

9920

Diag. Cht. Nos. 532 and 1282.

Form 504

U. S. COAST AND GEODETIC SURVEY  
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Shoreline  
Field No. Ph-76(51) Office No. T-9920

LOCALITY

State Texas  
General locality Houston Ship Channel  
Locality Atkinson Island to Hog Island

19 52

CHIEF OF PARTY  
P.L. Bernstein, Chief of Field Party  
J.E. Waugh, Tampa Photo. Office, Fla.

LIBRARY & ARCHIVES

DATE March 31, 1958

8-1870-1 (1)

9920

DATA RECORD

T -9920

Project No. (II): Ph-76 (51)      Quadrangle Name (IV):

Field Office (II): Houston, Texas

Chief of Party: P. L. Bernstein

Photogrammetric Office (III): Tampa, Fla.

Officer-in-Charge: J.E. Waugh

Instructions dated (II) (III): 21 November 1951

Copy filed in Division of  
Photogrammetry (IV)

*28 Dec. 1954 - 2 Febr. 1955*

Method of Compilation (III): Graphic

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III):

Scale Factor (III): None

Date received in Washington Office (IV):

*JAN 19 1954*

Date reported to Nautical Chart Branch (IV): *2-11-54*

Applied to Chart No.

Date:

Date registered (IV): *19 Sept 1957*

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A. 1927

Vertical Datum (III): M.H.W.

Mean sea level except as follows:  
Elevations shown as (25) refer to mean high water  
Elevations shown as (2) refer to sounding datum -  
--- mean low water or mean lower low water ---

Reference Station (III): MORGAN PT. 2, 1931

Lat.:  $29^{\circ}40'51''.731$  (1592.8m) Long.:  $94^{\circ}59'08''.942$  (240.4m)

Adjusted  
~~Unadjusted~~

Plane Coordinates (IV):

State:

Zone:

Y=

X=

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.



## DATA RECORD

Field Inspection by (II): J. A. Clear, Jr.  
W. H. Shearouse

Date: June 1952

Planetable contouring by (II): Not applicable.

Date:

Completion Surveys by (II): *L. F. Woodcock*

Date: *26 April 1955*

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

June 1952

Air Photo Compilation

Projection and Grids ruled by (IV): Jack Allen (W.O.)

Date: 29 Oct. 1952

Projection and Grids checked by (IV): H. D. Wolfe (W.O.)

Date: 30 Oct. 1952

Control plotted by (III): I. I. Saperstein

Date: 28 Jan. 1953

Control checked by (III): R. J. Pate

Date: 30 Jan. 1953

Radial Plot or Stereoscopic  
Control extension by (III): M. M. Slavney

Date: 18 Sept. 1953

Stereoscopic Instrument compilation (III):  
Planimetry  
Contours *Inapplicable*

Date:

Date:

Manuscript delineated by (III): R. Dossett

Date: Nov. 1953

Photogrammetric Office Review by (III): W. H. Shearouse

Date: 7 Jan. 1954

Elevations on Manuscript  
checked by (II) (III): *Inapplicable*

Date:

Fairchild Cartographic Camera "O"  
Camera (kind or source) (III): 6" Metrogon lens

Number	Date	PHOTOGRAPHS (III) Time	Scale	Stage of Tide
51-0-5670	4 May 1952	0910	1:10,000	Negligible
5671	"	0911	"	"
5672	"	0911	"	"
5673	"	0912	"	"
5677	"	0919	"	"
5678	"	0919	"	"

*Camera "W"*

*54-W-3180 to 3187 ind. } 19 Oct. 1954 1:30 000  
54-W-3200 to 3208 " }*

Tide (III)  
Reference Item 7

Reference Station:  
Subordinate Station:  
Subordinate Station:

Ratio of Ranges	Mean Range	Spring Range

Washington Office Review by (IV): *Lang J. Stevens*  
*H. Streifer*

Date: *12 March, 1954*  
*15 April 1957*

Final Drafting by (IV):

Date:

Drafting verified for reproduction by (IV):

Date:

Proof Edit by (IV):

Date:

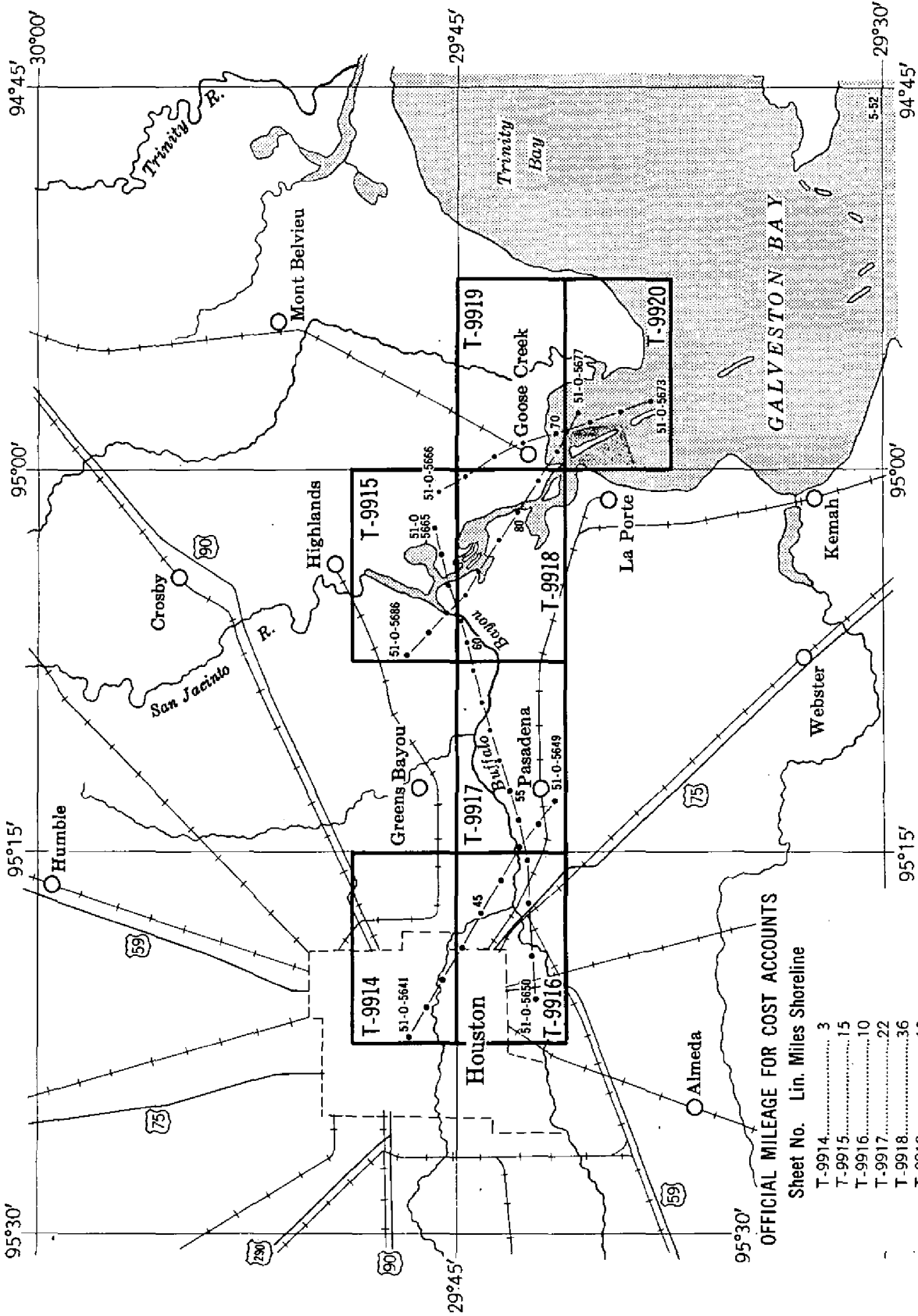
Land Area (Sq. Statute Miles) (III): 3  
Shoreline (More than 200 meters to opposite shore) (III): 10  
~~Shoreline (Less than 200 meters to opposite shore) (III):~~  
Control Leveling - Miles (II): None  
Number of Triangulation Stations searched for (II): 26  
Number of BMs searched for (II): 5 Tidal  
Number of Recoverable Photo Stations established (III): 10  
Number of Temporary Photo Hydro Stations established (III): 0

Recovered: 8 Identified: 7  
Recovered: 1 Identified: 1

Remarks:

# SHORELINE MAPPING PROJECT PH-76

## TEXAS, Houston to Galveston Bay (Buffalo Bayou)



### OFFICIAL MILEAGE FOR COST ACCOUNTS

Sheet No. Lin. Miles Shoreline

T-9914	3
T-9915	15
T-9916	10
T-9917	22
T-9918	36
T-9919	10
T-9920	10
<b>TOTAL</b>	<b>106</b>

Compiled at scale 1:10,000 from 1:24,000 scale single-lens photographs taken May 1951  
 (Refer to Air-Photo Indexes 99-E and 99-F)

SUMMARY TO ACCOMPANY T-9920  
HOUSTON SHIP CHANNEL, TEXAS

Project PH-76 (51) consists of seven map manuscripts, 1:10,000 scale, which delineate the shoreline and the inland area for one-half mile each side of the Houston Ship Channel from Galveston Bay to the city of Houston.

T-9920 covers the Houston Ship Channel where it enters Galveston Bay at Morgan Point and Atkinson Island.

After smooth drafting and printing a cronar film positive of the map and the Descriptive report will be registered and filed in the Bureau Archives.

This project was initiated in late 1951 and photographs taken in May 1952. The field inspection was completed in June 1952 and the maps compiled at the Tampa Office in November 1953.

When the maps were applied to the charts in March 1954 it was felt that the photogrammetric location of range lights was not as accurate as desired due to lack of control, consequently additional field work was done and the maps revised as follows:

New photography was taken in October 1954. LT Lorin F. Woodcock as Chief of Party between December 1954 and the early part of 1955 located most of the aids to navigation and field edited the project making notes on the new 1954 photographs.

The maps were then revised at the Tampa Office. All the additional triangulation was plotted and map details corrected from the 1954 photographs and field edit notes made thereon.

When all the maps of the project have been thus registered, and filed in the library, a Completion Report for the project will be written. It will describe the project as to purpose, reports, and records turned in and filed.

FIELD INSPECTION REPORT IS BOUND WITH T-9915

*Field Edit Report is bound with Completion Report*



COMPILATION REPORT T-9920

PHOTOGRAMMETRIC PLOT REPORT.

This report was submitted with T-9915.

31. DELINEATION.

The graphic method was used.

Due to insufficient photographic coverage, the southernmost portion of ATKINSON ISLAND has not been delineated. *Given an "approximate" delineation during review.*  
*See also 37 (10/10/54) 275 Mar 10, 1954*

The scale of the photographs was good.

Field inspection was adequate.

32. CONTROL.

The control was adequate. Placement and density was good.

33. SUPPLEMENTAL DATA.

None.

34. CONTOURS AND DRAINAGE.

Contouring inapplicable.

Drainage has been delineated as shown on the photographs and from field inspection notes.

35. SHORELINE AND ALONGSHORE DETAILS.

All shoreline details apparent on the photographs and additional details indicated by the field inspector have been delineated.

The shoreline inspection was adequate.

36. OFFSHORE DETAILS.

None.

37. LANDMARKS AND AIDS.

It is noted that while all the aids were identified in 1952 on photographs flown in 1951, two (2) were moved in 1952 and one (1) in 1953. The aids involved are:

LIGHT 66 (moved in 1953)

LIGHTS 69 and 70 (moved in 1952)

GALVESTON BAY CHANNEL, LIGHTS 61 and 62, are not shown due to insufficient photographic coverage. Attention is also called to LIGHT 61A (GALVESTON BAY CHANNEL) noted in the 1953 Light List. *Entered on ms. in approximate position LTS. Mar. 10, 1954*

The difference between FRONT and REAR RANGE LIGHTS as shown on the map manuscript and in the 1953 Light List are as follows:

LIGHT	---MANUSCRIPT---		1953 ---LIGHT LIST---	
	Bear-ings	Distance in Yards	Bear-ings	Distance in Yards
GALVESTON BAY HOUSTON SHIP CHANNEL -RANGE D FRONT & REAR LIGHTS	<sup>8 57</sup> 129° 21'	468	129°	400
*-RANGE B FRONT & REAR LIGHTS	<sup>47</sup> 146° 51'	130	146°	125

\* Notice to Mariners No. 2, 10 Jan. 1953: Lights discontinued; structure for front light removed; "Leading Light B" established on rear structure.

