

8743

Diag. Cht. No. 1282-2.

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. 742-20-3-62 Office No. H-8743

LOCALITY

State Texas

General locality Galveston Bay

Locality Lower Trinity Bay

1962-65

CHIEF OF PARTY

S.L.Hollis, P.A.Stark & R.E.Alderman

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DATE 5/10/67

USCOMM-DC 37022-P66

8743

HYDROGRAPHIC TITLE SHEET

H-8743

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. 742
EGFP 20-3-62

State Texas

General locality Galveston Bay

Locality Lower Trinity Bay

Scale 1:20,000 Date of survey 5 Sept. 1962 - 24 April 63

211/pt.-S-2-ECFP, April 25, 1962 21 June 65 - 8 Dec. 65

Instructions dated C-211/S-2-HFP 219, 4 June 64 Project No. Opr-428

Vessel Launch CS-183, Launch CS-1177, Skiff CS-758, Skiff CS-520

Chief of party LCDR. S.L. Hollis, LCDR. P.A. Stark, LCDR. R.E. Alderman

Surveyed by D.W. George, A.G. Davis, J.B. Jones, R.A. Lewis

Soundings taken by echo sounder, hand lead, pole

Graphic record scaled by Party Personal

Graphic record checked by Party Personal

Protracted by R.A. LEWIS PARTY 742 Automated plot by _____

Soundings penciled by R.A. Lewis

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXXXX~~

REMARKS: _____

Descriptive Report
To Accompany

Hydrographic Survey H-8743
(Field No. ~~ECFP 20-2-62~~ 742-20-3-62)
Project OPR-428

Scale: 1:20,000

Hydrographic Field Party 242
(742)

Chief Of Party

LCDR. S. I. Hollis
LCDR. P. A. Stark
LCDR. R. E. Alderman

A. PROJECT

Original instructions for this survey are 211/pt.-S-2-ECFP dated 25 April 1962. Supplemental instructions C-211/S-2-HFP-219 were dated 4 June 1964.

B. AREA SURVEYED

This survey is in the vicinity of Lower Trinity Bay, Galveston Bay, Texas and covers that portion of the bay between lat. $29^{\circ}32.0'$ to $29^{\circ}39.0'$; long. $94^{\circ}42.0'$ to $94^{\circ}57.5'$.

This survey makes junction with contemporary survey H-8695⁽¹⁹⁶²⁾ (ECFP-12.5-1-62) on the south; survey H-8745⁽¹⁹⁶³⁻⁶⁵⁾ (ECFP 20-2-63) on southeast; survey H-8694⁽¹⁹⁶²⁾ (ECFP-10-6-62) on southwest; survey H-8742⁽¹⁹⁶²⁾ (ECFP 10-8-62) on northwest and survey H-8740⁽¹⁹⁶²⁾ (ECFP 20-1-63) on the north. (1962)

This survey ^{area} is covered by prior survey No. 5510 - scale 1:20,000 - 1933.

C. SOUNDING VESSELS

Launches CS-183 and CS-1177 were used for hydrography in depths deeper than 6 ft. Hydro skiff CS-758 and skiff CS-520 were used mainly in depths less than 6 ft.

C. Sounding Vessels (cont)

Identifying colors for sounding vessels:

| <u>Vessel</u> | <u>Identifying Color</u> |
|----------------|--------------------------|
| Launch CS-183 | Violet |
| Launch CS-1177 | Blue |
| Skiff CS-758 | Red |
| Skiff CS-520 | Green |

D. Sounding Equipment

EDO, model 255C, graphic recorders, serial Nos. 13 and 15 were used to obtain soundings on Launch CS-183 in 1962-63. A Raytheon DE-723, serial No. 544, operating on 20 KC, was used on CS-183 near the close of the 1963 field season on this sheet.

Launch CS-1177 used a Raytheon fathometer, model DE-723, serial Nos. 544 and 549, both operating on 200 KC.

Raytheon fathometers, model DE-723, serial Nos. 544 and 265, operating on 20 KC, were used on Skiff CS-758 to obtain soundings in depths deeper than 3 ft. A sounding pole was used in depths less than 3 ft.

A model DE-723, serial No. 265, operating on 200 KC, was used on Skiff CS-520.

Corrections to be applied to echo soundings were determined from daily bar checks and simultaneous comparisons. An abstract of these corrections is tabulated in Appendix "B" of this report.

An armed lead was used to obtain bottom samples.

No unusual difficulties were encountered with the sounding equipment.

E. Smooth Sheet

The smooth sheet project^{ion} was made in the Washington office with a projection ruling machine. The smooth sheet will be plotted by this party-HFP-742.

F. Control

Horizontal control was obtained by standard visual three-point sextant fix methods. Appendix "A" of this report contains a complete list of control used and the quality and source of control.

G. Shoreline

Shoreline detail was taken from ^{reviewed photogrammetric (1960-63), (1960-63)} manuscripts T-9798, T-9795, T-12227, T-12262, T-12264, T-12263, T-9797, and T-9920 (1951-55), RS-805 (1962) and incomplete (1962-63) (1962-63) (1962-63) (1960-62) manuscript T-12227 of 1962.

H. Crosslines

Crosslines were run at approximately 10% of the regular system.

I. Junctions

Depths at the junctions with the surveys listed in section "B" are in good agreement and depth curves can be adequately drawn at these junctions.

J. Comparison With Prior Surveys

A comparison with prior survey No. 5510 - 1933, scale 1:20,000, reveals numerous changes, most of which, are due to shell dredging and development of petroleum fields. The present survey shows "holes" 5 to 10 feet deeper than the general depths and shoals or reefs 3 to 5 feet less than the general depths.

