

TP 01146

TP 01146

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 Edited	
Map No. TP-01146	Edition No. 1
Job No. CM-8108	
Map Classification Class III	
Type of Survey Shoreline	
LOCALITY	
State Texas	
General Locality Upper Galveston Bay	
Locality Atkinson Island To San Leon	
19 81 TO 1982	
REGISTRY IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72) U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.		TYPE OF SURVEY ☒ ORIGINAL ☐ RESURVEY ☐ REVISED	
DESCRIPTIVE REPORT - DATA RECORD		SURVEY TP. <u>01146</u> MAP EDITION NO. <u>(1)</u> MAP CLASS <u>III</u> JOB <u>MMX CM-8108</u>	
PHOTOGRAMMETRIC OFFICE Rockville Md. OFFICER-IN-CHARGE Ronald Brewer		LAST PRECEDING MAP EDITION TYPE OF SURVEY ☐ ORIGINAL ☐ RESURVEY ☐ REVISED JOB PH- _____ MAP CLASS _____ SURVEY DATES: 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		OTHER (Specify)	
2. VERTICAL: ☒ MEAN HIGH-WATER ☐ MEAN LOW-WATER ☒ MEAN LOWER LOW-WATER ☐ MEAN SEA LEVEL		OTHER (Specify)	
3. MAP PROJECTION Lambert Conformal Conic Projection		4. GRID(S) STATE Texas ZONE South Central	
5. SCALE 1:20000		STATE ZONE	
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION BY METHOD: Analytical LANDMARKS AND AIDS BY		Rick Johanson	1/84
2. CONTROL AND BRIDGE POINTS PLOTTED BY METHOD: Calcom 718 CHECKED BY		Rick Johanson N/A	1/84 1/84
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: Wild B-8 SCALE: 1:20000 CONTOURS BY CHECKED BY		James Schad Patrick Dempsey N/A N/A	3/84 3/84
4. MANUSCRIPT DELINEATION PLANIMETRY BY CHECKED BY METHOD: Smooth Drafted CONTOURS BY CHECKED BY SCALE: 1:20000 HYDRO SUPPORT DATA BY CHECKED BY		James Schad Ed Allen N/A N/A N/A N/A	5/84 5/84
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY		N/A	N/A
6. APPLICATION OF FIELD EDIT DATA BY CHECKED BY		N/A N/A	N/A
7. COMPILATION SECTION REVIEW BY		James Schad	11/84
8. FINAL REVIEW BY		Ed Allen	1/85
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		Ed 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-01146

1. COMPILATION PHOTOGRAPHY

CAMERA(S) RC 10(B) F/L= (152.74 MM.)
WILD RC 8(E) F/L= (152.71 MM.)TYPES OF PHOTOGRAPHY
LEGEND☒ (X) COLOR
(P) PANCHROMATIC
☒ (X) INFRARED

TIME REFERENCE

ZONE

Central

☒ STANDARD

MERIDIAN

90th☐ DAYLIGHT

TIDE STAGE REFERENCE

☒ PREDICTED TIDES
☐ REFERENCE STATION RECORDS
☐ TIDE CONTROLLED PHOTOGRAPHY

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
81 E(R) 5909-5910	11/11/81	1336	1:50000	0.08 FT. Eagle Pt.
81 E(R) 5934-5937	11/11/81	1405	1:50000	0.08 FT. Morgan Pt.
81 E(C) 5977-5979	11/11/81	1510	1:50000	1.43 FT. Morgan Pt.
82 B(C) 8939-8941	10/15/82	1015	1:50000	1.07 FT. Clear Lake

REMARKS

Based on predicted tides-reference station Galveston Bay-substations listed above.

2. SOURCE OF MEAN HIGH-WATER LINE:

The natural color photographs listed above.

