

# 6042

U. S. COAST & GEODETIC SURVEY  
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DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

TEXAS  
and  
State LOUISIANA

DESCRIPTIVE REPORT

Topographic  
~~Hydrographic~~

Sheet No. DE&S 6042

LOCALITY

Sabine River,  
and  
Intracoastal Waterway  
Sabine Lake to Choupique Bayou.

1933  
1934

CHIEF OF PARTY

J. C. Bose

U. S. GOVERNMENT PRINTING OFFICE: 1928

6042



DESCRIPTIVE REPORT TO ACCOMPANY  
TOPOGRAPHIC SHEET (FIELD) NO. D.

Instructions. The survey was made in accordance with the instructions from the Director dated September 8, 1933.

Limits. The limits of the survey extend from Latitude  $30^{\circ}03'$  to Latitude  $30^{\circ}04'$  and from Longitude  $93^{\circ}21\frac{1}{2}'$  to Longitude  $93^{\circ}42'$ . The area surveyed is that strip occupied by the Calcasieu Parish Navigation Channel, also called Intracoastal Canal or Lake Charles Ship Channel.

Control. Control for the survey consisted of one first order triangulation station, "Calcasieu," one second order triangulation station, "Spoil," three third order triangulation stations, "Bank," "Gardiner" and "Gum," one supplementary triangulation station, "High," and U.S. Engineer's PBMs M6, M7, M10 and M11. The position of PBM M7 shown on the sheet was established by a rod reading and differs slightly from the computed position. This was used because computed position was obtained from a very weak triangle. As the stations were seldom intervisible from the ground and were nearly in a straight line so as to make resection impractical, they served only as a check in most of the survey.

Traverses. Traverses were run as follows: from  $\Delta$  "Bank" to  $\Delta$  "Gardiner," a distance of 4.75 statute miles. The error was slightly over ten meters and this was in azimuth. This was adjusted in accordance with instructions on page 57 of the Topographic Manual; from  $\Delta$  "Gardiner" to  $\Delta$  "Gum," a distance of nearly six statute miles. The closing error was nineteen meters. This was adjusted as prescribed by the Manual and plane table positions were reoccupied to adjust topography; from  $\Delta$  "Gum" to a point directly across the canal from U.S.E's PBM M14. The error was too small to plot so it was not adjusted. The survey was begun by occupying PBM M6 and orienting on  $\Delta$  "Bank". From this point to  $\Delta$  "Bank" it was possible to obtain good fixes by orientation and resection. From  $\Delta$  "Bank" to PBM M14 was all traversed. The planetable was set up at  $\Delta$  "High" and oriented on  $\Delta$  U.S. E. 574 + 77.6. From this point eastward to PBM M14 good fixes were obtained.

Description. The Calcasieu Navigation Channel is a dredged waterway extending from the Calcasieu River via Bayou Choupique to the Sabine River. Its average width is about seventy meters. Its original bottom width was one hundred and twenty-five feet, but this has been increased by erosion. Several passing slips are somewhat wider. That portion covered by this survey lies across an area that is mostly marsh. From PBM M6 to Longitude  $93^{\circ}30'$  the canal runs through high marsh. The ground is either muddy or covered with water. Vegetation consists of tall cane grass between five and ten feet high. On the south bank of the canal a spoil bank partly covered with trees and brush extends from PBM M6 to  $\Delta$  "Gardiner". Just south of this spoil bank is a trail suitable for automobile traffic in dry weather. About one mile east of "Bank" is a small canal running north. It has no navigation importance. On the north side of the canal a spoil bank extends from opposite PBM M6 to a point about 1.25 miles west of  $\Delta$  "Bank". From this point extending west about one mile is a series of sloughs and ponds that extend out into the marsh to the north.



From Longitude 93°30' to Longitude 93°33' is a ridge known locally as Gum Cove Ridge. To the south of the canal this ridge is dotted with several farmhouses, barns, etc., and contains some cultivated fields, but is generally pasture land. Near PBM M10 a ~~sh~~ highway crosses the canal at Gum Cove Ferry. This ferry is a wood barge fifty feet long and sixteen feet wide. It is guided by a 5/8" steel cable which drops to the bottom to allow ships to pass and is towed by a launch powered by a ten horse power gasoline engine. At a point about .33 miles east of the ferry is a canal running north to a warehouse.

*? perhaps means ferry. R.*

From the ferry to the Vinton Canal a spoil bank covered with brush follows the north side of the canal. About 2.5 miles west of the canal is a small drainage canal leading north. Spoil mounds covered with brush and trees also lie on the south side of the canal.

