8739

Diag. Cht. Nos. 1116-3,1117 & 1280.

FORM C&GS-504

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HY-80-1-62 *Office No.* H-8739

LOCALITY

State Texas - Louisiana

General locality Gulf of Mexico

Locality South of Sabine Bank

1962-63

CHIEF OF PARTY

R. M. Stone

LIBRARY & ARCHIVES

DATE April 20, 1965

USCOMM-DC 37022-P66

8739

FORM C&GS-537 (8-15-59)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

REGISTER NO.

H-8739

INSTRUCTIONS - 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.

HY-80-1-62

State Texas-Louisiana

General locality Gulf of Mexico

Locality South of Sabine Bank

Scale 1:80,000 Date of survey July 7 - August 4, 1962

Instructions dated original, May 15, 1962 supplemental, July 15, 1963 revised, August 9, 1963 Project No. OPR-427

Vessel USC&GSS HYDROGRAPHER - MSS-19

Chief of party Raymond M. Stone, CDR, USC&GS

Surveyed by P.A. Stark, J.E. Guth, R.L. Speer, M.H. Schilly, F.D. Moran, G. Fussell, D. G. Popejoy, R.A. Ganse, C.D. Upham, W.E. Randall, S.C. Miller, J.H. Allred, N.A. Barnes, Jr.

Soundings taken by echo sounder, ~~XXXXXXXXXX~~ Raytheon Survey Type DE-723

Graphic record scaled by Ship's Personnel

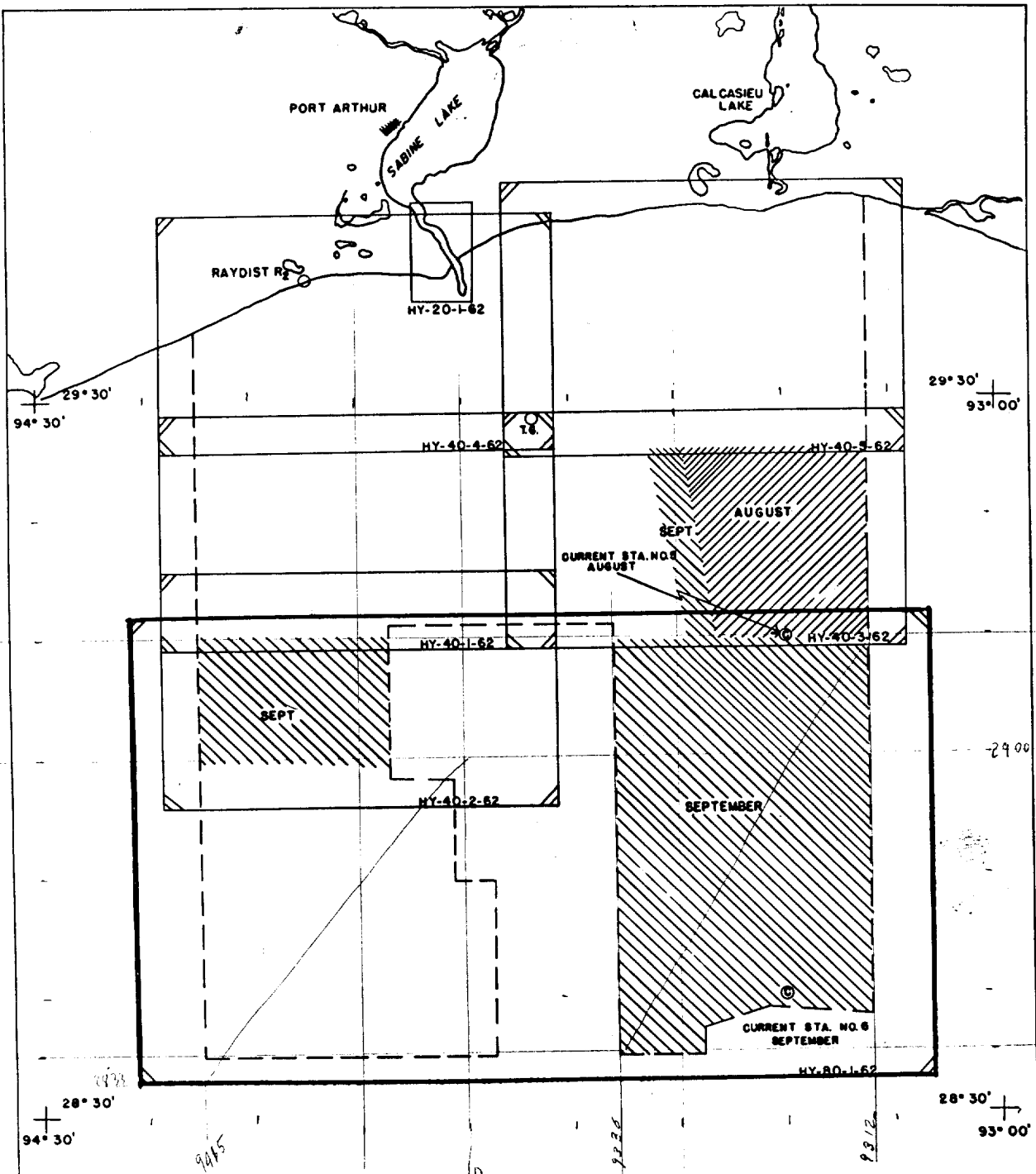
Graphic record checked by Ship's Personnel

Protracted by —

Soundings penciled by —

Soundings in fathoms and tenths ~~feet~~ at MLW ~~XXXX~~

REMARKS: This survey is an offshore survey, controlled by Raydist. The data was recorded during the 1962 field work by both the conventional method using sounding volumes, and by the automatic digital system using the DATEX printout. The data was recorded during the 1963 field work by the automatic system, exclusively. After all fathograms had been check-scanned, Raydist corrections determined, and all other errors rectified, a punch tape for automatic processing and plotting of this survey was cut by ship personnel, including both 1962 and 1963 field work. The 1962 sounding volumes, and the corrected 1963 original DATEX printout serve, however, as the complete and official survey record.



1963 PROGRESS SKETCH
USC & GSS HYDROGRAPHER
GULF OF MEXICO
PROJECT OPR-427
COMBINED OPERATION
TEXAS-LOUISIANA
SCALE OF C&GS CHART NO. 1116
23 AUGUST — 30 SEPTEMBER
CDR. R.M. STONE, COMD'G.

DESCRIPTIVE REPORT

To Accompany

Hydrographic Survey H-8739 (HY-80-1-62)

1962 - 1963

SHIP HYDROGRAPHER — Scale: 1:80,000

Raymond M. Stone, CDR, USC&GS — Chief of Party

A. PROJECT

This survey was accomplished under Project OPR-427, Texas - Louisiana; original instructions dated 15 May 1962; supplemental instructions dated 15 July 1963; amended instructions dated 9 August 1963.

B. AREA SURVEYED

This is an offshore survey in the Gulf of Mexico, vicinity of Sabine Bank, Texas and Louisiana, between meridians 93°12' and 94°15' west, and between latitudes 28°33' and 29°11' north. The total area covered is 1413 square nautical miles. Area between Long. 93°36' and about Long. 93°50' not covered by this survey. Survey joins H-6294 (1937) in this area.

Hydrography was accomplished during the periods July 24 through August 4, 1962, and September 5 through September 13, 1963.

The survey junctions with the following prior surveys:

1. On the south with H-6292, scale 1:80,000, year 1937, and H-6293, scale 1:80,000, year 1937.
2. On the east with H-5411, scale 1:80,000, year 1933.
3. On the west with H-6291, scale 1:80,000, year 1937, and H-6251, scale 1:40,000, year 1937.
4. Through the center of the survey in a north-south direction with H-6294, scale 1:80,000, year 1937.

This survey joins contemporary survey H-8738 (1962-63) (HY-40-3-62) and H-8737 (1962-63) on the north.

C. SOUNDING VESSEL

All hydrography was accomplished with the USC&GSS HYDROGRAPHER.

D. SOUNDING EQUIPMENT

All hydrography was accomplished using the Raytheon Survey Fathometer, Model DE-723, serial numbers 61-29 and 216. Instrument no. 61-29 is provided with

an encoder for use with the DATEX automatic recording system; instrument no. 216 was used only as a spare unit.

The echo sounding initial setting was maintained at 2.0 fathoms during 1962; at 0.0 fathoms during 1963.

Depths encountered ranged from 8 to 20 fathoms (approx)

Corrections to echo soundings were determined as follows:

a. Transducer draft corrections were derived from draft measurements made at the beginning and end of each trip as outlined in Report on Corrections to Echo Soundings (Fathometer Report) Project OPR-427, USC&GS Ship HYDROGRAPHER, 1962, and in report of the same title dated 1963.

b. Settlement and squat corrections used in reduction of 1962 soundings were derived from tests conducted on September 13 and October 24, 1950. Corrections applied to 1963 soundings were derived from Settlement and Squat tests made on August 20, 1963.

c. Echo sounder instrument corrections were determined by simultaneous comparisons (vertical casts) made in areas of smooth bottom during periods of calm weather and sea conditions.

d. Phase corrections were derived from phase comparisons made in areas of smooth bottom during periods of calm weather and sea conditions.

e. Sound velocity corrections were determined from temperature and salinity observations supplemented by velocimeter observations. For methods of applying these corrections, refer to section "O" of this report.

E. SMOOTH SHEET

After all corrections are determined and applied to the data for this survey, the corrected data will be indorporated into one record via the Automatic Digital Recording System (hereafter referred to as the DATEX system). This record will consist of a digital printout and a coded punched paper tape (smooth punch tape). The tape will be used in computer reduction of soundings and mechanical plotting of the smooth sheet in the Washington Office. Comments relative to the smooth punch tape will be appended to this report after the tape has been proof-read.

F. CONTROL

All hydrography on this survey was controlled by Raydist, using the duplex antennae system. The R^1 (Red) station was located in the vicinity of Freeport, Texas. The Raydist mast was erected over station BELA, 1962, latitude 28°58' 41.138" North, longitude 95°15'15.023" West, which was established by the East Coast Field Party during June, 1962, using third-order traverse methods, and was originally described as HUB A, 1962. The station was later marked with a standard triangulation disk and described as BELA, 1962, by the Ship HYDROGRAPHER.

The R^2 (Green) station was located in the vicinity of Sabine Pass, Texas. The Raydist mast was erected over triangulation station GREEN, 1962; latitude 29° 40'04.228" North, longitude 94°04'27.049" West. GREEN, 1962 was established by personnel from the Ship HYDROGRAPHER during July 1962 using third-order methods, and was marked with a standard triangulation disk.

