SHIP HYDROGRAPHER

G. C. MATTISON, COMMANDING

PROJECT H. T. 214

1939

DESCRIPTIVE REPORT

TO ACCOMPANY

INSHORE SHIP HYDROGRAPHIC SHEETS

Form 537
Ed. Dec., 1930

REG. NO. H-6494

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.

Field No. 41

REGISTER NO. H-6494

State TEXAS

General locality ~~WEST~~ GULF OF MEXICO

Locality OFF PADRE ISLAND

Scale 1:40,000 Date of survey April 26; June 2, 19 39.

Vessel HYDROGRAPHER

Chief of Party G. C. MATTISON

Surveyed by L. P. RAYNOR, E. R. McCARTHY, E. B. LEWEY, J. C. TRIBBLE JR., C. W. CLARK, J. W. STIRNI

Protracted by S. A. FELLNER

Soundings penciled by S. A. FELLNER

Soundings in ~~fathoms~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by

Inked by

Verified by

Instructions dated 2/17/37; Sup.Ins. 2/23/38; 1/9/39, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE 1932

Form 537
Ed. Dec., 1930

REG. NO. H-6495

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.

Field No. 42

REGISTER NO. H-6495

State TEXAS

General locality WEST GULF OF MEXICO

Locality OFF PADRE ISLAND

Scale 1:40,000 Date of survey June 9; August 21, 1939

Vessel HYDROGRAPHER

Chief of Party G. C. MATTISON

Surveyed by L. P. RAYNOR, E. R. McCARTHY, E. B. LENEY, J. C. TRIBBLE JR., C. W. CLARK, J. W. STIRNI

Protracted by M. J. TIMMERMAN

Soundings penciled by M. J. TIMMERMAN

Soundings in ~~fathoms~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by

Inked by J. A. Ferguson

Verified by J. A. Ferguson

Instructions dated 2/17/37; Sup. Ins. 2/23/38; 1/9/39, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE, 1932

Form 537
Ed. Dec., 1930

REG. NO. H-6496

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.

Field No. 43

REGISTER NO. H-6496

State TEXAS

General locality ~~WEST~~ GULF OF MEXICO

Locality APPROACHES TO BRAZOS SANTIAGO

Scale 1:40,000 Date of survey July 8; August 21, 19 39

Vessel HYDROGRAPHER

Chief of Party G. C. MATTISON

Surveyed by L. P. RAYNOR, E. R. McCARTHY, E. B. LEWEY, J. C. TRIBBLE JR., C. W. CLARK, J. W. STIRNI

Protracted by M. J. TIMMERMAN

Soundings penciled by M. J. TIMMERMAN

Soundings in ~~fathoms~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by

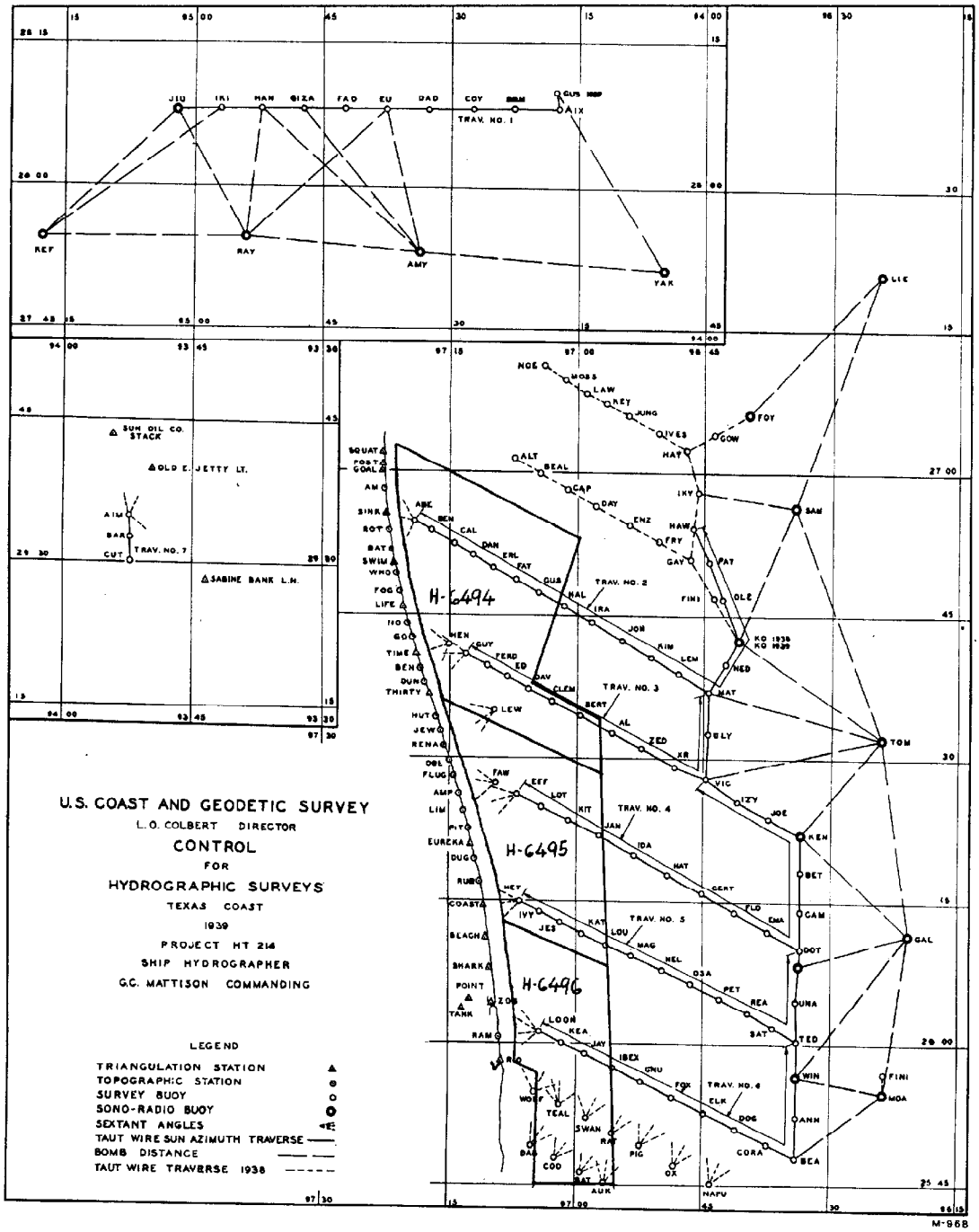
Inked by G.H.Everett

Verified by G.H.Everett

Instructions dated 2/17/37; Sup.Ins. 2/23/38; 1/9/39, 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE, 1932



