Diag. Cht. No. 1266-2.

Form 504

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. ECFP-10-10-6 (fice No. H-8592

LOCALITY

State Alabama

General locality Mobile Bay

Locality East Side Mobile Bay

19 60-61

CHIEF OF PARTY

J.R.Plaggmier and S.L.Hollis, Jr.

LIBRARY & ARCHIVES

DATE January 18, 1963

USCOMM-DC 5087

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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-8592

Field No. ECFP 10-10-60

StateAlaba	48 .				Y	
General locality	Mobile Bay					
Locality East Sid	le Kobile Bay					
Scale 1:10,600					•	17.19
	22/mek, ECFP-2					
	-183, Launch CS-117					^
	John R. Plaggmier				.is. Jr.)	
•	Levis, A. G. Davi					
	athometer, graphic rec					
	Party Personn				wing x Mi	
	y Party Personn			•	****	
	Fred Bean (No.					
•	Fred Bean		11	n		
Soundings in 14th	for at MI	LW MUIN	are true	debths		
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DESCRIPTIVE REPORT To Accompany

Hydrographic Survey H-8592 (Field No. ECFP 10-10-60)

Mobile Bay, Alabama

PROJECT: 410

CHIEF OF PARTY: LCDR John R. Plaggmier (Later LCDR Steven L. Hollis, Jr.)

EAST COAST FIELD PARTY

SURVEYED BY: R. A. Lewis, A. G. Davis, L. S. Brown, R. R. Floyd, R. I. Greene SCALE: 1:10,000

A. PROJECT

Work on Project CS-410 was executed in accordance with instructions 22/mek, EGFP-2, dated 18 Sept. 1959.

B. AREA SURVEYED

The area covered by this survey is Mobile Bay, Alabama, off the / City of Fairhope, Alabama, East Side of Mobile Bay.

Limits are from Lat N30 30'30" Northward to Lat 30 37' 48" and from Long 87 58' 30" Eastward to the east shore of Mobile Bay.

This survey makes juncture with the following contemporary surveys:

ECFP 10-8-60 (H-8574) to the South, ECFP 10-9-60 (H-8575) and ECFP 10-1-61 (H-8587) to the West, and ECFP 10-2-61 (H-8588) to the North.

C. SOUNDING VESSELS

Launch CS-1177 (day letters blue), Launch CS-183 (day letters violet), Skiff 758 (day letters red), and Skiff #2 (day letters green) were used in this survey.

D. SOUNDING EQUIPMENT

An EDO 2550 (#16) depth recorder and an 808J (#113S) fathometer / were used on skiff 758.

EDO 2550 Recorders # 13 and 15 were used on Launch 65-1177. EDO 2550 Depth Recorders # 13 and 15 were used on Launch CS-183. Fathometer 808J # 154 was used on Skiff # 2.

Many soundings of six feet and less Iweretaken with a 12' wooden sounding pole.

Echo Sounder Corrections were determined from daily bar checks and simultaneous comparisons. These corrections are tabulated in appendix B, "Abstract of Corrections to Echo Soundings, Attached to this report.

E. SMOOTH SHEET

The projection was made in the Washington office by a projection valing machine. Plotting is to be done by Norfolk Processing office.

F. CONTROL

Horizontal control was obtained by standard visual three-point fix methods as described in the Hydrographic Manual.

Appendix A of this report contains a complete list of control used and the quality and source of the control.

An unusual method of control was used on "a" day, Aprill?, 1961, by Skiff # 2. The Skiff was manned by a coxwain and a Fathometer operator. One angleman occupied signal ACE and took cuts from signal DAPH to the skiff. The plotter, recorder, and second angleman remained aboard Launch CS-1177. The Launch was anchored with a short scope anchor line and its position determined by a three point sextant fix and check angle (Page 3, Vol 14). Upon a signal, received via radio from the skiff, the anglemen would take a sextant cut from a known shore object to the skiff. The angle from the man occupying signal ACE was relayed to the launch via radio, the skiff's position was then plotted and any necessary course change was relayed to the skiff.

