

T- 12097

T. 12097

NOAA FORM 76-35  
(6-80)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT

THIS MAP WILL NOT BE FIELD EDITED

<i>Map No.</i> T-12097	<i>Edition No.</i> 1
<i>Job No.</i> PH-7118	
<i>Map Classification</i> CLASS III FINAL	
<i>Type of Survey</i> SHORELINE	
LOCALITY	
<i>State</i> MICHIGAN	
<i>General Locality</i> DETROIT RIVER	
<i>Locality</i> GROSSE ILE-NORTH	
1971 TO 1978	
REGISTERED IN ARCHIVES	
DATE	

## DESCRIPTIVE REPORT - DATA RECORD

## TYPE OF SURVEY

- ☒ ORIGINAL  
☐ RESURVEY  
☐ REVISED

SURVEY TP-12097

MAP EDITION NO. (1)

MAP CLASS III Final

JOB PH-7118

## PHOTOGRAMMETRIC OFFICE

Coastal Mapping Unit, Atlantic Marine Center  
Norfolk, VA

## OFFICER-IN-CHARGE

A. Y. Bryson

## LAST PRECEDING MAP EDITION

## TYPE OF SURVEY

- ☐ ORIGINAL  
☐ RESURVEY  
☐ REVISED

JOB PH-\_\_\_\_\_

MAP CLASS \_\_\_\_\_

SURVEY DATES:

19\_\_ TO 19\_\_

## I. INSTRUCTIONS DATED

## 1. OFFICE

Compilation August 11, 1977  
 Supplement I September 30, 1977  
 Supplement II December 6, 1978  
 Registration Class III May 14, 1984

## 2. FIELD

Memo: Director, Lake Survey Apr 16, 1971  
 Control October 4, 1971

## 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)

International Great Lakes Datum 1955

## 3. MAP PROJECTION

Lambert Conformal

## 4. GRID(S)

STATE  
MichiganZONE  
South

## 5. SCALE

1:15,000

STATE

ZONE

## III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION	BY	D. Brant	Jun 1972
METHOD: <u>Analytic</u>	LANDMARKS AND AIDS BY	H. Eichert	Jun 1972
2. CONTROL AND BRIDGE POINTS	PLOTTED BY	D. Brant	Aug 1977
METHOD: <u>Coradomat</u>	CHECKED BY	H. Eichert	Aug 1977
3. STEREOSCOPIC INSTRUMENT	PLANIMETRY BY	L. Roderick	Sep 1977
COMPILATION	CHECKED BY	L. Neterer, Jr. J. Byrd	Sep 1977
INSTRUMENT: <u>Wild B-8</u>	CONTOURS BY	N.A.	--
SCALE: <u>1:15,000</u>	CHECKED BY	N.A.	--
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	J. Roderick	Mar 1979
	CHECKED BY	L. Neterer	Nov 1979
METHOD:	CONTOURS BY	N.A.	--
	CHECKED BY	N.A.	--
SCALE:	HYDRO SUPPORT DATA BY	N.A.	--
	CHECKED BY	N.A.	--
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	L. Neterer	Nov 1979
	BY	N.A.	--
6. APPLICATION OF FIELD EDIT DATA	CHECKED BY	N.A.	--
7. COMPILATION SECTION REVIEW <u>Class III</u>	BY	C. Blood	Jun 1983
8. FINAL REVIEW <u>Class III</u>	BY	L. O. Neterer, Jr	Jul 1984
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	L. O. Neterer, Jr	"
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	P. Hawkins	Dec. 1984
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY	R.S. KORNSPAN	FEB 1985

T-12097  
COMPILATION SOURCES

## I. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild R. C.-8 focal length L=152.21mm "H" "H" focal length E=152.71mm		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE ZONE Central MERIDIAN 90th <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT	
TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY					
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
71L (c)4726-4732	May 4, 1971	not needed	1:30,000	N. A.	
71L (c)4708-4713	May 4, 1971		1:30,000		
77E (c)1072-1176	May 28, 1977		1:20,000		
77E (c)1094-1102	May 28, 1977		1:20,000		
78E (p)9628-9632	Apr 26, 1978		1:20,000		

- \* REMARKS The shoreline datum is the river level at the time of the May 14, 1971 photography. On this date the river level measured at the Wyandotte Gage was 573.21 feet or 4.61 feet above the Lake Erie Low Water.

## 2. SOURCE OF MEAN HIGH WATER LINE: Shoreline

All river levels were measured at the Wyandotte Gage.