Following is a discussion of isolated features appearing on the prior survey that are not shown on current charts of this area. Those features shown on both the prior survey and the chart will be discussed under section K. Comparison With Chart.

Prior Survey No. ^H5510

| Feature | Position | Remarks |
|-----------------------------|------------------------|--|
| Wrecked beacon awash MLW | 29°38.67' 94°42.85' | This feature was not investigated. <i>Adequately determined in this survey Not brought forward to present survey. Present chart shows numerous piles and platforms in area.</i> |
| Tree bares 1 ft. MHW | 29°37.68' 94°43.35' | A visual search indicated no portion of the tree exists above the water's surface. No longer considered in existence. <i>DEW</i> |
| Pole | 29°38.31' 94°48.01' | A modified chain drag was used to search for this feature. 3 "passes" were made directly over the prior survey plotted position of the pole, called signal. |

J. Comparison With Prior Survey (cont)

| Prior Survey No. 5510 Feature | Position | Remarks |
|----------------------------------|-----------------------------|--|
| Pole | | T&B covering an area of approximately 30 meters in diameter. Recommend that pole not be charted. A charted pile 350 meters SSE of this pole was not searched for (see 1st item, section K of this report). |
| Duck blind | 29°33.23' 94°45.31' | A visual search was made with results being - no part of the duck blind exists above the water's surface. No longer considered in existence. |
| Pipe | 29°32.58' 94°48.23' 8 | Not visible above surface during hydrographic operations in vicinity. A search was not made. No longer considered in existence. <i>Area changed by dredging and spell.</i> |
| 6' depth curve | Smith Point to Double Bayou | Present survey shows the 6 ft. curve has extended offshore $1\frac{1}{2}$ miles near Smith Point to $\frac{1}{2}$ mile near Double Bayou with the 3 ft. curve remaining relatively unchanged. <i>Shoaling of 1 to 2' in some of these areas</i> |
| 6' sounding | 29°37.70' 94°51.18' 8 | A 6 ft. sounding was obtained on the new survey 200 meters north of the 6 ft. prior survey sounding. The bathogram shows a definite indication of a shoal. The sounding was not circled on the prior survey as a 6 ft. shoal and was not charted as such. Due to the irregular profile of the bottom in this vicinity and the fact 400 meter line spacing run on the new survey failed to disprove the existence of the shoal, it is recommended this 6 ft. sounding be charted. <i>6' Sdg. brought forward to present survey.</i> |
| Shoreline | Smith Point to Double Bayou | The entire shoreline has changed in this vicinity due to dredging of the Trinity River Channel. |

K. Comparison With Chart (This is a boat sheet comparison)

A comparison between this survey and Chart 152-SC; 2nd Ed., Oct. 2/65; scale 1:80,000 shows considerable change over the entire area covered by the survey. The "deeps" will not be discussed in this section because line spacing in most cases was too wide to delineate the extent of the "deep". A comparison with Chart 519; 1st. Ed., Jan. 3/66; scale 1:25,000 indicates that most of the soundings were taken from this survey however there are some changes and recommendations to be made.

Following is a discussion of shoal depths and isolated features in the area of Chart 152-SC that is not covered by Chart 519:

| <u>Charted Feature & Depth</u> | <u>Position</u> | <u>Remarks</u> |
|------------------------------------|------------------------|--|
| File Investigation Item | 29°38.17' 94°48.07' | This pile was not searched for. It is wondered if this pile originated from a "pole" (signal TAB) on prior survey 5510. (See section J. 3rd item, this report). |
| | | <i>File no longer charted. Disregard. JEO</i> |
| File Investigation Item | 29°38.08' 94°53.00' | This pile was searched for utilizing a modified chain sweep. No evidence of the pile was found. It is recommended the pile be deleted from the chart. (Note: This pile is not shown on Chart 519). |
| Log Investigation Item | 29°34.35' 94°56.10' | This item was searched for with a chain sweep. No trace of the log remains - recommend this feature be deleted from the chart. (This log is not shown on Chart 519.) |
| Submerged Pile Investigation Item | 29°34.45' 94°45.10' | A chain sweep was used to search for this pile. No trace of the pile was found. It is recommended the submerged pile be deleted from the chart. <i>shell reef here</i> |

K. Comparison To Chart (cont)

Rails
Investigation Item

29033.20' ✓
94046.77' These rails were found at their charted position. The rails are a group of 3 iron posts made from railroad track that bare 1 ft. MHW. It is recommended the word rails be changed to iron posts with the post symbol being charted. It is believed "rails" could possibly be confused with railways. *Shown as steel rails on present survey.*

File
Presurvey Item 38

29032.75' ✓ *DW*
94046.32' An abandoned channel light was located at this position. It is a 3 pile structure, originally constructed as a channel light for the Trinity River Channel. It now serves as a day beacon marking a narrow 3 ft. channel leading into the harbor of Smith Point. Even though the Trinity River Channel is no longer maintained, a great deal of small boat traffic still traverse the channel. It is recommended the charting symbol be changed from Pile to Marker. *CONCUR DW*

File

29033.72' ✓
94045.18' A search was not made at the charted position of this ^{dol}pile, however, it is believed this feature is intended to be ^{an}the abandoned channel light as described above. This survey shows the position to be 200 meters NNE ^{and should be} and it is ^{revised accordingly.} recommended ~~this pile symbol be changed also to MARKER.~~

Dolphin
Presurvey Item 38

29034.69' ✓
94044.11' This item was found to be at its charted position. It is an abandoned channel light - 3 pile structure rather than dolphin - recommend charting symbol be changed from DOL to MARKER.

Dolphin
Presurvey Item 38

29036.76' ✓
94042.93' This feature was found at its charted position and is an abandoned channel light as described above. Recommend charting symbol be changed from DOL to MARKER.

