

T-12095

T-12095

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-12095	<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> BELLE ISLE	
19 <sub>71</sub> TO 19 <sub>77</sub>	
REGISTERED IN ARCHIVES	
DATE	

## DESCRIPTIVE REPORT - DATA RECORD

## TYPE OF SURVEY

- ☒ ORIGINAL  
☐ RESURVEY  
☐ REVISED

SURVEY TP12095

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 April 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

Michigan

ZONE

South

## 5. SCALE

1:15,000

STATE

ZONE

## III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: <u>Analytic</u>	BY	D. Brant	June 1972
	LANDMARKS AND AIDS BY	H. Eichert	June 1972
2. CONTROL AND BRIDGE POINTS METHOD:	PLOTTED BY	D. Brant	Aug 1977
	CHECKED BY	H. Eichert	Aug 1977
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: <u>Wild B-8</u> SCALE: <u>1:15,000</u>	PLANIMETRY BY	F. Margiotta	Nov 1977
	CHECKED BY	L. Neterer, J. Byrd	Nov. 1977
	CONTOURS BY	N.A.	--
	CHECKED BY	N.A.	--
4. MANUSCRIPT DELINEATION METHOD: <u>Smooth drafted</u> <u>and graphic</u> SCALE: <u>1:15,000</u>	PLANIMETRY BY	J. Roderick	May 1979
	CHECKED BY	L. Neterer	Sept 1979
	CONTOURS BY	N.A.	--
	CHECKED BY	N.A.	--
	HYDRO SUPPORT DATA BY	N.A.	--
	CHECKED BY	N.A.	--
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	L. Neterer	Sept 1979
6. APPLICATION OF FIELD EDIT DATA	BY	N.A.	--
	CHECKED BY	N.A.	--
7. COMPILATION SECTION REVIEW <u>Class III</u>	BY	C. Blood	May 1983
8. FINAL REVIEW <u>Class III</u>	BY	L. O. Neterer, Jr	June 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-12095  
COMPILATION SOURCES

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild R.C.-8 focal length L=152.21mm "L", "E" focal length E=152.71mm		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED	TIME REFERENCE	
TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY			ZONE Central MERIDIAN 90th	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
* 71 L(c) 5613-5618	May 14, 1971	Not needed	1:30,000	N.A.
77 E(c) 1132-1143	May 28, 1977		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 Windmill Point Gage was 574.45 feet or 2.75 feet above the Lake St. Clair Low Water Datum.

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

The river level on May 28, 1977 measured at the Windmill Point Gage, was 574.18 feet. The shoreline on both sides of the river was compiled by photo interpretation of the above listed 1971 color compilation/bridging photography. The American side of the river was updated using 1977 color photography.

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

## 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
No survey	No survey	No survey	T-12096

REMARKS

T-12095  
HISTORY OF FIELD OPERATIONSI. ☒ 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-12095  
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.	May 1979	Class III Manuscript	Aug 4, 1980	Aug 4, 1980
Final review Class III	June 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: \_\_\_\_\_

