

5298

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

State: Louisiana

DESCRIPTIVE REPORT

Photo
Topographic
~~Hydrographic~~

Sheet No. T-5298 5298

LOCALITY

Timbalier Bay

Lake Barre to Bayou Blue

193 4

CHIEF OF PARTY

M. H. Reese, Jr. H. & G. Engr.

U. S. GOVERNMENT PRINTING OFFICE: 1928

5298

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 5298

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. 11

REGISTER NO. T-5298 5298

State Louisiana

General locality Timbalier Bay

Locality Lake Barre to Bayou Blue

Scale ~~1:24,000~~ ^{20,000} Date of survey ^{Photographs 11/30/32} 12/1/32, 19

Vessel Air Photo Compilation Party No. 24, New Orleans, La.

Chief of party M. H. Reese

Surveyed by See data sheet in the descriptive report.

Inked by A. A. Voss

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

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

Instructions dated November 7, 1933

Remarks: Compiled on scale of 1:24,000 and enlarged and printed on scale of 1:20,000 by Photo-Lithography.

- NOTES ON COMPILATION-

SHEET NO. T-5298

FIELD NO. 11

PHOTOS, NO.	DATE OF PHOTOGRAPHS.	TIME.
1834-1844	11/30/32	11:23 to 11:29 A.M.
1899-1909	12/1/32	10:33 to 10:39 A.M.

	BY	DATE
PROJECTION BY	<u>E. P. Hernandez</u> <i>E. P. Hernandez</i>	<u>3/7/34</u>

PROJECTION CHECKED BY	<u>M. H. Reese</u> <i>M. H. Reese</i>	<u>3/7/34</u>
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CONTROL PLOTTED BY	<u>G. O. Coignet</u> <i>G. O. Coignet</i>	<u>3/9/34</u>
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CONTROL CHECKED BY	<u>S. S. Gill</u> <i>S. S. Gill</i>	<u>3/9/34</u>
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RADIAL LINE PLOT BY	<u>A. A. Voss & H. C. Smith</u> <i>Alvin Voss, H. C. Smith</i>	<u>3/12/34</u> <u>3/15/34; 3/21/34</u>
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RADIAL LINE PLOT CHECKED BY	<u>M. H. Reese</u> <i>M. H. Reese</i>	
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DRAFTING OF PHOTOGRAPHS BY	<u>A. A. Voss</u> <i>Alvin Voss</i>	<u>3/26 to 4/9/34</u>
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PASTING OF NAMES BY	<u>Alvin Voss</u> <i>Alvin Voss</i>	<u>5-21 to 5-22-34</u>
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REVIEW OF COMPILATION BY	<u>M. H. Reese</u> <i>M. H. Reese</i>	<u>May 23, 1934</u>
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AREA OF DETAIL INKED-- 10.6 sq. Statute Miles.

LENGTH OF SHORELINE--(more than 100 meters from nearest opposite shore)--181.9 Statute Miles.

COMPILER'S REPORT.

FOR

PHOTO TOPOGRAPHIC SHEET NO. 11.

GENERAL INFORMATION:

Instructions dated November 7, 1933.

The information used in the compilation of this sheet has been obtained from the notes and sketches on the field photographs, from the reports of Lieutenant W. D. Patterson, who was engaged in combined operations work in this area at the time of the compilation, and from members of the field inspection party in questionable areas.

The accompanying "Notes on Compilation" details all data and statistics in connection with the compilation of this sheet.

Because of the small tide (approximately one foot), and the small scale of the photographs, its effect was neglected in the interpretation of the high water line from the photographs.

The land area on this sheet consists principally of small islands of low marsh land, which are subject to constant change due to the high winds which are common during the winter months. These winds either back the Gulf waters or force the waters out of the bays and lakes causing changes in shape of these islands.

This sheet was compiled from photographs taken by the U. S. Army Air Corps' five lens T-3A Camera, No. 32-3, photograph numbers 1834-1844 (West Flight) approximately parallel with Longitude 90°26' and 1899-1909 (East Flight) approximately parallel with Longitude 90°20'

CONTROL:

(A) Sources.

The following sources of control were used in the compilation of this sheet:

- (a) Triangulation by Lieutenant (j. g.) W. D. Patterson in 1934. (Greater Part)
- (b) Triangulation by W. Musseter in 1928.

The geographic positions obtained by W. Musseter were on the North American 1927 datum, (by a member of Lieutenant E. R. Mc Carthy's party), eastward from the triangle "Amos", "Beach", and "Hammock", which had been adjusted to the North American 1927 datum, by ties to first order triangulation. Additional stations established by Lieutenant W. D. Patterson compose the greater part of the control on this sheet. Recent ties with first order work indicate very little error in this area. The difference between the unadjusted and the final adjusted positions would be unplotable at the scale of this compilation, (1:24,000).

(B) Errors.

The control is adequate for this sheet and the radial plot gave good, definite intersections.

(C) Discrepancies.

No discrepancies in position of control stations were found. No control stations established by other organizations were used.

COMPILATION:

(A) Method.

The usual five lens radial line method of plotting was used throughout in the compilation of this sheet.

(B) Adjustment of Plot.

The photographs in the two strips appear to be free from excessive tilt and scale fluctuations, and the radial plot required no unusual adjustments.

(C) Interpretation.

To denote mangle brush three or four feet in height, the symbol used was (§), otherwise, only the conventional graphic symbols, as approved by the "Board of Surveys and Maps" (1932) were used, and no great difficulty was experienced in interpreting the detail on the photographs.

There are no roads in this area. Bayous and canals were shown with two solid lines and those too narrow to be shown in this manner were shown with a single solid line. Where all the detail was not labeled on the field inspection prints, the classification was done by a close examination of the photographs.