K. Comparison To Chart (cont)

| | | |
|------------------------------|------------------------|--|
| Dolphin Presurvey Item 38 | 29°37.64' 94°42.42' | An abandoned channel light, as described above, was located 20 meters ^{North} South of the charted dolphin. It is recommended this feature be charted as a MARKER. |
| 6½' Sounding | 29°37.15' 94°49.45' | The shoalest depth obtained in this vicinity is an 8 ft. Line spacing in this area was 400 meters which failed to disprove the existence of the 6½ ft, sdg, - it is therefore recommended it be retained on the chart. ^{6½' sdg. brought forward to present survey from H-5510} |
| Small Bridge | 29°32.55' 94°46.45' | There is no bridge crossing this small bayou. The road ends at the south shore of the bayou. Dew |
| | 29°32.20' 94°48.00' | It is recommended the numerous privately maintained channel markers in this vicinity be charted. Even though the channels they mark are not maintained they are used by local fishermen and oil companies traversing this area. |

Following is a discussion of changes and recommendations on Chart 519:

| Charted feature & depth | Position | Remarks |
|--|------------------------|---|
| 6 ft. shoal Investigation Item | 29°38.75' 94°51.92' | A least depth of 5 ft. was obtained with a sounding pole. It is recommended this 6 ft. shoal show a 5 ft. least depth. |
| Shoal least depth 5 ft. Investigation Item | 29°38.28' 94°51.90' | This shoal was developed by running a system of sounding lines spaced at 100 meters. The shoalest depth obtained was a 7 ft. fathometer sounding. ^{5' sdg. considered disproved. Dew} <i>shell dredging probable.</i> |
| 6½ ft. sounding | 29°37.70' 94°54.40' | This is shown on Chart 152-SC as a 6 ft. shoal with a least depth of 5½ ft. Chart 519 shows a depth of 6½ ft. Close spaced lines run during this survey indicate a depth of 5 ft. Even though a least depth was not obtained with a sounding pole or leadline, it is recommended the 5 ft. sounding be charted. A 4 ft sdg. was found between position 28½ 29a with sdg. pole. (lat. 29°37.7', long 94°54.26') |

K. Comparison To Chart (cont)

| | | |
|-----------------|------------------------|--|
| Pipe | 29°38.38' 94°50.33' | The pipe charted at this position was not searched for during this survey. This item is an oil well jacket charted from information on CoE Bp6337b (1962) and is presently covered by a note on the chart. This wreck was located as a "stranded wreck" - Oct. 5, 1965; vol. 18; page 4. The wreck was removed the following day; therefore it is recommended the submerged wreck symbol be removed from chart. |
| Submerged Wreck | 29°31.62' 94°52.88' | This wreck was located as a "stranded wreck" - Oct. 5, 1965; vol. 18; page 4. The wreck was removed the following day; therefore it is recommended the submerged wreck symbol be removed from chart. |
| Platform | 29°32.42' 94°54.68' | It is recommended the charting symbol for this platform be changed from a small circle to a small rectangle. |
| Piling | 29°32.65' 94°54.06' | This feature is a 3 pile structure with a flashing white light. It is recommended the piling symbol be changed to a privately maintained marker with flashing white light. |
| Platform | East bank of channel | It is recommended the platforms shown along the east bank of the HOUSTON SHIP CHANNEL be charted as "SURVEY PLATFORMS", in order to distinguish them from the gas well platforms. |
| Stakes (Note A) | East bank of channel | The stakes shown on Chart 519 opposite the numerous platforms and piles were observed to be slender bamboo poles and were not located on this survey. Note A on the chart states the piles and platforms may be submerged, it is believed however, that the platforms and piling along the ship channel are unlikely to be submerged. They are relatively new and are located in shallow water making it impossible for large vessels to knock them down. They are also maintained by the Corp of Engineers. The piles are 12 to 15 inches in diameter and bare 8 to 10 feet - the platforms are constructed of heavy timber and are 12 feet high. |

K. Comparison To Chart (cont)

Private maintained
light

*Lt removed
LNM 118/70*

29°35.59' This is a reef marker ✓
94°48.96' maintained by the state
of Texas. The area was
developed with close spaced lines and
was found to contain 6 small reefs.
A least depth of 6 ft. was obtained
with a sounding pole. It is recommended
this feature be charted, along with
the 6 ft. least depth, as a privately
maintained "reef marker", with quick
flashing red light.

Private maintained
light

29°35.88' The description of this ✓
94°51.67' light is the same as
above and it is recommended
it be charted as such. A least depth
was not obtained on the reef it marks -
a 6 ft. sounding was obtained on a
system of sounding lines spaced at
100 meters. It is therefore recommended
the 6 ft. be charted. This light is
incorrectly charted on SC-152, but
is charted on 519 in its correct position.
Chart 152-SC & 1282 also show 2 other
lights maintained by the Texas Fish
& Wildlife Dept. within the area of
this survey ^{**}(lat. 29°33.24',
long. 94°47.49') and lat. ^{*}(29°34.27',
long. 94°47.89'). It is recommended
these lights also be charted as
described above. It is not known the
purpose of the Fish & Wildlife ^{marks} on this
survey. Shoaling was found around two
of the lights. Sounding investigations
were not conducted at the latter two
lights. A fifth light was established
after the survey as noted in notice to
mariners (ACLL 7662.5).

** Signal Bil

* Plotted on boat sheet as top signal
EST and described as highest silver
tank on platform

"Deep"
soundings

29°38.00' There are 6 "deep" ✓
94°49.50' soundings shown on the
chart between latitudes
29°37.00' and 29°39.00', longitudes
94°49.00' and 94°50.00', ranging from
sounding of 13 to 19 feet, which appear
to have been taken from sounding lines
on the boatsheet during photostating.
However the deepest sounding obtained
on this survey in this vicinity is an

K. Comparison To Chart (cont)

11 ft. at lat. 29°38.00', long. 94°49.57'. It is possible the photostat of the boatsheet was misinterpreted. ✓

5 ft.
sdg.