U.S. COAST AND GEODETIC SURVEY

L. O. COLBERT DIRECTOR

CONTROL
FOR
HYDROGRAPHIC SURVEYS

TEXAS COAST

1939

PROJECT HT 214

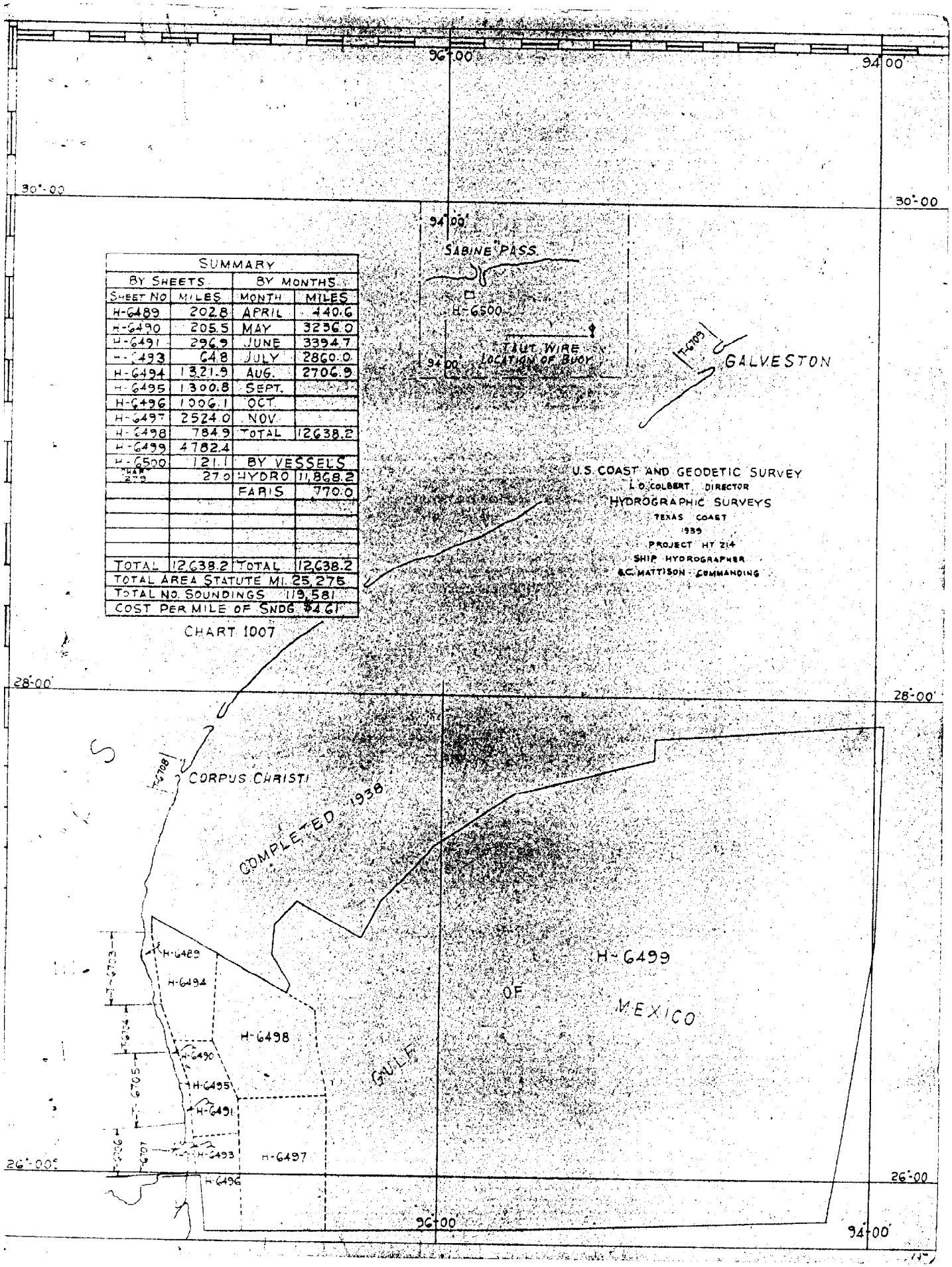
SHIP HYDROGRAPHER

G.C. MATTISON COMMANDING

LEGEND

- TRIANGULATION STATION ▲
- TOPOGRAPHIC STATION ⊙
- SURVEY BUOY ○
- SONO-RADIO BUOY ◎
- SEXTANT ANGLES ◁E
- TAUT WIRE SUN AZIMUTH TRAVERSE ——
- BOMB DISTANCE — — —
- TAUT WIRE TRAVERSE 1938 - - - - -

M-968



SUMMARY			
BY SHEETS		BY MONTHS	
SHEET NO	MILES	MONTH	MILES
H-6489	202.8	APRIL	440.6
H-6490	205.5	MAY	3236.0
H-6491	296.9	JUNE	3394.7
H-6493	64.8	JULY	2860.0
H-6494	1321.9	AUG.	2706.9
H-6495	1300.8	SEPT.	
H-6496	1006.1	OCT.	
H-6497	2524.0	NOV.	
H-6498	784.9	TOTAL	12638.2
H-6499	4782.4		
H-6500	121.1	BY VESSELS	
[illegible]	27.0	HYDRO	11,868.2
		FARIS	770.0
TOTAL	12638.2	TOTAL	12638.2
TOTAL AREA STATUTE MI. 25,275			
TOTAL NO. SOUNDINGS 119,581			
COST PER MILE OF SNDG. $4.61			

NOTES BY CHIEF OF PARTY

The field work on these sheets was done under the immediate supervision of the Chief of Party. The smooth sheet plotting was done in the Pensacola processing office under the supervision of junior officers attached to that office. All records and sheets have been examined and are approved.

Attention is called to the depth curves drawn on the boat sheets, which show a formation that is entirely missed when the usual curves are placed on the smooth sheets. As the soundings are close enough spaced to draw the depth curves without a great deal of difficulty, it is recommended that enough depth curves be placed on the chart to delineate this very interesting delta-like formation.

Bottom samples obtained in the areas covered by these sheets have been forwarded to the Houston Geological Society, and information will probably be available at some future date which may throw some light on the structure of this delta.

G. C. Mattison

G. C. Mattison,
Lt. Cdr., C. & G. S.,
Chief of Party.

SHIP HYDROGRAPHER G. C. MATTISON, COMMANDING

PROJECT H. T. 214

1 9 3 9

DESCRIPTIVE REPORT

TO ACCOMPANY

INSHORE SHIP HYDROGRAPHIC SHEETS

Register Number	Field Number	Scale	Locality See Index Sheet	Positions Plotted by	Soundings Plotted by
H-6494	41	1:40,000	Off Padre Island	S.A.Fellner	S.A.Fellner
H-6495	42	1:40,000	Off Padre Island	M. J. Timmerman	M. J. Timmerman
H-6496	43	1:40,000	Approaches to Brazos Santiago	M. J. Timmerman	M. J. Timmerman

GENERAL STATEMENT

These three sheets cover the inshore work by the ship from the southern limits of the 1938 work to the border of Chart #1117, the southern limits of the project. The main body of this report covers the general characteristics of all sheets, while differences are explained in supplemental notes for each sheet.

Two index sheets accompany this report, one showing the area sounded on each sheet, and the other, the scheme of buoys used.

INSTRUCTIONS

The original instructions for Project H. T. 214 were dated February 17, 1937. Supplemental instructions applying to these sheets were dated February 23, 1938 and January 9, 1939.

SURVEY METHODS

1. Control. The control was based on triangulation done by P. L. Bernstein in 1939. The field positions were used for plotting.

