8795

DIAG. CHT. NOS. 1116-3, 1279 & 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-40-1-64 Office No.: H-8795

LOCALITY

State: Texas - Louisiana

General locality: Gulf of Mexico

Locality: Vicinity of Sabine Pass

19 64

CHIEF OF PARTY

V. R. Sobieralski

LIBRARY & ARCHIVES

DATE: Dec. 7 1965

USCOMM-DC 37022-P66

8795

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

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

REGISTER NO.

H-8795

HYDROGRAPHIC TITLE SHEET

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-40-1-64

State Texas - Louisiana

General locality Gulf of Mexico

Locality Vicinity of Sabine Pass ~~Sabine Bank~~ and vicinity

Scale 1:40,000 Date of survey July 17 to September 2, 1964

Original Inst. dtd. 5/15/62, Supp. Inst. dtd.

Instructions dated 7/15/63, Rev. Inst. dtd 8/9/63, Project No. OPR-427

Supp. Inst. dtd. 3/27/64, Proj. Inst. letter dtd. 5/12/64, Supp. Inst. dtd. 8/13/64

Vessel USC&GS Ship HYDROGRAPHER and Launch HY-1

Chief of party V. Ralph Sobieralski, CDR, USC&GS

Surveyed by J. P. Randall, D. W. Crawford, J. H. Allred, S. J. Ruden, W. R. Klesse, N. A. Barnes Jr., W. Y. S. Williams, J. T. Smith, M. A. Levitan

Soundings taken by echo sounder, ~~hand lead, pole~~ DE-723 Serial Numbers 61-29 and 555

Graphic record scaled by Ship Personnel

Graphic record checked by Ship Personnel

Protracted by to be smooth plotted, by Gerber Plotter, at Regional Office, Seattle, Wash.

Soundings penciled by same as above

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

The procedure for processing and disposition of records is as follows:

REMARKS: SHIP - The fathogram is scanned and corrected or omitted soundings are entered on the original printout (by hand). Raydist, Tide and Draft corrections are entered on the original printout (by hand). (Tide corrections are first verified by Washington Office). The original punched tape is not altered. Using the corrected original printout, a Corrector punched tape is made with its own printout. This is proof-read. A third tape containing Velocity data is prepared (with printout).
LAUNCH - Launch hydrographic data was transferred from sounding volumes, by hand logger, to Raw Data punched tape with printout. The one exception is: the sounding on this tape is the scanned or ommitted sounding. The Raydist values on this tape are uncorrected. This is proof-read. The remainder of the tape is same as that of the ship.
The tapes, printouts, boatsheets, descriptive report, sounding volumes, Brush Recorder tapes and fathograms are forwarded to the Regional Office, Seattle, Washington, for final compilation and smooth plotting using the Gerber Plotter.

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY (HY-40-1-64)

H-8795

1964

USC&GS SHIP HYDROGRAPHER — SCALE 1:40,000

V. RALPH SOBIERALSKI, CDR, USC&GS — CHIEF OF PARTY

A. PROJECT

This survey was accomplished under Project OPR-427; original instructions dated May 15, 1962; supplemental instructions dated July 15, 1963; revised instructions dated August 9, 1963; supplemental instructions dated March 27, 1964; project instructions letter dated May 12, 1964; supplemental instructions dated August 13, 1964.

B. AREA SURVEYED

This is a coastal survey in the Gulf of Mexico, vicinity Sabine Pass, Texas - Louisiana, between Longitude 93°43.5' and 94°15.5' West and Latitude 29°27.0' North northward to coast, except for the shoal area of Sabine Bank. The total area covered by the ship is 228 square nautical miles. Launch hydrography consists of 133 square nautical miles.

Hydrography was accomplished during the period July 17, 1964 through September 2, 1964.

The survey junctions with the following prior surveys:

1. On the ~~south and east half of survey~~ with H-8796 H-4332, scale 1:40,000, year 1923 64
2. On the south with H-8712, scale 1:40,000, year 1962 and H-8767, scale 1:40,000, year 1963.
3. ~~On the west with H-6251, scale 1:40,000, year 1937~~
4. ~~On the south and west half of survey with H-4334, scale 1:40,000, year 1923~~

C. SOUNDING VESSEL

Hydrography was accomplished using USC&GS SHIP HYDROGRAPHER and Launch HY-1.

D. SOUNDING EQUIPMENT

All hydrography was accomplished using the Raytheon Survey Fathometer, Model DE-723, Serial Numbers 61-29 and 555. Instrument number 61-29 was used on the ship and was provided with an encoder in conjunction with the DATEX Automatic Recording System. Instrument number 555 was used for all launch hydrography.

The fathometer initial setting for ship hydrography was maintained at 12.0 feet until 1441 July 18 and then changed to 11.0 feet for the remainder of hydrography. The fathometer initial setting on the launch was maintained at 0.0 feet.

Depths encountered varied from 0 to 42 feet.

Echo sounder corrections for the ship were determined as follows:

(a) Transducer draft corrections were derived from daily measurements from an internal gage connected to the main engine cooling water intake. Determinations are outlined in Report on Corrections to Echo Sounders dated 1964.

(b) Settlement and Squat corrections were derived from 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) It was not necessary to determine phase corrections as all sounding was accomplished on "A" Scale.

(e) Sound velocity corrections were determined from velocimeter observations that were taken approximately every two weeks. These were supplemented by one temperature and salinity observation.

Echo sounder corrections for the launch were determined as follows:

(a) Transducer draft, echo sounder instrument, and sound velocity corrections were determined from bar checks taken during periods of calm weather and sea conditions.

(b) Settlement and Squat corrections were derived from tests made on September 1, 1964.

E. SMOOTH SHEET

The smooth sheet will be plotted in the Seattle Regional Office utilizing a punched tape prepared by the ship's personnel. A corrector tape will be used in conjunction with the original punched tape. Velocity corrections were logged on a separate tape, called the velocity tape.

F. CONTROL

All hydrography on this survey was controlled by Raydist, supplemented on the inshore end of each launch line with one to three visual fixes.

The R1 (RED) station was located in the vicinity of Johnsons Bayou, Louisiana. The Raydist mast was erected over station BULL, 1964, Latitude 29°47'35.776" North, Longitude 93°44'53.842" West.

All hydrography accomplished prior to August 21, 1964 was controlled by the R2 (GREEN) station in the vicinity of Big Hill, Texas southwest of Port Arthur, Texas. The Raydist mast was erected over station LEE, 1964, Latitude 29°45'18.711" North, Longitude 94°14'45.619" West.

Hydrography accomplished after August 25, 1964 was controlled by the R2 (GREEN) station on the Sabine National Wildlife Refuge north of Holly Beach, Louisiana. The Raydist mast was erected over station WILD, 1964, Latitude 29°51'57.534", Longitude 93°27'13.494".

Personnel from the HYDROGRAPHER established all three Raydist

stations during February, 1964, using third-order methods. Stations were temporarily marked with iron stakes and were not described. Considered as a topo station (not in Geodesy Div)

Norfolk Photo Field Unit 751 provided photo-hydro support for the supplementary visual hydrography on the inshore ends of the lines. Agreement between Raydist and visual positions was very good and the visual positions were used to aid in determining the Raydist corrections for the launch hydrography. Advanced manuscripts ~~T-10629~~, ~~T-10635~~, T-10778, T-10779, T-10780 and T-10783 revised July 1963 were used to transfer signals. Also RS806(T-10635), RS807(T-10629)

G. SHORELINE See Review Par 2

This shoreline in this survey was transferred to the boatsheet from blueline tracings of the manuscripts listed in paragraph F. Norfolk Field Unit 751 completed the inspection of shoreline while the hydrographic party found no major disagreement with that delineated on the manuscripts. Small tide ranges prevented a complete definition of the low water line in the area surveyed.

H. CROSSLINES

Approximately 10% of all sounding lines were run as crosslines. All crossings are in good agreement.

I. JUNCTIONS See Review Par 55

H-8796 (1964)

The comparison with the junction soundings of ~~prior~~ surveys ~~H-4332, H-4334, H-6251~~, H-8712 (1962) and H-8767 (1962) indicates ~~very~~ good agreement. ~~with only random differences of two feet.~~

J. COMPARISON WITH PRIOR SURVEYS (See Review Par 6

~~The comparison of soundings with prior surveys H-6251 and H-8767 shows generally good agreement.~~ The comparison with prior surveys H-4332 and H-4334 was very good except for the large area west of Sabine Pass from the southeast corner of the dumping ground Latitude 29°34.0' North, Longitude 93°49.0' West due west to Longitude 94°06.0' West thence north to the shoreline. Within this area major shoaling has occurred with as much as 14 feet change in depth

in the vicinity of Latitude 29°36.5' North, Longitude 93°56.5' West. This apparently is the result of material dredged from the deepened channel south of Sabine Pass being carried to the area from the dumping ground by the prevailing westerly current. U.S. Coast Guard was notified of shoaling September 11, 1964. Within a three square mile area, vicinity Latitude 29°38.0' North, Longitude 93°52.0' West, immediately west of Sabine Pass jetty, the bottom has deepened by up to 7 feet. This is apparently the result of scouring action by an eddy current.

