

TP-0 07270

TP-00727

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

<i>Map No.</i> TP-00727	<i>Edition No.</i> 1
<i>Job No.</i> CM-7907	
<i>Map Classification</i> Class III Final	
<i>Type of Survey</i> SHORELINE	
LOCALITY	
<i>State</i> MICHIGAN	
<i>General Locality</i> SPRING LAKE and LOWER GRAND RIVER	
<i>Locality</i> GRAND HAVEN	
19 79 TO 19	
REGISTRY IN ARCHIVES	
DATE	

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
DESCRIPTIVE REPORT - DATA RECORD		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE Atlantic Marine Center Coastal Mapping Division, Norfolk, VA		SURVEY TP. <u>00727</u> MAP EDITION NO. (1) MAP CLASS III (Final) JOB <u>PHCM-7907</u>	
OFFICER-IN-CHARGE Max Ethridge		LAST PRECEDING MAP EDITION TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED JOB PH- MAP CLASS SURVEY DATES: 19__ TO 19__	

I. INSTRUCTIONS DATED			
1. OFFICE		2. FIELD	
Aerotriangulation	January 20, 1982	Field	February 15, 1980
Compilation	June 8, 1982		

II. DATUMS			
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify)	
2. VERTICAL: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> MEAN HIGH-WATER <input type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL </div> <div>OTHER (Specify)</div> </div>		International Great Lakes Datum (1955), Lake Michigan Low Water Datum	
3. MAP PROJECTION Lambert Conformal Conic		4. GRID(S) STATE Michigan ZONE South	
5. SCALE 1:15,000		STATE ZONE	

III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	DATE
1. AEROTRIANGULATION	BY	L. Harrod, Jr.	Jan. 1982
METHOD: Analytic	LANDMARKS AND AIDS BY	"	"
2. CONTROL AND BRIDGE POINTS	PLOTTED BY	"	"
METHOD: Coradomat	CHECKED BY	"	"
3. STEREOSCOPIC INSTRUMENT	PLANIMETRY BY	R. Kravitz	July 1982
COMPILATION	CHECKED BY	F. Mauldin	"
INSTRUMENT: Wild B-8	CONTOURS BY	NA	
SCALE: 1:15,000	CHECKED BY	NA	
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	R. Kravitz	Aug 1982
	CHECKED BY	F. Mauldin	Sept 1982
METHOD: Smooth Drafted	CONTOURS BY	NA	
	CHECKED BY	NA	
SCALE: 1:15,000	HYDRO SUPPORT DATA BY	R. Kravitz	Aug 1982
	CHECKED BY	F. Mauldin	Sept 1982
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	F. Mauldin	Sept 1982
6. APPLICATION OF FIELD EDIT DATA	BY	NA	
	CHECKED BY	NA	
7. COMPILATION SECTION REVIEW Class III	BY	F. Mauldin	Sept 1982
8. FINAL REVIEW Class III	BY	L.O. Neterer, Jr.	Oct 1982
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	"	"
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	H. Lucas	Aug 1983
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY		

NOAA FORM 76-36B (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY			
TP-00727 COMPILATION SOURCES					
1. COMPILATION PHOTOGRAPHY					
CAMERA(S) Wild R.C. 8E (152.71)		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES NA <input type="checkbox"/> REFERENCE STATION RECORDS NA <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY NA				ZONE Eastern	<input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT
				MERIDIAN 75th	
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
79 E(C) 6660-6667	5/29/79	13:01	1:30,000	NA See Remarks	
79 E(C) 6690-6695	5/29/79	13:40	1:30,000	NA See Remarks	
REMARKS Lake level at the time of photography was 579.77 feet, Lake Michigan Low Water Datum Holland gage or 2.97 feet above I.G.L.D.					
2. SOURCE OF MEAN HIGH-WATER LINE: The Mean High Water line is not applicable. The "shoreline" was delineated from the above listed photographs, where the water interfaces with the land.					
3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE: Not applicable					
4. CONTEMPORARY HYDROGRAPHIC SURVEYS <i>(List only those surveys that are sources for photogrammetric survey information.)</i>					
SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED
5. FINAL JUNCTIONS					
NORTH No Survey	EAST No Survey		SOUTH No Survey		WEST No Survey
REMARKS					