Raydist corrections were derived from three-point sextant fix calibrations on a 1:20,000 scale calibration sheet of the Sabine Pass area furnished by the Washington Office, and from observations on offshore oil well structures previously located by triangulation. An abstract of Raydist corrections is appended to this report. For detailed information concerning Raydist corrections and calibrations, refer to Raydist Report, USC&GS Ship HYDROGRAPHER, Project OPR-427, 1962, and to the report of the same title dated 1963.

G. SHORELINE

There is no shoreline within the area of this survey.

H. CROSSLINES

Approximately 8 per cent of all sounding lines were run as crosslines. All crossings are in good agreement.

I. JUNCTIONS

Satisfactory junctions were made with all prior surveys listed in Section "B" of this report, and with contemporary survey H-8738 (HY-40-3-62) (1962-63) and H-8737 (1962-63)

J. COMPARISON WITH PRIOR SURVEYS

Reasonably good agreement was found to exist between this survey and all prior surveys listed in Section "B" of this report. (See Par. 6 Review)

A search was made for one wreck listed as Pre-survey Review Item No. 18. Approximately four hours were spent in development of the reported area of the wreck in addition to the regular system of sounding lines (refer to DATEX sounding records, positions 1270 through 1297), but no indication of the wreck could be found. It is suggested that consideration be given to wire-dragging the area to prove or disprove the existance of the wreck. Wire-drag scheduled on wreck when safety fairways are cleared. (See Par. 7 Review)

K. COMPARISON WITH THE CHART

The survey was compared with C&GS Chart 1116 (10th Ed., 10/14/63, corrected through Notice to Mariners No. 42, 1963). Of 104 comparisons made 59 were in exact agreement, 39 charted soundings were deeper by 1 fathom, 1 charted sounding was deeper by 2 fathoms, and 5 charted soundings were shoaler by one fathom. It is believed that these discrepancies are the result of inadequate control and/or inaccurate depth determinations on prior surveys from which the chart was compiled.

L. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede prior surveys of the area for charting.

One sounding brought forward from prior survey (See Par. 6 Review)

M. AIDS TO NAVIGATION

One buoy (Thirty-Four Foot Shoal Lighted Whistle Buoy 1, No. 6464 in Vol. II, List of Lights and Other Marine Aids) was located by Raydist ~~and found to be in its charted and listed position;~~ latitude 28°58!2 North, Longitude 94°19!8 West. This position is considered questionable, as it is in substantial disagreement with charted position. Buoy not plotted on smooth sheet.

One offshore oil well drilling platform (~~Forrest~~ FOREST 107-2, FOC-WC-229A) was located by Raydist and found to be in the position listed in Notice to Mariners No. 30 (July 27, 1963): Latitude 29°08!3 North, Longitude 93°17!4 West. No Raydist location found in records. Adjusted boat sheet position plotted on smooth sheet. Agrees substantially with position given in N.M. 30/63. N.M. 30/63 Lat: 29° 08' 12" Long 93° 17' 25"

N. STATISTICS

Statistics for this survey are as follows:

Vessel:	Total No. positions:	Nautical miles Sounding Lines:
HYDROGRAPHER	1961	1432.9

Area in square nautical miles:	Number of bottom samples:
1413	64*

*Refer to tabulated list of bottom samples, pages 26-27.

O. MISCELLANEOUS

The 1962 field records for this survey were recorded conventionally in sounding volumes, and experimentally with the DATEX automatic recording system. The sounding volumes were retained on board as the official record and the DATEX record was transmitted to the Washington Office.

The 1963 field records were recorded automatically by the DATEX system. The authorized hydrographic record consists of a digital and literal printout and a coded punched paper tape to be used in automatic processing and mechanical systems.

During 1963 the following format was used for the printout:

Time	Phase & Type Instruments	Sounding	Position No.	Draft	Tide	Velocity Factor	Ft/fms	R1	R2	Gyro Heading	Day Number
161500	01	0286	0895	021	600	1055	1	042045	020312	174	248

The above format was adopted in order to facilitate machine processing. The day number indicates the day of the year and position numbers are consecutive for the entire sheet.

Corrections to echo soundings obtained during 1963 were entered in the sounding record (printout) as follows:

a. Tide Correction - An arbitrary factor of 60.0 was added to the tide reducer

to make all tide corrections positive. The 60.0 will be subtracted from the sounding as the final step in the computer reduction of the soundings. (An arbitrary factor of 10.0 was added to the tide reducer when the experimental DATEX printout was obtained during 1962.)

b. Draft Correction - In the automatic recording system it was necessary to combine the echo sounder instrument correction, phase correction (if applicable), initial or index correction, settlement and squat correction, and draft correction and enter the resulting algebraic sum as "draft" on the parameter board.

c. Velocity Factor - Section "D" of this report stated the methods used to determine sound velocity corrections. Because the automatic recording system was used, it was necessary to compute velocity factors from the velocity corrections. These factors will be applied by multiplication to each uncorrected sounding by the automatic processing equipment to determine the true depth below the transducer.

Tabulations of all corrections to echo soundings are appended to this report. For a detailed discussion of the methods used in obtaining and applying these corrections, refer to Report on Corrections to Echo Soundings (Fathometer Report), Project OPR-427, USC&GS Ship HYDROGRAPHER, 1962, and to the report of the same title dated 1963.

As was mentioned in Section "E" of this report, a smooth punch tape was cut by Ship's personnel to be used in automatic processing of the survey. The format of this smooth tape is as follows:

Time	PDR or DE-723	Sounding	Consecutive Pos. No.	Draft Correction	Tide Correction	Velocity Factor	Ft/Fms	R1	R2	Gyro Heading	Day of Year
143800	01	043.3	0745	12.3	59.6	1.056	0	3090.30	2348.40	213	246

Since the official record for the 1962 field work was recorded in sounding volumes, and all corrections were applied in the conventional manner, the sounding on the smooth tape for 1962 portion of the survey is a completely reduced sounding. Therefore, the draft correction was punched as "000"; the tide correction as 60.0; and the velocity factor as 1.000. This will allow the computer to use the same program throughout the survey. The sounding on the tape for the 1963 portion of the survey is not completely reduced, but will require tide and draft corrections to be applied algebraically, and the velocity factor to be applied by multiplication.

It should be noted that on the smooth-punch tape the second item of the long word indicates only what type of sounding instrument was used (00 for PDR, 01 for DE-723). It was therefore necessary to convert all soundings on the DATEX printout to Phase 1 before the punch-tape was cut. These converted soundings were written down the left-hand margin of the original printout record.

For complete information on the use of the DATEX recording system on OPR-427 refer to Report on Automatic Hydrographic Digital Recording System, Aug. - Sept., 1962, and to the report of the same title dated 1963. Also refer to Re-

port on Corrections to Echo Soundings, (Fathometer Report), Project OPR-427, USC&GS Ship HYDROGRAPHER, dated 1962, and to the report of the same title dated 1963.

P. RECOMMENDATIONS

None

Q. REFERENCES TO REPORTS

The status of reports relating to this survey is as follows:

Title of Report:	Date forwarded W/O
Coast Pilot Report, USC&GSS HYDROGRAPHER, 1962	10/2/62
Report on Automatic Hydrographic Digital Recording System, Project OPR-427, USC&GSS HYDROGRAPHER (Aug. - Sept., 1962)	12/3/62
Raydist Report, Project OPR-427, USC&GSS HYDROGRAPHER (July - Sept., 1962)	12/19/62
Report on Corrections to Echo Soundings (Fathometer Report), Project OPR-427, USC&GSS HYDROGRAPHER (July - Sept., 1962)	3/8/63
Report on Temperature & Salinity Observations and Velocimeter Casts, Project OPR-427, USC&GSS HYDROGRAPHER, 1963	3/8/63
Season's Report, USC&GSS HYDROGRAPHER (1962 Field Season)	3/8/63
Report on Automatic Hydrographic Digital Recording System, Project OPR-427, USC&GSS HYDROGRAPHER (April - Oct., 1963)	(Not written)
Raydist Report, Project OPR-427, USC&GSS HYDROGRAPHER (Aug. - Oct., 1963)	(Not written)
Report on Corrections to Echo Soundings (Fathometer Report), (Aug. 23 - Sept. 30, 1963) Project OPR-427, USC&GSS HYDROGRAPHER	11/15/63
Report on Temperature & Salinity Observations and Velocimeter Casts (Aug. 23 - Sept. 30, 1963) Project OPR-427, USC&GSS HYDROGRAPHER	11/15/63
Report on Installation and Operation of Pressure Recording Tide Gage and FM Radio Telemetering Equipment (1963) Project OPR-427, USC&GSS HYDROGRAPHER	11/19/63
Season's Report, USC&GSS HYDROGRAPHER (1963 Field Season)	(Not written)

Submitted:

Donald G. Popejoy, LTJG, USC&GS

Approved and forwarded:

William E. Randall

William E. Randall, CDR, USC&GS

/

TIDE NOTE - 1962

SHEET (HY-80-1-62)
REGIST. NO. H-8739

TIDE STATION: Pleasure Pier, Galveston, Texas
Latitude 29° 17.0 N.
Longitude 94° 47.0 W.

PLANE OF REFERENCE: MLW = 2.4 Ft. on tide staff*

TIME MERIDIAN: 90° West

TIME CORRECTION: (Minus one hour)*

HEIGHT CORRECTION: (None)*

* Bureau Letter 2221-42-982h, dated February 15, 1962

AREA COVERED: Entire area of survey operation, sheet HY-80-1-62.
(1962 Field Season)

In compliance with the above noted letter, (copy appended to this report) tide values as recorded at the Pleasure Pier tide station were used in reduction of all soundings on this survey obtained during 1962. An abstract of 1962 Tide Corrections is appended to this report.

FORM CD-121 (9-22-39)
(FORM. BY A.O. 3864-10)

UNITED STATES GOVERNMENT

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

Memorandum

TO : Commanding Officer
USC&GS Ship HYDROGRAPHER

DATE: February 15, 1963

In reply refer to:
2221-42-982h

FROM : Chief, Marine Data Division

SUBJECT: Tide Data, Project OPR-427

There are enclosed hourly heights of the tide for the Pleasure Pier, Galveston, Texas for the dates listed in your letter of January 17, 1963. In order to refer these tabulated heights to mean low water subtract 2.4 feet.

Listed below are the sheet numbers and corrections to apply to the Pleasure Pier tides.

Sheet No.	Time Correction	Height Correction
HY 80-1-62	-1 Hour	none
HY 40-2-62	-1 Hour	none
HY 40-1-62	-1 Hour	none
HY 40-4-62	-½ Hour	+0.5 foot on HW Heights
HY 40-3-62	-½ Hour	+0.5 foot on HW Heights
HY 40-5-62	-½ Hour	+0.5 foot on HW Heights

For sheet HY 20-1-62 use -½ hour correction in time and +0.5 foot to the high water heights outside the Sabine Pass entrance. Inside the entrance use Pleasure Pier tides direct.

