

10522

10522

Diag. Cht. No. 1116-2.

Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY	
DESCRIPTIVE REPORT	
Type of Survey	PLANIMETRIC (PHOTOGRAMMETRIC)
Field No.	Ph-170
Office No.	T-10522
LOCALITY	
State	LOUISIANA
General locality	ATCHAFALAYA BASIN FLOODWAY
Locality	LAKE CHICOT
19 56 - 1957	
CHIEF OF PARTY	
Ira R. Rubottom	Chief of Party
Fred Natella, Portland Photogrammetric Unit	
LIBRARY & ARCHIVES	
DATE	May 1963

COMM-DC 61300

DESCRIPTIVE REPORT - DATA RECORD

T-10522

Project No. (II): 170

Quadrangle Name (IV):

Field Office (II): Morgan City, Louisiana

Chief of Party: Ira R. Rubottom

Photogrammetric Office (III): Portland, Oregon

Officer-in-Charge: Fred Natella

Instructions dated (II) (III): (II) 4 December 1956
Supplement 1 15 January 1957
Supplement 2 14 March 1957
(III) 21 June 1957
Amendment 2 April 1959
Letter 73/rrj 8 January 1959

Copy filed in Division of
Photogrammetry (IV)

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:20,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (II): None

Date received in Washington Office (IV):

Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV):

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): X

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (26) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III):

No triangulation was recovered within limits of manuscript.
Refer to T-10523.

Lat.:

Long:

Adjusted
Unadjusted

Plane Coordinates (IV):

State:

Zone:

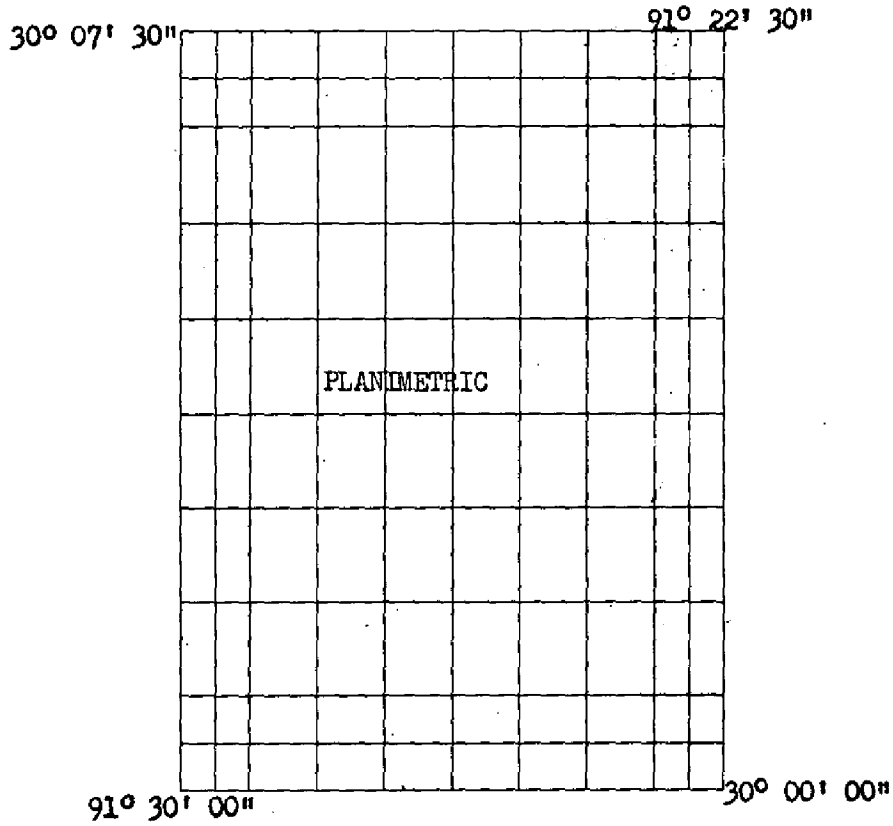
Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office,
or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.