TP-00727
HISTORY OF FIELD OPERATIONSI. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Tibbetts	Aug. 1981
2. HORIZONTAL CONTROL	RECOVERED BY J. Dunford	Aug. 1981
	ESTABLISHED BY J. Dunford	Aug. 1981
	PRE-MARKED OR IDENTIFIED BY J. Dunford	Aug. 1981
3. VERTICAL CONTROL	RECOVERED BY NA	
	ESTABLISHED BY NA	
	PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY J. Dunford	Aug. 1981
	LOCATED (Field Methods) BY J. Dunford	Aug. 1981
	IDENTIFIED BY J. Dunford	Aug. 1981
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY BY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	None
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY	None

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

Photo identified

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
79 E(C)6665	Challenge Refrigerator Co. Stack, 1932		

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
79 E(C)6665	Challenge, Refrigerator Co. Stack		

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

7. SUPPLEMENTAL MAPS AND PLANS

None

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

1 - Form 76-53 CSI card

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete pending field edit	Sept. 1982	Class III Manuscript	-----	--
Final Review, Class III	Oct. 1982	Class III Final Map No Field Edit Performed	Sept 1, 83	--

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	756	Sept. 1, 83	Landmarks for charting
1	756	"	Aids for charting

2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: _____3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: _____

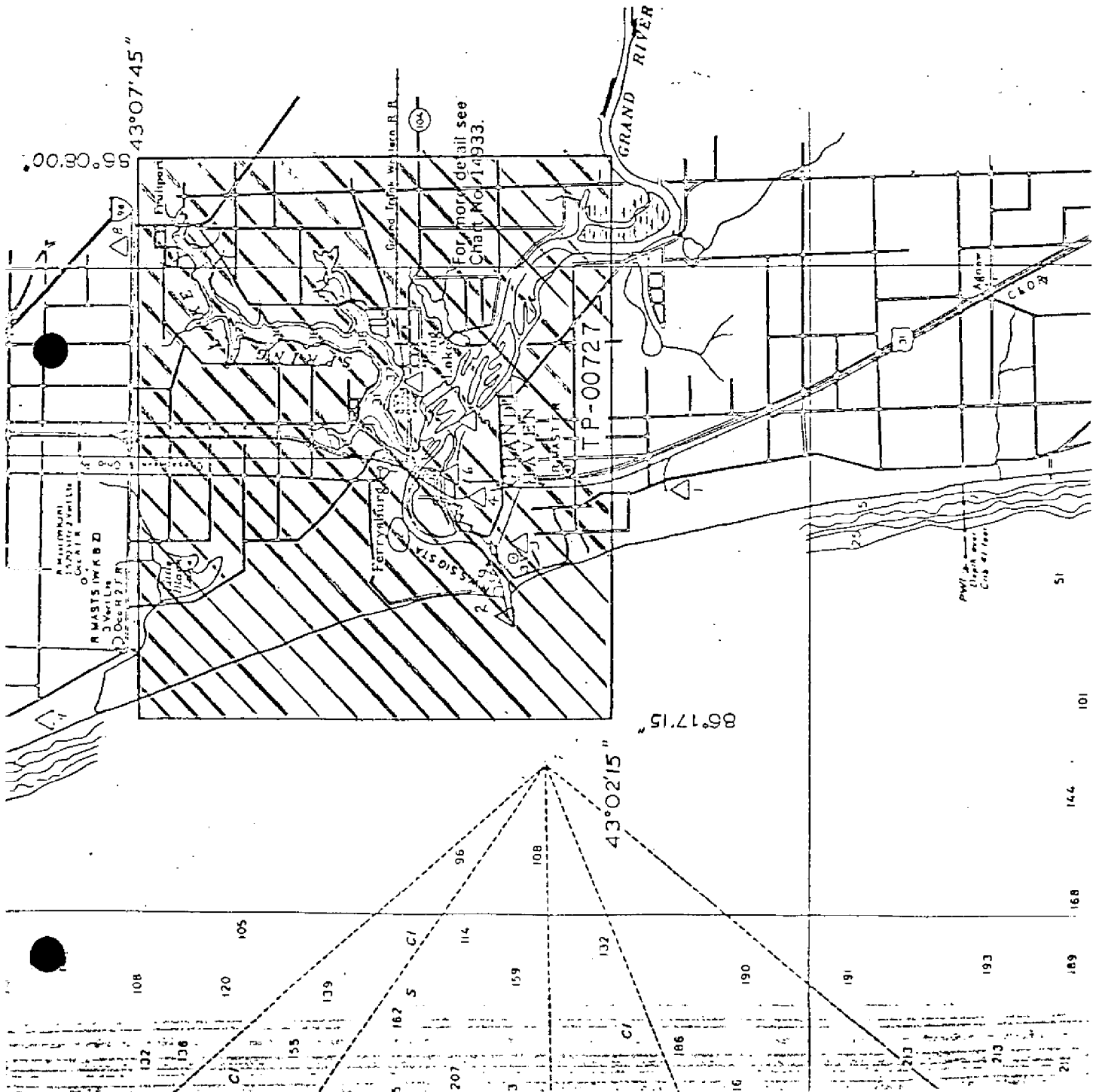
III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS. 376-40 SUBMITTED BY FIELD PARTIES. 14-00
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: SEPTEMBER 1983