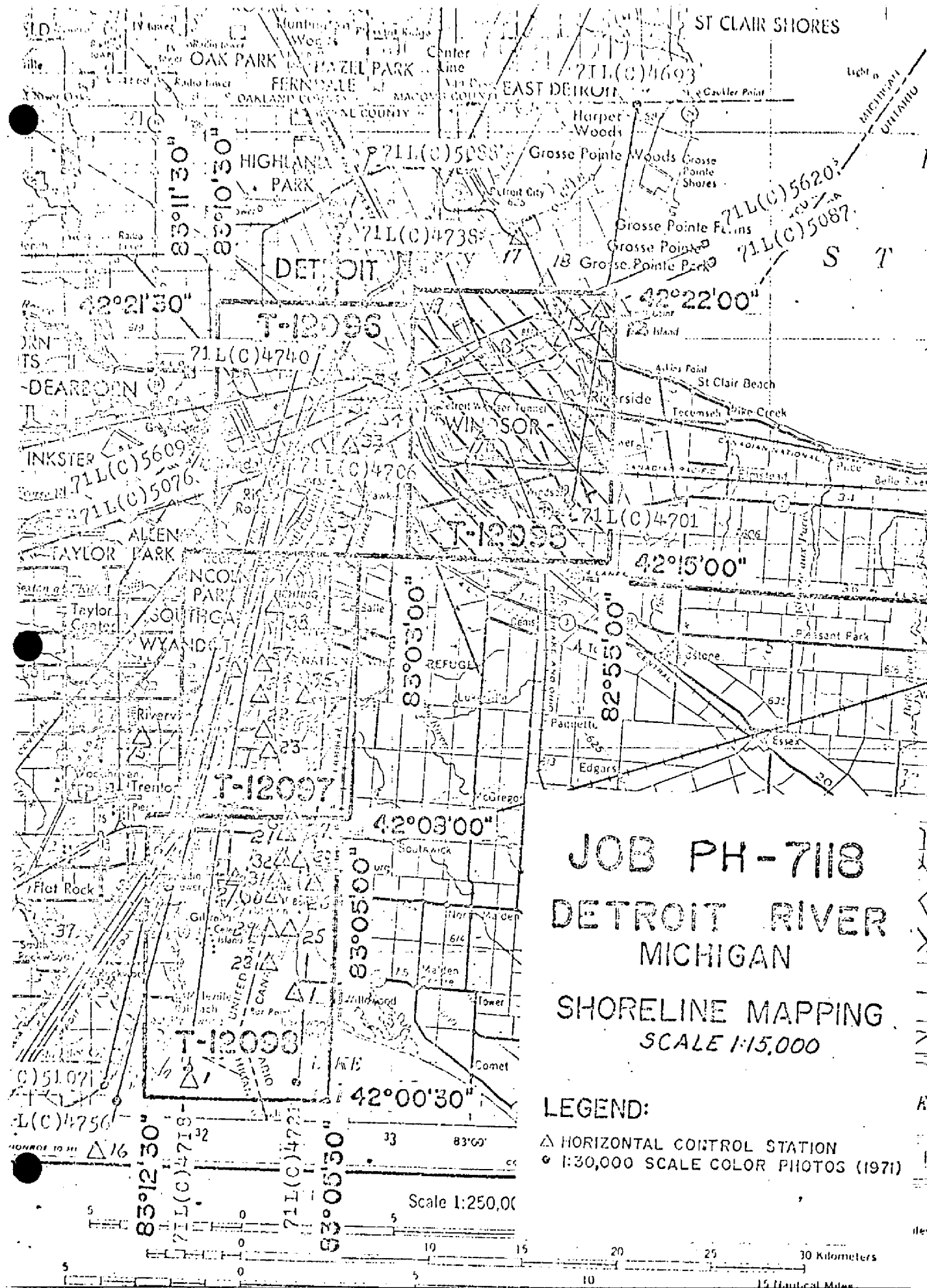
## III. FEDERAL RECORDS CENTER DATA

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	





SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORT  
T-12095

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 152.21mm) at 1:30,000 scale. The same photography was used for compilation. Additional photography was taken in May 1977 to update compilation on the American side of the river using the original control. This photography was taken with color film using the "E" camera (focal length 152.71 mm) at 1:20,000 scale.

Analytic aerotri<sup>A</sup>ngulation was performed at the Washington Science Center in April 1971.

Compilation was performed at the Atlantic Marine Center from office interpretation of the 1971 and 1977 color photography in September 1979.

Final review was performed at the Atlantic Marine Center in June 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-12095

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. *See Plan*

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 1:30,000 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:

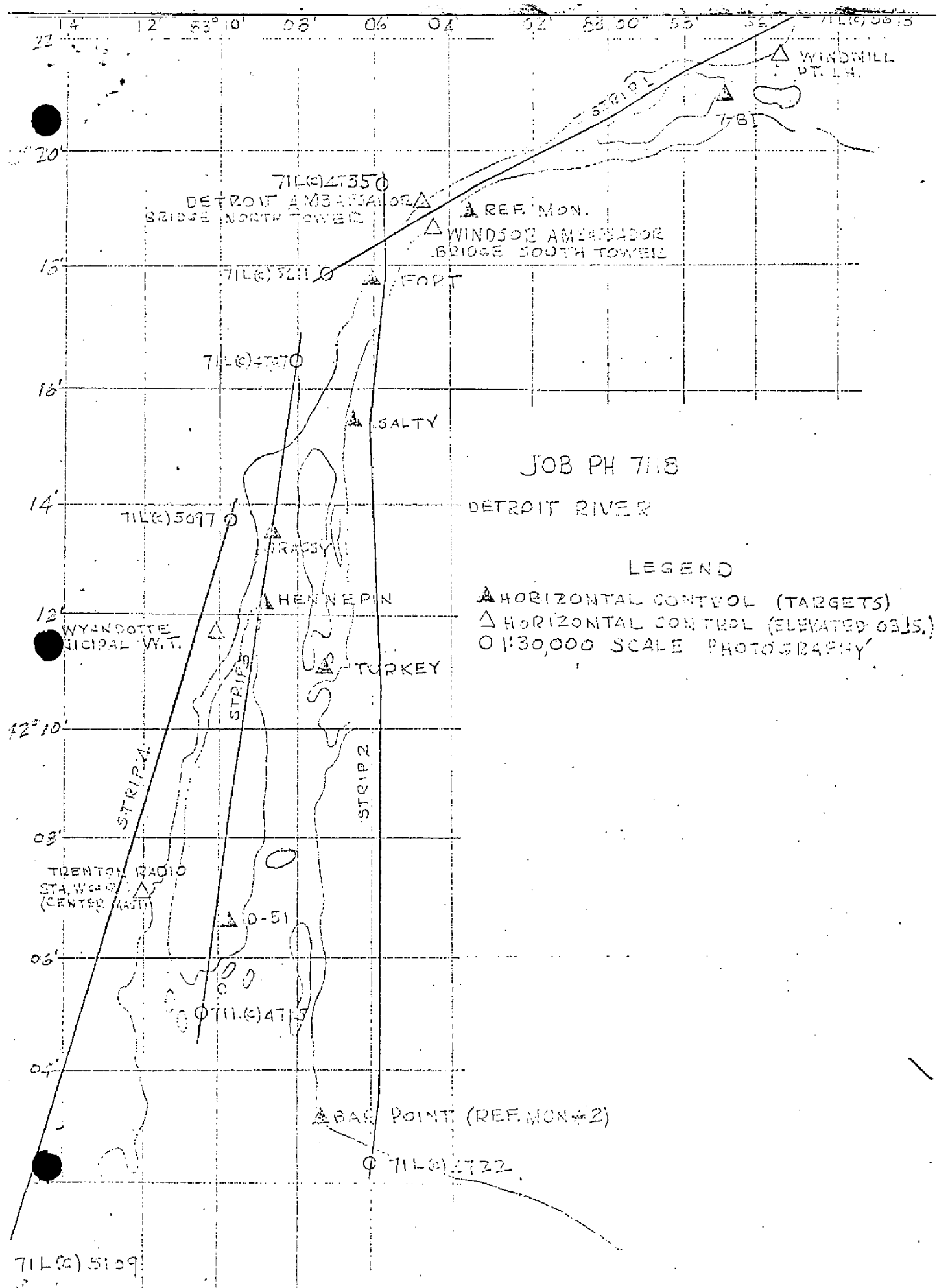


Donald M. Brant  
Cartographer

Approved and Forwarded:



Henry P. Eichert, Chief  
Aerotriangulation Section



NOAA FORM 76-41  
(6-75)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	SOURCE OF INFORMATION (Index)	GEODEIC DATUM		AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET		GEOGRAPHIC POSITION		REMARKS
			STATE	ZONE		North	South	$\phi$ LATITUDE	$\lambda$ LONGITUDE	
T-12095	PH-7118		N.A. 1927							Coastal Mapping Unit, AMC
7 BI (USLS), 1931	Bridge		X= 2,372,852.481							
DETOIT,	Form 164	16100	Y= 311,804.172							
WINDMILL POINT LIGHTHOUSE	IBC		X= 2,379,309,190					$\phi$ 42° 21' 27.225"		
1932	pg. 5	17100	Y= 315,688.776					$\lambda$ 82° 55' 47.859"		
DETOIT ST. JOSEPHAT			X= 2,347,347.80							
CATHOLIC CHURCH SPIRE,			Y= 315,412.80							
1932		14114	X= 2,360,681.28					$\phi$ 42° 20' 17.597"		
DETOIT RADIO STATION	420832		Y= 308,336.58					$\lambda$ 82° 59' 57.479"		
K.Q.A. 414, NORTHEAST MAST,	1048	14118	X= 2,360,476.07					$\phi$ 42° 20' 14.817"		
1957	420832		Y= 308,051.88					$\lambda$ 83° 00' 00.271"		
DETOIT RADIO STATION	1049	14120	X= 2,371,166.11					$\phi$ 42° 21' 31.771"		
K.Q.A. 414, SOUTHWEST MAST,	420832		Y= 316,014.74					$\lambda$ 82° 57' 36.229"		
1957	1014	16114	X= 2,360,627.13					$\phi$ 42° 18' 28.91"		
DETOIT EDISON COMPANY	420832		Y= 297,332.02					$\lambda$ 83° 00' 00.52"		
PLANT, NORTH STACK,	1090		X= 2,360,480.59					$\phi$ 42° 18' 28.93"		
1932	420832		Y= 297,331.72					$\lambda$ 83° 00' 02.47"		
WINDSOR, GENERAL MOTORS,	1091		X= 2,372,769.84					$\phi$ 42° 20' 49.132"		
COMPANY STACK,	420832		Y= 311,724.13					$\lambda$ 82° 57' 15.807"		
1932	1010	16110	X= 2,347,373.67					$\phi$ 42° 19' 02.347		
WINDSOR-CANADIAN PACIFIC	420832		Y= 300,511.19					$\lambda$ 83° 02' 56.233"		
RAILROAD, RELAY TOWER,	1089	14112	COMPUTATION CHECKED BY							DATE 9/15/77
1957		8/23/77	A. C. Rauck, Jr.							
COMPUTED BY		DATE	LISTING CHECKED BY							DATE 8/23/77
F. Maiglotte		8/22/77	F. Maiglotte							
LISTED BY		DATE	HAND PLOTTING CHECKED BY							DATE
A. C. Rauck, Jr.										
HAND PLOTTING BY										

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

NOAA FORM 76-41  
(6-75)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.		JOB NO.		GEODEIC DATUM		ORIGINATING ACTIVITY	
T-12095		PH-7118		N.A. 1927		Coastal Mapping Unit, AMC	
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI-ANGULATION POINT NUMBER	COORDINATES IN FEET		GEOGRAPHIC POSITION		REMARKS
			STATE Michigan	ZONE South	$\phi$ LATITUDE	$\lambda$ LONGITUDE	
WINDSOR T.V. STATION	420832		X= 2,347,217.41		$\phi$ 42° 18' 59.534"		
CKLW, MAST	1093		Y= 300,224.02		$\lambda$ 83° 02' 58.371"		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
			X=		$\phi$		
			Y=		$\lambda$		
COMPUTED BY		DATE	COMPUTATION CHECKED BY		DATE		
F. Margiotta		8/23/77	A.C. Rauck, Jr.		9/15/77		
LISTED BY		DATE	LISTING CHECKED BY		DATE		
A.C. Rauck, Jr.		8/23/77	F. Margiotta		8/23/77		
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE		

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

COMPILATION REPORT  
T-12095

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, were used to graphically update the American side of the map, 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 photography were not needed because of 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 1971 compilation photographs with the 1977 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. See Item #32.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S. Geological Survey Quadrangles: Belle Isle, Mich.-Ont., scale 1:24,000, 1968, photorevised 1973; and Detroit, Mich.-Ont., scale 1:24,000, 1968, photorevised 1973.

47 - COMPARISON WITH NAUTICAL CHARTS

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

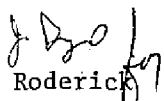
ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

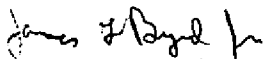
ITEMS TO BE CARRIED FORWARD

None.

Submitted by,

  
J. Roderick  
Cartographer  
May 31, 1979

Approved,

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



REVIEW REPORT  
SHORELINE  
T-12095

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. quadrangles: Belle Isle, Michigan-Ontario and Detroit, Michigan-Ontario. Both are dated 1968, photorevised 1973, and 1:24,000 scale.

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 April 21, 1982; and 14853, 8th edition, scale 1:15,000, dated April 14, 1979.

