NOAA FORM 76-35 (3-76)

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

DESCRIPTIVE REPORT

THIS MAP EDITION WILL NOT BE FIELD EDITED
Map No. Edition No.
TP-00727 1
Job No.
CM-7907
Map Classification
Class III Final
Type of Survey
SHORELINE
LOCALITY
State
MICHIGAN MICHIGAN
General Locality SPRING LAKE and
LOWER GRAND RIVER
Locality
GRAND HAVEN
19 79 TO 19
REGISTRY IN ARCHIVES
DATE

*U. S. GOVERNMENT PRINTING OFFICE:1976-669-248

1	OF	15

NOAA FORM 76-36A U. S. DEPARTMENT OF COMMER (3-72) NATIONAL OCEANIC AND ATMOSPHERIC ADM	CE TYPE OF SURVEY	SURVEY TP- 00727
AT MOSFRENCE ADM	ORIGINAL	MAP EDITION NO. (1)
DESCRIPTIVE REPORT - DATA RECORD	RESURVEY	MAP CLASS III (Final)
	REVISED	_{ЈОВ} ру кСМ−7907
PHOTOGRAMMETRIC OFFICE		
Atlantic Marine Center		DING MAP EDITION
Coastal Mapping Division, Norfolk, VA	TYPE OF SURVEY	JOB PH
OFFICER-IN-CHARGE	ORIGINAL RESURVEY	MAP CLASS
Max Ethridge	RESURVEY	SURVEY DATES:
	- REVISEO	19TO 19
1. INSTRUCTIONS DATED		
1. OFFICE	2.	FIELD
Aerotriangulation January 20, 1982 Compilation June 8, 1982	Field	February 15, 1980
II. DATUMS	1.7	<u> </u>
1. HORIZONTAL: 1927 NORTH AMERICAN	OTHER (Specity)	
MEAN HIGH-WATER MEAN LOW-WATER	OTHER (Specify) International Gr	eat Lakes Datum
MEAN LOWER LOW-WATER	l l	higan Low Water Datum
3. MAP PROJECTION		
Lambert Conformal Conic	STATE	GRID(S)
Dampere Gonrormer Gonre	Michigan	South
1:15,000	STATE	ZONE
III. HISTORY OF OFFICE OPERATIONS		
OPERATIONS	NAME	DATE
	L. Harrod, Jr.	Jan. 1982
METHOD: Analytic LANDMARKS AND AIDS		11
2. CONTROL AND BRIDGE POINTS PLOTTED	11 Y	11
METHOD: Coradomat checked:	Jy II	11
3. STEREOSCOPIC INSTRUMENT PLANIMETRY	R. Kravitz	July 1982
COMPILATION CHECKED I	F. Mauldin	
INSTRUMENT: Wild B-8 CONTOURS	NA NA	
SCALE: 1:15,000 CHECKED !		
4. MANUSCRIPT DELINEATION PLANIMETRY		Aug 1982
CHECKED E	374	Sept 1982
метнор: Smooth Drafted	37.4	
		Aug 1982
scale: 1:15,000 HYDRO SUPPORT BATA C	IT Mauldin	Sept 1982
	r F. Mauldin	Sept_1982
6. APPLICATION OF FIELD EDIT DATA	NA NA	
CHECKED 6		
	y F. Mauldin	Sept 1982
	Y L.O. Neterer, Jr.	Oct 1982
	<u> </u>	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	Y Haglucks	Aug 1983
11. MAP REGISTERED - COASTAL SURVEY SECTION	DY TY	007

