

TP 01145

TP-01145
01145

NOAA FORM 76-35 (3-76)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
This Map Edition Will Not Be Field Edit	
Map No. TP-01145	Edition No. 10
Job No. CM-8108	
Map Classification Class III	
Type of Survey Shoreline	
LOCALITY	
State Texas	
General Locality Clear Lake	
Locality Clear Lake To Taylor Bayou	
1982 TO 19	
REGISTRY IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72) U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN. DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY ☒ ORIGINAL ☐ RESURVEY ☐ REVISED	SURVEY TP. <u>01145</u> MAP EDITION NO. <u>(1)</u> MAP CLASS <u>III</u> JOB <u>CM-8108</u>								
PHOTOGRAMMETRIC OFFICE Rockville Md. OFFICER-IN-CHARGE Ronald Brewer		LAST PRECEDING MAP EDITION <table style="width:100%;"> <tr> <td style="width:50%;">TYPE OF SURVEY</td> <td style="width:50%;">JOB PH- _____</td> </tr> <tr> <td>☐ ORIGINAL</td> <td>MAP CLASS _____</td> </tr> <tr> <td>☐ RESURVEY</td> <td>SURVEY DATES:</td> </tr> <tr> <td>☐ REVISED</td> <td>19__ TO 19__</td> </tr> </table>		TYPE OF SURVEY	JOB PH- _____	☐ ORIGINAL	MAP CLASS _____	☐ RESURVEY	SURVEY DATES:	☐ REVISED	19__ TO 19__
TYPE OF SURVEY	JOB PH- _____										
☐ ORIGINAL	MAP CLASS _____										
☐ RESURVEY	SURVEY DATES:										
☐ REVISED	19__ TO 19__										

I. INSTRUCTIONS DATED	
1. OFFICE	2. FIELD
Aerotriangulation 5/26/83 Office 8/9/83	Field 10/30/81

II. DATUMS							
1. HORIZONTAL: ☒ 1927 NORTH AMERICAN 2. VERTICAL: ☒ MEAN HIGH-WATER ☐ MEAN LOW-WATER ☐ MEAN LOWER LOW-WATER ☐ MEAN SEA LEVEL	OTHER (Specify) OTHER (Specify)						
3. MAP PROJECTION Lambert Conformal Conic Projection	4. GRID(S) <table style="width:100%;"> <tr> <td style="width:50%;">STATE</td> <td style="width:50%;">ZONE</td> </tr> <tr> <td style="text-align: center;">Texas</td> <td style="text-align: center;">South Central</td> </tr> <tr> <td>STATE</td> <td>ZONE</td> </tr> </table>	STATE	ZONE	Texas	South Central	STATE	ZONE
STATE	ZONE						
Texas	South Central						
STATE	ZONE						
5. SCALE 1:20000							

III. HISTORY OF OFFICE OPERATIONS		
OPERATIONS	NAME	DATE
1. AEROTRIANGULATION BY	Rick Johanson	1/84
METHOD: <u>Analytical</u> LANDMARKS AND AIDS BY	Rick Johanson	1/84
2. CONTROL AND BRIDGE POINTS PLOTTED BY	Rick Johanson	2/84
METHOD: <u>CALCOMP 718</u> CHECKED BY	N/A	
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY	James Taylor	7/84
COMPILATION CHECKED BY	James Schad	7/84
INSTRUMENT: <u>Wild B-8</u> CONTOURS BY	N/A	
SCALE: <u>1:20000</u> CHECKED BY	N/A	
4. MANUSCRIPT DELINEATION PLANIMETRY BY	James Taylor	8/84
CHECKED BY	James Schad	8/84
METHOD: <u>Smooth Drafted</u> CONTOURS BY	N/A	
CHECKED BY	N/A	
SCALE: <u>1:20000</u> HYDRO SUPPORT DATA BY	N/A	
CHECKED BY	N/A	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	N/A	
6. APPLICATION OF FIELD EDIT DATA BY	N/A	
CHECKED BY		
7. COMPILATION SECTION REVIEW BY	James Schad	8/84
8. FINAL REVIEW BY	Edward Allen	1/85
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY	Edward Allen	4/85
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY	James Schad	5/85
11. MAP REGISTERED - COASTAL SURVEY SECTION BY	E. DAUGHERTY	MAY 1985

NOAA FORM 76-36B
(3-72)U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SURVEY

COMPILATION SOURCES

TP-01145

1. COMPILATION PHOTOGRAPHY

CAMERA(S) WILD RC-10(B) F/L= (152.74 MM.)		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
TIDE STAGE REFERENCE		XX COLOR (P) PANCHROMATIC (I) INFRARED		ZONE Central	☒ STANDARD
☒ PREDICTED TIDES ☐ REFERENCE STATION RECORDS ☐ TIDE CONTROLLED PHOTOGRAPHY				MERIDIAN 90 th	☐ DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
82B(C)8942-8945	10/15/82	10:22	1:50000	1.07' FT.	

REMARKS

Based on predicted tides-reference station Galveston-substation Clear Lake

2. SOURCE OF MEAN HIGH-WATER LINE:

The photographs listed above

3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

Not compiled

4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

5. FINAL JUNCTIONS

NORTH 1:10000 Scale TP-01143	EAST TP-01146	SOUTH N/A	WEST N/A
REMARKS			

HISTORY OF FIELD OPERATIONS

TP-01145

I. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R.S.Tibbetts	3/10/82
2. HORIZONTAL CONTROL	RECOVERED BY R.S.Tibbetts ESTABLISHED BY " N/A "	3/10/82
	Identified By R.S.Tibbetts	3/10/82
3. VERTICAL CONTROL	RECOVERED BY N/A ESTABLISHED BY N/A PRE-MARKED OR IDENTIFIED BY N/A	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY N/A LOCATED (Field Methods) BY N/A IDENTIFIED BY N/A	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION ☐ COMPLETE BY ☐ SPECIFIC NAMES ONLY ☒ NO INVESTIGATION	N/A
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY N/A	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N/A	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

Photoidentified

2. VERTICAL CONTROL IDENTIFIED

N/A

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
81E(C)8710	Whitcomb, 1968 Sub Station A Whitcomb, 1968 Sub Station B Whitcomb, 1968 Sub Station C		

3. PHOTO NUMBERS (Clarification of details)

N/A

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

N/A

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

N/A

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

Aerial field photographs, CSI card (NOAA form 76-53), ground photographs and NOAA computations and observation forms with computation print-outs bound in the Field Project Book CM-8108 Houston Ship Channel.

