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Form 504
Ed. June, 1928

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

State: Louisiana

DESCRIPTIVE REPORT

Topographic ~~Hydrographic~~ } *Sheet Nos.* C-D-E-H.

LOCALITY

Gulf of Mexico

C - Terrebonne Bay, ~~southern part.~~ and Vicinity

D - Terrebonne Bay, ~~N.W. part.~~ to Little Bayou Caillou

E - ~~Terrebonne Bay, N.E. part.~~ Timbalier Bay to Lake Barre

H - ~~Lake Pelto, eastern part.~~ Bay Coon Road to Isles Dernieres

1934

CHIEF OF PARTY

Wm. D. Patterson.

U. S. GOVERNMENT PRINTING OFFICE: 1933

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Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

U.S. COAST & GEODETIC SURVEY
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REG. NO. 6063

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. "C"

REGISTER NO. 6063

State Louisiana

General locality Gulf of Mexico

Locality Terrebonne Bay and Vicinity

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

Vessel Field Party No. 5

Chief of party Wm. D. Patterson

Surveyed by D. S. Ling

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: Sandy beach rodded. Balance of shoreline to be taken from aerial photographs.

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO. 6064

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. "D"

REGISTER NO. 6064

State Louisiana

General locality Gulf of Mexico

Locality Terrebonne Bay to Little (Petit) Bayou Caillou

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

Vessel Field Party No. 5

Chief of party Wm. D. Patterson

Surveyed by D. S. Ling

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: No shoreline surveyed as this is to be taken from aerial photographs.

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO. 6065

TOPOGRAPHIC TITLE SHEET

The Topographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. "E"

REGISTER NO. 6065

State Louisiana

General locality Gulf Of Mexico

Locality Timbalier Bay to Lake Barre

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

Vessel Field Party No. 5

Chief of party Wm. D. Patterson

Surveyed by D. S. Ling

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: No shoreline surveyed as this is to be taken from aerial photographs.

Form 537a
Ed. Nov., 1929

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

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REG. NO. 6068

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. "H"

REGISTER NO. 6068

State Louisiana

General locality Gulf of Mexicoish

Locality Bay Coon Road to Isle St Dernieres

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

Vessel Field Party No. 5

Chief of party Wm. D. Patterson

Surveyed by D. S. Ling

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: Sandy beach rodded. Balance of shoreline to be taken from aerial photographs.

DESCRIPTIVE REPORT

TO ACCOMPANY

TOPOGRAPHIC SHEETS - C - D - E - H.

TERREBONNE 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 eastern end of Lake Pelto, of Terrebonne Bay, of the small bays and lakes north of Terrebonne Bay, and of the Gulf Coast in this vicinity.

SURVEY METHODS

The entire territory was surveyed by the standard Coast Survey Planetable methods, using aluminum mounted sheets. This survey was controlled by triangulation stations established and located 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 vicinity.

No traversing with the planetable was necessary since it was possible to locate all signals by planetable triangulation. As this territory is all low swamp, covered in most places with a dense growth of shrubs locally called "Mangle" it was necessary to elevate the planetable 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 able to be used in this manner.

DESCRIPTION

The entire shoreline 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 shoreline of Wine Island, the eastern end of Isle Dernier and the western end of Timbalier Island is subject to constant change by current and wave action. Storms cause very rapid erosion of the more exposed swampy shoreline, in some cases 20 to 30 feet wearing away in one storm. Although no severe storms occured during the time of this survey, erosion was rapid enough to be clearly apparent in the course of two or three months.

DESCRIPTION (cont.)

There are no prominent landmarks in this territory except lights and beacons, most of which are maintained by the Texas Oil Co. The only building are small shacks used by fishermen and trappers. At the present time the Texas Oil Co. is drilling for oil in this section and the oil derricks are visible for long distances but these are of course constantly shifted. The Texas Oil Co. also have a large ship pulled up on a shoal in Cat Island Pass, which they use for oil storage, and whose location is probably permanent for a year or two at least.