29°34.20' The 6 ft. shoal with a ✓
94°49.42' least depth of 5 ft.
charted at this position
was not searched for during this survey.
A 15 ft. sounding is shown on the
boatsheet at this position and is
circled as a depth greater than 12.
It is believed this 15 could have
been mistakenly transferred to the
chart as a 5. It is recommended the
origination of this sounding be
checked. Due to irregular bottom in
this vicinity it is recommended the
5 ft. sounding be retained unless
its origination was the boatsheet
of this survey. The 5ft sounding should have been a 15 sdg
and should be revised to a 13 in accordance with the smooth sheet.

✓ Piling
Fl R Lt

29°34.32' This is a privately
94°56.49' maintained, 3 pile
structure, with a flashing
red light. It is recommended the
charting symbol be changed from piling
to a ~~private maintained light~~. marker (lighted)
See Review
Part V
New

✓ 6 ft.
shoal

29°33.33' This shoal was not
94°56.18' searched for. Chart
1282 published prior to
1963 does not show this shoal. Wide
line spacing (400 meters) in this
vicinity failed to reveal any
information relative to this shoal.
It is believed a 16 ft. sounding on
the boatsheet near this position
was mistakenly transferred to the
chart as a 6. Due to the irregular
bottom in this vicinity it is recommended
the 6 be retained, unless its origin
-ation was the boatsheet of this
survey. The 6 sdg originates with the boat sheet (in error).
New

K. Comparison To Chart (cont)

Stranded wreck 29°32.98' 94°57.25' This wreck was not investigated. It is thought it originated from a notice to mariners after completion of field work. ✓ concur

Pipe 29°35.25' 94°52.35' The 2 pipes charted at this location are for an oil separation complex. It is recommended the larger objects, such as the houses on platforms, also be charted. It is recommended a representative number, if not all, of these complexes be taken from the smooth sheet for charting. ✓ covered by a note on chart)

6½ (152-SC) 29°37.15' 94°49.48' This sounding is discussed above under Chart 152-SC and is not shown on Chart 519. It is recommended it be charted on 519. ✓ sdg. presently charted. JWD

L. Adequacy Of Survey

There are portions of this survey that do not meet the requirements of a basic survey, therefore this survey cannot be considered adequate enough to supersede the prior survey in these particular areas. These portions are in the areas of 400 meter line spacing. Basic requirements for bays, as stated in paragraph 5-26, page 140, publication 20-2, call for line spacing not to exceed 100 meters in depths less than 11 fathoms. Also, certain charted features were not investigated, as stated in section K of this report. Least depths were not obtained on a number of shoals, (see section J & K). In Double Bayou (northeast corner of sheet), detached positions were not obtained on any of the numerous wharves, docks, marine railways, barge loading ramps etc. Sounding lines were not run close to and along the outer faces of the wharves, docks and in slips. The only sounding line on this survey is a single sounding line run down the center of the bayou. A sounding line was also run further inland on adjacent survey 20-1-63, H-8740. Due to its importance to navigation, it is felt this bayou should have been surveyed on an insert at a larger scale. (See Review)

Where necessary prior shoals have been carried forward except where they have probably been removed by dredging.

M. Aids To Navigation

There are 15 fixed aids to navigation and 7 floating aids maintained by the U.S. Coast Guard within the limits of hydrography.

There are 5 lighted reef markers maintained by the Texas Fish & Wildlife Department and 2 lighted markers maintained by independent gas companies.

The above mentioned aids adequately serve the purpose for which they were established.

N. Statistics

| <u>Vessel</u> | <u>Number of Positions</u> | <u>Naut. Mi. Sdg.</u> |
|----------------|----------------------------|-----------------------|
| Launch CS-183 | 1029 | 337.4 |
| Launch CS-1177 | 1100 | 310.4 |
| Skiff CS-758 | 1892 | 452.5 |
| Skiff CS-520 | <u>330</u> | <u>15.4</u> |
| Totals | 4351 | 1115.7 |

Total area surveyed 85 sq. miles.

Portable gages at Eagle Point and Point Barrow furnished tide control for the survey. See Appendix C. Tidal Note for information on these stations.

O. Miscellaneous

A modified chain sweep was utilized to search for submerged objects. This sweep consisted of two trawl boards, identical to those used by shrimp trawlers, with a three hundred foot length of small chain (rod size 3/16") between them. The trawl boards were bridled and towed in such a manner as to drag along the bottom. The chain between the boards dragged along the bottom approximately 250 feet behind the vessel. Upon snagging an object the two lines to the trawl boards, which were generally 60° apart, would come together slowly allowing sufficient time for the coxswain to stop the launch. The sweep was then pulled aboard until the snagged object was close aboard the stern. A leadline or sounding pole could then be eased down the tightly drawn chain to obtain a depth on the object.

