# 8329

Form 504

U. S. DEPARTMENT OF COMMERCE

COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHER

Field No. HY-8256 Office No. H-8329

LOCALITY

State FLORIDA

General locality Gulf of Mexico

Locality West Coast of Florida

SouthWest of Cape Romand

19.56

CHIEF OF PARTY

Walter J. Chovan

MAR 2 o 1957

DATE ..

сомм- DC 61300

cs. 3,28

Note to Verifier

Deck for Paper alignment correction

Deck for individual phase corrections

3 Check for paper speed corrections

(1) Check instrict dual corr, Vol. 9thing Vol 20

5. Check wire comparisons

(C) (C) (C)

## 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-8329

Field No. HY-8256

State	Florida
General locality	Gulf of Mexico
Locality	West Coest of Morida, West of Cape Romano
Scale 1:80,000	Date of survey 27 Sept - 15 Nov. 1956
Instructions dated	29 Dec. 1955
Vessel	SHIP HYDROGRAPHER
Chief of party	Walter J. Chovan
McCaffrey, ENS.R.J.	George, CDR. J.E. Wangh, LT. H.W. Keith, LT(jg) E.K. Black, ENS A.M. Cook, ENS.V.C. Ahlrich meter, graphic recorder, hand lead, wire Fathometer
Fathograms scaled by	Personnel; Ship HYDROGRAPHER
Fathograms checked by	Personnel; Ship HYDROGRAPHER
Protracted by	ENS. William M. Tidwell
Soundings penciled by	ENS. William M. Tidwell
Soundings in factories	r feet at MLW XXXXXV
REMARKS:	
•	

### DESCRIPTIVE REPORT

## To Accompany

Hydrographic Survey H-8329 (Field No. HY-8256)

27 September

15 November 19

Walter J. Chovan

Chief of Party

#### A. PROJECT:

This survey is part of project 13280 originally project 1328.

The Hydrography was accomplished in accordance with Supplementary Instructions project 13280, dated 29 December 1955, 22, MEK, S-2-HY, 1 March 1956, 22 MEK S-2-HY, and 11 July 1956, 22/MEK S-2-HY.

These instructions were issued by the Director to the Commanding Officer, Ship HYDROGRAPHER.

## B. SURVEY LIMITS AND DATES:

This survey is off the West Coast of Florida, southwest of Cape Romano. Its boundries are as follows: 5 fathom curve on the East, longitude 82° 06' W on the West, and between latitudes 25° 17' N and 25° 50' N. The Hydrography was begun on 27 September and was completed 15 November 1956.

Junction was made on the North with H-8328, 1956, 1:80,000. No other junction was made with this sheet and contempary surveys.

## C. VESSEL AND EQUIPMENT:

The entire survey was made with the Ship HYDROGRAPHER, turning radius of 80 - 120 meters at operating speed of approximately 10 km. using 808-J Fathometer serial nos, 153 SPX and 156 SPX. These Fathometers were used as recorded in the sounding volume with no specific area alotted to either of them. Either unit could be considered as a stand by. Fathometer comparisons, vertical casts, temperature and salinity stations were observed throughout the season to obtain the corrections applied to the soundings. These corrections may be found in the velocity Instrumental correction report.

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

## D. TIDE AND CURRENT STATIONS:

No tide or current stations was observed within the limits of Hydrography.

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

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

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

It is recommended that a comparison of marigrams taken from portable tide gagé at Port Boca Grande, Florida by the Ship SOSBEE and tidal information used in reducing sounding be made. This station at Port Boca Grande is approximately ½ the distance from working grounds as the one used. Local weather conditions affect the tides greatly in this area.

#### E. SMOOTH SHEET:

The smooth sheet projection was made in the Norfolk Office by hand.

No shore line or topographic detail are on this sheet, as this was an off shore survey.

## F. CONTROL STATIONS:

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

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

Everglades 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, 1935; Beach (exc.) 1955; and Cape Romano 3,

1955 (exc.) and the geographic position computed by third-order computations.