NOAA FORM 76-36B (3-72)			'n	P-00727		ATIONAL OCE		ATMOSF	PHERIC AD	OF COMMERCE DMINISTRATION DCEAN SURVEY
				MPILATIO		RCES				
1. COMPILATION PH	OTOGRAPHY	′								
CAMERA(S) Wild R.C. 8E	(152.7	1)		ТҮРІ	ES OF PH LEG	OTOGRAPHY END		TIM	E REFERE	ENCE
TIDE STAGE REFERE	•			(c) cc	LOR		ZONE			· <u>-</u>
PREDICTED TIDE		ons Má			NCHROM	IATIC	Ea	stern		XX STANDARD
TIDE CONTROLLE	D PHOTOG	RAPHY	NA	(I) IN	FRARED		75			DAYLIGHT
NUMBER AND	TYPE		DATE	TIM	E	SCALE		ST	AGE OF T	IDE
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REMARKS Lake Water Datum Ho SOURCE OF MEAN	o 11and g	age o	r 2.97 fe			as 579.77 .L.D.	feet,	Lake	Michiga	an Low
	an High	Water	line is			le. The 'water into				
3. SOURCE OF MEAN	LOW-WATE	R OR ME	AN LOWER L	OW-WATER	LINE:					
Not apy	olicable									
4. CONTEMPORARY	HYDROGRA	PHIC SUI	RVEYS (List o	only those s	urveys th	at are sources	for photogra	mmetric	survey info	ormation.)
SURVEY NUMBER	DATE(S)		SURVEY CO	PY USED	SURVE	YNUMBER	DATE(S)		ŞURVEY	COPY USED
5. FINAL JUNCTION	· S								•	
NORTH		EAST	N - C		SOUTH			WEST		
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OAA FORM 76-360 3-72)	3	*	NATIONAL OCEA	U. S. DEPARTMI	C ADMIN	ISTRAT.
gir gir		TP-00727 HISTORY OF FIELD	OPERATIONS		AL OCEA	IN SURV
XX FIELD INSP	ECTION OPER	ATION FIEL	D EDIT OPERATION			
	OPI	ERATION	,	NAME		DATE
. CHIEF OF FIEL	D PARTY		D Tilbare	_		1001
		RECOVERED BY	R. Tibbetts J. Dunford	;		1981 1981
. HORIZONTAL C	ONTROL	ESTABLISHED BY	J. Dunford			1981
. 11011120111712		PRE-MARKED OR IDENTIFIED BY	J. Dunford	· · · · · · · · · · · · · · · · · · ·	A119	1981
		RECOVERED BY	NA NA		1	
. VERTICAL CON	ITROL	ESTABLISHED BY	NA			
		PRE-MARKED OR IDENTIFIED BY	NA		<u> </u>	
	RE	COVERED (Triangulation Stations) BY	J. Dunford		Aug.	1981
4. LANDMARKS AT		LOCATED (Field Methods) BY	J. Dunford			1981
AIDS TO NAVIG	ATION	DENTIFIED BY	J. Dunford		Aug.	1981
		TYPE OF INVESTIGATION				
 GEOGRAPHIC'N INVESTIGATION 		COMPLETE				
1144 234 104 1101	•	SPECIFIC NAMES ONLY	1			
		X NO INVESTIGATION	None		 	
6. PHOTO INSPEC		CLARIFICATION OF DETAILS BY	None		-	
7. BOUNDARIES A II. SOURCE DATA	NO LIMITS	SURVEYED OR IDENTIFIED BY	None		<u> </u>	
1. HORIZONTAL C	ONTROL IDE	NTIFIED	2. VERTICAL CON	TROL IDENTIFIED		
P	hoto iden	tified		None		
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	Stack	, 1932				
3. PHOTO NUMBE	RS (Clarificati	on of details)	······			· · · · · ·
	None	•				
4. LANDMARKS AI		AVIGATION IDENTIFIED			··	
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79 E(C)6665	Challeng Stack	e, Refrigerator Co.		· 		
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5. GEOGRAPHIC N	IAMES:	REPORT XX NONE	6. BOUNDARY AN	D LIMITS: REPO	RT X7	NONE
7. SUPPLEMENTA						-
	None					
8. OTHER FIELD		tch books, etc. DO NOT list data submi	tted to the Geodesy D	ivision)		
1 - Form	76-53 CS	I card				

NOAA FORM 76-36D (3-72)

