10 "	X	17-18	306	227.7
11 "	Y	18-19	323	229.2
12 "	Z	19-20	313	210.8
13 "	AA	20-21	275	224.5
25 October	BA	22	244	166.7
26 "	CA	22-23	324	214.8
27 "	DA	23	14	11.3
TOTALS		<u>23</u>	<u>5862</u>	<u>4330.7</u>

Area Surveyed - 108444 Sq. Nau. Mi.

SHORAN CORRECTIONS

Ship HYDROGRAPHER Survey H-8328 (HY-8156)
 Indicator CRV-1111 Transmitter CRV-1305
 Zero Set 99.782 99.790

EFFECTIVE	RATE (SAN)		DRIFT (NAP)	
	Distance	Corr'n	Distance	Corr'n
225J 11 Aug.	5.0-7.6	-0.010	5.0-17.5	f 0.010
to	7.6-11.0	-0.005	17.5-20.0	f 0.005
275AA 13 Sept.	11.0-15.0	0.000	20.0-22.5	0.000
	15.0-18.0	f 0.005	22.5-25.0	-0.005
	18.0-22.2	f 0.010	25.0-27.5	-0.010
	22.2-25.7	f 0.015	27.5-30.0	-0.015
	25.7-29.2	f 0.020	30.0-32.6	-0.020
	29.2-32.7	f 0.025	32.6-35.1	-0.025
	32.7-36.3	f 0.030	35.1-37.7	-0.030
	36.3-39.7	f 0.035	37.7-40.1	-0.035
	39.7-43.3	f 0.040	40.1-42.7	-0.040
	43.3-47.0	f 0.045	42.7-45.1	-0.045
	over-47.0	f 0.050	over-45.1-	-0.050

EFFECTIVE	RATE (CAX)		DRIFT (NAP)	
	Distance	Corr'n	Distance	Corr'n
1BA 25 Oct.	5.0-9.5	f 0.025	5.0-17.5	f 0.010
to	9.5-14.2	f 0.020	17.5-20.0	f 0.005
14DA 27 Oct.	14.2-18.5	f 0.015	20.0-22.5-	0.000
	18.5-21.3	f 0.010	22.5-25.0	-0.005
	21.3-24.7	f 0.005	25.0-27.5	-0.010
	24.7-27.5	0.000	27.5-30.0	-0.015
	27.5-30.5	-0.005	30.0-32.6	-0.020
	30.5-33.3	-0.010	32.6-35.1	-0.025
	33.3-36.3	-0.015	35.1-37.7	-0.030
	36.3-39.0	-0.020	37.7-40.1	-0.035
	39.0-41.8	-0.025	40.1-42.7	-0.040
	41.8-44.5	-0.030	42.7-45.1	-0.045
	44.5-47.5	-0.035	over-45.1	-0.050
	over-47.5	-0.040		

SHORAN CORRECTORS

Ship HYDROGRAPHER Survey H-8328 (HY-8156)
 Indicators CRV-947 Transmitter CRV-417
 Zero Set 99.780 99.795

EFFECTIVE	RATE (SAN)		DRIFT (NAP)	
	Distance	Corr'n	Distance	Corr'n
1A 29 July	7.5-13.5	-0.000	4.0- 9.7	∕0.015
to	13.5-35.5	∕0.005	9.7-10.6	∕0.010
142D 1 Aug.	over-35.5	∕0.010	10.6-11.8	∕0.005
			11.8-13.2	0.000
			13.2-15.3	-0.005
143D 1 Aug.	5.3- 8.7	∕0.010	15.3-18.3	-0.010
to	8.7-17.0	∕0.015	18.3-22.0	-0.015
224J 11 Aug.	17.0-37.0	∕0.020	22.0-27.5	-0.020
	over-37.0	∕0.025	27.5-33.5	-0.025
			33.5-39.0	-0.030
			39.0-44.5	-0.035
			over-44.5	-0.040

VELOCITY CORRECTIONS
Sheets HY 8156, HY 8256

27 July - 31 October

Table 1

From	To	Correction
0.0 ft.	20.0 ft.	0.0 ft.
20.5	37.0	/ 0.5
37.5	54.0	/ 1.0
54.5	66.0	/ 1.5
67.0	70.0	/ 1.0
71.0	104.0	/ 2.0

8 November - 16 November

Table 2

0.0	24.0	0.0
24.5	47.5	/ 0.5
48.0	96.0	/ 1.0

INSTRUMENTAL CORRECTIONS

SHEET HY 8156, HY 8256

FATHOMETER 156

Entire Season

Scale	Correction
A	0.0 ft.
B	∕ 2.0
C	∕ 4.0

FATHOMETER 153

27 July - 1 October

A	- 0.5
B	∕ 1.0
C	∕ 1.0

9 October - 31 October

A	- 1.5
B Through 66 ft.	∕ 0.5
B over 66 ft.	0.0

8 November - 16 November

A	- 1.5
B	0.0

DRAFT CORRECTIONS

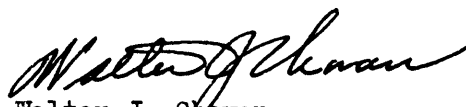
SHIP HYDROGRAPHER

Sheets H-8328 (HY-8156); H-8329 (HY-8256)

<u>FROM</u>	<u>TO</u>	<u>CORRECTION</u>	
		<u>HALF FOOT</u>	<u>ONE FOOT</u>
27 July	0000 hrs. 12 Sept.	0.0	0.0
0000 hrs. 12 Sept.	15 Sept.	-0.5	-1.0
26 Sept.	0000 hrs. 26 Oct.	0.0	0.0
0000 hrs. 26 Oct.	1 Nov.	-0.5	-1.0
7 Nov.	0000 hrs. 11 Nov.	0.0	0.0
0000 hrs. 11 Nov.	16 Nov.	-0.5	-1.0

APPROVAL

The records, boat sheets and smooth sheets for Survey HY-8156 are approved as submitted. All work was done under my personal supervision. The boat sheet was examined each day and the sounding and fathograms were inspected frequently. This survey is complete and adequate for its purpose as outlined in the instructions.