Kenneth S. Ulm

Kenneth S. Ulm

Enclosures

TIDE NOTE - 1963

SHEET (HY-80-1-62)

REGIST. NO. H-8739

TIDE STATION: Sabine Bank Lighthouse (recording bubbler type)
Latitude 29°-28.3' N.
Longitude 93 -43.4 W.

PLANE OF REFERENCE: MLW = 4.9 Ft. above gage zero*

TIME MERIDIAN: 90° West

TIME CORRECTION: None

HEIGHT CORRECTION: None

AREA COVERED: Entire area of Sheet H-8739 (HY-80-1-62)
(1963 Field Season)

*Bureau Letter 2321-307-982h, dated November 13, 1963

In compliance with the above noted letter (copy appended to this report), tide values as recorded at the Sabine Bank Lighthouse bubbler tide gage were used in reduction of all soundings on this survey obtained during 1963.

/

UNITED STATES GOVERNMENT

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

Memorandum

TO : Commanding Officer
USC&GS Ship HYDROGRAPHER

DATE: November 13, 1963
In reply refer to:
2321-307-982h

FROM : Chief, Marine Data Division

SUBJECT: TIDAL data OPR-427

Hourly heights from the bubbler gage record at Sabine Beach Lighthouse are to be used for sounding reductions on Project OPR-427. MLW is 4.9 ft. above gage zero.

Tabulations of the Galveston Pleasure Pier for September 19-30 are enclosed as requested. Heights at Galveston are referred to a datum which is 2.4 ft. below MLW.

Kenneth S. Ellis

Enclosures

Poor Copy

FORM CD-121 (9-23-59) PRES. BY D.O. 200-10

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TO : Commanding Officer
USC&GSS HYDROGRAPHER

DATE:
October 17, 1963

211

FROM : Chief, Operations Division

SUBJECT: Registry numbers

The following registry numbers have been assigned to hydrographic surveys for OPR-427:

HY-100-1-63	H-8733
HY-100-2-63	H-8734
HY-100-3-63	H-8735
HY-100-4-63	H-8736
HY-40-2-62	H-8737
HY-40-3-62	H-8738
HY-80-1-62	H-8739

Horace G. Conerly
Horace G. Conerly

cc: Tampa D.O.

Poor Copy

Project OPR-427, Sabine Bank, Texas - Louisiana
USC&GS Ship HYDROGRAPHER - Commander Raymond M. Stone, Commanding

1962 Field Season

RAYDIST CORRECTIONS - SHIP

Date	TIME: From	To	CORRECTIONS: R-1	R-2	Date	TIME: From	To	CORRECTIONS: R-1	R-2
July 23	1835	2400	-0.4	∠1.5	August 22	1935	2400	-0.4	∠0.2
24	0001	2400	-0.4	∠1.5	23	0001	0500	-0.4	∠0.2
25	0001	2400	-0.4	∠1.5	23	1830	2400	-0.4	∠0.2
26	0001	2400	-0.4	∠1.5	24	0001	0130	-0.4	∠0.2
27	0001	0429	-0.4	∠0.5	24	0130	0515	-0.4	∠0.3
27	0430	1200	-0.4	∠0.5	24	0600	0830	-0.3	∠0.3
August 1	1000	2400	-1.2	-0.7	Sept. 7	1745	2400	-0.1	-0.1
2	0001	2400	-1.2	-0.7	8	0001	0055	-0.1	-0.1
3	0001	2400	-1.2	-0.7	8	0300	0708	0.0	0.0
4	0001	2400	-1.2	-0.7	10	0612	0915	-239.8	∠221.9
5	0001	2400	-1.2	-0.7	10	0950	1500	-0.8	-1.1
6	0001	2400	-1.2	-0.7	10	1501	1613	-1.0	∠0.9
7	0001	2400	-1.2	-0.7	10	1614	1649	∠1.0	∠0.9
8	0001	2400	-1.2	-0.7	10	1650	1651	0.0	-0.1
9	0001	2400	-1.2	-0.7	10	1652	1728	-1.0	-1.1
10	0001	1215	-1.2	-0.7	10	1750	2400	0.0	-0.1
14	1300	1705	-0.3	∠0.2	11	0001	0240	0.0	-0.1
14	2145	2400	-0.3	∠0.2	11	0241	0540	-1.0	∠0.9
15	0001	0145	-0.3	∠0.2	11	1006	2052	∠0.2	-0.1
15	0330	0510	-1.3	∠0.8	11	2053	2400	-4.8	∠4.9
15	1200	2400	-0.4	∠0.2	12	0001	0035	-4.8	∠4.9
16	0001	0825	-0.4	∠0.2	12	1925	2400	∠0.1	0.0
16	2050	2100	-1.3	∠1.0	13	0001	0540	∠0.1	0.0
16	2101	2400	-8.3	∠8.0	13	1850	2400	∠0.2	-0.2
17	0001	0030	-8.3	∠8.0	14	0001	0615	∠0.2	-0.2
17	0031	0552	-1.5	-0.9	14	1900	2400	∠0.2	-0.2
17	2040	2220	-5.6	∠3.0	15	0001	0652	∠0.2	-0.2
17	2221	2400	-0.6	0.0	15	1030	1230	∠0.2	-0.2
18	0001	1050	-0.6	0.0	15	1910	2400	∠0.2	-0.2
18	2105	2400	-0.4	∠0.2	16	0001	0640	∠0.2	-0.2
19	0001	0725	-0.4	∠0.2	16	1020	-	∠1.2	∠0.6
19	1630	2400	-0.4	∠0.1	24	1945	2400	∠0.2	∠0.8
20	0001	0538	-0.4	∠0.1	25	0001	0840	∠0.2	∠0.8
20	1445	1507	-0.3	∠0.1	25	1725	2400	∠0.3	∠0.7
20	1600	2400	-0.5	∠0.2	26	0001	0650	∠0.3	∠0.7
21	0001	0700	-0.5	∠0.2	26	1830	2400	-0.8	-2.3
21	0820	1405	-0.4	-1.8	27	0001	2400	-0.8	-2.3
21	2050	2400	-0.4	∠0.1	28	0001	0030	-0.8	-2.3
22	0001	0532	-0.4	∠0.1					

Checked by COL

Project OPR-427, Sabine Bank, Texas - Louisiana
USC&GS Ship HYDROGRAPHER - Commander Raymond M. Stone, Commanding

1963 FIELD SEASON

Raydist Corrections- Ship

Date	TIME: From	To	CORRECTIONS: R_1	R_2	Date	TIME: From	To	CORRECTIONS: R_1	R_2
August 23	2021	2400	-1.9	-0.4	August 28	0001	0628	-1.9	+2.6
24	0001	0629	-1.9	-0.4		0629	0634	-2.9	+3.6
	0629	0711	+0.1	-3.4		0635	0758	-7.9	+8.6
	0712	0717	+2.1	-5.4		1337	2400	+0.1	+0.6
	0717	0718	+3.1	-6.4	29	0001	0324	+0.1	+0.6
	0719	0728	+6.1	-9.4	Sept. 4	2113	2400	+0.1	+0.6
	0729	0733	+7.1	-10.4	5	0216	0858	+1.1	-2.4
	1017	1020	+0.1	+0.6		1006	2400	+0.1	+0.6
	1021	2400	-1.9	+2.6	6	0001	2400	+0.1	+0.6
25	0001	0028	-1.9	+2.6	7	0001	2400	+0.1	+0.6
	0029	0236	-1.9	+0.6	8	0001	0435	+0.1	+0.6
	0237	0810	-1.9	+2.6		0436	1328	+1.1	+1.6
	0811	0827	-6.9	+7.6		1420	2400	+0.1	+0.6
	0828	0918	-5.9	+6.6	9	0001	2400	+0.1	+0.6
	1012	1037	+0.1	+0.6	10	0001	2400	+0.1	+0.6
	1038	1046	+1.1	-0.4	11	0001	2400	+0.1	+0.6
	1047	1058	+2.1	-1.4	12	0001	2400	+0.1	+0.6
	1059	1100	+1.1	-0.4	13	0001	0440	+0.1	+0.6
	1101	1111	+0.1	+0.6	19	2125	2400	+0.1	+0.6
	1112	1119	+2.1	-1.4	20	0001	2400	+0.1	+0.6
	1120	1145	+4.1	-3.4	21	0001	2400	+0.1	+0.6
	1247	2140	+0.1	+0.6	22	0001	2400	+0.1	+0.6
	2141	2400	+1.1	-0.4	23	0001	0858	+0.1	+0.6
26	0001	0810	+1.1	-0.4	28	1322	2400	+0.1	+0.6
	0811	0815	+13.1	-13.4	29	0001	2400	+0.1	+0.6
	0816	0827	+16.1	-16.4	30	0001	1137	+0.1	+0.6
	1051	2400	+0.1	+0.6					
27	0001	0506	+0.1	+0.6					
	0507	0541	+0.1	+1.6					
	0541	0546	+1.1	+0.6					
	0547	0728	+3.1	-1.4					
	1119	1156	+0.1	+0.6					
	1157	2400	-1.9	+2.6					

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ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1962)	FOR ENTRY IN SDG. VOLUMES Time (90 WMT)	Corr'n (Fms)	FOR ENTRY IN DATEX RECORD* Corr'n (Fms)
July 24	0001 - 1100	-0.2	+ 9.8
	1800	-0.1	+ 9.9
	1945	-0.2	+ 9.8
	2400	-0.3	+ 9.7
July 25	0001 - 0135	-0.3	+ 9.7
	1130	-0.2	+ 9.8
	1350	-0.1	+ 9.9
	1730	0.0	+10.0
	1910	-0.1	+ 9.9
	2040	-0.2	+ 9.8
	2400	-0.3	+ 9.7

* Refer to next page.

