

TP-00353

TP-00353

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
<h1>DESCRIPTIVE REPORT</h1>	
THIS MAP EDITION WILL NOT BE FIELD EDITED	
<i>Map No.</i> TP-00353	<i>Edition No.</i> 1
<i>Job No.</i> CM-8412	
<i>Map Classification</i> CLASS III (FINAL)	
<i>Type of Survey</i> SHORELINE	
<h2>LOCALITY</h2>	
<i>State</i> MICHIGAN	
<i>General Locality</i> SAINT MARYS RIVER	
<i>Locality</i> LAKE NICOLET	
<div style="border: 1px solid black; padding: 5px; text-align: center;"> 19₈₄ TO 19 </div>	
<h2>REGISTERED IN ARCHIVES</h2>	
<i>DATE</i>	

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 Coastal Mapping Unit, Atlantic Marine Center, Norfolk, Virginia OFFICER-IN-CHARGE A. Y. Bryson, CDR		SURVEY TP. <u>00353</u> MAP EDITION NO. <u>(1)</u> MAP CLASS <u>III (Final)</u> JOB <u>CM-8412</u>	
PHOTOGRAMMETRIC OFFICE Coastal Mapping Unit, Atlantic Marine Center, Norfolk, Virginia OFFICER-IN-CHARGE A. Y. Bryson, CDR		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 October 18, 1984 <i>April 5, 1985</i> Compilation		Horizontal Control April 19, 1984 (Premarking)	
II. DATUMS			
1. HORIZONTAL: <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify)	
2. VERTICAL: <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 Water level		OTHER (Specify) International Great Lakes Datum (1955)	
3. MAP PROJECTION Transverse Mercator Projection		4. GRID(S) STATE ZONE Michigan East	
5. SCALE 1:20,000		STATE ZONE	
III. HISTORY OF OFFICE OPERATIONS			
OPERATIONS		NAME	
DATE			
1. AEROTRIANGULATION METHOD: <u>Analytic</u> LANDMARKS AND AIDS BY		L. Harrod Jan. 1985	
2. CONTROL AND BRIDGE POINTS METHOD: <u>Xynetics 1201</u> PLOTTED BY		L. Harrod Jan. 1985	
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: <u>Wild B-8</u> PLANIMETRY BY		W. McLemore Mar. 1985	
SCALE: <u>1:20,000</u> CHECKED BY		W. McLemore Mar. 1985	
4. MANUSCRIPT DELINEATION METHOD: <u>Smooth drafted</u> PLANIMETRY BY		P. Evans Apr. 1985	
SCALE: <u>1:20,000</u> CHECKED BY		F. Mauldin Apr. 1985	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT <u>Final Review</u> BY		N/A	
6. APPLICATION OF FIELD EDIT DATA CHECKED BY		N/A	
7. COMPILATION SECTION REVIEW <u>Class III</u> BY		F. Mauldin May 1985	
8. FINAL REVIEW <u>Class III</u> BY		J. Hancock Jun. 1985	
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY		J. Hancock Jul. 1985	
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY		P. Dempsey <i>SEP. 1985</i>	
11. MAP REGISTERED - COASTAL SURVEY SECTION BY		E. L. DAUGHERTY <i>SEP 1985</i>	

TP-00353

COMPILATION SOURCES

1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-10 (Z) (Z=153.15mm)		TYPES OF PHOTOGRAPHY LEGEND		TIME REFERENCE	
<input type="checkbox"/> PREDICTED TIDES <input checked="" type="checkbox"/> REFERENCE STATION RECORDS * <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY		(C) COLOR (P) PANCHROMATIC (I) INFRARED		ZONE Eastern MERIDIAN 75th <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> DAYLIGHT	
NOA XXXX XXXX XXXX Water Level Gage					
NUMBER AND TYPE	DATE	TIME	SCALE	* STAGE OF XXXX River Level	
84Z(P) 3721-3727 ✓	5-16-84	08:45	1:40,000	579.53 ft. ✓	
84Z(P) 3742-3745 ✓	5-16-84	09:09	1:40,000	579.53 ft. ✓	

REMARKS*Water level at time of photography is indicated as recorded from DeTour Village, Michigan gage.

2. SOURCE OF MEAN HIGH-WATER LINE:

The term "Mean High Water Line" is not applicable. The shoreline is defined as the visible line of contact on the photographs between land and water. Delineation of the shoreline was derived by photointerpretation of the above listed black-and-white compilation/bridging photographs.

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

This item is not applicable to the project.

