

6277a

U. S. COAST & GEODETIC SURVEY  
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Form 504 Ed. June, 1928	
DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY R. S. RATTON, Director	
State: TEXAS	
DESRIPTIVE REPORT	
Topographic Hydrographic	Sheet No. C
LOCALITY	
<del>PAST COAST</del>	
INTRACOASTAL <del>CANAL</del> Waterway	
<del>Lat. 29-40 to 29-45</del>	
<del>Long. 94-04 to 94-12</del>	
Vicinity of Star Lake	
1935	
CHIEF OF PARTY	
R. F. LUCE	

6277a

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. C

REGISTER NO. 62772

State TEXAS

General locality ~~EAST COAST~~ Intracoastal Waterway

Locality Vicinity of Star Lake Lat. ~~29-40 to 29-45~~  
~~INTRACOASTAL CANAL~~ Long. ~~94-04 to 94-12~~

Scale 1:20,000 Date of survey January 29 to Feb. 19 1st, 1935.

Vessel Str. HYDROGRAPHER

Chief of party R. F. LUCE

Surveyed by EVERETT E. MUMAW

Inked by EVERETT E. MUMAW

Heights in feet above MHW to ground to-tops-of-trees

Contours, ~~Approximate contour, Form line interval~~ feet

Instructions dated October 23, 1934, 19

Remarks:

*Applied to chart 1280 Sept. 14, 1937 J.N.S.*

DESCRIPTIVE REPORT TO ACCOMPANY

SHEET C

Instructions of October 23, 1934.

GENERAL DESCRIPTION:

This sheet, Sheet C, is the third sheet in a series of five sheets covering the Intracoastal Canal From East Bay, Galveston, to the Port Arthur Ship Canal, Port Arthur, Texas. This is part of the INTRACOASTAL WATERWAY route from New Orleans, La. to Corpus Christi, Texas; through Larose, Lockport, Houma, Morgan City at the Atchafalaya River, Intracoastal City at the Vermillion River, past the Mermentau and Calcasieu Rivers, all in Louisiana, and through Orange, Port Arthur, Galveston, Freeport, Port O'Connor, to Corpus Christi, Texas. The Canal in general follows the coast line, roughly paralleling it, taking advantage of the larger bayous and rivers but avoiding the lakes. Short cuts are dredged across the marshes and these sections are either circular curves or tangents.

Except for the spoil bank, formed from dredging operations and deposited along one side of the canal, the country is quite flat. The canal runs through the salt marshes as well as the oil fields of East Texas. At these latter places a forest of derricks breaks the monotony of the marsh. Occasionally a lone tree, or clump of trees, or a lone derrick may show up prominently. As these make good points for aerial control they are located when coming within the limits of the sheet. Mile posts beginning at New Orleans and marking every five miles have been placed along the waterway as far as Lake Calcasieu. They will eventually be carried to Corpus Christi.

LANDMARKS:

On sheet C, the important landmarks are two prominent trees set off from the surrounding marsh. They are about 45 feet in height and are the only trees in the surrounding plain. They have branching trunks and assume different appearances from different angles. Cuts were taken from plane table stations along the canal bank, and the intersection of five or six best were used as the positions.

CHARACTER OF CONTROL USED:

Second-order triangulation control was established by the HYDROGRAPHER in 1934-35. Of this scheme, the stations coming along the canal on sheet C are WAY (1934), FLUME (1934) and DEE (1934). The station FADDEN (1934) along the beach was put on the sheet and served as a check station for resection of the traverse. With the aid of 2" by 2" poles and banners on top of the standing towers, it was possible to orient the table at any setup on both back and forward stations.