Walter J. Chovan
CAPT, C&GS
Comdg., Ship HYDROGRAPHER

GEOGRAPHIC NAMES

Survey No. 8328

Name on Survey												
	A	B	C	D	E	F	G	H	K			
<u>Big Marco Pass</u>												1
<u>Cape Romano</u>												2
<u>Caxambas Pass</u>												3
<u>Doctor Pass</u>												4
<u>Gordon Pass</u>												5
<u>Gulf of Mexico</u>												6
<u>Little Marco Pass</u>												7
<u>Wiggins Pass</u>												8
												9
												10
												11
												12
												13
												14
												15
												16
												17
												18
												19
												20
												21
												22
												23
												24
												25
												26
												27

With exception of
 Gulf of Mexico names are
 off limits, but are suggested
 merely as guides. 48-57 QPL

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8328

Records accompanying survey:

*3 vols of wire drag investigation
strap on bathythermograph
in vault.*

Boat sheets 1; sounding vols. 23; wire drag vols.;
bomb vols.; graphic recorder rolls 48-Envelopes
special reports, etc. 1-Smooth sheet, 1-Descriptive report,....
1-Wire drag investigation sheet, and 1-Vol. Shoran plotting
.....
abstracts.

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
Verification by.....	Total time Date
Reviewed by.....	Time Date

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H- 8328

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

Verifiers Rpt

H 8328 H-8329

On receipt of these surveys an attempt was made to determine the cause of the crossing discrepancies amounting to as much as four ft. in the off shore area of H-8328. The differences appear to be related to percentage of the depth rather than a constant correction. Crossings in 30 ft depth are generally in agreement. The crossing differences seem to increase as the depths extend offshore to a maximum of 4 feet in 70 ft depths.

Although calibrations are infrequent, they appear to be in satisfactory agreement and no additional correction appears possible on the basis of calibration differences.

The fathometer speed is controlled by a sounding clock. Several suspect lines were examined but no speed correction is possible.

The initial appears to be well controlled and is not the source of the trouble.

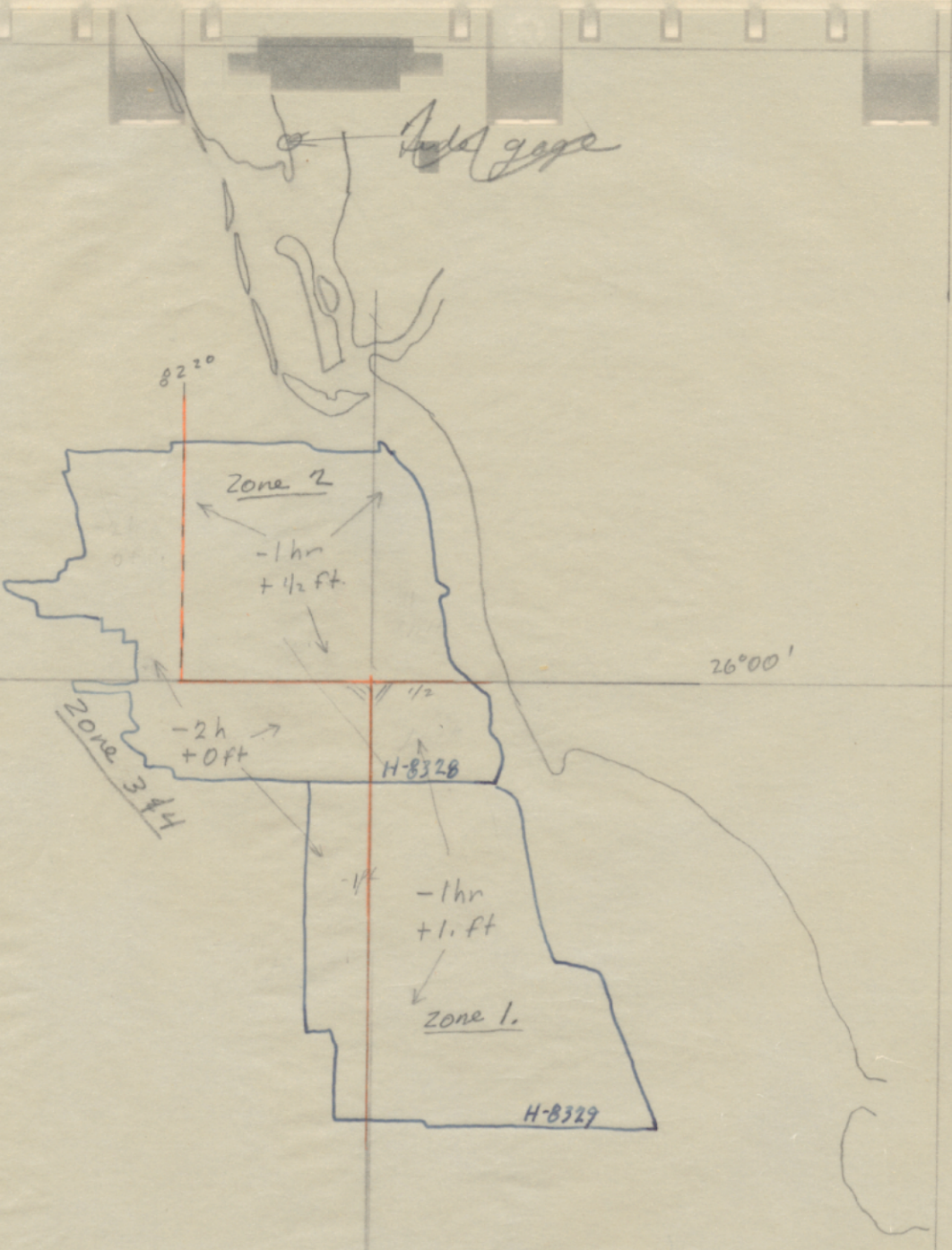
The phase differences are not erratic and do not appear to be the cause of the crossing discrepancies.