REMARKS

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

At about one mile intervals recoverable topographic stations were established and described using natural objects where possible. Where natural objects were not available stations were marked by standard bronze discs set in concrete filled tiles or by wooden stakes driven into the ground. Description of all these stations accompany this report.

STATISTICS

Sheet (field number)	Area surveyed in square statute miles.	Length of shoreline surveyed in statute miles.
C	60	4
D	60	0
E	60	0
H	60	11

Respectfully submitted,

Daniel S. Ling

Daniel S. Ling, Surveyor.

NOTES BY CHIEF OF PARTY

TOPO. SHEETS C-D-E-H

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.

Discrepancies in Air-photos. Since the air-photos were not available at the time of survey and since the sheets made from air-photos were not received until after the party moved north, it was impossible to make comparisons with the air survey in the field. When comparisons were finally made it was noticed that the shoreline has changed considerably in many places since the air survey was made. Most of these errors will be indicated on the smooth hydrographic sheets where soundings were taken on former land areas. This condition is most noticeable at the eastern end of Timbalier Id. where hydrography extends over 600 meters inshore from the shoreline as shown on the air-photos.

New Place Names:-

New Name	Topo. Sheet	Authority for name
Bayou Jose'	"D"-6064	Well established local use
Lake Jean Pierre	"D"	" " " "
Bayou Lucien	"D"	" " " "
Bayou Jack	"D"	" " " "
Grand Pass Jack	"D"	" " " "
Jacko Bay	"E"-6065	" " " "
Old Lady Lake	"E"	Fairly well established. This lake also called Little Lake, but there are other lakes of that name in the vicinity.
Trinity Island	"H"	Not established locally. The former Isle Derniere, meaning "Last Island", has been cut into several islands. The island farthest west should retain the name Isle Derniere since it is now the "last island" going west. The name "Trinity Island" is suggested for the eastern island which contains Trinity Bay.

Respectfully submitted,

Wm. D. Patterson.

Wm. D. Patterson.

Form 567
Ed. Dec., 1929

DIVISION OF CHARTS, FILE NO._____

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

Houma, Louisiana

May 1st., 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, Lieut., Chief of Party.

Topographic Sheet	DESCRIPTION		POSITION						DATUM	METHOD OF DETERMINATION	CHARTS AFFECTED
			LATITUDE			LONGITUDE					
	- Name		°	'	D. M. METERS	°	'	D. P. METERS			
C	Bee	Buoy-white light	29	05	737	90	34	544	NA 1927	Topo	1116 & 1274
D	Bre	White light on post	29	14	1183	90	35	652	" "	"	" "
D	Con	Tex. Co. beacon white slatted	29	12	719	90	34	1356	" "	"	" "
D	Dan	Tex. Co. red light on pile dolphin	29	12	519	90	31	362	" "	"	" "
H	Dog	Tex. Co. beacon white slatted	29	09	957	90	38	398	" "	"	" "
C	Lite	Tex. Co. white lt. on pile dolphin	29	09	341	90	32	502	" "	"	" "
C	Mid	Buoy-black can with gr. reflectors	29	04	1479	90	34	345	" "	"	" "
D	Mis	Tex. Co. beacon white slatted	29	10	1000	90	36	499	" "	"	" "
E	Mus	Tex. Co. beacon white slatted	29	15	1190	90	27	1600	" "	"	" "
C	Out	Buoy-black can w. gr. reflectors	29	04	585	90	34	185	" "	"	" "
D	Pol	Tex. Co. red light on pile dolphin	29	11	741	90	32	383	" "	"	" "
D	Rag	White light on pile dolphin	29	14	1703	90	34	1059	" "	"	" "
C	Smoke	Smokestack of large ship aground	29	05	1430	90	34	1618	" "	"	" "
C	Tax	Tex. Co. beacon white light	29	08	992	90	28	678	" "	"	" "
H	Tex	Tex. Co. Beacon white slatted	29	07	170	90	38	842	" "	"	" "

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, flagstaffs and like objects are not sufficiently permanent to chart.