All numbered presurvey review items originally assigned to the HYDROGRAPHER were reassigned to the ships WAINWRIGHT and HILGARD. No indications were found of any of the items on the fathograms of the regular system of hydrography. ~~There were no pier ruins within the limits of this survey~~. All offshore oil installations within this survey were located by Raydist and/or sextant fixes and are enumerated in Paragraph "M".

In accordance with presurvey review item "e", the Corps of Engineers Resident Office was contacted and there is no change in the Sabine Pass dumping grounds or spoils area. Proposed plans for construction of pipe lines from two offshore structures to the shoreline have been submitted under separate cover.

The "Platform (lighted) horn" Latitude 29°35'11" North, Longitude 94°14'23" West, Chart 1280, no longer exists.

K. COMPARISON WITH CHARTS See Review Part 7

A comparison was made with C&GS Charts, 1279, 6th Edition, August 28, 1961, Revised 3/4/63; 1280, 6th Edition, April 4, 1960, Revised 5/4/64; and 517, 18th Edition, April 8, 1963. The portion of Chart 1280 that falls within the area of the survey indicated good agreement except for the corner of the chart north of Latitude 29°34' North and east of 94°06' West where shoaling of up to 18 feet has occurred. Similar discrepancies occur on Chart 1279 north of 29°34' North and west of Sabine Pass with generally good agreement elsewhere. The portion of Chart 517 east of Sabine Pass agrees very well with only random soundings differing by one foot, while west of the Pass there

is essentially no agreement. Four soundings in the vicinity Latitude 29°36.6' North, Longitude 93°57.8' West are charted 14 feet deeper than the depths encountered in this survey and at Latitude 29°38.3' North, Longitude 93°58.4' West one charted sounding is 7 feet shoaler than that encountered elsewhere in this area. Nearly every sounding disagrees within the above extremes.

A shipwreck, with the mast 20 feet above water, was located in 6 feet of water at Latitude 29°40'35" North, Longitude 94°00'11" West. Position information is on Page 9; Launch HY-1 Sounding Volume II.

Sabine Pass Approach Wreck Lighted Buoy WR2A marking the wreck of the "TERRY WALKER" (HYDROLANT 1069/64-B, Notice to Mariners 29 of 1964) was located at Latitude 29°35'34" North, Longitude 93°51'44" West, from data listed on Page 36, Launch HY-1 Sounding Volume XI.

L. ADEQUACY OF SURVEY

This survey is complete and adequate to supersede prior surveys of the area for charting. Several of the inshore ends of the lines were stopped short of the low water line at times of low tides.

M. AIDS TO NAVIGATION

All floating aids within the limits of the survey were located by the hydrographic survey with Raydist control and were compared with U.S. Coast Guard Light List Volume II, Atlantic and Gulf Coast, 1964. The positions of Lighted Buoy "2" (7329), Lighted Bell Buoy "4" (7330), East Jetty Bell Buoy "6" (No Number - Page 894), Lighted Whistle Buoy "1" (7326) and Sabine Shoal Lighted Whistle Buoy "2" (6462) were verified. Tug "SAN SABA" Wreck Buoy WR2 (No.Number - Page 787), maintained by U.S. Army Corps of Engineers, has shifted to Latitude 29°40.1' North, Longitude 93°59.9' West. The WAINWRIGHT and HILGARD were instructed to locate the wreck which would indicate whether or not the buoy is adequately serving the purpose for which it was established. For information concerning the wreck buoy marking the "TERRY WALKER" see paragraph above on this page beginning "Sabine Pass Approach," etc.

The following offshore oil installations were located by the ship and Launch HY-1 with Raydist and/or visual fixes; the first six are listed

in Eighth Coast Guard District Local Notice to Mariners No. 76 dated July 1, 1964:

Structure Sign Designating Company, Area, Block Number, Structure Number or Letter		Latitude	Longitude
CALCO	WC-17-1	29°41'42" N.	93°43'48" W.
CALCO	WC-17-2	29°42'12" N.	93°43'58" W.
CALCO	WC-48-2	29°41'00" N.	93°44'51" W.
WOOD	HI-20-S-1	29°39'28" N.	93°58'32" W.
MOBILE	HI-10L-135-1	29°33'51" N.	94°00'18" W.
STD OF TEX	HI-52-2	29°26'56" N.	94°09'28" W.
Oil Rig (No Name)	(No Sign)	29°39'50" N.	93°47'14" W.
Oil Pipe		29°41'08" N	93°44'17" W
Oil Burn-off Pipe Platform		29°39'23" N. 29°41'11" N.	93°48'05" W. 93°43'45" W

The above locations were scaled from uncorrected boatsheet positions.

N. STATISTICS

Vessel - Ship HYDROGRAPHER

Number of Positions ----------2178

Miles of Sounding Line ----------1408.1

Area in Square Nautical Miles ---------- 228

Number of Bottom Samples ---------- 38

Vessel - Launch HY-1

Number of Positions ----------2284

Miles of Sounding Line ----------1062.6

Area in Square Nautical Miles ---------- 133

Number of Bottom Samples ---------- 15

Within the area of this survey one Current Station (No. 1) was observed - Position Latitude 29°35.0' North, Longitude 94°00.0' West.

0. MISCELLANEOUS

The 1964 field records for ship hydrography of this survey were recorded automatically by the DATEX Digital Recording System consisting of a literal printout and punched paper tape; this in conjunction with a corrector tape will be used for automatic processing and mechanical plotting systems. All launch hydrography was originally recorded in sounding volumes and is to be logged into the DATEX system for similar reasons. Following is the format used for this survey:

(a) Original Hydrographic Data:

Time	Phase Indicator	Depth	Position Number	Day Number	Feet/Fathoms	Raydist (R_1)	Raydist (R_2)
083000	01	*0275	1867	275	1	078270	103250

*For launch hydrography this will be the scanned depth.

(b) Corrector Tape:

						Raydist Corrections		Sounding Corrections		
Time	Phase Indicator	Scanned Depth	Position Number	Day Number	Feet/Fathoms	Raydist (R_1)	Raydist (R_2)	Tide	Draft	Velocity
083000	01	0278	0028	252	1	100120	000120	1032	032	000

For complete information concerning the logging of data for the automatic plotting systems refer to Chief, Operations Division Memorandum WSC-210 dated December 7, 1964 (Subject: Revised Instructions for Logging the Corrector Tape). Copy of memorandum is appended to this report.

(c) Velocity Tape:

In making the Velocity Tape, all entries will consist of short words. Example below:

Depth Range	Velocity Correction	Velocity Tape Format
0 to 5.0 fms	+ 0.1 fms	000050 00 0001
5.1 to 7.0	+ 0.2	000070 00 0002
7.1 to 9.0	+ 0.3	000090 00 0003
9.1 to 11.0	+ 0.4	000110 00 0004
11.1 to 13.0	+ 0.5	000130 00 0005

For complete instructions concerning the Velocity Tape, refer to Chief, Operations Division Memorandum WSC-210 dated December 7, 1964. (Copy appended to this report).

Within the area of this survey there is a mud slush layer, lying on the bottom, that may be detected by hand lead. Gain and stylus needle length settings on the fathometer are especially critical because of this condition. Gain checks were made to determine the proper gain setting for any given area.

P. RECOMMENDATION

None

Q. REFERENCES TO REPORTS

The reports listed below are necessary for a complete evaluation and understanding of this survey and have been submitted to the Washington Office:

Title of Report	Date Forwarded
Raydist Report, 1964 Field Season, Project OPR-427, Sabine Bank, Texas - Louisiana	

USC&GS SHIP HYDROGRAPHER - 1964 - cont'd.