(D) Information from other sources.

There was no information used in the compilation of this sheet other than that obtained from the photographs and from the reports of the field inspection party.

(E) Conflicting names.

The names shown on this sheet were taken from the progress sketches and reports of Lieutenant W. D. Patterson who, because of this work in this area, is familiar with the names in common usage; and from charts by the U. S. Engineers. The conflicting names with their sources are listed below, and where there is a conflict those given by Lieutenant W. D. Patterson were shown, because of his recent work in this area.

"LIEUTENANT W.D. PATTERSON'S
PROGRESS SKETCH."

"U. S. GEOLOGICAL
SURVEY (LAKE FELICITY
SHEET)"

"U. S. ENGINEER'S
MAP OF SOUTHERN
LOUISIANA"

Lake Raccourci <i>✓ agrees with chart 197</i>	Timbalier Bay	Lake Raccourci
Little Lake <i>new name</i>	-----	Raccourcy Bay
A Canal <i>✓*</i>	-----	Southwest La. Canal
Bayou Grey <i>} new name</i>	-----	Grey's Canal

see review at back of this report.

COMPARISON WITH OTHER SURVEYS:

The junctions with adjoining sheets to the North, South, East and West, T-5297, T-5299, T-5302, and T-5294 respectively are satisfactory. A comparison with the U. S. Coast and Geodetic Survey Chart No. 197, shows a similarity of the shoreline and general shape of the islands, but, because of the incompleteness of detail on chart No. 197, it is impossible to make a thorough comparison.

LANDMARKS:

A list of land marks of this area has been submitted by Lieutenant W. D. Patterson on Form 567.

RECOMMENDATIONS FOR OTHER SURVEYS:

The compilation of this sheet is believed to have a probable error of about five meters in well defined detail of importance for charting and of ten meters for other data. There was no need to exaggerate detail in order to keep it clear and distinct in the photo-lithographic process. *see below*

To the best of my knowledge, this sheet is complete in all detail of importance for charting purposes, within the accuracy stated above, and no additional surveys are required.

J. O. Coignet

Submitted by: G. O. Coignet.

Draftsman.

M. H. Reese

Approved by: M. H. Reese.

Chief of Party.

The value of 5 to 10 meters given above is too high for work on this scale. The compilation has been replotted as noted in the following pages. The differences noted in the review and in the following pages are due more to change and distribution than to inaccurate plotting. The compilation is accepted as sufficiently accurate for charting.
B. G. Jones

REVIEW OF AIR PHOTO COMPILATION T 5298

This compilation was returned to the Field for additional work to coordinate the information shown here with the contemporary Hydrographic and Plane table Surveys of W. D. Patterson.

The sections of the descriptive report following this page were added by Reese as a discussion of his revision work.

The review at the back of the report is concerned with the completed compilation as finally received from the Field and does not discuss in detail the preliminary review of the original compilation prior to its revision.

B. G. Jones
B. G. Jones.

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MEMORANDUM TO ACCOMPANY DESCRIPTIVE REPORT OF SHEET NO. 5298,
HYDROGRAPHIC SHEETS NOS. 3 AND 4.

The discrepancies between air photo sheet No. 5298 and hydrographic sheets Nos. 3 and 4 were confined to: the canal shown within the boundaries of Latitude $29^{\circ}13'$ to $29^{\circ}14'$ and Longitude $90^{\circ}15'$ to $90^{\circ}16'$; the bayou within Latitude $29^{\circ}09'$ to $29^{\circ}10'$ and Longitude $90^{\circ}15'$ to $90^{\circ}16'$; deep bayou north of Latitude $29^{\circ}13'$ and east of Longitude $90^{\circ}17'$; the northeast shore of the island whose center is approximately $90^{\circ}17'30''$ and $29^{\circ}11'45''$; the southernmost point of the northernmost island on $90^{\circ}18'$ between $29^{\circ}11'$ and $29^{\circ}12'$, and the north shore of the island directly south of said last mentioned point; the point of land which is the most southerly point at the western entrance to Pierre Bay; the island within Latitude $29^{\circ}13'$ to $29^{\circ}14'$ and Longitude $90^{\circ}22'$ to $90^{\circ}23'$; the northernmost island within Latitude $29^{\circ}12'$ to $29^{\circ}13'$ and Longitude $90^{\circ}22'$ to $90^{\circ}23'$; the point of land northeast of Station Lier and in the southwest corner of the minute bounded by Latitude $29^{\circ}12'$ to $29^{\circ}13'$ and Longitude $90^{\circ}23'$ and $90^{\circ}24'$; the mud flat south of the island on which is Station Bull; and the island lying on Longitude $90^{\circ}27'$ immediately north of Latitude $29^{\circ}13'$.

After establishing a three point fix with a theodolite and computing its geographic position at the intersection of the northwest bank of above mentioned canal with the east shore of the channel connecting Little Lake with Bayou Elue, additional radial intersections were plotted in the vicinity of the canal. The closer orientation made possible by the additional radial intersections and a careful selection of the most distinct print showing this area disclosed a small error in the former orientation and shoreline determination. The land between the northwest bank of the canal and the southeast shore of Little Lake is low, marshy and very soft and it is possible that the southeast shore of Little Lake could have eroded since the taking of the photographs but it is known positively that the northwest intersection of the canal with aforesaid channel exists as shown.

A three point fix with a theodolite was taken at Vil and its geographic position was computed. Additional radial intersections were plotted in the vicinity of the bayou. The closer orientation made possible by the additional radial intersections and careful selection of the most distinct photograph showing this area disclosed an error of 60 meters in two portions of the bayou. The present positions check with the hydrographic work, with the exception of hydrographic sounding position 150P which is on the northwest bank of the bayou.