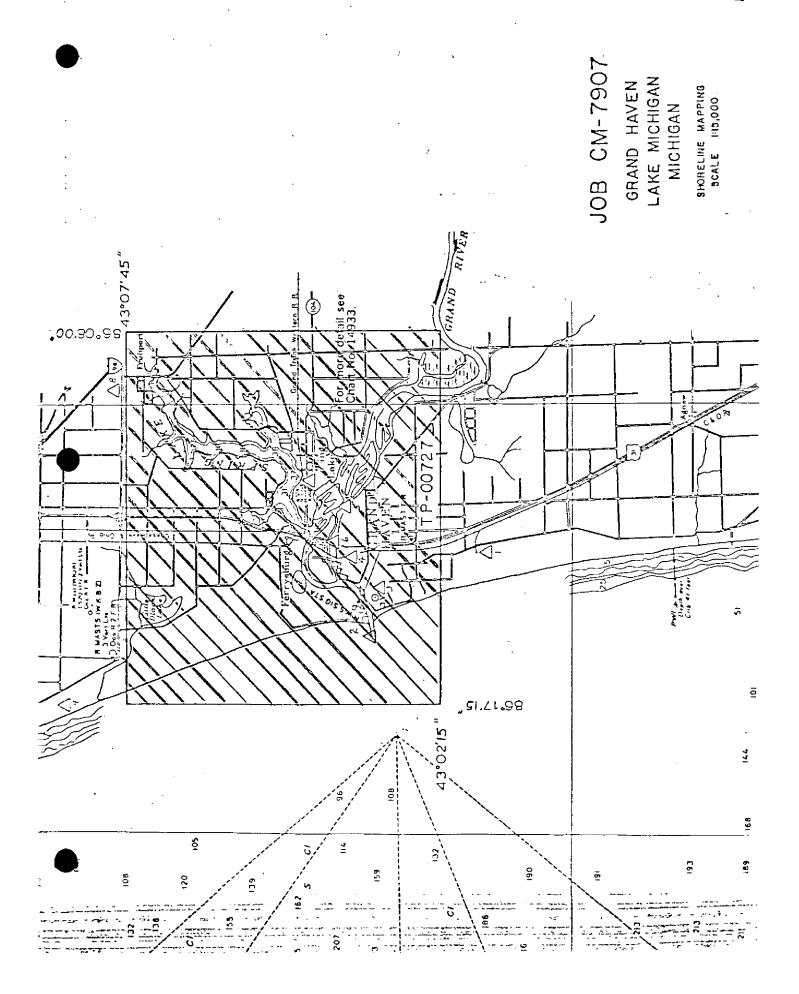
TP-00727

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

RECORD OF SURVEY USE

		KECU	KD OF SUKYE	:1 USE		
I. MANUSC	RIPT COPIES					
	CO	MPILATION STAGE	s		DATE MANUSCRI	PT FORWARDED
	DATA COMPILED	DATE	RE	MARKS	MARINE CHARTS	HYDRO SUPPORT
	ition complete g field edit	Sept. 1982	Class III	Manuscript		
Final E	Review, Class III	Oct. 1982		Final Map Edit Perform	ed Sept 1, 83	
II. LANDM	ARKS AND AIDS TO NAVIGA	TION				
). REP	ORTS TO MARINE CHART D	VISION, NAUTICAL	DATA BRANCH			
Number (pages)	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED		RE	MARKS	
2	756	Sept. 1, 83	Landmarks	for charting		
1	756	/11	Aids for c	harting		
		1				,
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==	REPORT TO MARINE CHART					
III. FEDE	RAL RECORDS CENTER DAT	TA .				
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1. X	BRIDGING PHOTOGRAPHS;	DUPLICATE	BRIDGING REPO	RT: 💟 COMPUT	ER READOUTS.	14.7g
2. (<u>X.</u>) 3. ⊽	CONTROL STATION IDENTI	FICATION CARDS; eographic Names Re	POHM NO:	S' 506.7X 260 B M IT I E DE	FORM 76-36C.	Property No.
م. بي	ACCOUNT FOR EXCEPTION					•
4 🗆	DATA TO FEDERAL RECOI	RDS CENTER, DAT	E FORWARDED:	Sepremb	CR 1983	-
IV. SURV	Y EDITIONS (This section s			p edition is registere	d)	
	SURVEY NUMBER	JOB NUMBE	R		TYPE OF SURVEY	URVEY
SECOND	DATE OF PHOTOGRAPH	(2) PH -	FLD EDIT	"	MAP CLASS	ORVEY
EDITION						FINAL
	SURVEY NUMBER	JOB NUMBEI	R		TYPE OF SURVEY	
THIRD	TP -	(3) PH-			VIRED RES	URVEY
EDITION					□ıv. □v.	FINAL
	SURVEY NUMBER	JOB NUMBER	₹.		TYPE OF SURVEY	30.00
FOURTH	DATE OF PHOTOGRAPH	(4) PH -	ELD EDIT	ᆝ	VISED ليا RESI MAP CLASS	, nkaea
EDITION						FINAL