CLOSING ERRORS OF TRAVERSE RUN AND HOW ADJUSTED:

A traverse from WAY (1934) to FLUME (1934) on the spoil bank south of the canal had a closure at FLUME of 5 m. No adjustment was needed. FADDEN was in sight from most of the traverse stations along the south side of the canal. The triangulation stations WAY and FLUME were not occupied as planetable setups as they were situated in high cane grass on the north side of the canal, and the traverse was run on the spoil bank on the south side. However, as visibility was poor while running the traverse from FLUME to DEE, I occupied the top of the platform on the tower at FLUME to get an orientation line down on the spoil bank and then continued the traverse and detail from the spoil bank. On



reaching a point apposite DEE a closure of 10 m. was found and this error for the last station adjusted in the field. Office adjustment for the Engineer's stations, USE 63 and USE 65 were made in proportion to their distances from FLUME. The cattle pass and drainage culverts were also adjusted, but readings along the canal were not affected by this adjustment lengthwise of the canal. There was no error in azimuth as triangulation stations DEE and FLUME were both visible from any traverse station. Station FADDEN was occasionally visible along here. The average distance between planetable setups was 1000 m. with an intermediate fixed point read and checked from each of the two stations nearest it.

DETAIL DESCRIPTION:

This section of the Intracoastal Canal contains two circular curves and portions of long tangents. A short tangent connects the two curves, between stations USE 373 and the cattle pass just east of station USE 368. At station USE 373 is the dam and spillway of Star Lake. The water flows south through the watergates of the spillway. There are 11 sections to this spillway each of which measures 3.7 m. along the canal and 3.68 m. across at right angles to the canal. Each section consists, when viewed from the canal, of 3 - 48" concrete pipes with vertical gate valves in the lake behind and hinged valves in front. They are of the same construction as the individual water gates along the canal at other places. The dam is of dirt secured by wood retaining walls and wood piling, lashed together with steel cable. It is 7.75 m. wide.


The spoil bank continues on the south side from sheet B section past WAY and ends opposite USE 373. It starts again 700 m. to the eastward and follows along the south bank to the end of the sheet at station

DEE (1934). In general the spoil bank is about 75 m. wide and about 15 feet to 20 feet high above the bank of the canal. The 5 foot high levee on the north bank of the canal continues across the sheet with only a break at the dam and spillway at Star Lake. It is about 10 feet wide with the center line about 7 m. from the bank of the canal. It is broken, as is the spoil bank on the south side for openings dug for future cattle passes as noted on the sheet, one 300 m. east of USE 368 and the other midway between USE 65 and USE 63. A number of drainage sluices with the usual 48" opening are found along the north bank of the canal through the 5 foot levee. The south side of the eastern cattle pass has a temporary corral of wire built to protect cattle from the canal. Many of the drainage sluices are in bad condition and hardly serve their evident purpose of keeping the water level down in the marshes. A plan is underway to plant shrubs and bushes and such trees as will grow as windbreaks in this section for the benefit of the cattle owners. If this is done the whole appearance of the country will be changed. At present it is a dead level salt water marsh with some grazing grass on the higher levels and cane ~~and cane~~ and salt marsh grass at other places.

A magnetic meridian was taken in the morning of January 30, and was found to read about  $7^{\circ} 30'$  east of north. It was taken through a traverse station near USE 373.

Everett E. Mumaw  
Everett E. Mumaw, Surveyor,  
Coast and Geodetic Survey,  
Topographer.

Examined and Approved:

  
R. F. Luce, Commander,  
Coast and Geodetic Survey,  
Chief of Party.

STATISTICS  
FOR  
TOPOGRAPHIC SHEET C  
1935

Shore line	9.7 statute miles
Bayous	0.7 statute miles
Area	5.0 square miles, statute



Diagram No. 1280

Approved by the Division of Geographic Names, Department of Interior. \*

Referred to the Division of Geographic Names, Department of Interior. R

Under investigation. Q

[illegible]



## REVIEW OF TOPOGRAPHIC SURVEY No. 6277a

Title (Par. 56) *Intracoastal Waterway - Vicinity of Star Lake, Texas*Chief of Party *R.F. Luce* Surveyed by *E.E. Mumaw* Inked by *E.E. Mumaw*Ship *Hydrographer* Instructions dated *Oct. 23, 1934* Surveyed in *Jan. - Feb. 1935*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. ✓ (Par. 12, 29.)
4. ~~The amount of vertical control that the Manual specifies for contours-formlines was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~
5. ~~The delineation of contours-formlines is satisfactory. (Par. 49, 50.)~~
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) *None Submitted*
7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
8. The representation of low water lines, ~~reefs, coral reefs and rocks,~~ and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓
9. ~~Reefs and~~ other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓
10. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~
11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~
12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.