Title of Report	Date Forwarded
Report on Corrections to Echo Soundings, 1964 Field Season, Project OPR-427, Sabine Bank, Texas - Louisiana	
Report on Landmarks for Charts and Fixed Aids to Navigation, OPR-427, Sabine Bank, Texas - Louisiana	2/2/65
Season's Report, USC&GS Ship HYDROGRAPHER 1964 Field Season	1/19/65

Submitted:

James H. Allred
for Stanley J. Ruden, LTJG, USC&GS

Approved and Forwarded:

V. Ralph Sobieralski
V. Ralph Sobieralski, CDR, USC&GS

SIGNAL NAMES

Signal Name	T-Sheet or Triangulation
ACE	T-10778
ANN	T-10778
BED	T-10629
BOX	T-10778
BREEZE	BREEZE, 1963
CAM	T-10780
CHESSON	CHESSON, 1963
CON	T-10635
CRY	T-10778
CUE	T-10635
DAY	T-10780
EAR	T-10629
FAD	FADDEN, 1934
FIN	T-10629
FOG	T-10780
FOR	T-10778
GUS	T-10778
HEAT	OIL HEATER, 1960 etc.
HEX	T-10780
HOW	T-10778
HUB	T-10635
ICE	T-10629
IDA	T-10635
IRK	T-10779
JAR	T-10635
JAX	T-10635
JIB	T-10779
JOE	T-10778
KEN	T-10779
KIM	T-10635
LAX	T-10779
LIT	T-10635
LIZ	T-10780
MAG	T-10780

(cont'd) SIGNAL NAMES

Signal Name	T-Sheet or Triangulation
MEAD	MEAD, RM3, 1963
MET	T-10635
MOBIL	~~Triangulation~~ Launch HY-1, Vol. I, Pg. 3
MOP	T-10779
MUG	T-10783
NOD	T-10780
NOT	T-10778
NUT	T-10779
OIL	T-10779
ORB	T-10778
OUT	T-10635
PAS	Sabine Pass East Jetty Light (NEW)
PAW	T-10783
POLE	POLE, 1963
POT	T-10635
PUP	T-10779
REB	REBECCA 2, 1934
RIP	T-10783
ROAD	ROAD, 1934
ROD	Launch HY-1 Volume II, Page 6, Vol. III, Pg. 8
RUM	T-10635.
SABINE BANK L.H.	Sabine Bank Lighthouse, 1906
SAB	Sabine Pass Lighthouse, 1874
SHELL	SHELL, 1934
SKY	T-10780
SLY	T-10779
TIM	T-10779
TOM	T-10778
USE	T-10780
VET	T-10780
VOR	Sabine Pass VOR, 1963
WIN	T-10635
WOOD	Launch HY-1 Volume VIII, Page 26
ZAG	T-10778

INDEX OF BOTTOM SAMPLES

Day Number	Date	Position Number
199	July 17	0017 + 3 minutes
199	"	0020
224	August 1	1405
224	"	1406
224	"	1407
225	August 12	1408
225	"	1409
225	"	1410
225	"	1411
225	"	1412
225	"	1413
225	"	1414
225	"	1415
225	"	1416
225	"	1417
225	"	1418
225	"	1419
225	"	1420
225	"	1421
226	August 13	1422
226	"	1423
226	"	1424
226	"	1425-1426
226	"	1427
226	"	1428
226	"	1443
226	"	1444
226	"	1445
227	August 14	1446
227	"	1447
227	"	1448
227	"	1449
231	August 18	1979
231	"	1986
232	August 19	2048
242	August 29	2155
242	"	2156

INDEX OF BOTTOM SAMPLES

LAUNCH HY-1

Day Number	Date	Position Number	Volume
231	August 18	6427 + 2 min.	XI
231	"	6431 + 3 min.	XI
232	August 19	6638	XII
232	"	6658	XII
240	August 27	6695	XIII
240	"	6696	XIII
240	"	6697	XIII
240	"	6698	XIII
240	"	6699	XIII
240	"	6700	XIII
240	"	6701	XIII
242	August 29	6845	XIII
244	August 31	6981	XV
245	September 1	7187	XVI

RAYDIST CORRECTIONS

PROJECT OPR-427

SABINE BANK, TEXAS - LOUISIANA

1964 FIELD SEASON

The following listed corrections apply to ship hydrography only and show the times of actual hydrography:

Day of the Year	Date	From	To	Corrections (R_1)	(R_2)
199	7-17	2141	2400	- 0.2	+ 0.2
200	7-18	0000	0115	- 0.2	+ 0.2
		0205	0911	- 0.2	+ 0.2
		0912	1441	+ 1.8	- 1.8
		2057	2400	- 0.2	+ 0.2
201	7-19	0000	0835	- 0.2	+ 0.2
		0927	1557	- 0.2	+ 0.2
		1854	2400	- 0.2	+ 0.2
202	7-20	0000	0810	- 0.2	+ 0.2
		2306	2400	- 0.2	+ 0.2
203	7-21	0000	0746	- 0.2	+ 0.2
		0858	1627	- 0.2	+ 0.2
		2005	2400	- 0.2	+ 0.2
204	7-22	0000	0740	- 0.2	+ 0.2
		0944	1412	- 0.2	+ 0.2
		2024	2400	- 0.2	+ 0.2
205	7-23	0000	0613	- 0.2	+ 0.2
210	7-28	2100	2400	- 0.2	+ 0.2

Raydist Corrections (Ship) cont'd.

Day of the Year	Date	From	To	Corrections (R_1)	(R_2)
211	7-29	0000	0453	- 0.2	+ 0.2
		2117	2400	- 0.2	+ 0.2
212	7-30	0000	0253	- 0.2	+ 0.2
		2143	2400	+ 0.8	+ 1.2
213	7-31	0000	0240	+ 0.8	+ 1.2
		2150	2400	- 0.2	+ 0.2
214	8-1	0000	0331	- 0.2	+ 0.2
216	8-3	2127	2400	+ 0.8	- 0.8
217	8-4	0000	0250	+ 0.8	- 0.8
		2120	2400	- 0.2	+ 0.2
218	8-5	0000	0258	- 0.2	+ 0.2
224	8-11	2308	2400	+ 0.8	+ 0.2
225	8-12	0000	0047	+ 0.8	+ 0.2
		0221	0348	- 0.2	+ 0.2
		2048	2400	- 0.2	+ 0.2
226	8-13	0000	0012	- 0.2	+ 0.2
		0133	0337	+ 0.8	- 0.8
		2147	2400	+ 0.8	- 0.8
227	8-14	0000	0147	+ 0.8	- 0.8
		2220	2400	- 0.2	+ 0.2
228	8-15	0000	0925	- 0.2	+ 0.2
		0937	2400	- 0.2	+ 0.2
229	8-16	0000	0715	- 0.2	+ 0.2
		0758	1248	- 0.2	+ 0.2
		2158	2400	- 0.2	+ 0.2

Raydist Corrections (Ship) cont'd.

Day of the Year	Date	From	To	Corrections (R_1)	(R_2)
230	8-17	0000	0319	- 0.2	+ 0.2
		2046	2400	- 0.2	+ 0.2
231	8-18	0000	0252	- 0.2	+ 0.2
		2119	2400	- 0.2	+ 0.2
232	8-19	0000	0222	- 0.2	+ 0.2
		2158	2400	- 0.2	+ 0.2
233	8-20	0000	0612	- 0.2	+ 0.2
242	8-29	1529	1630	0.0	0.0
243	8-30	2050	2214	- 0.3	- 0.6
244	8-31	2058	2122	- 0.3	- 0.6

Raydist Corrections (Launch HY-1)

Day of the Year	Date	From	To	Corrections (R_1)	(R_2)
211	7-29	1400	1505	- 0.3	+ 0.4
		1706	1856	- 0.3	+ 0.4
212	7-30	0603	0615	- 0.3	+ 0.4
		0629	1150	- 0.3	+ 0.4
		1316	1702	- 0.3	+ 0.4
213	7-31	0708	0751	- 0.3	+ 0.4
		0826	1216	- 0.3	+ 0.4
		1320	1734	- 0.3	+ 0.4
		1851	1900	- 0.3	+ 0.4
214	8-1	0619	0630	- 0.3	+ 0.4
		0648	0716	- 0.3	+ 0.4
		0839	1155	- 0.3	+ 0.4
		1240	2012	- 0.3	+ 0.4
215	8-2	0635	1030	- 0.3	+ 0.4
		1059	1137	+ 0.7	+ 1.4
		1308	1836	- 0.3	+ 0.4
216	8-3	0835	1518	- 0.3	+ 0.4
		1519	1856	- 1.3	+ 0.4
		1857	1907	- 1.3	+ 1.4
217	8-4	0540	1215	- 0.3	+ 0.4
		1513	1852	- 0.3	+ 0.4
218	8-5	0559	0808	- 0.3	+ 2.4
		0850	1200	- 0.3	+ 0.4
		1251	1621	- 0.3	+ 0.4
224	8-11	1536	1728	- 0.3	- 0.6
		1729	1732	- 0.3	+ 3.4
		1734	1736	- 0.3	+11.4
		1737	1745	- 0.3	+13.4

USC&GS SHIP HYDROGRAPHER - 1964 - cont'd.

Raydist Corrections (Launch HY-1) cont'd.

