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Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton, Director

State: Louisiana

DESCRIPTIVE REPORT

Topographic } Sheet Nos. A-B-F-G.
~~Hydrographic~~

LOCALITY

A - Timbalier Bay, S.E. part.

B - Timbalier Bay, S.W. part.

F - Timbalier Bay, northern part.

G - Lake Felicity and Lake Chien.

1934

CHIEF OF PARTY

Wm. D. Patterson

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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Acc. No. _____

REG. NO.

6061

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. "A" _____

REGISTER NO. 6061

State Louisiana _____

General locality Gulf of Mexico _____

Locality Timbalier Bay, (Eastern End) _____

Scale 1:20,000 Date of survey March, 19 34

Vessel Field Party No. 5 _____

Chief of party Wm. D. Patterson _____

Surveyed by V. A. Bishop _____

Inked by C. R. Smith _____

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated _____ October 27, 19 33

Remarks: Topography done along Gulf Coast and in immediate vicinity of triangulation stations. Balance of shoreline to be taken from aerial photographs.

DEPARTMENT OF COMMERCE
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REG. NO. 6062

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. "B"

REGISTER NO. 6062

State Louisiana

General locality Gulf of Mexico

Locality Western End of Timbalier Bay (Western End)

Scale 1:20,000 Date of survey February-March, 1934

Vessel Field Party No. 5

Chief of party Wm. D. Patterson

Surveyed by W.A. Bishop

Inked by C. R. Smith

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated October 27, 1933

Remarks: Topography done along the Gulf Coast and in vicinity of triangulation stations. Balance of shoreline to be taken from aerial photographs.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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JUL 23 1934

Acc. No. _____

REG. NO. 6066

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. "F"

REGISTER NO. 6066

State Louisiana

General locality Gulf of Mexico Terrebonne Parishes.

Locality Philo Brice Islands. and Vicinity

Scale 1:20,000 Date of survey March, 1934

Vessel Field Party No. 5

Chief of party Wm. D. Patterson

Surveyed by V. A. Bishop

Inked by C. R. Smith

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated October 27, 1933

Remarks: Topography done in vicinity of triangulation stations only. Balance to be taken from aerial photographs.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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Acc. No. _____

REG. NO.

6067

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. "G"

REGISTER NO. 6067

State Louisiana

General locality Gulf of Mexico

Locality Lake Felicity and Vicinity

Scale 1:20,000 Date of survey April, 19 34

Vessel Field Party No. 5

Chief of party Wm. D. Patterson

Surveyed by V. A. Bishop

Inked by C. R. Smith

Heights in feet above _____ to ground to tops of trees

Contour, Approximate contour, Form line interval _____ feet

Instructions dated _____ October 27 _____, 19 33

Remarks: Topography done in vicinity of triangulation stations only. Balance to be taken from aerial photographs.

DESCRIPTIVE REPORT
TO ACCOMPANY
TOPOGRAPHIC SHEETS A - B - F - G.
TIMBALIER BAY AND VICINITY, LOUISIANA
1934

Project HT-157, Lieut. Wm. D. Patterson, Chief of Party.

DATE OF INSTRUCTIONS

Work was executed under Instructions dated October 27, 1933.

EXTENT

These sheets comprise a survey of the area extending westward from Pass Fourchon to and including Timbalier Bay, Lake Raccourci and Lake Felicity.

SURVEY METHODS

The entire territory was surveyed by the standard Coast Survey Plane Table methods, using aluminum mounted sheets. This survey was controlled by triangulation stations established by Wm. Mussetter in 1928 and by Wm. D. Patterson in 1934. Since aerial photographs were taken of this territory no shoreline was located except the sandy beach along the Gulf Coast and in the immediate vicinity of all triangulation stations. No traversing with the plane table was necessary since it was possible to locate all signals by plane table triangulation. Since this territory is all low swamp land, covered in most places with a dense growth of shrubs known locally as "Mangle", it was necessary to elevate the plane table to see over these. For this purpose elevated platforms 12 to 18 feet high were built at about two mile intervals, these serving as large hydrographic signals later. The triangulation towers were also built to be used in this manner.

DESCRIPTION

The entire shore line of the Gulf of Mexico is a low sandy beach, with no sand dunes. In back of this beach is a "mangle" and grass covered swamp. The sandy shore of Timbalier Island and all the Gulf Coast to the eastward in the survey is subject to constant changes due to current and wave action. Storms cause very rapid erosion of the more exposed swampy shoreline. Some areas wear away as much as 20 to 30 feet in one storm. Although no severe storms occurred during the season, erosion was rapid enough to be clearly apparent.