RECORD OF SURVEY USE

TP-01145

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Shoreline Manuscript	8/84	Class III Map		
Final Reviewed Map	May 1985	Class III Map	May 1985	

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2Page	NOAA (76-40)	May 1985	Nonfloating Aids and Landmarks
4 Pages	PLM *	May 1985	* Possible Landmark Features

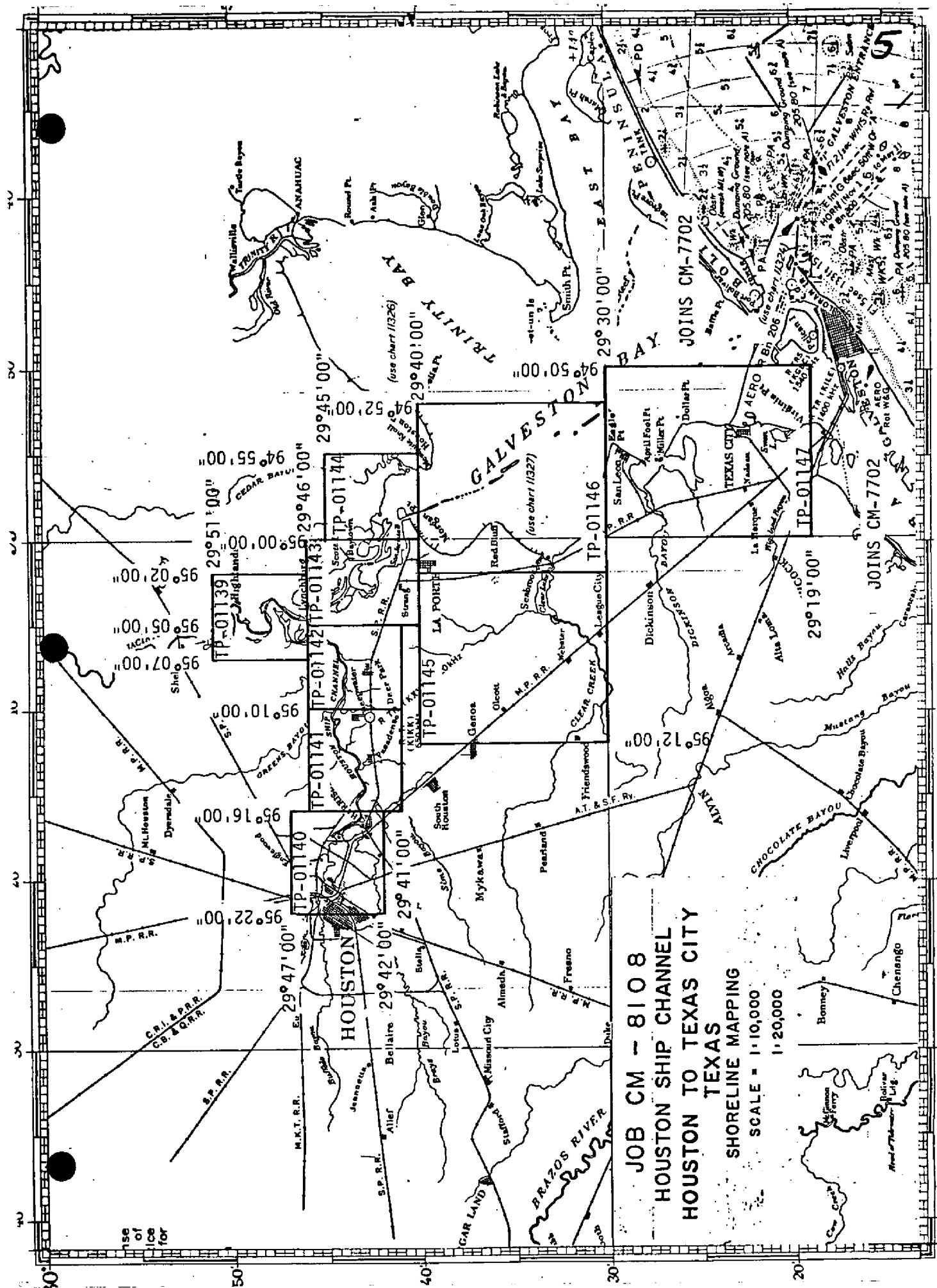
2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS 567 SUBMITTED BY FIELD PARTIES.
3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
ACCOUNT FOR EXCEPTIONS:
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY ☐ REVISED ☐ RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS ☐ II. ☐ III. ☐ IV. ☐ V. ☐ FINAL	



SUMMARY

TP-01145

This 1:20,000 scale final shoreline map is one of nine maps that comprise project CM-8108, Houston Ship Channel, Houston to Texas City, Texas.

The purpose of this survey is to provide data to be used in nautical chart maintenance and new chart construction.

Field operations consisted of aerial photography, and the recovery and establishment of horizontal control necessary for the aerotriangulation of the project.

Natural color photographs were used to complete this segment of survey. The 1:50,000 scale photographs were taken November 11, 1981, and October 15, 1982. The 1:30,000 scale photographs were taken November 5, 1982. The 1981 photographs were exposed with the Wild RC-8(E) camera and the 1982 photographs with the Wild RC-10(B) camera.

Compilation was performed by the Coastal Mapping Unit, Rockville, Maryland. Final review was conducted by personnel of the Coastal Mapping Unit.

7

FIELD INSPECTION

TP-01145

There was no field inspection prior to compilation. Field work accomplished was limited to the taking of the color photographs and the recovery and establishment of horizontal control necessary for the aerotriangulation.