#### G. SHORELINE AND TOPOGRAPHY:

This is an offshore sheet hence no shoreline or topography was verified.

#### H. SOUNDINGS:

Soundings on this survey were made using 808-J type graphic depth recorders nos. CS-153 SPX and CS-156 SPX. All soundings were made on the feet scale using on initial setting of 12.0 feet for both fathometers.

The length of the stylus was determined at the beginning of the field season and corrected as necessary.

There are "strays" on fathograms and are not confined to any specific area. The majority of them appear as dark streaks attached to the bottom. These are believed to be either fish or vegetation.

#### I. CONTROL OF HYDROGRAPHY:

Shoran was used for the control of this survey. The intersection of the shoran area approaches a minimum of 19° at the southwest corner of the working area. Plotting is sometimes difficult in this area but with consideration given to time and course satisfactory positions can be produced.

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 the mean of values obtained by periodic calibration, and was found to be a junction of the distance. See shoran calibration report for details.

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

## J. ADEQUACY OF SURVEY:

This survey is considered complete and adequate to supersede prior surveys for charting purposes.

Junction with H-8328 (Field No. HY-8156) was very satisfactory, all depth curves can be adequately drawn between the two surveys and no holidays exist.

#### K. CROSSLINES:

Approximately 7.0% of the total hydrography on this sheet are crosslines. Descrepancies in sounding on crosslines were no more than 3 % of total depth in most cases. As discussed in paragraph D an examination of tidal information taken from Port Boca Grande tide gage might very well illmate these. crosslines, "J" day positions 52-105 and "N" day position 1-15 are shoal approximately 1 foot.

#### L. COMRARISON WITH PRIOR SURVEYS:

The prior survey of this area was made in 1887 and 1888 (H-1773, and H-1825 1:40,000). In general no differences were noted, However, because of age and wide spacing of the sounding lines no detail comparison is attempted.

#### M. COMPARISON WITH CHART:

The survey area is shown on chart; 1253 and 1255, 1:80,000. No soundings were transferred to the boat sheet from the charts. In general good agreement was noted between the depth curves and soundings of this area.

#### N. DANGERS AND SHOALS:

No new dangers of shoals for charting purposes were found in this survey.

#### 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.

#### P. AIDS TO NAVIGATION:

Cape Romano Lighted whistle buoy, No. 3786 in Light list, was located in this survey by a series of shoran fixes and gyroscope bearing to the buoy. The angle of intersection of these bearing lines are small thus causing this location to be somewhat weak. The location, as found in this survey, is approximately the same as given in the Light List. (latitude 25° 40.2' N, longitude 81° 39.2' W). This location was determined on positions 235 %. 247%. 16F, and 76F.

### Q. LANDMARKS FOR CHARTS:

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

## R. GEOGRAPHIC NAMES:

There are no changes in geographic names to report.

## Z. TABULATION OF APPLICABLE DATA:

1. Report on shoran Calibration, forwarded on 30 November 1956. W.S. Charanter 1956.

- 2. Report on Instrument Corrections, forwarded 17 December 1956. W.S.choven
- 3. Report on Velocity Corrections, forwarded 6 December 1956. 4 J. Chamara
- 4. Letter relative to tide zones, copy attached.
- 5. Letter relative to tidal data, copy attached.
- 6. Shoran Correctors, copy attached.
- 7. Velocity Correctors, copy attached.
- 8. Instrumental Correctors, copy attached.

The list of applicable correctors for this survey are attached.

Respectfully Submitted

William M. Sidule

William M. Tidwell

ENS., C&GS

APPROVED AND FORWARDED:

Comdg., Ship HYDROGRAPHER

Chovan, CAPT., C&GS

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#### TIDE NOTE

### To Accompany

## Hydrographic Survey H-8329 (HY-8256)

FIDE 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

Director Letter of 8 October 1956; 36-477-98zho)

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 the East Coast Tide Party; LT(jg) Floyd J. Tucker, Jr. - Officer in Charge.