DESCRIPTION (cont.)

Outside of the Timbalier Lighthouse, there are no prominent landmarks in this area except Texas Oil Co. beacons. The only buildings are small shacks used by fishermen and trappers. There are a number of Texas Oil Co. derricks in this area but as these are constantly being shifted to different localities their use as landmarks cannot be relied upon.

REMARKS

Present shoreline shows very marked differences from Charts No. 197 and 198.

At intervals of approximately one mile recoverable topographic stations were established either by using natural objects or by marking with standard bronze discs set in concrete filled tiles. A list of the descriptions of all recoverable stations is submitted with this report.

STATISTICS

Sheet (field number)	: Area surveyed in square : statute miles.	: Length of shoreline : surveyed in statute : miles.
A	60	9
B	60	9
F	60	0
G	60	0

Respectfully submitted,

V. A. Bishop

V. A. Bishop, Surveyor.

NOTES BY CHIEF OF PARTY

TOPO. SHEETS (A-B-F-G.

Shoreline. The shoreline was reduced from air-photos by pantograph and transferred in pencil to each sheet. This shoreline is approximate and should not be used for charting. The shoreline surveyed by the topographer has been inked in and shows actual conditions at the time of survey. The penciled shoreline is to assist in getting a better understanding of the sheet as a whole.

Changes in shoreline. The outer shoreline, sheet "A", has been moved back for approximately one mile since the earlier survey as shown on Chart 197. Considerable change has taken place since the air-photos were taken. The rate of change is very rapid along the outer coast and some change is noticeable in the larger bays and lakes, wherever there is appreciable wave action. In the bayous and small bays and lakes, no appreciable change has taken place.

Discrepancies in Air-Photos:- No air-photographs were available for this party while the survey was being made and comparisons were not made until the party moved north and the final air-photo sheets were received. The following discrepancies were noted:-

B-7662

Sheet "A", east end of Timbalier Island. The north side of the island has changed completely since the air-photos were taken. Signal "Gad" (see description) is on the north side of the island and not in the center as shown. The shoreline is sketched in, approximately correct, on smooth hydrographic sheet No. 1.

Sheet "F". The island at \odot "Bor" is not shown on the photographs, nor is the island at \odot "Low" shown on the final photo-sheet made by Lieut. Reese. A very small island 0.3 mile south of Δ "Philo" has been located by topography.

Sheet "G". The shoreline at Δ "Chien" does not agree with this year's topography. Undoubtedly, considerable change has taken place here since the air-photos were taken. Some change is noted in the vicinity of other triangulation stations.

List of New Names:-

<u>New Name</u>	<u>Topo. Sheet</u>	<u>Authority for name</u>
Devil Island	"A" & "F"	Well established local use.
Towhead Bayou	"B"	" " " "
Devils Bay	"F"	" " " "
Pierle Bay	"F"	" " " "
Jacko Camp Bay	"F"	" " " "
Bayou Blue	"F"	" " " "
Deep Bayou	"F"	" " " "
Philo Brice Islands	"F"	" " " "
Bull Islands	"F"	" " " "
Northwest Island	"F"	" " " "

NOTES BY CHIEF OF PARTY (Continued)

<u>New Name</u>	<u>Topo. Sheet</u>	<u>Authority for name.</u>
Pearl Bayou	"F"	Well established local use.
Bayou John Charles	"G"	" " " "
Bayou Poillaet	"G"	" " " "
Deep Lake	"G"	" " " "
Chinaman Bayou	"G"	" " " "

Respectfully submitted,



Wm. D. Patterson

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Sag Harbor, New York

May 15, 1934

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.

Wm. D. Patterson

Chief of Party.

NAVY DEPARTMENT

Topographic Sheet Name		DESCRIPTION	POSITION					METHOD OF DETER- MINATION	CHARTS AFFECTED		
			LATITUDE			LONGITUDE				DATUM	
			°	'	D. M. METERS	°	'				D. P. METERS
B	Bal	Timbalier Lighthouse	29	02	*	90	21	*	NA 1927	Trian.	1116 & 1274
F	Bin	Tex. Co. beacon Yellow light	29	13	729	90	21	227	" "	Topo.	" "
F	Deep	Tex. Co. beacon white slatted	29	12	*	90	17	*	" "	Trian.	" "
G	Felt	Tex. Co. beacon white slatted	29	15	*	90	23	*	" "	"	" "
G	Hooy	Tex. Co. beacon white slatted	29	16	632	90	27	540	" "	Topo.	" "
F	Nib	Tex. Co. beacon Yellow light	29	12	465	90	18	127	" "	"	" "
G	Patch	Tex. Co. beacon white slatted	29	16	601	90	24	1018	" "	"	" "
F	Stack	Large smokestack at shrimp canning plant on Philo Brice Island.	29	11	232	90	20	1168	" "	"	" "
* Triangulation data left at Houma with Lieut. T. B. Reed, Field Party No. 4.											