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ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1962)	FOR ENTRY IN SDG. VOLUMES Time (90 WMT)	Corr'n (Fms)	FOR ENTRY IN DATEX RECORD* Corr'n (Fms)
July 26	0001 - 0340	-0.3	∠ 9.7
	1200	-0.2	∠ 9.8
	1340	-0.1	∠ 9.9
	1910	0.0	∠10.0
	2025	-0.1	∠ 9.9
	2145	-0.2	∠ 9.8
	2325	-0.3	∠ 9.7
	2400	-0.4	∠ 9.6
July 27	0001 - 0200	-0.4	∠ 9.6
	0500	-0.3	∠ 9.7
	0800	-0.2	∠ 9.8
August 2	0200 - 0245	-0.2	∠ 9.8
	0720	-0.3	∠ 9.7
	1750	-0.2	∠ 9.8
	2000	-0.1	∠ 9.9
	2300	0.0	∠10.0
	2400	-0.1	∠ 9.9
August 3	0001 - 0100	-0.1	∠ 9.9
	0240	-0.2	∠ 9.8
	0740	-0.3	∠ 9.7
	1740	-0.2	∠ 9.8
	2400	-0.1	∠ 9.9
August 4	0001 - 0110	-0.1	∠ 9.9
	0345	-0.2	∠ 9.8
	0800	-0.3	∠ 9.7
	2100	-0.2	∠ 9.8
	2400	-0.1	∠ 9.9

* These entries apply only to the original DATEX records, when an arbitrary factor of 10 fathoms was added to each corrector in order to make all correctors positive. Refer to pages ___ and ___ of this report for the different methods used in recording the tide corrections on this survey.

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ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1963)	FOR ENTRY IN ORGINAL DATEX RECORD AND SMOOTH PUNCH TAPE Time (90 WMT)	Correction (Fathoms)	(actual tide corr'n)
September 5	0000 - 0035	∠ 59.8	- 0.2
	0205	∠ 59.7	- 0.3
	0640	∠ 59.6	- 0.4
	0800	∠ 59.7	- 0.3
	1215	∠ 59.8	- 0.2
	1345	∠ 59.7	- 0.3
	1745	∠ 59.6	- 0.4
	1900	∠ 59.7	- 0.3
	2020	∠ 59.8	- 0.2
	2200	∠ 59.9	- 0.1
	2345	∠ 60.0	0.0
	2400	∠ 59.9	- 0.1
September 6	0000 - 0030	∠ 59.9	- 0.1
	0125	∠ 59.8	- 0.2
	0235	∠ 59.7	- 0.3
	0705	∠ 59.6	- 0.4
	0810	∠ 59.7	- 0.3
	0930	∠ 59.8	- 0.2
	1230	∠ 59.9	- 0.1
	1320	∠ 59.8	- 0.2
	1415	∠ 59.7	- 0.3
	1915	∠ 59.6	- 0.4
	2010	∠ 59.7	- 0.3
	2125	∠ 59.8	- 0.2
	2300	∠ 59.9	- 0.1
	2400	∠ 59.8	- 0.2
September 7	0000 -0130	∠ 59.8	- 0.2
	0300	∠ 59.7	- 0.3
	0500	∠ 59.6	- 0.4
	0720	∠ 59.7	- 0.3
	0850	∠ 59.8	- 0.2
	1300	∠ 59.9	- 0.1
	1430	∠ 59.8	- 0.2
	1640	∠ 59.7	- 0.3
	1930	∠ 59.6	- 0.4
	2100	∠ 59.7	- 0.3
	2400	∠ 59.8	- 0.2

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ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1963)	FOR ENTRY IN ORIGINAL DATEX RECORD AND SMOOTH PUNCH TAPE Time (90 WMT)	Correction (Fathoms)	(Actual tide corr'n)
September 8	0000 - 0040	+ 59.8	- 0.2
	0300	+ 59.7	- 0.3
	0600	+ 59.6	- 0.4
	0800	+ 59.7	- 0.3
	0940	+ 59.8	- 0.2
	1425	+ 59.9	- 0.1
	1555	+ 59.8	- 0.2
	1740	+ 59.7	- 0.3
	2140	+ 59.6	- 0.4
	2400	+ 59.7	- 0.3
September 9	0000 - 0845	+ 59.7	- 0.3
	1030	+ 59.8	- 0.2
	1545	+ 59.9	- 0.1
	1710	+ 59.8	- 0.2
	1840	+ 59.7	- 0.3
	2400	+ 59.6	- 0.4
September 10	0000 - 0100	+ 59.6	- 0.4
	0955	+ 59.7	- 0.3
	1125	+ 59.8	- 0.2
	1710	+ 59.9	- 0.1
	1820	+ 59.8	- 0.2
	1940	+ 59.7	- 0.3
	2120	+ 59.6	- 0.4
	2400	+ 59.5	- 0.5
September 11	0000 - 0110	+ 59.5	- 0.5
	0330	+ 59.6	- 0.4
	1100	+ 59.7	- 0.3
	1220	+ 59.8	- 0.2
	1410	+ 59.9	- 0.1
	1710	+ 60.0	0.0
	1840	+ 59.9	- 0.1
	1940	+ 59.8	- 0.2
	2100	+ 59.7	- 0.3
	2230	+ 59.6	- 0.4
	2400	+ 59.5	- 0.5

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ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1963)	FOR ENTRY IN ORIDINAL DATEX RECORD AND SMOOTH PUNCH TAPE Time (90 WMT)	Correction (Fathoms)	(actual tide corr'n)
September 12	0000 - 0030	∠ 59.5	- 0.5
	0240	∠ 59.6	- 0.4
	1140	∠ 59.7	- 0.3
	1320	∠ 59.8	- 0.2
	1430	∠ 59.9	- 0.1
	1820	∠ 60.0	- 0.0
	2000	∠ 59.9	- 0.1
	2105	∠ 59.8	- 0.2
	2200	∠ 59.7	- 0.3
	2315	∠ 59.6	- 0.4
	2400	∠ 59.5	- 0.5
September 13	0000 - 0110	∠ 59.5	- 0.5
	0330	∠ 59.6	- 0.4
	1300	∠ 59.7	- 0.3
	1430	∠ 59.8	- 0.2
	1640	∠ 59.9	- 0.1
	1900	∠ 60.0	0.0
	2050	∠ 59.9	- 0.1
	2210	∠ 59.8	- 0.2
	2330	∠ 59.7	- 0.3
	2400	∠ 59.6	- 0.4

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VELOCITY CORRECTIONS

(For Conventional Method of Recording in Sounding Volumes)

Ship Hydrography on Sheets: (HY-40-1-62)
(HY-40-2-62)
(HY-40-3-62)
(HY-40-4-62)
(HY-40-5-62)

DE-723 Fathometer Nos. 216 & 61-29

Depth	Velocity Correction	Depth	Velocity Correction
0 to 13.7 ft	0.0 ft*	40.1 to 43.2 ft	∕ 1.5 ft*
17.3 ft	∕ 0.2 ft	52.3 ft	2.0 ft
20.9 ft	0.4 ft	61.2 ft	2.5 ft
24.5 ft	0.6 ft	61.3 to 70.0 ft	+ 3.0 ft
28.1 ft	0.8 ft		
31.6 ft	1.0 ft		
35.3 ft	1.2 ft		
38.8 ft	1.4 ft		
38.9 to 40.0 ft	∕ 1.6 ft		

*Velocity Corrections were applied in the sounding volumes to the nearest 0.2 feet in depths 0 to 40 feet, and to the nearest 0.5 feet in depths over 40 feet.

Ship Hydrography on Sheet: (HY-80-1-62)

DE-723 Fathometer Nos. 216 & 61-29

Depth	Velocity Correction	Depth	Velocity Correction
0 to 2.7 fms	0.0 fms	10.1 to 12.0 fms	∕ 0.5 fms
4.4 fms	∕ 0.1 fms	14.0 fms	0.6 fms
6.2 fms	0.2 fms	16.2 fms	0.7 fms
8.1 fms	0.3 fms	18.4 fms	0.8 fms
8.2 to 10.0 fms	∕ 0.4 fms	over 18.4 fms	+ 0.9 fms

An abstract of Velocity Factors, determined by various observations during the season, is as follows:

Applicable Depth	Depth below Transducer	Determination of Velocity Factor at Depth							Mean Velocity Factor
		July 24	Aug.2	Aug.2	Aug.2	Aug.3	Aug.19	Sept.15	
4 fms	2 fms	1.055	1.056	1.055	1.056	1.056	1.057	1.056	1.056
6	4	1.055	1.056	1.055	1.056	1.056	1.057	1.056	1.056
8	6	1.055	1.056	1.055	1.055	1.055	1.057	1.056	1.055
10	8	1.054	1.056	1.054	1.055	1.055	1.057	1.056	1.055
12	10	1.054		1.054	1.054	1.055			1.054
14	12	1.054		1.054	1.054	1.054			1.054
16	14			1.053	1.053				1.053
18	16			1.052	1.052				1.052

The following Velocity Factors were used during the season, in connection with recording on the Datex printout:

Hydrographic Sheet	Period (1962)	Velocity Factor	Depth Range
HY-80-1-62	Aug. 2 - Aug. 4	1.054	9 to 20 fathoms
HY-40-1-62	Aug. 1 - Sept. 10	1.055	26 to 61 feet
HY-40-2-62	Aug. 1 - Aug. 4	1.055	35 to 61 feet
HY-40-3-62	Aug. 19 - Sept. 16	1.055	25 to 60 feet
	Sept. 24 - Sept. 28	1.054	25 to 60 feet
HY-40-4-62	Aug. 21 - Aug. 24	1.055	26 to 43 feet
HY-40-5-62	Sept. 24 - Sept. 27	1.054	25 to 43 feet

From time to time, the performance and accuracy of the velocimeter should be checked. This can be done by observing a serial temperature and salinity cast simultaneously with the velocimeter cast, and then computing the velocity factor by both methods. This type of observation should be done at the beginning of the season and at any other time the velocimeter readings appear doubtful.

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REPORT ON CORRECTIONS TO ECHO SOUNDINGS (FATHOMETER REPORT)-PROJECT OPR-127, SABINE BANK, TEXAS - LOUISIANA - USC&GS HYDROGRAPHER - 1963 (Cont'd)

An abstract of Velocity Factors, determined by various observations during the 1963 season, is as follows:

Applicable Depth	Depth below Transducer	Determination of Velocity Factor at Depth (via T & S) Aug. 23	(via Velocimeter Casts) Aug. 23	Sept. 10	Sept. 21	Sept. 22	Mean Velocity Factor
4 fms	2 fms	1.055*	1.056*	1.057	1.055	1.051	1.055
6	4	1.055	1.056	1.057	1.055	1.051	1.055
8	6	1.055	1.056	1.057	1.055	1.052	1.055
10	8	1.055	1.056	1.057	1.055		1.056
12	10	1.055	1.056	1.057	1.055		1.056
14	12	1.055	1.056	1.057	1.055		1.056
16	14	1.055	1.056	1.057	1.055		1.056
18	16	1.054	1.056	1.056			1.055
20	18	1.054	1.055				1.055

* NOTE: On August 23, T & S and Velocimeter Casts were made simultaneously.