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

The infrared photographs listed above

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, TP-01144	EAST N/A	SOUTH TP-01147	WEST TP-01145
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REMARKS

HISTORY OF FIELD OPERATIONS

TP-01146

I. ☒ FIELD INSPECTION OPERATION ☐ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R.S.Tibbetts	3/82
2. HORIZONTAL CONTROL	RECOVERED BY R.S.Tibbetts	3/82
	ESTABLISHED BY R.S.Tibbetts	3/82
	XXXXXXXXXX IDENTIFIED BY R.S.Tibbetts	3/82
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 ☐ 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		2. VERTICAL CONTROL IDENTIFIED	
Photoidentified		N/A	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
81E(C)5981	La Porte St Marys Church Cross		
	1932-Substation A&B		
81E(C)5978	Hanson, 1933- Substation A&B		

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 ☒ NONE

6. 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 cards (NOAA form 76-53), ground photographs and NOAA computations and observations form with computation print-outs bound in the FIELD PROJECT BOOK CM-8108 Houston Ship Channel

RECORD OF SURVEY USE

TP-01146

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Shoreline Manuscript	9/84	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
5Pages	NOAA(74-40)	May 1985	Nonfloating Aids and Landmarks
1Page	*PLM	May 1985	*Possible Landmark Features

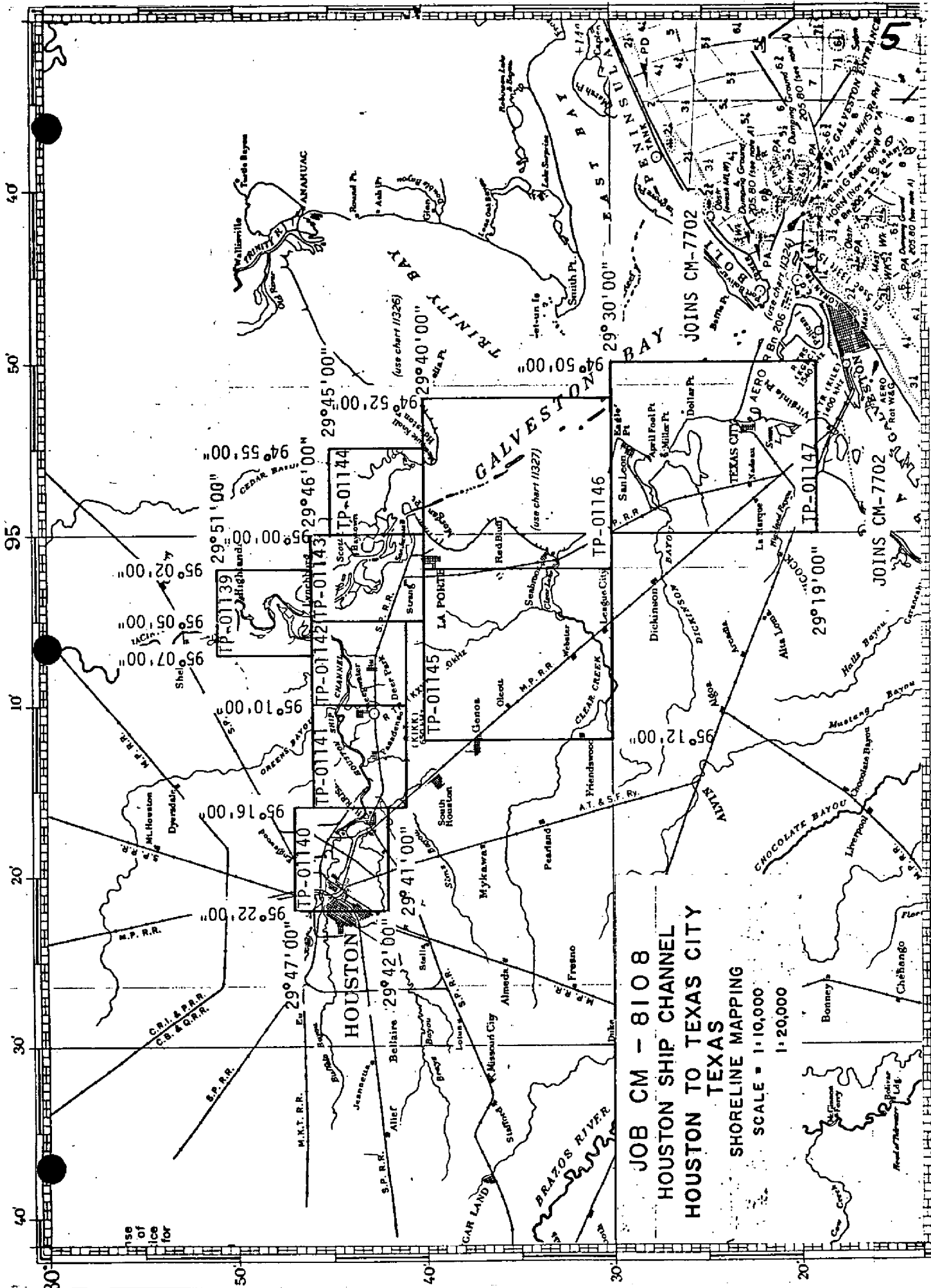
2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