Photogrammetric Plot Report

Houston Ship Channel, Texas

CM-8108

January 1984

21. Area Covered

This report pertains to six sheets, three 1:10,000 scale sheets, TP-01140 to TP-01142. Three 1:20,000 scale sheets, TP-01145 to TP-01147. The area covered is the shorelines of Houston Ship Channel, the west shore of Galveston Bay from Morgan Point to Virginia Point and the Clear Lake area.

22. Method

Five strips were bridged by analytical aerotriangulation methods. Strips four and five were bridged on the Wild STK and strips one, six, and seven were bridged on the NOSAP. Strip one is 1:30,000 scale and the other four strips are 1:50,000 scale. Field identified control and tie points were used for the strip adjustment. Ratio values were determined for the bridging photographs as well as 1:50,000 MLLW IR photography. State Plane Coordinates in the Texas, South Central Zone were used for the strip adjustments and for plotting on the Coradomat.

23. Adequacy of Control

The control was adequate for the job and was within the National Standards of Map Accuracy.

24. Supplemental Data

USGS quadrangles was used to provide vertical control for the strip adjustments.

25. Photography

The photography was adequate for the job.

Submitted by,

Rick Johanson

Rick Johanson

Approved and Forwarded:

Don O. Norman

Don O. Norman
Chief, Aerotriangulation Unit

Houston Ship Channel, Texas

CM-8101

Fit to Control
X and Y in Feet

	<u>Name</u>		<u>Point No.</u>	<u>X</u>	<u>Y</u>
	<u>Strip 1</u>				
△	65 Rice, 1942	Sub Pt A	484101	1.1	-2.1'
△		Sub Pt B	484102	-0.8	1.9
	50 Fire, 1942	Sub Pt A	489101	0.3	3.6
△		Sub Pt B	489102	-0.4	-0.6
△		Sub Pt C	489103	-0.7	1.1
	2 Galena Park Water Tank 2 1968		490108	4.7	5.0
	117 Houston Ethyle Gas Corp Water Tower, 1952	Sub Pt A	492101	1.3	0.5
△		Sub Pt B	492102	-0.2	-1.0
△	121A Deer Park Shell Refining Co. Tallest Stack 1955		494121	0.4	-0.8
	125 San Jacinto Battle Field Monument 1963		965140	0.0	5.9
	131 Park, 1955	Sub Pt A	983101	0.8	1.5
△		Sub Pt C	983103	-0.4	0.1
	<u>Strip 6</u>				
	203 Texas City, Municipal Tank 9th Ave. & 14th Street North, 1960				
△		Sub Pt A	974101'	0.4	3.1
△		Sub Pt B	974102	1.9	5.0
	213 Nass., 1933				
△		Sub Pt A	970101	4.3	2.4
△		Sub Pt B	970102	4.4	1.4

	<u>Name</u>	<u>Point No.</u>	<u>X</u>	<u>Y</u>
△	Tie from Strip 4	963802	-0.2	-1.5
△	" " " "	964801	-1.1	-0.1
△	" " " "	964802	0.4	-2.0
△	" " " "	965801	-1.8	2.4
△	" " " "	965802	1.8	2.0
△	" " " "	966801	0.7	-1.8
△	" " " "	966802	2.6	-1.9
△	" " " "	967801	-2.2	-3.2
△	" " " "	967802	-1.6	-3.1
△	" " " "	968801	-1.7	0.0
△	" " " "	968802	-4.2	-3.1
△	" " " "	969801	-2.5	-1.4
△	Tie from Strip 4	969802	-1.0	1.6