*Aids to navigation were identified on the 1954 photography or located by field methods.*

*A direct radial plot was resorted to in the southern portion of Atkinson Island because of extensive shoreline changes and doubtful positions of lights.*

*See also Special Report "Landmarks for Charts" bound with Completion Report.*

38. CONTROL FOR FUTURE SURVEYS.

Twelve (12) Forms 524 are being submitted herewith. Two (2) of them do not show a geographic position because of a lack of photographic coverage. Four (4) stations have been listed under Item 49. Those not listed are nonfloating aids to navigation surrounded by water. LTS. 61862  
See 37.

39. JUNCTIONS.

A satisfactory junction has been made with T-9919 on the north and 3/4 minute of T-9918 on the west. There is no contemporary survey to the south or east.

40. HORIZONTAL AND VERTICAL ACCURACY.

Vertical accuracy inapplicable.

The southern delineated portion of ATKINSON ISLAND is controlled by two-cut detail points.

46. COMPARISON WITH EXISTING MAPS.

Comparison has been made with U. S. Corps of Engineers Topographic Quadrangle MORGAN POINT, scale 1:31,680, compiled in 1943, and the Army Map Service copy of the above at a scale of 1:25,000.

Except for changes in shoreline due to dredging and filling, no outstanding discrepancies were noted.

Comparison was made with USC&GS Topographic Survey, HOUSTON SHIP CHANNEL, REGISTER NO. 4614, scale 1:5,000, dated December 1930. Since the MORGAN POINT topographic quadrangle is of more recent date, the discrepancies noted have not been listed.

47. COMPARISON WITH NAUTICAL CHARTS.

Comparison has been made with USC&GS Nautical Chart No. 588, scale 1:10,000, published January 1937, and corrected to October 5, 1951.

The shoreline in general shows no outstanding changes other than those noted in Item 46.

Attention is called to the following offshore details noted on the chart and not recovered by field inspection:

File - awash at H.W. - Latitude 29° 40'5

Longitude 94° 58' (approx.)

Broken piling, rock pile and pile, located in the vicinity of GALVESTON BAY CHANNEL, LIGHT 70.

These are not visible on the photographs.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY.

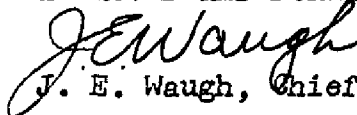
None.

ITEMS TO BE CARRIED FORWARD.

None.

  
Rudolph Dosssett  
Carto Photo Aid

APPROVED AND FORWARDED:

  
J. E. Waugh, Chief of Party

48. GEOGRAPHIC NAME LIST.ATKINSON ISLANDBAYRIDGE PARK  
BARBOUR CUTCEDAR BAYOU CHANNEL  
CLIFFS YACHT BASINGALVESTON BAYHOG ISLAND  
HOUSTON SHIP CHANNELMORGAN POINTPRINCE GREEN YACHT BASINSAN JACINTO BAYTEXAS  
TEXAS 146

Names approved  
3-12-54. h. Heck

49. NOTES FOR THE HYDROGRAPHER.

The following recoverable topographic stations will be of use to the hydrographer:

HOUSTON SHIP CHANNEL, RANGE B FRONT LIGHT, 1952, *1955*

HOUSTON SHIP CHANNEL, RANGE B REAR LIGHT, 1952, *1955*

COUNTY WHARF LIGHT 1, 1952, *1955*

COUNTY WHARF LIGHT 3, 1952, *1955*

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED } STRIKE OUT ONE  
TO BE DELETED }

Tampa Photogrammetric Office, Tampa, Fla. 10 Nov. 1953

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

The positions given have been checked after listing by Rudolph Dossett, Carto Photo Aid