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



SUMMARY

TP-01146

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.

FIELD INSPECTION

TP-01146

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	12.1
△		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
△			494121	0.4	-0.8
121A	Deer Park Shell Refining Co. Tallest Stack 1955				
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

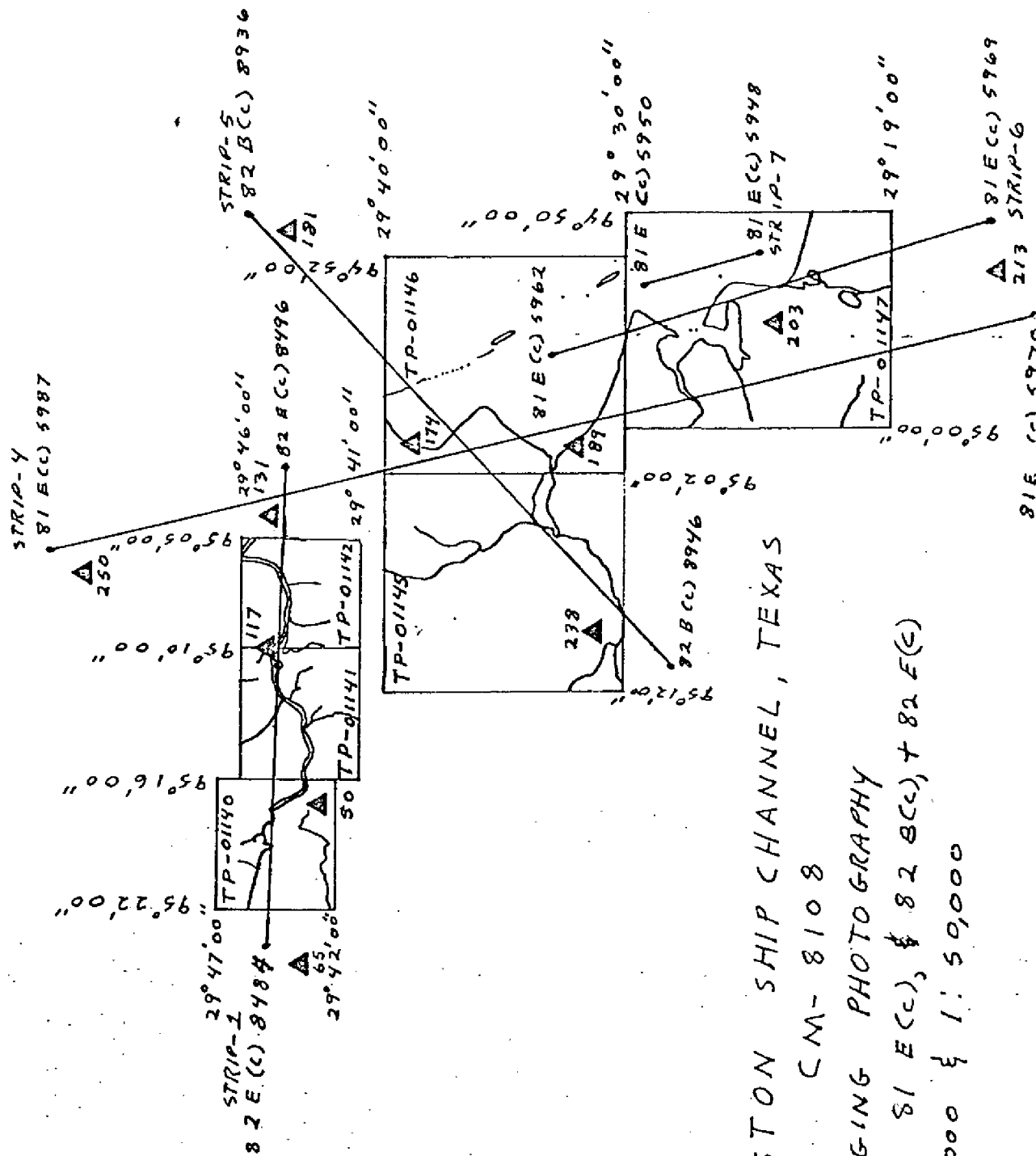
Strip 7

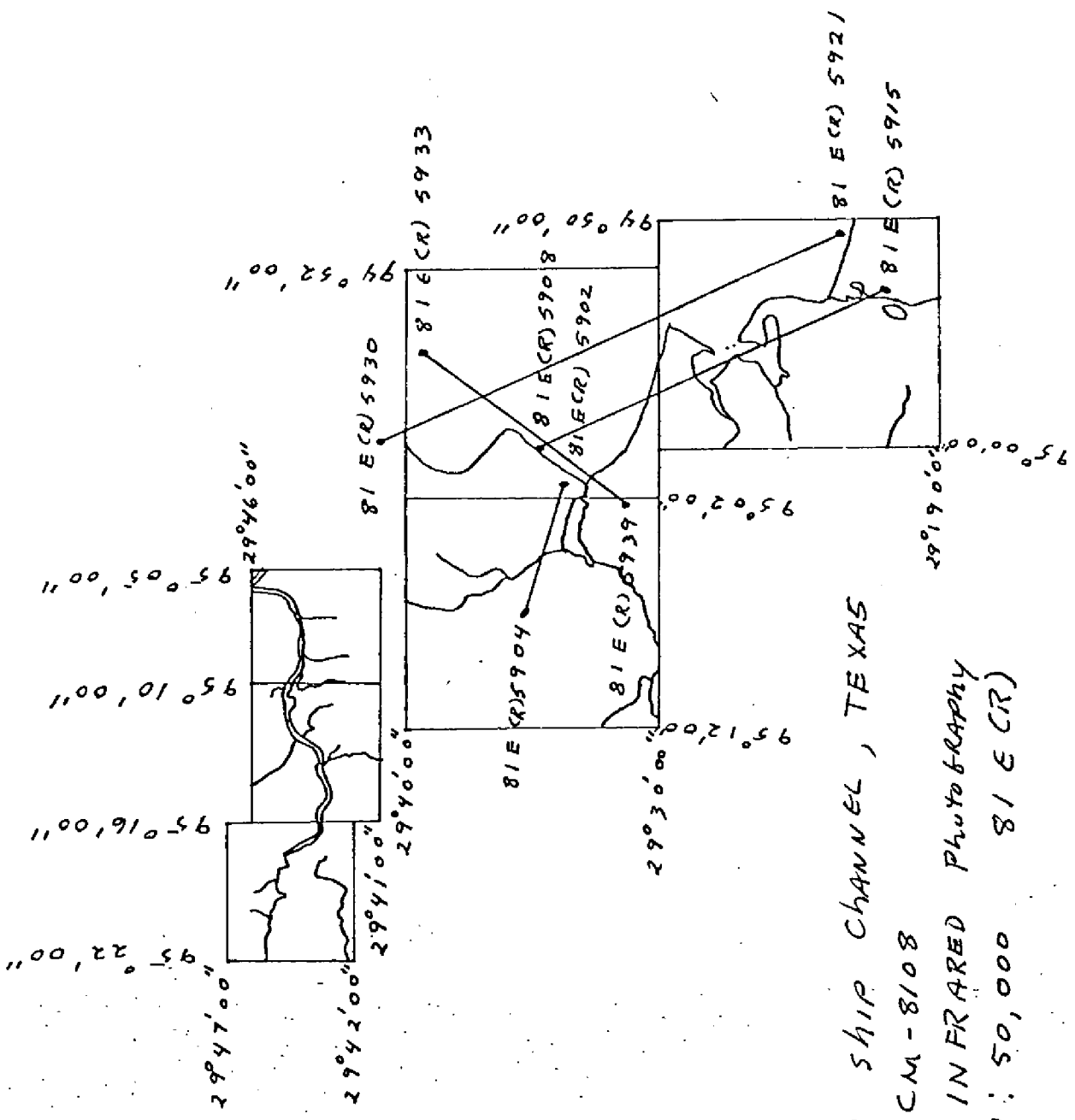
△	Tie from Strip 6	498801	0.1	1.5
△	" " " "	498802	0.2	-1.0
△	" " " "	498803	0.3	-1.0
△	" " " "	498804	-0.6	0.8
△	" " " "	498805	0.2	0.1
△	Tie from Strip 6	498806	-0.2	0.0