All shore signals were built and located by the party on the launch FARIS. Aluminum control sheets were used for locating signals. Tall signals were not necessary as the ship work extended comparatively close to shore.

The usual procedure was followed in establishing buoy control. Rows of buoys extended offshore to the 30 fathom curve, the inshore buoys being controlled in position by angles on shore objects.

The rows of buoys extended offshore on a bearing of approximately 120°, This permitted the lines to cross the depth curves at an approximate angle of 45° as called for in the supplemental instructions.

All buoys were located by taut-wire-sun azimuth traverse loops, except on the southern portion of sheet H-6496. In order to complete the triangular area off the Mexican Coast, and beyond the southern limit of shore control, two rows of buoys were established and located by sextant angles based on the southernmost row of buoys located by taut wire-sun azimuth.

A report has been prepared and will be submitted on the methods used in establishing buoy control.

2. Sounding Methods. Sounding lines were in general run parallel to the rows of buoys, and most of the positions were located by three point sextant fixes on buoys or shore objects. Occasional positions were located by a single angle and gyro bearing when only two objects were visible. Usually when running lines to the easterly limits of the sheets, the lines were continued to the 1:80,000 sheets, shifting sheets whenever the limits were reached. This meant a little trouble changing forth and back between sheets and records, but eliminated considerable mileage between lines, if an attempt had been made to limit the work to the individual sheet. It also simplified the question of junction between adjoining sheets of different scales.

All work was done in accordance with instructions.

3. Soundings. Almost all soundings were made with the new fathometer installed just before the season started. Some trouble

was experienced at first with the fathometers, and some work on sheet H-6494 was done with the hand-lead or sounding machine. Except for this early adjustment period, the fathometers operated satisfactorily for the remainder of the work.

4. Fathometer Corrections. A separate report has been prepared on the fathometer corrections for the season. Two corrections were entered in the volume, the first combined the temperature and salinity, the second, the index, draft and settlement. All reducers were entered in tenths of feet.

5. Cross Lines. Cross lines were run in accordance with instructions. In general the crossings were very good. Whenever differences occurred, they were noted in the report on the individual sheets.

6. Tide Reducers. A tide gauge was maintained at Brazos Santiago Jetty and used for reducing most of the soundings on these sheets. The gauge was discontinued a few days before the close of the season, and on these days and other times when the gauge failed, the gauge at Galveston was used with a correction of plus fifty percent. The reducers at Brazos Santiago Jetty were scaled directly from the marigrams, while tide curves were drawn for Galveston from the hourly heights. These curves are included in the report. It was evident from a study of simultaneous records, that a fifty percent correction should be made to the Galveston readings to conform with those at Brazos Santiago Jetty. A copy of the letter from the Director regarding the use of Galveston tides is attached to this report.

The plane of reference was mean low water at Brazos Santiago Jetty or Galveston.

7. Bottom Characteristics. Samples from the bottom were obtained from buoy anchors, at various ship anchorages and in the vicinity of shoal areas.

Dangers

No dangerous shoals were found.

Channels

No channels fall within the limts of the hydrography on these sheets.

Anchorages

No sheltered anchorages fall within the limits of these sheets. The ship anchored in various localities and found no difference in the holding qualities of the bottom.

Bottom Configuration

The somewhat regular character of the bottom in the northwest Gulf was changed in the vicinity of these sheets. On the two northerly sheets, the inshore areas were broken up by a delta like formation, possibly part of the old delta of the Rio Grande. The vicinity of Sebree Bank was quite irregular and required considerable development. A similar area near the center of Sheet H-6494 was developed closely.

A special report on these irregularities is being prepared and will be forwarded later. Further remarks will be found in the subject matter pertaining to the individual sheets.

COMPARISON WITH PREVIOUS SURVEYS

It is recommended that all previous surveys and charted soundings be disregarded as they were apparently poorly located, as it is evident the earlier surveys were in the nature reconnaissances.

G. C. Mattison,
Commanding HYDROGRAPHER.

E. R. McCarthy
Jr. U. S. C. & G. Eng'r C&GS

SHEET H-6494

FIELD NO. 41

This sheet was the first inshore sheet of the season, and while the work was in progress, the new fathometers were being adjusted. As this was also the first sheet to show such irregular bottom along the Texas Coast, there was a natural tendency to doubt the fathometer soundings in many cases. However, very few fathometer soundings were rejected and it is believed that the sheet as submitted is an accurate survey. In some cases of fathometer trouble, it was necessary to use the hand lead or sounding machine in order to carry on hydrography. The hand lead was used to disprove erroneous fathometer soundings recorded between positions 52c and 53c. Lat. 26°48.6' Long. 97°09.8'

It is believed that two erroneous soundings were recorded on "Q" day between positions 11 and 12. A buoy was later planted in the vicinity and the area was well developed. The 62 foot sounding which had not been O.K.'ed by the recorder at the time was disproved, and no indication of shoal water was found in the vicinity of the 69 foot sounding which had been O.K.'ed by the recorder. The latter sounding was left on the sheet because of the recorder's certainty, but the 62 foot sounding was rejected. It is very probable that the 69 foot sounding was also a stray and should be rejected. Lat. 26°35.6' Long. 97°09.1' 62 rejected. 69 retained.

A 59 foot sounding occurring between positions 92 and 93, "P" day, was rejected, as it was not O.K.'ed by the recorder and it is very probable that it should have been read 11 - 0-1/2 instead of 10 - 0-1/2 . This was overlooked by all concerned at the time, and was plotted on the boat sheet at the greater depth. It was not noted until the smooth sheet was verified. Lat. 26°45.8' Long. 97°13.7' Rejection sustained.

Owing to the poor visibility early in the season, it was sometimes necessary to use a single angle and gyro bearing instead of the usual three point fix. These gyro bearings were not always reliable and it was necessary in plotting, to consider time and angle and accept only those gyro bearings which checked with three point fixes, and time on course.

Although the bottom was very irregular in some areas on the sheet, no shoals were found that would be considered a menace to navigation. In the approximate center of the sheet, indications of a shallow valley were found with numerous coral heads and other lumps in the valley. Many of these rose ten feet above the valley floor. No coral heads noted in records. Deeper soundings not plotted in close development.

The inshore end of the south half of the sheet was very irregular due to a submerged delta-like formation extending in a direction varying from north-northeast to northeast. In general, this formation consists of sand and gravel with shells.

All irregular areas were developed sufficiently to obtain the least depth.

All crosslines checked very closely, the majority of soundings being within one foot. A few crosslines differed by two feet, but this was in areas where the bottom was not regular. In general, the launch lead-line soundings on adjoining inshore sheets were deeper than the fathometer soundings. This seems to be the usual experience when the two types of sounding lines cross.

Statistics:	1,321.9	Statute Miles
	14,629	Soundings
	1,978	Positions
	465	Square Statute Miles.

SHEET H-6495

FIELD NO. 42

This sheet has more irregular bottom than any other 1:40,000 sheet on Project H. T. 214. The delta like formation inside the eleven fathom curve, and the ridges and coral heads outside that curve are unusual for the Texas Coast. All irregularities were thoroughly developed, and it is believed that the sheet gives an accurate picture of bottom conditions. There were no shoals found that are a danger to navigation.

coral on Sebree Bank only See shoals 2 below

Shoals:

1. Area south of Latitude 26°- 31' and inside of the 11 fathom curve is irregular and there are frequent differences of 4-5' in adjacent soundings. Lines were split and area developed.