The Velocity Factors used during the season, on the Datex printout, are listed as follows for each hydrographic sheet:

Hydrographic Sheet	Period (1963)	Velocity Factor	Depth Range
HY-80-1-62	Sept. 5 - Sept. 13	1.055	8 - 20 (Fathoms)
HY-40-3-62	Aug. 23 - Sept. 23	1.055	23 - 61 (Feet)
HY-40-2-62	Sept. 19 - Sept. 30	1.056	29 - 69 (Feet)

During the 1963 season, while working on this project, the DE-723 fathometer initial was maintained at Zero. Therefore, in the computer process, the velocity factor is to be applied directly to all soundings as recorded.

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FINAL INSTRUMENT CORRECTION

(For Conventional Method of Recording in Sounding Volumes)

Ship Hydrography on Sheets: (HY-40-1-62)
(HY-40-2-62)
(HY-40-3-62)
(HY-40-4-62)
(HY-40-5-62)
(HY-80-1-62)

DE-723 Fathometer No 61-29 (For Soundings on "A" SCALE Only)

Date (1962)	Draft Corr'n (Ft)	Instr. Corr'n (Ft)	Phase Corr'n (Ft)	Settlement & Squat (Speed of Vessel) (Half Ah) (80 RPM) (Ft)	Settlement & Squat (Speed of Vessel) (Full Ah) (120 RPM) (Ft)	FINAL CORRECTION (Speed of Vessel) (Half Ah) (80 RPM) (Ft)	(Fms)	FINAL CORRECTION (Speed of Vessel) (Full Ah) (120 RPM) (Ft)	(Fms)
July 23	∠0.1	-1.7	0.0	0.0	∠0.8	-1.6	-0.3	-0.8	-0.1
July 24	-0.1	1.7	0.0	0.0	0.8	-1.8	-0.3	-1.0	-0.2
July 25	-0.4	1.7	0.0	0.0	0.8	-2.1	-0.4	-1.3	-0.2
July 26	-0.6	1.7	0.0	0.0	0.8	-2.3	-0.4	-1.5	-0.2
July 27	-0.8	1.7	0.0	0.0	0.8	-2.5	-0.4	-1.7	-0.3
Aug 1-2	∠0.2	1.7	0.0	0.0	0.8	-1.5	-0.2	-0.7	-0.1
Aug 3-4	0.0	1.7	0.0	0.0	0.8	-1.7	-0.3	-0.9	-0.2
Aug 5-6	-0.2	1.7	0.0	0.0	0.8	-1.9		-1.1	
Aug 7-8	-0.4	1.7	0.0	0.0	0.8	-2.1		-1.3	
Aug 9-10	-0.6	1.7	0.0	0.0	0.8	-2.3		-1.5	
Aug 14	∠0.3	1.7	0.0	0.0	0.8	-1.4		-0.6	
Aug 15-16	∠0.2	1.7	0.0	0.0	0.8	-1.5		-0.7	
Aug 17-18	0.0	1.7	0.0	0.0	0.8	-1.7		-0.9	
Aug 19-20	-0.2	1.7	0.0	0.0	0.8	-1.9		-1.1	
Aug 21-22	-0.4	1.7	0.0	0.0	0.8	-2.1		-1.3	
Aug 23-24	-0.6	1.7	0.0	0.0	0.8	-2.3		-1.5	
Sept 7-8	∠0.6	1.7	0.0	0.0	0.8	-1.1		-0.3	
Sept 9-10	∠0.4	1.7	0.0	0.0	0.8	-1.3		-0.5	
Sept 11-12	∠0.2	1.7	0.0	0.0	0.8	-1.5		-0.7	
Sept 13-14	0.0	1.7	0.0	0.0	0.8	-1.7		-0.9	
Sept 15-16	-0.2	1.7	0.0	0.0	0.8	-1.9		-1.1	
Sept 24-25	∠0.2	1.7	0.0	0.0	0.8	-1.5		-0.7	
Sept 26-28	0.0	-1.7	0.0	0.0	∠0.8	-1.7		-0.9	

1962 SEASON ✓

FINAL INSTRUMENT CORRECTIONS

(For Conventional Method of Recording in Sounding Volumes)

Ship Hydrography on Sheets: (HY-40-1-62)
(HY-40-2-62)
(HY-40-3-62)
(HY-40-4-62)
(HY-40-5-62)
(HY-80-1-62)

DE-723 Fathometer No. 216 (For Soundings on "B" Scale Only)

Date (1962)	Draft Corr'n (Ft)	Instr. Corr'n (Ft)	Phase Corr'n (Ft)	Settlement & Squat (Speed of Vessel) (Half Ah) (80 RPM) (Ft)	Settlement & Squat (Speed of Vessel) (Full Ah) (120 RPM) (Ft)	FINAL CORRECTION (Speed of Vessel) (Half Ah) (80 RPM) (Ft)	(Fms)	FINAL CORRECTION (Speed of Vessel) (Full Ah) (120 RPM) (Ft)	(Fms)
July 23	+0.1	-1.0	-0.2	0.0	+0.8	-1.1	-0.2	-0.3	0.0
July 24	-0.1	1.0	0.2	0.0	0.8	-1.3	-0.2	-0.5	-0.1
July 25	-0.4	1.0	0.2	0.0	0.8	-1.6	-0.3	-0.8	-0.1
July 26	-0.6	1.0	0.2	0.0	0.8	-1.8	-0.3	-1.0	-0.2
July 27	-0.8	1.0	0.2	0.0	0.8	-2.0	-0.3	-1.2	-0.2
Aug 1 - 2	+0.2	1.0	0.2	0.0	0.8	-1.0	-0.2	-0.2	0.0
Aug 3 - 4	0.0	1.0	0.2	0.0	0.8	-1.2	-0.2	-0.4	-0.1
Aug 5 - 6	-0.2	1.0	0.2	0.0	0.8	-1.4		-0.6	
Aug 7 - 8	-0.4	1.0	0.2	0.0	0.8	-1.6		-0.8	
Aug 9 - 10	-0.6	1.0	0.2	0.0	0.8	-1.8		-1.0	
Aug 14	+0.3	1.0	0.2	0.0	0.8	-0.9		-0.1	
Aug 15 - 16	+0.2	1.0	0.2	0.0	0.8	-1.0		-0.2	
Aug 17 - 18	0.0	1.0	0.2	0.0	0.8	-1.2		-0.4	
Aug 19 - 20	-0.2	1.0	0.2	0.0	0.8	-1.4		-0.6	
Aug 21 - 22	-0.4	1.0	0.2	0.0	0.8	-1.6		-0.8	
Aug 23 - 24	-0.6	1.0	0.2	0.0	0.8	-1.8		-1.0	
Sept 7 - 8	+0.6	1.0	0.2	0.0	0.8	-0.6		+0.2	
Sept 9 - 10	+0.4	1.0	0.2	0.0	0.8	-0.8		0.0	
Sept 11-12	+0.2	1.0	0.2	0.0	0.8	-1.0		-0.2	
Sept 13-14	0.0	1.0	0.2	0.0	0.8	-1.2		-0.4	
Sept 15-16	-0.2	1.0	0.2	0.0	0.8	-1.4		-0.6	
Sept 24-25	+0.2	1.0	0.2	0.0	0.8	-1.0		-0.2	
Sept 26-28	0.0	-1.0	-0.2	0.0	+0.8	-1.2		-0.4	

FINAL INSTRUMENT CORRECTIONS

(For Digital Method of Recording on Datex Printout)

Ship Hydrography on Sheets: (HY-40-1-62)
(HY-40-2-62)
(HY-40-3-62)
(HY-40-4-62)
(HY-40-5-62)
(HY-80-1-62)

DE-723 Fathometer No. 61-29 (For Soundings on "A" & "B" Scale)

Date (1962)	Draft of Transducer (Ft)	Instr. Corr'n (Ft)	Phase Corr'n (Ft)	Settlement & Squat (Speed of Vessel) (Half Ah) (80 RPM) (Ft)	Settlement & Squat (Speed of Vessel) (Full Ah) (120 RPM) (Ft)	FINAL CORRECTION (Speed of Vessel) (Half Ah) (80 RPM) (Ft)	FINAL CORRECTION (Speed of Vessel) (Half Ah) (80 RPM) (Fms)	FINAL CORRECTION (Speed of Vessel) (Full Ah) (120 RPM) (Ft)	FINAL CORRECTION (Speed of Vessel) (Full Ah) (120 RPM) (Fms)
Aug 1 - 2	∠12.2	-1.7	0.0	0.0	∠0.8	∠10.5	∠1.8	∠11.3	∠1.9
Aug 3 - 4	12.0	1.7	0.0	0.0	0.8	10.3	1.7	11.1	1.8
Aug 5 - 6	11.8	1.7	0.0	0.0	0.8	10.1		10.9	
Aug 7 - 8	11.6	1.7	0.0	0.0	0.8	9.9		10.7	
Aug 9 - 10	11.4	1.7	0.0	0.0	0.8	9.7		10.5	
Aug 14	12.3	1.7	0.0	0.0	0.8	10.6		11.4	
Aug 15-16	12.2	1.7	0.0	0.0	0.8	10.5		11.3	
Aug 17-18	12.0	1.7	0.0	0.0	0.8	10.3		11.1	
Aug 19-20	11.8	1.7	0.0	0.0	0.8	10.1		10.9	
Aug 21-22	11.6	1.7	0.0	0.0	0.8	9.9		10.7	
Aug 23-24	11.4	1.7	0.0	0.0	0.8	9.7		10.5	
Sept 7-8	12.6	1.7	0.0	0.0	0.8	10.9		11.7	
Sept 9-10	12.4	1.7	0.0	0.0	0.8	10.7		11.5	
Sept 11-12	12.2	1.7	0.0	0.0	0.8	10.5		11.3	
Sept 13-14	12.0	1.7	0.0	0.0	0.8	10.3		11.1	
Sept 15-16	11.8	1.7	0.0	0.0	0.8	10.1		10.9	
Sept 24-25	12.2	1.7	0.0	0.0	0.8	10.5		11.3	
Sept 26-28	∠12.0	-1.7	0.0	0.0	∠0.8	∠10.3		∠11.1	

ABSTRACT OF FINAL INSTRUMENT CORRECTIONS: (In Fathoms)

For Period (1963)	For DE-723 Fath. #61-29 A-scale (Fms)	For DE-723 Fath. #216 A-scale (Fms)
0801 Sept 04 - 0800 Sept 07	2.1	2.1
0801 " 07 - 0800 " 09	2.1	2.0
0801 " 09 - 0800 " 13	2.0	2.0

(a) When ship's speed is Full Ahead (120 RPM), use above values.

(b) When ship's speed is Half Ahead (80 RPM), use above values.

(c) When ship's speed is Slow Ahead (40 RPM), subtract 0.1 fathom from values shown above.