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.

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.

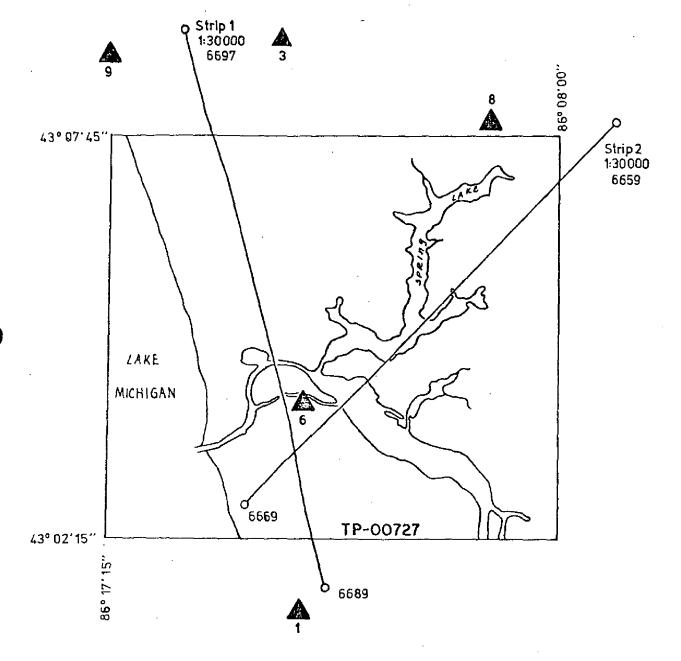
Approved and Forwarded:

Don O. Norma

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

A TRIANGULATION

CM-7907 Grand Haven Lake Michigan, Michigan Fit to Control

(In Feet)

Stations h	neld	in	adjustment-	- 🕰
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<u>Strip</u>	1		<u>Point No.</u>	<u>X</u>	<u>Y</u>
4 1.		Sub pt. A Sub pt. B	689101 689102	271 120	818 568
2.	Grand Haven, Pierhe	ād			
	Front Range Light 1 Rear Range Light 19		690101 690102	-6.793 -4.830	.057 542
A 6.	Challenge Refrigera	tor Co. Stack	691100	.159	1.753
		Sub_pt. A Sub_ptB	691101 691102	2.148 1:370	2.907 075
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5.	AP 1963 Sta. B	Sub pt. 2	696107	.493	171
A 3.		Sub pt. 1 Sub pt. 2	696104 696105	1.075 2.995	.328 2.209
Strip .	<u>2</u>			•	
A 8.			660101 660102 660103	.000 2.672 1.441	.000 .412 1.031
A 6.	Challenge Refrigera	tor Co. Stack	691100	.000	~.000
		Sub pt. A Sub pt. B	691101 691102	.592 2.679	.855 -3.013
2.	Grand Haven, Pierhe Front Range Light 1 Rear Range Light 19	932	690101 690102	.315 .385	178 1.745

CM-7907

Grand Haven Lake Michigan, Michigan March 1982

Ratio values for color bridging photographs.