13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of IMs and DPs, 68.) *None Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) ✓
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓
18. The geographic datum of the sheet is *N.A. 1927 (Unadjusted)* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~ ✓
24. Remarks:

Reviewed in office by *Chas R Bush Jr.* May 14, 1936

Examined and approved:

*E. K. Green*  
Chief, Section of Field Records

*L. O. Polhut.*  
Chief, Division of Charts

*Fred. L. Peacock*  
Chief, Section of Field Work

*G. W. Hude*  
Chief, Division of Hyd. and Top.

6277b

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Form 504  
Ed. June, 1928  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton *Director*

State: TEXAS

## DESCRIPTIVE REPORT

*Topographic* } *Sheet No. D*  
*Hydrographic* }

### LOCALITY

~~EAST COAST~~

INTRACOASTAL ~~CANAL~~ Waterway

Lat. 29-45 to 29-50

Long. 93-58 to 94-04

Salt Bayou and Eagle Lake

1935

CHIEF OF PARTY

R. F. Luce

U. S. GOVERNMENT PRINTING OFFICE: 1928

6277b



DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. D

REGISTER NO. 0277h

State TEXAS

General locality ~~EAST COAST~~ Intra coastal Waterway  
Salt Bayou and Eagle Lake ~~Lat. 29-45 to 29-50~~  
Locality ~~INTRACOASTAL CANAL~~ ~~Long. 93-58 to 94-04~~

Scale 1:20,000 Date of survey February 1 - 13, 1935

Vessel Str. HYDROGRAPHER

Chief of party R. F. LUCE

Surveyed by EVERETT E. MUMAW

Inked by EVERETT E. MUMAW

Heights in feet above MHW to ground ~~to tops of trees~~

~~Contours. Approximate contour. Reduction interval 100 feet~~

Instructions dated October 23, 1934

Remarks:

DESCRIPTIVE REPORT TO ACCOMPANY

SHEET D

Instructions of October 23, 1934.

GENERAL DESCRIPTION:

This sheet, Sheet D, is the fourth sheet in a series of five sheets covering the Intracoastal Canal from East Bay, Galveston, to the Port Arthur ship canal, Port Arthur, Texas. This is part of the INTRACOASTAL WATERWAY route from New Orleans, La. to Corpus Christi, Texas; through Larose, Lockport, Houma, Morgan City at the Atchafalaya River, Intracoastal City at the Vermillion River, past the Mermentau and Calcasieu Rivers, all in Louisiana, and through Orange, Port Arthur, Galveston, Freeport, Port O'Connor to Corpus Christi, Texas. The Canal in general follows the coast line, roughly paralleling it, taking advantage of the larger bayous and rivers but avoiding the lakes. Short cuts are dredged across the marshes and these sections are either circular curves or tangents.

Except for the spoil bank formed from dredging operations and deposited along one side of the canal, the country is quite flat. The canal runs through the salt marshes and the oil fields of East Texas. At these latter places, a forest of derricks breaks the monotony of the marsh. Occasionally a lone tree, or clump of trees, or a lone derrick may show up prominently. As these make good points for aerial control, they are located when coming within the limits of the sheet. Mile posts, beginning at New Orleans and marking every five miles have been placed along the waterway as far as Lake Calcasieu. In time these markers will be carried to Corpus Christi.

LANDMARKS:

On sheet D two small shacks on the marsh south of BAYOU (1934) show up prominently. I do not think they are permanent so have not given their geographic positions. They are shown on the sheet as located on the edge of a lake which is probably the expanded portion of Salt Bayou. Eagle Lake, 2 miles north of BAYOU (1934) is the most prominent feature as seen from the air. It is likewise a branch of Salt Bayou and is nearly round. I took a few readings on its shore from nearby stations but the greater part of its outline is copied from the U. S. Engineer's map of 1926-27, made on a 1:10,000 scale and therefore it is shown dotted. The lake seems to have been filled up with spoil from dredging the channel through old Salt Bayou.