NAME	POINT NO.	X	Y
<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

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.	STATION NAME	JOB NO.	GEODETTIC DATUM		AEROTRIANGULATION POINT NUMBER	ORIGINATING ACTIVITY		REMARKS
			NA 1927	COORDINATES IN FEET		GEOGRAPHIC POSITION	Compilation	
		SOURCE OF INFORMATION (Index)	STATE	TEXAS		φ LATITUDE	λ LONGITUDE	
TP-01146	Galveston Bay Upper RANGE B REAR LIGHT 1963	Quad 290944 Sta 1082	X= 3280041.27	Y= 675169.34	184	φ 29 37 46.632		
						λ 94 58 12.018		
	Galveston Bay Upper RANGE B FRONT LIGHT 1963	Quad 290944 Sta 1084	X= 3282856.53	Y= 671281.45	185	φ 29 37 07.201		
						λ 94 57 41.656		
	Hanson 1933	Quad 290951 Sta 1036	X= 3268670.57	Y= 639897.74	978100	φ 29 32 01.479		Recovered 1982
						λ 95 00 34.428		
	Red Fish Bar Inner Renge Rear Light 1963	Quad 290944 Sta 1112	X= 3310472.85	Y= 636198.53	198	φ 29 31 10.524		
						λ 94 52 42.948		
	La Porte St Marys Seminary Stack 1933	Quad 290951 Sta 1318	X= 3267245.72	Y= 683730.26	174A	φ 29 39 15.685		
						λ 95 00 33.620		
	La Porte St Marys Church Cross 1932	Quad 290951 Sta 1317	X= 3267008.56	Y= 684223.13	981100	φ 29 39 20.642		Recovered 1982
						λ 95 00 36.116		
	La Porte St Marys Water Tank 1963	Quad 290951 Sta 1316	X= 3262798.08	Y= 687187.78	172	φ 29 39 51.396		
						λ 95 01 22.670		
			X=	Y=		φ		
						λ		
			X=	Y=		φ		
						λ		
			X=	Y=		φ		
						λ		
			X=	Y=		φ		
						λ		
COMPUTED BY			COMPUTATION CHECKED BY					DATE
LISTED BY	R. O. Johnson		LISTING CHECKED BY		11/5/84			DATE 11/16/84
HAND PLOTTING BY			HAND PLOTTING CHECKED BY					DATE

COMPILATION REPORT
Job CM-8108
TP-01146

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. The Mean Lower Low Water limits and oyster bars were delineated from ratio infrared photographs.