Day of the Year	Date	From	To	Corrections (R_1)	(R_2)
225	8-12	0925	1153	- 0.3	- 0.6
		1233	1908	- 0.3	- 0.6
226	8-13	0751	1110	- 0.3	+ 3.4
		1238	1329	+ 0.7	+ 2.4
		1508	1625	- 0.3	- 0.6
		1657	1708	- 0.3	- 0.6
		1709	1838	+ 0.7	- 0.6
227	8-14	0548	1128	- 0.3	+ 0.4
		1245	1725	- 0.3	+ 0.4
		1726	1845	- 0.3	+ 2.4
229	8-16	1514	1626	+ 0.7	+ 1.4
		1737	1914	+ 0.7	+ 0.4
230	8-17	0608	1207	- 0.3	+ 0.4
		1257	1842	- 0.3	+ 0.4
231	8-18	0559	1151	+ 0.7	- 0.6
		1312	1612	+ 0.7	- 0.6
		1737	1847	+ 0.7	- 0.6
232	8-19	0550	1822	+ 0.7	- 0.6
233	8-20	0845	0940	- 0.3	+ 0.6
		0941	1048	- 0.3	+ 0.6
240	8-27	1515	2000	- 0.3	+ 0.6
242	8-29	0638	1813	- 0.3	+ 0.4
243	8-30	0608	1829	- 0.3	+ 0.4
244	8-31	0615	1830	- 1.3	+ 0.4
245	9-1	0552	1820	+ 0.7	+ 0.4
246	9-2	0731	1422	- 0.3	+ 0.4

Listed below are the Total Draft Corrections, in feet, for the ship only. Only times of actual hydrography are listed.

Draft Correction is based on daily readings from an internal gage in the ship's engine room.

Settlement & Squat Correction is based on following values for ship's speed: Full Speed + 1.0 feet, Half Speed + 0.3 feet, Slow Speed and Stop 0.0 feet.

Instrument or Index Correction is the amount the fathogram initial is in error. (where is residual difference with VC - apparently not significant as ship & launch drafts agree)

ABSTRACT OF TOTAL DRAFT CORRECTIONS

Day of the Year	Date	From	To	Draft Corr.	S & S Corr.	Instr. or Index Corr.	Total Draft Corr.
199	7-17	2115	2400	+ 0.4	+ 1.0	- 1.0	+ 0.4
200	7-18	0001	0220	+ 0.4	+ 1.0	- 0.8	+ 0.6
		0244	0417	+ 0.4	+ 1.0	- 1.0	+ 0.4
		0455	0745	+ 0.4	+ 1.0	- 1.2	+ 0.2
		0746	1125	+ 0.4	+ 1.0	- 1.0	+ 0.4
		1207	1300	+ 0.4	+ 1.0	- 0.8	+ 0.6
		1326	1441	+ 0.4	+ 1.0	- 1.0	+ 0.4
		2057	2400	+ 0.4	+ 1.0	0.0	+ 1.4
201	7-19	0001	1557	+ 0.3	+ 1.0	0.0	+ 1.3
		1854	2125	+ 0.3	+ 1.0	0.0	+ 1.3
		2148	2311	+ 0.3	+ 1.0	- 0.2	+ 1.1
		2330	2400	+ 0.3	+ 1.0	0.0	+ 1.3
202	7-20	0001	0200	+ 0.3	+ 1.0	0.0	+ 1.3
		0201	0810	+ 0.2	+ 1.0	0.0	+ 1.2
		2306	2400	+ 0.2	+ 1.0	0.0	+ 1.2
203	7-21	0001	0530	+ 0.2	+ 1.0	0.0	+ 1.2
		0531	0905	+ 0.1	+ 1.0	0.0	+ 1.1
		0928	1034	+ 0.1	+ 1.0	- 0.2	+ 0.9
		1051	1627	+ 0.1	+ 1.0	0.0	+ 1.1
		2051	2400	+ 0.1	+ 1.0	0.0	+ 1.1

USC&GS SHIP HYDROGRAPHER - 1964 - cont'd.

Abstract of Total Draft Corrections (Ship) cont'd.

Day of the Year	Date	From	To	Draft Corr.	S & S Corr.	Instr. or Index Corr.	Total Draft Corr.
204	7-22	0001	1000	+ 0.1	+ 1.0	0.0	+ 1.1
		1001	1412	0.0	+ 1.0	0.0	+ 1.0
		2024	2033	0.0	+ 1.0	- 0.2	+ 0.8
		2034	2400	0.0	+ 1.0	0.0	+ 1.0
205	7-23	0001	0613	0.0	+ 1.0	0.0	+ 1.0
210	7-28	2100	2400	+ 0.9	+ 1.0	0.0	+ 1.9
211	7-29	0001	0500	+ 0.9	+ 1.0	0.0	+ 1.9
		2117	2400	+ 0.7	+ 1.0	0.0	+ 1.7
212	7-30	0001	0253	+ 0.7	+ 1.0	0.0	+ 1.7
		2143	2400	+ 0.6	+ 1.0	0.0	+ 1.6
213	7-31	0001	0130	+ 0.6	+ 1.0	0.0	+ 1.6
		0131	0240	+ 0.5	+ 1.0	0.0	+ 1.5
		2150	2400	+ 0.4	+ 1.0	0.0	+ 1.4
214	8-1	0001	0332	+ 0.4	+ 1.0	0.0	+ 1.4
216	8-3	2302	2400	+ 0.2	+ 1.0	0.0	+ 1.2
217	8-4	0001	0250	+ 0.2	+ 1.0	0.0	+ 1.2
		2120	2400	+ 0.1	+ 1.0	0.0	+ 1.1
218	8-5	0001	0300	+ 0.1	+ 1.0	0.0	+ 1.1
224	8-11	2308	2400	+ 0.8	0.0	0.0	+ 0.8
225	8-12	0001	0400	+ 0.8	0.0	0.0	+ 0.8
		2045	2400	+ 0.7	0.0	0.0	+ 0.7
226	8-13	0001	0415	+ 0.7	0.0	0.0	+ 0.7
		2147	2255	+ 0.6	+ 1.0	0.0	+ 1.6
		2256	2315	+ 0.6	0.0	+ 0.4	+ 1.0
		2316	2400	+ 0.6	0.0	0.0	+ 0.6

Abstract of Total Draft Corrections (Ship) cont'd.

Day of the Year	Date	From	To	Draft Corr.	S & S Corr.	Instr. or Index Corr.	Total Draft Corr.
227	8-14	0001	0200	+ 0.6	0.0	0.0	+ 0.6
		0401	2219	+ 0.5	0.0	0.0	+ 0.5
		2220	2400	+ 0.5	+ 1.0	0.0	+ 1.5
228	8-15	0001	1900	+ 0.4	+ 1.0	0.0	+ 1.4
		1901	2400	+ 0.3	+ 1.0	0.0	+ 1.3
229	8-16	0001	0025	+ 0.3	+ 1.0	0.0	+ 1.3
		0026	0053	+ 0.3	+ 1.0	+ 0.2	+ 1.5
		0054	1248	+ 0.3	+ 1.0	0.0	+ 1.3
		2158	2400	+ 0.2	+ 1.0	0.0	+ 1.2
230	8-17	0001	0320	+ 0.2	+ 1.0	0.0	+ 1.2
		2046	2400	+ 0.1	+ 1.0	0.0	+ 1.1
231	8-18	0001	0252	+ 0.1	+ 1.0	0.0	+ 1.1
		2119	2400	0.0	+ 1.0	0.0	+ 1.0
232	8-19	0001	0100	0.0	+ 1.0	0.0	+ 1.0
		0101	0222	- 0.1	+ 1.0	0.0	+ 0.9
		2158	2400	- 0.2	+ 1.0	0.0	+ 0.8
233	8-20	0001	0612	- 0.2	+ 1.0	0.0	+ 0.8
242	8-29	1401	1528	+ 0.5	+ 1.0	0.0	+ 1.5
		1529	1629	+ 0.5	0.0	0.0	+ 0.5
243	8-30	2001	2400	+ 0.3	+ 1.0	0.0	+ 1.3
244	8-31	2059	2400	+ 0.2	+ 1.0	0.0	+ 1.2

Listed below are the Total Draft Corrections, in feet, for the launch only. Only times of actual hydrography are listed.

Draft Correction will remain at 0.0 feet. This is taken care of by Bar Check. (Abstract of Bar Checks appended to this report).

Settlement & Squat Correction is based on following values for the launch's speed: 1230 R.P.M. and above = + 0.2 feet, all below 1230 R.P.M. = 0.0 feet.

Instrument or Index Correction is the amount the fathogram initial is in error.