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

TP-00727

This 1:15,000 scale shoreline map is the only map in project CM-7907 Grand Haven, Lake Michigan, Michigan.

This project encompasses the eastern lake shore at Grand Haven Michigan from latitude $43^{\circ}02'15''$ north to latitude $43^{\circ}07'45''$.

The project instructions, dated June 8, 1982, call for this map to be registered as a Class III map.

Field work prior to compilation was accomplished in August 1981. It consisted of the identification of horizontal control by photo identification methods to meet aerotriangulation requirements.

Photographic coverage was provided in May 1979 for aerotriangulation using color film with the E camera at 1:30,000 scale. The same photography was used for compilation.

Analytic aerotriangulation was performed at the Washington Science Center in March 1982.

Compilation was performed at the Atlantic Marine Center from office interpretation of the 1979 photography in August of 1982.

Final review was performed at the Atlantic Marine Center in October 1982. No field edit was accomplished and the Map is to be registered as a Final Class III map.

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

7

FIELD INSPECTION

TP-00727

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
Grand Haven Lake Michigan, Michigan
CM-7907
March 1982

21. Area Covered

The area covered by this report is Grand Haven Lake Michigan, Michigan. It is covered by one (1) 1:15,000 scale manuscript, TP-00727.

22. Method

Two strips of 1:30,000 scale photographs were bridged by analytic aerotriangulation methods and adjusted to ground on the Michigan Lambert Conformal State Plane Coordinate System, Michigan South Zone. Photoidentified horizontal control stations were provided. Aids and landmarks were located on bridging photographs. Ratio values were determined for the 1:30,000 color photographs. Ruling of manuscript and plotting of points were done on the Coradimat Plotter.

23. Adequacy of Control

The horizontal control provided was sparse. Tie points were used to supplement photoidentified control. The project will meet National Standards of Map Accuracy.

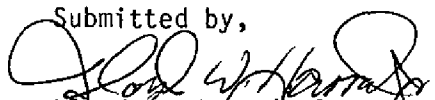
24. Supplemental Data

Vertical control was taken from USGS quads.

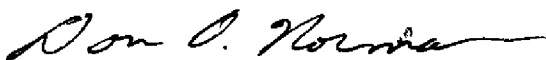
25. Photography

The coverage and quality of the photographs proved adequate for the project.