Respectfully submitted,

Robert A. Lewis

Robert A. Lewis
Surveying Technician

APPENDIX A

LIST OF SIGNALS

Hydrographic Survey H-3743 (ECFP 20-3-62)

TRIANGULATION

| NAME | ORIGIN |
|------|--|
| BAT | RED FISH BAR INNER RANGE FRONT LIGHT, 1963 |
| HIT | WHITEHEAD, 1932 |
| IDA | HOUSTON SHIP CHANNEL UPPER RANGE A REAR LIGHT, 1963 |
| JIM | RED FISH BAR INNER RANGE REAR LIGHT, 1963 |
| KIN | ATKINSON, 1953 |
| KIM | HOUSTON SHIP CHANNEL UPPER RANGE A FRONT LIGHT, 1963 |
| MIT | SMITH POINT (USE), 1900-32 |
| NIG | HOUSTON SHIP CHANNEL UPPER RANGE B FRONT LIGHT, 1963 |
| ONE | LONE OAK, 1933 |
| PIP | PIPE 2, 1963 |
| QUI | MESQUITE KNOLL 2, 1930 |
| | PHOTO HYDRO STATION |

| <u>T-12263</u> | <u>T-12227</u> | <u>T-9795</u> | <u>T-12264</u> |
|----------------|----------------|---------------|----------------|
| ANE | ADO HUT | ANT ZAG | ARM HOW |
| CAM | BIL IRK | FAT | BAN NIX |
| DAW | BOB JAN | GAL | OOD NOR |
| EEL | CAT JOE | HAG | FED NOW |
| GUM | DIX LEG | JUG | FOX SON |
| KED | EOG RIM | LAD | GAD TUB |
| REV | EST PIP | MAR | GEO VAL |
| RIG | FLY TUB | LB | GIG WAD |
| WAX | HAT | YAK | HID WHO |

| <u>T-9796</u> | <u>RS-805</u> | <u>T-9797</u> | <u>T-11262</u> |
|---------------|---------------|---------------|----------------|
| ASK EVA | BOX | DOC | SEC |
| BAR FRY | COW | TRE | |
| BED WOO | END | | |
| BUM YEA | GAB | | |
| COP | OFF | | |
| DEB | PET | | |
| EAT | <u>OLD</u> | | |

HYDRO STATIONS

| | | | |
|-----|--------------|-----|---------------|
| ATE | T-12262 | MAS | Vol.7, pg.22 |
| BSE | Vol.4, pg.35 | PAR | Vol.5, pg.43 |
| CAD | Vol.7, pg.18 | PIL | Vol.7, pg.33 |
| COO | Vol.1, pg.56 | SIG | Vol.10, pg.16 |
| GAS | Vol.4, pg.35 | THY | T-12262 |
| MAC | Vol.1, pg.9 | | |

Appendix B
 Corrections to Echo Soundings
 Skiff 758

| <u>Date</u> | <u>Day Letter</u> | <u>Recorder No.</u> | <u>Depth</u> | <u>Corr.</u> | <u>Remarks</u> |
|-------------|-------------------|---------------------|--------------|--------------|----------------|
| 3-21-63 | a | DE-723 No. 544 | 3.0-4.0 | +0.0 | |
| | | | 4.1-12.0 | +0.2 | |
| | | | 12.1-21.0 | +0.4 | |
| | | | 21.1-26.0 | +0.6 | |
| | | | 26.1-Deeper | +0.8 | |
| 6-21-65 | b | DE-723 No.265 | 0.0-7.8 | 0.0 | |
| 6-22-65 | c | | 7.9-12.0 | +0.2 | |
| 6-23-65 | d | | 12.1-16.0 | +0.4 | |
| 6-25-65 | e | | 16.1-21.0 | +0.6 | |
| 6-28-65 | f | | 21.1-30.0 | +0.8 | |
| 6-29-65 | g | | 30.1-Deeper | +1.0 | |
| 6-30-65 | h | | | | |
| 7-1-65 | j | | | | |
| 7-2-65 | k | | | | |
| 7-6-65 | l | | | | |
| 7-8-65 | m | | | | |
| 7-12-65 | n | DE-723 No.265 | 0.0-4.2 | 0.0 | |
| 7-14-65 | p | | 4.3-8.8 | +0.2 | |
| 7-15-65 | q | | 8.9-13.0 | +0.4 | |
| 7-19-65 | r | | 13.1-16.7 | +0.6 | |
| 7-20-65 | s | | 16.8-23.8 | +0.8 | |
| 7-21-65 | t | | 23.9-27.9 | +1.0 | |
| 7-22-65 | u | | 28.0-31.8 | +1.2 | |
| 7-23-65 | v | | 31.9-Deeper | +1.4 | |
| 7-26-65 | w | | | | |
| 7-27-65 | x | | | | |
| 8-2-65 | y | | | | |
| 8-3-65 | z | | | | |
| 8-4-65 | aa | | | | |
| 8-6-65 | ba | | | | |
| 8-9-65 | ca | | | | |
| 8-10-65 | da | | | | |
| 8-11-65 | ea | | | | |
| 8-12-65 | fa | | | | |
| 8-13-65 | ga | | | | |
| 8-16-65 | ha | | | | |
| 8-18-65 | ja | | | | |
| 8-19-65 | ka | | | | |
| 8-20-65 | la | | | | |
| 8-23-65 | ma | | | | |
| 8-25-65 | na | | | | |

Appendix B (cont)

