

8929

Diag. Cht. No. 1116-2 & 1279.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Photogrammetric shoreline

Field No. PH-14(46) Office No. T-8929

LOCALITY

State Louisiana & Texas

General locality Gulf Intracoastal Waterway

Locality Port Arthur, Texas-Salt Bayou,
Texas.

1947

CHIEF OF PARTY

Ross A. Gilmore, Chief of Field Party

Thos. B. Reed, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE June 25, 1951

DATA RECORD

T - 8929

Project No. (II): PH-14(46) Quadrangle Name (IV):

Field Office (II): Morgan City, La.

Chief of Party: Ross A. Gilmore

Photogrammetric Office (III): Baltimore, Md.

Officer-in-Charge: Thos. B. Reed

Instructions dated (II) (III): PH-14(46) (Not dated)

Copy filed in Division of
Photogrammetry (IV)
Office Files

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): 1.000

Date received in Washington Office (IV): *6-9-49* Date reported to Nautical Chart Branch (IV): *6-16-49*

Applied to Chart No.

Date:

Date registered (IV): *13 April, 1951*

Publication Scale (IV): _____

Publication date (IV): _____

Geographic Datum (III): N. A. 1927

Vertical Datum (III): MHW

Mean sea level except as follows:
Elevations shown as (25) refer to mean high water
Elevations shown as (5) refer to sounding datum
i.e., mean low water or mean lower low water

Reference Station (III): INTRACOASTAL, 1933

Lat.: 29° 49' 30.630" (*943.1m*) Long.: 93° 57' 22.669" (*608.6m*)

Adjusted
~~CRACKED~~

Plane Coordinates (IV):

State: Louisiana

Zone: South

Y= *430, 803.33*

X= *1, 168, 348.99*

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

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

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

DATA RECORD

Field Inspection by (II): J. S. Howell

Date 9-13-47 to 9-25-47

Planetable contouring by (II): _____

Date:

Completion Surveys by (II): _____

Date:

Mean High Water Location (III) (State date and method of location):
Same date as photographs

Projection and Grids ruled by (IV): W.E.W.

Date: 9-17-48

Projection and Grids checked by (IV): W.E.W.

Date: 9-17-48

Control plotted by (III): J.C. Richter

Date: 9-29-48

Control checked by (III): M.F. Kirk

Date: 9-29-48

Radial Plot ~~as stereoscopic~~ H.R. Rudolph

Date: 10-1948 & 1-1949

~~Control checked by (III):~~ F.J. Tarcza

Planimetry _____

Date:

Stereoscopic Instrument compilation (III):

Contours _____

Date:

Manuscript delineated by (III): W. L. Lineweaver

Date: 2-23-49 to 5-23-49

Photogrammetric Office Review by (III): J.W. Vonasek

Date: 5-24-49 to 6-3-49

Elevations on Manuscript _____
checked by (II) (III):

Date:

Camera (kind or source) (III): U.S. Coast and Geodetic Survey Single Lens, Type C camera, focal length 6".

PHOTOGRAPHS (III)				
Number	Date	Time	Scale	Stage of Tide
47-C-1113 to 1116	3/25/47	1330 C.S.T.	1:10,000	.4 ft above MLW
47-C-1117 to 1119	3/25/47	1345 C.S.T.	1:10,000	.3 ft. above MLW
47-C-1131 to 1135	3/25/47	1400 C.S.T.	1:10,000	.3 ft. above MLW

Tide (III)

Reference Station: Key West, Florida
Subordinate Station: Sabine Pass Light
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range
1.0	1.3	1.6
1.1	1.4	2.2

Washington Office Review by (IV): *L. F. Stevens*

Date: 20 Dec. 1949

Final Drafting by (IV): *Battley*

Date: 6-28-1950

Drafting verified for reproduction by (IV): *W. O. Hallum*

Date: 6-28-1950

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III): 9

Shoreline (More than 200 meters to opposite shore) (III): 20.8 statute miles

Shoreline (Less than 200 meters to opposite shore) (III): 10.1 " "

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 10

Recovered: 10

Identified: 9

Number of BMs searched for (II): none

Recovered:

Identified:

Number of Recoverable Photo Stations established (III): none

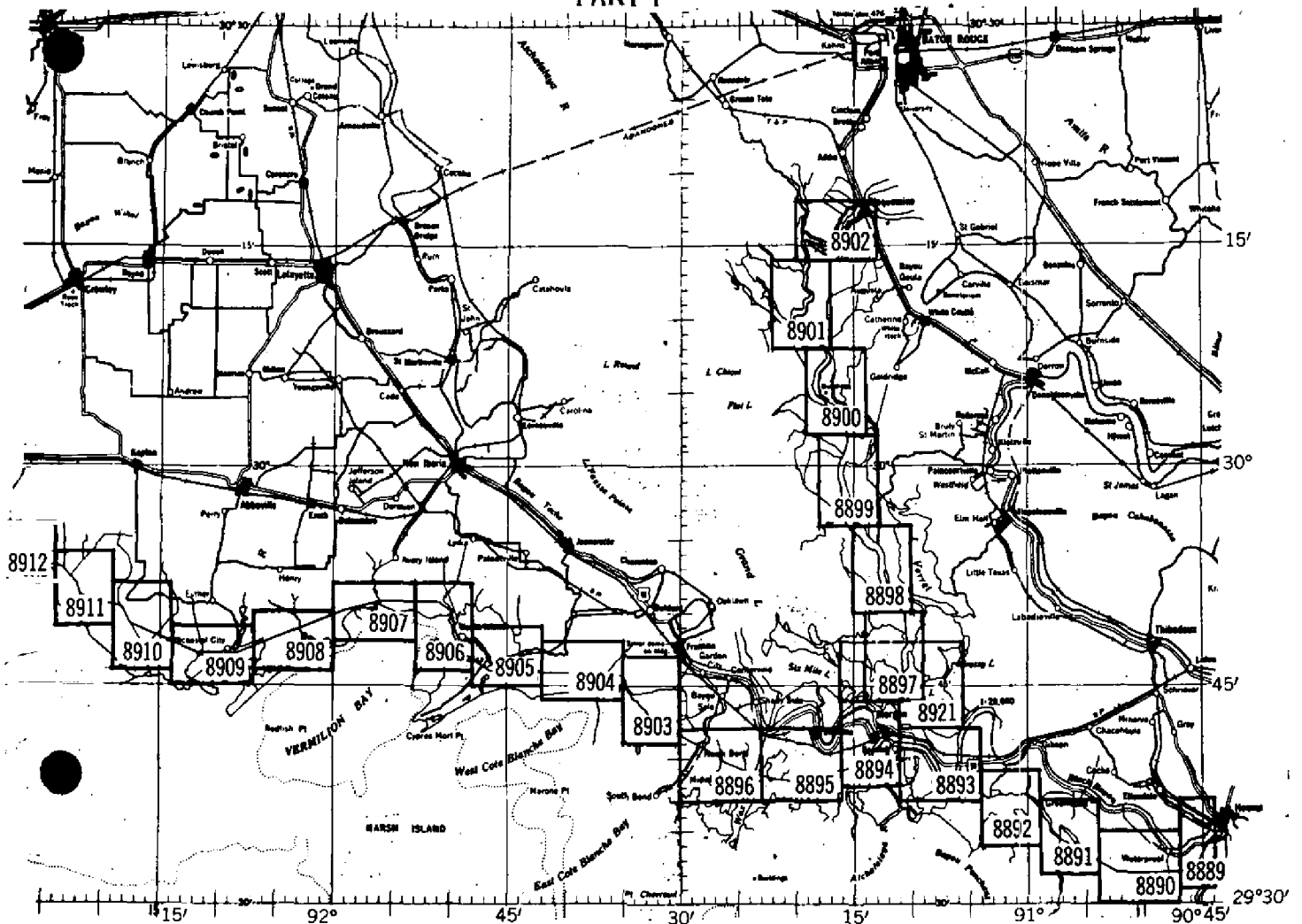
Number of Temporary Photo Hydro Stations established (III): none