The Vinton Canal is a dredged canal leading from Black Bayou in a northeasterly direction to Vinton. It is used by tugs and barges as a means of transporting oil from the fields both north and south of the ship channel. A telephone line follows this canal and crosses the ship channel by means of a submarine cable near PBM M13. Short distances up and down the ship channel from this crossing are signs reading "Don't Drag Anchor."

From the Vinton Canal on the south side, a spoil bank extends to the Sabine River. On the north side the spoil bank extends to PBM M14. Both are partly covered with trees and brush. Near PBM M14 the channel makes a slight "S" curve and then continues due west.

About 1.5 miles west of PBM M14 begins a ridge known locally as Perry's Ridge. This ridge is about one mile wide and is dotted with several farmhouses and barns north of the canal. From this ridge to the Sabine River is high marsh.

*J.E. Chachere*  
J.E. Chachere  
Topographer

Approved and forwarded:

*J.C. Bose*  
J.C. Bose  
Chief of Party

Landmarks. The ship channel traverses a terrain devoid of natural or artificial detail and there are no objects which can be recommended as landmarks. The houses on Gum Cove Ridge are the only objects which may be of some use as landmarks.

Such names as appear on the sheet are well established locally. They appear on the official map of Calcasieu Parish.

The canal or ship channel was built by Calcasieu Parish and is called in this parish the Calcasieu Parish Navigation Channel. It was built over the old Calcasieu River-Sabine River section of the Intra-coastal Canal.

There is some discussion in regard to increasing the bottom width of the channel to 250 feet; however, it is not believed that this improvement will be made in the near future.

The channel was dredged to a depth of 30 feet at Mean Low Gulf Level.       

// 30' MLGL

*J. C. Bose*  
J. C. Bose,  
Chief of Party

*Applied to drawing of Chart No. 592.  
Jan. 9/35. BR*

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 6042

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. 6042

State LOUISIANA AND TEXAS

General locality Sabine River and Intracoastal Waterway.

Locality Lake Charles Sabine Lake to Choupique Bayou.

Scale 1 : 20 000 Date of survey November-December, 19 33

Vessel \_\_\_\_\_ Project HT-138

Chief of party J. C. Bose

Surveyed by J. E. Chachere

Inked by J. E. Chachere(shore line); H. R. Burfford (symbols & lettering )

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated September 8, 1933

Remarks: \_\_\_\_\_

DESCRIPTIVE REPORT TO ACCOMPANY  
TOPOGRAPHIC SHEET (FIELD) NO.E.

Instructions. The survey was made in accordance with instructions from the Director dated September 8, 1933.

Limits. The limits of the area surveyed extend from Lat.  $29^{\circ}58\frac{1}{2}'$  to Lat.  $30^{\circ}03'$ , and from Long.  $93^{\circ}42'$  to Long.  $93^{\circ}48'$ . The sub-plan shows the area from Lat.  $30^{\circ}04'$  to Lat.  $30^{\circ}06'$  and from Long.  $93^{\circ}43'$  to  $93^{\circ}45'$ , and is drawn to twice the scale. The limits embrace the Sabine River between Orange, Texas, the west end of the Lake Charles Ship Channel, and the northern extremity of Sabine Lake.

Control. The control for the survey consisted of five first order triangulation stations; namely, Orange, G.S.U. Standpipe, Orange, Presb. Church Dome Pinnacle 1931, Orange, Yellow Pine Paper Co. Tank, Orange, Orange Rice Mill Co. Tank, and Orange, Orange Canning Co. Tank, (all 1931), six second order triangulation stations; namely, Spoil 1933, High 1933, 574+77.0 (U.S.E.), 434+77.4 (U.S.E.), 311+54.6 (U.S.E.), and Sabine. The following signals were located by planetable cuts,  $\odot$  Top, a black dead tree;  $\odot$  Pilot, a stack on pilot's cabin;  $\odot$  Cin, an incinerator;  $\odot$  Fun, a stack;  $\odot$  Smoke, a stack;  $\odot$  White, a tank,  $\odot$  Baptist Church Dome,  $\odot$  Gulf and State, twin stacks at G.S.U. plant, Trans and Mis, Transmission line towers, and  $\odot$  Green, S. Gable of Green house.