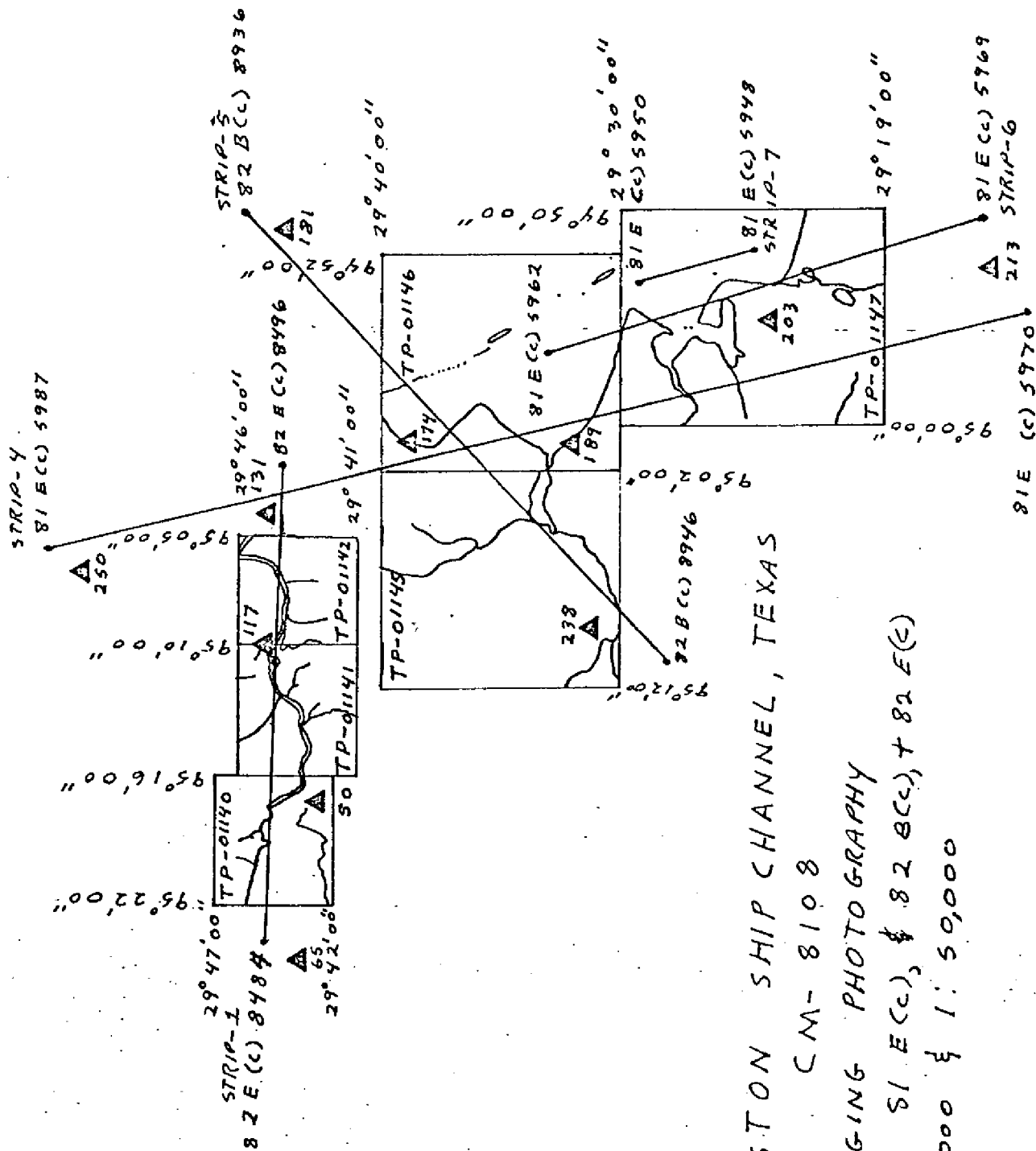
Strip 7

△	Tie from Strip 6	498801	0.1	1.5
△	" " " "	498802	0.2	-1.0
△	" " " "	498803	0.3	-1.0
△	" " " "	498804	-0.6	0.8
△	" " " "	498805	0.2	0.1
△	Tie from Strip 6	498806	-0.2	0.0

<u>NAME</u>	<u>POINT NO.</u>	<u>X</u>	<u>Y</u>
<u>Strip #4</u> 1:50,000 scale photography			
△ Nass, 1933 Sub Point A	970101	-0.7	-0.1
Sub Point B	970102	8.3	2.7
Texas City Municipal Tank 9th			
Ave. & 14th St., North 1960	974100	4.2	2.3
△ Sub Point A	974102	3.2	2.0
Sub Point B	974102	3.1	3.5
△ Hanson, 1933 Sub Point A	978101	-7.5	-2.2
Sub Point B	978102	-11.7	3.2
Tie from Strip 5	941801	1.4	-3.7
" " " "	941802	1.3	-3.6
" " " "	941803	-1.1	.0
" " " "	941804	-1.8	.0
La Porte St. Marys Church Cross			
1932	981100	3.4	-2.4
△ Sub Point A	981101	-2.5	-2.0
△ Sub Point B	981102	3.8	2.5
Park, 1955 Sub Point A	983101	-0.6	-0.2
Sub Point B	983102	-0.7	4.7
△ Sub Point C	983103	-0.8	0.5
Sheldon, Southland Paper Mill Inc.			
Stack, 1968			
△ Sub Point A	987101	-2.4	-2.4
Sub Point B	987102	0.2	1.9
△ Sub Point C	987103	1.8	1.8

Strip #5 1:50,000 scale photography

	<u>NAME</u>	<u>POINT NO.</u>	<u>X</u>	<u>Y</u>
	Barrow 2, 1963 Sub Point A	936102	-0.8	-0.9
△	Sub Point B	936103	0.2	0.2
△	Tie from Strip 4	941801	-0.5	1.2
△	" " " "	941802	-0.3	1.0
	La Porte St. Marys Church Cross			
	1932	981100	-8.1	-3.1
△	Sub Point A	981101	0.8	-2.3
	Sub Point B	981102	0.8	4.2
	Tie from Strip 4	941803	1.8	-2.6
	" " " "	941804	2.4	-2.7
△	Whitcomb, 1968 Sub Point A	945101	-0.1	-0.1
	Sub Point B	945102	0.1	1.1
	Sub Point C	945103	2.2	-1.6