The river level on May 4, 1971 was 572.93 feet.

The river level on May 28, 1977 was 572.84 feet.

The river level on April 26, 1978 was 573.59 feet.

The shoreline on both sides of the river was compiled by photo interpretation of the above listed color 1971 compilation/bridging photography. The American side of the river was updated using the 1977 color photography. The Canadian side of the river was updated using the 1978 panchromatic photography.

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

Not applicable

## 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	EAST	SOUTH	WEST
T-12096	No survey	T-12098	No survey
REMARKS			

T-12097

## HISTORY OF FIELD OPERATIONS

I. ☒ FIELD INSPECTION OPERATION (Premarking) ☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	No information available	--
2. HORIZONTAL CONTROL	RECOVERED BY	
	ESTABLISHED BY	
	PRE-MARKED OR IDENTIFIED BY	
3. VERTICAL CONTROL	RECOVERED BY	
	ESTABLISHED BY	
	PRE-MARKED OR IDENTIFIED BY	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY	
	LOCATED (Field Methods) BY	
	IDENTIFIED BY	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input type="checkbox"/> NO INVESTIGATION	BY
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	

## II. SOURCE DATA

## 1. HORIZONTAL CONTROL IDENTIFIED

## 2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

## 3. PHOTO NUMBERS (Clarification of details)

## 4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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

## 7. SUPPLEMENTAL MAPS AND PLANS

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

T-12097  
RECORD OF SURVEY USE

## I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete, pending field edit.	March 1979	Class III manuscript	Aug 4, 1980	Aug 4, 1980
Final Review Class III	July 1984	Final Class III map No field edit performed	NOV 30 1984	

## II. LANDMARKS AND AIDS TO NAVIGATION

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER pages	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2		NOV 30 1984	Aids for navigation
3		NOV 30 1984	Landmarks for charts.

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)

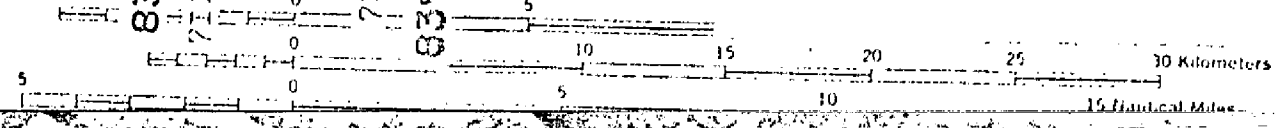
SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY  MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	



JOB PH-7118  
DETROIT RIVER  
MICHIGAN  
SHORELINE MAPPING  
SCALE 1:15,000

LEGEND:  
△ HORIZONTAL CONTROL STATION  
○ 1:30,000 SCALE COLOR PHOTOS (1971)

Scale 1:250,000



SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT  
T-12097

This 1:15,000 scale shoreline map is one of four maps that makeup project PH-7118, Detroit River, Michigan.

This project encompasses the Detroit River from the south entrance at Lake Erie, latitude  $42^{\circ}00'30''$  to the north entrance at Lake St. Clair, latitude  $42^{\circ}22'00''$ .

Correspondence from the Chief, Photogrammetric Division dated May 14, 1984, called for the four maps to be registered as Class III maps.

Information concerning field work prior to compilation was not available.

Photographic coverage was provided in May 1971 for aerotriangulation using color film with the "L" camera (focal length 152.21 mm) at 1:30,000 scale. The same photography was used for compilation. Additional photography was taken in May 1977 and April 1978 to update compilation using the original control. The 1977 photography was used to update the American side of the river and the 1978 photography was used to update the Canadian side of the river. The 1977 photography was taken with color film using the "E" camera (focal length 152.71 mm) at 1:20,000 scale. The 1978 photography was taken with panchromatic film using the "E" camera at 1:20,000 scale.

Analytic aerotriangulation was performed at the Washington Science Center in April 1971.

Compilation was performed at the Atlantic Marine Center from office interpretation of the 1971, 1977 and 1978 photography in November 1979.

Final review was performed at the Atlantic Marine Center in July 1984. This map is to be registered as a Final Class III map.

The original base manuscript and all relevant data were forwarded to the Washington Science Center for final registration.

FIELD INSPECTION  
T-12097

There was no field inspection prior to compilation. Field work accomplished was limited to the recovery and identification of the horizontal control necessary for the aerotriangulation of the project.