Submitted by,

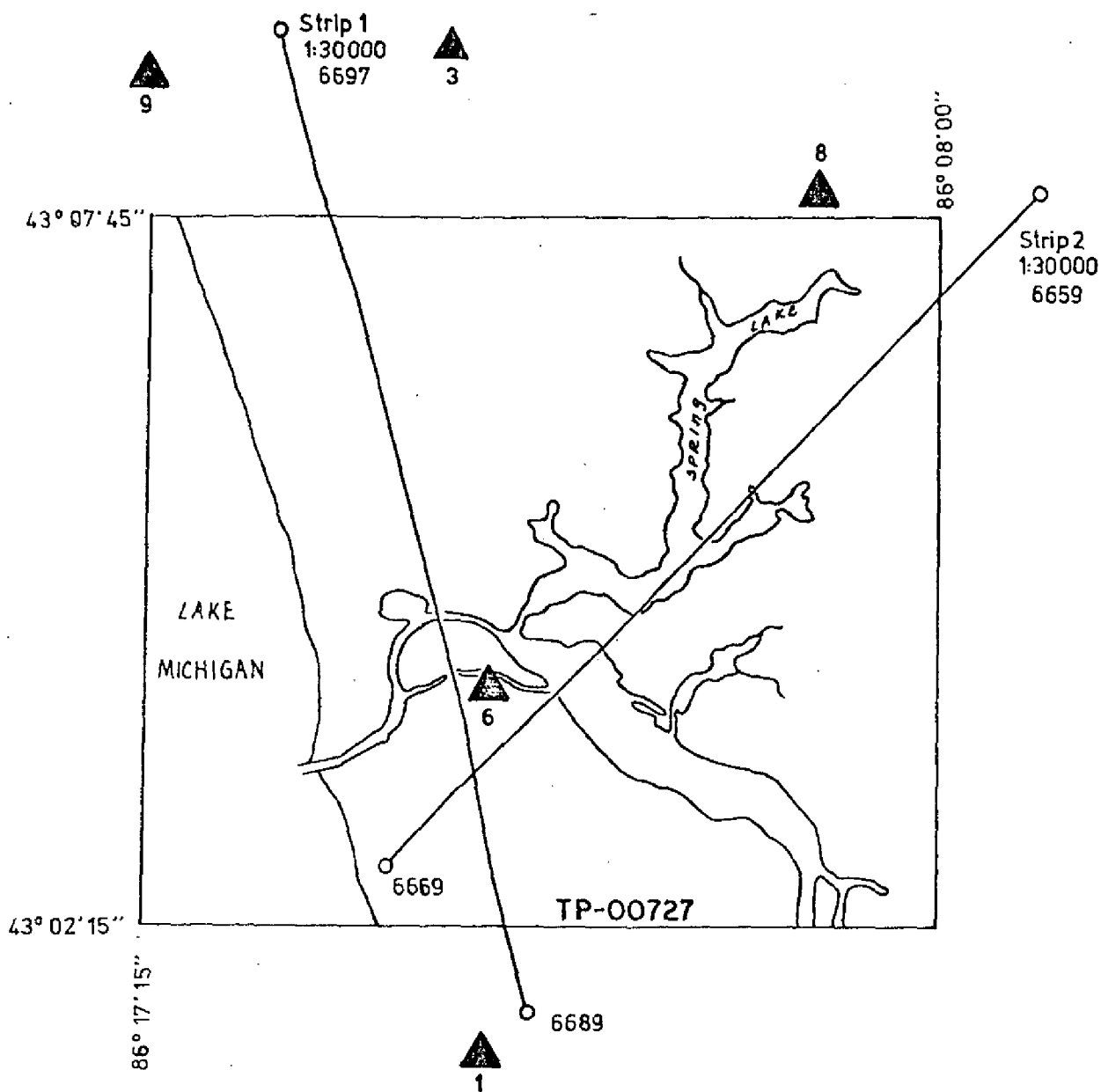

Lloyd W. Hakrod, Jr.

Approved and Forwarded:



Don O. Norman
Chief, Aerotriangulation Section

JOB CM-7907
GRAND HAVEN
LAKE MICHIGAN
MICHIGAN



SHORELINE MAPPING
SCALE 1:15,000

BRIDGING PHOTOGRAPHY 79E (C)

LEGEND

▲ TRIANGULATION

CM-7907
Grand Haven Lake Michigan, Michigan
Fit to Control
(In Feet)

Stations held in adjustment—▲

<u>Strip 1</u>		<u>Point No.</u>	<u>X</u>	<u>Y</u>
▲ 1. Grand Haven TP-01	Sub pt. A	689101	-.271	-.818
	Sub pt. B	689102	-.120	-.568
2. Grand Haven, Pierhead				
	Front Range Light 1932	690101	-6.793	.057
	Rear Range Light 1932	690102	-4.830	-.542
▲ 6. Challenge Refrigerator Co. Stack		691100	.159	1.753
	Sub pt. A	691101	2.148	2.907
	Sub pt. B	691102	1.370	-.075
▲ 9. Norton 1932	Sub pt. A	696101	-.963	-1.262
	Sub pt. B	696102	-.703	-3.466
	Sub pt. C	696103	-1.734	-1.418
5. AP 1963 Sta. B	Sub pt. 2	696107	.493	-.171
▲ 3. AP 1963 Sta. A2	Sub pt. 1	696104	1.075	.328
	Sub pt. 2	696105	2.995	2.209