Remarks: *F.I. note on photograph 47-C-1114: Tidal effect in Port Arthur and Sabine Lake is about 1 foot, but this effect is greatly influenced by wind conditions. During a recent storm, a tide gauge at the USE dock in Port Arthur registered a 3.6 ft maximum rise in water line. (LTS)*

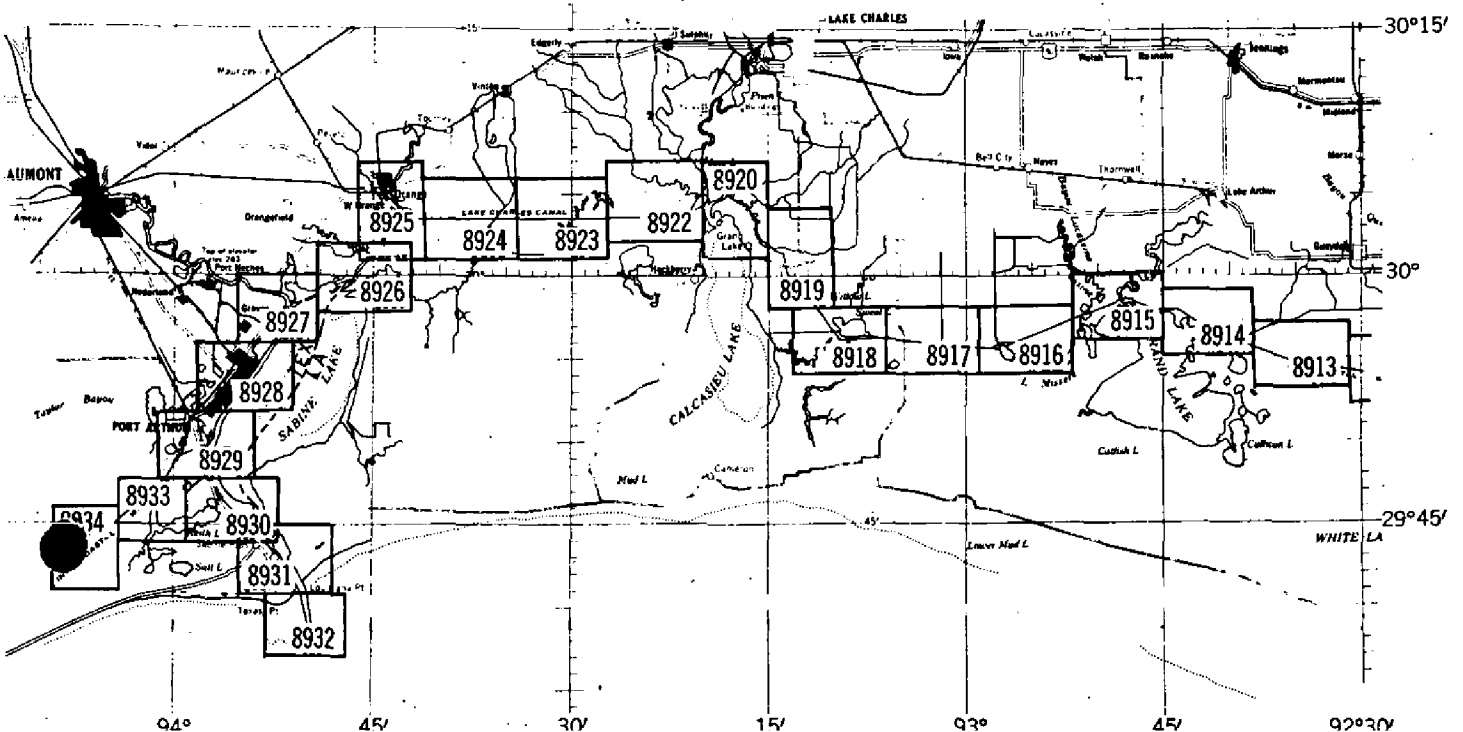
SHORELINE MAPPING PROJECT PH-14(46)

LOUISIANA - TEXAS, Intracoastal Waterway Houma - Port Arthur

PART 1



PART 2



Summary to Accompany T-8929

Shoreline Survey T-8929, scale 1:10,000 (Lat. $29^{\circ}48'$ to $52'$; Longitude $93^{\circ}54'$ to $94^{\circ}01'$) is one of 76 maps in Project Ph-14(46) which consists of four parts. T-8929 is one of Part II group.