CHARACTER OF CONTROL USED:

Second-order triangulation control was established by the Hydrographer in 1934-35 in addition to the station INTRACOASTAL, TEXAS (1933). The stations on this sheet are DEE (1934), BAYOU (1934), KEITH (USE) (1934) and INTRACOASTAL, TEXAS (1933). KEITH made a good resection station when it was possible to see it, a clump of trees and marsh grass hiding it from sight for the traverse from DEE to BAYOU. INTRACOASTAL, TEXAS (1933) was rebuilt and a high banner placed on the tower at BAYOU (1934).

CLOSING ERRORS OF TRAVERSE RUN AND HOW ADJUSTED:

Visibility was poor on the day I started the traverse at station DEE (1934) so I had to set up on the observing platform of the 35 foot tower to get an orientation line down to the levee bank on the north side of the canal. The spoil bank on the south side was so covered with cane and other tall grass that it was impossible to use it

for a traverse. As a result, KEITH was invisible for this whole traverse. The distance between plane table stations were reduced to an average of about 800 m. with an intermediate fixed point read from both directions. There was an error of closure at BAYOU of 20 m. short. This was adjusted at the last setup. Adjustment was made in the office for the preceding stations and readings taken therefrom. The adjustment being in each case the proportional part of 20 m. that this station was from DEE divided by the whole distance DEE to BAYOU. The azimuth was correct as both DEE and BAYOU were visible from each setup. I set up at Station BAYOU (1934) and oriented on Station DEE (1934). Both KEITH and INTRACOASTAL were visible from here, for check. At least three of these four stations were visible at all the remaining plane table setups. An occasional three point fix was used to check the traverse. The traverse was run to INTRACOASTAL without error in closing, the detail from the last setup being left for sheet E on a 1:10,000 scale. A side traverse was run up the waterway dredged through former Salt Bayou, being carried to a station in Lat.  $29^{\circ} 50'$  and Long.  $93^{\circ} 59'$  about. This same station was occupied on sheet E and verified by a different three point fix. A correction of 5 m. in azimuth was made on this sheet to agree with the position on sheet E.

DETAIL DESCRIPTION:

The magnetic meridian on this sheet was taken on the morning of February 1, 1935. It reads about  $7^{\circ} 25'$  east of north. It was drawn through planetable station, at BAYOU.

The second long tangent of the canal from High Island to Salt Bayou ends at station BAYOU (1934). The spoil bank on the south side also ends here, gradually leveling off from an average height of 10 feet

to nothing at station BAYOU. It is approximately 80 m. in width, covered more or less with cane and other grass. The land south of it is marsh with small lakes at the season the survey was made. It would depend on whether the season was wet or there was heavy rainfall preceding as to the general appearance of this country. On the north bank the 5 foot high levee continues up to BAYOU at about 7 m. from the north bank of the canal. The land beyond this is a marshy lake with high cane. During the winter dry spells the cane is fired to aid fur trappers and great areas of it have been burned down.

From station BAYOU to the junction of the canal with the northern tributary canal, about <sup>2</sup>/<sub>1</sub> miles to the northeast, the canal is dredged through old Salt Bayou. The dredged channel is of the prevailing width, about 45 m., and is shown by a light full line. Some temporary small stakes mark the boundaries of the channel and at low water the sides can be easily seen. Such spoil as was removed here was dumped in piles on the northwest side of the canal, and these have flattened out so they are hardly noticable. However, the general height of the 5 foot levee is carried along here running a short distance up the northern branch, along the west side. For several hundred meters on the east side of this branch and around the point and along the north side of the main canal this 5 foot levee is carried running to the junction with sheet E. At the entrance to the branch there is a sign reading, "Closed to Navigation", but as it was dredged out I carried the survey up there, connection with Sheet E, where this canal branch runs out to join Taylors Bayou. In the report for Sheet E, I give the reason for this sign and why the connection is not made with Taylors Bayou.