Traverses. A traverse was run from the beacon F"3" to  $\Delta$  311+54.6, a distance of 3.5 statute miles. The error of closure was too small to plot, so no adjustment was made. Traverse was run from  $\Delta$  311+54.6 via Middle Pass to  $\Delta$  Sabine. The distance was 1.75 statute miles, the closing error was four meters. Another traverse was run between the same stations via East Pass, a distance of 2.5 statute miles. The error of closure was eighteen meters. Both were adjusted in accordance with instructions on page 57 of the Topographic Manual.

Landmarks. The following landmarks are outstanding, G.S.U. Standpipe, Orange Rice Mill Tank, and Yellow Pine Paper Co. Tank. Of these, the Orange Rice Mill Tank is most prominent. Positions of all landmarks are listed on Form 567.

Description. The land on both sides of the river from  $\Delta$  High to  $\Delta$  Sabine is generally, marsh, partly inundated except in dry seasons, and is covered with tall cane grass. A strip of grassland about 100 meters wide extends from  $\Delta$  574+77.0 about .75 miles downstream. This small ridge and several shell mounds hereinafter described are the only spots not marshy between  $\Delta$  High and  $\Delta$  Sabine.

About .75 miles downstream from  $\Delta$  High the river turns north into a loop, runs as far north as beacon F"5" and then runs south, forming a peninsula. A canal has been cut across the south end of this peninsula creating an island. In the southwestern extremity of this island is a shack used by pilots on the Lake Charles Canal between trips. The east shore of this island is fringed with cypress trees.

A spoil bank extends along the south side of the river and canal from  $\Delta$  High to  $\Delta$  574+77.0. A short distance downstream from  $\odot$  Green a dredged canal leads from the river in a southeasterly direction to a shell mound in the marsh. Directly opposite the mouth of the canal is the mouth of Adams Bayou which flows into the river from the north. At the mouth of this bayou were shell mounds. These have been excavated.

Near, and across the river from beacon FR"4" is the mouth of Cow Bayou. Thi

This stream runs off in a northwesterly direction. Along its banks were several shell mounds that have been excavated. Near beacon F"1" is a short canal cut to obtain shells. At a point near  $\Delta$  311-54.6 the river divides into two channels the river proper, flowing in a westerly direction, and East Pass, flowing off to the south. Both empty into Sabine Lake and form a large marsh island between their courses. About one mile downstream from  $\Delta$  311-54.6 the river branches again. Little West Pass, an unimportant outlet to the lake, runs to the north; West Pass, the ship channel, runs west and joins the Sabine-Neches Canal; and Middle Pass, a wide, but shallow channel runs to the south. Both Little West Pass and Middle Pass are sufficiently deep for small boats but they flow into the lake at such shallow places that they are not used by anything but fishing craft. The dirt excavated from the Sabine-Neches Canal was thrown on the south side of the canal and forms several narrow islands.

About .25 miles from the junction of Sabine River and East Pass, Black Bayou flows into the pass. It is a long winding stream flowing into the pass from a northeasterly direction. It serves as a means of transportation to the oil fields south of then Lake Charles Ship Channel. Along the banks of East Pass between Black Bayou and Sabine Lake are a number of cuts where shells have been removed.

North of  $\Delta$  High the river flows in a northwesterly direction to the City of Orange, Texas. About one mile northwest of  $\Delta$  High, the river doubles back on itself forming another peninsula. A canal, known locally as the Cut-Off, dredged across the north end of this peninsula, forms an island. Along the north and east sides of this island is a fringe of cypress trees. Beacon FR"8" is located at the northernmost point. Near beacon F"5" and leading north about .75 miles is a dredged slip, on the southwest side of which are the Orange docks and warehouses. Only parts of these docks are used. The southernmost sections are being allowed to rot and fall to pieces. *ad. off*

The land on the left descending bank is marsh from  $\Delta$  High to the highway bridge, except a small grassy area between the Lake Charles Ship Channel and Conway Bayou and a sandy mound directly south of the city of Orange, formed by dirt taken from the turning basin. Near the mouth of Conway Bayou are to be found the wrecks of a number of wooden ships, built during the World War and never used. They were towed to this spot and burned. The ends of the long lines in the symbols indicate the true lengths and the ends of the middle transverse lines indicate the true widths of the wrecks. All of them are aground. *(wrecks)*