The change in Deep Bayou was due to original misinterpretation of the shoreline. The present determination checks the plotted positions of the hydrographic soundings.

The change in the northeast shore of the island at approximately $90^{\circ}17'30''$ and $29^{\circ}11'45''$ was necessary upon close examination

of the shoreline of several photographs. The present determination of the shore shows hydrographic sounding position 63U to check on the shoreline. It is possible that in this vicinity the shoreline may have eroded since the photographs were taken.

The southernmost point of the northernmost island on Longitude $90^{\circ}18'$ between $29^{\circ}11'$ and $29^{\circ}12'$ and the north shore of the island due south of said last mentioned point were redetermined by more careful selection of photographs and more careful orientation, and the present determination is correct as shown on the photographs. This determination of the channel between the two last mentioned islands does not check the determination as shown on the hydrographic sheet by positions 87P and 88P. Having recently visited the point in question, I believe it to be correct as shown at present on the compilation.

The most southerly point at the western entrance to Pierle Bay and the west shore of said last mentioned point were redetermined by more careful examination and orientation of the photographs, and the present determination checks the positions as shown on hydrographic sheet No. 3.

The island within the boundaries of Latitude $29^{\circ}13'$ to $29^{\circ}14'$ and Longitude $90^{\circ}22'$ to $90^{\circ}23'$, and the northernmost island within the boundaries of Latitude $29^{\circ}12'$ to $29^{\circ}13'$ and Longitude $90^{\circ}22'$ to $90^{\circ}23'$, had previously been omitted. Their present determination checks with positions shown on hydrographic sheet No. 3.

The point of land northeast of Station Lier and in the southwest corner of the minute bounded by Latitude $29^{\circ}12'$ to $29^{\circ}13'$ and Longitude $90^{\circ}23'$ to $90^{\circ}24'$, was redetermined by careful selection of most distinct photograph and additional radial line intersections plotted and closer orientation made. The present determination of this point checks with the hydrographic work.

The mud flat south of the island on which is Station Bull was added after a more careful examination of the photographs. Present determination of island and mud flat correct as shown.

The island lying on Longitude $90^{\circ}27'$ immediately north of Latitude $29^{\circ}13'$ was redetermined by a more careful orientation and selection of most distinct photograph. The present determination checks with the hydrographic work.

The island, the eastern end of which crosses Longitude $90^{\circ}28'$ between Latitude $29^{\circ}10'$ to $29^{\circ}11'$, is determined correctly as shown. Position 49Y as shown on hydrographic sheet No. 4 falls on the eastern end of the island as determined by the photo compilation. It is very possible in this area that the point of the island may have washed since the photographs were taken.

After checking over the alleged discrepancy in the west shore of the island shown between Longitude $90^{\circ}28'$ to $90^{\circ}29'$ and Latitude $29^{\circ}07'30''$ to $29^{\circ}08'$, it was found that no error exists on the air photo compilation sheet; the error being due to small error in a fix.

Pages 6 and 7 - This discussion *M.H. Reese*
concerns revisions made to coordinate M. H. Reese.
the compilation and the Hydrographic survey. B.G.A.

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General Report on revision of the computations

MEMORANDUM TO ACCOMPANY SHEETS NOS. 5294, 5295, 5297, 5298 AND 5299

It was found necessary, in the investigation of the discrepancies apparently existing between air photo compilation sheets Nos. 5294, 5295, 5297, 5298 and 5299 and the plane table surveys by Lieutenant W. D. Patterson covering the area contained within the limits of these sheets, to make a thorough field inspection of all topographic stations established in this area and to reestablish radial line plots on the sheets. *Plane table surveys T6065 and T6066 T6061 to T6068 inclusive*

A field inspection trip was made throughout all of this area for the purpose of definitely locating on the mounted aerial photographs the actual positions of all of these topographic stations with respect to their directions and distances from sufficiently prominent topographic features. In none too few cases the photographs were extremely hazy and indefinite in appearance causing difficulty in discerning clearly the topographic features. A list of these photographs follows: } plane table stations described on Form 524

On Sheet No. 5294 -	Nos. 1802 to 1811	(principally the	C	prints)
"	1733 " 1735	"	A,C,E	"
"	1736 " 1743	"	C,E	"
" " " 5295 -	" 1726 " 1729	"	D	"
"	1729 " 1732	"	A,D	"
"	1812 " 1817	"	all	"
" " " 5297 -	" 1888 " 1892	"	D	"
"	1893 " 1895	"	A,D	"
"	1896 " 1898	"	A,C	"
"	1844 " 1846	"	A,C,D,E	"
"	1847 " 1854	"	E	"
" " " 5298	" 1899 " 1909	"	all	"
"	1834 " 1835	"	C,D,E	"
"	1836 " 1843	"	A,C,D,E	"
" " " 5299	" 1910 " 1917	"	all	"
"	1826 " 1830	"	D	"
"	1831 " 1833	"	C,D,E	"

In such cases every effort available was made to tie in the topographic stations to topographic features even though the resulting locations were not classed as dependable as those more definitely tied in on clear, definite photographs. In other cases the photographs were such that practically no difficulty was encountered in fixing the locations of these stations on them.

Of all these topographic stations field sketches were made, showing in every detail the proper directions and distances from the stations to surrounding topographic features. These sketches were later used to check the traced details at the topographic stations on the finished celluloid tracings.

Upon completion of the field inspection, the topographic stations were plotted on the mounted photographs. Together with the previously plotted triangulation stations they formed extremely strong fixes for orientation of photographs under the celluloid tracings. The radial line plots were then re-run to determine the cause of the discrepancies.