U. S. GOVERNMENT PRINTING OFFICE: 1931

MEMORANDUM TO ACCOMPANY SHEET NO. 5294

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 LON located approximately at Latitude 29°13' and Longitude 90°40'. The location of this station, established by a radial line plot re-run in this area, coincides with its geographic position. It is evident that the error in location was due to improper orientation between points in drafting. The shore line in this particular area was corrected and checked with the description made on a recent field inspection.

Topographic station YOU is located at Latitude 29°08' (approx.) and Longitude 90°40' (approx.).

The description entitled Station FOR located the station marked YOU on topographic sheet "H". The sketch given with the description checks with the sketch drawn on a more recent field inspection. No changes of shore line position were necessary.

Station CAMP is located at Latitude 29°09' (approx.) and Longitude 90°39' (approx.).

It was found that the geographic position given in the description did not check with the scaled position from topographic sheet "H". The corrected scaled values are given on the description. This position checks with the intersection obtainedby the radial line plot.

The error found in the position of shore line is evidently an error in orienting between points. The proper correction in shore line was made to conform with the sketch made on a recent field inspection. This sketch and the one in the description check very closely.

Station LAP is located at Latitude 29°07'30" (approx.) and Longitude 90°38'30" (approx.).

The geographic position was plotted on the celluloid and the radial line plot re-run in this area checked the location. Using this point as control, the picture was oriented to check the drafting and the shore line was found a little off. The shore line was corrected so that when finished the measurements taken from the shore line to the station, as given on the field sketch, checked the drafting. A more recent field sketch accompanies the descriptive report.

Topographic station GAB, gable of a house located at Latitude 29°08' and Longitude 90°38', has been washed away by a recent storm. The station, however, was in existence at the time the photographs were taken and was clearly visible and therefore pricked.

The radial line plot re-run in this area gave a definite intersection. This intersection, set up by using well established control, does not check with the geographic position which evidently must be in error.

The measurements given on the descriptive sketch do not check the distances on the photographs. This must be due to changes in shore line. A corrected sketch could not be made since the station was pricked on the photographs and no sketch made by the field inspection party.

A very small change in shore line was made as shown on the overlay sheet.

Since the station is no longer in existence it has not been shown on the sheet with the standard symbol.

Topographic station DOG is located at Latitude 29°09' and Longitude 90°38' approximately.

The intersection established by the radial line plot checks with the geographic position. The shore line of the small island on which the station is located was incorrectly drawn, probably due to the darkness of the photograph. The shore line has been corrected and checked against the description sketch and the sketch made on a more recent inspection.

Topographic station RAT is located at Latitude 29°09' and Longitude 90°38' (approximately). The radial line plot established a point which coincides with the plotted geographic position. A small correction in shore line was necessary, and this was checked by measurements given on the field sketch.

The sketch from a recent field inspection (August 15, 1934) accompanies the descriptive report.

Topographic station TAR, located at Latitude 29°11' and Longitude 90°38' (approximately), was found to be in error. The location of the station as established by radial line intersection does not coincide with the geographic position established on topographic sheet "D". The radial line intersection was obtained using well established control and apparently the geographic position as established by the plane table survey is in error.

The shore line in the vicinity of the station was corrected to conform with the field sketch measurements, using the radial line intersection as the correct position of the station.

Topographic station PAN is located at Latitude 29°12' and Longitude 90°38' (approximately).

The location of the station as determined by the radial line plot coincides with the geographic position established by the plane table survey.

This station, the gable of a house, was destroyed by a recent storm (summer 1934) and, therefore, not shown on the sheet by the usual symbol. It was possible to prick this station on the photographs, and it was found that the shore line was drawn incorrectly. The shore line was corrected and checked against the measurements on the description sketch.

Topographic station ALL is located at Latitude 29°13', and Longitude 90°38', approximately.

The intersection established by the radial line plot coincides with the plotted geographic position. The shore line in the vicinity of the station was not correctly drawn. A small island to the west of the station, which shows very dimly on the photographs was drawn in as part of the mainland, hence the conflict with measurements of the description sketch. The correction in shore line was made and then checked by applying scaled distances given on the descriptive sketch.