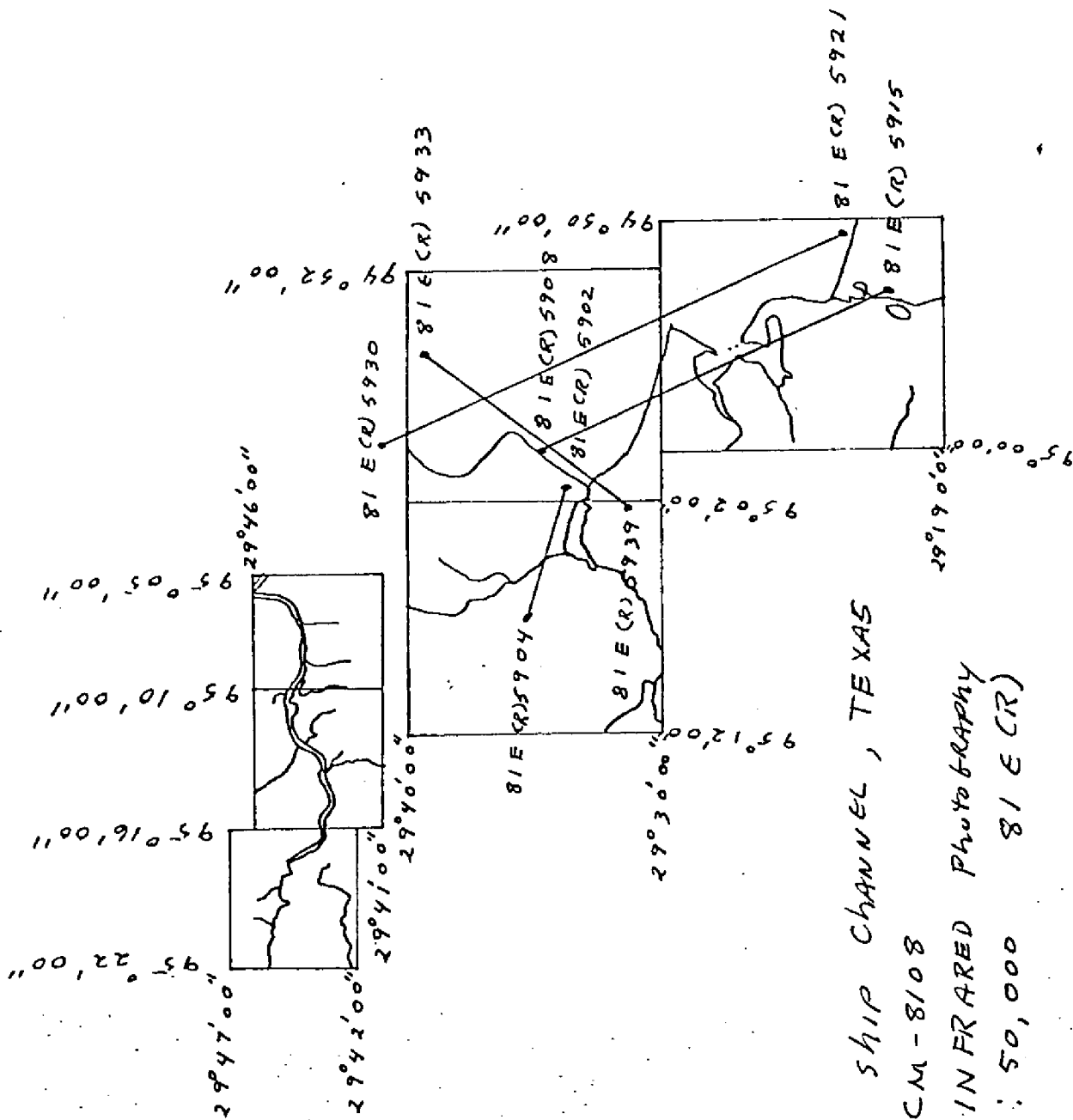
HOUSTON SHIP CHANNEL, TEXAS

CM-8108

BRIDGING PHOTOGRAPHY

$$S(E_c) + 82.8 \text{ MeV}$$

1:30,000 & 1:50,000



HOUSTON SHIP CHANNEL, TEXAS

CM-8108

M L L W INFRARED PHOTOGRAPHY

1:50,000 81E(R)

Houston Ship Channel, Texas

CM-8108

January 1984

Ratio values for 1:50,000 scale bridging photography:

81 E(C) 5970-5987	X 2.531
82 B(C) 8936-8946	X 2.492
81 E(C) 5962-5969	X 2.538
81 E(C) 5948-5950	X 2.530

Ratio values for 1:30,000 scale bridging photography:

82 E(C) 8484-8496	X 3.1005
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Ratio values for 1:50,000 scale MLLW black-and-white infrared photography:

81 E(R) 5902-5904	X 2.526
81 E(R) 5909-5915	X 2.526
81 E(R) 5921-5930	X 2.532
81 E(R) 5933-5939	X 2.528

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.		JOB NO.		GEODETIC DATUM		ORIGINATING ACTIVITY	
TP-01145		CM-8108		NA 1927		Compilation	
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	COORDINATES IN FEET STATE TEXAS ZONE South Central		GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE		REMARKS
Whitcomb, 1968	G 14197 Page 9	945100	x= 3219496.20		φ 29° 31' 16.826"		
			y= 633738.60		λ 95 09 53.141		
			x= 3247070.57		φ 29 39 24.367		
			y= 683924.49		λ 95 04 22.092		
Fairmont Municipal Water Tank, 1963	Quad 290951 Sta. 1182		x=		φ		
			y=		λ		
			x=		φ		
			y=		λ		
			x=		φ		
			y=		λ		
			x=		φ		
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			y=		λ		
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			y=		λ		
			x=		φ		
			y=		λ		
COMPUTED BY		DATE	COMPUTATION CHECKED BY		DATE		
LISTED BY R.O. Johnson		DATE 11/5/84	LISTING CHECKED BY J. S. Schuch		DATE 11/5/84		
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE		

SUPERSEDES NQA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

COMPILATION REPORT

Job CM-8108

TP-01145

31. Delineation

Delineation was accomplished using the Wild B-8 stereoplotter and is based on office interpretation of the bridged natural color photographs. Ratio photographs were used as an aid in interpreting and verifying the compilation of the manuscript.

32. Control

Horizontal control was furnished by the Aerotriangulation Unit and was adequate in controlling the stereomodels.

Vertical control used in leveling the stereomodels was taken from USGS quadrangles.

33. Supplemental Data - None34. Contours and Drainage

Contours are not applicable to this manuscript. Drainage was delineated from stereomodels set on the Wild B-8 by office interpretation of the bridging photographs.

35. Shoreline and Alongshore Detail

All shoreline and alongshore detail was compiled using the Wild B-8 stereoplotter. No Mean Lower Low Water was compiled and no field edit will be performed.

36. Offshore Detail

Scattered trees in water were located during compilation in Middle Bayou and Armond Bayou.

37. Landmark and Aids

Five charted landmarks were located in Compilation Unit and one new landmark, which was identified through Chart Letter #1117/84, was verified in Compilation Unit. No aids to navigation were identified. Forty possible landmark features were located during compilation.

38. Control for Future Surveys - None39. Junctions

See attached form 76-36B, Item 5 of the Descriptive Report.

40. Horizontal and Vertical Accuracy

This map meets the National Standards of Map Accuracy and the requirements specified in the project instructions.

41. through 45. Not Applicable

46. Comparison with Existing Maps

A comparison was made with the following 1:24,000 scale U.S. Geological Survey quadrangle:

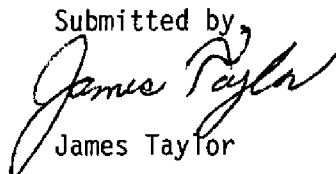
League City, Texas, 1955 (Photorevised 1969)

47. Comparison with Existing Charts

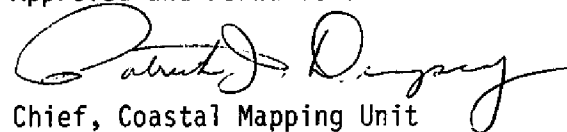
A comparison was made with National Ocean Service Chart;

11326, 20th Edition, July 30, 1983, scale 1:25,000

Submitted by,


James Taylor

Approved and Forwarded:


Chief, Coastal Mapping Unit

SEP 17 1984

GEOGRAPHIC NAMES

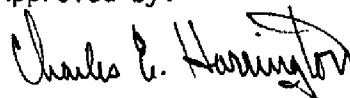
FINAL NAME SHEET

CM-8108 (Houston Ship Channel, Texas)