It appears desirable to withhold verification of these surveys until adjacent surveys are available for comparison.

Elkins
4-26-57

27°00'

Anders gage



26°00'

H-8328

-1 hr + 1. ft

Zone 1.

H-8329

2.5.00'

83°00'

82°00'

81°00'

cht 1002

TIDE ZONES

REE 4-22-57

St. Petersburg ⁽³⁷⁷⁰⁾ on Key West (1956)

Aug. 29, 1956

Accepted

HWI	LWI	P.R.	HWI	LWI	P.R.
+4.0	+3.6	1.4	+4.6	+4.4	1.1
Pred. (+4.0)	+4.8	1.3)			

Sept. 12, 1956

Accepted

HWI	LWI	P.R.	HWI	LWI	P.R.
+5.2	+4.8	1.4	+4.6	+4.4	1.1
Prod. (+3.7)	+4.6	1.3)			

Port Boca Grande ⁽³⁷⁷⁰⁾ on St. Petersburg

Aug. 29, 1956

Accepted

-0.4	-0.4	0.8	-1.5	-1.5	0.8
------	------	-----	------	------	-----

Sept. 12, 1956

Accepted

-1.7	-0.5	0.8	-1.5	-1.5	0.8
------	------	-----	------	------	-----

This ^{is} comparison of St. Petersburg to Key West and Port Boca Grande to St. Petersburg on a day of 4 ft crossing discrepancies. This comparison indicates that the actual time of high and low waters differ by no more than one hour off the mean time difference which indicates to some extent that abnormal tides did not occur on the subject days

over

In as much as timing and ranges are uncertain in the offshore area a tests can be made as follows -

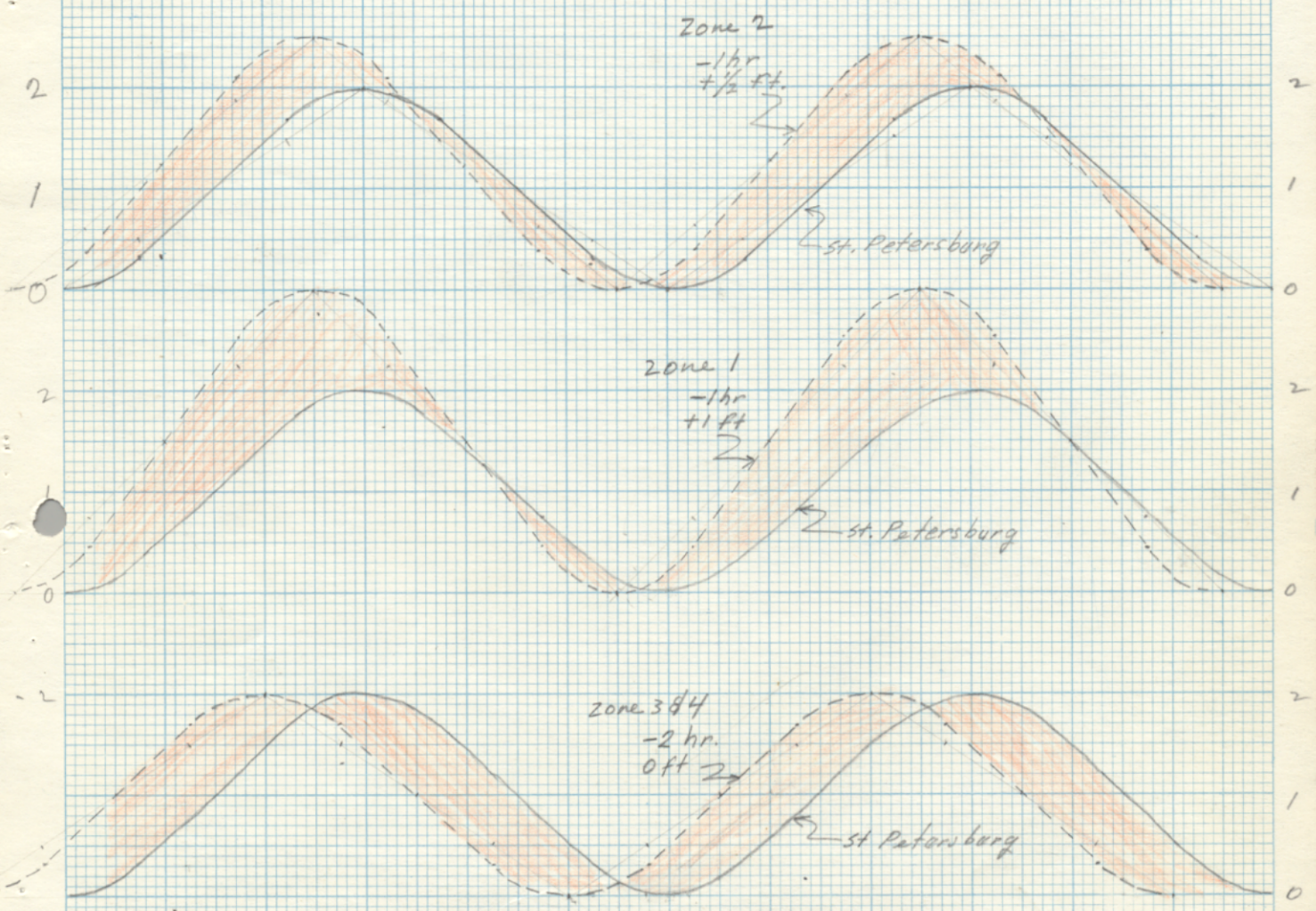
- ① - use lines at low water ($\frac{1}{2}$ hr to either side) as a base and plot crossing differences on the tide curves for the crosslines.
- ② In as much as timing may be in error as much as 2 hrs - this could cause a 1.2 ft error in the low water base lines - an other test would be to shift the time of the of the low water on the lines used as a low water base to see if the differences would plot in a more constant pattern than test (1).