J. E. Waugh  
Chief of Party.

STATE	CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION				METHOD OF LOCATION AND SURVEY NO.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED	
				LATITUDE *		LONGITUDE *								DATUM
				° ' "	D. M. METERS	° ' "	D. P. METERS							
TEXAS														
	GALVESTON BAY													
	HOUSTON SHIP CHANNEL													
X	RANGE B, FRONT LIGHT			29 40	44.95	94 58	42.21	N.A. 1927	Radial Plot T-9920	1952	X X	588		
X	RANGE B, REAR LIGHT			29 40	1301	94 58	1135	"	"	"	X X	1282		
X	RANGE D, FRONT LIGHT			29 41	41.70	94 58	39.82	"	"	"	X X	"		
X	RANGE D, REAR LIGHT			29 41	1201	94 58	1071	"	"	"	X X	"		
X	COUNTY WHARF LIGHT 1			29 40	14.52	94 58	59.62	"	"	"	X X	"		
X	COUNTY WHARF LIGHT 3			29 40	440	94 58	1603	"	"	"	X X	"		
	GALVESTON BAY CHANNEL			29 41	05.81	94 58	47.16	"	"	"	X X	"		
X	LIGHT 70 (NO. 28, 1931)			29 40	179	94 58	1268	"	"	"	X X	"		
X	LIGHT 69			29 40	51.51	94 58	55.86	"	"	"	X X	"		
X	LIGHT 66			29 40	1586	94 58	1502	"	"	"	X X	"		
X	LIGHT 65			29 40	52.91	94 58	3.57	"	"	"	X X	"		
	GALVESTON BAY CHANNEL				1630	94 58	96							
X	LIGHT 70 (NO. 28, 1931)			29 40	20.595	94 58	36.469	"	Triang T-9920	1931	X X	"		
X	LIGHT 69			29 40	634.1	94 58	980.5	"	Rad. Plot T-9920	1952	X X	"		
X	LIGHT 66			29 39	00.44	94 58	1191	"	"	"	X X	"		
X	LIGHT 65			29 39	260	94 58	7.66	"	"	"	X X	"		
				29 39	07.99	94 58	14.43	"	"	"	X X	"		
					246	94 58	300	"	"	"	X X	"		
												14		

X for 1955 positions see page 17

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

U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY  
DESCRIPTIVE REPORT  
CONTROL RECORD

MAP T. 9920

PROJECT NO. Ph-76

SCALE OF MAP 1:10,000

SCALE FACTOR

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR $\psi$ -COORDINATE LONGITUDE OR $x$ -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS		DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS
				FORWARD	(BACK)		FORWARD	(BACK)	
RIGHT 2, 1955	G.P.B. HOU. SH. CH. PG 3	N.A. 1927	29 40 46.630 94 56 12.769				1435.7 ( 411.7) 343.3 ( 1269.9)		
ATKINSON, 1955	" Pg 3	"	29 38 33.614 94 57 46.867				1035.0 ( 812.4) 1260.6 ( 353.3)		
HOUSTON SH.CHANNEL RANGE D, FRONT LIGHT, 1955	" Pg 5	"	29 41 14.593 94 58 59.704				449.3 ( 1398.1) 1605.2 ( 7.9)		
HOUSTON SH.CHANNEL RANGE D, REAR LIGHT, 1955	" Pg 5	"	29 41 05.688 94 58 47.184				175.1 ( 1672.3) 1268.6 ( 344.6)		
HOUSTON SH.CHANNEL RANGE B, FRONT LIGHT, 1955	" Pg 4	"	29 40 41.479 94 58 39.863--				1277.1 ( 570.3) 1071.8 ( 541.4)		
HOUSTON SH.CHANNEL RANGE B, REAR LIGHT, 1955	" Pg 4	"	29 40 36.501 94 58 36.155				1123.9 ( 723.5) 972.2 ( 641.2)		
GALVESTON BAY, HOUSTON SH.CHANNEL, LIGHT 65, 1955	" Pg 4	"	29 39 06.691 94 58 15.323				206.0 ( 1641.4) 412.1 ( 1201.6)		
GALVESTON BAY, HOUSTON SH.CHANNEL, LIGHT 66, 1955	" Pg 4	"	29 39 07.991 94 58 08.294				246.0 ( 1601.4) 223.1 ( 1390.7)		
GALVESTON BAY, HOUSTON SH.CHANNEL, LIGHT 69, 1955	" Pg 4	"	29 40 20.165 94 58 44.236				620.9 ( 1226.5) 1189.5 ( 423.9)		
GALVESTON BAY, HOUSTON SH.CHANNEL, LIGHT 70, 1955	" Pg 4	"	29 40 20.554 94 58 36.493				632.9 ( 1214.5) 981.3 ( 632.1)		
HOUSTON SH.CHANNEL, COUNTY WHARF LIGHT 1, 1955	" Pg 4	"	29 40 51.333 94 58 53.672				1580.5 ( 266.9) 1496.9 ( 116.4)		
HOUSTON SH.CHANNEL, COUNTY WHARF LIGHT 3, 1955	" Pg 5	"	29 40 53.063 94 58 56.343				1633.8 ( 213.6) 1514.9 ( 98.3)	1.2	