G. SHORELINE

Shoreline was transferred from Blue line prints of advance manuscripts T-10982, T-10984, and T-10985. No Notable change in shoreline was observed.

H. CROSSLINES

Crosslines were run to the extent of 8% of the regular system of sounding lines. Favorable crossings were found.

I. JUNCTIONS

The depths at the junctions with the surveys listed in Section B are in good ag reement and depth curves can be adequately drawn at the junctions.

J. COMPARISON WITH PRIOR SURVEYS

A comparison was made with prior survey H-4024 (1:40,000, 1918). There is good general agreement between the prior survey and the contemporary survey.

Presurvey Review Item # 41—Offshore features, Great Point to Village Point. Field edit in this area was completed by Mr. William M. Reynolds, Photo Party 720, and all data was forwarded to the Tampa office for compilation.

K. COMPARISON WITH THE CHART Sec (even)

The examination of C&GS Chart 1266, 16th edition, Jan 30, 1961 indicated a good comparison with the contemporary survey.

The channel leading from the Fly Creek Entrance Light (Lat N 30 32.6', Long 87 54.6') to the Fairhope Yacht Club Basin is shown on the chart as having a 6' depth (1960). The western portion of this small channel has a depth of 6' and greater but the eastern portion has a least depth of 1.2' (Pos 45-46F, Skiff 758, Vol 4, Page 18.)

L. ADEQUACY OF THE SURVEY

This survey is complete and is considered adequate to superfede prior surveys. Several prior sags carried forward

M. AIDS TO NAVIGATION

There is one fixed aid to navigation on this survey: 54

Fly Creek Entrance Light, (Light List # 6676) Lat 30 32.6 N, Long
87 54.6 W, was located by Skiff 758 by means of a sextant fix (pos. 83b).

There are no floating aids to navigation on this survey.

There are two privately maintained aids to navigation within the limits of this survey:

(1) Private Channel Marker #4, (30 32.6'N, 87 54.4'W) on the south side of the Fly Creek Entrance Channel, Is maintained seasonally by the Fairhope Yacht Club. It was located on March 23, 1961 by Skiff 758 by means of a sextant fix (Pos 56f).

M. AIDS TO NAVIGATION CONT'D

(2) Private Channel Marker #6 (30 32.57 N, 87 54.33 W) on the south side of the Fly Creek Entrance Channel, is maintained seasonally by the Fairhope Yacht Club. It was located by a sextant fix on March 23, 1961 by Skiff 758 (pos 57f).

N. STATISTICS

VESSEL	NO. OF POSITIONS.	NAUTICAL MILES OF SDGS.
Skiff 758 Launch 1177 Launch 183 Skiff # 2	511 1019 350 20	67.4 178.8 64.3 1.5
TOTAL	1900	313.0

Total Area of Survey:

26.3 Square Naut. Miles.

There were 28. bottom samples obtained on this survey.

With one exception, the Mobile, Alabama tide gage was used for control of the entire survey. Data for reduction of the Soundings was taken directly from the station records without time or range corrections. See Appendix C, Tidal Note, for additional information on this station.

Because of flood conditions on the Mobile River, e day (March 15, 1961) and f day (March 23, 1961), wSkiffe 758; dwere reduced using tide reducers taken from the fowl fiver tide gage. No time or range corrections were used. For additional Information on this station see Appendix 6, "Tidal Notes."

O. MISCELLANEOUS

There are numerous depressions scattered over the part of this Survey west of Long 88 56 W. The depressions occur in an average depth of 11 feet, have an average depth of 13 to 16 feet, and are caused by shell dredging operations in this area.