Data pertaining to T-8929 are filed as follows:

A. Division of Photogrammetry General Files:

1. Reviewed acetate manuscript
2. Radial Plot Report
3. Field Inspection photographs

B. Bureau Archives:

1. Registered lithographic print of the reviewed manuscript ~~and~~ ^{at} compilation scale.
2. Registered Descriptive Report.

FIELD REPORT

SHORELINE MANUSCRIPT

SURVEY NO. T-8929

For field data covering Survey No. T-8929 refer to the field report "Gulf Intracoastal Waterway, L 81 (1947) Vermilion Bay, La. to Port Arthur, Texas, " submitted by Ross A. Gilmore, dated October 1947, *filed in Nautical Charts.*

RADIAL PLOT REPORT

PROJECT NO. PH-14(46)

SURVEYS NOS. T-8929 to T-8932 incl.

GENERAL DESCRIPTION

This radial plot report includes the area of Surveys Nos. T-8929 to T-8932 inclusive, comprising four of a series of shoreline surveys in project No. PH-14(46) located along the Gulf Intracoastal Waterway in Louisiana and Texas. The area covered by this radial plot extends along the Port Arthur Canal and Sabine Pass from Port Arthur to the Gulf of Mexico.

PHOTOGRAPHS

Twenty-six (26) single lens photographs were used in this radial plot. The photographs were taken with the type C camera, 6" focal length at a scale of 1:24,000 and ratioed to a scale of 1:10,000. They are numbered 47-C-1111 to 47-C-1129 inclusive, and 47-C-1131 to 47-C-1136.

The symbols for control and photograph centers used on these photographs are in accordance with photogrammetry instructions No. 12 dated 17 March 1947.

CONTROL

Twenty-six (26) horizontal control stations were recovered and identified by the field inspection party in the area of this radial plot. Of these, twenty (20) were pricked direct, five (5) were identified on the photographs by substitute stations, and one identified by templet method. Two additional stations were recovered but not identified. One station was searched for but not recovered but it is believed that the station still exists. Three other stations have been shown within the area of the plot for which no data were furnished by the field inspection party.

One of the five control stations, SABINE PASS SW BASE, 1874, identified by a substitute station during the field season of 1947 was also identified by two additional substitute stations on 28 December 1948. (See copy of letter from Lieutenant Commander C. C. Clark attached to this report).

A sketch showing distribution of horizontal control and photograph centers, and a list of horizontal control stations are attached to this report.

In addition to the control shown on the sketch the field party furnished positions of twenty-one nonfloating aids to navigation on form No. 567. These positions were established by planetable at a scale of 1:40,000. The positions of two tanks and a radio tower were scaled from the planetable sheet in the compilation office.

PROJECTIONS

The map manuscripts furnished the compilation office for the surveys in this radial plot were ruled with polyconic projections and Louisiana South, 5000 foot interval grids at a scale of 1:10,000. Vinylite base sheets, ruled with 5000 foot interval grids at a scale of 1:10,000, previously furnished the compilation office for another project, were used for the initial attempt in running this radial plot. The final radial plot was made by laying the templets directly on the map manuscript.

All control stations, substitute stations, and positions of non-floating aids, tanks and the radio tower established by planetable were plotted and checked on the map manuscripts using beam compass and meter bar. All identified control stations and substitute stations were transferred to the base sheets by matching common grid lines.

TEMPLETS

Acetate templets were made of all photographs used in this radial plot.

RADIAL PLOT

All pass points and photograph centers established by the radial plot previously made for Surveys Nos. T-8926 to T-8928 inclusive that fell within the area of Survey No. T-8929 were transferred to the base sheets. Holding to these points and horizontal control, a good fix was obtained using photograph No. 47-C-1135, and the plot was extended southward tying in to SABINE PASS E JETTY LT., 1923. (7-1732)

At the time the first attempt was made to run the plot, control station SABINE PASS SW BASE 1874 was identified by one substitute station.

The templets were laid and relaid several times holding to all control except the substitute station for SABINE PASS SW BASE, 1874. A radially plotted position was established for the substitute point about 1.6 millimeters southeast of the computed position.

Since the fiducial marks were missing on the photographs it was not possible to determine paper distortion. Believing the discrepancy in the radial plot to be partly due to distortion it was decided to bridge from control stations SABINE PASS LIGHTHOUSE, 1874, SABINE PASS COAST GUARD CUPOLA, 1933, and TEXAS 2 (USE), 1933 to KEITH (USE), 1909 on the multiplex. Four models were set up to bridge between the above stations and it was found that the position obtained for SABINE PASS SW BASE, 1874, was 1.6 mm southeast of its geographic position.

A check of the geographic position of SABINE PASS SW BASE, 1874, was requested from the Washington Office where a rather complete check was made, and no error could be found. The only reasonable explanation for the discrepancy then seemed to be that an error was made in the field identification

RADIAL PLOT (Continued)

of the substitute station. Therefore, data, including field photographs, were sent to the field party in charge of Lieutenant Commander C.W. Clark at Abbeville, La. In accordance with instructions from the Washington Office two additional substitute stations for SABINE PASS SW BASE were identified on 28 December 1948.

Lieutenant Commander Clark also reported that radio tower (SABINE PASS RADIO TOWER, near L.H. 1933), which had been used as an azimuth station in establishing the substitute station in 1947, apparently had been moved according to the 1941 description of the radio tower by G.L. Short. This fact was verified by applying the observed directions in the list of directions submitted by Lieutenant Commander Clark. The position of the substitute station established in 1947 was recomputed and it only moved about .28 millimeter northwest. Most of the change was due to the fact that the distance between the station and the substitute point as measured in 1947 was 61 meters while in 1948 an approximate distance of 63.6 meters was measured. Using the original measurement of 61 meters and the angle from control station SABINE PASS LH 1874 as observed in 1948 to compute the position of this substitute station, the position change is only 0.1 millimeter to the west.

The two additional substitute stations identified in 1948 for control station SABINE PASS SW BASE, 1874, were pricked on the office photographs from their descriptions. Their positions were computed and plotted on the map manuscript.