Topographic station COD is located at Latitude 29°14' and Longitude 90°38' approximately. Its geographic position coincides with the point established by a radial line plot re-run in this area. With this new point of control, a small error in tracing was found and corrected. Measurements from the field sketch were applied as a check.

Topographic station PIG is located at Latitude 29°09' and Longitude 90°40' approximately. No corrections were necessary. The plotted geographic position coincides with the geographic position determined by the radial line plot.

Topographic station MIS is located on a very small island at Latitude 29°10' and Longitude 90°36', approximately. The new radial line plot gave an intersection which coincides with the plotted geographic position. The island shows so dimly on the

photographs that it was very hard to accurately define the shore line. However, no changes were necessary.

Station CHA is located at Latitude 29°12' and Longitude 90°36' approximately.

A new radial line plot drawn through this area locates the station. This coincides with the plotted geographic position.

The sketch drawn on a recent field inspection (August 15, 1934) does not check with the descriptive sketch. The descriptive sketch gives a measurement of 250 meters to a point to the southeast of the station, which does not check on the photographs. This measurement is evidently an error in the stadia work, because, even though this point may have washed several meters, it is hardly possible that it washed 60 meters in so short a time. The pictures, however, were reoriented to check the drafting. The shore line was drawn in slightly off. The correction was made and checked with the field sketch.

A new sketch accompanies the descriptive report.

The geographic position of station LAG, located approximately at Latitude 29°13' and Longitude 90°36', coincides with the position established by the radial line plot. It was found necessary, however, to draw a new sketch for the location of the station due to small changes which were noted on the recent field inspection.

A small change in shore line was made in the vicinity of the station. The field sketch now checks the drafting. Another small change was made at about 150 meters northwest of the station as shown on the overlay sheet. The shore line here was shown by a broken line; because, instead of being a well defined shore line, it was the approximate boundary of a mud flat. The pictures in this area are very dim and hazy, which accounts for the misinterpretation.

It was found that two small islands in the vicinity, which show very dimly on the photographs, had been omitted in drafting. These were drawn in as shown on the overlay sheet.

Topographic station BRE is located at Latitude 29°14' and Longitude 90°35' approximately.

The position of the station as located by a new radial line plot does not coincide with the geographic position. It is believed that the location as established by the radial line plot is correct, because a system of well established triangulation stations was used as control in making the plot which verified the position of several topographic stations in the vicinity. The station, a light fixed on a pole in the midst of a small sand pile, was clearly visible on the photographs and consequently the station was pricked on the photographs used in the plot and a good intersection point was obtained.

With this station established on the sheet, a check on the orientation revealed that no change in shore line was necessary.

Topographic station BAR is located at Latitude 29°14' and Longitude 90°34' approximately.

The position of the station as determined by a new radial line plot does not coincide with the plotted geographic position. On a recent field inspection it was found possible to prick the station on the photographs. It is located in the midst of an oyster shell or sand pile. Lines drawn through this point on the photographs gave a well defined point of intersection which was taken as the correct position. The pictures were reoriented under the sheet, holding station BAR, and it was found that the shore line was drawn incorrectly. The correction was made and the measurements given on the descriptive sketch laid off as a check on the shore line.

Topographic station MUL is located at Latitude 29°13' and Longitude 90°35' (approximately).

The radial line plot gave a very definite intersection and this position coincides with the plotted geographic position. With this new point of control, it was found that the shore line had to be moved a very small amount as shown on the overlay sheet.

Topographic station CON is located at Latitude 29°12' and Longitude 90°34' approximately.

The radial line plot gave a definite intersection which coincides with the geographic position. A small change of shore line was made. The error is probably due to dimness of photographs.

Topographic stations RAG, DAN, POL, and LITE, all lights, were located from the geographic positions given on the descriptive cards. These stations, located out in water, could not be picked on the photographs, and therefore could not be checked by the radial line plot.