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.*  
Lowell O. Neterer, Jr.  
Final Reviewer

Approved for forwarding,

*Billy H. Barnes*  
Billy H. Barnes  
Chief, Photogrammetric Section, AMC

Approved,

*Gregory Z. Fenn*  
Chief, Photogrammetric Section, Rockville

*Ronald K. Brewer*  
Chief, Photogrammetry Branch,  
Rockville

May 16, 1984

GEOGRAPHIC NAMES

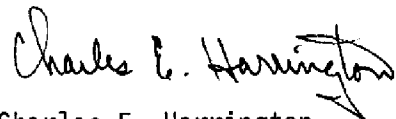
FINAL NAME SHEET

PH-7118 (Detroit River, Michigan)

TP-12095

Belle Isle	Grosse Pointe Park (locality)
Blue Heron Lagoon	Lake Muskoday
Canadian National (RYS)	Lake Okonoka
Conners Creek	Lake St. Clair
Conrail (RR)	Lake Tacoma
Detroit	MacArthur Bridge (cultural)
Detroit River	Peché Island
East Windsor	Riverside
Essex Terminal (RY)	Scott Middle Ground
Fleming Channel	Windmill Point
Grand Trunk Western (RR)	Windsor

Approved by:



Charles E. Harrington  
Chief Geographer  
Nautical Charting Division

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.										U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION									
NONFLOATING AIDS <del>TO NAVIGATION</del> MARKS FOR CHARTS										ORIGINATING ACTIVITY									
<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED			REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA			STATE Michigan		LOCALITY Detroit River		DATE 5/30/79		<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input checked="" 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)							
OPR PROJECT NO.			JOB NUMBER PH-7118			SURVEY NUMBER T-12095			DATUM N.A. 1927			METHOD AND DATE OF LOCATION (See instructions on reverse side)				CHARTS AFFECTED			
CHARTING NAME			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		FIELD		CHARTS AFFECTED					
** LIGHTS	Memorial Park Marina Lights (east)									Not identifiable				14848 14853					
** LIGHTS	Memorial Park Marina Lights (west)									Not identifiable				14848 14853					
** LIGHT	Charted as two lights but listed only once in both 1979 and 1984 Light Lists.									Not identifiable				14848 14853					
LIGHT	Canadian light--not listed in U.S. Light List									Not identifiable				14848 14853					
LIGHT	Detroit Boat Club Light			42 20		29.59		82 59		34.99		77 E (C) 1137 May 28, 1977		14848 14853					
LIGHT	Waterworks Intake Crib Light			42 21		08.26		82 59		00.17		77 E (C) 1141 May 28, 1977		14848 14853					
LIGHT	Waterworks Intake Lagoon Light			42 21		00.16		82 57		16.78		77 E (C) 1141 May 28, 1977		14848 14853					
LIGHT	Belle Isle Light			42 20		24.11		82 57		37.79		77 E (C) 1139 May 28, 1977		14848 14853					
LIGHT	William Livingstone Memorial Light (Belle Isle, William Livingstone Lighthouse, 1932)			42 20		49.132		82 57		15.807		77 E (C) 1141 May 28, 1977		14848 14853					
LIGHTS	Memorial Park Marina West Entrance Lights			42 20				82 57				Not identifiable		14848 14853					



RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	F. Margiotta
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
<b>OFFICE</b> <b>1. 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*</b> 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
<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	<b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</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 **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 (8-74) Replaces C&GS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				NONFLOATING AIDS <del>OR LAND MARKS</del> FOR CHARTS				ORIGINATING ACTIVITY			
<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED		REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA		STATE Michigan		LOCALITY Detroit River		DATE 5/30/79		<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input checked="" 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)					
OPR PROJECT NO.		JOB NUMBER		SURVEY NUMBER		DATUM		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED					
N.A.		PH-7118		T-12095		N.A. 1927									
CHARTING NAME		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		FIELD					
LIGHTS		Memorial Park Marina East Entrance Lights							Not identifiable			14848 14853			
LIGHT		Peché Island Light		42 20	54.54	82 56	33.68	77 E (C) 1143				14848 14853			
LIGHT		Windmill Point Light (Detroit, Windmill Point Lighthouse, 1932)		42 21	27.225	82 55	47.859	77 E (C) 1143				14848 14853			
LIGHT		Waterfront Park Breakwater Outer Light						Not identifiable				14848 14853			
LIGHT		Waterfront Park Breakwater Inner Light						Not identifiable				14848 14853			
*		Only one light is charted but two are listed in the 1979 Light List. The 1984 Light List calls these two lights													
		Windmill Point Park Breakwater Outer Light and Windmill Point Park Breakwater Inner Light.													