A list of objects which are of sufficient prominence for use on the charts, together with a description of the same, 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 of primary importance.

The description of each object should be short, but such as will identify it; for example, standpipe, water tower, church spire, tank, tall stack, red chimney, radio mast, etc. Generally, flagstuffs and like objects are not sufficiently permanent to be charted.

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 survey 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.

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:

On Sheet No. 5294 -	Nos. 1802 to 1811	(principally the	C	prints)
"	1733 "	1735	"	" A,C,E "
"	1736 "	1743	"	" C,E "
" " " 5295 -	" 1728 "	1729	"	" D "
"	" 1729 "	1732	"	" A,D "
"	" 1812 "	1817	"	" all "
" " " 5297 -	" 1889 "	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 "
"	" 1828 "	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.

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

MEMORANDUM TO ACCOMPANY SHEET NO. 5299

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 BOBIN is located approximately at Latitude $29^{\circ}05'30''$ and Longitude $90^{\circ}26'50''$. The geographic position of this station, as established by the radial line plot intersection, coincided with the geographic position as established by the plane table survey of Lieutenant Patterson. A small correction of detail was found necessary due to an apparent misinterpretation of the shore line. The western tip of the island was shown somewhat too large. The topographic details in the vicinity of this station, when corrected, agreed with the sketch made by the field inspection party. The 4.4 meters distance from the station to the tip of the island, as stated in the card description of this station, is apparently meant to be 44 meters. This has been indicated in red ink on the card bearing the description of this station. The correction made on the celluloid tracing was also made on the overlay sheet.

Topographic station CASSE is located approximately at Latitude $29^{\circ}06'45''$ and Longitude $90^{\circ}22'25''$. The geographic position of this station, as established by the radial line plot intersection, coincided with the geographic position as established by the plane table survey by Lieutenant Patterson. However, due most likely to the dimness and indefiniteness of the photograph, some of the topographic details were not traced correctly on the celluloid. The photograph was properly oriented and the details, found in error, correctly drawn. This correction was also shown on the overlay sheet.

Topographic station DOG is located approximately at Latitude $29^{\circ}06'10''$ and Longitude $90^{\circ}21'55''$. The geographic position of this station, as established by radial line plot, coincided with the geographic station as established by the plane table survey by

Lieutenant Patterson. It seems that misinterpretation of the shore line at this point caused the error found existing. This error was corrected on the celluloid, and shown in red ink on the overlay sheet. The ties from the station to the shore line to the south as indicated on the field sketches made by the field inspection party and the plane table survey party vary slightly. The former have taped it as six meters, the latter as three meters. The detail as traced from the photograph apparently checks the six meter distance.

Topographic station IF is located approximately at Latitude $29^{\circ}05'25''$ and Longitude $90^{\circ}25'55''$. The geographic position of this station, as established by radial line plot, coincided with the geographic position as established by the plane table survey by Lieutenant Patterson. Poor definition on the photographs is undoubtedly the cause of this error. Incorrect position of shore line and omission of a small lake and small streams were found to be the errors. These errors were corrected on the celluloid tracing and indicated on the overlay sheet. Reference points No. 3 and No. 4 on the field sketch made by the plane table survey party on the back of the card description of this station were not discerned on the photographs. Either these points were exaggerated on the sketch, or the very poor degree of definition of the photographs is the cause of their not being clearly discerned.

Topographic station GAD is located approximately at Latitude $29^{\circ}02'58''$ and Longitude $90^{\circ}24'50''$. 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 geographic position as established by the radial line plot intersection was scaled from the celluloid and submitted as the correct position of the station.

The topographic detail in the vicinity of the station was corrected on the celluloid tracing when the photograph was properly oriented. A small stream which has recently cut its way through this vicinity just west of the station, and which does not show on the photographs, was not drawn on the celluloid due to the fact that sufficient information concerning its location was not available.

The correction made on the celluloid was indicated on the overlay sheet. A new sketch was made and attached to the card description made by the plane table survey party.