PHOTOGRAMMETRIC PLOT REPORT  
Detroit River

June 1972

21. Area Covered

This report covers an area of the Detroit River south from latitude  $42^{\circ} 22'$  to latitude  $42^{\circ} 00'$ . This job was bridged for the Lake Survey Center and will be compiled direct on the Kelsh Plotter at a scale of 1:6,000.

22. Method

Four (4) strips of photographs (strips 1 thru 4) were bridged using analytical aerotriangulation methods. All Strips except strip 4 were adjusted to either premarked control stations or to control stations identified direct. A tie point (common image point) from strip 3 was used as a terminal control station in strip 4. This was necessary because the target for GRASSY was not visible on the photography. Ties were made between all strips. The accompanying sketch shows the location of the strips of photographs and the horizontal control stations used in the bridging. Data for the 1:6,000 scale compilation of work sheets were plotted by the Coradomat on the Michigan (south zone) Coordinate System. *Sketch Plotted*

23. Adequacy of Control

All horizontal control stations were premarked except for the following:

TRENTON RADIO STATION WGAR (center mast)  
WYANDOTTE MUNICIPAL WATER TANK  
WINDSOR AMBASSADOR BRIDGE North Tower  
WINDSOR AMBASSADOR BRIDGE South Tower  
WINDMILL PT' L.H.

Station GRASSY (USLS) was marked with a four (4) foot square. This target could not be seen on the 1:50,000 scale bridging photography and was not used in the adjustment. Horizontal control was adequate.

24. Supplemental Data

USGS quadrangles and maps (Mines and Technical Surveys of Canada) were used to provide vertical control for the strip adjustment.

2

25. Photography

The following RC-8 photography was used in bridging:

1:30,000 scale

Strip 1 - 71-L(C)-5611 thru 5618  
Strip 2 - 71-L(C)-4722 thru 4735  
Strip 3 - 71-L(C)-4707 thru 4715  
Strip 4 - 71-L(C)-5097 thru 5109

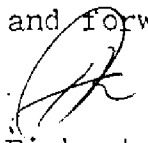
The photography was dark in the corners. This was not only troublesome during the bridging operation but may cause difficulty during compilation.

Respectfully submitted:

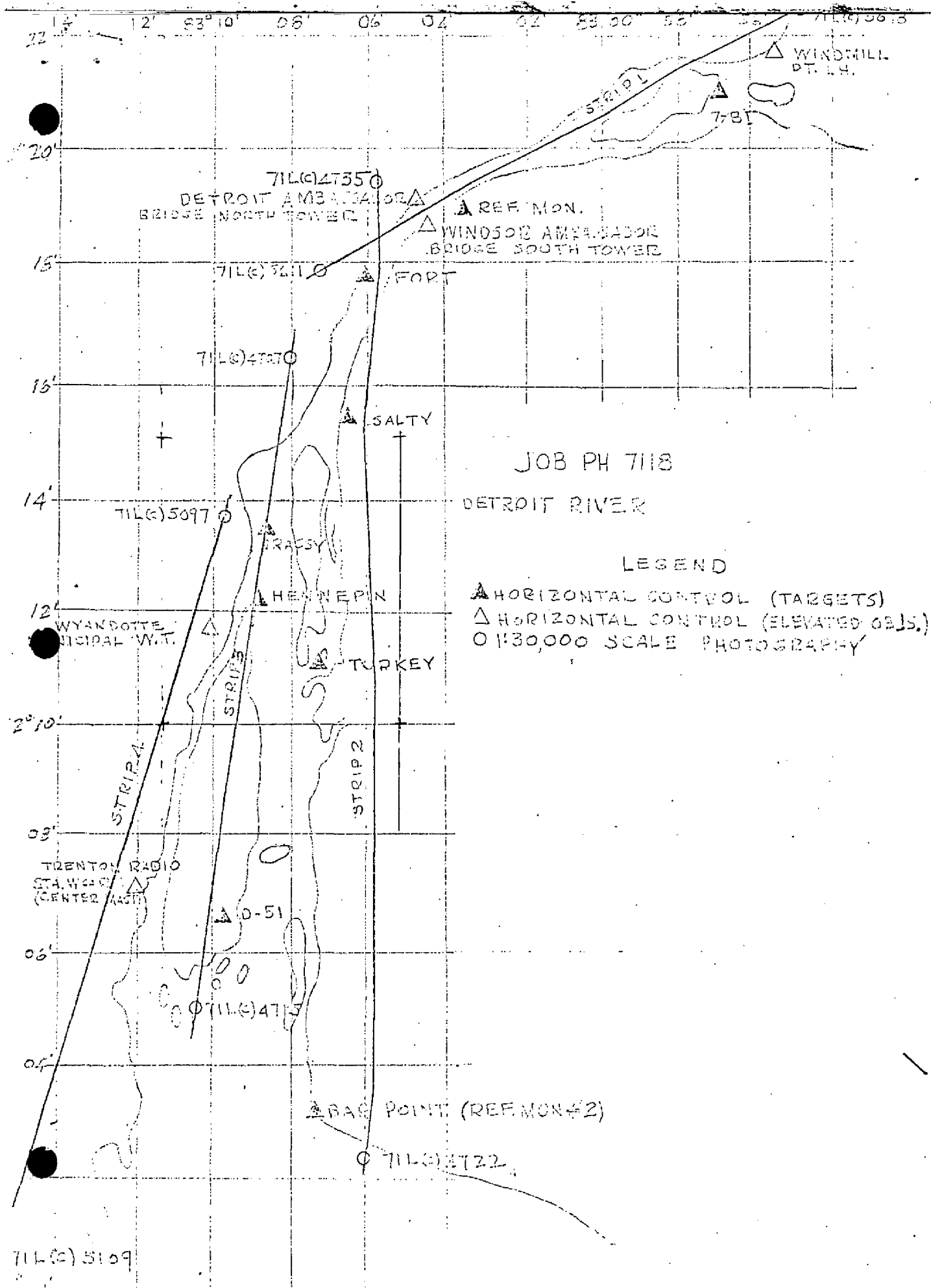


Donald M. Brant  
Cartographer

Approved and forwarded:



Henry P. Eichert, Chief  
Aerotriangulation Section



## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODEIC DATUM		ORIGINATING ACTIVITY	
				PH-7118	N.A. 1927	COASTAL MAPPING UNIT, AMC	COASTAL MAPPING UNIT, AMC
STATION NAME				COORDINATES IN FEET	GEODESIC POSITION	REMARKS	
				STATE Michigan	$\phi$ LATITUDE		
				ZONE South	$\lambda$ LONGITUDE		
GRASSY (USLS), 1924	Bridge Form 164	09100		X= 2,323,271.355	$\phi$		
				Y= 266,419.137	$\lambda$		
HENNEPIN (USLS), 1924 also HARBOR LINE MON. 33, 1930	Bridge Form 164	10100		X= 2,322,997.684	$\phi$		
				Y= 257,415.444	$\lambda$		
WYANDOTTE MUNICIPAL WATER TANK, 1957	420832 1094	99100		X= 2,316,420.89	$\phi$		
				Y= 256,078.23	$\lambda$		
TURKEY (I.B.C.), 1942	Bridge Form 164	28100		X= 2,330,641.510	$\phi$		
				Y= 251,897.918	$\lambda$		
				X=	$\phi$		
				Y=	$\lambda$		
				X=	$\phi$		
				Y=	$\lambda$		
				X=	$\phi$		
				Y=	$\lambda$		
				X=	$\phi$		
				Y=	$\lambda$		
				X=	$\phi$		
				Y=	$\lambda$		
				X=	$\phi$		
				Y=	$\lambda$		
COMPUTED BY F. Margiotta		DATE 8/23/77	COMPUTATION CHECKED BY A. C. Rauck, Jr.			DATE 9/15/77	
LISTED BY A. C. Rauck, Jr.		DATE 8/22/77	LISTING CHECKED BY F. Margiotta			DATE 8/23/77	
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY			DATE	

COMPILATION REPORT  
TP-12097

31 - DELINEATION

Delineation was accomplished using the B-8 stereoplotting instrument and graphic compilation methods. The map is based on office interpretation of the May 1971, 1:30,000 scale bridging/compilation color photographs. Supplemental photographs, flown in May 1977 and April 1978, were used to graphically update the American and Canadian sides, respectively, based on the original 1971 control.

All photographs used to compile the map are listed on form 76-36B. The photography was adequate. The times of photographs were not needed because the river levels are recorded as a daily mean, since there is no actual tide.

32 - CONTROL

The horizontal control was adequate. Refer to the Photogrammetric Plot Report dated June 1972.

33 - SUPPLEMENTAL DATA

None.

34 - CONTOURS AND DRAINAGE

Contours are not applicable to this project. Drainage was compiled by office interpretation of the photographs.