if a smooth curve can not be obtained by these tests it may be concluded that differences are not caused by time or range of tides

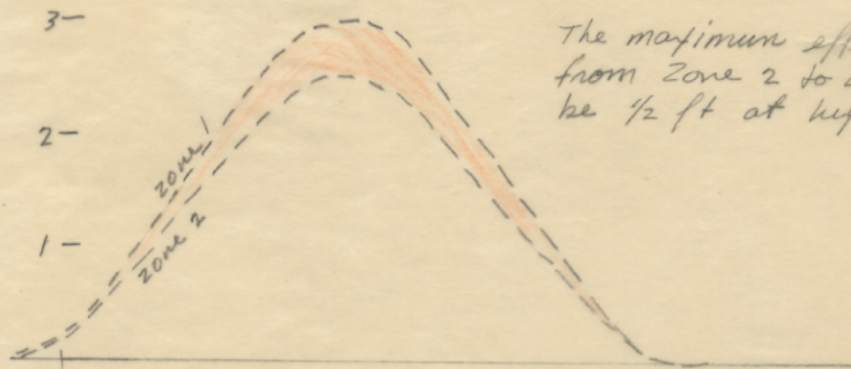
the above test was made without satisfactory results
R.E.E.-

Station:

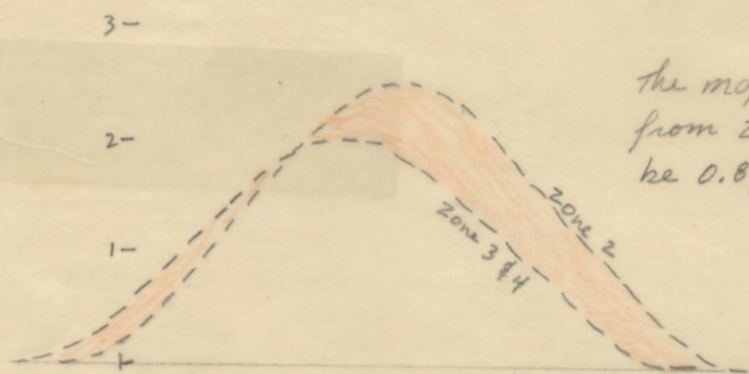
0^h 1 2 3 4 5 6 7 8 9 10 11 noon 12 13 14 15 16 17 18 19 20 21 22 23 24



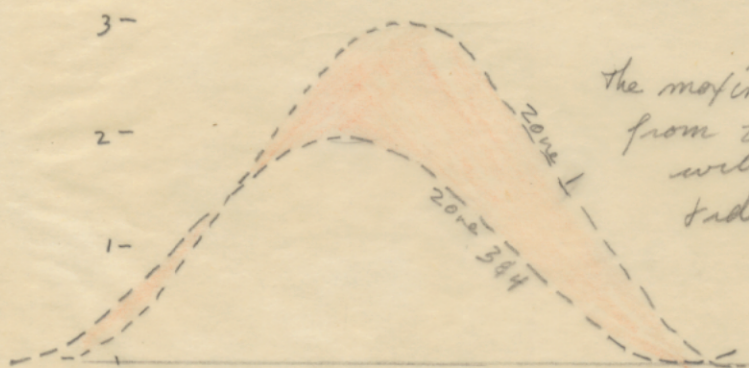
ZONE DIFFERENCES
WITH REFERENCE
STATION



The maximum effect in going from Zone 2 to Zone 1 will be $\frac{1}{2}$ ft at high tide.



The maximum effect in going from Zone 2 to Zones 3 & 4 will be 0.8 ft at $\frac{1}{4}$ falling tide.