Corrections were made where errors were found in the compilation. Also, overlay sheets were made on which was shown all the corrected detail made on the finished celluloid tracings. Individual reports of all corrections made and conclusions drawn as to the causes of these discrepancies are attached and made a part of this report. In a number of instances the geographic positions of topographic stations as established by Lieutenant Patterson were concluded to be in error. New geographic positions, established by the radial line plots, have been submitted for these stations.

All permanently marked topographic stations were shown on the finished celluloid tracings with a circle. These were also shown on the overlay sheets.

Brief comment is herein added concerning the accuracy of mounting photographs taken over water. Such photographs, where no topographic features or details were available for checking the matching of the "B" print with the "A", "C", "D" and "E" prints, were properly trimmed and then mounted by matching the collimating notches. It was found impossible, without topographic detail at the junction of these prints, to determine the amount, if any, of delayed shutter action on the wing prints. Hence it is highly probable that some of these photographs are incorrectly mounted, but there exist no means of determining the degree of error.

Examined and approved
M. H. Reese

E. P. Hernandez, Jr.
E. P. Hernandez, Jr.
 Surveyor.

OFFICE REVIEW

The preceding pages Nos. 8 and 9, include a general report on the revision work done by the compilation party to coordinate the information shown on plane table control surveys T-6061 to T-6068 with that on compilations 5294, 5295, 5297, 5298, and 5299 covering the same area.

The plane table surveys show, in general, only the H. W. line on the outside coast and location of signals for Hydrography including some 80 marked stations described on form 524. The Hydrography on surveys H-5478 to H-5482 inclusive ^{is} are controlled by these plane table ~~signal~~ stations.

The compilations were originally made at the same time as the plane table control ^{surveys using} and without ~~one of~~ the plane table stations ^{as control}.

The Hydrographic surveys were made in the field without shoreline from the compilations: ~~The resulting discrepancies were to be expected and were not extreme.~~

The compilation party did some revision work necessary to bring the shoreline and soundings into agreement, but did not at first test the agreement between the described plane table stations and the shoreline. There were numerous discrepancies in the later case.

Since it was desirable to have the described plane table stations shown on the printed compilations a second revision was made to bring these stations into proper agreement with the shoreline.

The compilation party plotted all recoverable plane table stations on the celluloid and did some additional field inspection work to identify these stations on the photographs. The photo plot was then re-run on all five compilations mentioned above and both the shoreline and descriptions on form 524 revised to obtain agreement. In making these replots there

were certain plane table stations, as listed on page ~~15~~¹⁸ of this report, and correspondingly in the ^{other} reports, with which the photo plot did not agree.

The compilation party has in every such case relocated the station by photo plot and recommended that the photo plot position be accepted in preference to the plane table positions.

On pages 8 and 9 of this report, Reese, in discussing these stations, expresses a certain lack of confidence in the photo plot in some areas. The ~~plots~~^{photos} were well controlled and the plot was no doubt carefully made in doing this revision work. However, the accuracy of location of a particular station will depend on the accuracy with which it can be identified on the photographs. None of these stations could be seen on the photographs and they had to be located by ground measurements to points that were visible. The photographs are not yet in this office for examination but well defined reference points are no doubt scarce in this type of country. This condition is further complicated by the fact that the photos were taken in 1932 whereas the field inspection for referencing these plane table stations was done in 1934. Any considerable change in the shoreline would make it very difficult to get accurate reference measurements.

The decision on acceptance of the photo plot positions in these cases of difference with the plane table is made more difficult by the part that the compilation reports in discussing the photo locations do not make specific statements regarding the accuracy of identification.

Each of these station location differences are taken up individually in the following pages of this report and correspondingly in the reports for the other compilations in this area.

In general, in case of large differences both positions have been plotted on the Hydrographic sheet and that one accepted which gave the

best agreement between the Hydrographic positions and the shoreline. Differences of 20 meters or less have not been investigated in detail.

Due to the question of accurate identification on the photographs the plane table positions have been accepted as correct unless there was clear evidence to the contrary.

Where the plane table positions have been accepted in preference to the photo positions and the descriptions do not agree with the shoreline on the revised compilations the stations have been left off the compilations entirely and the descriptions have not been filed. Such stations are mentioned specifically in the remarks.

In addition to the above discussion, ^{B.G. Jones} these marshes are no doubt subject to frequent change as noted on page 1 of this report and verified by conversation with Capt. Patterson and others who have worked in this area. The photographs were taken in 1932 and the planotable and hydrographic surveys made in 1933-34.

B.G.J.

MEMORANDUM TO ACCOMPANY SHEET NO. 5298 *Field report*

In the investigation of the apparent discrepancies existing between the air photo compilation sheet and the plane table survey by Lieutenant W. D. Patterson covering the area contained within the limits of this sheet, the geographic positions of the topographic stations were used in coordination with the geographic positions of the triangulation stations as control in a new radial line plot. This new plot was deemed necessary in order to determine the cause of the discrepancies between the compilation and the survey, and the intersections thus established are considered the proper and correct locations of the stations appearing on this sheet. In the development of this plot it was found that the geographic positions of some of the topographic stations did not coincide with the positions of these stations as established by the radial line plot intersections. Concluding these geographic positions to be in error, the geographic positions of the radial line plot intersections were scaled from the sheet and submitted as the correct locations of the topographic stations in question.

The following individual reports of all topographic stations for which corrections were considered necessary describe in detail the corrections made and the conclusions drawn concerning the causes of the discrepancies between the compilation and the survey.

Topographic station RAT is located approximately at Latitude 29°13'20" and Longitude 90°16'25". The geographic position of this station as established by the radial line plot coincided with the geographic position as established by the plane table survey by Lieutenant Patterson.