INDEX
Hydrographic Information
Sheet (HY-80-1-62)
1962 Season

USC&GS Ship HYDROGRAPHER - - - - - CDR R. M. Stone, Comdg.

Subject	Date (1962)	Day Number or Day Letter	Position Number	
Bottom Sample	July 24	"A"	88	
" "	" 24	"A"	123	
" "	" 24	"A"	142	
" "	" 24	"A"	145	plus 6 minutes
" "	July 25	"B"	1	
" "	" 25	"B"	18	
" "	" 25	"B"	21	
" "	" 25	"B"	45	
" "	" 25	"B"	61	
" "	" 25	"B"	106	
" "	" 25	"B"	125	plus 5 minutes
" "	July 26	"C"	5	
" "	" 26	"C"	12	
" "	" 26	"C"	35	
" "	" 26	"C"	96	
" "	" 26	"C"	112	
" "	" 26	"C"	130	plus 5 minutes
" "	July 27	"D"	3	
" "	" 27	"D"	21	
" "	Aug. 2	005 or "E"	039	plus 4 minutes
" "	" 2	005 " "E"	042	
" "	" 2	005 " "E"	053	
" "	" 2	005 " "E"	086	
" "	" 2	005 " "E"	130	
" "	Aug. 3	006 or "F"	016	
" "	" 3	006 " "F"	019	
" "	" 3	006 " "F"	059	
" "	" 3	006 " "F"	076	

TOTAL Number of Bottom Samples (1962 Season) - - - - - - 28

INDEX

Hydrographic Information

Sheet (HY-80-1-62)

1963 Season

USC&GS Ship HYDROGRAPHER - - - - - CDR R. M. Stone, Comdg.

Subject	Date (1963)	Day Number or Day Letter	Position Number
Bottom Sample	Sept. 5	248 or "H"	0921 plus 6 minutes
" "	" 5	248 or "H"	0925
" "	" 5	248 or "H"	0927 plus 8 minutes
" "	" 5	248 or "H"	0930 plus 8 minutes
" "	" 5	248 or "H"	0933 plus 8 minutes
" "	" 5	248 or "H"	0963 plus 6 minutes
" "	" 5	248 or "H"	1013 plus 4 minutes
" "	" 6	249 or "J"	1033 plus 4 minutes
" "	" 6	249 or "J"	1045 plus 5 minutes
" "	" 6	249 or "J"	1062
" "	" 6	249 or "J"	1108 plus 2 minutes
" "	" 6	249 or "J"	1111 plus 2 minutes
" "	" 6	249 or "J"	1119
" "	" 6	249 or "J"	1127 plus 8 minutes
" "	" 6	249 or "J"	1130 plus 6 minutes
" "	" 7	250 or "K"	1140 plus 8 minutes
" "	" 7	250 or "K"	1178
" "	" 7	250 or "K"	1223
" "	" 7	250 or "K"	1226
" "	" 8	251 or "L"	1361 plus 8 minutes
" "	" 8	251 or "L"	1364 plus 6 minutes
" "	" 8	251 or "L"	1367 plus 4 minutes
" "	" 8	251 or "L"	1370 plus 6 minutes
" "	" 8	251 or "L"	1385 plus 8 minutes
" "	" 8	251 or "L"	1388 plus 6 minutes
" "	" 8	251 or "L"	1394 plus 6 minutes
" "	" 10	253 or "N"	1600 plus 8 minutes
" "	" 10	253 or "N"	1603 plus 8 minutes
" "	" 10	253 or "N"	1606 plus 6 minutes
" "	" 10	253 or "N"	1618 plus 4 minutes
" "	" 10	253 or "N"	1636 plus 4 minutes
" "	" 11	254 or "P"	1698 plus 6 minutes
" "	" 11	254 or "P"	1755 plus 8 minutes
" "	" 11	254 or "P"	1839 plus 4 minutes
" "	" 11	254 or "P"	1842 plus 2 minutes
" "	" 12	255 or "Q"	1845

TOTAL Number of Bottom Samples (1963 Season) - - - - - - 36

TOTAL Number of Bottom Samples (Entire Sheet) - - - - - 64

September 27, 1963

APPROVAL SHEET

Field No. HY-80-1-62

The field work accomplished on this survey, during the 1962 and 1963 seasons, (July 24 - August 4, 1962) and (September 5 - September 13, 1963), was under my immediate supervision. Daily inspections of the boat sheet, sounding volumes, Datex printout records, and fathograms were made as the survey progressed.

As of the date of my detachment from the Ship HYDROGRAPHER on September 27, 1963, the boat sheet, all sounding volumes, and Datex printout records have been reviewed and are approved by me. On the basis of the boat sheet review, the survey is complete and adequate, and no additional field work is recommended.

Raymond M. Stone,
CDR, USC&GS
Commanding Officer,
USC&GS Ship HYDROGRAPHER

ADDENDUM (SMOOTH SHEET)

HY-80-1-62 (H-8739)

The smooth punch tape was proof read and found to contain no errors. The tape was cut according to the established format.

Positions number 1 through 894 were obtained during the 1962 season and were originally recorded and reduced in conventional sounding volumes. The sounding recorded on the punch tape is a completely reduced sounding. Hence, the draft correction was punched as "000"; the tide correction as "60.0"; and the velocity factor as "1.000". This will allow the computer to use the same program throughout the survey.

ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1962)	FOR ENTRY IN SDG. VOLUMES Time (90 WMT)	Corr'n (Fms)	FOR ENTRY IN [illegible]* Corr'n (Fms)
July 24	0001 - 1100	-0.2 ✓	+9.8
	1800	-0.1 ✓	+9.9
	1945	-0.2 ✓	+9.8
	2400	-0.3 ✓	+9.7
July 25	0001 - 0135	-0.3 ✓	+9.7
	1130	-0.2 ✓	+9.8
	1350	-0.1 ✓	+9.9
	1730	0.0 ✓	+10.0
	1910	-0.1 ✓	+9.9
	2040	-0.2 ✓	+9.8
	2400	-0.3 ✓	+9.7

* Refer to next page.

Complete tidal reductions, approved.
Must be checked against edited tape entry.

ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1962)	FOR ENTRY IN SDG. VOLUMES Time (90 WMT)	Corr'n (Fms)	FOR ENTRY IN DATEX RECORD* Corr'n (Fms)
July 26	0001 - 0340	-0.3 ✓	≠ 9.7
	1200	-0.2 ✓	≠ 9.8
	1340	-0.1 ✓	≠ 9.9
	1910	0.0 ✓	≠10.0
	2025	-0.1 ✓	≠ 9.9
	2145	-0.2 ✓	≠ 9.8
	2325	-0.3 ✓	≠ 9.7
	2400	-0.4 ✓	≠ 9.6
July 27	0001 - 0200	-0.4 ✓	≠ 9.6
	0500	-0.3 ✓	≠ 9.7
	0800	-0.2 ✓	≠ 9.8
August 2	0200 - 0245	-0.2 ✓	≠ 9.8
	0720	-0.3 ✓	≠ 9.7
	1750	-0.2 ✓	≠ 9.8
	2000	-0.1 ✓	≠ 9.9
	2300	0.0 ✓	≠10.0
	2400	-0.1 ✓	≠ 9.9
August 3	0001 - 0100	-0.1 ✓	≠ 9.9
	0240	-0.2 ✓	≠ 9.8
	0740	-0.3 ✓	≠ 9.7
	1740	-0.2 ✓	≠ 9.8
	2400	-0.1 ✓	≠ 9.9
August 4	0001 - 0110	-0.1 ✓	≠ 9.9
	0345	-0.2 ✓	≠ 9.8
	0800	-0.3 ✓	≠ 9.7
	2100	-0.2 ✓	≠ 9.8
	2400	-0.1 ✓	≠ 9.9

* These entries apply only to the original DATEX records, when an arbitrary factor of 10 fathoms was added to each corrector in order to make all correctors positive. Refer to pages ___ and ___ of this report for the different methods used in recording the tide corrections on this survey.

ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

FOR ENTRY IN ORGINAL DATEX RECORD AND SMOOTH FORM TAPE

DATE (1963)	Time (90 WMT)	Correction (Fathoms)	(actual tide corr'n)
September 5	0000 - 0035	≠ 59.8	- 0.2
	0205	≠ 59.7	- 0.3
	0640	≠ 59.6	- 0.4
	0800	≠ 59.7	- 0.3
	1215	≠ 59.8	- 0.2
	1345	≠ 59.7	- 0.3
	1745	≠ 59.6	- 0.4
	1900	≠ 59.7	- 0.3
	2020	≠ 59.8	- 0.2
	2200	≠ 59.9	- 0.1
	2345	≠ 60.0	0.0
	2400	≠ 59.9	- 0.1
September 6	0000 - 0030	≠ 59.9	- 0.1
	0125	≠ 59.8	- 0.2
	0235	≠ 59.7	- 0.3
	0705	≠ 59.6	- 0.4
	0810	≠ 59.7	- 0.3
	0930	≠ 59.8	- 0.2
	1230	≠ 59.9	- 0.1
	1320	≠ 59.8	- 0.2
	1415	≠ 59.7	- 0.3
	1915	≠ 59.6	- 0.4
	2010	≠ 59.7	- 0.3
	2125	≠ 59.8	- 0.2
	2300	≠ 59.9	- 0.1
	2400	≠ 59.8	- 0.2
September 7	0000 -0130	≠ 59.8	- 0.2
	0300	≠ 59.7	- 0.3
	0500	≠ 59.6	- 0.4
	0720	≠ 59.7	- 0.3
	0850	≠ 59.8	- 0.2
	1300	≠ 59.9	- 0.1
	1430	≠ 59.8	- 0.2
	1640	≠ 59.7	- 0.3
	1930	≠ 59.6	- 0.4
	2100	≠ 59.7	- 0.3
	2400	≠ 59.8	- 0.2

ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

DATE (1963)	FOR ENTRY IN ORIGINAL DATEX RECORD AND SMOOTH PUNCH TAPE Time (90 WWT)	Correction (Fathoms)	(Actual tide corr'n)
September 8	0000 - 0040	+ 59.8	- 0.2
	0300	+ 59.7	- 0.3
	0600	+ 59.6	- 0.4
	0800	+ 59.7	- 0.3
	0940	+ 59.8	- 0.2
	1425	+ 59.9	- 0.1
	1555	+ 59.8	- 0.2
	1740	+ 59.7	- 0.3
	2140	+ 59.6	- 0.4
	2400	+ 59.7	- 0.3
September 9	0000 - 0845	+ 59.7	- 0.3
	1030	+ 59.8	- 0.2
	1545	+ 59.9	- 0.1
	1710	+ 59.8	- 0.2
	1840	+ 59.7	- 0.3
	2400	+ 59.6	- 0.4
September 10	0000 - 0100	+ 59.6	- 0.4
	0955	+ 59.7	- 0.3
	1125	+ 59.8	- 0.2
	1710	+ 59.9	- 0.1
	1820	+ 59.8	- 0.2
	1940	+ 59.7	- 0.3
	2120	+ 59.6	- 0.4
	2400	+ 59.5	- 0.5
September 11	0000 - 0110	+ 59.5	- 0.5
	0330	+ 59.6	- 0.4
	1100	+ 59.7	- 0.3
	1220	+ 59.8	- 0.2
	1410	+ 59.9	- 0.1
	1710	+ 60.0	0.0
	1840	+ 59.9	- 0.1
	1940	+ 59.8	- 0.2
	2100	+ 59.7	- 0.3
	2230	+ 59.6	- 0.4
	2400	+ 59.5	- 0.5