During the trial plot it was found that the radially plotted position of one of the nonfloating aids fell approximately 10.0 millimeters south of its position as listed on form No. 567. This position was rescaled from the planetable sheet and found to be in error 97 meters in latitude and 8.4 meters in longitude. The positions of all of the non-floating aids were then rechecked and found to disagree with the positions listed on Form No. 567. This discrepancy varied from 0.0 millimeter to 1.2 millimeters in either latitude or longitude.

Reviewed:
Investigate and
rectify if possible.
HRB

The positions of all points established by planetable were then re-plotted according to the positions scaled in the compilation office.

A new radial plot was then run by laying the templates directly on the map manuscripts.

The three templates on which the substitute stations for SABINE PASS SW BASE, 1874 fell where laid first. All triangulated control stations thereon could be held by allowing the ray line of substitute station SABINE LONGITUDE STATION, 1911 to fall off its plotted position.

RADIAL PLOT (continued)

The radial plot was then extended northward to tie in with the plot to the north and southward to the limits of this radial plot. All other control was held except the points located by planetable. A satisfactory plot is believed accomplished.

After the entire plot had been completed, the field photograph showing the identification of the two new substitute stations at SABINE PASS SW BASE, 1874, was received in the compilation office and it was found that the office identification of substitute station No. 2 was in disagreement with the field identification. Substitute station No. 2 was reprinted on the office photograph in accordance with the field identification and the photographs relaid. Substitute station No. 2 could not be held along with substitute stations Nos. 1 and 3; therefore, a radially plotted position has been established for substitute station No. 2 approximately 0.6 millimeters north of the computed position.

Radially plotted positions have been established for all of the non-floating aids, tanks, etc. that were identified on the photographs. The positions of these points, as established by planetable, are believed to be weak since there were several instances when groups of four or more fell on the same photograph and could not be held either among themselves or with the control on the photograph.

The positions of all pass points, photograph centers and radially plotted positions of stations located by planetable were then pricked through the templets onto the manuscripts.

All points were rechecked by orienting each photograph under the map manuscripts.

For the discrepancies between the positions of the non-floating aids, etc. established by planetable and their radially plotted positions, see the list compiled under sideheading "REMARKS".

REMARKS

Sixteen non-floating aids and two tanks that were located by planetable and plotted on the map manuscripts from positions scaled from the planetable sheet run at 1:40,000 scale were also identified on the photographs by the field inspection party of 1947. Radially plotted positions have been established for each of these stations. The discrepancies are as follows:

REMARKS (Continued)

Name of station	Distance in meters.	Direction *
74920 Port Arthur Canal Range C Rear Lt., 1947	8	ENE.
" Port Arthur Canal Range C Front Lt., 1947	15	NNE
" Port Arthur Canal Lt., 1, 1947	19	ENE
" Port Arthur Canal Range B Rear Lt., 1947	8	ENE
" Port Arthur Canal Range B Front Lt., 1947	9	E
" Port Arthur Canal Range A Rear Lt., 1947	7	NW
" Port Arthur Canal Range A Front Lt., 1947	10	NE
" Sabine Pass Channel Lt., 3, 1947	17	SE
8431 Sabine Pass Channel Lt., 1, 1947	7	NE
" Sabine Pass Inner Range Rear Lt., 1947	22	NNE
" Sabine Pass Inner Range Front Lt., 1947	8	NE
" Sabine Pass Jetty Channel Range Rear Lt., 1947	8	N
" Sabine Pass Jetty Channel Range Front Lt., 1947	10	N
Sabine Pass E. Jetty Lt., 1947	11	WNW
Sabine Pass Outer Range Rear Lt., 1947	13	WNW
Sabine Pass Outer Range Front Lt., 1947	11	W
" Sabine Pass Municipal W.T.	9	SE
Tank, U.S.Navy Section Base	9	N

* Direction to radially plotted position from plotted position.

Two substitute stations could not be held in this radial plot.

At control station SABINE PASS SW BASE, 1874, Substitute Station No. 1 was identified in 1947 and Substitute Stations Nos. 1 and 2 were identified in 1948. Substitute Stations Nos. 1 and 3 were held in the plot but No. 2 could not be held as identified on the field photograph. Substitute Station No. 2 was described by the field party as "The outside corner of the north corner of the levee around oil tank 372". As previously mentioned in this report this station was pricked on the office photographs from its description. The point pricked was near the top of the levee; however, the base of the levee appears much wider than the top and the field identification was at the outside corner at the base of the levee. Since the top of the levee holds with the other two substitute stations, it is possible that there was an error in the identification by the field party. The radially plotted position of substitute station No. 2 is approximately 0.6 millimeters north of the computed position.

The radially plotted position for the substitute station, SABINE LONGITUDE STATION 1911, is approximately 0.2 millimeters east of the computed position. The station was recovered in 1947 as follows: "The station was recovered in very poor condition. As noted in 1935, the bronze station mark has been removed and only the concrete block remains. The concrete block is badly deteriorated and now only faintly resembles its original shape. The station was identified by planetable and topo sheet." Since the station mark is in such poor condition it is possible it is not in its

REMARKS (Continued)

original position.

The number and distribution of photographs were adequate. There was sufficient control in the northern half of Survey No. T-8929 and in the central part of Survey No. T-8931. There are only two control stations in the area of Survey No. T-8930 and only one in the area of Survey No. T-8932.

There were several nonfloating aids to navigation within the area for which positions had been established by planetable on a topo sheet at scale of 1:40,000 which could not be held, probably due to the fact that the errors of scaling were increased four times when changing from 1:40,000 scale to 1:10,000 scale.

This radial plot is believed to be within the required limits of accuracy. A junction of Surveys Nos. T-8929 and T-8930 was made with Survey No. T-8933, the radial plot for which was run in the Washington Office and found to be in good agreement.

Due to lack of control in the area of SABINE PASS SW BASE 1874 and only having a single flight of photographs with several centers falling in water areas, the results of the original plot indicated an apparent discrepancy either in the identification or position of the above station.

Subsequent laying of the templets showed that a satisfactory plot could be obtained by not holding azimuth lines one hundred per cent.