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

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

NOAA FORM 76-41 (6-75)		DESCRIPTIV	DESCRIPTIVE REPORT CONTROL RECORD		U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
	0				
MAP NO.	Joe No.		GEODETIC DATUM	ORIGINATING ACTIVITY	vity no Division
TP-00727	CM-7907		NA 192/	AMC, Norfolk, 'A	"AA"
	CONTROP	AEROTRI-	4	GEOGRAPHIC POSITION	
STATION NAME	INFORMATION (Index)	ANGULATION POINT NUMBER	srare Michigan zowe South	φ LATITUDE λ LONGITUDE	REMARKS
CHALLENGE REFRIGERATOR CO.	Quad 430862		χ= χ=	\$ 43°04'03.963"	
~~	Sta 1014	9	y=	λ 86013'08,191"	
GRAND HAVEN PIERHEAD	11		=χ	\$ 43 ₀ 03'24.91"	
FRONT RANGE LIGHT, 1932	Sta 1017	2	=ĥ	λ 86015'21.42"	
GRAND HAVEN PIERHEAD	=		εχ.	\$ 43°03'25.935"	
REAR RANGE LIGHT, 1932	Sta 1018	2A	=ĥ	1 86°15'13.631"	
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			=ħ	γ	;
			<i>=</i> χ	ф	
			±ĥ	γ	
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			<i>y</i> =	γ	
			χ=	Ф	
	-		y=	χ.	
СОМРИТЕВ ВУ		DATE	COMPUTATION CHECKED BY		DATE
LISTED BY Evans		6/21/82	LISTING CHECKED BY R. R.	Kravitz	DATE August 6, 1982
HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE
		SUPERSEDES NO	SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE	CH IS OBSOLETE.	支点

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

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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.

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,

Carotgraphic Technician

Date: August 11, 1982

Approved,

James J. Byed h.

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.

forell . Network. Lowell O. Neterer, Jr. Final Reviewer

Approved for forwarding,

Billy H. Barnes

Chief, Photogrammetric Branch, AMC

Approved

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) V

Stahl Bayou 😾

The Sag 🗸

Approved by:

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

Page 1 of 2

			ļ					Page 1 of	7	
NOAA FORM /8-40 (8-74)			,	Z A	FIONAL OCE	ANIC AND	. DEPARTA	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	ORIGINATING ACTIVITY	CTIVITY
GS F	Replaces C&GS Form 567.		ENGENERAL LANDWARKS FOR CHARTS	DMARKS	FOR CH/	\RTS				, <u>,</u>
XTO BE CHARTED TO BE REVISED	ED REPORTING UNIT (Field Perty, Ship or Office)	9) Df.v	STATE		LOCALITY			DATE	COMPILATION ACTIVITY	IVITY
TO BE DELETED		DIV.	Michiga	u	Grand	Haven		6/21/82	COAST PILOT BRANCH	. R REVIEW GRP Not
The following obj	The following objects HAVE HAVE NOT X been inspected from seaword to determine their value as landmarks.	been ins	pected from secured	award to de	termine the	ir value as	landmarks.		(See reverse for responsible personnel)	ible personnel)
			1	NA	1927			METHOD AND DATE OF LOCATION	E OF LOCATION	-
	CM-7907	TP-00727	727		POSITION	NOI		(See instructions on reverse side)	on reverse side)	CHARTS
	DESCRIPTION	NO		LATITUDE	r ude	HONGILUDE	agn.			AFFECTED
CHARTING	(Record teason for deletion of landmark or aid to navigation. Snow triangulation station names, where applicable, in parentheses)	rk or aid to n ere applicable	navigation. s, in parentheses,	,	// D.M. Meters	/ 。	// D.P. Meters	OFFICE	FIELD	
				43 02	44.72	86 13	09.72 220	79E(C)6690 5/29/79		14933 14906
	West Shore of Grand River	iver		43 02.9		86 09.7		Beyond Photo Coverage		=
	East Shore of Grand River	iver		43 03.0		86 09.5		Beyond Photo Coverage		=
	At Coast Guard Station	g:		43 03	33.96	86 14	51.48	79 E(C) 6691 5/29/79		Ξ
				43 03	24.81	86 14	28,39	79 E(C) 6691 5/29/79		Ξ
	Story & Clark Piano C	.00		43 03	57.60	86 13	56.77	79 E(C) 6691 5/29/79		=
	South of two			43 04	12.25 378	86 14	02.21 50	79E(C) 6692 5/29/79		
	North of two			43 04	12.70 392	86 14	02.21 50	79E(C)6692 5/29/79		Ξ
	Challenge Refrigerator ''Stack, 1932	r Co.		43 04	03.963	86 13	08.191	79 E(C)6691 5/29/79		. 2
				43 04	04.92	86 13	07.52	79 E(C)6691 5/29/79		=