DESCRIPTIVE REPORT - DATA RECORD



Areas contoured by various personnel
(Show name within area)
(II) (III)

DESCRIPTIVE REPORT - DATA RECORD

Field Inspection by (II): **Leo F. Beugnet** Date: **April 1957**

Planetable contouring by (II): Date:

Completion Surveys by (II): Date:

Mean High Water Location (III) (State date and method of location): **April 1957. Indicated by field inspection of field photographs. Refined and transferred to office photographs by stereoscopic inspection and graphically detailed on the manuscript.**

Projection and Grids ruled by (IV): Date:

Projection and Grids checked by (IV): Date:

Control plotted by (III): **C. C. Harris** Date: **3-10-58**

Control checked by (III): **E. T. Jenkins** Date: **3-10-58**

Radial Plot or Stereoscopic Control extension by (III): **J. L. Harris** Date: **8-1-58**

Stereoscopic Instrument compilation (III): Planimetry Date:

Contours Date:

Manuscript delineated by (III): **J. L. Harris, Rough Draft** Date: **10-27-58**
J. L. Harris, Scribing **4-14-60**
C. C. Harris, Stick-up **8-4-60**

Photogrammetric Office Review by (III): **J. E. Deal** Date: **Sept. 1960**

Elevations on Manuscript checked by (II) (III): **None** Date:

DESCRIPTIVE REPORT - DATA RECORD

Camera (kind or source) (III): ~~USCGS-9lens-focal length 8.25 inches.~~

		PHOTOGRAPHS (III)			
Number	Date	Time	Scale	Stage of Tide	
54786 thru 54789	10-15-56	10:46	1:20,000	Tide is mainly diurnal. Probably about 0.5 ft. above M.L.W. on this day.	
54798 " 54800	"	11:00	"		
54838 " 54840	"	11:45	"		

Note: No tide data from river gage in Keelboat Pass was furnished this office.

Tide (III)

Reference Station: Galveston, Texas
Subordinate Station: Eugene Island, Atchafalaya Bay, La.
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
	1.1	1.9

Washington Office Review by (IV):

Date:

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 58
Shoreline (More than 200 meters to opposite shore) (III): 12
Shoreline (Less than 200 meters to opposite shore) (III): 33
Control Leveling - Miles (II):
Number of Triangulation Stations searched for (II): 18 Recovered: 2 Identified: 2
Number of BMs searched for (II): --- Recovered: --- Identified: ---
Number of Recoverable Photo Stations established (III): None
Number of Temporary Photo Hydro Stations established (III): None

Remarks:

FIELD INSPECTION REPORT
MAP T-10522

2. AREAL FIELD INSPECTION

This map covers a portion of the Atchafalaya Basin Floodway, the development of which has caused extensive changes resulting in conditions peculiar to this area alone and which affect all maps in Project 170 south of the general vicinity of Latitude 30 degrees - 15 minutes. These conditions are described in this report which, in turn, is referred to in reports for all other affected maps.

The flood season usually starts in early January and is marked by a rise which, with minor fluctuations, continues until a crest is reached in March or April. Then the flood waters recede, at a more rapid rate than the rise, until the normal low water stage is reached in May or June.

Flood waters formerly inundated a large part of the Atchafalaya River Swamp, the area lying generally between the natural levees of the Mississippi River and Bayou Teche, depending upon the height of the crest of the flood. The area subject to inundation was considerably decreased by development of the Atchafalaya Basin Floodway, which was formed by construction of secondary or guide levees located well within the limits of the swamp. Flooding of the area to the north of Latitude 30 degrees-15 minutes is limited by primary levees along each side of the Atchafalaya and Old Rivers, ending just north of Latitude 30 degrees - 15 minutes, thus permitting flood waters to fan out and spread over the entire area downstream between the secondary levees.

Silting is the direct cause of the changes which have occurred. Prior to development of the floodway, silting was found chiefly in the form of natural levees along the streams and islands formed by silt deposits, but these were not numerous. The rate of silting was increased considerably by the reduction of the area subject to inundation and has resulted in larger and more rapid changes.

The natural levees along the streams act as dikes completely surrounding an island that originally was swamp. In the original state, the depressions were flooded only by the highest flood stages and either remained swamp or became fresh water lakes and this is still the general condition in the area behind the primary levees. In the area under discussion, the depressions are flooded more frequently and remain flooded for longer periods due to decreasing the area subject to flooding. The resulting deposition of silt has either partially or completely filled the depressions. The partially filled ones usually contain swamp inshore of the natural levees and perhaps the remnant of a lake, while the completely filled ones are covered by trees or appear as a mud flat, depending upon age and depth of the silt deposit.