STATISTICS

## TO ACCOMPANY

# SHEET H-8329 (HY-8256)

DATE 1956	DAY LETTER	VOLUME	NO. OF POS.	NAUT. MI. SDG. LINES
27 Sept.	A	1	211	155.0
28	В	1,2	301	231.7
1 Oct.	C	3,4	306	204.4
9	D	4,5	299	207.0
10	E	5,6	300	216.4
11	F	6,7	262	196.3
12	G	7	186	115.9
13	H	8	276	194.9
27	J	9,10	296	214.6
28	K	10,11	327	210.8
29	L	11,12	315	211.9
30	M	12,13	253	189.1
8 Nov.	N	13,14	215	151.3
9	P	14	149	104.2
10	Q	14	13	9.0
11	R	14,15	312	222.0
12	S	16	278	184.0
13	T	17,18	302	229.7
14	Ū	18,19	308	212.0
15	7	19,20	248	173.6
TOTA	IIS I	20	5157	3633.8
	**************************************			

AREA SURVEYED 783.4 SQ. NAUT. MI.

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.

	Position	Time Difference	Height Difference (H.W.)
l.	(South of Lat. 26° 00°) (East of Long. 82° 00°)	-1 Hr.	/1.0 Ft.
2.	(North of Lat. 26° 00') (East of Long. 82° 20')	-1 Hr.	<b>≠</b> 0.5 Ft.
3.	(Lat. 25° 00° - Lat. 26° (West of Long. 82° 00°	00') -2 Hr.	0
4.	(North of Lat. 26° 00°) (West of Long. 82° 20°)	-2 Hr.	0

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

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

## SHORAN CORRECTIONS

Ship HYDROGRAPHER Indicator CRV-1111 Transmitte
Zero Set 99.782 99.780

Survey H-8329 (HY-8256) Transmitter CRV-1305

		,,, <b>6</b> ,100
EFFECTIVE	RATE (EVE) Distance Corr'n	DRIFT (NAP) Distance Corrin
lA 27 Sept.	15.0-35.2 -0.020	5.0-17.5 <b>/</b> 0.010
to	35.2-37.5 -0.025	17.5-20.0 /0.005
96J 27 Oct.	37.5-39.3 -0.030	20.0-22.5 0.000
	39.3-41.2 -0.035	22.5-25.0 -0.005
	41.2-42.7 -0.040	25.0-27.5 -0.010
	42.7-44.3 -0.045	27.5-30.0 -0.015
	44.3-45.7 -0.050	30.0-32.6 -0.020
	45.7-47.3 -0.055 over-47.3 -0.060	32.6-35.1 -0.025 35.1-37.7 -0.030
	0001-47.5	37.7-40.1 -0.035
		40.1-42.7 -0.040
		42.7-45.1 -0.045
		over-45.1 -0.050
EFFECTIVE	RATE (EVE)	DRIFT (CAX)
*	Distance Corr'n	Distance Corr'n
97J 270ct.	15.0-35.2 -0.020	5.0-15.5 <b>/</b> 0.015
to	35.2-37.5 -0.025	15.5-19.0 /0.010
248V 15 Nov.	37.5-39.3 -0.030	19.0-22.0 /0.005

EFFECTIVE	RATE	(EVE)	DRIFT (CAX)
*	Distance	Corr'n	Distance Corr'n
97J 270ct.	15.0-35.2	-0.020	5.0-15.5 <b>/</b> 0.015
to	35.2-37.5	-0.025	15.5-19.0 /0.010
248V 15 Nov.	37.5-39.3	-0.030	19.0-22.0 /0.005
	39.3-41.2	-0.035	22.0-24.3 0.000
	41.2-42.7	-0.040	24.3-26.8 -0.005
	42.7-44.3	-0.045	26.8-29.5 -0.010
	44.3-45.7	<b>-</b> 0.05Q	29.5-32.0 -0.015
	45 <b>.7-</b> 47 <b>.</b> 3	<b>-</b> 0.055	32.0-34.7 -0.020
	over 47.3	-0.060	34.7-37.3 -0.025
			37.3-40.0 -0.030
			40.0-42.5 -0.035
			42.5-45.2 -0.040
			45.2-48.0 -0.045
			over 48.0 -0.050