A. Field positions* require entry of method location and date of field work.	1 1	plicable data by symbols as plicable data by symbols as P - Photogrammetric Vis - Visually ation 5 - Field identified 6 - Theodolite	OFFICE IDENTIFIED AND LOCATED OBJECTS 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 bject. EXAMPLE: 75E(C)6042 8-12-75	INSTRUCTIONS FOR ENTI	FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	Robert R. Kravitz	OBJECTS INSPECTED FROM SEAWARD	TYPE OF ACTION	2
PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.	III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V+Vis.' and date. EXAMPLE: V-Vis. 8-12-75	## II. TREANGULATION STATION RECOVERED When a landmark or aid which is also a tri- angulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 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	INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64,	REVIEWER OUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE	OFFICE ACTIVITY REPRESENTATIVE	☐ PHOTO FIELD PARTY ☐ HYDROGRAPHIC PARTY ☐ GEODETIC PARTY ☐ OTHER (Specify)	NAME	RESPONSIBLE PERSONNEL

NOAA FORM 76-40 (8-74)

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

分 U.S.GPO:1975-0~665-080/1155

HYDROGRAPHIC PARTY
GEODETIC PARTY
TO PHOTO FIELD PARTY
COMPILATION ACTIVITY
FINAL REVIEW GRP.
COAST PILOT BRANCH
(See reverse for responsible personnel) AFFECTED CHARTS 14906 14933 ORIGINATING ACTIVITY = = Ξ = METHOD AND DATE OF LOCATION (See Instructions on reverse side) FIELD PAGE 2

U.S. DEPARTMENT OF COMMERCE

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

12772-79 E(C) 6692 5/29/79 6/21/82 79 E(C) 6692 79 E(C) 6692 5/29/79 79 E(C) 6660 5/29/79 79 E(C)6692 5/29/79 OFF ICE DATE 5/29/79 The following objects HAVE | Norfolk, VA | Michigan | Grand Haven | The following objects HAVE | HAVE NOT | Subver | Isliever wineserfold from secward to determine their value as landmarks. D.P. Meters 52.02 59.50 36.41 46.43 4.32 LONGITUDE 12 60 ٥ POSITION 86 98 98 86 98 D.M. Meters LOCALITY NA 1927 32.56 26.24 38,30 37.62 23.89 LATITUDE ` 43 07 04 04 04 04 43 43 43 43 0 DESCRIPTION Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in perentheses) TP-00727 REPORTING UNIT (Field Perty, Ship or Office) Coastal Mapping Div. Modular Systems Inc., Tank CM-7907 Replaces C&GS Form 567. X TO BE CHARTED TO BE REVISED NOAA FORM 76-40 (8-74) CHARTING TANK TR \mathbf{IR} $\mathbf{I}_{\mathbf{R}}$