Respectfully submitted
14 February 1949

Harry R. Rudolph
Cartographer

Approved and forwarded
28 February 1949

Thos B. Baird
Officer in Charge
Baltimore Photogrammetric Office

LIST OF HORIZONTAL CONTROL STATIONS
SHOWN ON
LAYOUT SKETCH

Surveys Nos. T-8929 to T-8932

<u>No.</u>	<u>Name of Station</u>	<u>Recovered</u>	<u>Pricking</u>
1.	PORT ARTHUR MUNICIPAL TANK, 1933	Yes	Direct
2.	PORT ARTHUR, N. TWIN CUPOLA, 1933	Yes	Direct
2.	PORT ARTHUR, S. TWIN CUPOLA, 1933	Yes	Direct
3.	PORT ARTHUR, COLLEGE RADIO MAST, 1933	Yes	Direct
4.	PORT ARTHUR, HIGH SCHOOL STACK, 1933	Yes	Direct
5.	PORT ARTHUR, GOODHUE HOTEL VANE, 1933	Yes	Direct
6.	PORT ARTHUR, VAUGHN HOTEL FLAGPOLE, 1933	Yes	None
7.	PORT ARTHUR, NEGRO CHURCH W. CUPOLA, 1933	Yes	Direct
8.	PORT ARTHUR, NEGRO CHURCH E. CUPOLA, 1933	Yes	None
9.	PORT ARTHUR, WEATHER BUREAU MAST, 1933	Yes	Sub. Point
10.	PORT ARTHUR RCS RAILROAD STATION CUPOLA, 1912	Yes	Direct
11.	PORT ARTHUR, GULF UTILITIES STACK, 1931	Yes	Direct
12.	WEST PORT ARTHUR, GULF REFINING CO. GREY TANK, 1933	Yes	Direct
13.	PORT ARTHUR GULF REFINING CO., TALLEST STACK, 1931	Yes	Direct
14.	WEST PORT ARTHUR GULF REFINING CO. W.T. (No Top), 1933	Yes	Direct
15.	WEST PORT ARTHUR TEXAS OIL CO. W.T. (USE) 1912	Yes	Direct
16.	WEST PORT ARTHUR, W. RADIO MAST, 1933	Yes	Direct
16.	WEST PORT ARTHUR, E. RADIO MAST, 1933	Yes	Direct
17.	WEST PORT ARTHUR, GRAIN ELEVATOR A CHY., 1912	Yes	Direct
18.	WEST PORT ARTHUR TEXAS CO., STACK, 1933	Yes	Direct
19.	INTRACOASTAL, 1933	Yes	By templet
20.	KEITH (USE) 1909	Yes	Sub Point
21.	PAT GLENNONS BAYOU, 1874	No	None
22.	SABINE LONGITUDE STATION, 1911	Yes	Sub Point
23.	SABINE PASS SUN OIL CO. STACK, 1906	No field data.	
24.	SABINE PASS SW BASE, 1874	Yes	3 Sub Points
25.	SABINE PASS LIGHTHOUSE, 1874	Yes	Direct
26.	LOUISIANA (USE) 1912	No field data.	
27.	SABINE PASS COAST GUARD CUPOLA, 1933	Yes	Direct
28.	TEXAS 2 (USE), 1933	Yes	Sub Point
29.	WEST, 1933	No field data	
30.	SABINE PASS E JETTY LIGHT (OLD) 1923	Yes	Direct

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

POST-OFFICE ADDRESS: P.O. Box 364, Abbeville, Louisiana.

TELEGRAPH ADDRESS:

31 December 1948

EXPRESS ADDRESS:

To: The Director
U. S. Coast and Geodetic Survey
Washington 25, D. C.

Subject: Discrepancy in Control-Project PH-14

On 28 December 1948, while enroute to the U. S. Marine Hospital at Galveston, Texas, for an annual physical examination, I stopped at Δ SABINE PASS SOUTHWEST BASE to determine, if possible, the cause in the discrepancy in that station as described in letter No. 73 - rb, dated 21 December 1948.

The immediate conclusion reached was that the recovery and identification of the station in 1947 was positive and that there are no large errors in the substitute point data on the pricking card. The apparent error in the plot is without a doubt caused by something besides the 1947 recovery and identification. Assuming that the radial plot is correct as indicated in the above mentioned letter, the only other cause of the error seems to be in the station itself. This would indicate that recovery of the station is doubtful or in the extreme case there is an error in the triangulation which is unlikely.

After studying the situation in regard to what is now known about the station and with the limited information available here, it has occurred to me that there is a possibility, perhaps remote, that the 1933 recovery of the station is the source of the error. This could be true if the station was merely recovered in 1933 and was not occupied or observed upon at that time and the position was recomputed from earlier observations.

This reasoning is not without some foundation. The station recovered in 1947 and 1948 is without doubt the station recovered in 1933. See attached list of directions for observations made by me on 28 December 1948. The distances and directions to reference marks agree so well with the 1933 description that there can be no doubt about the recovery at this time. The 1933 description of the station doesn't agree exactly with the original description. That could easily be caused by changes in the vicinity of the station. The road could very likely have been moved between 1912 and 1933 but it may not have been. The cemetery probably hasn't changed materially since 1912. A large double live oak tree now exists near the north corner of the cemetery.

This tree bears evidence of an old blaze on the side toward the station, however, the blaze appears square rather than triangular. This could be the tree mentioned in the 1912 description. The distance and direction to this tree are given in the list of directions. The distance does not agree with the original description.

It is noted in the List of Geographic Positions that all main-scheme stations for which azimuths are listed are stations established prior to 1933. This may or may not mean that the geographic position was computed from observations made prior to 1933 but that could be the case.

If the foregoing should be true it appears probable that the surface station mark was moved between 1912 and 1933 and that observations weren't made on the station in 1933 to check the position. If so the sub-surface mark probably still exists near the present mark and perhaps could be recovered. No attempt was made by me on my recent visit to the station to make any search for any mark other than the surface mark and the 1933 reference marks, all of which were recovered in good condition as described in 1933.

The foregoing discussion is largely conjecture on my part but it may be worth considering.