On the right descending bank the marsh extends as far north as  $\odot$  Cin. A fringe of cypress trees extend south of  $\odot$  Cin to the Cut-Off and then west to beacon F"15". Near  $\odot$  Cin is the Litcher and Moore Lumber Co. plant which has fallen into decay. In the river near this point and also south of the Cut-Off are strings of pilings formerly used to separate rafts of logs. Near  $\odot$  Fun is Weaver and Sons shipyard. Here are two marine railways whose capacity is 1800 tons. Near  $\odot$  Creo, (a large tank owned by the Texas Creosoting Co.) is a wharf used by this company. Near  $\odot$  White is a sawmill now falling into ruins. An old wharf and a row of pilings still remain in the river, but are no longer used. Orange lies to the north of a sharp curve made by the river. It has a population of about 7000. Its industry is diversified. Hospital and ambulance service is to be found here. Storm warnings are given by signal flags on top of the G.S.U. Standpipe. Along the waterfront are several small wharves and railroad spurs. South of  $\odot$  s Gulf and State is Livingston's shipyard. A new marine railway is located here with a capacity of 1800 tons. It can accommodate craft not to exceed 225 feet. A machine shop in connection makes repairs to wood and steel boats.

About .25 miles south of the shipyard the river makes a sharp bend north. At the southernmost end of this curve a small bayou flows into Phoenix Lake. North of the mouth of this bayou is a small island on which is the ruins of an old brick incinerator. From this point the river flows north to the highway bridge and then turns east.

The highway bridge is a steel truss structure with concrete pile foundations. It has a draw span in the center and a horizontal clearance of 131.4 feet between fender pilings. Lights are placed on piles to guide vessels at night. The approaches to the bridge are wood. Just north of the bridge and near O's "Trans" and "Mis" are the old ferry slips.

The ship channel from appoint opposite O Cin to Sabine Lake is marked by spar buoys numbered 1 to 30. Black buoys, assigned odd numbers, are placed on the right (West) descending side of the channel. Red buoys, numbered evenly, mark the left side. (East)

The existing chart shows numbers 23 and 26 missing. The topographer found numbers 8 and 22 also missing. No. 30 appears black on the chart and it was found to be red. Lighted beacons are placed at intervals from the Cut-Off to Sabine Lake. Those on the right descending bank are white, those on the left are white. The beacon at the entrance to The Calcasieu Parish Navigation Channel is not lighted.

Part of the turning basin south of  $\Delta$  G.S.U. Standpipe is marked on the existing chart (U.S.C. & G.S. 533) as "cable area". The topographer found no evidence of any cable in this area when the survey was made, but was subsequently informed by representatives of the local power company (Gulf States Utilities Co.) that a cable was laid during the World War to serve a temporary shipyard across the river from  $\Delta$  G.S.U. Standpipe. When the shipyard was dismantled the cable was removed from the river.

*J. E. Chachere*  
J. E. Chachere  
Topographer.

Approved and forwarded:

*J. C. Bose*  
J. C. Bose  
Chief of Party.

*Applies to drawing of Chart No. 592.*  
*Jan. 9 / 35 R.*



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

# LANDMARKS FOR CHARTS T6042

Lake Charles, Louisiana.

March 26

193 4

DIRECTOR, U. S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted.

J. C. Bose

Chief of Party.

[illegible]

A list of objects carefully selected because of their value as landmarks as determined from seaward together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstuffs and like objects are not sufficiently permanent to chart.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 6042

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. E

REGISTER NO. 6042

State LOUISIANA and TEXAS

General locality Sabine River and Intracoastal Waterway

Locality Lake Charles Sabine Lake to Chopique Bayou

Scale 1 : 20 000 Date of survey Jan. - Feb., 1934

Vessel \_\_\_\_\_ Project HT-138

Chief of party J. C. Bose

Surveyed by J. E. Chachere

Inked by J. E. Chachere (shore line) H. R. Burfford (symbols & lettering)

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated September 8, 1933

Remarks: Subplan of Orange, Texas on scale 1 : 10 000

## REVIEW OF TOPOGRAPHIC SURVEY No. 6042

Title (Par. 56) *Sabine River & Intracoastal Waterway, Louisiana & Texas*Chief of Party *J.C. Base* Surveyed by *J.E. Chachere* Inked by *J.E. Chachere*Ship — Instructions dated *Sept. 8, 1933* Surveyed in *Nov. - Dec. 1933*

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 7, 8, 9, 13, 16.) *No data as to projection and triangulation noted on sheet as per Par. 7*
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.)  
*Clearance not shown on bridge at Orange, Texas. Not a draw bridge*
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.) ✓
17. The magnetic meridian was shown and declination was checked. (Par. 17, 52.) ✓
18. The geographic datum of the sheet is *N.A. 1927 (Adjusted)* 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 12, 1936*

Examined and approved:

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

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

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

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