2. Chart shows Sebree bank in Latitude 26° - 25.1', Longitude 96°- 59.9' with a least depth of 91' and 100' 0.3 mile NW'ly. The following depths were obtained in the locality:

Sebree Bank Least depth 96' No bottom char. taken on 96' sdgs.

Latitude	Longitude	Depth	
26 - 26.2'	97 - 01.0	96'	- 98' 0.3 mile E'ly
25.~~3~~1	59.~~6~~7	100' Co	- several 101' in nvicinity
24.9	59.5	100'	
24.5	59.2	101'	
24.2	58.3	106'	
24.~~6~~1	58.0 ~~57.8~~	108'	
24.7	58.0	110'	
24.~~3~~4	57.7	110'	

location of coral 26-25.1 96-59.7 / 26-24.7 96-59.2

The area was extensively developed and several vertical casts made. Bottom is coral over the least depth.

3. In Latitude 26-25.2, Longitude 97-07.0 found 49' sand and shell in general depths of 60'.

4. Latitude 26-21.0, Longitude 97-03.2 south to Latitude 26-12.5, Longitude 97-04.7 found general depths of 65' on north and 67-8' on south with least of 55' in Latitude 26-14.8, Longitude 97-04.2. Several instances of 3-4' difference on adjacent soundings.

5. Latitude 26-19.0, Longitude 97-05.8 to Latitude 26-13.5, Longitude 97-06.7. Depths but 1-2' less than general depths and ridge not as well defined as the ridge above. Least 56' in several places.

1-2' ridge inside 60' depth curve. Shoaler sdgs on lines transverse to ridge

6. Ridge Latitude 26-13.0, Longitude 96-58.2 south to Latitude 26-10.5, Longitude 96-58.8, 88' least in central section. General depths 93-4'.

Soundings which were questioned in the record were omitted from the sheet and should be ~~reported~~ rejected. They occur between 2-3 "F" day and 65-66 "L" day.

Crossings all were satisfactory, as were junctions with adjoining sheets. In some cases the launch soundings on the inshore sheets differed by two feet or more, and were invariably deeper. However, this may be accounted for by a slight error in location of the inshore turns of the ship, irregular bottom, or a slight slope in the hand-lead line.

In cases where a single angle and bearing took the place of a three point fix, the bearing was not always considered accurate, and greater weight was given to the observed angle and time on course.

Owing to the irregular bottom, soundings were often read between thirty second intervals. As all these soundings could not be plotted, those omitted have been noted with a red asterisk in the record. In all cases, critical soundings were put on the sheet.

The number three fathometer was working satisfactorily on this sheet, and was the only fathometer used.

Statistics:	1,290.8	Statute Miles
	14,879	Soundings
	1,809	Positions
	505	Square statute miles.

SHEET H-6496

FIELD NO. 43

This sheet has the smoothest bottom conditions of the three sheets enumerated in this report. There are no important shoals, and the few found represent only a slight rise from the general depth.

The two southernmost rows of buoys on this sheet were located by sextant angles observed at the individual buoys on the next row of buoys to the north.

The fathometer was operating satisfactorily on this sheet, the only difficulty occurring when multiple echos gave erroneous soundings. These cases are covered by notes in the record.

Gyro bearings were not always considered accurate in plotting fixes, and were used only as a possible check.

Cross lines checked usually within one foot, and only occasionally was there a two foot difference. Launch lines on the inshore sheet were generally deeper, usually about two feet. It is believed that this was probably due to a sloping leadline.

Statistics:

1,006.1	Statute Miles
10,604	Soundings
1,472	Positions

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

Refer to: 32-FLM

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

WASHINGTON

April 19, 1939

To: The Commanding Officer,
U. S. C. & G. S. Ship HYDROGRAPHER,
Box 565,
Galveston, Texas.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Predicted tide curve.

In compliance with the request in your letter of April 11, there is being transmitted to you under separate cover a roll of the predicted tide curve for Galveston which has been adapted to the locality off the coast of Padre Island, Texas.

It is estimated that the tide in the locality of the working grounds occurs about one hour earlier than at Galveston, while the range is about 50% greater. You will observe on the curve that the beginning of each day is the first single downward jog to the right of the double jog. The height scale drawn on the roll will take account of the fifty percent increase in range.

(Signed) N. H. Heck,

Acting Director

FATHOMETER CORRECTIONS

SHEETS 41-2-3

T and S in feet	April 24 to May 4		May 8-18		May 22 to June 2		June 6-16		June 20 to July 1		July 6-16		July 18-29 Aug. 11		Aug. 16-26	
	fm.	ft.	fm.	ft.	fm.	ft.	fm.	ft.	fm.	ft.	fm.	ft.	fm.	ft.	fm.	ft.
0.1	3	3	2	1	3	2	2	5	3	0	3	0	3	0	3	0
0.2	4	4	3	2	3	5	3	4	3	4	3	4	3	4	3	4
0.3	5	5	4	3	4	3	4	1	4	2	4	2	4	3	4	2
0.4	6	5	5	3	5	1	5	0	5	0	5	1	5	2	5	1
0.5	7	5	6	3	5	5	5	5	5	4	6	0	6	0	6	0
0.6	9	0	7	3	6	3	6	2	6	2	6	5	6	5	6	4
0.7	10	0	8	2	7	0	7	0	7	0	7	3	7	4	7	3
0.8	11	1	9	2	7	4	7	4	7	4	8	1	8	2	8	3
0.9	12	2	10	2	8	2	8	2	8	1	9	0	9	1	9	3
1.0	13	5	11	2	9	1	9	0	8	5	9	5	10	0	10	2
1.1	15	0	12	1	9	5	9	4	9	3	10	4	11	0	11	1
1.2	16	1	13	1	10	3	10	2	10	2	11	4	11	5	12	1
1.3	17	4	14	1	11	2	11	0	11	0	12	1	12	4	13	0
1.4	19	1	15	1	12	1	11	5	11	4	13	1	13	4	14	0
1.5	20	4	16	0	12	5	12	3	12	2	14	0	14	5	15	0
1.6	22	0	17	0	13	2	13	1	13	1	15	0	15	5	16	0
1.7	23.	1	17	5	14	4	14	0	14	0	16	0	16	5	16	5
1.8	24	4	18	5	15	0	14	5	14	4	16	5	17	5	17	5
1.9	26	0	19	5	15	5	15	4	15	3	17	4	18	5	18	5
2.0	27	3	20	5	16	4	16	3	16	1	18	4	19	5	19	5
2.1	29	0	21	4	17	3	17	2	17	1	19	4	20	5	20	4
2.2	30	1	22	4	18	3	18	2	18	0	20	3	21	5	21	4
2.3	31	2	23	3	19	2	19	2	18	4	21	3	23	0	22	4
2.4					20	1	20	2	19	4	22	3	24	0	23	4
2.5					20	5	21	3	20	3	25	2	27	1	24	4
2.6					21	4	22	3	21	2					25	4
2.7					22	3	23	2	22	1					26	4
2.8					23	3	24	2	23	1					27	4
2.9					24	3			24	1					28	5
3.0							31	5	29	2	29	1	32	0		

INDEX*DRAFT*SETTLEMENT CORRECTIONS

SHEETS 41-42-43.