35 - SHORELINE AND ALONGSHORE DETAILS

The shoreline and alongshore details were compiled from office interpretation of the compilation photographs with the supplemental photographs used to update the map as described in Item #31. The shoreline compiled was the visible line of contact between land features and the water surface at the time of photography.

36 - OFFSHORE DETAILS

No unusual problems. See Item #31.

37 - LANDMARKS AND AIDS

Appropriate copies of 76-40 forms are submitted with this report.

38 - CONTROL FOR FUTURE SURVEYS

None.

39 - JUNCTIONS

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

40 - HORIZONTAL AND VERTICAL ACCURACY

Refer to the Photogrammetric Report dated June 1972.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S. Geological Survey Quadrangle: Wyandotte, Michigan-Ontario, scale 1:24,000, dated 1967, photorevised 1973.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following National Ocean Survey Chart: 14853, scale 1:15,000, 7th edition, dated April 17, 1976.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted by,

*Joanne D. Roderick*  
Joanne D. Roderick  
Cartographer  
March 7, 1979

Approved,

*James L. Byrd, Jr.*

James L. Byrd, Jr.  
Chief, Coastal Mapping Unit

REVIEW REPORT  
SHORELINE  
T-12097

61. GENERAL STATEMENT

See Summary included with this Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not applicable.

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with U.S.G.S. Quadrangle: Wyandotte, Michigan-Ontario, dated 1967, photorevised 1973, scale 1:24,000.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

There is no contemporary hydrographic survey within the limits of this map.

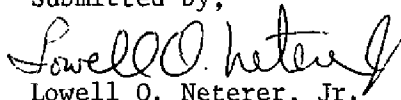
65. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with NOS Charts: 14848, 45th edition, scale 1:30,000, dated August 21, 1982; 14853, 8th edition, scale 1:15,000, dated April 14, 1979; and 14854, 9th edition, scale 1:15,000, dated October 15, 1983.


66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

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

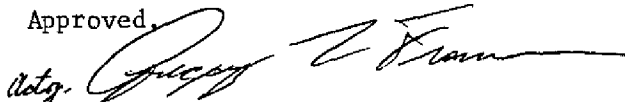
Submitted by,


  
Lowell O. Neterer, Jr.  
Final Reviewer

Approved for forwarding,

  
Billy H. Barnes  
Chief, Photogrammetric Section, AMC

Approved,

  
Chief, Photogrammetric Section, Rockville

  
Chief, Photogrammetry Branch,  
Rockville

May 16, 1984

GEOGRAPHIC NAMES

FINAL NAME SHEET

PH-7118 (Detroit River, Michigan)

TP-12097

Ballards Reef Channel

Canard River

Detroit River

Ecorse

Ecorse Channel

Ecorse River

Fighting Island

Fighting Island Channel

Grassy Island (Canada)

Grassy Island (U.S.)

Grosse Ile

Huntington Creek

La Salle

Mud Island

Palm Beach (locality)

Point Hennepin

Riverview

South Branch

Thorofare Canal

Trenton

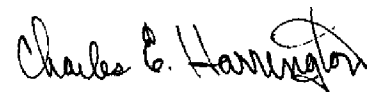
Trenton Channel

Turkey Creek

Turkey Island

Wyandotte

Approved by:



Charles E. Harrington  
Chief Geographer  
Nautical Charting Division





RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW	OFFICE ACTIVITY REPRESENTATIVE
ACTIVITIES	<input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64,	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> 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>FIELD (Cont'd)</b> <b>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.</b> EXAMPLE: P-8-V 8-12-75 74L(C)2982
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> Enter the applicable data by symbols as follows: F - Field                      P - Photogrammetric L - Located                    Vis - Visually V - Verified 1 - Triangulation            5 - Field identified 2 - Traverse                6 - Theodolite 3 - Intersection            7 - Planetable 4 - Resection                8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	<b>II. TRIANGULATION STATION RECOVERED</b> 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 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 <b>**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.</b>
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY				
NON-NAVIGATIONAL LANDMARKS FOR CHARTS				LOCALITY				DATE				
REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA				STATE Michigan				Detroit River				
The following objects HAVE <input type="checkbox"/> BEEN INSPECTED FROM SEAWARD TO DETERMINE THEIR VALUE AS LANDMARKS.				DATE				9/27/77				
OPR PROJECT NO.				JOB NUMBER				SURVEY NUMBER				
N.A.				PH-7118				T-12097				
CHARTING NAME				DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)				METHOD AND DATE OF LOCATION (See instructions on reverse side)				
				LATITUDE				LONGITUDE				
				° / ' " D.M. Meters				° / ' " D.P. Meters				
STACK				42 08	55.91		83 10	52.00		77 E (C)	1074	14848
					1725			1194		May 28, 1977		14853
					20.52			16.12				14854
STACKS				42 11	633		83 09	370		77 E (C)	1076	14848
					20.29			15.82		May 28, 1977		14853
				42 11	626		83 09	363				14854
STACKS				42 11	32.47			3.88		77 E (C)	1098	14848
					1002		83 09	89		May 28, 1977		14853
				42 11	32.09			4.05				14854
STACKS				42 11	990		83 09	93		77 E (C)	1098	14848
					31.79			4.40		May 28, 1977		14853
				42 11	981		83 09	101				14854
					38.18			6.67		77 E (C)	1098	14848
FLARE				42 11	1178		83 09	153		May 28, 1977		14853
					15.78			57.28				14854
SPIRE				42 12	487		83 08	1314		77 E (C)	1098	14848
					29.88			42.50		May 28, 1977		14853
E				42 12	922		83 08	975				14854
CHY										77 E (C)	1098	14848
										May 28, 1977		14853
Dropped points scaled by: JDR												14854
"												
New positions plotted by:												
"												

Triangulation positions plotted by: JDR Date: 9/28/77 checked by: FPM

checked by: Date:

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> 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>FIELD (Cont'd)</b> <b>B. Photogrammetric field positions** require</b> 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
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection P - Photogrammetric Vis - Visually 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	<b>II. TRIANGULATION STATION RECOVERED</b> 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 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 <b>**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.</b>
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.		U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY	
NON-NAVIGATIONAL LANDMARKS FOR CHARTS		LOCALITY		DATE		<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input checked="" type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> COMPILATION ACTIVITY <input type="checkbox"/> FINAL REVIEWER <input type="checkbox"/> QUALITY CONTROL & REVIEW GRP. <input type="checkbox"/> COAST PILOT BRANCH (See reverse for responsible personnel)	
REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA		STATE Michigan		LOCALITY Detroit River		DATE 9/27/77	
The following objects HAVE <input type="checkbox"/> HAVE NOT <input type="checkbox"/> been inspected from seaward to determine their value as landmarks.		SURVEY NUMBER T-12097		DATUM N.A. 1927		METHOD AND DATE OF LOCATION (See instructions on reverse side)	
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)	LATITUDE		LONGITUDE		OFFICE	FIELD
		° / ' " D.M. Meters	° / ' " D.P. Meters	° / ' " D.M. Meters	° / ' " D.P. Meters		
STACK		42 12	58.27	83 08	31.47	77 E (C) 1100 May 28, 1977	14848 14853 14854
STACK						Not identifiable	14848 14853 14854
STACK						Not identifiable	14848 14853 14854
STACK						Not identifiable	14848 14853 14854
STACK						Not identifiable	14848 14853 14854
TOWER		42 13	29.30	83 08	22.50	77 E (C) 1100 May 28, 1977	14848 14853 14854
TOWER		42 13	47.22	83 08	10.16	77 E (C) 1100 May 28, 1977	18484 14853 14854
FP						Not identifiable	14848 14853 14854
TANK		42 14	19.74	83 09	6.80	77 E (C) 1102 May 28, 1977	14848 14853 14854
Dropped points scaled by: JDR " checked by: FPM New positions plotted by:	Date: 9/28/77 Date: 9/28/77 Date:						

Triangulation positions plotted by: JDR Date: 9/28/77 checked by: FPM

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64,	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> 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>FIELD (Cont'd)</b> <b>B. Photogrammetric field positions** require</b> 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
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> 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.	<b>II. TRIANGULATION STATION RECOVERED</b> 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 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.



RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
POSITIONS DETERMINED AND/OR VERIFIED	FIELD ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW	OFFICE ACTIVITY REPRESENTATIVE
ACTIVITIES	<input type="checkbox"/> REVIEWER <input type="checkbox"/> QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
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<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> Enter the applicable data by symbols as follows: F - Field                      P - Photogrammetric L - Located                  Vis - Visually V - Verified 1 - Triangulation          5 - Field identified 2 - Traverse                6 - Theodolite 3 - Intersection          7 - Planetable 4 - Resection              8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	<b>II. TRIANGULATION STATION RECOVERED</b> 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 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75
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[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW	
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