Strip 2

▲ 8. Primary Traverse Sta.				
-16 F (USGS) 1932	Sta A	660101	.000	.000
	Sta B	660102	2.672	.412
	Sta C	660103	1.441	1.031
▲ 6. Challenge Refrigerator Co. Stack		691100	.000	-.000
	Sub pt. A	691101	.592	.855
	Sub pt. B	691102	2.679	-3.013
2. Grand Haven, Pierhead				
	Front Range Light 1932	690101	.315	-.178
	Rear Range Light 1932	690102	.385	1.745

CM-7907

Grand Haven Lake Michigan, Michigan
March 1982

Ratio values for color bridging photographs.

<u>1:30,000 scale</u>	X 1.98
79E(C) 6689-6697	

<u>1:30,000 scale</u>	X 1.99
79E(C) 6659-6664	

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODETIC DATUM		ORIGINATING ACTIVITY	
					NA 1927	COASTAL MAPPING DIVISION AMC, Norfolk, VA		
TP-00727		CM-7907			COORDINATES IN FEET STATE <u>Michigan</u> ZONE <u>South</u>	φ LATITUDE λ LONGITUDE	REMARKS	
CHALLENGE REFRIGERATOR CO. STACK, 1932	Quad 430862 Sta 1014			6	x=	φ 43°04'03.963"		
					y=	λ 86°13'08.191"		
GRAND HAVEN PIERHEAD FRONT RANGE LIGHT, 1932	" Sta 1017			2	x=	φ 43°03'24.91"		
					y=	λ 86°15'21.42"		
GRAND HAVEN PIERHEAD REAR RANGE LIGHT, 1932	" Sta 1018			2A	x=	φ 43°03'25.935"		
					y=	λ 86°15'13.631"		
					x=	φ		
					y=	λ		
					x=	φ		
					y=	λ		
					x=	φ		
					y=	λ		
					x=	φ		
					y=	λ		
					x=	φ		
					y=	λ		
					x=	φ		
					y=	λ		
					x=	φ		
					y=	λ		
COMPUTED BY				DATE	COMPUTATION CHECKED BY		DATE	
LISTED BY				DATE	LISTING CHECKED BY		DATE	
HAND PLOTTING BY				DATE	HAND PLOTTING CHECKED BY		DATE	

Compilation Report

TP-00727

31. DELINEATION

The delineation of this map was accomplished by instrument methods using the Wild B-8 stereoplotter. Detail is based on office interpretation of the 1979 aerial photographs. Approximately 1.5 statute miles, about 2' latitude and 1' longitude, located at the SE corner of this map is unsurveyed because of the lack of photographic coverage.

32. CONTROL

The density and placement of horizontal control provided was adequate. Refer to the Photogrammetric Plot Report bound with this Descriptive Report.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Contours are not applicable to the project. Drainage features were compiled by office interpretation of the aerial photographs.

35. SHORELINE AND ALONGSHORE DETAILS

The shoreline and alongshore details are from the natural color photographs. The shoreline describes the water level at the time of photography. There has not been a field inspection of the shoreline.

36. OFFSHORE DETAILS

No unusual problems were encountered in compiling offshore detail.

37. LANDMARKS AND AIDS

Eighteen charted landmarks and three fixed aids to navigation were investigated by systematic photogrammetric methods. These objects were not field inspected. Photogrammetric positions were determined for eighteen objects. The two range lights having geodetic position are part of the geodetic network and were identified on the color photographs.

TP-00727

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

Refer to the Data Record Form 76-36B, Item 5, of the Descriptive Report.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to the Photogrammetric Plot Report dated March 1982.
See Item #32.

46. COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S. Geological Survey Quadrangles:

Grand Haven Michigan, scale 1:24,000, dated 1972, Muskegon West, Michigan, scale 1:24,000 dated 1972, and Muskegon East, Michigan, scale 1:24,000, dated 1972.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following National Ocean Survey Charts: 14906, scale 1:120,000, September 29, 1979, 19th edition; 14933, scale 1:15,000, January 13, 1979, 19th edition

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

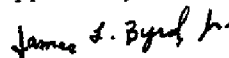
Submitted by,



Robert R. Kravitz
Cartographic Technician

Date: August 11, 1982

Approved,



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

REVIEW REPORT
SHORELINE

TP-00727

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:
Grand Haven, Michigan, Muskegon East and Muskegon West, Michigan.
All three are 1:24,000 scale and dated 1972.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

No contemporary hydrographic survey was conducted in the area
pertaining to this final Class III map.