ABSTRACT OF TOTAL DRAFT CORRECTIONS (LAUNCH HY-1)

Day of the Year	Date	From	To	Draft Corr.	S & S Corr.	Instr. or Index Corr.	Total Draft Corr.
211	7-29	1400	1856	0.0	+ 0.2	0.0	+ 0.2
212	7-30	0603	1108	0.0	+ 0.2	0.0	+ 0.2
		1109	1120	0.0	+ 0.2	- 0.2	0.0
		1121	1540	0.0	+ 0.2	0.0	+ 0.2
		1541	1555	0.0	+ 0.2	- 0.2	0.0
		1556	1702	0.0	+ 0.2	0.0	+ 0.2
213	7-31	0708	1135	0.0	+ 0.2	0.0	+ 0.2
		1136	1210	0.0	+ 0.2	- 0.2	0.0
		1211	1900	0.0	+ 0.2	0.0	+ 0.2
214	8-1	0619	2012	0.0	+ 0.2	0.0	+ 0.2
215	8-2	0635	1441	0.0	+ 0.2	0.0	+ 0.2
		1442	1448	0.0	0.0	0.0	0.0
		1505	1620	0.0	+ 0.2	0.0	+ 0.2
		1621	1641	0.0	+ 0.2	- 0.2	0.0
		1642	1700	0.0	+ 0.2	0.0	+ 0.2
		1701	1706	0.0	0.0	0.0	0.0
		1709	1810	0.0	+ 0.2	0.0	+ 0.2
		1811	1820	0.0	+ 0.2	- 0.2	0.0
		1821	1836	0.0	+ 0.2	0.0	+ 0.2

Abstract of Total Draft Corrections (Launch HY-1) cont'd.

Day of the Year	Date	From	To	Draft Corr.	S & S Corr.	Instr. or Index Corr.	Total Draft Corr.
216	8-3	0835	1500	0.0	+ 0.2	0.0	+ 0.2
		1501	1522	0.0	+ 0.2	- 0.2	0.0
		1523	1530	0.0	+ 0.2	0.0	+ 0.2
		1531	1532	0.0	0.0	0.0	0.0
		1533	1907	0.0	+ 0.2	0.0	+ 0.2
217	8-4	0540	0604	0.0	+ 0.2	0.0	+ 0.2
		0605	0606	0.0	+ 0.2	- 0.2	0.0
		0607	0611	0.0	+ 0.2	0.0	+ 0.2
		0612	0616	0.0	+ 0.2	- 0.2	0.0
		0617	0650	0.0	+ 0.2	0.0	+ 0.2
		0651	0657	0.0	+ 0.2	+ 0.2	+ 0.4
		0658	0701	0.0	+ 0.2	0.0	+ 0.2
		0702	0705	0.0	+ 0.2	+ 0.2	+ 0.4
		0706	0720	0.0	+ 0.2	0.0	+ 0.2
		0721	0725	0.0	+ 0.2	- 0.2	0.0
		0726	0727	0.0	+ 0.2	0.0	+ 0.2
		0728	0729	0.0	+ 0.2	- 0.2	0.0
		0730	0731	0.0	+ 0.2	0.0	+ 0.2
		0732	0733	0.0	+ 0.2	- 0.2	0.0
		0734	0742	0.0	+ 0.2	0.0	+ 0.2
		0743	0751	0.0	+ 0.2	+ 0.2	+ 0.4
		0752	0807	0.0	+ 0.2	0.0	+ 0.2
		0808	0816	0.0	+ 0.2	- 0.2	0.0
		0817	0821	0.0	+ 0.2	0.0	+ 0.2
		0822	0831	0.0	+ 0.2	+ 0.2	+ 0.4
		0832	0847	0.0	+ 0.2	0.0	+ 0.2
		0848	0850	0.0	+ 0.2	- 0.2	0.0
		0851	0904	0.0	+ 0.2	0.0	+ 0.2
		0905	0911	0.0	+ 0.2	+ 0.2	+ 0.4
		0912	0916	0.0	+ 0.2	0.0	+ 0.2
		0917	0918	0.0	+ 0.2	- 0.2	0.0
		0919	0929	0.0	+ 0.2	0.0	+ 0.2
		0930	0931	0.0	+ 0.2	+ 0.2	+ 0.4

Abstract of Total Draft Corrections (Launch HY-1) cont'd.

Day of the Year	Date	From	To	Draft Corr.	S & S Corr.	Instr. or Index Corr.	Total Draft Corr.
217 (cont'd)	8-4	0932	1020	0.0	+ 0.2	0.0	+ 0.2
		1021	1027	0.0	+ 0.2	+ 0.2	+ 0.4
		1028	1038	0.0	+ 0.2	0.0	+ 0.2
		1039	1042	0.0	+ 0.2	+ 0.2	+ 0.4
		1043		0.0	+ 0.2	0.0	+ 0.2
		1044		0.0	+ 0.2	- 0.2	0.0
		1045	1208	0.0	+ 0.2	0.0	+ 0.2
		1209	1211	0.0	+ 0.2	- 0.2	0.0
		1212	1852	0.0	+ 0.2	0.0	+ 0.2
218	8-5	0559	1625	0.0	+ 0.2	0.0	+ 0.2
224	8-11	1536	1745	0.0	+ 0.2	0.0	+ 0.2
225	8-12	0925	1025	0.0	+ 0.2	0.0	+ 0.2
		1026	1030	0.0	0.0	0.0	0.0
		1031	1908	0.0	+ 0.2	0.0	+ 0.2
226	8-13	0750	1838	0.0	+ 0.2	0.0	+ 0.2
227	8-14	0548	1552	0.0	+ 0.2	0.0	+ 0.2
		1553	1601	0.0	+ 0.2	- 0.2	0.0
		1602	1845	0.0	+ 0.2	0.0	+ 0.2
229	8-16	1514	1747	0.0	+ 0.2	0.0	+ 0.2
		1748	1752	0.0	+ 0.2	+ 0.2	+ 0.4
		1753	1914	0.0	+ 0.2	0.0	+ 0.2
230	8-17	0608	0646	0.0	+ 0.2	- 0.2	0.0
		0647	1842	0.0	+ 0.2	0.0	+ 0.2
231	8-18	0559	1115	0.0	+ 0.2	0.0	+ 0.2
		1116	1151	0.0	+ 0.2	- 0.2	0.0
		1152	1847	0.0	+ 0.2	0.0	+ 0.2

Abstract of Total Draft Corrections (Launch HY-1) cont'd.

Day of the Year	Date	From	To	Draft Corr.	S & S Corr.	Instr. or Index Corr.	Total Draft Corr.
232	8-19	0550	1833	0.0	+ 0.2	0.0	+ 0.2
233	8-20	0845	1048	0.0	+ 0.2	0.0	+ 0.2
240	8-27	1515	2000	0.0	+ 0.2	0.0	+ 0.2
242	8-29	0638	1205	0.0	+ 0.2	0.0	+ 0.2
		1305	1612	0.0	0.0	0.0	0.0
		1655	1738	0.0	+ 0.2	0.0	+ 0.2
		1739	1813	0.0	0.0	0.0	0.0
243	8-30	0608	1400	0.0	+ 0.2	0.0	+ 0.2
		1413	1432	0.0	0.0	0.0	0.0
		1444	1829	0.0	+ 0.2	0.0	+ 0.2
244	8-31	0615	1830	0.0	+ 0.2	0.0	+ 0.2
245	9-1	0552	1820	0.0	+ 0.2	0.0	+ 0.2
246	9-2	0731	1423	0.0	+ 0.2	0.0	+ 0.2

TIDE NOTE

Field No. HY-40-1-64

Registry No. H-8795

Tide Station:	Sabine Bank Lighthouse, Texas-Louisiana Latitude 29°28'20" North Longitude 93°43'21" West
Plane of Reference:	MLW = 5.9 feet on the bubbler gage
Time Meridian:	90° West
Time Correction:	None
Height Correction:	In accordance with Chief, Marine Data Division letter 2321-307-982h dated November 13, 1963 (copy attached) boat sheet soundings were plotted using a reference: MLW = 4.9 feet on the gage. When the MLW value was redetermined to be 5.9 feet on the gage (Chief, Marine Data Division letter 2321-212-CSS 4 dated September 28, 1964 - copy attached) subsequent soundings were plotted using the first reference for purposes of continuity.
Area Covered:	Entire area of Boatsheet HY-40-1-64

An abstract of tide corrections (verified by Tide and Currents Branch) is appended to this report.

FORM CD-121 (8-22-58)
(PRES BY A.O. 206-10)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TO : Commanding Officer
USC&GS Ship HYDROGRAPHER

DATE: November 13, 1963
In reply refer to
2321-307-962h

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. Ulm

Kenneth S. Ulm

Enclosures

FORM CD-121A (7-11-63)
(PRES. BY A.O. 206-10)

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

IN REPLY REFER TO: 2321-212-CSS 4

TO: The Commanding Officer
USC&GSS HYDROGRAPHER
P.O. Box 448
Galveston, Texas

DATE: September 28, 1964

FROM: Chief, Marine Data Division

SUBJECT: Sabine Bank Lighthouse tidal data.

Pressure gage records for the period July 16 - September 16 have been tabulated and reduced to mean values. The correction of -0.7 ft. to heights from 2000 July 17 to 1600 July 18 is verified. During the period 2000 August 5 to 0900 August 19, the correction to heights shown on the marigram should be -1.3 ft. Heights tabulated from the latest records received, August 19 to September 16, should be corrected by -0.2 ft. After these corrections are made, MLW is 5.9 ft. above the zero of tabulation.