	RESPONSIBLE PERSONNEL	PERSONNEL	
TYPE OF ACTION	NAME	E	ORIGINATOR
	;		HYDROGRAPHIC PARTY
OBJECTS INSPECTED FROM SEAWARD			GEODETIC PARTY OTHER (Specify)
			FIELD ACTIVITY REPRESENTATIVE
STORE CANADAM VENEZ AND/AN VENEZ ED	Robert R. Kravitz		OFFICE ACTIVITY REPRESENTATIVE
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES			REVIEWER QUALITY CONTROL AND REVIEW GROUP REPRESENTATIVE
_	INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE O (Consult Photogrammetric Instructions No. 64,	OR ENTRIES UNDER METHOD AND DATE OF LOCATION' (Consult Photogrammetric Instructions No. 64,	
OFFICE (DENTIFIED AND LOCATED OBJECTS	NTED OBJECTS	mmetric	field positions** require
Enter the number and date (including month, day, and year) of the photograph used to identify and locate the bject. EXAMPLE: 75E(C)6042 8-12-75	(including month, ograph used to sject.		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
ION DETERMI applicable	VERIFIED by symbols as follows:	ION STAT	aiso a
Field P - Located Vis Verified Triangulation 5 - Traverse 6 -	P - Photogrammetric Vis - Visually 5 - Field identified 6 - Theodolite	angulation station is Rec.' with date of rec EXAMPLE: Triang. Rec. 8-12-75	is recovered, enter 'Triang. recovery. Rec.
Resection 7 -	Planetable	FILE INTELLIBRIED VISUALLY ON PHOTOGRAPH	UALLY ON PHOTOGRAPH
sitions*	require entry of method of e of field work.	EXAMPLE: V-Vis.	•
EXAMPLE: F-2-6-L 8-12-75	•	**PHOTOGRAMMETRIC FIELD PO entirely, or in part, up	IC FIELD POSITIONS are dependent
*FIELD POSITIONS are determined by field obser- vations based entirely upon ground survey methods.	d by field obser- round survey methods.	~	<u>Q.</u>

NOAA FORM 78-40 (8-74)

SUPERSEDES NOAA FORM 76-40 (2-71) WHICH IS OBSOLETE, AND EXISTING STOCK SHOULD BE DESTROYED UPON RECEIPT OF REVISION.

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☆ U.S.GPO:1975-0-665-080/1155

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FIELD POSITIONS are determined by field obser- vations based entirely upon ground survey methods.	EXAMPLE: F-2-6-L 8-12-75	A. Field positions require entry of	tion 7 - n 8 -	V - Verified 1 - Triangulation 5 - Fig 2 - Traverse 6 - The	EW POSITION DETERMI nter the applicable - Field - Located	m 1 m 7	identify and locate the ∵bject. EXAMPLE: 75E(C)6042 8-12-75	he number and d year) of th	OFFICE IDENTIFIED AND LOCATED OBJECTS		AND REVIEW GROUP AND FINAL REVIEW	FORMS OBIGINATED BY QUALITY CONTROL	F-CS11 IONS DETERMINED AND/OR VERIFIED			OB INCTA LARBECTED TROM STAWARD	TYPE OF ACTION		
f by field obser~ cound survey methods.		require entry of method of	Planetable I	Field identified Theodolite	NED OR VERIFIED data by symbols as follows: P - Photogrammetric Vis - Visually		ject.	date (including month, e photograph used to		INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF (Consult Photogrammetric Instructions No. 64,		R. Kravitz					NAXM	RESPONSIBLE PERSONNEL	
ramme	**PHOTOGRAMMETRIC FIELD POS	EXAMPLE: V-Vis. 8-12-75	4 <	6-12-75	ATION STATI	" 74L(c)2982	graph used to locate EXAMPLE: P-8-V 8-12-75	-	<pre>FIELD (Cont'd) B. Photogrammetric fiel</pre>	Instructions No. 64,				-				RSONNEL	
45.	C FIELD POSITIONS are dependent		JALLY ON PHOTOGRAPH	·	ION RECOVERED aid which is also a tri- is recovered, enter 'Triang. recovery.	2	to locate or identify the object. 9-8-V 3-12-75	method of location or verification, field work and number of the photo-	field positions** require		REPRESENTATIVE			FIRID ACTIVITY REPRESENTATIVE	OTHER (Specify)	HYDROGRAPHIC PARTY	ORIGINATOR		