1 FT. = 3048006 METER

COMPUTED BY: R. S. Tibbetts

DATE 3-7 Oct, 1955

CHECKED BY: E. R. Ballance

DATE 17 Oct, 1955







PHOTOGRAMMETRIC OFFICE REVIEW

T- 9920

- 1. Projection and grids WHS 2. Title WHS 3. Manuscript numbers WHS 4. Manuscript size WHS

CONTROL STATIONS

- 5. Horizontal control stations of third-order or higher accuracy WHS 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) WHS 7. Photo hydro stations XX 8. Bench marks WHS
- 9. Plotting of sextant fixes WHS 10. Photogrammetric plot report WHS 11. Detail points WHS

ALONGSHORE AREAS

(Nautical Chart Data)

- 12. Shoreline WHS 13. Low-water line WHS 14. Rocks, shoals, etc. WHS 15. Bridges XX 16. Aids to navigation WHS 17. Landmarks XX 18. Other alongshore physical features WHS 19. Other along-shore cultural features WHS

PHYSICAL FEATURES

- 20. Water features WHS 21. Natural ground cover WHS 22. Planetable contours XX 23. Stereoscopic instrument contours XX 24. Contours in general XX 25. Spot elevations XX 26. Other physical features WHS

CULTURAL FEATURES

- 27. Roads WHS 28. Buildings WHS 29. Railroads WHS 30. Other cultural features WHS

BOUNDARIES

- 31. Boundary lines XX 32. Public land lines XX

MISCELLANEOUS

- 33. Geographic names WHS 34. Junctions WHS 35. Legibility of the manuscript WHS 36. Discrepancy overlay XX 37. Descriptive Report WHS 38. Field inspection photographs WHS 39. Forms WHS
- 40. William H. Shearouse William A. Rasure  
Reviewer Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

\_\_\_\_\_  
 Compiler Supervisor

43. Remarks:

*See also Supplemental Review Report with T-9914*

Review Report  
Shoreline Survey T-9920  
12 March 1954

61. General.- Because this project's maps are from field inspection of June 1952, Range B lights are retained on this map manuscript even though the front light was removed and the rear light became "Leading Light B" early in 1953.

The southern tip of Atkinson Island and Channel Lights 61 and 62 were added with approximate lines, even though no radial intersections could be made. The center of photograph 51-0-5673 fell sufficiently near the point to afford an image of good scale and the azimuth 51-0-5672/51-0-5673 placed its direction.

62. Comparison with Registered Surveys.-

T-4613	1:5,000,	1931	Cedar Bayou, Atkinson Island.
4614	"	"	Morgan Point and vicinity.

Except for the contour on T-4614, T-9920 supersedes the older surveys for charting purposes.

63. Comparison with Maps for other Agencies.-

AMS Quad. Morgan Point, Texas, 1949.

Except for the contours, the quadrangle is superseded by T-9920 for charting purposes.

64. Comparison with Contemporary Hydrographic Surveys.-No hydrographic surveys were made since the 1931 series H-5121 to 5128 incl., 1:5,000.

65. Comparison with Nautical Charts.-

588	1:10,000	Jan. 1937, rev. June 1951
1282	1:80,000	Feb. 1945, rev. Jan. 1953

(See also p. 14 of the Compilation Report)

Small piers charted at Morgan Point are not on T-9920 and are not visible on the photographs.

Atkinson Island has extended southward, by accretion of spoil, to approximately  $29^{\circ} 37.5'$  from  $29^{\circ} 39.25'$  since chart 1282 was set up.

The present survey supersedes the chart in their common areas and common detail.

66. Accuracy.- This map complies with project instructions and meets the National Standards of Accuracy except for the southern

T-9920

end of Atkinson Island and lights 61 and 62 which were delineated by the approximate symbol during review.

Reviewed by:

*Lena T. Stevens*  
Lena T. Stevens

APPROVED

*L. C. Landy*  
Chief, Review Branch  
Div. of Photogrammetry

*Max G. Pickett*  
Chief, Nautical Chart Branch  
Division of Charts

*W. Swanson*  
Chief, Div. of Photogrammetry

*W. H. Munnell*  
Chief, Div. of Coastal Surveys

6 March 1958 *MS*