The island on which the station is located was incorrectly traced on the celluloid tracing. Evidently due to an insufficient number of radial points on the photographs in this vicinity, the island had been located on the celluloid by an orientation of the photograph between radial points too far distant from the island to warrant correct location. The proper correction was made on the celluloid, and indicated on the overlay sheet.

Topographic station NECK is located approximately at Latitude 29°13'55" and Longitude 90°17'58". The geographic position of this station as established by the radial line plot coincided with the geographic position as established by the planetable survey by Lieutenant Patterson. Due to improper orientation of photographs the detail in this vicinity was found incorrectly drawn. With a proper orientation of the photograph the detail was correctly shown on the celluloid tracing, and indicated on the overlay sheet.

Topographic station LIT is located approximately at Latitude 29°11'40" and Longitude 90°16'20". The geographic position of this station as established by the radial line plot coincided with the geographic position as established by the plane table survey by Lieutenant Patterson. Due to the fact that the definition on the photographs in this area was very poor, a misinterpretation of the shore line was made and the detail drawn in incorrectly. With the

-x-

photograph properly oriented, the detail was drawn correctly on the celluloid tracing and indicated on the overlay sheet.

Topographic station PAM is located approximately at Latitude 29°11'58" and Longitude 90°17'35". The geographic position of this station as established by the radial line plot coincided with the geographic position as established by the plane table survey by Lieutenant Patterson. The island on which this station is located and a small island to the north were shown on the celluloid tracing as one island. Apparently gradual erosion at the point where these two islands were at one time joined together has cut its way through. This cut was found by the field inspection party and indicated by them on the field photographs. The detail was corrected on the celluloid tracing and indicated on the overlay sheet.

Topographic station PIER is located approximately at Latitude 29°10'07" and Longitude 90°17'25". The geographic position of this station as established by the radial line plot did not coincide with the geographic position as established by the plane table survey by Lieutenant Patterson. The former was scaled from the celluloid tracing and submitted as the correct position of the station. No detail was found in error, and consequently no correction was made.

Topographic station SEND is located approximately at Latitude 29°10'05" and Longitude 90°20'50". The geographic position of this station as established by the radial line plot coincided with the geographic position as established by the plane table survey by Lieutenant Patterson. Misinterpretation of the shore line and of the extent into the water of the southerly tip of this island have caused this error in drafting. The proper correction was made on the celluloid tracing, and indicated on the overlay sheet.

Topographic station HOW is located approximately at Latitude 29°08'05" and Longitude 90°28'50". The geographic position of this station as established by the radial line plot coincided with the geographic position as established by the plane table survey by Lieutenant Patterson's party. The field sketch for this station made by Lieutenant Patterson's party does not correspond in detail with the photograph of this area. A new sketch was made from measurements scaled from the photograph. A small change in shore line was made opposite the station on the celluloid tracing and indicated on the overlay sheet.

This station is the west side of a lagoon and was included in the photo. The sketch made by the topog party does not agree with the location.

Topographic station SOP is located approximately at Latitude 29°10'55" and Longitude 90°28'50". The geographic position of this station as established by radial line plot did not coincide with the geographic position as established by the plane table survey by Lieutenant Patterson. The former was scaled from the celluloid tracing and submitted as the correct position of the station. A small change in shore line was made opposite the station on the celluloid tracing and indicated on the overlay sheet.

Topographic station RIB is located approximately at Latitude $29^{\circ}12'50''$ and Longitude $90^{\circ}27'50''$. The geographic position of this station as established by the radial line plot coincided with the geographic position as established by the plane table survey of Lieutenant Patterson. Misinterpretation of the shore line on the southern tip of this island and improper orientation have caused this error in drafting. The proper correction was made on the celluloid tracing and shown on the overlay sheet.

Topographic station BAT is located approximately at Latitude $29^{\circ}12'10''$ and Longitude $90^{\circ}25'12''$. The geographic position as established by the radial line plot coincided with the geographic position as established by the plane table survey of Lieutenant Patterson. A small change in shore line on the southeastern tip of this island was made on the celluloid tracing and indicated on the overlay sheet.

Topographic station ALVA is located approximately at Latitude $29^{\circ}11'25''$ and Longitude $90^{\circ}25'30''$. The geographic position as established by the radial line plot coincided with the geographic position as established by the plane table survey of Lieutenant Patterson. A small change in shore line was made opposite the station on the celluloid and shown on the overlay sheet.

Topographic station SHO is located approximately at Latitude $29^{\circ}10'40''$ and Longitude $90^{\circ}25'50''$. The geographic position as established by radial line plot coincided with the geographic position as established by the plane table survey of Lieutenant Patterson. The island on which the station is located was incorrectly traced on the celluloid, evidently due to an insufficient number of radial points in this vicinity. The island had been located by an orientation of the photographs between radial points too far distant to warrant correct location. The proper correction was made on the celluloid tracing and indicated on the overlay sheet.

Topographic station LAK is located at approximately Latitude $29^{\circ}14'35''$ and Longitude $90^{\circ}22'50''$. The geographic position as established by the radial line plot did not coincide with the geographic position as established by the plane table survey by Lieutenant Patterson. The former was scaled from the celluloid tracing and submitted as the correct position of the station. A small change in shore line was made along the eastern shore of the island on the celluloid tracing and shown on the overlay sheet.

Topographic station JOUR is located at approximately Latitude $29^{\circ}10'15''$ and Longitude $90^{\circ}27'35''$. The geographic position as established by the radial line plot did not coincide with the geographic position as established by the plane table survey by Lieutenant Patterson. The former was scaled from the celluloid tracing and submitted as the correct position for the station. The southern tip of the island was incorrectly traced due to improper orientation. A small change in shore line was made opposite the station on the celluloid tracing and shown on the overlay sheet.