6494-5&C

Computation of corrections may be found in the Report of Temperatures and Salinities submitted with the 1939 records. Abstract below is for convenience.

Sheet #41 (6494)			Sheet #43 (6496)			Sheet #42 (6495)		
Date	Day	Corrn	Date	Day	Corrn	Date	Day	Corrn
4-26	A	1-5.8	7-8	A	-0.9'	6-9	A	-0.9'
27	B	1-5.7	9	B	-1.0'	10	B	-1.0'
28	C	1-5.6	10	C	-1.0'	12	C	-1.1'
29	D	1-5.5	11	D	-1.1'	14	D	-1.3'
30	E	1-5.4	22	E	-0.7'	15	E	-1.4'
5- 1	F	1-5.4	23	F	-0.8'	22	F	-0.7'
2	G	1-5.3	24	G	-0.9'	23	G	-0.8'
10	H	-0.9'	25	H	-1.0'	24	H	-0.8'
30	J	-0.9'	26	J	-1.0'	2 5	J	-0.9'
31	K	-1.0'	27	K	-1.1'	26	K	-1.0'
6- 8	L	-0.9'	28	L	-1.2'	27	L	-1.1'
9	M	-0.9'	8-11	M	-1.6'	28	M	-1.1'
10	N	-1.0'	19	N	-0.8'	7-11	N	-1.1'
11	P	-1.1'	20	P	-0.9'	12	P	-1.2'
12	Q	-1.1'	21	Q	-1.0'	13	Q	-1.2'
13	R	-1.2'				14	R	-1.3'
27	S	-1.1'				22	S	-0.7'
						23	T	-0.8'
						24	U	-0.9'
						8-21	V	-1.0'

Note that the corrections on A-G Days Sheet 41 (6494) are for Dorsey II Fathometer and are given ein fathoms and feet. All other corrections are for the Dorsey III Fathomet er and are given in feet.

BUOYS

BUOY NAME	Latitude			Longitude			Method of Location
	o	'	M	o	'	M	
ABE	26	54	1686	97	19	354	Sextant angles - graphic
AIM	26	34	1262	93	52	508	" " computed
AIX	28	06	120	94	17	699	T.W. Traverse No. 1
AL	26	32	1244	96	55	1569	" " No. 5
ALT	27	01	756	97	07	674	" " 1938
AMY	27	—	—	94	—	—	Bomb distance - graphic
ANN	25	52	25	96	53	1597	T. W. Traverse No. 6
AUK	25	45	580	96	56	520	Sextant angles - graphic
BAR	29	32	1027	95	52	397	T. W. Traverse No. 7
BAT	25	46	528	96	59	256	Sextant angles - graphic
BEA	25	47	1382	96	54	48	T. W. Traverse No. 6
BEAL	26	59	1583	97	04	464	" " 1938
BEN	26	53	1476	97	17	133	" " No. 2
BERT	26	34	876	96	59	800	" " No. 3
BET	26	18	148	96	35	801	" " No. 4
BAM	28	08	209	94	22	791	" " No. 1
CAL	26	52	1049	97	14	1194	" " No. 2
CAM	26	13	1496	96	35	668	" " No. 4
CAP (p)	26	58	804	97	01	139	" " 1938
CLEM	26	36	178	97	02	1374	" " No. 3
COD	25	47	1318	97	02	384	Sextant angles - graphic
CORA	25	49	71	96	37	863	T. W. Traverse No. 6
COY	28	08	181	94	27	659	" " No. 1
CUT	29	30	309	95	52	510	" " No. 7
DAB	25	49	16	97	05	198	Sextant angles - graphic
DAD	26	08	200	94	32	561	T. W. Traverse No. 1
DAN	26	51	617	97	12	496	" " No. 2
DAV	26	37	642	97	06	1065	" " No. 3
DAY	26	56	1171	96	57	1500	" " 1938
DOG	25	50	1140	96	41	453	" " No. 6
DOT	26	09	1582	96	55	959	" " No. 4
ED	26	38	1315	97	08	394	" " No. 3
EFF	26	26	524	97	06	1490	Sextant angles - graphic
ELK	26	52	587	96	44	1631	T. W. Traverse No. 6
EMA	26	12	64	96	57	579	" " No. 4
ENZ	26	54	1290	96	54	188	" " 1938
ERL	26	50	79	97	09	1172	" " No. 2
EU	28	08	140	94	37	523	" " No. 1
FAD	28	08	30	94	42	162	" " No. 1
FAT	26	48	1368	97	07	155	" " No. 2
FAW	26	27	786	97	09	694	Sextant angles - graphic
FERD	26	39	1507	97	10	926	T. W. Traverse No. 5
FINI	26	46	1264	96	43	1094	" " 1938
FINI	Located from buoy "GAL"						Bomb distances, gyro bearing, graphic
FLO	26	13	1769	96	41	229	T. W. Traverse No. 4
FOX	25	54	250	96	48	1001	" " No. 6
FOY	27	06	1402	96	39	773	" " 1938
FRY	26	52	1651	96	50	960	" " 1938

BUOYS

BUOY NAME	Latitude			longitude			Method of Location
	o	'	M	o	'	M	
GAL	26	10	1064	96	21	62	Bomb distance - graphic
GAY	26	50	1543	96	46	1056	T. W. Traverse 1958
GERT	26	15	1582	96	45	90	" " No. 4
GIZA	28	07	1606	94	47	110	" " No. 1
GNU	25	55	1420	96	52	386	" " No. 6
GOW	27	05	1779	96	43	1142	" " 1958
GUS	28	09	1674	94	17	1256	" " 1937
GUS	26	47	795	97	04	604	" " No. 2
GUY	26	40	1796	97	12	1476	Sextant angles - graphic
HAL	26	46	9	97	01	870	T. W. Traverse No. 2
HAN	28	07	1718	94	52	111	" " No. 1
HAT	26	17	1542	96	49	142	" " No. 4
HAW	26	54	356	96	46	387	" " 1958
HAY	27	02	787	96	47	152	" " 1958
HEN	26	42	204	97	15	412	Sextant angles - graphic
HET	26	14	1816	97	06	1020	" " "
IBEX	25	57	656	96	56	995	T. W. Traverse No. 6
IDA	26	19	1848	96	53	205	" " No. 4
IKI	28	07	1609	94	57	93	" " No. 1
IKY	26	57	1468	96	45	1344	" " 1958
IRA	26	44	730	96	58	523	" " No. 2
IVES	27	04	1000	96	50	1382	" " 1958
IVY	26	15	1507	97	04	412	" " No. 5
IZY	26	05	1004	96	41	48	" " No. 4
JAN	26	21	1500	96	57	291	" " No. 4
JAY	25	58	1402	96	59	1215	" " No. 6
JES	26	12	1405	97	01	1523	" " No. 5
JIU	28	07	1606	96	01	1515	" " No. 1
JOE	26	28	1278	96	37	239	" " No. 4
JON	26	42	987	96	54	1396	" " No. 2
JUNG	27	05	1775	96	53	1157	" " 1958
KAT	26	11	1212	96	59	220	" " No. 5
KEA	26	00	38	97	01	1072	" " No. 6
KEF	27	—	—	96	—	—	Bomb distance & graphic
KEN	26	22	45	96	53	366	T. W. Traverse No. 4
KEY	27	07	824	96	56	581	" " 1958
KIM	26	40	1313	96	51	660	" " No. 2
KIT	26	23	963	97	00	1367	" " No. 4
KO	26	42	860	96	40	1081	" " 1958
KO	26	42	896	96	40	1001	" " No. 2
LAW	27	06	1108	96	58	1577	" " 1958
LEM	26	38	1790	96	47	1540	" " No. 2
LEW	26	55	994	97	09	276	Sextant angles - graphic
LIE	27	—	—	96	—	—	Bomb distance - soundings graphic
LOON	26	01	262	97	04	456	Sextant angles - graphic
LOT	26	24	1743	97	03	1506	T. W. Traverse No. 4
LOU	26	10	771	96	56	799	" " No. 5
MAG	26	09	307	96	53	884	" " No. 5
MAT	26	37	231	96	44	1045	" " No. 2