Islands are formed in and near the main streams by silt deposits, and are most numerous near the mouth of the Atchafalaya Basin Main Channel in Grand Lake, where a small delta is being formed. Grand Lake as a whole is being filled; where it once had depths of 30 feet and more it is now very shallow over its entire area.

These silt islands begin as small deposits around trees and driftwood, rapidly increasing in size from silt deposited along their edges. They are recognizable on the photographs by a very dark, smooth tone due to a very heavy growth of willows, which are highest on the older part of the island and gradually decrease in height until they become scattered bushes near the water.

Silt is also filling in the beds of lakes and bayous. Examples of the former are Flat Lake and Lake Chicot; Flat Lake is the better example of present conditions. Filled bayou beds are very numerous, some of which are extinct bayou beds while others are younger bayous rapidly becoming extinct by changing channels having closed their mouths after robbing them of their share of water flow.

Natural levees along the streams are being raised and extended more rapidly, causing these levees to join and rejoin, creating a pattern in many places which is very similar to beach ridges found in coastal areas.

Classification of swamp was complicated and made rather difficult because of silting and inspection of the area during the period of seasonal inundation. Swamp was classified and limits delineated on the photographs using similar unflooded areas as a guide but making any desirable alterations due to changed conditions.

Swamp limits generally follow the inshore edge of a dark gray tone which results from the tree growth on the higher parts of the natural levees. This pattern, however, is broken up by the changes caused by silting but is true in general throughout the entire area. The usual light gray tone, due to cypress and gum, found in similar swamp areas is conspicuously absent because silting has killed practically all of these trees.

Discrepancies exist between the delineated swamp limits and the limits as appear on the topographic maps of the area published by the Mississippi River Commission. These discrepancies are due to the changes referred to and to the fact that the area was flooded at the time of field inspection. Use of similar unflooded areas as a guide in delineating swamp limits is believed to have eliminated extension of swamp classification to areas which would not be swamp when flood waters recede.

The salient features are the Atchafalaya Basin Main Channel, Chicot Lake and the upper reaches of Grand Lake.

The area is accessible only by boat or by aircraft, as there are no roads or railroads. The many bayous are slowly becoming impassible, even to shallow draft boats, because of the silting. Little Bayou Pigeon is an exception to this however, and is used by barges for the transporting of petroleum from the Bayou Pigeon Oil Field. The only other oil field is the Chicot Lakes Oil Field located in the west central part of the map.

There is no permanent population in the area.

Photograph quality was excellent; no interpretation difficulties were encountered. Field Inspection is believed to be complete and adequate.

Field inspection notes appear on the following nine lens, 1:20,000 scale field photographs: 54799, 54800, 54838, 54839 and 54840.

3. HORIZONTAL CONTROL

A search was made for all stations plotted on the project diagram. These consisted of stations of this bureau and third-order stations established by the Corps of Engineers.

Stations of this bureau reported lost on Form 526 are as follows:

HOG ISLAND, 1935
CROSS BAYOU, 1935.

Silting, as discussed in Item 2 of this report, has covered the stations to reported depths of four to eight feet. The descriptions of the stations have become inadequate as all of the reference points have also been destroyed.

Two stations, namely, BM 42 (USED) 1917 and BM CROSS BAYOU, USE were recovered and identified. The latter station was not a part of the original project data. The description and position of the station was obtained from the field office of the Corps of Engineers in Morgan City, Louisiana.

No supplemental control was established.

4. VERTICAL CONTROL

Not applicable.

5. CONTOURS AND DRAINAGE

Contours inapplicable.

Drainage is by perennial streams and canals. All of these are self evident on the photographs.

6. WOODLAND COVER

Woodland cover was classified in accordance with Project Instructions and is believed to be adequately covered by Item 2 of this report and field photographs.