5 5

ABSTRACT OF TIDE CORRECTIONS

HYDROGRAPHIC SURVEY (HY-80-1-62)

FOR ENTRY IN ORIGINAL DATEX RECORD AND SMOOTH PUNCH TAPE

DATE (1963)	Time (90 WMT)	Correction (Fathoms)	(actual tide corr'n)
September 12	0000 - 0030	∠ 59.9	- 0.5
	0240	∠ 59.6	- 0.4
	1140	∠ 59.7	- 0.3
	1320	∠ 59.8	- 0.2
	1430	∠ 59.9	- 0.1
	1820	∠ 60.0	- 0.0
	2000	∠ 59.9	- 0.1
	2105	∠ 59.8	- 0.2
	2200	∠ 59.7	- 0.3
	2315	∠ 59.6	- 0.4
	2400	∠ 59.5	- 0.5
September 13	0000 - 0110	∠ 59.5	- 0.5
	0330	∠ 59.6	- 0.4
	1300	∠ 59.7	- 0.3
	1430	∠ 59.8	- 0.2
	1640	∠ 59.9	- 0.1
	1900	∠ 60.0	0.0
	2050	∠ 59.9	- 0.1
	2210	∠ 59.8	- 0.2
	2330	∠ 59.7	- 0.3
	2400	∠ 59.6	- 0.4

T & C Branch
Whgrton
1/1964

H- 8739 (FILE WITH Desc. Report)
Field No.- HY 80-1-62

USGD42" sheet

AUTOMATED SURVEY CONTROL FORM 2M
Experimental C&GS 8505

PARAMETER CARD No. 1

FIELD ENTRY – HEADER. Entered WLM, DATE 26 Feb, CHECKED RDL

COMPUTER CENTER ENTRY

Field entry	Office entry	Description		Geo. Position: Degree	Min	Seconds	Program Identity	Conversions: Machine words	Punched machine code (columns)
✓		MASTER R1 HYDRO NAME Bela 1962	LAT	25 (28)	58	41.138	RPD	10432 1.138	1043211406 (1–10)
✓			LONG	95	15	15.023	RBD	3429 15.023	3429150206 (11–20)
✓		SLAVE R2 HYDRO NAME GREEN 1962	LAT	29	40	04.228			
✓			LONG	94	04	27.040			
✓		AZIMUTH from R1 to R2		236	00	34.799	RAD	849634.799	8496348006 (21–30)
✓		AZIMUTH from R2 to R1							
✓		Baseline distance in meters		137,775.051 meters			SMP		1377750506 (31–40)
✓		Sounding reducers (ECHO) 0 = No correction to be applied by computer 1 = Velocity Corr to be added (2) = Velocity factor is multiplied					IVL		2 (41)
✓		Arc of DISTANCE MEASUREMENT (METERS) Frequency of arc for S/S 1- LANE 2		45.399000			CNV		4539900002 (42–51)
	✓	[illegible]					DBS		000 (52–54)
✓		Tide Base entered into tape		60.0			TBS		600 (55–57)
✓		H- identification Number		8739			JN		08739 (58–62)
	✓	Location of survey in respect to the electronic Baseline. −A or +A					AAA		0 (63)

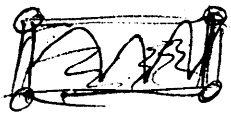
Punched: Entered: checked: DATE:

PARAMETER CARD No. 2

Section	Description	Value	Program Identity	Conversions: Machine words	Punched machine code (columns)
OFFICE	Semi-major axis of the earth	(meters)	RDA		6378206407 (1–10)
OFFICE	X constant added to adjust zero origin of plotter (65,575, 1,639.4)	67,214.9 (meters)	XKN		6721490005 (11–20)
OFFICE	Y constant subtracted to adjust zero origin of plotter.	3,151,832.538 (meters)	YKN	3151832538	3151832507 (21–30)
FIELD	Central Meridian of projection: 93° 40′ 00″	convert to seconds: 337200	CMR		3372000006 (31–40)
FIELD	Plotter scale ÷ survey scale	10498.6876 / 1:80,000	SCA	131233595	1312336000 (41–50)
FIELD	Code to adjust X or Y of Plotter to NORTH of survey sheet. (See reverse side) Short Longitude: 0 Long Longitude: 1	LAT ~~28 32 30~~ LONG ~~94 21 00~~	NYX	1 1 9 0	0 (52)

COMPUTATIONS: Entered WLM, checked RDL, Date

EXPLANATION ON BACK SIDE



#3

93° 10'	28° 30' 5'	14 09
3600 / 55800 / 279 600	3600 / 16800 / 84 / 1800	60 / 600 · 60 / 1800 · 60 / 300
33540010006 ✓	1026000006 ✓	300000003 14 09
Long	Lat.	movement sec X Y

0 = 28° 29' 00 94° 21' 00

93° 40'
3600 60
55800 2400
279 2400
337200

93 40
41

HY-80-1-62 H-8739

Project No. OPR-427

△ FOC 225A, 1963 plotted on H-8738

An oil rig platform FOC-WC-225A Latitude 29° 10.8', Longitude 93° 18.5' was plotted on the boat sheet but not mentioned in the Descriptive Report. This was not plotted on the smooth sheet as it was previously located on H-8738 which joins this sheet to the North. ✓

Junctions with prior surveys and comparisons with existing charts have been made and no critical changes were noted. All corrections have been made, data relogged and listed accordingly.

All developments have been studied and fathograms investigated for irregularities in bottom configuration.

Projection lines were broken at soundings as requested and depth curves were "smoothed-out" wherever practical.

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8739

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	
Gulf of Mexico										1
Louisiana										2
Sabine Bank										3
Texas										4
					Names approved					5
					6-17-65					6
					A. J. Wright					7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

FORM C&GS-712
(4-62)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Nautical Chart Division: R.H.Carstens 1/21/63

Plane of reference approved in
X ~~volumes of sounding records~~ for

HYDROGRAPHIC SHEET H-8739 (HY-80-1-62)

Locality Sabine Bank,Louisiana-Texas

Chief of Party: ~~W.E.Randall~~ R.M. STONE in 1962-63

Plane of reference is mean low water

ft. on tide staff at

ft. below B. M.

Height of mean high water above plane of reference at the working grounds is:2.1 ft.

Condition of records satisfactory except as noted below:

J. M. Symons
Chief, Tides and Currents Branch

USCOMM-DC 16543-P62

FORM C&GS-946
(REV. 3-1-64)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
NAUTICAL CHART DIVISION

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. 8739

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS Destroyed 5/20/70	1
DESCRIPTIVE REPORT	1	OVERLAYS	1

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1		1			
VOLUMES	7					
BOXES						

T-SHEET PRINTS *(List)*

SPECIAL REPORTS *(List)*

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				1861
POSITIONS CHECKED				
POSITIONS REVISED		No Verifiers report submitted. DEW		
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS			36.0 hrs.	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS Rescan at crossings			8.0 hrs.	
ALL OTHER WORK			75.5 hrs.	
TOTALS			119.5 hrs.	

PRE-VERIFICATION BY		BEGINNING DATE	ENDING DATE
VERIFICATION BY	R.D. LYNN (PMC)	BEGINNING DATE	ENDING DATE
REVIEW BY	Dale E. Westbrook	BEGINNING DATE 6/27/68	ENDING DATE 7/25/68

USCOMM-DC 6641-P64

INFORMATION FOR FUTURE PRE-SURVEY REVIEWS

Most of this survey area appears to be quite stable, particularly in the deeper portions. Any sedimentation that may be occurring is slow (maximum of 1-2 ft. in 40 years).

An exception to the overall stability of the bottom is the finger shoal in lat. 28°58!0, long. 93°57!5 which is apparently extending eastward by about 100 ft./year as a result of the prevailing currents.

OFFICE OF HYDROGRAPHY AND OCEANOGRAPHY

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8739 FIELD NO. HY-80-1-62

Texas-Louisiana, Gulf of Mexico, South of Sabine Bank

SURVEYED: July through August 1962 and September 1963

SCALE: 1:80,000 PROJECT NO.: OPR-427

SOUNDINGS: Raytheon DE-723 Depth Recorders CONTROL: Raydist

Chief of Party	R. M. Stone
Surveyed by	P. A. Stark
	J. E. Guth
	R. L. Speer
	M. H. Schilly
	F. D. Moran
	G. Fussell
	D. G. Popejoy
	R. A. Ganse
	C. D. Upham
	W. E. Randall
	S. C. Miller
	J. H. Allred
	N. A. Barnes, Jr.
Protracted by	Gerber Digital Plotter
Soundings Plotted by	Gerber Digital Plotter
Verified by	R. D. Lynn (PMC)
Reviewed by	D. E. Westbrook
	Date: July 26, 1968
Inspected by	R. H. Carstens

1. Description of the Area

The present survey covers two areas south of Sabine Bank in the Gulf of Mexico. Except for some irregularity in the vicinity of the ten fathom curve, the bottom is gently sloping and featureless, and is generally composed of sand, mud, and broken shells.

The presence of subsurface oil deposits is indicated by an oil well structure located in the northeast portion of the survey.

2. Control and Shoreline

The control is adequately described in the Descriptive Report.

No shoreline falls within the limits of this survey.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves were adequately delineated. Two features were emphasized by brown depth curves in accordance with Par. 6-64 of the Hydrographic Manual.

C. The development of the bottom configuration and determination of least depths are considered adequate.

4. Condition of the Survey

The sounding records, automated plotting, and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, as amended by instructions promulgating the Automatic Digital Recording System.

The marine center verification of the machine plotted smooth sheet is not considered adequate. A list of some deficiencies found during the review follows:

A. The verifier's reports (Forms 946 and 946A) were not filled out and inserted into the Descriptive Report.

B. The projection lines were incompletely inked.

C. Unnatural depth curves and imperfect crossings could have been improved considerably by rescanning a few soundings where necessary.