Submitted by

James B. Allen LT. (j. g.) C&GS

INDEX OF APPENDIX

- A. LIST OF SIGNALS
- B. ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS
- C. TIDAL NOTES
- D. APPROVAL SHEET

APPENDIX A

LIST OF SIGNALS

TRIANGULATION STATIONS

DAPH

DAPHNE MUNICIPAL WATER TANK (From Manuscript T-10983) checked

FAIR

FAIRHOPE SILVER MUNICIPAL WATER TANK, 1938 checked from T sheet and Lat & Long

TOPOGRAPHIC STATIONS

From T-10982:

ACE

CUT

POL

From T-10983:

RIP

OHM

KEY

HAG

GUS

From T-10984:

TOO			ZIG
NOT	•	,	ALP
ARE			EBB
YOU			IRK
FOR		* · ·	DIX
MID			TRY
FLY			206
TAY			

HYDROGRAPHIC SIGNALS

100	SUB Vol. 8, Pg. 27, Vol. 3, Pg. 4
DOT Vol. 12, pg.14	SMO Vol. 9, pg. 5
USE " 10, " 42	SIG Vol. 5, \" 4
PAX " 10, " 35	TIT /0/1, " 57
TAM 10, ". 5	Sta. "B" Vol. 14, pg. 3 & vol. 13, pg. 30

APPENDIX B

ABSTRACT OF CORRECTIONS TO ECHO SOUNDINGS

Hydrographic Survey H-8592 Project OPR - 410 East Coast Field Party Field No. ECFP 10-10-60 Mobile Bay, Alabama 1960-61 Field Season

Skiff 758 day & date	Recorder No.	Fath. Depth (ft.)	Fath. Corr. (ft.)
a Jan 12, 1961	EDO 2550 # 16	0.0 Corr All depth	3.
b Feb 1, 1961	113S 808J		-0.6 -0.8 -1.0 -1.2 -1.0
c Feb 2, 1961		0.0 - 2.9 2.9 - 4.1 4.2 - 5.2 5.3 - 6.4 6.5 - 7.5 7.6 - 8.7 8.8 - 9.9 10.0 - 11.3 11.4 - 30.0	0.6 0.4 0.2 0.0 -0.2 -0.4 -0.6 -0.8 -1.0
d Feb 23, 1961	H II	0.0 - 12.0 12.1 - 17.0 17.1 - 22.4 22.5 - 31.8	0.0 -0.2 -0.4 -0.6
e Mar 15, 1961	11 11	0.0 - 14.6 14.7 - 25.3 25.4 - 27.9 28.0 - 30.0	0.0 -0.2 -0.4 -0.6
f Mar 23, 1961	11 17	0.0 - 7.4 7.6 - 9.4 9.6 - 18.0	0.2 0.0 -0.2

APPENDIX B CONT'D

Launch CS-1177 day & date	Recorder	No.	Fath. Depth. (ft.)	Fath. Corr. (ft.)
a Nov 21, 1960 b Nov 22, 1960	EDO 2550	#15 #	0.0 - 24:0 24.1 - 28.6	0.0
c Nov 25,1960	11	# 13	0.0 - 12.0 12.2 - 28.0	-0.2 -0.0
d Dec 5, 1960 e Dec 6, 1960 f Dec 7, 1960		a	0.0 - 8.0 8.0 - 9.2 9.3 - 17.5 17.6 - 24.0	0.0 -0.2 -0.4 -0.2
g Jan 5, 1961	es es	14	0.0 - 6.4 6.6 - 8.4 8.6 - 10.4 10.6 - 21.4 21.6 - 25.6 25.6 - 30.0	0.0 -0.2 -0.4 -0.6 -0.4 -0.2
h Jan 10, 1961	H H	#	-1.0 all depths	
j Jan 30, 1961	N B	# 15	7.4 - 8.1 8.2 - 10.1 10.2 - 12.0 12.1 - 24.0	-0.6 -0.8 -1.0 -1.2
ķ Feb 3, 1961	11 11	ŧ	5.8 - 12.0 12.1 - 14.0 14.1 - 15.9 16.0 - 20.5 20.6 - 22.6 22.7 - 24.0	-1.2 -1.4 -1.6 -1.8 -1.6 -1.4
1 Feb 9, 1961	a N	u	5.0 - 8.2 8.3 - 27.0 27.1 - 36.0	-1.0 -1.2 -1.0
N Feb 10, 1961	N 1	1	5.5 - 8.8 8.9 - 18.3 18.4 - 25.1 25.2 - 27.8	-0.6 -0.4 -0.6 -0.4
M Feb 13, 1961 p Feb 15, 1961 q Feb 16, 1961	11 11 11 11 16 11	8 G 8 G	5.5 - 7.6 7.8 - 14.4 14.5 - 26.8 26.9 - 30.0	-0.6 -0.8 -1.0 -0.8