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RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	F. Margiotta
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>1. 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>1. 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>11. 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>111. 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-EXPLORING AIDS OR LANDMARKS FOR CHARTS				LOCALITY				DATE					
REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA				STATE Michigan				5/30/79					
The following objects HAVE <input type="checkbox"/> HAVE NOT <input checked="" type="checkbox"/> been inspected from seaward to determine their value as landmarks.				DATUM									
OPR PROJECT NO.				JOB NUMBER				SURVEY NUMBER					
N.A.				PH-7118				T-12095					
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			
FP		Belle Isle--lower center		42 20		16.24		82 58		35 12		77 E (C) 1139 May 28, 1977	14848 14853
CARILLON		Formerly NWS signal at Coast Guard Station on Chart 14853 April 76		42 20		24.50		82 59		43 1		77 E (C) 1139 May 28, 1977	14848 14853
FP		Belle Isle		42 20		756		82 57		822		77 E (C) 1137 May 28, 1977	14848 14853
* CUPOLAS		Northeasterly of Two		42 19		1072		83 00		204		77 E (C) 1137 May 28, 1977	14848 14853
* CHYS		Northeasterly of Four		42 19		1035		82 59		1339		77 E (C) 1137 May 28, 1977	14848 14853
* CHYS		Northwesterly of Four		42 19		32.80		83 00		00.70		77 E (C) 1137 May 28, 1977	14848 14853
* TANK				42 19		26.87		82 59		1239		77 E (C) 1137 May 28, 1977	14848 14853
* CUPOLAS		Southwesterly of Two		42 19		34.61		83 00		9.43		77 E (C) 1137 May 28, 1977	14848 14853
STACK		Northeasterly of Two		42 20		35.23		83 00		11.84		77 E (C) 1137 May 28, 1977	14848 14853
STACK		Southwesterly of Two		42 20		34.90		83 00		12.62		77 E (C) 1137 May 28, 1977	14848 14853



RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	F. Margiotta
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
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	<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-EXAMINING AID OR LANDMARKS FOR CHARTS				LOCALITY				DATE			
REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA				STATE Michigan				Detroit River			
TO BE CHARTED <input checked="" type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED				HAVE <input type="checkbox"/> HAVE NOT <input checked="" type="checkbox"/> been inspected from seaward to determine their value as landmarks.				5/30/79			
OPR PROJECT NO.				JOB NUMBER				SURVEY NUMBER			
N.A.				PH-7118				T-12095			
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			
TANK				42 20	40.48	83 00	12.49	77 E (C)	1137		14848
STACKS			Southwesterly of Seven S STACK on Chart 14853	42 21	29.26	82 57	37.40	77 E (C)	1141		14848
STACK				42 21	32.96	82 55	48.76	44 E (C)	1143		14848
R TR			(Detroit Radio Station K.Q.A. 414 Northeast Mast, 1957)	42 20	17.597	82 59	57.479	77 E (C)	1137		14848
R TR			(Detroit Radio Station K.Q.Q. 414 Southwest Mast)	42 20	14.817	83 00	00.271	77 E (C)	1137		14848
FOUNTAIN			James Scott Memorial Fountain	42 20	05.87	82 59	57.70	77 E (C)	1137		14848
T.V. MAST			(Windsor T.V. Station CKLW, Mast, 1957)	42 18	59.534	83 02	58.371	77 E (C)	1134		14848
R RELAY TR			(Windsor--Canadian Pacific Railroad, Relay Tower 1957)	42 19	02.347	83 02	56.233	77 E (C)	1134		14848
BLDG			City National Bank	42 19	48.81	83 02	51.51	77 E (C)	1134		14848
R MAST				42 19	56.62	83 02	54.95	77 E (C)	1134		14848
				42 19	1747	83 02	1258	May 28, 1977			14853

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RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	F. Mariotti
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)
INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION'	
(Consult Photogrammetric Instructions No. 64.)	
<b>OFFICE</b> <b>1. 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	<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
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods. **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	
POSITIONS DETERMINED AND/OR VERIFIED	F. Margiotta
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                      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>
<b>*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.</b>	