William D. Barbee

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TO : Commanding Officer
USC&GS Ship HYDROGRAPHER

DATE: December 7, 1964

In reply refer to: WSC-210

FROM : Chief, Operations Division

SUBJECT: Revised Instructions for Logging the Corrector Tape

Reference: Chief, Operations Division memo dated July 8, 1964

Effective immediately, velocity corrections shall be logged onto a separate tape, called the Velocity Tape, in lieu of logging these corrections onto the corrector tape. On the corrector tape, 000 shall be entered in the 3-diget space provided for the velocity correction. This change will greatly reduce the length of the corrector tape, as noticed in the following example, which utilizes the same correctors and changes, except for the velocity corrections, that were used in the example on page 3 of previous instructions, dated July 8, 1964:

Corrector Tape Printout

					Ft./Fms.	Raydist Corrections		Sounding Corrections	
Time	Indicator	Depth	Pos. No.	Day No.		R_1	R_2	Tide	Trans. Vel.
083000	00	0277.	0001	269	1	100120	000100	1032	032 000
083200	00	0214.							
083500	00	1540							
083530	01	1385							
083800	00	0183.							
083920	01	0199.							
084100	00	0157.	0003	269	1	100120	000100	1034	032 000
084130	01	1590							
084400	00	0965							
084500	00	0830							
085000	00	0470	0005	269	1	100110	000100	1034	032 000

In making the Velocity Tape, all entries will consist of short words. The example shown on the following page illustrates the format to be used.

Depth Range	Velocity Correction	Velocity Tape Format
0 to 5.0 Fms	0.1 Fms	000050 00 0001
5.1 7.0	0.2	000070 00 0002
7.1 9.0	0.3	000090 00 0003
9.1 11.0	0.4	000110 00 0004
11.1 13.0	0.5	000130 00 0005
13.1 16.0	0.6	000160 00 0006
16.1 20.0	0.8	000200 00 0008
20.1 24.0	1.0	000240 00 0010
24.1 28.0	1.2	000280 00 0012
28.1 32.0	1.4	000320 00 0014

In preparation for smooth sheet plotting, the computer will apply the velocity corrections to all soundings in relation to depth. If more than one set of velocity corrections are used on the same hydrographic sheet, a separate Velocity Tape shall be prepared for each set of corrections. The area covered by each set of corrections shall be described in the Descriptive Report, and in the Report on Corrections to Echo Soundings.

Due to the heavy backlog of marine data to be verified in the Washington Office at this time, the velocity correction data recently received from the Ship HYDROGRAPHER are being returned unverified. This data, along with other velocity correction data computed and checked during the 1964 season, shall be logged onto Velocity Tapes, and then forwarded with other pertinent hydrographic data to the Seattle Regional Office for smooth sheet plotting. The verification of velocity corrections will be done at Seattle as required.

Tide corrections shall be submitted on Form C&GS-8502 to the C&GS Rockville, Md. office for verification before the corrector tapes are made.

Horace G. Conerly

cc: 211
Seattle R.O.
35
C-835

VELOCITY CORRECTIONS (SHIP)

During the periods July 17 to August 6 and September 9 to September 24 use TABLE I.

During the period August 11 to September 3 use TABLE II.

All depths and corrections are in FEET.

TABLE I

Depth	Correction
12.0 - 13.0	0.0
15.0	+ 0.1
17.0	+ 0.2
19.0	+ 0.3
21.0	+ 0.4
23.0	+ 0.5
25.0	+ 0.6
27.0	+ 0.7
29.0	+ 0.8
31.0	+ 0.9
33.0	+ 1.0
35.0	+ 1.1
37.0	+ 1.2
39.0	+ 1.3
41.0	+ 1.4
43.0	+ 1.5
45.0	+ 1.6

TABLE II

Depth	Correction
12.0 - 13.0	0.0
14.8	+ 0.1
16.6	+ 0.2
18.4	+ 0.3
20.3	+ 0.4
22.1	+ 0.5
23.9	+ 0.6
25.7	+ 0.7
27.5	+ 0.8
29.4	+ 0.9
31.2	+ 1.0
33.0	+ 1.1
34.8	+ 1.2
36.6	+ 1.3
38.5	+ 1.4
40.3	+ 1.5
42.1	+ 1.6

VELOCITY CORRECTIONS (LAUNCH HY-1)

ABSTRACT OF BAR CHECKS

July 29 to August 5 218

Depth	Correction
5.0 to 8.2	0.0
8.3 to 11.3	+ 0.2
11.4 to 14.5	+ 0.4
14.6 to 17.7	+ 0.6
17.8 to 20.8	+ 0.8
20.9 to 23.9	+ 1.0
24.0 to 27.0	+ 1.2
27.1 to 30.3	+ 1.4
30.4 to 33.5	+ 1.6
33.6 to 36.6	+ 1.8
36.7 to 40.0	+ 2.0

August 11 to August 20 233

Depth	Correction
5.0 to 7.4	0.0
7.5 to 9.7	+ 0.2
9.8 to 12.0	+ 0.4
12.1 to 14.3	+ 0.6
14.4 to 20.2	+ 0.8
20.3 to 21.9	+ 1.0
22.0 to 23.7	+ 1.2
23.8 to 26.8	+ 1.4
26.9 to 30.0	+ 1.6
30.1 to 33.0	+ 1.8
33.1 to 36.2	+ 2.0
36.3 to 40.0	+ 2.2
451	2.4
488	2.6

August 27 to September 2

Depth	Correction
5.0 to 6.3	0.0
6.4 to 7.6	+ 0.2
7.7 to 8.8	+ 0.4
8.9 to 11.0	+ 0.6
11.1 to 14.1	+ 0.8
14.2 to 20.6	+ 1.0
20.7 to 23.7	+ 1.2
23.8 to 27.2	+ 1.4
27.3 to 30.7	+ 1.6
30.8 to 34.2	+ 1.8
34.3 to 37.6	+ 2.0
37.7 to 41.3	+ 2.2
41.4 to 45.0	+ 2.4

1/17/75

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center

Hourly heights are approved for Tides Branch

Tide Station Used (NOAA Form 77-12): Sabine Bank Lighthouse, Texas & Louisiana

Period: July 16 - Sept. 16, 1974

HYDROGRAPHIC SHEET: H-8796

OPR: 427

Locality: Coast of Texas near Sabine Bank

Plane of reference (mean ~~lower~~ low water): 5.9 ft.

Height of Mean High Water above Plane of Reference is 2.6 ft.

Remarks: In accordance with Chief, Marine Data Division letter 2321-307-982h dated November 13, 1963 (copy attached) boat sheet soundings were plotted using a reference: MLW = 4.9 feet on the gage . When the MLW value was redetermined to be 5.9 feet on the gage (Chief, Marine Data Division letter 2321-212-CSS 4 dated September 28, 1964 - copy attached) subsequent soundings were plotted using the first reference for purposes of continuity.

James K. Hubbard
for Chief, Tides Branch

FORM 197
(3-16-55)

GEOGRAPHIC NAMES

Survey No. H-8795

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	
Clam Lake										1
Louisiana Point										2
MacFadden Beach										3
Sabine (town)										4
Sabine Pass (pass)										5
Sabine Pass (town)										6
Texas Point										7
Gulf of Mexico		Names Approved 3-13-66								8
Sabine Bank		Frank Wiginton								9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

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. 8795

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	BOAT SHEETS	1
DESCRIPTIVE REPORT	1	OVERLAYS	4

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES						
CAHIERS	1 Containing 65 Envelopes		Cahier & Raw Data			
VOLUMES	16					
BOXES	1-Bruce Tapes (65 envelopes)					
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				4462
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS			10	
JUNCTIONS			20	
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS			20	
SPECIAL ADJUSTMENTS				
ALL OTHER WORK			135	
TOTALS			185	

PRE-VERIFICATION BY	BEGINNING DATE	ENDING DATE
VERIFICATION BY A.E. Eichelberger (PMC)	BEGINNING DATE	ENDING DATE 2/1966
REVIEW BY J.B. Baumgardner	BEGINNING DATE Oct 2, 194	ENDING DATE Dec 6, 1974

Insp. F.B. Powers 45 hrs. 12-27-74 Carstens 17 hr 2/5/75

USCOMM-DC 6641-P64

Reg. No. 8795

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey the following shall be completed:

CARDS CORRECTED

DATE_____ TIME REQ'D_____ INITIALS_____

REMARKS:

APPROVAL SHEET

Field No. HY-40-1-64

Registry No. H-8795

The field work accomplished on this survey was under my immediate supervision. Daily inspections of the boat sheet, DATEX printout records and fathograms were made as the survey progressed.