BUOYS

BUOY NAME	Latitude			Longitude			Method of Location
	o	'	M	o	'	M	
MOA	25	54	662	96	25	1276	Bomb distance - graphic
MOSS	27	09	1786	97	01	1317	T. W. Traverse 1938
NAPU	25	—	—	96			Sextant angles - graphic
NED	26	40	188	96	42	498	T. W. Traverse No. 2
NEL	26	07	1167	96	49	1418	" " No. 5
NOE	27	11	386	97	04	140	" " 1938
OLE	26	46	1217	96	42	1052	" " No. 2
OSA	26	06	276	96	46	623	" " No. 5
OX	25	48	1422	96	46	289	Sextant angles - graphic
PAT	26	50	1116	96	44	690	T. W. Traverse No. 2
PET	26	04	1206	96	45	38	" " No. 5
PIG	25	48	976	96	52	28	Sextant angles - graphic
RAT	25	50	480	96	55	751	" " "
RAY	27	—	—	94	—	—	Bomb distances - graphic
REA	26	05	271	96	39	1382	T. W. Traverse No.5
SAM	26	56	522	96	34	456	Bomb distances - graphic
SAT	26	01	1158	96	36	1578	T. W. Traverse No. 5
SWAN	25	51	1594	96	58	1220	Sextant angles - graphic
TEAL	25	53	442	97	01	1511	" " "
TED	26	00	269	96	35	1490	T. W. Traverse No. 5
TOM	26	51	1746	96	24	61	Bomb distances - graphic
ULY	26	52	779	96	44	1048	T. W. Traverse No. 3
UNA	26	04	740	96	33	1577	" " No. 5
VI	26	06	118	96	33	1206	" " No. 5
VIC	26	27	1299	96	44	1184	" " No. 3
WIN	25	56	291	96	33	1549	" " No. 6
WOLF	25	54	1104	97	04	1320	Sextant angles - graphic
XR	26	28	1840	96	48	709	T. W. Traverse No. 3
YAK	27	51	1200	94	04	1594	Bomb distance - graphic
ZED	26	30	1488	96	52	536	T. W. Traverse No. 3

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6494

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

Number of positions on sheet	1978
Number of positions checked	15
Number of positions revised	4
Number of soundings recorded	14629
Number of soundings revised	2
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0

Date: July 31, 1940.

Verification by } J.A. McCormick Time: 67 hrs.

Review by } J.A. McCormick Time: 4 hrs.

2629

HYDROGRAPHIC SURVEY NO. H6494

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 7 Vols., Wire Drag ___ Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) No

Statistics ~~No~~ Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) --

Special Chart for Lighthouse Service No
(Circular Nov.30, 1933)

Hydrography: Total Days 17 ; Last Date June 27, 1939

Remarks

3776

	Remarks	Decisions
1		268973
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M 234		

GEOGRAPHIC NAMES

Survey No.

H6494

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Padre Island										1
Gulf of Mexico										2
										3
		Names [illegible]								4
		by L. Heck		on 8/2/40						5
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M 234 VR

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6495

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

Number of positions on sheet	1809
Number of positions checked	84
Number of positions revised	2
Number of soundings recorded	14879
Number of soundings revised	6
Number of soundings erroneously spaced	0
Number of signals erroneously plotted or transferred	0

Date: Nov. 29, 1940

Verification by J. A. Ferguson Time: 127 hrs.

Review by G. H. Everett Time: 27 hrs

2629

HYDROGRAPHIC SURVEY NO. H6495

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 7 Vols., Wire Drag ___ Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals Yes

Landmarks for Charts (Form 567) No

Statistics ~~No~~ Yes

Approved by Chief of Party No

Recoverable Station Cards (Form 524) —

Special Chart for Lighthouse Service No
(Circular Nov.30, 1933)

Hydrography: Total Days 19 ; Last Date August 21, 1939

Remarks

2776

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H 6495

Verified and Inked by J. A. Ferguson Date 11/29/40

✓1. The descriptive report was consulted and appropriate action taken.

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

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

✓4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering.

✓5. All items effecting 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.

✓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. No shoreline

16. All junctions were transferred except H6497 which has not been verified yet.

✓17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered.

✓18. The depth curves have been drawn to include the significant depths.

✓19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party.

✓20. Heights of rocks were checked against range of tide. No rocks.

✓21. Rocks transferred from topographic survey have a dotted curve where shown thereon.

✓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 (see letter of October 20, 1934).

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

✓26. Source of shoreline and signals (When not given in report).

Sounding Vol. 1 T-6704 b (1939)
T-6705 a, b (1939)
T 6706 a (1939)

✓27. Depth curves were satisfactory ~~except as follows~~:

28. Sounding line crossings were satisfactory ~~except as follows~~:

29. Junctions with contemporary surveys were satisfactory, ~~except as follows~~:

30. Condition of sounding records was satisfactory, ~~except as follows~~:

31. The protracting was satisfactory except as follows:

Positions 15A and 162G

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

33. Notes to reviewer:

	Remarks	Decisions
1		
2	Added 11/27/48	
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M 234		

GEOGRAPHIC NAMES

Survey No.
H6495

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	
Padre Lsland										1
Sebree Bank										2
										3
	L.	Heck	on 10/15/40							4
		"	10/28/48							5
										6
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M 234

Field Records Section (Charts)

HYDROGRAPHIC SHEET NO. H6496

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

Number of positions on sheet	1472.
Number of positions checked	23
Number of positions revised	—
Number of soundings recorded	10604
Number of soundings revised	4
Number of soundings erroneously spaced	—
Number of signals erroneously plotted or transferred	—

Date: Oct. 8, 1940

Verification by G.H. Everett Time: 53½ hrs

Review by J.A. McCormick 10/9/40 Time: 7½ hrs.