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 - None

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 field edit will be done on this manuscript.

36. Offshore Detail

Numerous offshore well, pipeline obstructions, and boathouses were located using the natural color photographs.

37. Landmarks and Aids

Three landmarks and five aids to navigation were located by Aerotriangulation Unit and verified by Compilation Unit. Four landmarks, 20 aids to navigation, and 10 possible landmark features were located by Compilation Unit.

38. Control for Future Survey - None

39. 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 quadrangles:

Morgan Point, Texas, 1969
Bacliff, Texas, 1956 (photorevised 1969)
La Porte, Texas, 1967
League City, Texas, 1955 (photorevised 1969)

47. Comparison with Existing Charts

A comparison was made with the following National Ocean Service Charts:

11326, 20th Edition, July 30, 1983, 1:80,000 scale
11327, 18th Edition, September 19, 1981, 1:25,000 scale
11328, 14th Edition, August 1, 1981, 1:10,000 scale

Submitted by,



Rick Johanson

Approved and Forwarded:



Chief, Coastal Mapping Unit

JAN 28 1985

GEOGRAPHIC NAMES

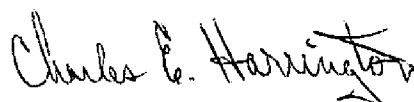
FINAL NAME SHEET

CM-8108 (Houston Ship Channel, Texas)

TP-01146

Atkinson Island
Bacliff
Bayside Terrace
Bayview
Beach City
Boggy Bayou
Bulkhead Reef
Clear Creek
Clear Lake
Clear Lake Shores
Clifton Beach
El Jardin del Mar
Galveston Bay
Houston Point
Jarbo Bayou
Jennings Island
Kemah
La Porte
Little Cedar Bayou
Red Fish Island
San Leon
Seabrook
Shoreacres
Southern Pacific (RR)
Surf Oaks
Swan Marsh
Taylor Bayou
Todville

Approved by:



Charles E. Harrington
Chief Geographer
Nautical Charting Division

REVIEW REPORT
SHORELINE SURVEY

TP-01146

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.

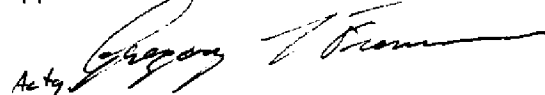
66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

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

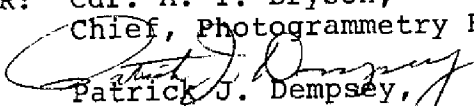


UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
OFFICE OF CHARTING AND GEODETIC SERVICES
ROCKVILLE, MARYLAND 20852

November 3, 1987

N/CG2311:PJD

MEMORANDUM FOR: Cdr. A. Y. Bryson,
Chief, Photogrammetry Branch, NCD

FROM: 
Patrick J. Dempsey,
Quality Control Unit

SUBJECT: Minor Changes on Registered Map, TP-01146

The Nautical Charting Section experienced difficulty in interpreting the mean High Water line (MHWL) on an island formed in a spoil area on map TP-01146. The island is located at latitude 37°00'00" and longitude 57°00'00". The photos used in compilation were reviewed and it was determined that penetration below the Mean Lower Low Water Line (MLLWL) depicted what appeared to be numerous drainage lines. These lines should not have been compiled and were removed. The MHWL and MLLWL were not changed. This action clearly defined the MHWL.

New 8 x reduction negatives were ordered from reproduction and inserted in the permanent records while destroying the old ones.



Replaces C&GS Form 567.

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

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)

REPORTING UNIT
(If field party, ship or office)

Rockville Md.

STATE

Texas

LOCALITY

Galveston Bay

DATE

Nov. 1984

The following objects HAVE ☐ BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.
OPR PROJECT NO.

