

4791

U. S. COAST AND GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
R. S. Patton, Director

State: LOUISIANA

DESRIPTIVE REPORT

Topographic } Sheet No. "A" 4791
~~Hydrographic~~

LOCALITY

COAST OF LOUISIANA

OUTH OF MERMONTAU

RIVER

1933

CHIEF OF PARTY

W. E. Parker

U. S. GOVERNMENT PRINTING OFFICE: 1928

4791

The topography was executed in accordance with Director's Orders of December 14, 1932, and instructions of December 17, 1932, for project No. HT-123 assigned to the U. S. Coast & Geodetic Survey Ship HYDROGRAPHER. W. E. Parker, Commanding.

LOCALITY AND LIMITS

The area covered by the topography of this sheet extends to meridian $93^{\circ} - 11.5'$ W where it joins the topography of F. W. Perkins, Chief of Party, executed in 1884 and shown on the topographic sheet bearing the register No. 1654. From the above mentioned meridian the topography extends in a general south easterly direction to $92^{\circ} - 55.5'$ approximately where it joins the topography of field sheet D (executed by the personnel of the ship HYDROGRAPHER) for this project. This area is also covered by topography executed by F. W. Perkins in 1884 as shown on registered sheet No. 1645.

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The survey consists of a detail survey of the geographic features including high and low water lines. The Mermentau River Survey is not shown on this sheet. This is covered by field sheet C. For the most part, the area covered by this sheet is marshy and extends beyond the area indicated by the conventional symbol. Due to the fact no distinctive geographic features were found in this area the marsh has not been shown but except for about a half mile distance back from high water line.

The high waterline is shown by a heavy line the seaward edge of which is the exact line as rodded by the topographer.

CONTROL

The control for the topography is furnished by triangulation stations situated approximately 5 miles apart. The triangulation is of second order accuracy and was executed in 1932-33 by L. C. Wilder and E. R. McCarthy as Chiefs of Party.

METHODS

The usual plane table methods of topographic surveying were used. It consisted of traversing between successive triangulation stations while rodding in shoreline details and hydrographic signals. When traversing it was nearly always possible to obtain a check on the planetable set ups by resecting on triangulation stations or previously located points which were cut in by the topographer when he was at triangulation stations.

TRAVERSES

The first traverse run was between Δ HACK and Δ MESA. The error of closure on this traverse was 12 meters in distance. The azimuth was correct. This closure was adjusted between \odot CUF and Δ MESA as

no error was found for that portion of the traverse between \odot CUF and Δ HACK.

The traverse between Δ HACK and Δ BERRY resulted in a closure that was correct in distance but with an error of 30 meters in azimuth. This adjustment was made by "swinging in" the shoreline and signals beginning at \odot RIG for that portion of shoreline between \odot RIG and Δ BERRY. There was no error in the portion of the traverse between Δ HACK and \odot RIG.

The traverse between Δ BERRY and Δ FRONT was run with no error in azimuth or distance.

SIGNALS

For the most part the signals constructed and located were for use by the hydrographic party doing inshore hydrography. These signals consisted usually of a large well dressed tripod about midway between the triangulation stations and about two additional smaller signals situated between the large tripod and triangulation station. The smaller signals were constructed in various shapes to enable the hydrographer to better identify his signals.

Near each triangulation station a tall hydrographic signal was built by a special signal building party. These towers were of various heights but for the most part consisted of towers about 100 feet in height. These signals were for use in carrying the visual fix controlled hydrography out to the 8 fathom curve. They were also an invaluable aid to the topographer for keeping an accurate check on the azimuth of the traverse during the progress of the work.

There were very few conspicuous or natural objects within this area that could be located for controlling air photo work. Houses that could be seen as the traverse progressed along the beach were "cut in" from successive plane table set ups. A brief description of these houses have been noted on the topographic sheet. Fence lines in the vicinity of high water line were rodged as were several small shacks (\odot NAY and \odot GAB). These are the only natural objects near high water line.

Standard disc station marks for hydrographic and topographic stations have been established as indicated on the sheet and which are described on the regular description of station forms.

GEOGRAPHIC NAMES

There are no new geographic names in the area covered by the topography of this sheet.

LAND MARKS

There are no prominent land marks.

MAGNETIC MERIDIANS

Magnetic meridians were placed on the sheet by means of a de-

clinatoire (with No. 213 Alidade). The declinatoire has not been checked at a regular magnetic station to determine the error, if any, of the instrument.

ADDITIONAL SURVEYS.