D. The tracing paper preliminary plots should have been transmitted with the records.

E. A few soundings were found to be erroneously scanned or erroneously entered into the automated

records. In addition, seventeen (17) soundings were plotted one fathom in error by the Gerber Plotter, even though the records were correct. The verifier should have discovered these errors.

5. Junctions

Adequate junctions were effected with H-8737 (1962-63) and H-8738 (1962-63) on the north.

Because random differences of 1-3 feet exist between the present survey and the following surveys, butt junctions were effected in whole or in part with H-6292 (1937) and H-6293 (1937) on the south; H-6291 (1937) and H-6251 (1937) on the west; and with H-6294 (1937) located between the eastern and western portions of the present surveys.

A butt junction was effected with H-5411 (1933) on the east, primarily because its soundings had been plotted in integral fathoms whereas the present survey is plotted in fathoms and tenths. General agreement between the two surveys, however, is good.

6. Comparison With Prior Surveys

A. H-657 (1:635,000) 1858
H-1350 (1:600,000) 1875-77

These small scale surveys contain only a few reconnaissance lines and, as such, adequate comparison with the present survey cannot be made. The present survey supersedes these surveys within the common area.

B. H-4333 (1:80,000) 1923
H-4335 (1:80,000) 1923-24

These surveys comprise the only adequate prior survey coverage of the present survey area.

A comparison between these surveys and the present survey shows the prior soundings to be from 2-4 feet deeper than those on the present survey, the differences seeming to increase with the depth of water. However, these differences are not consistent over the entire area because in several places very good agreement is apparent.

In this type of offshore area in depths of 60-120 feet, it is not believed that sedimentation of an amount necessary to cause these differences would have occurred. Rather, most of the differences in depth probably should be attributed to a probability that the prior leadline soundings were not always read "up and down" (when the line was vertical). In addition, the less accurate (precise dead reckoning and buoy control) positional control used on the prior surveys may have contributed to the depth differences.

Some bottom change is apparent, however, in lat. 28° 58!0, long. 93°57!5 where the ten-fathom curve on the present survey is located about 1.5 miles east of that shown on H-4333 (1923), where depths of 59 feet on the present survey occur in prior depths of 65 feet. After allowing for the previously discussed depth differences, this comparison still indicates an easterly extension of the tip of the shoal of about 0.8 miles in 40 years.

On H-4335 (1923-24), a sounding of 58 feet was obtained in lat. 28°49!75, long. 93°35!48. This sounding was originally charted on Chart 1116 as a nine fathom sounding until 1939. At that time, the sounding was erroneously deleted from the chart when the soundings from an adjoining survey, H-6294 (1937), were applied. H-6294, however, does not cover the area where the 58 foot shoal is located. This sounding falls in one of the few irregular bottom areas on the present survey and is thought to have been valid, and may still be, since the present hydrography does not verify or disprove it. Therefore, the 58 foot sounding (9.7-fm.) and a nearby bottom characteristic have been brought forward from H-4335 to supplement the present survey.

With the addition noted above, the present survey is adequate to supersede the prior surveys within the common area.

7. Comparison With Chart 1280, 7th Ed., March 13, 1967
Chart 1116, 17th Ed., January 15, 1968

A. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration, supplemented by several soundings from the

present survey boat sheet and the present survey before review.

Attention is directed to the following:

1. The sunken wreck PA charted in lat. 28°48!25, long. 93°14!00 was reported in N. to M. No. 34 of 1961 to be the fishing vessel SANTA FEZ which burned and sunk August 2, 1961. This wreck was listed as Pre-Survey Review Item No. 18, OPR-427, dated May 16, 1962.

A search for the wreck was made on the present survey in the reported area and nothing was found. It has been concluded that the hydrographic investigation was not sufficient to disprove the existence of the wreck, particularly since its reported position was only approximate. This wreck, therefore, should be retained as shown on Chart 1116 until such time as it can be verified or disproved by wire-drag. Since the wreck is charted near a Safety Fairway, it has been scheduled for investigation when the fairways are swept.

2. The oil well tower (platform) charted in lat. 29°08!3, long. 93°17!4 originates with N. to M. No. 30 of 1963. The Descriptive Report states that it was located by Raydist but no position for it could be found in the records. The oil well tower (FOC-WC-229 A) has been plotted on the present survey using an adjusted boat sheet position, which agrees substantially with the original reported position. The Notice to Mariners position for this platform, however, is adequate for charting.

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

8. Compliance With Instructions

The survey adequately complies with the Project Instructions.

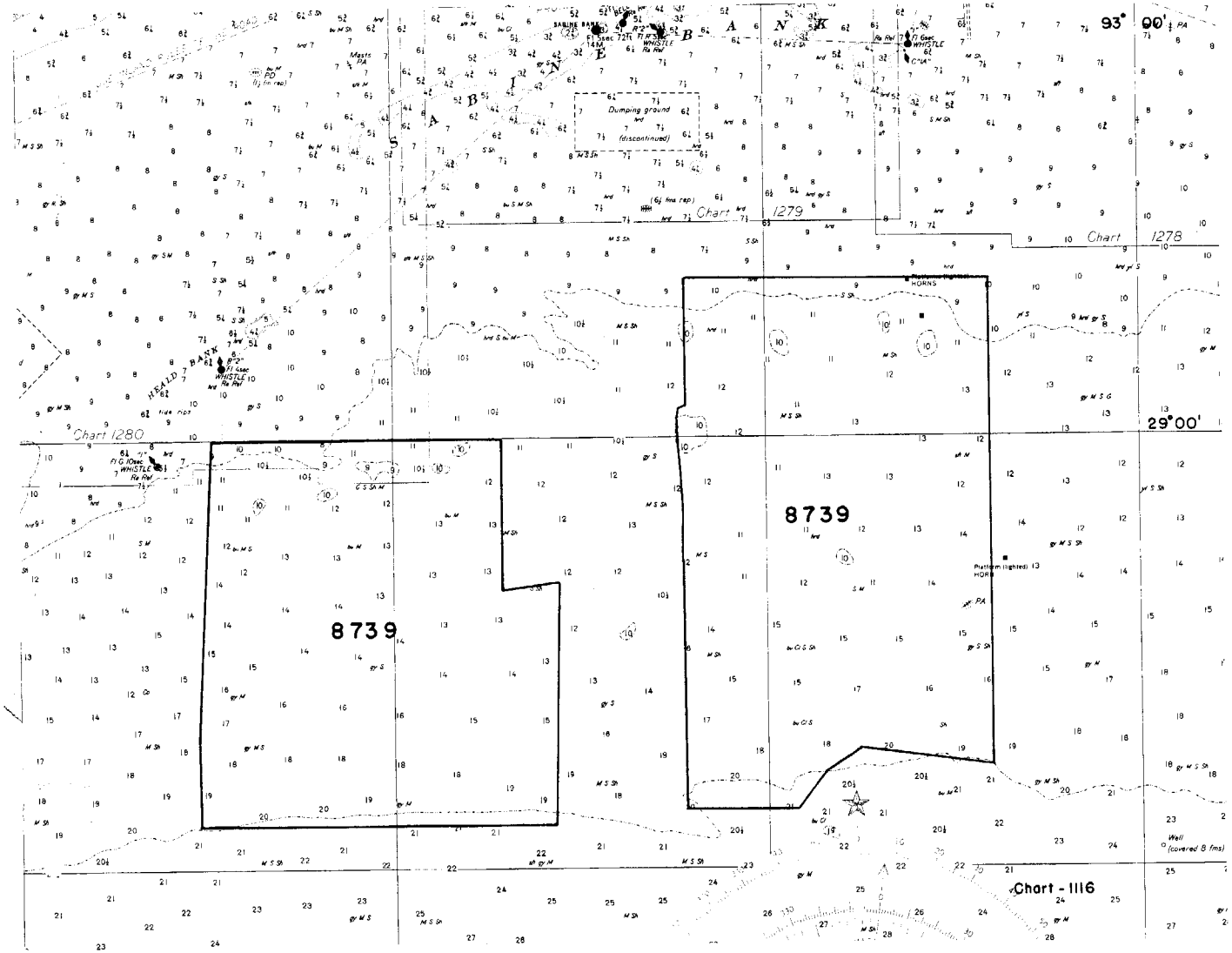
9. Additional Field Work

This survey is considered to be an excellent basic survey and no additional field work is recommended.

Examined and Approved:

John O. Boyer
Chief
Marine Chart Division

Associate Director
Office of Hydrography
and Oceanography


93° 00'
29°00'
Chart 1279
Chart 1278
Chart 1280
Chart - 1116
8739
8739
Dumping ground
(discontinued)
HEALD BANK
HORNS
Platform (lighted)
HORN
Well
(covered 8 fms)

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8739

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.
1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
1280	4-30-65	Heheedon Rodda	~~Full~~ Part Before ~~After Verification~~ Review ~~Inspection Signed Via~~
			Drawing No. #13 App'd soundings and revised 60' curve
1116	5-3-65	Heheedon Rodda	~~Full~~ Part Before ~~After Verification~~ Review ~~Inspection Signed Via~~
			Drawing No. #30 App'd soundings & revised 10 fath Curve thru Cht 1280 #13 - App'd sdgs & revised 10 fath curve directly
1117	5/27/65	O Svendsen	~~Full~~ Part Before After ~~Verification~~ Review Inspection Signed Via
			Drawing No. 21 (Revised 10fm curve from 1116 Drg #30)
1007	6/15/65	Hilmer	~~Full~~ Part Before ~~After~~ ~~Verification~~ Review Inspection Signed Via
			Drawing No. Revised position of 2 (10) 4
1117	3/26/70	C.S. Forbes	~~Full~~ ~~Part Before~~ After ~~Verification~~ Review Inspection ~~Signed~~ Via
			Drawing No. 26, Fully ~~app'd within limits of Cht 1280 Dwg #16~~
1116	3/26/70	C.S. Forbes	~~Full Part Before~~ After Verification Review Inspection ~~Signed~~ Via
			Drawing No. 40 (Appd 9 3 fm sounding) ~~Fully appd within limits of Cht 1280 Dwg #16~~
1280	3/28/70	C.S. Forbes	~~Full Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 16. Revised 60 Ft curve and appd soundings
1007	8-24-70	Eric Freg	Full ~~Part Before~~ After Verification Review Inspection Signed Via 1116
			Drawing No. 40 Revised sdg & depth curve for full application
~~1116~~	~~9-4-75~~	B. Stevens	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. ~~#39~~ Redesignated #40
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.

FORM C&GS-8352 SUPERSEDES ALL EDITIONS OF FORM C&GS-975.

USCOMM-DC 8558-P63