The maximum effect in going from Zone 1 to Zones 3 and 4 will be 1.3 ft at $\frac{1}{4}$ falling tide.

EFFECT OF CHANGING ZONES

Equipment Deployment CS-328-1956

Ship - Hydrographer

← CS-328-1956

		H-8328	H-8329				
*	July 27						
	29	A 101					
	30	B 1-2					
	31	C 2-3					
	Aug 1	D 3-4					
	2	E 4					
*	8	F 5					
	9	G 5-6-7					
	10	H 7-8					
*	11	J 8-9					
*	12	K 9-10					
	13	L 10					
	21	M 10					
	22	N 10-11					
*	23	P 11-12					
	24	Q 12					
	28	R 13					
	29	S 13-14					
	30	T 14					
	Sept 7	U 15					
	8	V 15-16					
	9	W 16-17					
	10	X 17-18					
	11	Y 18-19					
	12	Z 19-20					
*	13	AA 20-21					
	27		A 1				
	28		B 1-2				
*	30		C 3-4				
	Oct 1		D 4-5				
	9		E 5-6				
*	10		F 6-7				
	11		G 7				
	12		H 8				
	13						
	25	BA 22					
	26	CA 22-23					
	27	DA 23	J 9-10				
	28		K 10-11				
	29		L 11-12				
	30		M 12-13				

Velocity correction #1
153 Reduction #2
153 reduction #1

5/102

		H-8328	H-8329					
*	Nov 8		N 13-14	Velocity Corrections #2 153 gals/min				
	9		P 14					
	10		Q 14					
	11		R 14-15					
	12		S 16					
	13		T 17-18					
	14		U 18-19					
	15		V 19-20					

153

156

Date	Par	Father	Wife	diff	A	B	C	Father	Wife	diff	A	B
7-27-56 p 4	1A	51.8 A	53.4	+1.6	+1.3*			53.8 A ⁽⁺⁰⁾	54.9		A	B
	2A	53.6 A ⁺	53.1	+1.5				53.8 A	53.2			
	3A	53.9 A ⁺	53.1	+1.2				53.9 A	55.2	+1.7*		
	4A	51.5 A ⁺	53.4	+0.9				54.0 A	55.5			
	5A	52.6 A ⁺	54.9	+1.3				54.2 A	55.5			
	1B	50.7 B ⁺	53.1	+1.4	+1.7*			52.8 B	53.8			
	2B	50.2 B ⁺	53.1	+1.9				52.8 B	56.1			
	3B	50.8 B ⁺	53.1	+1.3				53.0 B ⁽⁺²⁰⁾	56.4	+3.3*		
	4B	52.3 B ⁺	54.6	+1.7				53.2 B	56.4			
	5B	51.8 B ⁺	54.9	+2.1				53.0 B	56.4			
page 5	1405A	53.5 A	54.2	+0.7*								
	1405B	53.3 B	54.6		+1.3*							
	1405A	26.1 A	26.4	+0.3*								
page 6		26.8 A	26.7	-0.1*								
7-30-56	209 B							27.1 A	27.3	+0.2 R*		
	287 B							27.0 A ^(+0.5)	27.6	+0.6*		
7-31-56	288 B	40.0 A	40.2	+0.2				40.0 A	42.1	+2.1		
								40.0 A ⁽⁺⁰⁾	40.0	0.0		
8-1-56	129 C							61.0 B ^(+2.5)	65.0	+4.0?		
	161 C	39.0 A	37.8	-1.2								
8-1-56	142 d							38.0 A	39.5	+1.5		
	173 d							68.0 B	70.8	+2.8		
	174 d							67.0 B	64.8	-2.2?		
	175 d							66.0 B	73.2	+7.2?		

* Father Calibration

153

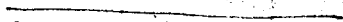
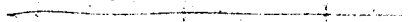
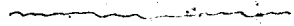
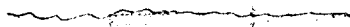
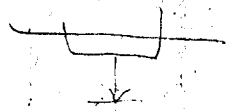
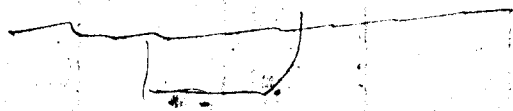
156

Date	Pac	Father	Wm	diff		Father	Wm	diff		C
				A	B			A	B	
8-8-56	* 131 F	31.8 A	32.4	+0.6 *		31.0 A	31.8	+0.8 *		
	89 F					69.0 B	78.6	+9.6		
	188 F					52.0 A	55.0	+3.0		
	56 F	48.0 A	48.0	0.0						
8-9	90 G					59.0 B	63.6	+4.6		
	174 G					39.0 A	42.0	+3.0		
	205 G					60. B	63.0	+3.0		
8-10	112 H	45.6 A	45.0	6.0						
8-11-54	* 103 J	30.0 A	29.7	+0.3 *		29.0 A	29.2	+0.2 *		
	149 J	52.0 B	59.0	+2.0						
	186 J	29.8 A	28.8	+1.0 *		29.0 A	2.88	-0.2 *		
8-12	80 K					39.0 A	39.6	+0.6		
	130 K	31.2 A	30.6	-0.6 *		34.0 A	30.6	-0.4 *		
		31.7 A	31.2	-0.5 *						
	None L									
8-22-54	36 N	61.5 B	64.2	+2.7	(checky)					
8-23-54	41 P					47.0 A	49.8	+2.8		(checky)
	176 P	86.0 B	87.6	*+1.6	(checky)	84.0 B	88.8	*+4.8		(checky)
	190 P					56.0 B	61.2	+5.2		(checky)
9-8-56	83 V	31.0 A	32.4	+1.4						
	120 V					65.3 B	69.6	+4.3		
9-9-54	121 W	45.0 A	46.2	+1.2						
	140 W					36.0 A	37.2	+1.2		
	148 W					28.5 A	30.0	+1.5		
9-10-54	251 X					46.8 A	49.8	+3.0		
9-11-54	222 Y					53.0 A	56.4	+3.4		
9-12-54	73 Z					? 66.5 B	71.4	+5.4		
	101 Z					84.0 B	88.8	+4.8 (SB)		
	123 Z					74.0 B	79.2	+5.2 (WB)		