JOB NUMBER

CM-8108

SURVEY NUMBER

TP-01146

DATUM

NA 1927

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

OFFICE

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

Houston Ship Channel

RED FISH BAR INNER RANGE FRONT LIGHT

(RED FISH BAR INNER RANGE REAR
LIGHT 1963)

RED FISH BAR LT. 1

RED FISH BAR LT. 2

-PIPELINE MARKER LIGHT A

-PIPELINE MARKER LIGHT B

-PIPELINE MARKER LIGHT C

-PIPELINE MARKER LIGHT D

-LT. 60

LATITUDE

° /

D.M. Meters

LONGITUDE

° /

D.P. Meters

LATITUDE

° /

D.M. Meters

LONGITUDE

° /

D.P. Meters

LATITUDE

° /

D.M. Meters

LONGITUDE

° /

D.P. Meters

LATITUDE

° /

D.M. Meters

LONGITUDE

° /

D.P. Meters

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 274L(C)2982
FIELD II. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field P - Photogrammetric L - Located V - Verified Vis - Visually 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.	

NOAA FORM 76-40 (6-74) Replaces CMGS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				NONFLOATING AIDS TO NAVIGATION FOR CHARTS				ORIGINATING ACTIVITY			
REPORTING UNIT (If field party, ship or office)		STATE		LOCALITY		DATE		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED		ORIGINATING ACTIVITY			
TO BE CHARTED ☒ TO BE REVISED ☐ TO BE DELETED		Rockville, Md		Texas		Galveston Bay		11/84				HYDROGRAPHIC PARTY GEODETIC PARTY PHOTO FIELD PARTY COMPILATION ACTIVITY FINAL REVIEWER QUALITY CONTROL & REVIEW GRP. COAST PILOT BRANCH (See reverse for responsible personnel)			
JOB NUMBER		SURVEY NUMBER		SATUM		POSITION		OFFICE		CHARTS AFFECTED					
CM-8108		TP-01146		NA 1927		LATITUDE		LONGITUDE		CHARTS AFFECTED					
DESCRIPTION		LATITUDE		LONGITUDE		D.M. Meters		D.P. Meters		CHARTS AFFECTED					
CHARTING NAME		DESCRIPTION		LATITUDE		LONGITUDE		D.M. Meters		D.P. Meters		CHARTS AFFECTED			
(Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)		LATITUDE		LONGITUDE		D.M. Meters		D.P. Meters		CHARTS AFFECTED					
	Houston Ship Channel														
Marker (Lighted)		29 32	32.84	94 54	00.79				81E(C) 5962 11/11/81	Manually Digitized	11327				
-LT. 63		29 32	57.14	94 54	35.59				81E(C) 5962 11/11/81	Manually Digitized	11327				
-LT. +64		29 33	01.69	94 54	27.93				81E(C) 5962 11/11/81	Manually Digitized	11327				
LIGHT	(GALVESTON BAY UPPER RANGE B REAR LIGHT 1963)	29 37	46.632	94 58	12.018				82E(C) 8940 10/15/82	Geodetic Position	11327				
LIGHT	(GALVESTON BAY UPPER RANGE B FRONT LIGHT 1963)	29 37	07.201	94 57	41.656				82E(C) 8940 10/15/82	Geodetic Position	11327				
	Bayport Ship Channel														
-LIGHT	-OUTER RANGE FRONT LIGHT	29 36	50.86	94 57	06.50				82E(C) 8940 10/15/82	Manually Digitized	11327				
-LIGHT	-OUTER RANGE REAR LIGHT	29 36	51.61	94 56	23.53				82E(C) 8940 10/15/82	Manually Digitized	11327				
- LT. 6		29 36	50.74	94 59	30.97				82E(C) 8940 10/15/82	Aerotriang- ulated	11327				

RESPONSIBLE PERSONNEL	
NAME	ORIGINATOR
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) 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 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.	FIELD 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.

Replaces C&GS Form 567.