8-26-65 pa
 8-27-65 qa
 8-30-65 ra
 8-31-65 sa
 9-2-65 ta
 9-3-65 ua

Launch 183

| | | | | |
|----------|---|---------------|-------------|------|
| 9-20-62 | a | 225C-13-EDO | 4.0-10.0 | -0.2 |
| 9-21-62 | b | | 10.1-14.0 | 0.0 |
| | | | 14.1-18.0 | +0.2 |
| | | | 18.1-22.0 | +0.4 |
| | | | 22.1-26.0 | +0.6 |
| | | | 26.1-Deeper | +0.8 |
| 9-24-62 | c | 225C-13-EDO | 4.0-12.0 | -0.2 |
| 9-25-62 | d | | 12.1-15.0 | 0.0 |
| 9-27-62 | e | | 15.1-18.0 | +0.2 |
| 9-28-62 | f | | 18.1-20.0 | +0.4 |
| | | | 20.1-21.0 | +0.6 |
| | | | 21.1-23.0 | +0.8 |
| | | | 23.1-Deeper | +1.0 |
| 10-10-62 | g | 225C-13-EDO | 0.0-8.0 | -0.2 |
| 10-11-62 | h | | 8.1-14.0 | 0.0 |
| 10-12-62 | j | | 14.1-18.8 | +0.2 |
| | | | 18.9-22.0 | +0.4 |
| | | | 22.1-25.0 | +0.6 |
| | | | 25.1-27.6 | +0.8 |
| | | | 27.7-30.5 | +1.0 |
| | | | 30.6-Deeper | +1.2 |
| 11-5-62 | k | 225C-13-EDO | 4.0-18.0 | 0.0 |
| 11-6-62 | l | | 18.1-22.0 | +0.2 |
| 11-9-62 | m | | 22.1-24.0 | +0.4 |
| 11-13-62 | n | | 24.1-25.0 | +0.6 |
| 11-15-62 | p | | 25.1-Deeper | +0.8 |
| 1-21-63 | q | DE723 No. 544 | All Depths | 0.0 |
| 1-22-63 | r | | | |
| 2-7-62 | s | | | |

Appendix B (cont)

Launch 1177

| | | | | |
|----------|---|----------------|-------------|------|
| 9-14-65 | a | DE-723 No. 549 | 0.0-6.0 | -0.2 |
| 9-15-65 | b | | 6.1-9.2 | 0.0 |
| 9-17-65 | c | | 9.3-12.2 | +0.2 |
| 9-20-65 | d | | 12.3-14.6 | +0.4 |
| | | | 14.7-17.0 | +0.6 |
| | | | 17.1-19.4 | +0.8 |
| | | | 19.5-22.0 | +1.0 |
| | | | 22.1-24.8 | +1.2 |
| | | | 24.9-Deeper | +1.4 |
| 9-28-65 | e | DE-723 No. 549 | 0.0-4.6 | 0.0 |
| 9-29-65 | f | | 4.7-9.4 | +0.2 |
| 10-4-65 | g | | 9.5-13.2 | +0.4 |
| 10-5-65 | h | | 13.3-16.0 | +0.6 |
| 10-6-65 | j | | 16.1-18.6 | +0.8 |
| 10-7-65 | k | | 18.7-21.3 | +1.0 |
| 10-8-65 | l | | 21.4-Deeper | +1.2 |
| 10-11-65 | m | | | |
| 10-13-65 | n | | | |
| 10-14-65 | p | | | |
| 10-15-65 | q | DE-723 No. 544 | 0.0-10.4 | +0.2 |
| 10-19-65 | r | | 10.5-12.5 | +0.4 |
| 10-22-65 | s | | 12.6-15.3 | +0.6 |
| 10-26-65 | t | | 15.4-18.0 | +0.8 |
| 10-27-65 | u | | 18.1-21.0 | +1.0 |
| 10-28-65 | v | | 21.1-24.0 | +1.2 |
| 11-18-65 | l | Skiff 520 | All Depths | 0.0 |
| 11-19-65 | m | DE-723 No. 265 | All Depths | -0.2 |

Appendix C

Tidal Notes

Hydrographic Survey H-8743 (ECFP-20-3-62)

Gage Location: Eagle Point, Galveston Bay,
Texas
Lat. 29°29.80' *Off sheet limits*
Long. 94°54.58'

Gage Type: Portable Automatic and Bubbler.

Staff: Vitrified Scale, no time or
height corrections were applied
to the results obtained from
the gage in reducing soundings
west of long. 94°50.00'. A
time correction of minus 1
hour was applied to soundings
east of this line and south of
lat. 29°35.00'. No height
correction to be applied.

Gage Location: Point Barrow, Galveston Bay,
Texas.
Lat. 29°44.44' *Off sheet limits*
Long. 94°49.92'

Gage Type: Bubbler

Staff: Vitrified Scale- A time
correction of minus 1½ hr.
was applied to tide data from
this gage for reducing soundings
north of lat. 29°35.00' and
east of long. 94°50.00'. No
height correction applied.

Time Meridian: 90th. meridian time was used
at the above stations.

APPENDIX D

Approval Sheet to Accompany
Hydrographic Sheet H-8743 (ECFP 20-3-62)

The field and office work was accomplished under my supervision.

The hydrography and descriptive report was done by Robert A. Lewis.

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

Approved and forwarded,



Richard E. Alderman
LCDR., USESSA
Officer-in-charge

ADDENDUM to DESCRIPTIVE REPORT
by
Smooth Plotter

Numerous soundings from the 1962-63 hydro in the Houston Ship Channel and spoil area immediately east of the channel were not penciled on the smooth sheet due to dredging in the channel between this time and resumption of hydro in 1965. Soundings from the 1965 hydro adequately delineate the channel and spoil bank.

Respectfully submitted,

Robert A. Lewis

Robert A. Lewis
Cartographic Tech.

TIDE NOTE FOR HYDROGRAPHIC SHEET

November 4, 1966

~~NO. 1018~~ Atlantic Marine Center

Plane of reference approved in
23 volumes of sounding records for

HYDROGRAPHIC SHEET 8743

Locality: Galveston Bay, Texas

Chief of Party: P. A. Stark }
S. L. Hollis } 1962-65
R. E. Alderman }

Plane of reference is mean low water

Tide Station Used (Form C&GS-681):

Eagle Point
Point Barrow

Height of Mean High Water above Plane of Reference is as follows:

Eagle Point 1.0 feet
Point Barrow 1.1 "

Remarks Tide reducers for the following positions have
been revised and verified.

Volume 22; 1b-26b.


Chief, Tides and Currents Branch

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-8743..