Topographic station BRUSH is located approximately at Latitude $29^{\circ}05'15''$ and Longitude $90^{\circ}25'35''$. Part of the description made by the plane table survey party is evidently meant for station HAL. The geographic position of this station, as established by the radial line plot, does not coincide with the geographic position as established by the plane table survey of Lieutenant Patterson. The former was scaled from the celluloid tracing and submitted as the correct position of this station. A new field sketch was drawn and attached to the card description of this station made by the plane table survey party. Due to the existence of considerable grass and

and near the shore line in the vicinity of the station, the shore line was found misinterpreted and incorrectly drawn on the celluloid. This was corrected on the celluloid tracing when the photograph was properly oriented, and indicated on the overlay sheet in red ink.

Topographic station BOB is located approximately at Latitude $29^{\circ}04'15''$ and Longitude $90^{\circ}28'05''$. 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 this station. Upon proper orientation of the photograph no detail was found in error, and no correction made.

Topographic stations SAT located approximately at Latitude $29^{\circ}03'45''$ and Longitude $90^{\circ}28'50''$, JAY located approximately at Latitude $29^{\circ}03'25''$ and Longitude $90^{\circ}28'15''$, and GUN located approximately at Latitude $29^{\circ}02'50''$ and Longitude $90^{\circ}25'55''$ were not recovered.

Topographic station LOU is located approximately at Latitude $29^{\circ}05'25''$ and Longitude $90^{\circ}29'25''$. 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. Upon examination of the detail around this station it was found that a small bayou had been omitted in tracing the detail. This correction was made on the celluloid tracing and indicated on the overlay sheet. This oversight was probably due to the fact that the photographs were somewhat dim and indefinite in this vicinity.

Topographic station SOU is located approximately at Latitude $29^{\circ}06'30''$ and Longitude $90^{\circ}28'25''$. 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 on the celluloid when the photographs were properly oriented.

An oil field located between Latitudes $29^{\circ}06'00''$ - $29^{\circ}27'00''$ and Longitudes $90^{\circ}27'00''$ - $90^{\circ}28'15''$ has been shown on the sheet by a broken line showing its approximate limits and labeled "oil field". This is deemed advisable since the field is under development and new wells are constantly being drilled and old ones abandoned. Hence their position cannot accurately be shown without frequent revision.

Topographic station BALE is located at Latitude $29^{\circ}03'$ and Longitude $90^{\circ}25'$ approximately. The geographic position coincides with the location established by the radial line plot. No corrections of topography were found necessary.

On the topographic sheet, topographic stations COB and POT are reversed. Likewise, the description and geographic position given for station COB are apparently for station POT.

Topographic station COB is located about 5 1/2 miles northwest of Timbalier Light, on the south point of the second most southerly island of a group known as Pelican Islands. This is a permanently marked station. The descriptive sketch made by the plane table survey party for this station cannot be reconciled, in part, with the topography around the station. However, ties #1 and #2 check satisfactorily. A sketch of the station is furnished as a supplement to the original sketch and attached to same.

Topographic station POT is located as described on the description card originally made out for Topographic station COB, and its geographic position as shown on the description card for station COB may be correct. POT is not a permanently marked station.

The topography around station COB was drawn incorrectly due to bad orientation of the photographs. The shore line was revised as shown on the celluloid and indicated on the overlay sheet in red ink.

The topography around topographic station POT which is located on a T-shaped island southwest of the Pelican Islands was checked, as all other detail was checked, for orientation and interpretation of the shore line, and a small change was necessary at approximately Latitude 29°06'05" and Longitude 90°25'12", and also at approximately Latitude 29°06'00" and Longitude 90°26'00". These revisions were made on the celluloid and indicated in red ink on the overlay sheet.

List of scaled geographic positions:

		(37)
	29° 02'	1810
GAD		(315)
	90° 24'	1308
		(1345)
	29° 05'	502
BRUSH		(612)
	90° 25'	1011
		(940)
	29° 06'	907
SCW		(943)
	90° 28'	679
		(1453)
	29° 04'	594
Examined & approved: BOB		(1541)
	90° 28'	82

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

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

MEMORANDUM TO ACCOMPANY SHEET NO. 5297

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 BOS is located approximately at Latitude $29^{\circ}17'17''$ and Longitude $90^{\circ}28'35''$. Apparently due to inaccuracy in picking the house on the photographs and, consequently, to incorrect drafting, the detail in the vicinity of the station was found incorrectly located. A new orientation of the photographs was made and the detail traced in its correct position. This correction was also shown on the overlay sheet attached to the celluloid.

Topographic station LONG is located approximately at Latitude $29^{\circ}16'10''$ and Longitude $90^{\circ}26'35''$. The east shore line of a bayou was obviously drawn in improperly on the celluloid causing station LONG, when plotted, to fall in the water. The photograph in this vicinity was oriented in its correct position and the details of the bayou and part of the lake shore correctly drawn. The symbol used to indicate mangrove was shown on the west side of this bayou. All of these details are also shown on the overlay sheet.