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NOAA FORM 76-40			TAN	IONAL OCE	U.S ANIC AND A	. DEPARTM. TMOSPHERI	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	ORIGINATING ACTIVITY	CTIVITY
Replaces C&GS Form 567.	m 567.	NONFLOATING AIDS OR LANDMARKS FOR CHARTS	MARKS	FOR CHA	RTS			GEODETIC PARTY DHOID FIELD PARTY	- ^-
TO BE CHARTED TO BE REVISED TO BE DELETED	REPR Field Coa	Biv. Michigan	5	Locality Spring Gr	Spring Lake and Grand Haven	and iven	DATE 6/21/82	COMPLATION ACTIVITY FINAL REVIEWER OUALITY CONTROL & REVIEW GRA	TO BE SEVIEW GRD.
The following objects	ects HAVE HAVE NOT	been inspect	ward to det	termine their	r value as	andmarks.		See reverse for responsible personnel	ible personnel)
OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	MU⊥∀O		ŗ				
	CM-7907	TP-00727		NA 1927	, NO		METHOD AND DATE OF LOCATION (See instructions on reverse side)	TE OF LOCATION	CHARTS
	NOTEGIADOSEO	20	LATITUDE	1	LONGITUDE	UDE			AFFECTED
CHARTING	(Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in perentheses)	nk or aid to navigation. ere applicable, in perentheses)	,	D.M. Meters	`	// D.P. Meters	OFFICE	FIELD	
VANTO	Acceptation 1000 Accept	\$ C. F.		48.842		17.775	79E(C) 6664		
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- AIW 0	=			29.882		47.706	79E(C) 6664		
LANK			43 04		86 11		5/29/79	· ·	
	"NOTE"								
	The following charted Landmar to be destroyed-condition of	charted Landmarks appear ed-condition of the							
	GEDUELIC ARE URKNOWN.								
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IANK	lank 1932)		43 04		86 11				
10 F		,		49.94		18.30			
SIACK	Leather Co. Stack 1932)	2)	43 03		86 12				
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									:

day, and year) of the photograph used to Enter the number and date (including month, identify and locate the object. 75E(C)6042 8-12-75

- I. NEW POSITION DETERMINED OR VERIFIED Enter the applicable data by symbols as follows: Field Vis - Visually P - Photogrammetric
- Located
- Verified
- Triangulation - Field identified
- Traverse Intersection
 - Theodolite
- Planetable
- Resection Sextant
- Field positions* require entry of method of location and date of field work.
- EXAMPLE: F-2-6-L
- *FIELD POSITIONS are determined by field obser-8-12-75

vations based entirely upon ground survey methods.

- date of field work and number of the photoentry of method of location or verification, graph used to locate or identify the object. P-8-V
- 8-12-75 74L(c)2982
- II. TRIANGULATION STATION RECOVERED
- angulation station is recovered, enter 'Triang, **EXAMPLE:** Rec.' with date of recovery. When a landmark or aid which is also a Triang. Rec.
- III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH **EXAMPLE:** Enter 'V+Vis.' and date. V-Vis. 8-12-75

8-12-75

**PHOTOGRAMMETRIC FIELD POSITIONS are dependent by photogrammetric methods. entirely, or in part, upon control established

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★ U.S. 60VERNMENT PRINTING OFFICE: 1974-665-073/1030 Region 6

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO.

INSTRUCTIONS

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

 1. Letter all information.

 2. In "Remarks" column cross out words that do not apply.

 3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	CARTOGRAPHER	REMARKS
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
		<u></u>	Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
		-	Drawing No.
		<u>.</u>	Full Part Before After Verification Review Inspection Signed Via
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