The 1947 data may be slightly in error because the radio tower used for the azimuth may not be a triangulation station. The 1941 description of the Radio Tower by G. L. Short says a new tower had been built and the old one would be dismantled.

The 1947 identification of the station was checked approximately. Grass has grown up considerably in the side road leading off the main road at the substitute point and the point of grass is apparently not the same as was photographed and pricked in 1947. It is recommended that the 1947 data be used as is with the azimuth corrected if necessary from the observations, listed on the attached list of directions.

Two additional substitute points were pricked on photo 47-C-1124 and directions observed to them from Sabine Pass Lighthouse. No other objects known to be triangulation stations were visible from the stations so it was not possible to obtain an azimuth to the two sub points independently. A heavy overcast prevented observations on the sun for azimuth. However, a 4-inch theodolite was set up over the station and the directions were observed on all sub points, reference marks and other objects as listed on the list of directions. The check on the reference marks verify the azimuth to Sabine Pass Lighthouse.

Pricking cards are submitted herewith for all substitute points. It is thought these points can be pricked on office photographs without the field photograph. The field photographs will be retained here pending instructions to forward them to the office or to do additional field work at the station. Use of these new substitute points will not eliminate

the error as any error in the 1947 identification is much less than the apparent error in the plot.

No attempt was made to determine the position of another station in the vicinity of Sabine Pass Southwest Base by three-point fix or other means. The only natural object known to be a triangulation station visible from the ground in the vicinity of the station is Sabine Pass Lighthouse. A new station could be established but it might require signal building at some marked stations in the vicinity. It may be easier to locate some natural objects such as tanks, radio mast, etc. from other triangulation stations and then use them in a three-point fix at or near Sabine Pass Southwest Base.

The position of Sabine Pass Southwest Base can be determine graphically by plotting a three-point fix or by distances using the three substitute points. This may give a more positive indication of the error than was available before. A check on this plotting can be obtained by using the cut on tank 372 which is the most southwesterly tank of the group, the center of which can be pricked approximate. The position of the station determined in this way should be of value if further field investigation of the station is desired.

If further field work is necessary it is requested that orders authorizing the travel involved be written for the following men:

Mr. Isaiah Y. Fitzgerald, Cartographer P-2
Mr. Clarence R. Sanders, Engineering Aid, SP-2
Mr. Paul R. Landry, Engineering Aid (Rodman), SP-2

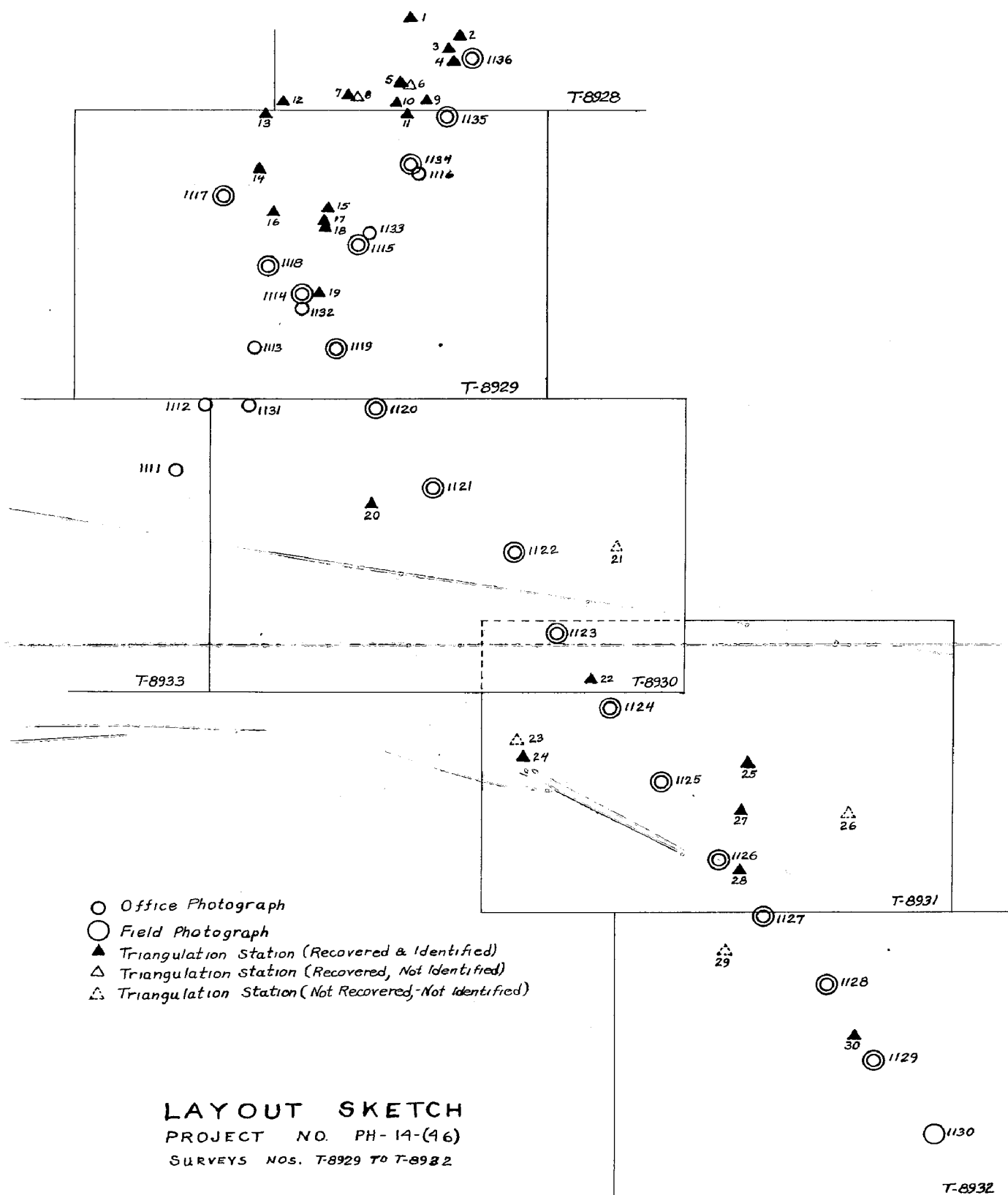
The number of men to be sent there will depend on the amount of work to be done. If two men can do it only the first two will be sent there. I could go myself in place of one of the above men but it should be not be necessary that I do so.