TP-01145

Armand Bayou
Big Island Slough
Clear Creek
Clear Lake
Clear Lake Shores
Cow Bayou
El Lago (locality)
Galveston, Houston and Henderson (RR)
Glen Cove
Horsepen Bayou
Lake Nassau
Lake Side
League City
Lyndon B. Johnson Space Center (NASA)
Mud Lake
Nassau Bay
Nassau Bay (locality)
Pearce Lake
Robinson Bayou
Southern Pacific (RR)
Taylor Bayou
Taylor Lake
Taylor Lake Village
Webster

Approved by:



Charles E. Harrington
Chief Geographer
Nautical Charting Division

REVIEW REPORT
SHORELINE SURVEY

TP-01145

61. GENERAL STATEMENT

A final review was performed for this shoreline map. No major discrepancies were encountered. Refer to the summary bound with this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS - None.63. COMPARISON WITH MAPS OF OTHER AGENCIES

Refer to the Compilation Report, paragraph 46, bound with this Descriptive Report.

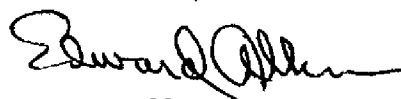
64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS - None.65. COMPARISON WITH NAUTICAL CHARTS

Refer to the Compilation Report, paragraph 47, bound with this Descriptive Report.

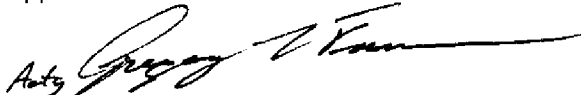
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with the Project Instructions and meets the requirements for National Standards of Map Accuracy.

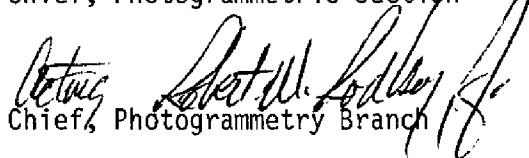
Submitted by:

Edward Allen
Cartographer

Approved and Forwarded:



Chief, Photogrammetric Section



Chief, Photogrammetry Branch

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	ORIGINATOR ☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	OFFICE ACTIVITY REPRESENTATIVE ☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64.)	
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)29820 8-12-75
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field Identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75 *FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	II. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 8-12-75 III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.

NOAA FORM 76-40
(8-74)

Replaces C&GS Form 567.

☒ TO BE CHARTED
☐ TO BE REVISED
☐ TO BE DELETED

REPORTING UNIT
(If field party, ship or office)
Rockville, Md

STATE
Texas

LOCALITY
Galveston Bay

DATE
Nov 1984

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NON-DELETING AND/OR LANDMARKS FOR CHARTS

ORIGINATING ACTIVITY

- ☐ HYDROGRAPHIC PARTY
☐ GEODETIC PARTY
☐ PHOTO FIELD PARTY
☒ COMPILATION ACTIVITY
☐ FINAL REVIEWER
☐ QUALITY CONTROL & REVIEW GRP.
☐ COAST PILOT BRANCH
(See reverse for responsible personnel)

The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.

JOB NUMBER

SURVEY NUMBER

DATUM

NA 1927

METHOD AND DATE OF LOCATION
(See instructions on reverse side)

Position
~~XXXX~~
Quality

CHARTS
AFFECTED

DESCRIPTION
(Record reason for deletion of landmark or aid to navigation.
Show triangulation station names, where applicable, in parentheses)

LATITUDE
° / ' " D.M. Meters

LONGITUDE
° / ' " D.P. Meters

OFFICE

CHARTS
AFFECTED

CHARTING
NAME

Chart Letter #117/84
Blue Print #123424 Doc #M405/84

29 32 47.34 95 04 12.86

82 B(c) 8934
10/15/82

11326

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	OFFICE ACTIVITY REPRESENTATIVE ☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64.)	
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field Identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	II. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: 'Triang. Rec.' 8-12-75 III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

10/83

MAP FEATURES OF POSSIBLE LANDMARK VALUE

MAP NO.	JOB NO.	GEOGRAPHIC AREA	GEODETTIC DATUM	ORIGINATING ACTIVITY	CHARTING NAME	DESCRIPTION	PHOTO NO. Date of Photo	PLANE COOR. (FT) STATE ZONE	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	POSITION QUALITY
TP-011145	CM-8108	Galveston Bay	NA 1927	Compilation						
Tower							82 B(C) 8945 10/15/82	X	φ 29° 30' 32.54" λ 95° 07' 41.36	Manually Digitized
Tower							82 B(C) 8945 10/15/82	X	φ 29° 30' 25.24" λ 95° 07' 39.49	Manually Digitized
Tower							82 B(C) 8945 10/15/82	X	φ 29° 30' 17.61" λ 95° 07' 37.78	Manually Digitized
Tower							82 B(C) 8944 10/15/82	X	φ 29° 30' 37.82" λ 95° 06' 21.41	Manually Digitized
Tower							82 B(C) 8944 10/15/82	X	φ 29° 30' 38.38" λ 95° 06' 20.82	Manually Digitized
Tower							82 B(C) 8944 10/15/82	X	φ 29° 30' 32.42" λ 95° 06' 15.95	Manually Digitized
Tower							82 B(C) 8944 10/15/82	X	φ 29° 30' 32.56" λ 95° 06' 16.01	Manually Digitized
Tower							82 B(C) 8944 10/15/82	X	φ 29° 30' 20.79" λ 95° 05' 40.85	Manually Digitized
Tank							82 B(C) 8944 10/15/82	X	φ 29° 30' 42.31" λ 95° 05' 34.21	Manually Digitized
Tower							82 B(C) 8944 10/15/82	X	φ 29° 31' 16.02" λ 95° 06' 19.47	Manually Digitized
Tank							82 B(C) 8944 10/15/82	X	φ 29° 31' 24.60" λ 95° 05' 03.76	Manually Digitized
Tank							82 B(C) 8944 10/15/82	X	φ 29° 31' 48.87" λ 95° 06' 09.26	Manually Digitized

NOTE: The objects have not been inspected from seaward to determine their value as landmarks.