Topographic station LOW is located at approximately Latitude 29°12'38" and Longitude 90°22'35". The geographic position of this station as established by the radial line plot did not coincide with the geographic position as established by the plane table survey of Lieutenant Patterson. The island on which the station is located was incorrectly traced on the celluloid. This was evidently due to an insufficient number of radial points in this vicinity. The island had been located by an orientation of photographs between radial points too far distant to warrant correct location. The proper correction was made on the celluloid tracing and shown on the overlay sheets.

Topographic station BRICE is located at approximately Latitude 29°13'03" and Longitude 90°20'45". The geographic position as established by the radial line plot coincided with the geographic position as established by the plane table survey by Lieutenant Patterson. Due to improper orientation of photographs in this area the detail in the vicinity was found incorrectly drawn. With a proper orientation of photographs the detail was correctly shown on the celluloid tracing and indicated on the overlay sheet.

Topographic station TAX is located at approximately Latitude 29°08'30" and Longitude 90°28'25". The geographic position of this station as established by the radial line plot coincided with the geographic position by the plane table survey of Lieutenant Patterson. Due to improper orientation of photographs in this area, the island that the station is located on was incorrectly drawn. With a proper orientation of the photographs the detail was correctly shown on the celluloid tracing and indicated on the overlay sheet.

Topographic station WIN is located at approximately Latitude 29°09'12" and Longitude 90°20'50". This station was located on the northern tip of a small island in Timbalier Bay, but was visited by the field inspection party and not recovered. The point of the island where the station was located has washed away. *card description has not been filed* ✓ This

The geographic positions, as established by Lieutenant Patterson, of the following topographic stations coincided with the geographic positions of these stations as established by the radial line plot intersections, and as far as could be ascertained no corrections were found necessary:

- MOON
- VIL
- HIGH
- BOR
- CAM
- TIN

Topographic stations NIB and BIN are light beacons. It was impossible to tie in or prick these stations located out in water. However, they were plotted on the celluloid by the geographic position given in the descriptive report and are shown by the standard symbol.

The geographic positions, as established by Lieutenant Patterson, of the following topographic stations coincided with the geographic positions of these stations as established by radial line plot intersections:

JAM (approx.)	latitude	29°11'30"	and (approx.)	longitude	90°19'35"
LOP	"	29°11'30"	"	"	90°19'33"
SUG	"	29°10'35"	"	"	90°17'55"
JUG	"	29°10'15"	"	"	90°17'20"
NAL	"	29°09'55"	"	"	90°17'10"
STACK	"	29°11'08"	"	"	90°20'45"
LEV	"	29°10'05"	"	"	90°16'30"
PILL	"	29°08'55"	"	"	90°23'05"
RON	"	29°12'50"	"	"	90°21'05"

The geographic positions, as established by Lieutenant Patterson, of the following topographic stations did not coincide with the geographic positions of these stations as established by the radial line plot intersections: (The latter were scaled from the celluloid tracing and submitted as the correct position of the stations.)

LAN (approx.)	latitude	29°09'58"	and (approx.)	longitude	90°17'10"
STIR	"	29°11'20"	"	"	90°20'30"
MAP	"	29°11'35"	"	"	90°18'05"
FOU	"	29°09'50"	"	"	90°17'10"

See also page 18

The detail in the vicinity of the above topographic stations was changed, where necessary, after careful inspection of each individual station and indicated on the overlay sheet.

Topographic station GOLD is located at approximately Latitude 29°12'25" and Longitude 90°16'38". This station, not being an object that was visible on the photographs, was impossible to prick. Hence it was impossible to check the shore line at the station and the geographic position. *Not a described or recoverable station*

While the radial line plot progressed, close observation was maintained in order to ascertain whether or not this plot substantiated the original radial line plot intersections. It was noted that some of the original intersections on the east flight between Latitudes 29°08' to 29°15' and Longitudes 90°15' to 90°19' did not coincide with those in the new plot. Consequently, a new group of intersections were established with no regard for those of the previous plot. This condition was apparently due to the extremely indefinite nature of the photographs, making it very difficult to prick radial points accurately; and especially was it difficult to trace detail with the use of these indefinite photographs. It may have been that in tracing the detail from the photographs some incorrectly pricked points were used in orientation. These errors seem to be confined to the area covered by the "A" prints of photos Nos. 1899-1909 inclusive. Adding to the probability for

error in this area was the fact that every photograph in this flight was mounted over water area.

All areas where revisions were necessary were carefully inspected and all changes in the detail were made on the celluloid and indicated on the overlay sheet.

Following are listed the topographic stations for which the geographic positions, as established by the radial line plot inter-sections, were scaled from the celluloid:

The centers of the "B" prints on this ^{sheet} are the most accurate water areas. Due to this condition it was impossible to establish a strong radial line plot with the control available. After the topo stations located a more rigid radial plot was possible. None of these topo stations were established at the time the original plot was made. There are numerous corrections on the present sheet, but it is felt as so far as possible that the revision is correct.

		(1695)	-1710	- 15m	
	29° 10'	152	- 137		
PIER X		(983)	- 986.6	3.5m	
	90° 17'	638	- 634.5		
		(679)	588.5	9.5m	
	29° 12'	1268	1258.5		
LOW X		(630)	607	2.3m	
	90° 22'	991	1014		
		(970)			
	29° 14'	877	901	24m	
LAK X		(193)			
	90° 22'	1427	1420	2m	
		(129)	130 = 1m		
	29° 10'	1718	1717		
SOP X		(192)	220.5	= 28.5m	
	90° 28'	1429	1400.5		
		(1495)	1477	18m	
	29° 10'	352	370		
JOUR X		(602)	618	16m	
	90° 27'	1019	1003		
		(67)	74	7m	
	29° 09'	1780	1773		
LAN		(1370)	1352	18	no card
	90° 17'	252	269		
		(1247)	1260	13m	
	29° 11'	600	587		
STIR		(901)	868		no card
	90° 20'	720	753	33m	
		(767)	768	1m	
	29° 11'	1080	1079		
MAP		(1548.6)	1516	32m	no card
	90° 18'	73.2	105		
		(372)	364	8m	
	29° 09'	1475	1488		
FOU		(1382)	1382	35m	no card
	90° 17'	240	275.7		

Not described on Form 524.