If any additional field work desired can be delayed until a later date the additional work possibly could be done while the party is enroute to its next assignment at Corpus Christi, Texas.

(Signed) Charles W. Clark
Lt. Comdr. U.S.C. & G.S.
Chief of Party

Enclosures:

- 1 sheet Form 24A, List of Directions
- 1 sheet Form M-2226-12, 1947 Control Station Identification
- 2 sheets Form M-2226-12, Control Station Identification for
Sub. Pt. 2 and Sub. Pt. 3



SCALE FACTOR

	F O R W A R D	(B A C K)
FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS		

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[illegible]

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[illegible]

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[illegible]

M-2368.12

13 Aug. 1948

M - 2388.12

COMPILATION REPORT

SHORELINE MANUSCRIPT

SURVEY NO. T-8929

This manuscript is one of a series of surveys in Project No. PH-14 (46) covering a narrow strip of land along the Gulf Intracoastal Waterway from Houma, La. to Corpus Christi Bay, Texas. This project was undertaken to furnish the necessary data to prepare a new series of inland charts at 1:40,000 scale.

26. CONTROL

A list of stations on the manuscript is included in this report on Form No. M-2388-12.

27. RADIAL PLOT

The radial plot for this survey was made in the Baltimore Compilation office. Refer to the radial plot report, covering Surveys Nos. T-8929 to T-8932 inclusive, submitted to the Washington Office on March 1, 1949.

*Filed in Div. Photogrammetry
General Files.*

28. DELINEATION

The compilation is in accordance with Photogrammetry Instructions No. 17 dated September 15, 1947. Eagle Lake, Salt Bayou and Taylor Bayou were not delineated completely and Alligator Bayou was not delineated at all due to lack of photograph coverage.

Filed in Div. Photogrammetry Office Files

29. SUPPLEMENTAL DATA

None.

30. MEAN HIGH WATER LINE

Because there was no field identification of the MHWL or the apparent shoreline in the area of this survey, these lines were delineated solely from careful stereoscopic examination of the photographs. It is noted that a much more accurate and economical operation could have been effected if the location of the MHWL had been field identified in an occasional typical area.

31. MEAN LOW WATER LINE AND SHOAL LINES

Field identification of the LWL or shoal line was inadequate for accurate delineation. However, mud lines were delineated wherever they were distinguishable by stereoscopic examination.

32. DETAILS OFFSHORE FROM THE MEAN HIGH WATER LINE.

No comment.

33. WHARVES AND SHORELINE STRUCTURES

No comment.

34. LANDMARKS AND AIDS TO NAVIGATION

Sixteen non-floating aids to navigation were located on the map manuscript either by the radial plot, sextant fixes, or both, as indicated on form No. 567, submitted with this report. When both methods were used, their positions agreed, except in the case of Sabine Neches Canal Range 10 Rear Light. Both the radial plot and the sextant fix positions for this light are shown on the map manuscript. *See Review Report*

Sabine Neches Canal Range 10 Front Light was located by the radial plot as identified by the field inspection party on field photograph No. 47-C-1135. This position does not agree with the position shown on nautical chart No. 517. The theodolite fix for the light referred to by the field inspection party on field photograph No. 47-C-1135 was not available to the compilation office. *See Review Report*

The sextant fix for Port Arthur Canal Range D Front Light plotted about 7 mm NE of the radially plotted position. It is apparently in error due to a weak fix. *See Review Report*

The sextant fixes locating the Sabine-Neches Canal Lights and a point on Range 8 are given in volume 5 (5 of 5) of Form 250 submitted by R. A. Gilmore, Chief of Party, dated 1947, titled "Sextant Fixes, Non-permanent Aids, Sheet No. 885 (1 of 3).

The sextant fixes locating the daybeacons in Salt Bayou are given in volume 1 (1 of 5) of Form 250 submitted as above, titled "Proposed Charts 885 (1, 2, & 3), Nautical Charts 1280, 1282, 588, 589, 590."

See form No. 567 submitted with this report.

35. HYDROGRAPHIC CONTROL

None

36. LANDING FIELD & AERONAUTICAL AIDS

None.

37. JUNCTIONS

This survey is bounded by Survey No. T-8928 (1946) to the north and Surveys Nos. T-8930 (1947) and T-8933 (1946) to the south. Junctions with these surveys were in good agreement. There are no contemporary surveys to the east or to the west.

38. GEOGRAPHIC NAMES

The geographic names were taken from Port Arthur South quadrangle, Corps of Engineers, scale 1:31,680, edition of 1945, furnished by the Washington Office as a final name standard.

See list of ^{approved} geographic names included in this report.

44. COMPARISON WITH EXISTING TOPOGRAPHIC QUADRANGLE

This survey was compared visually with Port Arthur South Quadrangle, Corps of Engineers, scale 1:31,680, edition of 1945, and it was found to be in good agreement.

There are two areas in which appreciable changes in shoreline have occurred. One is in the vicinity of Port Arthur Pleasure Pier. The other is in the meanders of Salt Bayou.

44.A. COMPARISON WITH EXISTING SURVEYS

Previous survey No. T-6278 of the USC&GS exists in the area of this survey but was not available for comparison. #

45. COMPARISON WITH NAUTICAL CHARTS

The survey was compared visually with nautical chart No. 517, scale 1:40,000, published August 1939, corrected to Feb. 9, 1948, and it was found to be in good agreement except for the changes mentioned in paragraph 44.

The following topographic information shown on map manuscript T-8929 is of sufficient importance to warrant immediate application to the chart:

None.

The following topographic details above the plane of MHW are not shown on this manuscript but are believed to still exist and should be carried forward on the chart:

None.

Minor differences in cultural and shoreline details need no special discussion.