# SHORAN CORRECTORS Ship HYDROGRAPHER Survey H-8329 (HY-8256) (Spare Set)

EFFECTIVE	RATE	(EVE)
	Distance	Corr'n
*From 89S	15.0-19.5	-0.010
to	19.5-29.5	-0.015
181S 12 Nov.	29.5-33.5	-0.020
and	33 <b>.</b> 5 <b>-</b> 36 <b>.</b> 2	-0.025
105N to	36.2-38.3	-0.030
128N 8 Nov.	38.3-39.8	-0.035
	39.8-41.5	-0.040
	41.5-43.3	-0.045
	43.3-44.7	-0.050
	44.7-46.3	-0.055
	over 46.3	-0.060

DRAFT CORRECTIONS

## SHIP HYDROGRAPHER

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

FROM	TO	CORRE	CTION
		HALF FOOR	ONE FOOT
2 <b>7</b> July	0000 hrs. 12 Sept.	ಂ.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

## VELOCITY CORRECTIONS Sheets HY 8156, HY 8256

27 July - 31 October	Table 1	
From 0.0 ft. 20.5 37.5 54.5 67.0 71.0	To 20.0 ft. 37.0 54.0 66.0 70.0 104.0	Correction 0.0 ft.  0.5  1.0  1.5  1.0  2.0
8 November - 16 Novem	ber Table 2	
0.0 24.5 48.0	24.0 47.5 96.0	0.0 \$\frac{1}{2} 0.5 \$\frac{1}{2} 1.0

## INSTRUMENTAL CORRECTIONS

# SHEET HY 8156, HY 8256

## FATHOMETER 156

## Entire Season

Scale	Correction
A	0.0 ft.
B	<i>f</i> 2.0
C	£ 4.0

## PATHOMETER 153

## 27 July - 1 October

A	- 0.5
В	<b>≠ 1.0</b>
С	<i>‡</i> 1.0

## 9 October - 31 October

A		- 147
B	Through 66 ft.	£ 0.5
В	over 66 ft.	0.0

## 8 November - 16 November

A	•	1.5
B		0.0

### APPROVAL

The records, boat sheets and smooth sheets for Survey HY-8256 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. novan

CAPT. C&GS

Comdg., Ship HYDROGRAPHER

	GEOGRAPHIC NAMES Survey No. H-8329		70 Oc	Yo. Or	2 10 20 20 10 10 10 10 10 10 10 10 10 10 10 10 10		Scool and a second	Cando of Q	no de la	N. S. J. S.	; /
	Name on Survey	A	В	C		E	F (	G	Н		
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	Cape Komano										3
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## Hydrographic Surveys (Chart Division)

# HYDROGRAPHIC SURVEY NO. 8329....

Records accompanying survey:		
Boat sheets; sounding vols. 20; w	ire drag	g vols;
bomb vols; graphic recorder rolls	35-Enve	<b>lo</b> pes
special reports, etc. 1-Smooth sheet, 1-De	scripti	ve report,
and 1-Cahier: 1-Vol. Shoran Plotting Abstr	acts.	• • • • • • • • • • • • •
The following statistics will be submitted wirepher's report on the sheet:	th the	cartog-
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		Date
Reviewed by Time		Date

### TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens

23 April 1957

Plane of reference approved in 20 volumes of sounding records for

HYDROGRAPHIC SHEET 8329

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:

Chief, Tides Branch

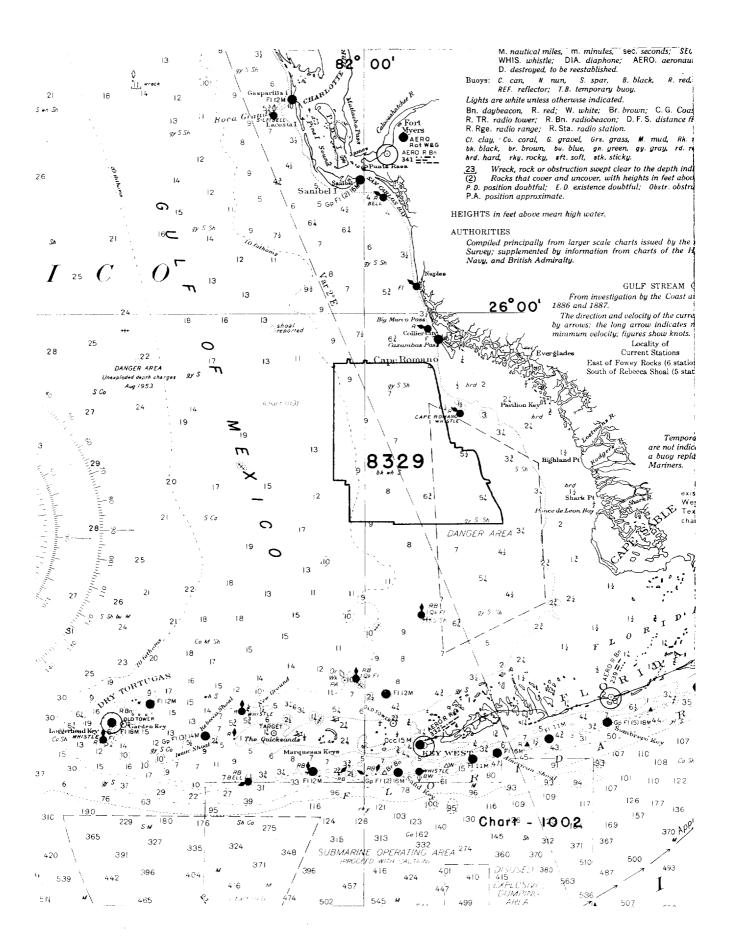
The verifier should deal with the present hydrographic survey only, as the reviewer considers its relation to previous surveys and published charts. He should be thoroughly familiar with Chapters 3, 7 and 9 of the Hydrographic Manual.

- 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.

as follows:

36. Notes to reviewer:



# NAUTICAL CHARTS BRANCH

1253 (11431) 80,000 1254 (11429) 80,000 30,000 1113 (1420) 43980 1112 (11460) 445,000

SURVEY NO. <u>H. 8329</u>

A4 - 1003 (11006) 875,000

## Record of Application to Charts

	DATE	CHART	CA PECCE A PUED	DEVIDUA
	DATE	CHARI	CARTOGRAPHER	REMARKS
	4-12-57	1003	2.7n.a.	Before Merification and Review Correction now.
	ļ ,			<u> </u>
11429	8/19/57	1254	den	Before Verification and Review
				Partially applied.
11420	8-23-57	1113	3.m.a.	Before Verification and Review empared with unverified durg. 1254 lat. 25.40-50
				aug.//34 141.25-40-30
11460	10-16-57	1112	J.T.W.	Before After Verification and Review partial
	12/20/57	1350	STW	Before Ages Verification and Review
			05/1/	Examined - no cor now
11431/	5 Sept 60	1253"	Welsols	Before Verification and Review Coraple apple
	/			
	3-14-84	11429	SOE TURNER	Before After Verification and Review REVISEN JEVERAL
- 1				SOUNDINGS.
	3-14-84	11431	DE TURNER	ADEQUATE Before After Verification and Review REVISED SEVERAL
				50UNDINGS.
	3-18-84	11420	DE TURNER	ADEQUATE Before After Verification and Review REVISED SEVERAL
				SOUNDINGS THRU CHARTS 11429 & 114316 THE
				Before After Verification and Review REMAINDER WAS
				REVISED DIRECTLY ON CHART 11420.
,	4-25-84	1606	Steve Toutais	Adequate BEFORE verification and Reven
				Applied thru 11420
	7-9-84	11013	VOET TURNER	ADEQUATE BEFORE VERIFICATION & RAVIOW.
· }			11	RPPLIED THRU 11420.
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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.