check 200 A
check 100 B

N & P day bad Chap 2 & 4

M, X, Y, CA slight Chap 1 & 2



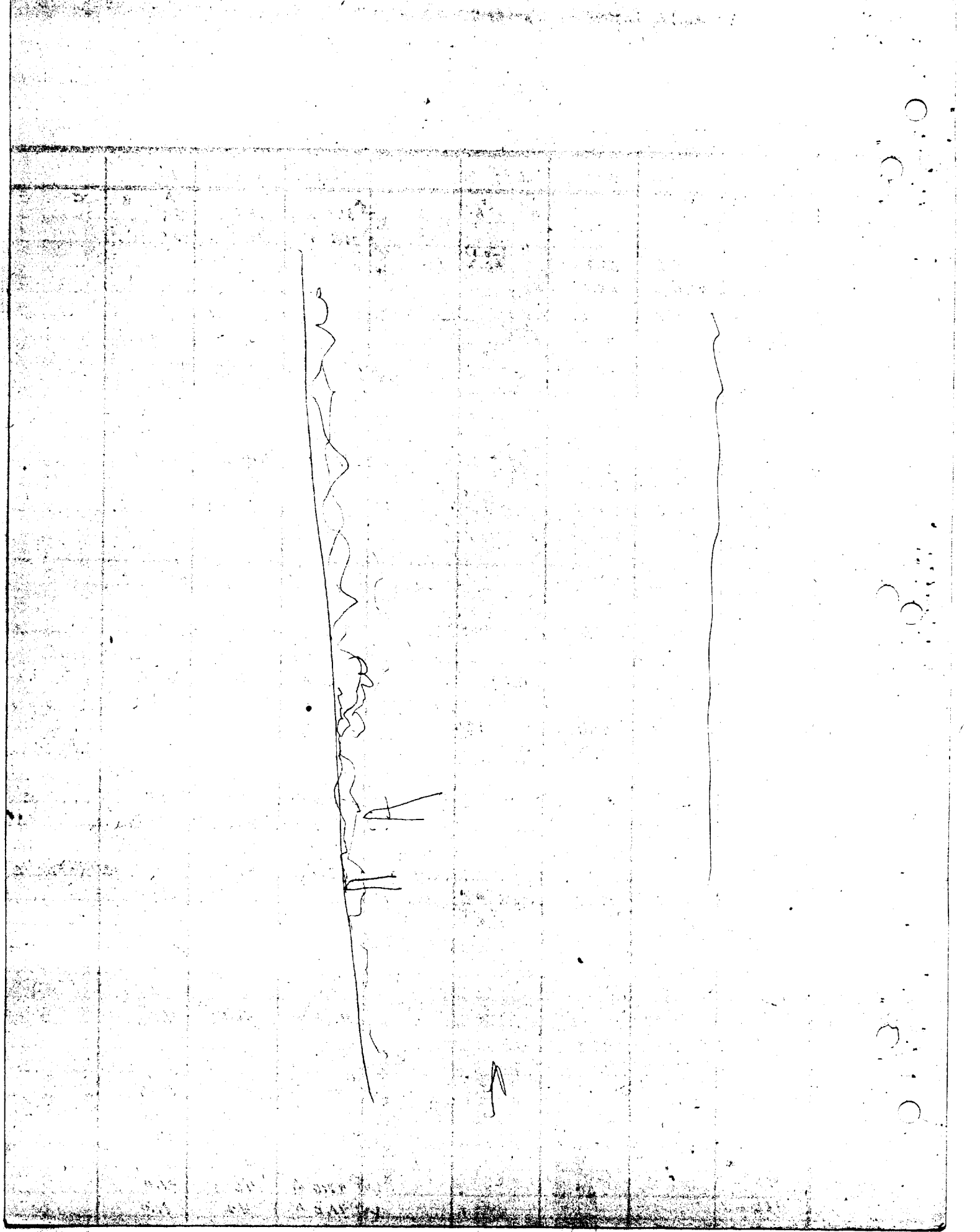
Δ = double bottom on fathogram
 X = calibration