7. SHORELINE AND ALONGSHORE FEATURES

The shoreline along the main channels of the floodway and the larger bayous is predominately fast. The mean high water line forms the shoreline of silt islands in the channels of the floodway. A major portion of the fast shoreline will become apparent depending upon the flood waters. This condition will begin to appear in January each year and continue into May or June. The height of the crest of the flood varies from year to year depending upon precipitation and other meteorological condition.

Periodic tide in the area apparently is negligible; water level fluctuations resulting more from flooding. Consequently, there is no true foreshore.

Mud flats and bars do appear during the season of low water. Mud bars are usually found only near the main channels carrying the greater volume of water and are usually unstable.

Trees overhang the greater part of the shoreline and occasionally cypress will be found just offshore of the mean high water line. Care should be exercised by the compiler in the delineation of the shoreline.

There are no cliffs or bluffs.

Alongshore features are adequately covered by field inspection notes on the photographs.

8. OFFSHORE FEATURES

There are none.

9. LANDMARKS AND AIDS

There are none.

10. BOUNDARIES, MONUMENTS AND LINES

The boundaries between Iberville and St. Martin and St. Martin and Iberia Parishes affect this map. There are no other boundaries.

See "Special Report, Boundaries, Project ^{PH} 5170, Part 1 of 3".

11. OTHER CONTROL

No other control was established.

12. OTHER INTERIOR FEATURES

The few buildings within the area were classified in accordance with project instructions.

There are no roads, nor are there any bridges or overhead cables over navigable waters.

All other features are adequately covered by field inspection notes on the photographs.

13. GEOGRAPHIC NAMES

See "Special Report, Geographic Names, Project ^{PH} 5170, Part 1 of 3".

14. SPECIAL REPORTS AND SUPPLEMENTAL DATA

Special Report, Boundaries, Project ^{PH} 5170, Part 1 of 3, forwarded to Washington 8 May 1957 in Package No. 57-052.

Special Report, Geographic Names, Project ^{PH} 5170, Part 1 of 3, forwarded to Washington 8 May 1957 in Package No. 57-052.

Data, Maps T-10518, T-10519, T-10520, T-10521 to be forwarded at a later date.

Submitted:

Leo F. Beugnet

Leo F. Beugnet
Cartographer

Approved:

Ira R. Rubottom

Ira R. Rubottom
Chief of Party

PHOTOGRAMMETRIC PLOT REPORT

Radial Plot "C"

Map Manuscripts T-10518 thru T-10522

Project Ph-170

Items 21 thru 25:

Refer to the Photogrammetric Plot Report for Radial Plot "B" for Items 22, 23, 24 and 25.

For Item 21 and additional data for Item 23 refer to letters dated 23 May 1958; 73/rrj dated 12 June 1958; 73/rrj dated 15 July 1958; 73/rrj dated 24 July 1958; letter dated 4 August 1958 and 73/rrj dated 13 August 1958.

Copies of all of the above references are included in the Descriptive Report for T-10527 (1957) as appendices to the Photogrammetric Plot Report for Radial Plot "B".

Approved:

Fred Natella
by JED

Fred Natella
CAPT, C&GS
Portland District Officer

Respectfully submitted:

J. Edward Deal

J. Edward Deal
Cartographer
C&GS

COMPILATION REPORT
Map Manuscript T-10522
Project Ph-170

Items 31 thru 33:

Refer to Descriptive Report for T-10527 (1957).

34. Contours and Drainage:

Contours are not applicable. Drainage was delineated from field inspection, office examination of the photographs and by comparison with the Corps of Engineers, 15 minute, Chicot Lake, La. quadrangle, scale 1:62,500, edition 1955.

35. Shoreline and Alongshore Details:

Refer to Descriptive Report for T-10527 (1957).

36. Offshore Details:

None.

37. Landmarks and Aids:

None.

38. Control for Future Surveys:

None.

39. Junctions:

Satisfactory junctions were completed with T-10520 on the north, T-10521 on the west and T-10524 on the south. There is no contemporary survey to the east.

40. Horizontal and Vertical Accuracy:

Refer to Descriptive Report for T-10527 (1957).

46. Comparison with Existing Maps:

Comparison was made with Corps of Engineers, 15 minute Chicot Lake, La. quadrangle, edition of 1955, scale 1:62,500.