The triangulation station LITTLER-1934 was found to be plotted off a small amount and necessary corrections were made.

The location of triangulation station PARABOLLE was checked and found to be correctly plotted.

The location of triangulation station POINT MESHE was checked on the celluloid by values of geographic position given at the bottom of topographic sheet "D", and found to be plotted correctly. POINT MESHE, however, was scaled from topographic sheet "D" and these values do not check with the geographic position given, and therefore must be plotted in error. The name "Point Moshe" seems to be the correct name for this station. See chart No. 198.

Topographic station NAT is located at approximately Latitude 29°13'20" and Longitude 90°40'25". There was no way of pricking this station on the photographs from the sketch by the field party of Lieutenant Reed. Therefore, the geographic position established by him was assumed to be correct and new radial points were pricked on the photos covering this area. A new radial line plot was made in this section. Holding these new points it was necessary to change the east shore line of Bayou Little Caillou slightly opposite the station. This change was indicated on the overlay sheet.

The geographic positions, as established by Lieutenant Reed, of topographic stations JET and FLY coincided with the geographic positions as established by the radial line plot, and so far as could be ascertained no corrections were found necessary.

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

GAB	29° 08'	(137) 1710
	90° 38'	(531) 1091
TAR	29° 11'	(1391) 456
	90° 38'	(1075) 546
BRE	29° 14'	(639) 1208
	90° 35'	(965) 655
BAR	29° 14'	(955) 892
	90° 34'	(930) 690

G. O. Coignet
G. O. Coignet,
Draftsman.

Examined and approved:

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

MEMORANDUM TO ACCOMPANY SHEET NO. 5295

In investigating the disagreements between the air photo compilation sheet and the planetable survey by Lieut. Patterson covering this area, the geographic positions were used in coordination with the triangulation stations as control for a new radial line plot to determine the cause of the disagreements.

It was found that all topographic stations located by the field recovery party held in the new radial line plot, substantiating the original plot. All stations falling on this sheet were recovered with the exception of those on the outer coast line, namely, stations JAM, LEE, and COW. These were reported as being almost impossible to tie in accurately for plotting on the office prints, due to the inability to select definite ties. So much change has occurred along the coast line that it would have been useless to investigate any disagreements arising in this vicinity.

These errors found on this sheet are given in detail in the following paragraphs:

1. Two small islands located in the southeast section of Lake Pelto approximately at Latitude 29-03-55 and Longitude 90-41-12 were found to be approximately 8 meters south of their correct position. Topographic station DUG, which is located on the eastern tip of the easterly island of the group of two, plotted off the shore of the island. It was found that no radial point was pricked on either of these islands, and the draftsman located the islands by orienting between radial points too far distant from the islands. A new orientation was made holding topographic station DUG and the islands drawn in at their correct positions.

2. Topographic station BAD is located on the central one of a group of three small islands, situated at the south end of a chain of six islands in the northeast section of Lake Pelto, approximately Latitude 29-05-20 and Longitude 90-40-25. After checking the position of this station with the references given in the description of the station, and the sketch made by a recent field inspection party, it was found that the reference tie to the south tip of the small island did not check with its position as shown on this sheet. The sketch made by the field inspection party substantiates the descriptive sketch. It was determined that the island has been subject to erosion of the southern end since the time the photographs were taken, and the distance from the station to the shore line to the south is now 16 meters instead of 28 meters as scaled at the time of the photographs. Not knowing the exact amount of change that has taken place at this point, no effort was made to revise this postion.

3. On investigation, the disagreement concerning the small island, Latitude 29-06-40 and Longitude 90-40-59, on which topographic station MIN is located, it was found that the draftsman's orientation, when drawing in the larger portion of the island, was correct but for some reason exaggerated the northern portion of the island. Although the area was traced in from the "B" print, and the photo showed clearly

defined detail, the high water line of the small cove at the northeast portion of the island was misinterpreted. The position of the house was also misinterpreted, being shown approximately 15 meters from its true position. These corrections were made accordingly.