APPENDIX B CONT'D

day & date	Recorder No.	Fath. Depth. (ft.)	Fath. Corr. (ft.)
Launch 1177Co	nt d		
r Feb 23, 1961	EDO 255C # 15	9.1 - 15.0	0.0 -0.2 -0.4 -0.6
s day was rejec	ted.		
t April 17, 19	61 EDO 2550 #13	0.0 - 3.0 3.1 - 9.0 9.1 - 15.0 15.1 - 20.0	0.0 - 0.2 - 0.4 - 0.6
Launch CS-183		·	
a Jan 12, 1961	EDO 2550 # 15	10.0 - 24.0	-0.2
b Jan 16, 1961	14 H	5.8 - 7.0 7.1 - 9.4 9.5 - 12.0 12.1 - 30.0	0.4 0.2 0.0 -0.2
c Jan 17, 1961	EDO 255C # 15	5.6 - 6.70 6.81-8.8 8.9 - 10.9 11.0 - 15.0 15.1 - 21.4 21.5 - 25.0 25.1 - 26.8	0.4 0.2 0.0 -0.2 0.0 0.2
d Jan 19, 1961	EDO 255C # 13	6.0 - 12.0 12.1 - 18.0	0.0
e March 2, 1961		6.0 - 13.6 13.7 - 21.6 21.7 - 30.0	0.0 -0.2 0.0
f April 5, 1961	EDO 255C # 15	12.0 - 25.8 25.9 - 32.5	0.0
Skiff # 2			
a April 17, 196	S1 809J 154	0.0 - 8.4 8.5 - 10.	-0.6 -0.8

APPENDIX C

TIDAL NOTES

GIGE LOCATION:

Mobile River, Mobile, Alabama

Lat N 30 42.45' Long W 88 02.61

Gage Type

Portable Automatic

Staff:

MLW corresponds to 2.4' on staff

Corrections:

None

The 90th meridian was used at this station.

Pensacola-Time&range from Mobile (ARBIT.)

GAGE LOCATION:

For Fowl River, Mobile Bay, Alabama Lat N 30 27.0!

Long W 88 06.61

Gage Type:

Portable Automatic

Staff:

MLW corresponds to 0.4' on the staff

Corrections:

None

The 90th meridian was used at this station.

APPENDIX D

APPROVAL SHEET TO ACCOMPANY Hydrographic Sheet H- 8592 (ECFP 10-10-60) Project OPR-410

The records, corrections, and all field and office work was supervised by LCDR John R. Plaggmier.

The Descriptive Report was written by Lt. (j.g.) James B. Allen.

The report and records for this survey are complete and adequate to the best of my knowledge.

Approved and Forwarded,

Steven L. Hollis, Jr. LCDR, C&GS

Officer in Charge

NORFOLK PROCESSING OFFICE ADDENDUM To Accompany

HYDROGRAPHIC SURVEY H-8592 (ECFP-10-10-60)

GENERAL

This appears to be an excellent basic survey except for a sparcity of developement lines. This condition is particularly noticeable in along-shore areas near the northern part of the survey.

Sounding discepancies at crossings amount to no more than one foot, and depth curves follow a smooth and normal pattern.