2629

VERIFIER'S REPORT OF HYDROGRAPHIC SURVEY NO. H 6496 (1939)

Verified and Inked by G.H.Everett Date Oct. 8 1940

1. The descriptive report was consulted and appropriate action taken. ✓

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

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

4. Geographic names of hydrographic features are in slanting lettering and of topographic features in vertical lettering. ✓

5. All items effecting 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. ✓

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.
No outstanding shoals ✓

14. The reduction and plotting of doubtful soundings were checked. ✓
4 soundings reduced wrong in field ✓

M-996

15. The transfer of contemporary topographic information was carefully examined. *No transfer made as this survey is offshore.* ✓

16. All junctions were transferred. *Junctions with H6495 to north and H6497 to east have not been made pending verification of these surveys.* ✓

17. The notation "JOINS H " was added for all contemporary adjoining or overlapping sheets now registered. ✓

18. The depth curves have been drawn to include the significant depths. ✓

19. All triangulation stations and transfer of topographic and hydrographic signals were checked by the field party. ✓

20. Heights of rocks were checked against range of tide. *No rocks* ✓

21. Rocks transferred from topographic survey have a dotted curve where shown thereon. ✓

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 (see letter of October 20, 1934). ✓

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

26. Source of ~~shoreline~~ and signals (When not given in report).
Listed in Vol. I (cover sheet) T-6706, T-6705.

27. Depth curves were satisfactory ~~except as follows~~:

28. Sounding line crossings were satisfactory ~~except as follows:~~

29. Junctions with contemporary surveys were satisfactory. ~~except as follows:~~ Inshore surveys are generally 1 ~~to 2~~ foot deeper at junction probably due to hand lead vs. fathometer soundings.

30. Condition of sounding records was satisfactory ~~except as follows:~~

31. The protracting was satisfactory ~~except as follows~~:

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

33. Notes to reviewer:

HYDROGRAPHIC SURVEY NO H6496

Smooth Sheet Yes

Boat Sheet Yes

Records; Sounding 5 Vols., Wire Drag ___ Vols., Bomb ___ Vols.

Descriptive Report Yes

Title Sheet Yes

List of Signals ~~xNx~~ Yes

Landmarks for Charts (Form 567) NO

Statistics No Yes

Approved by Chief of Party Yes

Recoverable Station Cards (Form 524) --

Special Chart for Lighthouse Service No
(Circular Nov.30, 1933)

Hydrography: Total Days 15 ; Last Date Aug. 21, 1939

Remarks

3776

	Remarks	Decisions
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GEOGRAPHIC NAMES

Survey No.

H6496

Name on Survey	On Chart No. A,	On previous survey No. B,	On U. S. quadrangle Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Brazos Island										1
Brazos Santiago										2
Padre Island										3
										4
	Names underlined in red approved									5
	by L. Heck on 10/15/40									6
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FORM M-238

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
PHOTOSTAT OF

No. H6494, 6495, 6496
~~No. I~~

received May 22, 1940
registered May 25, 1940
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
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RETURN TO

82	T. B. Reed

RAC
ARP

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 31, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 6494

Locality West Gulf of Mexico, off Padre Island, Texas.

Chief of Party: G. C. Mattison in 1939
Plane of reference is mean low water reading
1.6 ft. on tide staff at Brazos Santiago North Jetty
6.1 ft. below B.M. 1

Height of mean high water above plane of reference is 1.1 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

LAC
RHE

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 31, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Tide Reducers are approved in
7 volumes of sounding records for

HYDROGRAPHIC SHEET 6495

Locality West Gulf of Mexico, off Padre Island, Texas

Chief of Party: G. C. Mattison in 1939
Plane of reference is mean low water reading
1.6 ft. on tide staff at Brazos Santiago Jetty
6.1 ft. below B.M. 1

Height of mean high water above plane of reference is 1.1 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

RAC
NRC

Form 712
DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
Ed. Feb. 1935

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 31, 1940

Division of Hydrography and Topography:

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Tide Reducers are approved in
5 volumes of sounding records for

HYDROGRAPHIC SHEET 6496

Locality Gulf of Mexico, App. to Brazos Santiago, Texas.

Chief of Party: G. C. Mattison in 1939
Plane of reference is mean low water reading
1.6 ft. on tide staff at Brazos Santiago Jetty
6.1 ft. below B.M. 1

Height of mean high water above plane of reference is 1.1 feet.

Condition of records satisfactory except as noted below:

Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6494 (1939) FIELD NO. 41

Texas, Gulf of Mexico, Off Padre Island
Surveyed in April - June 1939, Scale 1:40,000
Instructions dated February 17, 1937; February 23, 1938;
January 9, 1939 (HYDROGRAPHER)

Soundings:
Dorsey I and III Fathometers; Hand Lead; Machine.

Control:
Three point fixes and bearings on shore signals and buoys.

Chief of Party - G. C. Mattison.
Surveyed by - Officers on Ship HYDROGRAPHER.
Protracted by - S. A. Fellner.
Soundings plotted by - S. A. Fellner.
Verified and inked by - J. A. McCormick.
Reviewed by - J. A. McCormick, July 31, 1940.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

As this is an offshore survey, shoreline has been omitted. Topographic signals are from T-6703 and T-6704 of 1939. Buoy signals were located by taut-wire, sun-azimuth traverse.

2. Depth Curves.

Satisfactory.

3. Sounding Line Crossings.

Satisfactory.

4. Junctions with Contemporary Surveys.

Junctions with H-6397 (1938) on the northwest and with H-6403 (1938) on the north are good. Junctions with H-6489 and H-6490 of 1939 on the west, H-6495 (1939) on the south and H-6498 (1939) on the east will be considered in the reviews of those surveys.

5. Comparison with Prior Surveys.

H-1484b (1881) 1:40,000; H-1485a (1881) 1:40,000.

These surveys combine to cover most of the area included in the present survey. Soundings on the old surveys are at intervals of from 300 to 1000 meters on lines averaging about 5 miles apart. Differences in depth between old and new surveys seldom exceed 5 feet and in general

the agreement can be considered good. The present survey is adequate without retention of any material on the old surveys and supersedes the latter in the common area.

6. Comparison with Chart 1287 (New Print of Feb. 4, 1935). Chart 1288 (New Print of Nov. 3, 1939).

Depths charted in the area covered by the present survey are from surveys discussed in the preceding paragraph.

7. Condition of Survey.

Satisfactory.

8. Compliance with Instructions for the Project.

Satisfactory.

9. Additional Field Work Recommended.

None.

10. Superseded Surveys.

H-1484b in part
H-1485a in part

Examined and approved:

T. B. Reed,
Chief, Section of Field Records.

Chief, Division of Charts.

Chief, Section of FieldWork.

Chief, Division of H. & T.

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6495 (1939) FIELD NO. 42

Texas, Gulf of Mexico, Off Padre Island
Surveyed in June - August 1939, Scale 1:40,000
Instructions dated 2-17-37; Sup. Ins. 2-23-38; 1-9-39
(HYDROGRAPHER)

Soundings:
Dorsey Fathometer No. III

Control:
Three-point fixes on shore signals and buoys

Chief of Party - G. C. Mattison
Surveyed by - Officers of the Ship HYDROGRAPHER
Protracted by - M. J. Timmerman
Soundings plotted by - M. J. Timmerman
Verified and inked by - J. A. Ferguson
Reviewed by - G. H. Everett
Inspected by - H. R. Edmonston

1. Shoreline and Signals

   a. As this is an offshore survey, the shoreline has not been shown. Topographic signals are from T-6704b and T-6705a and b, and T-6706a, all of 1939.

   b. Method of buoy location is described in descriptive report, page 2.