The scaled distances to Reference #1, #2, #3 and #4 check with Lieut. Patterson's description of the station, but reference #5 on the descriptive sketch does not check with actual conditions. Reference distance #5 is 48 meters instead of 28 meters as shown on sketch. The descriptive sketch was corrected accordingly. The photographs clearly show a small island adjacent to the extreme northwest tip of the island under discussion. This island is not shown in Mr. Patterson's work and was not noted by a recent inspection party, and it is probable that it no longer exists. However, due to the fact that it did exist at the time of the photographs, it is shown on the sheet.

4. The position of topographic station USE did not check with the descriptive reference distance taken to the northwest tip of the island. Upon investigation it was found to be the result of incorrect orientation when drawing in this particular portion of the island. The correct position of the shore line at this point is slightly further northwest than was shown.

All other reference distances checked satisfactorily. It may be mentioned here, however, that the descriptive sketch of the location of this topographic station is entirely inadequate inasmuch as it does not identify surrounding features. A pier previously overlooked is now shown south of the station.

5. In checking the location of topographic station LEX against the descriptive sketch, it was found that the sketch could not be reconciled to the topographic conditions surrounding the station. Descriptive reference distances of 36 meters from normal to west shore, 101 meters from station to point southwest, and 25 meters to west edge of a small pond, check with the distances as scaled on the proof sheet, but the remaining references to the north, west, and south can not be reconciled with actual topography; thus no check can be made in these directions.

A supplementary sketch of the station as noted by a recent field inspection party is attached to the description.

6. The island on which topographic station TEX (The Texas Company beacon) is located at the extreme northern point, has washed away considerably since the time of Lieut. Patterson's planetable survey, according to reports of a field inspection party visiting the location recently. The descriptive reference point #1 is now only 4 meters away, reference point #3 is now 4 meters from the station. Reference point #2 is a small break in the western coast line of the island, and, due to misinterpretation of the photo, was not shown on the sheet. This break in the coast line is now shown and the reference distance checks with the compilation. A supplementary sketch as noted by the field inspection party was made and attached to the station description.

7. At the time of compilation of this sheet there were only two oil wells on the Texas Company holdings southwest of topographic station USE. These two wells were shown in their correct positions at the time the photographs were taken; this was substantiated by the new radial line plot carried through. According to the reports of a recent field inspection party, more wells have been drilled in this area since the time of compilation. Considering the fact that these wells are continually being abandoned and new wells drilled, it is not considered wise to show the accurate position of any of the wells, as such data would be obsolete in a short time and prove misleading to users of the chart. Therefore, it is deemed advisable to merely indicate the approximate limits of the fields under development at the present time. This is being shown on the sheet by two areas, each enclosed by a broken line and labeled "oil field".

8. Topographic station ABE is located on an island west of Bayou La Poule. It was found that due to erosion on the southern part of the eastern tip, descriptive reference #2, taken normal to the high water line at the south, does not check. This distance is at present 35 meters against 42 meters at the time of compilation. No attempt was made to revise after this change.

9. In the original radial line plot on this sheet and likewise on the replot, topographic station SMOKE did not check the geographic position as determined by the topographic party. This station is the smokestack of a large anchored ship used as a fueling station by The Texas Company. In the compilation of this sheet the geographic position scaled off the topographic sheet, as Latitude 29-05-1428.6 and Longitude 90-35-1615.0 were shown on the sheet, instead of the geographic position at Latitude 29-05-1490.0 and Longitude 90-35-1598.2 as determined by the radial line plot. This ship was probably moved during the period following the time of the photographs and preceding the date of the planetable survey. According to reports of a recent field inspection party, the ship is now permanently anchored, but whether or not it has again been moved was not determined. The ship is now shown in its position when the photographs were taken and located by the radial line plot. This is not a wreck, but is a ship in good condition and used as a storehouse for supplies and as a steam generating plant for oil field operations, and most probably was, until recently, moved when necessary. Its position is now indicated by a circle 2.5 mm. in diameter, but no name is recommended. It is called SMOKE on the aluminum topographic sheet.