Records accompanying survey: 742-20-3-62 Smooth sheets ...1.;
 boat sheets ...1.; sounding vols. 23...; wire drag vols. .0...;
 Descriptive Reports ...1.; graphic recorder envelopes ^{2 Cahiers - Fathograms} ~~2~~...;
 special reports, etc. 1-Boat sheet overlay.....

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

| | |
|---|--------------|
| Number of positions on sheet | .4351. |
| Number of positions checked | .668. |
| Number of positions revised | ...49. |
| Number of positions revised (refers to depth only) | |
| Number of soundings/erroneously spaced | .137. |
| Number of signals erroneously plotted or transferred | |
| Topographic details | Time .13 hrs |
| Junctions | Time 4..." |
| Verification of soundings from graphic record | Time 44 " |
| Special adjustments | Time |

Verification by ..W.W. Feazel..... Total time 347. hrs Date 3/29/67

Reviewed by *Fannie B. Powers*..... Time 144. Date 12-29-72

Insp. by *D. E. Westbrock* Time 44 hrs. 2/28/73

Captains 7 hr 3/17/73

OFFICE OF MARINE SURVEYS AND MAPS

MARINE CHART DIVISION

HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO. H-8743

FIELD NO. 742-20-3-62

Texas - Galveston Bay, Lower Trinity Bay

SURVEYED: September 5, 1962 through April 24, 1963 and
June 21, 1965 through December 8, 1965

SCALE: 1:20,000

PROJECT NO.: OPR-428

SOUNDINGS: Raytheon DE723 Depth
Recorder, EDO Depth
Recorders, and Sounding
Pole

CONTROL: Visual fixes on
shore signals

| | |
|-----------------------------|-------------------------|
| Chief of Party | S. L. Hollis, Jr. |
| | P. A. Stark |
| | R. E. Alderman |
| Surveyed by | D. W. George |
| | A. G. Davis |
| | J. B. Jones |
| | R. A. Lewis |
| Protracted by | R. A. Lewis |
| Soundings plotted by | R. A. Lewis |
| Verified and inked by | W. W. Feazel |
| Reviewed by | F. B. Powers |
| | Date: December 29, 1972 |
| Inspected by | D. E. Westbrook |

1. Description of the Area

This survey covers lower Trinity Bay and a portion of Galveston Bay northerly of Smith Point.

A federal channel project (Houston Ship Channel) cuts through the southwest corner of the survey. Several spoil islands lie along the eastern shore of Trinity Bay. The generally flat bottom is broken by numerous irregularities caused by oil well construction, dredging, and shell reefs.

The predominate bottom characteristics are mud and shells.

2. Control and Shoreline

The origin of control is adequately covered in Part F of the Descriptive Report.

The shoreline originates with reviewed photogrammetric manuscripts T-9795 (1960-63), T-9798 (1960-63), T-12263 (1962-63), T-12264 (1962-63), T-12227 (1962), and RS-805 (1962). Minor revision appearing in red are by the hydrographer.

3. Hydrography

A. Depths at crossings are in good agreement.

B. The usual depth curves are adequately delineated. Numerous dashed curves have been added to emphasize important bottom features.

C. 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, and Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, except that it was necessary for the verifier to check scan the fathograms for peaks and deeps not scanned in the field.

5. Junction

Adequate junctions were effected with H-8740 (1963-65) on the north, with H-8742 (1962) on the northwest, with H-8694 (1962) on the southwest, with H-8695 (1962) on the south, and with H-8745 (1963-65) on the southeast.

6. Comparison with Prior Surveys

A. H-324 (1852) 1:20,000
 H-414 (1852-53) 1:20,000
H-470 (1855) 1:20,000

These early surveys have been compared with and were superseded by the survey discussed below. Further consideration is not deemed necessary in the present review.

B. H-5510 (1933) 1:20,000

A comparison between the present and prior surveys reveals variable differences of 1-2 feet except in areas effected by dredging and disposition of spoil where the changes are greater. The construction of numerous oil and gas well platforms in the bay has produced bottom depth irregularities in what once (1933) was a relatively smooth bottom. Most of the shoreline changes have occurred in the vicinity of Smith Point. The present islands along the eastern shore of the bay are spoil banks, where depths of $\frac{1}{2}$ to 2 feet were ~~were~~ shown on H-5510.

An extensive shoal has built up to the northwest of Smith Point, much of which is apparently the result of dredging and spoiling operations.

Two soundings listed below from H-5510 (1933) were not verified or disproved by the present survey and have been carried forward:

1. A 6-ft. sounding in lat. $29^{\circ}37.71'$, long. $94^{\circ}51.18'$. ✓ *OK W&W L*
2. A 6 $\frac{1}{2}$ -ft. sounding in lat. $29^{\circ}37.14'$, long. $94^{\circ}49.48'$. ✓ *OK W&W L*

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

7. Comparison with Chart 519, 9th Ed., August 12, 1972
Chart 152-SC, 9th Ed., April 15, 1972

A. Hydrography

The charted hydrography originates with the previously discussed prior survey which requires no further consideration and with prior and subsequent Corps of Engineers surveys, Notices to Mariners, and Chart Letters, supplemented by the partial application of depths from the boat sheet and verified smooth sheet of the present survey. Attention is directed on the following:

1. The following items were charted on Chart 519 subsequent to the date of the present survey from the sources indicated and should be retained on the chart:

a. A visible wreck PA in lat. $29^{\circ}38.9'$, long. $94^{\circ}52.4'$ from Notice to Mariners No. 16 of 1967.

b. A visible wreck in lat. $29^{\circ}36.0'$, long. $94^{\circ}53.0'$ from Notice to Mariners No. 26 of 1967. ✓

c. A visible wreck PA in lat. $29^{\circ}33.0'$, long. $94^{\circ}55.0'$ from Notice to Mariners No. 26 of 1967.