Respectfully submitted
25 May 1949

Wayne Lineweaver
Cartographic Aid

Approved and forwarded
15 June 1949

Thrs Baird
Officer in Charge
Baltimore Photogrammetric
Office

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE

TO BE CHARTED

May 25, 19⁴⁹

Baltimore, Maryland

~~RECEIVED~~ I recommend that the following objects which ~~have~~ (have not) been inspected from seaward to determine their value as landmarks, be ~~deleted~~ deleted the charts indicated.

The positions given have been checked after listing by

Joseph W. Vonasek

Joseph Cheney for
Thos. B. Reed

Thos. B. Reed

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION						METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	CHARTS AFFECTED	
				LATITUDE		LONGITUDE		DATUM							
				°	'	D. M. METERS	°		'						D. P. METERS
TEXAS															
Daybeacon 1	Salt Bayou			29	48	1639	93	59	627	N.A. 1927	Rad. Plot Sextant T-8929	1947	X	885	
Daybeacon 3	Salt Bayou			29	48	1357	93	59	984	"	Rad. Plot	"	X	885	
Daybeacon 4	Salt Bayou			29	48	1382	93	59	1074	"	Rad. Plot	"	X	885	
Daybeacon 5	Salt Bayou			29	48	1208	93	59	1122	"	Rad. Plot	"	X	885	
Daybeacon 7	Salt Bayou			29	48	1037	93	59	1248	"	Rad. Plot	"	X	885	
Daybeacon 8	Salt Bayou			29	48	780	93	59	1527	"	Rad. Plot	"	X	885	
Daybeacon 10	Salt Bayou			29	48	665	94	00	6	"	Rad. Plot	"	X	885	
Daybeacon 12	Salt Bayou			29	48	362	94	00	217	"	T-8929	"	X	885	
Light-10	Sabine Neches Canal, Rear Range *			29	51	554	93	56	614	"	Rad. Plot	"	X X X	885	
Lt. 10	Sabine Neches Canal, Rear Range *			29	51	418	93	56	685	"	Sextant	"	X X X	885	
Lt. 10	Sabine Neches Canal, Front Range			29	51	1055	93	56	358	"	Rad. Plot	"	X X X	885	
Lt. 8	Sabine Neches Canal, Front Range			29	51	1790	93	55	1489	"	Rad. Plot Sextant T-8929	"	X X X	885	
<div>This may have been a temporary installation during construction operations. No. 10 R.P. appears on U.S. Good Port Chart No. 1, 1904, in the "R.P." position. L.T.S. At their South, ed. 1908.</div>															
* Two positions were furnished for this light.															
Positions of charted landmarks and nonfloating															

* * Two positions were furnished for this light.

This may have been a temporary installation during construction operations. No. 10 R.R. appears on U.S. quad part 17.5, "relative" position.

* Two positions were furnished for this light.

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTERED
TO BE DEDICATED

STRIKE OUT ONE

Baltimore, Maryland

May 25

1967

I recommend that the following objects which ~~have~~ *(have not)* been inspected from seaward to determine their value as landmarks, be charted on ~~(detached sheets)~~ *(see attached)* the charts indicated.

The positions given have been checked after listing by

Joseph W. Vonasek

Thos. B. Reed

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating* aids to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

GEOGRAPHIC NAMES

T - 8929

- ✓✓ Eagle Lake •
- ✓✓ Intracoastal Waterway •
- ✓✓ Kansas City Southern Railroad •
- ✓✓ McEwin Docks •
- ✓✓ Port Arthur •
- ✓✓ Port Arthur Canal •
- ✓✓ Port Arthur Pleasure Pier •
- ✓✓ Round Lake •
- ✓✓ Sabine Lake •
- ✓✓ Sabine-Neches Canal •
- ✓✓ Salt Bayou •
- ✓✓ Southern Pacific Railroad •
- ✓✓ Taylor Bayou •
- ✓✓ Texas Island •
- ✓✓ West Port Arthur •
- ✓ Texas* •

* = Decis. BGN

• = Approved name

12-21-49

A. J. W.

Review Report T-8929
Shoreline Map
20 December 1949

61. Comparison with Registered Topographic Surveys:

T-6278, 1:10,000 1935

None

This map supersedes T-6278 for nautical charting.

62. Comparison with Surveys of Other Agencies:

USE Port Arthur South, Tex.-La., 1:31,600 ed. 1945

63. Comparison with Nautical Charts:

517 1:40,000 ed. Aug. 1939 rep. Jan. 29, 1949

Positions of lights on T-8929 do not agree with those on the chart.

*Revised -
See Aid #17*

1. Lights No. 10

Both Front and Rear Range lights have been moved since chart publication. Two positions were entered on Form 567 for the Rear Range; -a radial plot and a sextant fix. The U.S.E. Quadrangle (62 above) places the Rear Range in the "fix" position. The radial plot position is that of a visible structure on the photographs (1946) pricked by field inspection. It seems likely that the Quadrangle position is that of a temporary structure for use during engineering operations. The fix position is on range, and it has been left on the manuscript as a "point on range."

2. Lights "D"

Both Front and Rear Range lights on T-8929 are east of those on the chart. Both lights are clearly visible on the photographs (1946). The new positions for the lights give an angle of 342° rather than the 343° recorded in the Light List, and this makes range line "D" fall along mid-channel rather than west of mid-channel as drawn on the chart.

3. Lights No. 2, 4 and 6 have moved- No. 2 northward; No. 4 and No. 6 southward.

Shoreline.--An accurate appraisal of shoreline differences is not feasible, but various comparative measurements suggest that the bulkhead and dry-dock structures south of Port Arthur, and the shore opposite have been extended eastward.

Bridges.--Clearances for the Southern Pacific railway and U.S. Highway 87 bridge are on T-8929 though not on the chart.

64. Accuracy:

This map meets the National Standards of Accuracy.

Reviewed by:

Lena T. Stevens
Lena T. Stevens

APPROVED BY:

S. V. Griffith
Chief, Review Section *K.H.M.*
Division of Photogrammetry
SR7

H. Edmonson
Chief, Nautical Chart Branch
Division of Charts

O. S. Reading
Chief, Div. of Photogrammetry

W. M. Saife
Chief, Div. of Coastal Surveys
BH

NAUTICAL CHARTS BRANCH

SURVEY NO. T-8929

Record of Application to Charts

[illegible]

M-2168-1

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.