The geographic position of topographic station SMOKE, as determined by radial line plot, is as follows:

			(357.2)
SMOKE	Latitude	29-05	1490.0
			(24.5)
	Longitude	90-34	1598.2

10. The geographic position of topographic stations MIT, PAS, RIC, and RIN coincide with the respective positions established by the radial line plot. Upon the re-orientation of photographs, it was found that the topography checked with reference to the stations.

11. Topographic station STO is located at approximately Latitude 29°03'30" and Longitude 90°44'30". The geographic position as established by Lieutenant Reed coincided with the geographic position as established by the radial line plot. The island on which the station is located was incorrectly traced on the celluloid, 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 to warrant correct location. The proper orientation was made on the celluloid and the detail traced correctly and indicated on the overlay sheet.

12. The geographic position of topographic station PAR, located at approximately Latitude 29°03'05" and Longitude 90°44'30", as established by Lieutenant Reed, coincided with the geographic position as established by the radial line plot and so far as could be ascertained no corrections were found necessary.

13. Topographic station FIL is located on the outer coast line. Since the shore line was traced from the ground survey by Lieutenant Reed and the shore line is so variable here, no attempt was made to tie in the station on the photographs. The station is shown on the celluloid with a black circle and indicated on the overlay sheet.

All permanently marked stations are shown on the sheet by a circle 2.5 mm. in diameter. All changes made are indicated by a tracing of the revised section attached to the celluloid sheet.

The control on this sheet was established by Mr. Hemple in 1928 and recovered in 1934. The point designated by a triangle, located on an island at approximately Latitude 29-03-50 and Longitude approximately 90-43-03, was included in Mr. Hemple's triangulation scheme and the geographic position computed in this office. This is known as station HOUSE NEAR PELTO 1928-1934.

On the east flight of this sheet the photo at the northern limits is Photo No. 1812, and the last photo in the flight is Photo No. 1817, having a limit of photographs at approximately Latitude 29-03-30 and Longitude 90-34-08.

It is well to state here that due to the expanses of water traversed, incorrect mounting of photographs could not be detected. This condition, together with the excessive dimness of the photographs, made the compilation of this sheet difficult. Due to the expansion and contraction of the mounting cards, it was necessary to remount all pictures before making the new radial line plot.

Heller C. Smith

H. C. Smith,
Draftsman.

Examined and approved:

M. H. Reese

M. H. Reese,
Chief of Party.

MEMORANDUM TO ACCOMPANY SHEET NO. 5298

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

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 gable of a house and was pricked on the photo. The sketch made by the topo. 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°12'50" and Longitude 90°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°12'10" and Longitude 90°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°11'25" and Longitude 90°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°10'40" and Longitude 90°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°14'35" and Longitude 90°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°10'15" and Longitude 90°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.

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"

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.

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 intersections, were scaled from the celluloid:

The centers of the "B" prints on this sheet for the most part fell in water areas. Due to this condition it was impossible to establish a strong radial line plot with the control available. After the topo stations were 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 number of corrections on the present sheet, but it is felt as so far as possible that the revision is correct.

PIER	29° 10'	(1695)	152
	90° 17'	(983)	638
LOW	29° 12'	(579)	1268
	90° 22'	(630)	991
LAK	29° 14'	(970)	877
	90° 22'	(193)	1427
SOP	29° 10'	(129)	1718
	90° 28'	(192)	1429
JOUR	29° 10'	(1495)	352
	90° 27'	(602)	1019
LAN	29° 09'	(67)	1780
	90° 17'	(1370)	252
STIR	29° 11'	(1247)	600
	90° 20'	(901)	720
MAP	29° 11'	(767)	1080
	90° 18'	(1548.6)	73.2
FOU	29° 09'	(372)	1475
	90° 17'	(1382)	240

Examined and approved:

M. H. Reese

M. H. Reese,
Chief of Party.

S. S. Gill

S. S. Gill,
Draftsman.