The land lying between this tributary, the end of the Intracoastal Canal and the West Turning Basin of the Texas Company is completely covered with run-off from dredging wastes. No definite height is given though in spots it reaches 20 feet. Due to the bed of the old Salt Bayou and this dumping of spoil the area just east of this northern branch is practically all mud at present.

For comparison with the work of the U. S. E. D. maps for Louisianan and Texas Intracoastal Waterway for the Sabine River Galveston Bay section a set of 14 sheets of a survey of 1926-27 and later revisions as late as July 1930 may be obtained from the U. S. Engineer's Office at Galveston.

*Everett E. Mumaw*  
Everett E. Mumaw, Surveyor,  
U.S. Coast & Geodetic Survey,  
Topographer.

Examined and Approved:

*R. F. Luce*  
R. F. Luce, Commander,  
U. S. Coast & Geodetic Survey,  
Chief of Party.

S T A T I S T I C S

F O R

TOPOGRAPHIC SHEET D

1 9 3 5

Shore line	9.5 statute miles
Bayous	1.0 statute miles
Area	5.0 square miles, statute





## REVIEW OF TOPOGRAPHIC SURVEY No. 62776

Title (Par. 56) *Intracoastal Waterway, Salt Bayou and Eagle Lake, Texas*Chief of Party *R.F. Luce* Surveyed by *E.E. Mumaw* Inked by *E.E. Mumaw*Ship *Hydrographer* Instructions dated *Oct 23, 1934* Surveyed in *Feb. 1935*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) ✓
2. The character and scope of the survey satisfy the instructions. ✓
3. The control and closures of traverses were adequate. (Par. 12, 29.) ✓
4. ~~The amount of vertical control that the Manual specifies for contours-formlines- was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~
5. ~~The delineation of -contours-formlines- is satisfactory. (Par. 49, 50.)~~
6. There is sufficient control on maps from other sources that were transmitted by the field party to enable their application to the charts. (Par. 28.) *None Submitted*
7. High water line on marshy ~~and mangrove~~ coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.) ✓
8. The representation of low water lines, ~~reefs, coral reefs and rocks,~~ and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41.) ✓
9. ~~Rocks~~ and other important details shown on previous surveys and on the chart were verified. (Par. 25, 26, 27.) ✓
10. ~~The span, draw and clearance of bridges are shown. (Par. 16c.)~~
11. ~~Locations and elevations of summits are given. (Par. 19, 51.)~~
12. ~~The tree line was shown on mountains. (Par. 16g.)~~

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Use reverse side for extending remarks.



13. The descriptive report covers all details listed in the Manual, in so far as they apply to this survey. (Par. 64, 65, 66, 67.) ✓
14. ~~The descriptive report also contains additional information required in aero-topography relative to type of photographs, method of compilation and type of ground control.~~
15. The descriptions of recoverable stations and references to shore line were accomplished on Form 524. (Par. 29, 30, 57, 67 except scaling of DMs and DPs, 68.) *None Submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *None submitted*
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓
18. The geographic datum of the sheet is *N.A. 1927 (Unadjusted)* and the reference station is correctly noted. (Par. 34.) ✓
19. Junctions with contemporary surveys are adequate. ✓
20. Geographic names are shown on the sheet and are covered by the Descriptive report. (Par. 64, 66k.) ✓
21. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50.) ✓
22. No additional surveying is recommended. ✓
23. The Chief of Party inspected and approved the sheet and the descriptive report ~~after review by~~
24. Remarks:

Reviewed in office by *Chas. R. Bush Jr.* *May 14, 1936.*

Examined and approved:

*C. K. Green*  
Chief, Section of Field Records

*L. O. Colburn*  
Chief, Division of Charts

*Frederic L. Peacock*  
Chief, Section of Field Work

*Grude*  
Chief, Division of Hyd. and Top.