The shoreline covered by this sheet has changed considerably from that shown by the survey of 1884. During the present field season the shoreline would also be changed after each bad storm. The area between high water line and the marsh consists of a very narrow strip of fast shoreline which is easily broken through and again built up by heavy surf. The unimportance of the area however does not warrant additional surveying in the near future and the highwater line as indicated on the topographic sheet may be considered as being correct for charting purposes.

Kenneth G. Crosby,
H. & G. Engineer.

APPROVED


W. E. Parker, Chief of Party

NOTE:

Comparison with topographic sheet No. 1655, F. W. Perkins, Chief of Party, 1884, shows changes in the shore line as follows: The mouth of the Mermentau River has moved westward 1,100 meters. On both sides of the river mouth the shore line has moved seaward, 200 meters west of the river and half that amount to the eastward. Two and one half miles eastward of the old river mouth the present shore line conforms to that of 1884, but eastward of there the shore line has receded nearly uniformly to a maximum of about 300 meters near the eastern limit of this sheet. At this rate of erosion all stations eastward of Δ Berry will be lost within two or three years.



W. E. Parker, Chief of Party

STATISTICS FOR TOPOGRAPHIC SHEET "A"

Statute miles of shore line- - - 19.0

Area in Square stat.miles- - - - 20.0

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. _____

REGISTER NO. 4981

State Louisiana

General locality Gulf Coast

Locality Mouth of Mermentau River

Scale 1:20,000 Date of survey Jan.-March, 1933, ~~1932~~

Vessel HYDROGRAPHIC

Chief of Party H. M. Parker

Surveyed by Kenneth G. Crosby

Inked by Kenneth G. Crosby

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

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

Instructions dated December 17, 1932, ~~1933~~

Remarks: _____

POST-OFFICE ADDRESS:

Elizabeth City, North Carolina

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

H/-5361
T-4791

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

December 17, 1934

To: The Director,
U. S. Coast and Geodetic Survey.

From: Kenneth G. Crosby,
Elizabeth City, N. C.

Subject: Topographic Sheet No. 4791

Reference: Your letter Dec. 14, 1934, 80-LEF

You are respectfully advised that the signal PAP shown on the above mentioned topographic sheet is not located on any topographic feature. This signal was simply a small flutter flag attached to the top of a pole which was sticking out of the water and was probably a temporary signal used by a local fisherman in entering the Mermentau River with his small motor boat.

Kenneth G. Crosby
Kenneth G. Crosby,

80-LEF

December 14, 1934.

To: Lieutenant Kenneth C. Crosby,
U. S. Coast and Geodetic Survey,
P. O. Box 540,
Elizabeth City, North Carolina.

From: The Director,
U. S. Coast and Geodetic Survey.

Subject: Topographic Sheet No. 4791.

Enclosed is a photostat of a section of topographic sheet No. 4791, surveyed by you while attached to the ship HYDROGRAPHER, and embracing the area of Morantown River, Louisiana.

The sheet shows an offshore signal (PAP) in latitude $29^{\circ} 45.8'$, longitude $88^{\circ} 03.0'$. This office has no information regarding the topographic feature (if any) on which this signal is located.

Please advise us of the character of the signal in order that a correct disposition may be made for charting.

Director.

REVIEW OF TOPOGRAPHIC SURVEY No. 4791

Title (Par. 56) *Mouth of Marmontau R., La.*Chief of Party *W.E. Parker* Surveyed by *K.G. Crosby* Inked by *K.G. Crosby*Ship *Hydrographer* Instructions dated *Dec. 17, 31* Surveyed in *1933*

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 and lines was accomplished. (Par. 18, 19, 20, 21, 22, 23.)~~
5. ~~The delineation of contours and lines 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.) *No bridges*
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.)
OK except that a list of plane table positions was not included
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.) *2 Cards submitted*
16. A list of landmarks for charts was furnished on Form 567 and plotting checked. (Par. 16d, e, 60.) *Des. report states there are no prominent landmarks*
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. *It makes a satisfactory junction with T. 4795 (1933) to eastward. It overlaps T. 4060 (1924) two miles on the western edge and there was very little shift in the shoreline there.*
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: *Air photo surveys have been made of this area by the Geological Survey. They are based on good control and may be used to supplement this survey.*
- Reviewed in office by *E. P. Ellis, Feb. 26, 1936*

Examined and approved:

G. H. Green
Chief, Section of Field Records

L. O. Robert
Chief, Division of Charts

Fred. L. Pearson
Chief, Section of Field Work

G. H. Hesse
Chief, Division of Hyd. and Top.

Applied to drawings of charts 1007 & 1116

Oct. 15/34 C.H.D.