2. Sounding Line Crossings

   Satisfactory.

3. Depth Curves

   Satisfactory.

4. Junctions with Contemporary Surveys

   H-6494 (1939) makes a satisfactory junction on the northern limit. H-6490 (1939) and H-6491 (1939) make a satisfactory junction on the western or inshore limit of survey after minor adjustments were made. Six hand lead soundings (31') on 6490 and four H.L. soundings (31') on 6491 were rejected in favor of well located fathometer soundings (29' to 30') in order to avoid unnatural convolutions of the 30' curve. Other minor differences of 2 to 3 feet which appeared to be due to plotting of soundings on loops of the ship between positions were adjusted by replotting the ship's soundings.

H-6496 (1939) makes a satisfactory junction on the southern limit. H-6497 (1939) and H-6498 (1938-39) make satisfactory junctions on eastern and northeastern limits of survey respectively.

5. Comparison with Prior Surveys.

H-1485a, b (1881), 1:40,000.

H-1485a, b include the area covered by this survey. Soundings on the widely spaced lines of the older survey controlled by fixes on shore signals agree very well in depth with the recent survey. In the area covered by dead reckoning lines, differences are more noticeable, but generally the soundings are in fair agreement. Notes in the sounding volumes of the old survey state that depths over 15 fathoms are not reliable within 2 or 3 feet because of drift of ship during sounding.

The shoal soundings on Sebree Bank (H-1485) appear to be displaced about one mile SSE in comparison with the recent survey. The shoalest soundings (H-1485) were taken in j day and are of uncertain location because of frequent changes in course. The 91' sounding (charted) at latitude 26°25.1', longitude 96°59.9' taken on j day (15 fms. 2 ft.) was questioned at time of sounding and an immediate attempt was made to verify the shoal sounding without success.

The adequate development of the recent survey supersedes the older in the common area.

6. Comparison with Chart 1287 (New print of August 24, 1939) reissued.
Chart 1288 (New print of November 3, 1939).
Chart 1117 (New edition of September 27, 1940).

a. Hydrography.

Hydrographic information charted in this area is from the old surveys and has been discussed in the preceding paragraph.

b. Aids to Navigation.

No aids are charted in the area covered by this survey.

7. Condition of Survey.

Satisfactory.

8. Compliance with Instructions for the Project.

Satisfactory.

9. Additional Field Work Recommended.

None.

10. Superseded Surveys.

H-1485a (1881) in part.
H-1485b (1881) in part.

Examined and approved:

T. B. Reed
Chief, Section of Field Records.

Chief, Division of Charts

Raymond B. Gyman.
Chief, Section of Hydrography.

Chief, Division of
Coastal Surveys.

DIVISION OF CHARTS

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6496 (1939) FIELD NO. 43

Texas; Gulf of Mexico; Approaches to Brazos Santiago
Surveyed in July - August 1939, Scale 1:40,000
Instructions dated February 17, 1937; February 23, 1938;
January 9, 1939 (HYDROGRAPHER)

Soundings:
Dorsey I and III Fathometer

Control:
Three point fixes on shore signals and buoys.

Chief of Party - G. C. Mattison.
Surveyed by - Officers of Ship HYDROGRAPHER.
Protracted by - M. J. Timmerman.
Verified and inked by - G. H. Everett.
Reviewed by - J. A. McCormick, October 9, 1940.
Inspected by - H. R. Edmonston.

1. Shoreline and Signals.

Shoreline has been omitted. Topographic signals are from T-6705 and T-6706 of 1939. The two most southerly lines of buoys were located by sextant fixes recorded in the sounding volumes. Those to the north were located by taut-wire, sun-azimuth traverse.

2. Depth Curves.

Satisfactory.

3. Sounding Line Crossings.

Satisfactory.

4. Junctions with Contemporary Surveys.

Satisfactory junctions were made with H-6491 and H-6493 of 1939 on the west. Junctions with H-6495 (1939) on the north and H-6497 (1939) on the east will be considered in the reviews of those surveys. On the south, the present survey complies with project instructions by extending only to the Mexican boundary inshore and to lat. 25°45', outside the three-mile limit.

5. Comparison with Prior Surveys.

H-377 (1853) 1:10,000; H-1350 (1875-77) 1:600,000; H-1352 (1875-77) 1:600,000; H-1485b (1881) 1:40,000.

H-377 is a reconnaissance sketch of the changeable area at the mouth of the Rio Grande. H-1350 and H-1352 are

track surveys with very few soundings in this area. H-1485b covers the portion of the area north of the boundary with very widely spaced soundings which are, however, in fair to good agreement with those on the present survey. Information on the old surveys is obsolete and the portion included in the common area is superseded by the present survey.

6. Comparison with Chart 1117 (New Print of Jan. 15, 1940) Chart 1288 (New Print of Nov. 3, 1939).

a. Hydrography.

Hydrographic information charted in this area is mostly from surveys discussed in the preceding paragraph. Some depths off Brazos Santiago and the mouth of the Rio Grande are from U. S. Engineers' surveys and do not differ substantially from present survey depths. Depths shown south of the boundary on Chart 1117 are probably from British Admiralty or U. S. Hydrographic Office charts and appear to be widely separated and poorly located track soundings. The 9-fathom depth charted in lat. 25°54', long. 97°01' certainly is not confirmed by depths of 80 to 90 feet on the present survey and there is little reason to suspect a shoal on such uniformly sloping bottom. All information of dates prior to that of the present survey is superseded.

b. Aids to Navigation.

Floating aids at Brazos Santiago were located on adjoining surveys H-6491 and H-6493 of 1939.

7. Condition of Survey.

Satisfactory.

8. Compliance with Instructions for the Project.

Satisfactory.

9. Additional Field Work Recommended.

None.

10. Superseded Surveys.

H-377 in part
H-1350 in part
H-1352 in part
H-1485b in part.

Examined and approved:

Thos. B. Reed,
Chief, Section of Field Records.

Chief, Division of Charts.

Chief, Section of Field Work.

Chief, Division of H. & T.

H.6494
applied to Chts. 1287 — Nov. 1940. OKSG.
H 6495
applied to Chts 1287. 1288 — Nov. 1940. OKSG.
" " " 1117 — Nov. 1940. OKSG
" " " 1288 (after review) June 1944 S.A.M.
H-6494 (after review)
no correction to chart 1288. S.A.M. June 19, 1940
H-
H-6496 (after review)
applied to chart 1288 S.A.M. June 20, 1944.

H6496 (after review) applied to chart 898, 11/5/52 [signature]

H 6494	Applied to Chart 896 SC	June 1969 JCR
H 6495	Applied to Chart 896 SC	June 1969 JCR
H 6496	Applied to Chart 898 SC	June 1969 MCW.