☐ TO BE CHARTED
☒ TO BE REVISED
☐ TO BE DELETEDREPORTING UNIT
(Field Party, Ship or Office)

Rockville, Md.

Texas

Galveston Bay

DATE
11/81The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.

JOB NUMBER

DATUM

NA 1921

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

OFFICE

Position

Quality

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

LATITUDE

LONGITUDE

D.P. Meters

D.P. Meters

CHARTS
AFFECTED

-LT. 7

Bayport Ship Channel

29 36

46.18

30.99

82E(C) 8940

Aerotriang-
ulated

11327

-LIGHT

-INNER FRONT RANGE LIGHT

29 36

46.22

32.37

82E(C) 8940

Manually
Digitized

11327

-LT. 2

Clifton Channel

29 31

00.87

48.83

81E(C) 5978

Manually
Digitized

11327

-LIGHT

TEXAS CORINTHIAN YACHT CLUB PIER LIGHT

29 31

50.05

01.56

81E(C) 5978

Manually
Digitized

11327

-LT. 2

Clear Creek Channel

29 33

04.51

59.94

81E(C) 5978

Manually
Digitized

11327

-LT. 4

29 33

12.78

08.51

81E(C) 5978

Aerotriang-
ulated

11327

-LT. 6

29 33

08.97

32.34

81E(C) 5978

Aerotriang-
ulated

11327

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

NONFLOATING AIDS 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)

RESPONSIBLE PERSONNEL	
NAME	ORIGINATOR
OBJECTS INSPECTED FROM SEAWARD	☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	☐ FIELD ACTIVITY REPRESENTATIVE ☐ OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	☐ REVIEWER ☐ QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE OF LOCATION (Consult Photogrammetric Instructions No. 64)	
OFFICE IV. 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	FIELD (Cont'd) V. 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 VI. 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	III. 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.)

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, FIELD (Cont'd))	
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	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 P - Photogrammetric Vis - Visually 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 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.

[illegible]

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 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)29822
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.	

10/83

MAP FEATURES OF POSSIBLE LANDMARK VALUE

MAP NO.	JOB NO.	GEOGRAPHIC AREA	GEODETTIC DATUM	ORIGINATING ACTIVITY	POSITION QUALITY
TP-01146	CM-8108	Galveston Bay	NA 1927	Compilation	
CHARTING NAME	DESCRIPTION	PHOTO NO.	PLANE COOR. (FT) STATE ZONE	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	POSITION QUALITY
Tank		81E(C) 5978 11/11/81	X Y	φ 29 34 48.94 λ 95 00 57.46	Aerotring- ulated
Tower		81E(C) 5978 11/11/81	X Y	φ 29 33 35.02 λ 95 01 32.59	Manually Digitized
Tower		81E(C) 5978 11/11/81	X Y	φ 29 33 27.32 λ 95 01 31.42	Manually Digitized
Tower		81E(C) 5978 11/11/81	X Y	φ 29 33 19.52 λ 95 01 29.94	Manually Digitized
Tower		81E(C) 5978 11/11/81	X Y	φ 29 33 11.58 λ 95 01 28.60	Manually Digitized
Tower		81E(C) 5978 11/11/81	X Y	φ 29 33 02.18 λ 95 01 26.98	Manually Digitized
Tower		81E(C) 5978 11/11/81	X Y	φ 29 32 54.12 λ 95 01 25.72	Manually Digitized
Tower		81E(C) 5978 11/11/81	X Y	φ 29 32 46.36 λ 95 01 23.92	Manually Digitized
Tank		81E(C) 5978 11/11/81	X Y	φ 29 32 51.26 λ 95 01 51.75	Manually Digitized
Tank		81E(C) 5978 11/11/81	X Y	φ 29 30 22.74 λ 94 59 23.94	Manually Digitized
			X Y	φ λ	
			X Y	φ λ	

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	11/5/84	James Schuch	11/16/84

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. TP-01146 (CM-8108)

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

[illegible]