65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with N.O.S. Charts: 14933, scale 1:15,000
dated January 13, 1979 and 14906, scale 1:120,000, dated September 29,
1979.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This map complies with 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 Branch, AMC

Approved,

for [Signature]
Chief, Photogrammetric Branch, Rockville

Chief, Photogrammetry Division

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-7907 (Grand Haven, Michigan)

TP-00727

Beckwith Brook ✓
Chesapeake and Ohio (RR) ✓
Cornelius Bayou ✓
Dunlevy Bay ✓
Eastmans Island ✓
Ferrysburg ✓
Fruitport ✓
Grand Haven ✓
Grand River ✓
Harbor Island ✓
Lake Michigan ✓
Lloyd Bayou ✓
Norris Creek ✓
Pettys Bayou ✓
Prospect Point
Smith Bayou ✓
South Channel ✓
Spring Lake ✓
Spring Lake (Ppl) ✓
Stahl Bayou ✓
The Sag ✓

Approved by:

Charles E. Harrington

Charles E. Harrington
Chief Geographer, C3x5

DISSEMINATION OF PROJECT MATERIAL
CM-7907
GRAND HAVEN LAKE MICHIGAN, MICHIGAN

NATIONAL ARCHIVES/FEDERAL RECORD CENTER

Brown Jacket
Project Computer Readout
Field Notebook of Photoidentification Control
Bridging Photographs and Transparencies

Project Completion Report

BUREAU ARCHIVES

Registration Copy of Map
Descriptive Report of Map

REPRODUCTION DIVISION

8x Reduction Negative of Map

OFFICE OF STAFF GEOGRAPHER

Geographic Names Standard

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	Robert R. Kravitz
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.)	
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) 8. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 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	III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH 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.
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	Robert R. Kravitz
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.)	
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) 8. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 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	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.	

Replaces C&GS Form 567.

NONFLOATING AIDS ~~FOR CHARTS~~ FOR CHARTS

U.S. DEPARTMENT OF COMMERCE
OCEANOGRAPHIC 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)

<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 Div. AMC, Norfolk, VA	STATE Michigan	LOCALITY Grand Haven	DATE 6/21/82
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The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM	METHOD AND DATA (See Instructions)
	CM-7907	TP-00727	NA 1927	POSITION

CHARTING NAME	DESCRIPTION <i>(Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses.)</i>	LATITUDE			LONGITUDE			OFFICE
		°	'	D.M. Meters	°	'	D.P. Meters	
LIGHT	Grand Haven South Pierhead Entrance Light (Grand Haven Pierhead Front Range Light, 1932)	43	03	24.91	86	15	21.42	79 E(C) 6691 5/29/79
LIGHT	Grand Haven South Pierhead Inner Light (Grand Haven Pierhead Rear Range Light, 1932)	43	03	25.935	86	15	13.631	79 E(C) 6691 5/29/79
LIGHT	Grand Haven North Pierhead Light 1	43	03	29.411	86	15	21.205	79 E(C) 6691 5/29/79

[illegible]

RESPONSIBLE PERSONNEL		ORIGINATOR	
TYPE OF ACTION	NAME	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> OTHER (Specify)	
OBJECTS INSPECTED FROM SEAWARD			
POSITIONS DETERMINED AND/OR VERIFIED	R. Kravitz	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.)			
OFFICE I. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75		FIELD (Cont'd) B. Photogrammetric field positions** require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982	
FIELD I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: F - Field L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75		II. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 **PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.	
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.			

[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	<input type="checkbox"/> PHOTO FIELD PARTY <input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETTIC 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	OFFICE ACTIVITY REPRESENTATIVE <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.)	
OFFICE 1. OFFICE IDENTIFIED AND LOCATED OBJECTS Enter the number and date (including month, day, and year) of the photograph used to identify and locate the object. EXAMPLE: 75E(C)6042 8-12-75	FIELD (Cont'd) B. Photogrammetric field positions* require entry of method of location or verification, date of field work and number of the photograph used to locate or identify the object. EXAMPLE: P-8-V 8-12-75 74L(C)2982
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