On the basis of the boatsheet review, the survey is complete and adequate, and no additional field work is recommended.

V. Ralph Sobieralski

V. Ralph Sobieralski, CDR, USC&GS
Commanding Officer
USC&GS Ship HYDROGRAPHER

H-8795 (1964)

Items for Future Pre-Survey Review

The bottom is considered adequately developed on the present survey. Shoaling of as much as 14 feet has taken place west of the Sabine Pass Channel while a deepening of as much as 7 feet has occurred in the Dumping Grounds west of the Sabine Pass Jetty.

Position Index Lat.	Long.	Bottom Change Index	Use Index	Resurvey Cycle
292	0940	3	5	25 Years
292	0941	3	5	25 Years
292	0942	3	5	25 Years
293	0935	4	4	25 Years
293	0940	5	5	25 Years
293	0941	4	2	25 Years
293	0942	4	2	25 Years
294	0935	3	4	25 Years
294	0940	5	4	25 Years
294	0941	3	4	25 Years

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8795 FIELD NO. HY-40-1-64

Texas-Louisiana, Gulf of Mexico, Vicinity of Sabine Pass

SURVEYED: July 17 through September 2, 1964

PROJECT NO.: OPR-427 SCALE: 1:40,000

SOUNDINGS: DE-723 Depth Recorders CONTROL: Sextant Fixes on Shore Signals Electronic-Raydist

Chief of Party .....V. R. Sobieralski
Surveyed by .....J. P. Randall
.....D. W. Crawford
.....J. H. Allred
.....S. J. Ruden
.....W. R. Klesse
.....N. A. Barnes, Jr.
.....W. Y. S. Williams
.....J. T. Smith
.....M. A. Levitan
Automated Plot by .....Gerber Digital Plotter(PMC)
Verified and Inked by .....A. E. Eichelberger
Reviewed by .....S. Baumgardner
December 6, 1974
Inspected by .....F. B. Powers

1. Description of the Area

This survey is located along Texas-Louisiana coast and extends offshore for a distance of 10 to 20 miles to include a portion of the Sabine Pass Channel and the outer limits of Sabine Bank.

The bottom slopes very gradually from the shoreline to maximum depths of as much as 42 feet. Some oil well structures are found in the area.

The predominant bottom characteristics are mud and shells.

2. Shoreline and Control

The source of control is adequately described in Part F of the Descriptive Report.

The shoreline originates with advanced photogrammetric manuscripts T-10783, T-10778, T-10779, T-10780 of 1957-63 together with RS 806 and RS 807 based on 1963 photography.

3. Hydrography

Depths at crossings are in good agreement. The usual depth curves were adequately delineated. However, the hydrographer provided no information regarding the extent uncovered at mean low water. Supplemental and brown curves were added to emphasize the bottom features. The development of the bottom configuration and the investigation of least depths are considered adequate.

4. Condition of the Survey

The sounding records, smooth plotting, various sounding printouts and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, supplemented by the Instruction Manual-Automated Hydrographic survey except as listed below:

A. The verifiers report forms 946 and 946A, was not inserted in the Descriptive Report or completed and signed.

B. Numerous detached positions were not given position numbers nor were times for these intered in the volumes as required by the Hydrographic Manual.

5. Junctions

An adequate junction was effected with H-8796 (1964) on the east. The junction with H-8712 (1962) on the south is discussed in the review of that survey. A partial butt junction

was necessary with H-8767 (1962) on the southeast, where depths were 1-2 feet deeper than depths on H-8767. These differences are attributed to natural changes in the bottom over the two year period between surveys. No contemporary survey junctions with the present survey on the west. However, present depths here are in general agreement with charted depths.

6. Comparison with Prior Surveys

A. H-1556a (1883) 1:80,000
H-1596a (1884) 1:80,000
H-1596b (1884) 1:20,000

These prior surveys cover the area common to the present survey. A portion of H-1596a has been compared with and is superseded by H-6500 discussed below. The sparcity of soundings on these prior surveys precludes a detailed comparison with the present survey. However, the present survey depths are generally 1-7 feet shoaler than the prior depths except in the vicinity of the Dumping Ground where the present survey depths are 10-19 feet shoaler.

There are indications of minor deepening in the inshore area since 1883. The shoreline has accreted in some areas near the pass approximately 290 meters and receded in other areas by 250 meters. These differences are attributed to natural changes along with changes from dredging operations and spoil depositions.

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

B. H-4332 (1922-23) 1:40,000
H-4334 (1923) 1:40,000

These surveys cover the area common to the present survey. A portion of H-4332 has been compared with and is superseded by H-6500 discussed below. A detailed comparison between the remainder portion and H-4334 with the present survey reveals minor shoaling of approximately 1 to 2 feet except within an area west of the Sabine Pass Channel to MacFadden Beach where a shoaling of as much as 14 feet has occurred

from the deposition of spoil. The northern portion of the Dumping Ground has deepened as much as 7 ft. as a result of the shifting of spoil.

A wreck charted in lat. 29°39.08', long. 93°50.70' from a position on H-4334 was neither verified nor disproved by the present survey and has been brought forward to the present survey as a submerged wreck in accordance with CL-398 (1931).

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

C. H-6500 (1939) 1:20,000

This prior survey covers a small portion of the present survey area. A comparison between the prior and present depths reveals only minor differences of plus or minus one foot.

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

D. F.E. No. 1 (1965) W.D.
F.E. No. 1 (1966) W.D.

Effective depths from these wire-drag investigations do not conflict with depths on the present survey.

The submerged wreck with masts (uncovered 10 ft. at MLW) located in lat. 29°40.58', long. 94°00.17' on the present survey is from F.E. No. 1 (1966). This wreck is charted as a visible wreck which should be revised to a dangerous wreck symbol.

The submerged wreck charted in lat. 29°40.1', long. 93°59.85' is from F.E. No. 1 (1966). The charted symbol should be revised to a 2 WK.

The 14-ft. obstruction and the 32-ft. depth in lat. 29°33.58', long. 94°06.18' and lat. 29°33.60', long. 94°04.06' were brought forward from F.E. No. 1 (1965).

7. Comparison with Chart 1279 (latest print date May 4, 1974)
1280 (latest print date May 5, 1974)
11342 (latest print date Aug. 10, 1974)

A. Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration, and with prior and subsequent Corps of Engineers Surveys, supplemented by the partial application of depths from the boat sheet and verified smooth sheet of the present survey.

Attention is directed to the following items:

(1) Items indicated on BP 90393-4, by the reviewer, were charted subsequent to the date of the present survey. They supersede the present survey information and should be retained on the chart.

(2) The prior items listed below were neither verified nor disproved by the present survey and should be retained as charted.

Chart 1279

	Item	Lat.	Long.	Source
	(a) Oil Platform	29°41.14'	93°44.28'	NM 52/63
#7015	(b) Submerged Wreck PA	29°33.52'	93°53.80'	NM 51/60
	Chart 1280			
	(c) The note "obstructions"	29°39.12'	93°59.80'	CL 400/41
	Chart 11342			
	(d) Submerged Wreck	29°40.42'	93°57.43'	CL 603/49
#419	(e) Submerged Wreck PA	29°38.00'	93°53.00'	NM 51/53
	(f) Submerged Wreck	29°38.36'	93°51.37'	NM 15/62
	(g) Submerged Wreck	29°40.90'	93°50.32'	Not ascertainable
	(h) Submerged Wreck PA	29°40.09'	93°50.41'	NM 40/62
	(i) Submerged Wreck	29°39.32'	93°50.45'	Bp 34716(1940)

(j) Submerged wreck	29°39.03'	93°50.11'	NM 49/63
(k) Submerged wreck PA	29°38.92'	93°50.79'	NM 40/63
(l) Submerged wreck	29°38.79'	93°50.19'	NM 48/44
(m) Two submerged wrecks	in vicinity of		
	29°38.78'	93°50.06'	Bp 31922(1938)
(n) Submerged wreck	29°40.80'	93°49.79'	NM 37/60
(o) Submerged wreck PA	29°43.00'	93°45.00'	NM 42/60

(3) The piles charted on chart 11342 in lat. 29°38.41', long. 93°50.61' from chart letter 823 of 1935 were not verified or disproved and should be revised to submerged piles.

(4) The pipe located on the present survey in lat. 29° 39.5', long. 94°04.27' is not presently charted.

(5) The mud flat charted in the vicinity of lat. 29° 40.3', long. 93°50.6' originates with Bp 11029 (1905). Because of the age of the source material and the general deepening that has occurred in this vicinity it is recommended that charting of the mud flat be discontinued.

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

B. Controlling Depths

The charted controlling depth table for Sabine Pass Channel originates with subsequent Corps of Engineers information and should be retained as charted.

C. Aids to Navigation

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

Several aids have been revised or deleted subsequent to the present survey. The lighted wreck buoy WR2A located on the present survey in lat. 29°35.57', long. 93°51.74' was deleted from the chart by subsequent information (NM 16 of 1968).