Topographic station ELL is located approximately at Latitude $29^{\circ}20'15''$ and Longitude $90^{\circ}27'35''$. The shore line of the bayou on which the station is located was drawn slightly south of where it should have been shown. The difference between the correct position of this shore line and the position in which it was actually shown was almost negligible. However, the correction was made and the details properly drawn on the celluloid when the photograph in this vicinity was correctly oriented. The correction was also shown on the overlay sheet.

Topographic station JOSH is located approximately at Latitude $29^{\circ}20'10''$ and Longitude $90^{\circ}25'50''$. The discrepancy apparently existing between the geographic position of this station as established by Lieutenant Patterson's party and the position established by the radial line plot in this vicinity amounts to about seventh meters as scaled.

When the radial line plot in this vicinity was made, it was found that the position of station JOSH was established by a very flat intersection due to the fact that its location on the photographs placed it in the center of the flight. Consequently, it was found advisable to select a few extra radial points on the photographs in the immediate vicinity of this station. With the photograph properly oriented with reference to the detail outlined by the established intersections of these new radial points, station JOSH was pricked on the celluloid as accurately as possible. This was considered as practical a location as possible with the use of this flight of photographs. No correction of any of the surrounding detail was found necessary. The geographic position established by Lieutenant Patterson was concluded to be in error. The geographic position of the established radial line plot intersection was scaled from the celluloid and submitted as the correct position of this station.

Topographic station TILE is located approximately at Latitude $29^{\circ}15'50''$ and Longitude $90^{\circ}16'50''$. The shore line at this point was traced slightly south and west of the position in which it should have been correctly drawn. With the photograph of this locality properly oriented with reference to the geographic position of topographic station TILE as established by the radial line plot intersection, the details of this shore line were correctly drawn. This correction was shown on the overlay sheet. The geographic position of this station as established by the radial line plot intersection was scaled from the celluloid and submitted as the correct geographic position of topographic station TILE.

The geographic positions as established by Lieutenant Patterson of the following topographic stations, when plotted on the celluloid tracing, did not coincide with the geographic positions of these stations as established by the radial line plot. The latter were used in the orientation of the photographs in the vicinities of these topographic stations. And the details, found in error, were correctly drawn on the celluloid tracing. All these corrections were shown on the overlay sheet and are self-explanatory. These stations are PATCH, GNAT, MINK, and LADY. A brief comment concerning each of these stations follows. Apparently, incorrect orientations of photographs proved to be the causes of these discrepancies.

Topographic station GNAT is located approximately at Latitude $29^{\circ}16'30''$ and Longitude $90^{\circ}22'05''$. No detail was found in error in the vicinity of this station when the photograph was properly oriented, and, in consequence, no correction was made.

Topographic station PATCH is located approximately at Latitude $29^{\circ}16'20''$ and Longitude $90^{\circ}24'35''$. The island on which station PATCH is located was added and the shore line of the point to the north of this island was correctly drawn on the celluloid tracing. These details were shown on the overlay sheet.

Topographic station MINK is located approximately at Latitude $29^{\circ}15'30''$ and Longitude $90^{\circ}15'50''$. The shore lines of the small bayou just west of the station and the shore line of the lake were correctly

drawn in on the celluloid tracing. These corrections were shown on the overlay sheet.

Longitude 90° 25' 15". Topographic station LADY is located approximately at Latitude 29° 15' 40". The shore line around the southern half of the island on which the station is located was correctly drawn on the celluloid even though the difference between the original and final positions of this shore line was considered almost negligible. This correction was also shown on the overlay sheet.

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. These stations are: HOOY, LOD, STAR, SAN, LIC, TINY, BASIN, SIN, ITALY, CAR, and HUS.

These stations, as well as all those for which corrections were found necessary, are indicated on the celluloid tracing with a circle. They are similarly shown on the overlay sheet.

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

all of the sketches made by Lieut. Patterson checked the compilation after the revisions were made. Six of the stations were found to be in error. The position of each station as determined by the radial plot is submitted as the correct geographic position.

LADY	29° 15'	(501) 1346 (1182)
	90° 25'	439
PATCH	29° 16'	(1270) 577 (588)
	90° 24'	1032
GNAT	29° 16'	(960) 887 (1558)
	90° 22'	62
MINK	29° 15'	(850) 997 (245)
	90° 15'	1375
JOSH	29° 20'	(1426) 421 (257)
	90° 25'	1362
TILE	29° 15'	(350) 1497 (202)
	90° 16'	1418

Examined & approved:

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

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