LISTED BY

R. G. Johnson

DATE

11/28/84

LISTING CHECKED BY

E. D. Johnson

DATE

11-26-84

10/83

MAP FEATURES OF POSSIBLE LANDMARK VALUE

MAP NO.	JOB NO.	GEOGRAPHIC AREA	GEODETTIC DATUM	ORIGINATING ACTIVITY	GEOGRAPHIC POSITION			POSITION QUALITY
TP-01145	CM-8108	Galveston Bay	NA 1927	Compilation	PLANE COOR. (FT)	STATE	φ LATITUDE λ LONGITUDE	
CHARTING NAME	DESCRIPTION	PHOTO NO.	DATE of Photo	ZONE	South Central	Texas		
Tower		82 B(C) 8944	10/15/82	X			φ29° 31' 42.52"	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 05 45.20	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 45.06	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 05 48.47	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 43.25	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 05 51.26	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 48.95	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 05 56.54	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 51.31	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 05 54.05	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 41.24	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 05 31.83	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 48.56	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 04 41.61	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 48.15	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 04 41.44	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 47.42	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 04 47.22	Manually Digitized
Tower		82 B(C) 8944	10/15/82	X			φ29 31 46.97	Manually Digitized
Tower		82 B(C) 8944	10/15/82	Y			λ95 04 46.98	Manually Digitized
LIGHTHOUSE	Chart Letter #117/84; Blue Print #123424 Doc #M4-05/84	82 B(C) 8943	10/15/82	X	Added to 76+40		φ29 32 47.34	Manually Digitized
Tank		82 B(C) 8943	10/15/82	Y			λ95 04 12.86	Manually Digitized
		82 B(C) 8943	10/15/82	X			φ29 34 34.20	Manually Digitized
		82 B(C) 8943	10/15/82	Y			λ95 05 28.63	Manually Digitized

NOTE: The objects have not been inspected from seaward to determine their value as landmarks.

LISTED BY

R. O. Johanson

DATE

11/28/84

LISTING CHECKED BY

E. D. [Signature]

DATE

11/26/84

10/83

MAP FEATURES OF POSSIBLE LANDMARK VALUE

MAP NO.	JOB NO.	GEOGRAPHIC AREA	GEODETTIC DATUM	ORIGINATING ACTIVITY	POSITION QUALITY
TP-01145	CM-8108	Galveston Bay	NA 1927	Compilation	
CHARTING NAME	DESCRIPTION	PHOTO NO. Date of Photo	PLANE COOR. (FT) STATE ZONE	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	POSITION QUALITY
Tower		82 B(C) 8943 10/15/82	X Y	φ 29° 34' 29.70" λ 95° 04' 13.87	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 36' 13.71 λ 95° 02' 36.61	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 36' 13.70 λ 95° 02' 36.62	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 36' 11.67 λ 95° 02' 26.68	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 36' 10.62 λ 95° 02' 21.11	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 36' 43.04 λ 95° 02' 05.14	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 36' 33.46 λ 95° 02' 02.78	Manually Digitized
Stack		82 B(C) 8942 10/15/82	X Y	φ 29° 37' 18.84 λ 95° 02' 43.66	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 37' 20.88 λ 95° 02' 56.52	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 37' 26.93 λ 95° 02' 57.32	Manually Digitized
Tower		82 B(C) 8942 10/15/82	X Y	φ 29° 37' 37.35 λ 95° 03' 15.61	Manually Digitized
Tank		82 B(C) 8942 10/15/82	X Y	φ 29° 36' 09.81 λ 95° 02' 01.49	Manually Digitized

NOTE: The objects have not been inspected from seaward to determine their value as landmarks.

LISTED BY	DATE	LISTING CHECKED BY	DATE
R. O. Johnson	11/28/84	<i>[Signature]</i>	11/28/84

MAP FEATURES OF POSSIBLE LANDMARK VALUE

[illegible]

NOTE: The objects have not been inspected from seaward to determine their value as landmarks.

LISTED BY

TESTED BY
R. O. Johnson

DATE _____

41/28/84

LISTING CHECKED BY

CHECKED BY 

DATE _____

11/26/84.

M 405/84

2-Way Memo

Subject: SOURCE MATERIAL REQUIRING
PHOTODUPLICATION CLARIFICATIONFrom: JIM RABORN
CARTOGRAPHIC REVISIONS UNIT
NDS/NOAA

INSTRUCTIONS

Use routing symbols whenever possible.

SENDER (Originator of message):

Use brief, informal language.

Conserve space.

Forward original and one copy.

RECEIVER (Replier to message):

Reply below the message, keep one copy, return one copy.

DATE OF MESSAGE

1-25-84

ROUTING SYMBOL

NKG
2222

SIGNATURE OF ORIGINATOR

Clay

TITLE OF ORIGINATOR

Senior Cartographer

INITIAL MESSAGE

ATTACHED U.S.C.G. Aux report concerning newly
built lighthouse - chart 11326. Request
ADDITIONAL INFORMATION & control for charting.

REPLY MESSAGE

Lighthouse added, 76-40 submitted Blue Print
123424Cartographic Revision Unit chart letter
1112/84

24° 32' 47.34 dig. C.M.

95° 04' 12.86

To:

Blueprint No
AssignedReplied 8/31
to Clay

DATE OF REPLY

7-30-84

ROUTING SYMBOL

NKG 2325

SIGNATURE OF REPLIER

Gregory L. Taylor

TITLE OF REPLIER

CARTOGRAPHER

"This report is authorized by law (33 U.S.C. 883b. Reorg. Plan No. 2 of 1965, 79 Stat. 1318, Reorg. Plan No. 4 of 1974, 84 Stat. 2090). While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate and timely."

Form Approved: OMB No. 0648-0101
Approval Expires: 12-31-83

NOAA FORM 77-5
(11-81)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

USCG AUX.-NOS COOPERATIVE CHART UPDATING PROGRAM

RECOMMENDED CHANGE OR CORRECTION REPORT SEP 9 1983

See detailed INSTRUCTIONS on reverse side of Copy 3.