STATION DESCRIPTIONS

Complete

/ Descriptions for stations in off-shore areas were not $^{\nu}$ furnished. Temporary structures have been widely used on adjoining surveys of this project, and since there were no indications to the contrary, they were assumed to be temporary and were marked as such on the smooth sheet.

Norfolk. Va. 10 January 1963

Respectfully submitted,

Hugh L. Proffitt Cartographer

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC DATA BRANCH REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8592

FIELD NO. ECFP 10-10-60

Alabama, East Side Mobile Bay

SURVEYED: November 21, 1960 to April 17, 1961

SCALE: 1:10,000

PROJECT NO. CS-410

808 Fathometer SOUNDINGS:

CONTROL: Sextant fixes on

shore signals

EDO Depth Recorder 12' Sounding pole

Chief of Party-----Lt Cdr. J. R. Plaggmier

Lt Cdr. S. L. Hollis, Jr. Surveyed by-----R. A. Lewis

A. G. Davis

L. S. Brown

R. R. Floyd

R. I. Greene

Protracted by-----Fred Bean

Soundings Plotted by-----Fred Bean

Verified and inked by-----Frank Pavlat

Reviewed by------Dennis J. Romesburg

Inspected by-----R. H. Carstens

Date 5/8/67

Description of the Area

This survey covers the northeastern part of Mobile Bay from Fairhope to Village Point. The bottom is relatively flat except for numerous depressions caused by shell dredging, and is covered with soft grey mud. The 7 to 13-ft. depths in the northeast quarter of the survey mark the outer limits of the Blakeley River channel. Alongshore flats covered by 1-3 feet of water extend offshore from .1 to .5 of a mile.

2. Control and Shoreline

The origin of the control is given in the Descriptive Report.

The shoreline originates with reviewed photogrammetric surveys T-10982, T-10983 and T-10984 of 1957-65. General stake area indications were not transferred from the topographic surveys where stakes by the hydrographer were shown.

3. Hydrography

Sounding line crossings are in good agreement.

The depth curves are adequately delineated except for a section of the 3-foot curve discussed in paragraph 4.

The development of the bottom configuration is satisfactory, except in some inshore areas where a line close and parallel to the high-water line would have been desirable.

There were no features within the survey limits which warranted specific investigation for least depths.

4. Condition of the Survey

- a. A segment of the 3-foot curve from latitude 30°35.92 to latitude 30°37.10 was inadequately developed and has been shown from soundings carried forward from a prior survey.
- b. Only one bottom sample was taken in the inshore area of the survey.
- c. Several signals located outside the high-water line were not described as required by the Hydrographic Manual.
- d. Flood conditions on March 2, 1961, necessitated adjustment of tide reducers to eliminate crossing discrepancies.

Except as noted above, the field plotting, records, and reports are adequate and conform to the requirements of the Hydrographic Manual.

5. Junctions

Adequate junctions were effected with H-8575 (1960-61) and H-8587 (1961) on the west, with H-8574 (1960-61) on the south, and with H-8588 (1961) on the north.

6. Comparison with Prior Surveys

H-214 (1849) 1:10,000 H-227 (1850) 1:20,000 H-4024 (1918) 1:40,000 A comparison of the prior and the present surveys reveals general shoaling throughout the area of the present survey. The average shoaling over the entire survey is 1-2 feet. Minimum shoaling of 1/2 to 1 foot occurred in the western quarter of the survey, while maximum shoaling of 2-3 feet occurred along the edge of the inshore flats in the eastern quarter of the survey. The greatest change since the prior surveys was the accretion of the Blakeley River Bar by approximately 1000 meters in a southerly direction and 450 meters in a westerly direction. The alongshore flats have moved bayward an average of 75 meters. Probable cause of the shoaling of this area is the deposit of sediment from the Blakeley River.

The present survey is adequate to supersede the prior surveys in the common area.

7. Comparison with Chart 1266 (Latest Print Date 6/20/66)

A. Hydrography

The charted hydrography originates with the previously discussed survey H-2024 (1918), which requires no further consideration, supplemented by partial application of the present survey smooth sheet before verification and review.