47. Comparison with Nautical Charts:

Comparison was made with nautical chart No. 1050 (New Orleans to Calcasieu River, East Section) scale 1:175,000, at Lat. 30°, revised 2-25-57.

Items to be Applied to Nautical Charts Immediately.

None.

Items to be Carried Forward.

None.

Approved:

Fred Natella

Fred Natella
CAPT, C&GS
Portland District Officer

Respectfully submitted:

J. Edward Deal

J. Edward Deal
Cartographer
C&GS

49. Notes to the Hydrographer:

None.

PHOTOGRAMMETRIC OFFICE REVIEW

T- 10522

1. Projection and grids X 2. Title X 3. Manuscript numbers X 4. Manuscript size X

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy X 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) None 7. Photo hydro stations None 8. Bench marks None 9. Plotting of sextant fixes None 10. Photogrammetric plot report X 11. Detail points X

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline X 13. Low-water line None 14. Rocks, shoals, etc. None 15. Bridges None 16. Aids to navigation None 17. Landmarks None 18. Other alongshore physical features X 19. Other along-shore cultural features X

PHYSICAL FEATURES

20. Water features X 21. Natural ground cover X 22. Planetable contours None 23. Stereoscopic instrument contours None 24. Contours in general None 25. Spot elevations None 26. Other physical features None

CULTURAL FEATURES

27. Roads X 28. Buildings X 29. Railroads None 30. Other cultural features X

BOUNDARIES

31. Boundary lines X 32. Public land lines None

MISCELLANEOUS

33. Geographic names X 34. Junctions X 35. Legibility of the manuscript X 36. Discrepancy overlay None 37. Descriptive Report X 38. Field inspection photographs X 39. Forms X

40. _____

Reviewer

J. Edward Deal

Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

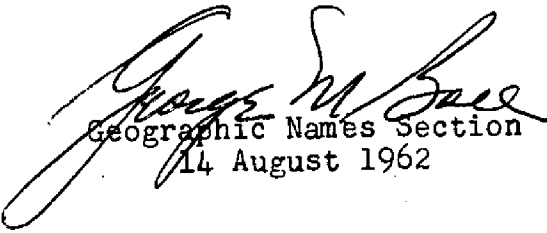
Compiler

Supervisor

43. Remarks:

48. Geographic Names:

Atchafalaya Basin Floodway
Atchafalaya Basin Main Channel
Bayou Cowan
Bee Bayou
Big Bayou Chene
Catfish Bayou
Chicot Pass
Cross Bayou
Dead Man Bayou
Eagle Island
Flat Lake
Flat Lake Pass
Grand Lake
Hog Island
Hog Island Pass
Indigo Bayou
Keelboat Bayou
Lake Chicot
Little Bayou Pigeon
Murphy Lake
Smith Bay
Smith Bayou
Turkey Island
West Foek Chicot Pass


Geographic Names Section
14 August 1962

REVIEW REPORT
OF PLANIMETRIC MANUSCRIPTS
T-10518 thru T-10522

December 1962

61. General Statement

These are five (5) planimetric maps of Project FH-170 Atchafalaya River, La. These maps were prepared as bases for Nautical Charts and future Hydrographic Surveys.

62. Comparison with Registered Topographic Surveys

None

63. Comparison with Maps of Other Agencies

Loreauville, La.	1:62,500	U. of E.	1961
Lake Chicot, La.	1:62,500	U.S.G.S.	1959
Pigeon Bay, La.	1:24,000	U.S.G.S.	1953

The above maps are in good agreement except for minor shore-line and cultural details.

64. Comparison with Contemporary Hydrographic Surveys

None

65. Comparison with Nautical Charts

1050	1:175,000	1961 Revised to Apr 1962
1051	1:175,000	1962

There are no major discrepancies through reprinting of the chart they may incorporate some or all of these changes.

66. Adequacy of Results and Future Surveys

These manuscripts were prepared according to project instructions and are within the required accuracy.

Reviewed by:

L. O. Lande
L. O. Lande

Approved by:

Charles L. Harris
Chief, Cartographic Branch

Louis G. Taylor
Chief, Nautical Chart Division

J. E. Wright 4/8/63
Chief, Photogrammetry Division

Horace S. Conner
Chief, Operations Division