MEMBER NUMBER										TRANS. CODE		LAST NAME															DO NOT KEYPUNCH	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	FIRST NAME AND INITIAL			
0	8	0	0	0	2	1	0	5	0	6	E	H	A	Y	E	S										Dwight R.		
REPORT SUBMITTED TO: (Enter appropriate number)										DATE OBSERVED										CREDITS		TELEPHONE NUMBER						
26 1. NOAA - NOS 3. ARMY - COE										27 28 29 30 31 32 33 34												(713) 444 4210						
1 2. NOAA - LAKE SURVEY 4. USCG (ATON)																												

OBSERVER'S MAILING ADDRESS			STATE		ZIP CODE	
NUMBER AND STREET 5210 Graystone Ln			CITY Houston		TX 77069	

SECTION II ITEM BEING REPORTED				
1. DATE OF INVESTIGATION 23 Aug 1983		2. TIME		3. CHART NUMBER 11326
4. EDITION 19		5. REVISION DATE 6/82		
6. POSITION LATITUDE 29°32'47"N LONGITUDE 95°04'15W			7. MARKED PORTION OF CHART INCLUDED YES ☒ NO ☐	

SECTION III POSITION DETERMINED BY			
1. COMPASS BEARINGS		2. ESTIMATED BEARINGS	
3. SEXTANT ANGLES		4. SURVEY	
5. SCALING CHART (For location of any charted feature)			
6. OTHER (Explain) From permit application of owner			

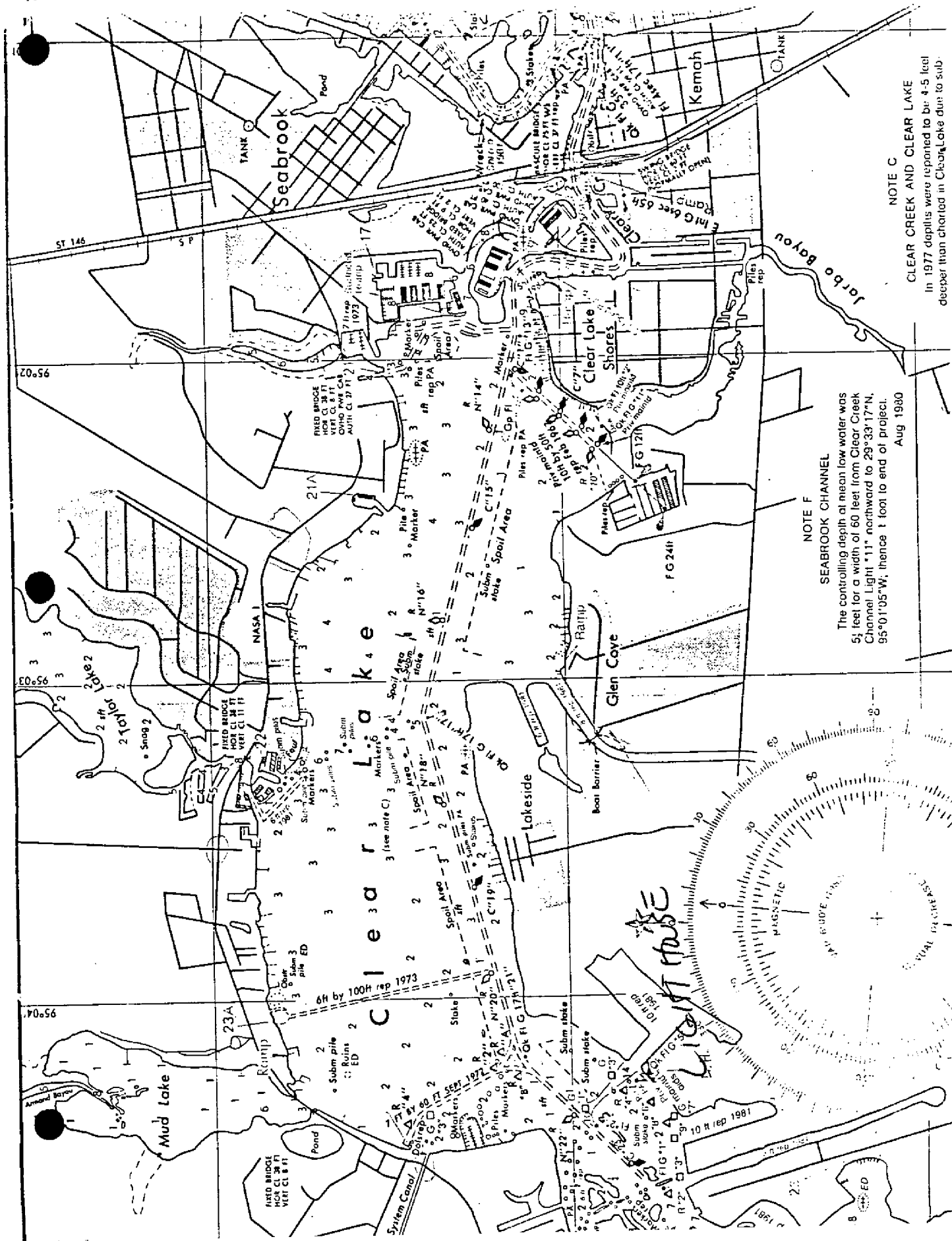
SECTION IV REASON CHANGE OR CORRECTION IS RECOMMENDED	
Lighthouse with Black and white horizontal strips has been established. Light is a rotating white light - 7 sec. Height of light is 110' above mean sea level	

SECTION V SIGNATURE OF OBSERVER		DATE REPORT SUBMITTED	
NAME (Print) A. H.		9/1/83	

27 Aug 83

080-83-015-10

R



NOTE F SEABROOK CHANNEL

The controlling depth at mean low water was 5 1/2 feet for a width of 60 feet from Clear Creek Channel Light 11° northward to 29°33'17"N. 95°01'05"W, hence 1 foot to end of project.

Aug 1980

NOTE C

CLEAR CREEK AND CLEAR LAKE
In 1977 depths were reported to be 4-5 feet deeper than charted in Clear Lake due to sub.