8. Compliance with Instructions

This survey adequately complies with the Project Instructions.

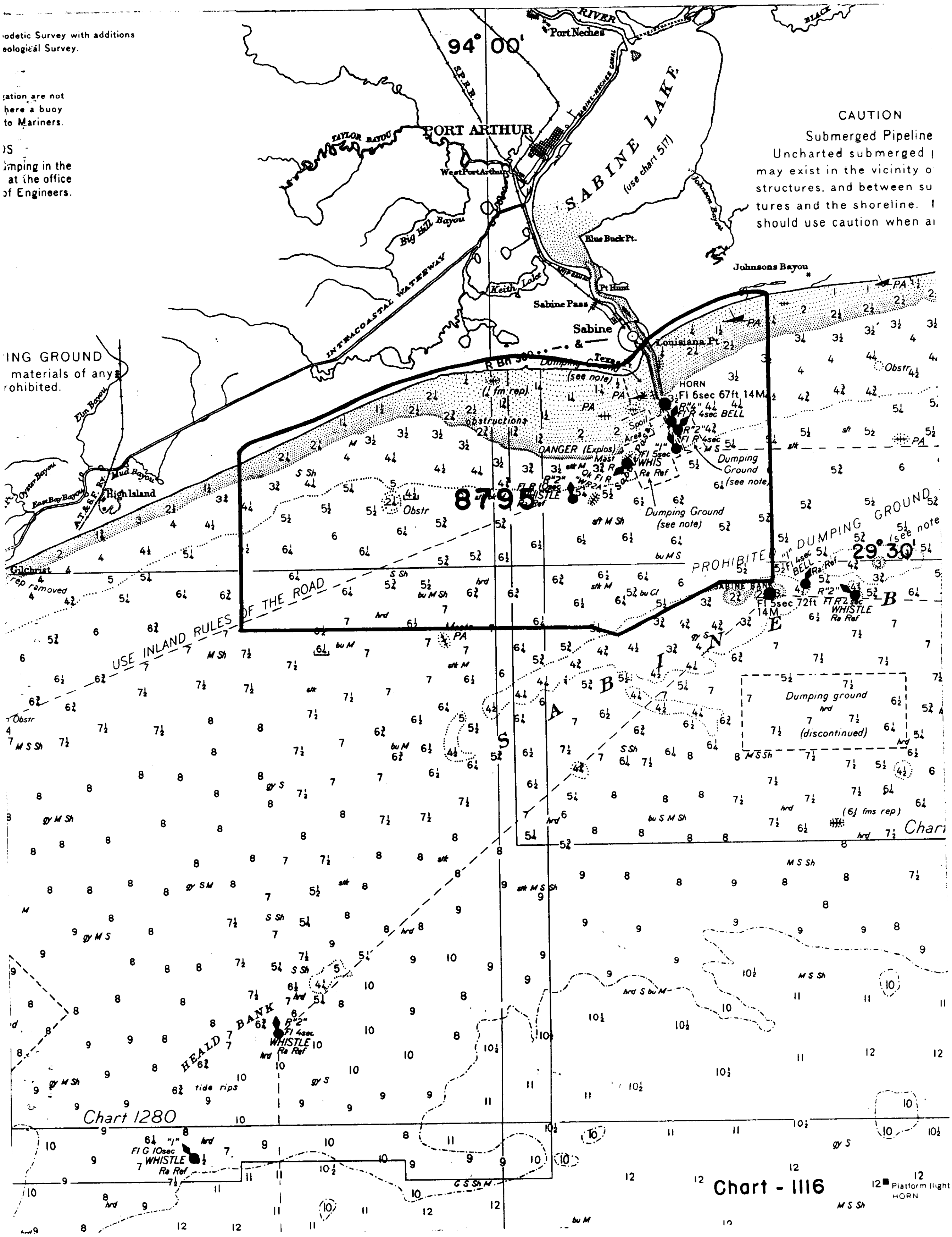
9. Additional Field Work

This is a good basic survey and no additional field work is recommended.

Examined and Approved:

R H Houston
Chief
Marine Chart Division

Robert C. Munson
Associate Director
Office of Marine Surveys and Maps



odetic Survey with additions
eological Survey.
ation are not
here a buoy
to Mariners.
imping in the
at the office
of Engineers.
CAUTION
Submerged Pipeline
Uncharted submerged
may exist in the vicinity o
structures, and between su
tures and the shoreline.
should use caution when a
94° 00'
Port Neches
RIVER
SABINE LAKE
(use chart 517)
PORT ARTHUR
West Port Arthur
TAYLOR BAYOU
Big Hill Bayou
INTRACOASTAL WATERWAY
Blue Buck Pt.
Johnsons Bayou
Keith Lake
Sabine Pass
Pt Hand
Sabine
Louisiana Pt
ING GROUND
materials of any
rohibited.
High Island
Gilchrist
Mud Bayou
HORN
Fl 6sec 67ft 14M
DANGER (Explos)
Spoil Area
Dumping Ground
(see note)
8795
29° 30'
PROHIBITED "I" DUMPING GROUND
USE INLAND RULES OF THE ROAD
SABINE BANK
Fl 5sec 72ft 14M
WHISTLE
SABINE BANK
Dumping ground
(discontinued)
(6½ fms rep)
Chart
HEALD BANK
WHISTLE
tide rips
Chart 1280
Chart - 1116
Platform (light
HORN

FORM C&GS-8352
(9-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H - 8795

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
517	1/12/66	Eileen Sheehan	~~Full~~ Part ~~Before~~ before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. Changed ~~two~~ one soundings
1279	4-8-66	M. H. Wall	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. changed a few soundings
			applied thru 517 Dwg 18
1280	4-8-66	M. H. Wall	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. No correction
1116	4-11-66	M H Wall	~~Full~~ ~~Part~~ Exam Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. No correction, Considered adequately ~~app thru~~
			~~chts 1280 & 1279~~ appld thru BS H/8810 BS 6847 until [illegible] VAR
1117	11/28/66	T. Anne Ware	~~Full~~ Part ~~Before~~ after ~~After~~ Verification before Review Inspection Signed Via [illegible] 5/4/
			Drawing No. No corr. thru Charts 1280 and 1116.
			~~Same~~ Considered adequately appld. thru BS hydro ~~(applied)~~ until after Review and inspection MR 1/4/67
1280	1/17/67	Helmer	~~Full~~ Part Before ~~After~~ ~~Verification~~ Review Inspection Signed Via
			Drawing No. Previous application (above) was thru Boat
			Sheets. Exam showed 1-2 ft difference, thus sdgs & curves revised
1279 } 517 }	1/25/67	Helmer	~~Full~~ Part Before ~~After Verification~~ Review Inspection Signed Via
			Drawing No. Revised overlap area with 1280 to agree
517 } 1279 }	4/4/67	Helmer	Full ~~Part~~ Before ~~After Verification~~ Review Inspection Signed Via
			Drawing No. Cht 517 has all hydro revised. Cht 1279 was
			revised thru 517 for area covered by 517 cH
1116	4/8/67	Helmer	~~Full~~ Part Before ~~After~~ ~~Verification~~ Review Inspection Signed Via
			Drawing No. Cht 1116 revised thru Cht 1280, Dwg #13, and
			Cht 1279, Dwg #25
			Full Part Before After Verification Review Inspection Signed Via
	11341		Drawing No.
1279	6/13/67	H. Quimby	Full Before Review revised hydro outside
			area covered by Chart 517 ~~517~~. HQ
1116	11/9/67	H.V. Howard	Part Before Review revised soundings
			and curves thru Charts 1279 & 1280
			to reflect new hydro (Fully Applied areas of 517 & 1279)
11342	4/23/85	Peter Shumar	FULL AFTER VERIFICATION REVIEW INSPECTION
			SIGNED VIA DRAWING NO. 38
11332	4/23/85	Peter Shumar	FULL AFTER VERIF. REV. INSP. SIGNED VIA DRAW. NO. 26

FORM C&GS-8352
(9-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-8795

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
517	9/6/68	H. Quinby	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. Re-examined with CE survey
			dtm L-1161/68
1279	9/6/68	H. Quinby	~~Full~~ Part Before ~~After~~ Verification Review Inspection Signed Via
			Drawing No. Re-examined with CE survey
			L-1161/68
11342	4/23/85	Pete Shumar	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. No 38
11332	4/23/85	Pete Shumar	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. #26
11341	3/15/91	DAN BLACK	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 48, NO ADDITIONAL APPLICATION THRU 11332
11330	1983		(Full) Part Before After Verification Review Inspection Signed Via
			Drawing No. 1 New Cht.
11340	3/19/91	Dan Black	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 72 APP'D THRU 11330
11300	6-29-92	Ken Forster	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 45 Exam-n/c New Cht 11340.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			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