d. A sunken wreck PA in lat. $29^{\circ}32.98'$, long. $94^{\circ}57.25'$ from Chart Letter 1095 of 1967 and Notice to Mariners No. 37 of 1967.

e. A pile in lat. $29^{\circ}35.33'$, long. $94^{\circ}56.17'$ from Corps of Engineers survey Bp 68459 (1965).

f. Several soundings along the Houston Ship Channel from Corps of Engineers surveys Bp 68883-84 (1965) and Bp 77517-27 (1969).

g. A pipe PA in lat. $29^{\circ}32.0'$, long. $94^{\circ}54.0'$ from Local Notice to Mariners No. 67 of 1971.

h. The stakes along the northeast side of the Houston Ship Channel from Corps of Engineers Bp 68883-84 (1965).

2. The spoil areas on Charts 519 and 152 located in the vicinity of Houston Ship Channel, Double Bayou Channel, Five Mile Cut, and Trinity River Channel are from Corps of Engineers surveys Bp 65106 (1963), Bp 59489 (1960), Bp 79056 (1970), and Bp 47073 (1949). These spoil areas should be retained on the chart.

3. The following items were charted on Chart 152-SC subsequent to the date of the present survey from United States Power Squadrons Chart Letter No. 1621 of 1967 and should be retained on the chart:

a. A marker in lat. $29^{\circ}32.69'$, long. $94^{\circ}46.01'$. ✓ *WBW*

b. A marker in lat. $29^{\circ}32.7'$, long. $94^{\circ}46.19'$. ✓ *WBW*

c. A submerged pipe in lat. $29^{\circ}32.87'$, long. $94^{\circ}46.08'$. ✓ *WBW*

d. A submerged pile in lat. $29^{\circ}36.62'$, long. $94^{\circ}43.10'$. ✓ *WBW*

e. Submerged stakes in lat. $29^{\circ}37.95'$, long. $94^{\circ}42.31'$. ✓ *WBW*

f. A submerged stake in lat. $29^{\circ}38.20'$, long. $94^{\circ}42.23'$. ✓ *WBW*

g. Submerged stakes in lat. $29^{\circ}38.42'$, long. $94^{\circ}42.20'$. ✓ *WBW*

4. Several soundings, piles, and platforms on Chart 152-SC along Double Bayou Channel (lat. 29°38.2', long. 94°44.2') were charted subsequent to the date of the present survey from Corps of Engineers survey Bp 7905⁶ of 1970. This information should be retained on the chart.

5. The note Shl to 1-ft. rep on Chart 152-SC in lat. 29°38.27', long. 94°42.90' originates with Local Notice to Mariners No. 109 of 1970 and should be retained on the chart.

6. The following items were charted on chart 519 or 152-SC from the boat sheet of the present survey and should be revised in accordance with the final survey data:

a. A rock awash charted in lat. 29°33.72', long. 94°46.42' should be revised to a low water area (Shell reef). *changed to LWC ✓*

b. The 5-foot sounding in lat. 29°34.20', long. 94°49.42' should be revised to a 14-ft. sounding. *519 ✓*

c. The 6-foot sounding in lat. 29°33.34', long. 94°56.18' should be revised to a 16-ft. sounding. *519 ✓*

d. The 28-ft. sounding in lat. 29°32.51, long. 94°51.10' charted from an error on the boat sheet. *519 ✓*

7. The Piling Fl R Lt on Chart 519 in lat. 29°34.31, long. 94°56.49' was originally charted as Marker (Lighted) before 1965, and apparently was revised from the boat sheet of the present survey. The feature should be revised to the original designation Marker (Lighted). *519 ✓*

8. The Piling on Chart 519 in lat. 29°32.66', long. 94°54.06' should be charted as Marker (lighted) in accordance with the present survey. *519 ✓*

B. Controlling Depths

The charted controlling depth note for Double Bayou Channel on Chart 152-SC is based on Corps of Engineers Chart Letter No. 198 of 1972. The table of controlling depths for Houston Ship Channel on Chart 519 is based on Corps of Engineers Chart Letter No. 1045 of 1972. The charted controlling depth note for Trinity River Channel on Chart 152-SC is based on United States Power Squadrons Chart Letter No. 1185 (1970) and Corps

of Engineers Chart Letter No. 127 (1957). All of the controlling depth notes supersede the present survey information except ^{Above} ^{Smith Point} for the 2½ ft. 1954 controlling depth note in part of Trinity River Channel.

The present survey shows a 1-ft. sounding closing off this channel at lat. 29°32.89', long. 94°46.13, so the cartographer should consider either changing the controlling depth note or charting the 1-ft. sounding in the channel. ^{Applied}

C. Aids to Navigation

Several aids to navigation have been established or relocated subsequent to the date of the present survey.

The aids presently charted adequately mark the features intended.


8. Compliance with Instructions

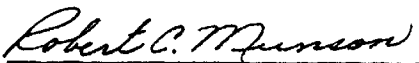
This survey adequately complies with the Project Instructions. Although the line spacing in some areas exceeds that usually required, the survey is considered complete.

9. Additional Field Work

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

Examined and Approved:


 Chief
 Marine Chart Division


 Associate Director
 Office of Marine Surveys
 and Maps

H-8743

(1962-65)

Information for Future Pre-Survey Reviews

Bottom changes have resulted from channel dredging, oil well construction, and dredging, and spoil disposal.

Position index - lat. 293, long. 0950

Bottom change index - 3

Use index - 9

Resurvey cycle - 25 yrs.

Position index - lat. 293, long. 0945

Bottom change index - 3

Use index - 9

Resurvey cycle - 25 yrs.