153

156

date	Pos	Fatho	Wme	diff			Fatho	Wme	Diff		
				A	B	C			A	B	C
9-12-56	184 Z						31.0 A	30.6	-0.4		
	188 Z						36.5 A	36.0	-0.5		
	233 Z	67.0 B	67.2	(-0.3)							
	258 Z	47.0 A	49.2	+2.2							
	266 Z	40.5 A	43.2	+2.8							
275 Z	42.4 A	42.6	+0.2								
9-13-56	10 AA						35.0 A	35.4	+0.5?		
	82 AA	38.0 A	38.4	+0.4							
	107 AA						32.0 A	31.2	-0.8		
	108 AA	31.9 A	31.5	-0.4 X			31.8 A	31.2	-0.6 X		
	173 AA	49.0 A	52.8	+3.8							
	185 AA	56.0 B	59.4	+3.4?							
217 AA	78.0 B	87.0	(slanting)								
9-27-56	22 A	60.0 B	64.8		+4.8						
9-30-56	301 B	31.0 A	30.0	-1.0 X		31.0 A	30.0	-1.0 X			
10-1-54	155 C	61.0 B	63.6		+2.6						
	207 C	37.0 A	37.2	+0.2							
10-9-56	226 D					64.0 B	70.8	+4.8			
10-10-56	108 E					32.0 A	33.0	+1.0		Δ	
	118 E					44.0 A	45.0	+1.0		RA	
	119 E					43.5 A	44.4	+1.0 X		Δ	
						42.0 B	44.7		+2.7 X		Δ
		45.0 A	44.7	-0.3 X Δ							
		44.0 B	45.3	+1.3 X Δ							
10-12-56	154 G	57.0 B	59.1	+2.1							
10-13-56	30 H					47.0 A	48.0	+1.0			
	173 H	66.0 B	67.8	+1.8							
10-26	113 CA					40.0 A	41.4	+1.4			
10-27-56	197 J					36.0 A	35.4	-0.6			
10-29-56	155 L					47.0 A	48	+1.0			
	186 L					41.0 A	42	+1.0			

draft 0.5



* calibration

153

156

Date	Pos	Fath	Wind	diff			Fath	Wind	Diff		
				A	B	C			A	B	C
11-8-56	77 N	325 A	31.5	A	B	C	31.0 A	31.5	A	B	C
11-13-56	136 T						(4.5) 61.0 B	62.4			
11-14-56	148 U						(0.5) 53.0 B	57.0			+4.0
	185 U	50 A	48.9								
	203 U	43 A	40.8								
	224 U	37 A	37.8								
	233 U	33 A	33.6								
	240 U	36 A	30.6 ?								
11-15-56	87.0 V	30.0 A	30.0	0			(4.5) 35.0 A	34.2			-0.8

draft - 0.5
 (4.5)
 (0.5)

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

12 April 1957

Plane of reference approved in
23 volumes of sounding records for

HYDROGRAPHIC SHEET 8328

Locality West Coast of Florida

Chief of Party: W. J. Chovan in 1956

Plane of reference is mean low water, reading
3.4 ft. on tide staff at St. Petersburg
5.4 ft. below B.M. 4 (1925)

Height of mean high water above plane of reference at the working
grounds is 2 feet.

Condition of records satisfactory except as noted below:



Signature

Chief, Tides Branch

Fathometer 153
July 27 to Oct 1

* = calibrations A-scale
• = wire comparisons A-scale

H-8328

IMPORTANT

PAGE 44 WAS ADDED
IT IS NOT A PAGE IN THE REPORT
IT SHOWS DETAIL FROM
ORIGINAL DOCUMENT MISSING
FROM THE SCAN OF PAGE 43

175A
175B

22A

266Z

180A

Cherry
36N

157C

Rep 1956

Mercator Projection
Scale 1:1,210,765 at Lat. 24°00'

SOUNDINGS IN FATHOMS AT MEAN LOW WATER

(For offshore navigation only)

ABBREVIATIONS (For complete list of Symbols)

Lights: F. fixed, Fl. flashing, Qk. quick, I. Occ. occulting, Alt. alternating, G. M. nautical miles, m. minutes, sec. WHIS. whistle; DIA. diaphone; I. D. destroyed, to be reestablished.

Buoys: C. can, N. nun, S. spar, B. l. REF. reflector; T.B. temporary buoy.

Lights are white unless otherwise indicated.

Bn. daybeacon, R. red; W. white; Br. bro. R. TR. radio tower; R. Bn. radiobeacon; D. R. Rge. radio range; R. Sta. radio station.

Cl. clay, Co. coral, G. gravel, Grs. grass, bk. black, br. brown, bu. blue, gn. green, hrd. hard, rky. rocky, sft. soft, stk. sticky.

23 Wreck, rock or obstruction swept clear
(2) Rocks that cover and uncover, with height
P.D. position doubtful; E.D. existence doubtful
P.A. position approximate.

HEIGHTS in feet above mean high water.

AUTHORITIES

Compiled principally from larger scale chart Survey; supplemented by information from Navy, and British Admiralty.