Examined and approved:
M. H. Reese
Chief of Party.

S. S. Gill
S. S. Gill,
Draftsman.

REVIEW OF PHOTO TOPOGRAPHIC SURVEY NO. T-5298 .

Title (Par. 56) Forwarded with sheet.

Chief of Party M. H. Reese.

Compiled by A. A. Voss.

Project Louisiana Air Photo Compilation Instructions dated Nov. 7, 1933.

Party No. 24

1. The survey and preparation for it conform to the requirements of the Topographic Manual. (Par. 8; and 16, a, b, c, d, e, g and i.) (Note) Par. 8 not applicable to this party.
2. The character and scope of the compilation satisfy the instructions and the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
3. The control and adjustment of the radial plot were adequate. (Par. 12, 29.)
4. There is sufficient control on maps from other sources that were transmitted by the field party for their application to the charts. (Par. 28.) None submitted.
5. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, 44.)
6. 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.) See Par. C, Page 3 of Des. Report.
7. Important details shown on previous surveys and on the chart have been compared with this sheet and a statement has been entered in the report regarding the removal from the chart or change in position of important detail such as rocks, lights, beacons, prominent objects, bridges, docks, and structures along the water front. No changes in such details have been noted on this sheet. *See review following and preceding pages 8 to 18.*
8. The span, draw and clearance of bridges are shown. (Par. 16c.)
9. The data furnished by the Field Inspection is adequate.

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.

10. The descriptive report covers all details listed in the Manual, so far as they apply to this survey. (Par. 64, 65 and 66.)
11. The descriptive report also contains all additional information required in photo topography as prescribed in the instructions and in the "Notes on the Compilation of Planimetric Line Maps from Five Lens Aerial Photographs".
12. The descriptions of recoverable stations and references to shore line were accomplished on Form 524, and scaling of positions checked. (Par. 29, 30 and 57.)
Descriptions of topographic stations shown on this compilation filed under T 6061, 6063, 6065, 6066 by Hydro Party
13. A list of landmarks for charts was furnished on Form 567 and scaling of positions checked. (Par. 16d, e, 60.)
14. The geographic datum of the sheet is North American 1927 and the reference station is correctly noted. (Par. 34.) *Unadjusted*
15. Junctions with contemporary surveys are adequate.
16. Geographic names are shown on the sheet and are covered by the Descriptive Report. (Par. 64, 66k.) *and the review at back*
17. The quality of the drafting is good. (Par. 31, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 45, 46.)
18. No additional surveying is recommended.
19. Remarks:

20. Examined and approved:

M. H. Reese
M. H. Reese
Chief of Party

21. Remarks after review in office: *See Pages 8 to 22*

Reviewed in office by:

B. G. Jones

Examined and approved:

K. T. Adams
Chief, Section of Field Records

L. O. Lobnitz
Chief, Division of Charts

J. L. Bodan
Chief, Section of Field Work

J. H. Hude
Chief, Division of
Hydrography and Topography.

U. S. Coast and Geodetic Survey,

1611 Masonic Temple Bldg.,

New Orleans, Louisiana.

C O P Y

June 22, 1934.

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

From: M. H. Reese,
Lieutenant (j.g.) C. & G. Survey.

Subject: Geographic Names on Air Photo Sheets, Reference: 26-AHH,
1930 (24).

You are advised that the matter of names on the air photo sheets has been given detailed attention. Geographic names were obtained from the progress sketches and reports of Lieutenants Patterson, Reed and McCarthy, because they were more familiar with the territory than I was. It was considered that these officers were in a position to give the correct information, due to the length of time their parties spent in the field, and to the fact that they were employing local people who could furnish the information. The field inspection party, as a rule, only spends two or three days in a particular locality.

Another handicap in this particular locality is that the natives themselves have different names for various bayous, bays and lakes.

As far as the Geological Survey Maps of this section are concerned, they are not worth the paper they are printed on. They were compiled in 1890 from the charts of the Coast Survey and surveys of the Public Land Office. The only recent map of this section was compiled by the U. S. Engineers in 1915 and it is supposed to be revised up to 1934. The descriptive reports give the comparison of the names as submitted by the various field parties, the Geological Survey Maps, and the U. S. Engineers Map, where names were given on these maps. You will note that a number of new names were added that did not exist on the Geological Survey Maps. To the best of my knowledge, from the information available, these are the names in local use.

The area covered by this party is made up of innumerable bayous, bays, and lakes. There are a number of large lakes, bays and bayous which have no names, or at least, none in general use. The entire territory, except along a few main bayous, is uninhabited. There are a few trapper shacks scattered over the area, but as a rule, they are not permanent. Due to this fact, the information secured by the field inspection is sometimes very meagre.

I realize that as a rule progress sketches are not a reliable source to obtain geographic names, but in this particular case, I think the proper course was followed. I was in constant contact with the various Chiefs of Parties and requested them to furnish this party with the geographic names in their locality. I also realize how important it is to secure the proper names or otherwise considerable trouble is caused to the Chart Section.