The present survey is adequate to supersede the charted hydrography within the common area.

B. Topography

The position of the name <u>Seacliff</u> is charted incorrectly. The name is shown correctly on the smooth sheet and should be revised accordingly on the chart.

C. <u>Controlling Depths</u>

The charted controlling depth note of Fly Creek Channel is based on data furnished by the U. S. Corps of Engineers subsequent to the date of the present survey information and supersedes the present survey for charting.

D. Aids to Navigation

The aids to navigation located on the present survey are in substantial agreement with the chart and adequately mark the features intended.

8. Compliance with Instructions

The survey adequately complies with the Project Instructions.

Additional Field Work 9.

This is an adequate basic survey and no additional field work is recommended.

Marine Chart Division

Examined and Approved:

Associate Director Hydrography and Oceanography

FORM 197 (3-16-55)

20. Citide of Was **GEOGRAPHIC NAMES** TOU HOURS IN Survey No. HE-8592 K Bay E Name on Survey Blakeley River Bar Fairhope V

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8592....

Records accompanying survey:	Smooth sh	eets	1;
boat sheets . A.C.; sounding vols. 14;	wire drag	vols.	••••
Descriptive Reports; graphic rec	corder env	elopes	.9;
special reports, etc. 1-Overlay tracing	No tracing	•••••	••••
	• • • • • • • •	•••••	• • • • •
The following statistics will be submitted verapher's report on the sheet:	with the c	ertog-	
Number of positions on sheet		1900	
Number of positions checked		. 73 .••••	(a ())
Number of positions revised			(26d)
Number of soundings revised (refers to depth only)	AP	PROX 150	(261) to connect tide reducers to smooth crossline to m curves
Number of soundings erroneously spaced		NONE	<i>(</i>
Number of signals erroneously plotted or transferred		NONE.	
Topographic details	Time	32 ARS	
Junctions	Time	40hrs	
Verification of soundings from graphic record	Time	2 hrs	
Special adjustments	Time	16 hrs	
Verification by Frank Pavlal Total time	no 240hrs	Date	ranch 16,1964
Reviewed by Pannis J. Romeshing Tir	ne 7.6 ks	Date !	May 8, 1967

TIDE NOTE FOR HYDROGRAPHIC SHEET

6 4/17/**7**3

Nautical Chart Division: R. H. Carstons

Plane of reference approved in volumes of sounding records for

HYDROGRAPHIC SHEET 8592

Locality Mobile Bay, Alabama

Chief of Party: John R. Plaggmier (1960-61)

Plane of reference is Mean Low Water

2.4 ft. on tide staff at Pier 8, Mobile, Alabama

10.3 ft. below B. M. 2 (USE)(1933)

0.4 ft. on tide staff at Fowl River, Alabama 9.7 ft. below B.M. 1 (1961)

Height of mean high water above plane of reference is 1.5 feet.

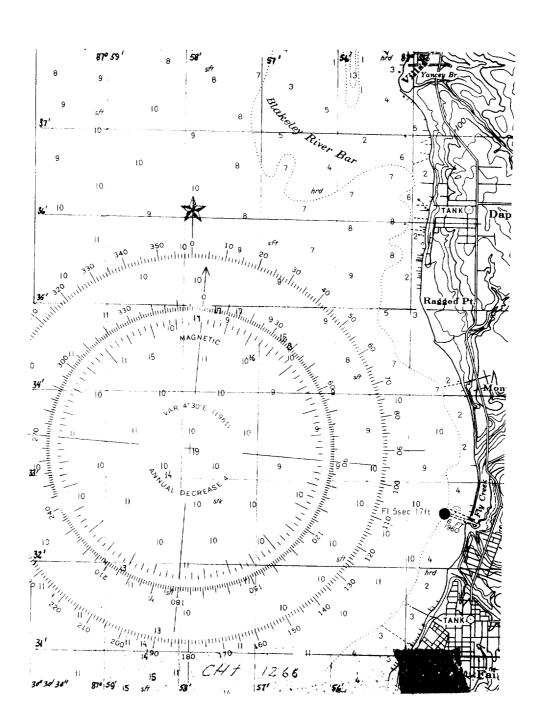
Condition of records satisfactory except as noted below:

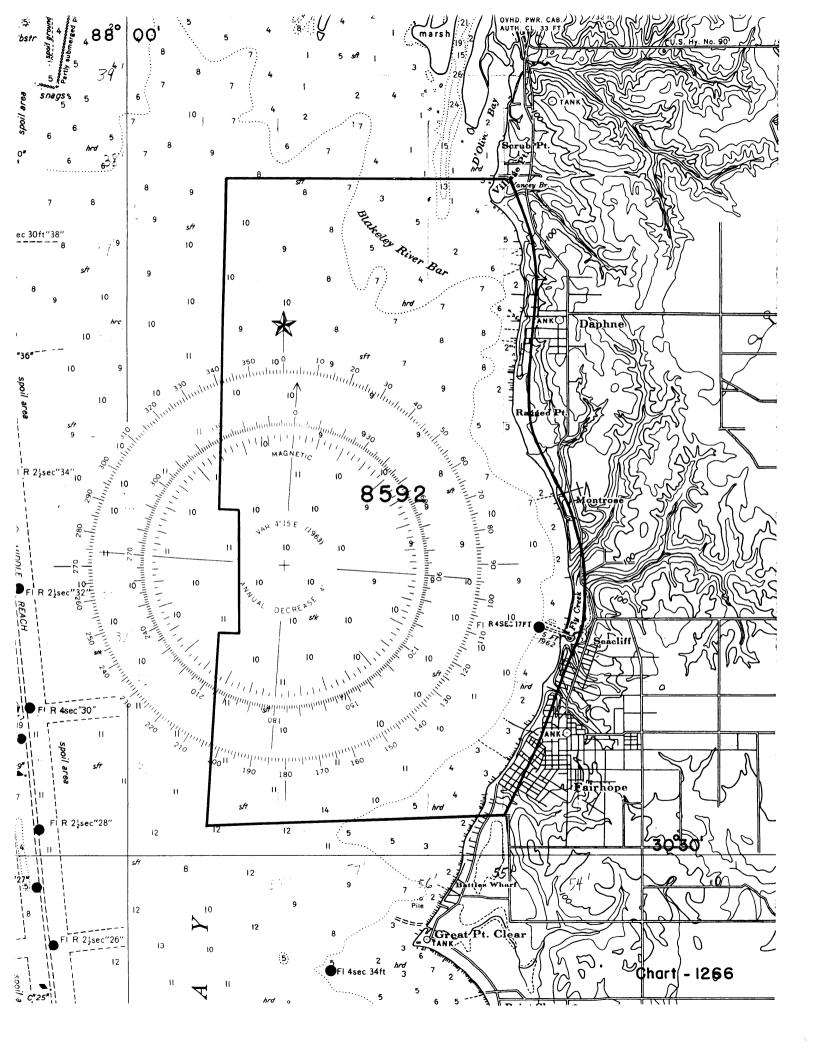
Note: Tide reducers for positions listed below have been revised in red and verified.

Vol. Position
6 IE-48E CORRECTED WITH MY READINGS F.P. - Tide reducent revised with verbal approval from Tides and Current Branch.

8 1E-39E v 9 1F-18F v

Chief, Tides and Currents Branch





NAUTICAL CHARTS BRANCH

SURVEY NO. <u>H-8592</u>

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
3/18/63	1266	J.P. Weir	Past. App. Before After Verification and Review
5-16-1973	1266	C. C. Harrington	Foll Before After Verification and Review & INSPECTION
		4	PEUISED CHRVES, SDGS, & BOTTOM CHAR.
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
,			Before After Verification and Review
_			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
			Before After Verification and Review
	3/18/63	3/18/63 1266	

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.