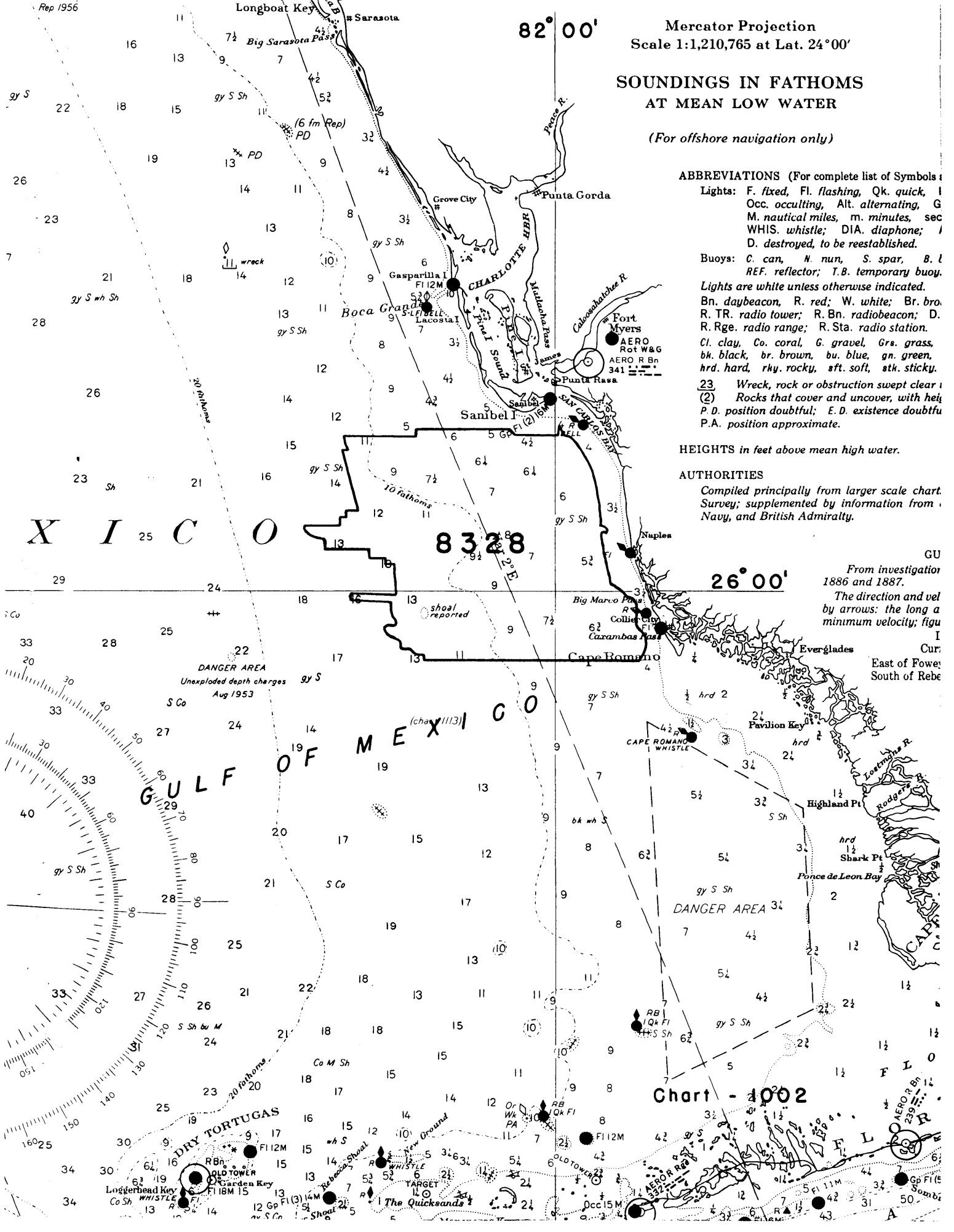
GU

From investigation 1886 and 1887.

The direction and vel by arrows: the long a minimum velocity; figu

I

Cur East of Fow; South of Rebe



X I C O

83°28'

26°00'

DANGER AREA
Unexploded depth charges
Aug 1953

GULF OF MEXICO

Chart - 1002

DRY TORTUGAS
Loggerhead Key
Garden Key
Old Tower
Whistle
New Ground
The Quicksands

FLORIDA
AERO R. Bn.
341

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8328

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
11429 4-3-57	1254	R.K. DeLauder	<i>Part. applied</i> Before After Verification and Review SMA
11426 4-3-57	1255	R.K. DeLauder	<i>Part. applied</i> Before After Verification and Review ✓
11420 4-4-57	1113	R.K. DeLauder	<i>Part. appld</i> Before After Verification and Review. <i>Areas covered</i> ✓
4-4-57	1003	R.K. DeLauder	<i>Part. applied</i> Before After Verification and Review <i>These Chs 1113.</i>
11460 1-16-57	1112	JTW	Before After Verification and Review <i>partial via dng 113</i> SMA
11426 16 Apr 62	1255	Nichols	<i>Adequate</i> Before After Verification and Review <i>Re-applied</i>
11427 29 Aug 62	856B	"	<i>to add 36-ft depth contour.</i> Before After Verification and Review <i>Complete</i>
11427 Oct 62	856A	"	Before After Verification and Review <i>Complete</i>
2/8/68	11427 (856)	Jack Allen	ADEQUATE Before After Verification and Review
2-7-84	11429	JOE TURNER	ADEQUATE Before After Verification and Review <i>EXAMINED, NO CORRECTION</i>
2-15-84	11420	JOE TURNER	<i>ADEQUATE BEFORE VERIFICATION AND REVIEW.</i> <i>APPLIED PARTLY THRU 11426 AND 11429, THE</i> <i>REST WAS REMAINDER WAS APPLIED DIRECTLY</i> <i>TO 11420.</i>
4-25-84	11006	Steve Tartaris	<i>Adequate before Verification and Review</i> <i>Applied through cht 11420</i>
7-9-84	11013	JOE TURNER	<i>ADEQUATE BEFORE VERIFICATION & REVIEW.</i> <i>APPLIED THRU 11420.</i>
8-4-95	11460	<i>[Signature]</i>	<i>3-E area to corr's #49</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.