(Sgd.) M. H. Reese

M. H. Reese.

REVIEW OF AIR PHOTO COMPILATION T 5298 (1934)

Names: See Pages 3 and 4 of the report. Attached as the opposite page is a copy of a letter from Reese in regard to his use of triangulation progress sketches as a source of names. The new names submitted by the compiler have been accepted on the assumption that they are probably in local use as indicated in the attached letter from Reese. A list of the new names has been submitted to Mr. Bacon, and any corrections required will be made at the next printing. The list of new names also includes new names shown on Plane Table Control Surveys T 6061, T 6063, T 6065, and T 6066.

Comparison with Other Surveys:

1. Plane Table Control Surveys T 6061, T 6063, T 6065, T 6066 (1934) show locations of plane table stations but no shore-line ^{with this area} See preceding Pages ¹³ 8 to 18 for detailed discussion of differences in location between the plane table surveys and the compilation. Topographic stations having different locations on the plane table surveys and the compilation are listed on Page 18 and have been disposed of in this office as follows (see pages 8 to 12 for general conclusions regarding these differences):-

Stations Pier and Jour, differences of 15 and 18 meters. Plane table positions accepted and shown on the compilation. Shore-line altered slightly to fit card descriptions. Identification on photographs questioned.

Stations Low, Lak, and Sop, differences of 23 to 30 meters. Testing these positions on the Hydrographic Surveys did not indicate which might be the most accurate positions. The plane table positions are

Note. Additions shown on file copy in red
applied 2/7/35 shortly after sheet was
registered but prior to its use for chart
corrections. Lat $29^{\circ} 11'$ to $12'$
Long $90^{\circ} 26'$ to $28'$

B.G. Jones

accepted as correct due to the probability of erroneous spotting on the photographs. Plane table position \odot Low is shown on the compilation and the east end of the island has been changed slightly to agree with the description. Plane table position of \odot ~~Lak~~^{Sop} is shown ^{on the} compilation. The points to which reference distances are given on the description are indefinite and the description shows no appreciable discrepancy. Plane table position of \odot Lak is shown ^{on the compilation}. Only two reference distances are given on the card description and these agree with the compiled shore-line from either position.

Stations Lan, Stir, Map, and Fou listed on Page 18 are not described and are not shown on the compilation. Differences in location range from 8 to 35 meters. Plane table positions accepted since these stations fall in the area described on Page 17 as extremely indefinite on the photographs. Checking both the plane table positions and the compilation positions by using them to plot the Hydrography does not indicate any marked preference except for \odot Map the plane table position for which works better where fixes are changed.

As previously stated: There is not sufficient reason to reject the plane table locations. The revised compilations, on the other hand, are well controlled and probably show the shore-line according to the 1932 photographs, but this shore-line has changed and it is difficult if not impossible in many cases to spot 1934 stations by ground measurements from points of land which are indefinite at best and have in many cases changed since the photos were taken.

2. Old Surveys: The diagrams show no old topographic surveys in this area.

See opposite page.

B. J. Jones

GEOGRAPHIC NAMES

Survey No. T5298

(1)

Name on Survey	Underlined Names		On Chart Approved		On previous survey		On U.S. Quadrangle Maps		From local information		On local Maps		P. O. Guide or Map		Rand McNally Atlas		U. S. Light List		K U.S. EN573
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q		
<u>Lake Barre</u>	✓	✓	T6065	✓														✓	1
<u>Bayou de la Valle</u>	✓			✓	✓														2
<u>Old Lady Lake</u>	✓		T6065	✓	✓														3
<u>Lake Raccourci</u>	✓	✓	T6066	✓														✓	4
<u>China Bayou</u>	✓			✓	✓														5
<u>Rosa Bay</u>	✓			✓	✓														6
<u>Rosa Bayou</u>	✓			✓	✓														7
<u>Little Lake</u>	✓			✓	✓														8
<u>Deep Bayou</u>	✓		T6066	✓	✓														9
<u>Bayou Blue</u>	✓		T6066	✓	✓														10
<u>Pickett Bay</u>	✓			✓	✓														11
<u>Landry Bay</u>	✓	✓		✓	✓														12
<u>Jacko Camp Bay</u>	✓		T6066	✓	✓														13
<u>Capone Point</u>	✓	✓		✓	✓														14
<u>Philo Brice Islands</u>	✓		T6066	✓	✓														15
<u>Northwest Island</u>	✓		T6066	✓	✓														16
<u>Fornation Islands</u>	✓			✓	✓														17
<u>Jacko Bay</u>	✓		T6065	✓	✓														18
<u>Terrebonne Bay</u>	✓	✓	T6065	✓	✓														19
<u>Timbalier Bay</u>	✓	✓	T6065	✓	✓													✓	20
<u>Wrong Name Pass</u>	✓			✓	✓														21
<u>Pierle Bay</u>	✓		T6066	✓	✓														22
<u>Pearl Bayou</u>	✓		T6066	✓	✓														23
<u>Devils Bay</u>	✓		T6066	✓	✓													✓	24
<u>Devils Island</u>	✓		T6066	✓	✓														25
<u>Shallow Bayou</u>	✓			✓	✓														26
<u>Bull Islands</u>	✓		T6066	✓	✓														27

GEOGRAPHIC NAMES
Survey No. T5298

(2)

Name on Survey	Sources										No.
	A	B	C	D	E	F	G	H	K		
	<i>Underlined Names</i>	<i>On Chart Approved No. 197</i>	<i>On previous survey No.</i>	<i>On U. S. quadrangle Maps</i>	<i>From local information</i>	<i>On local Maps</i>	<i>P. O. Guide or Map</i>	<i>Rand McNally Atlas</i>	<i>U. S. Light List</i>		
<u>Cat Island</u>	✓		✓	✓						1	
<u>Terrebonne Island</u>	✓		✓	✓					✓	2	
<u>Casse Tete Island</u>	✓		✓	✓					✓	3	
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