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
TP-00206 (CM-7806) ✓	TP-00354 ✓	TP-00356 ✓	No survey

REMARKS

TP-00353

HISTORY OF FIELD OPERATIONS

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

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. Dunford	May 1984
2. HORIZONTAL CONTROL	RECOVERED BY N.A. ESTABLISHED BY N.A. PRE-MARKED OR IDENTIFIED BY N.A.	
3. VERTICAL CONTROL	RECOVERED BY N.A. ESTABLISHED BY N.A. PRE-MARKED OR IDENTIFIED BY N.A.	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY N.A. LOCATED (Field Methods) BY N.A. IDENTIFIED BY N.A.	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY N.A.	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N.A.	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED None		2. VERTICAL CONTROL IDENTIFIED N.A.	
PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

N.A.

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE

6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

N.A.

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

Project Field Report

TP-00353
RECORD OF SURVEY USE

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete	May 1985	Class III Manuscript	none	none
Final Review, Class III	June 1985	Final Class III Map	8-9-85	8-9-85

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER (pages)	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
3			Nonfloating Aids for Charts
		8-9-85	

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

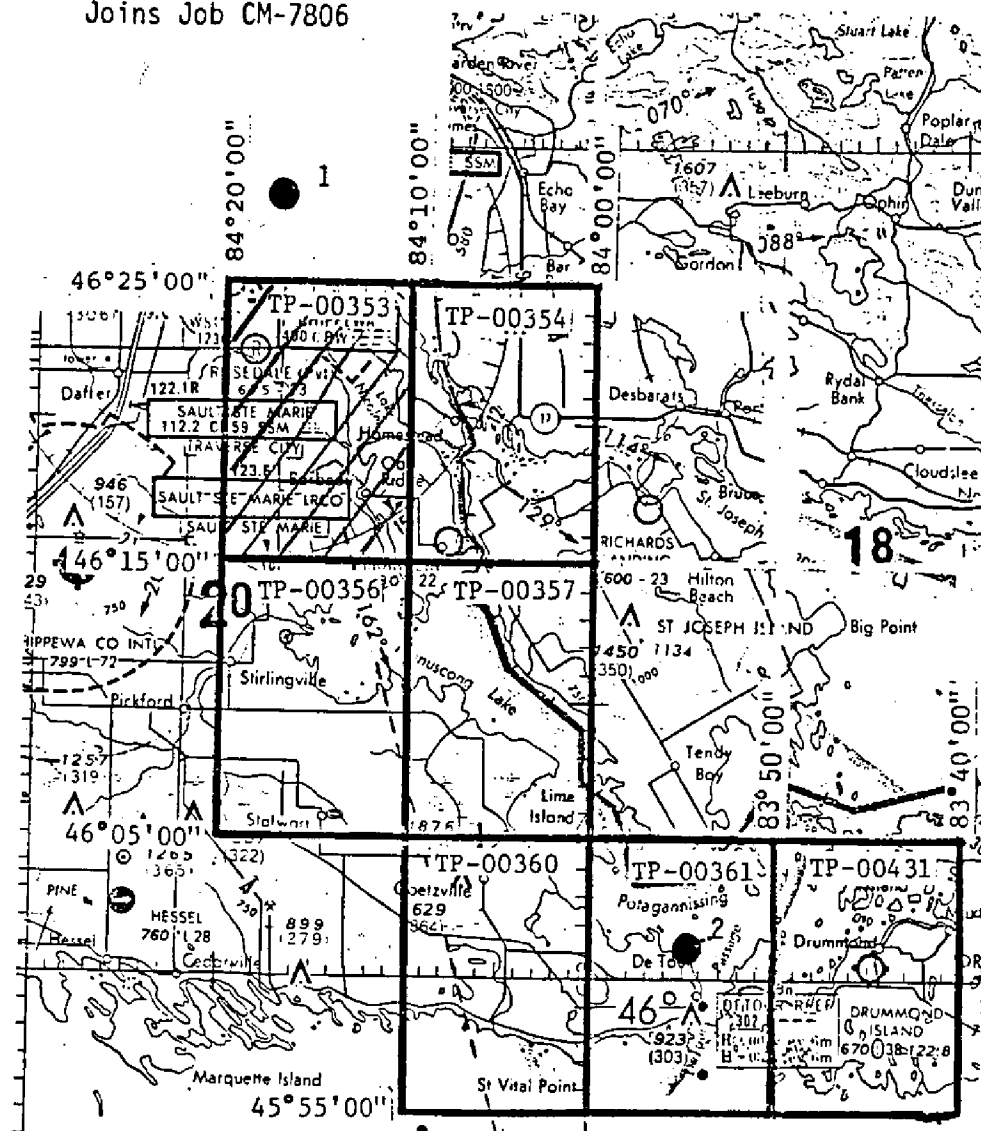
1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☒ COMPUTER READOUTS.
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS. 76-48 ☒ SUBMITTED BY FIELD PARTIES.
3. ☐ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
ACCOUNT FOR EXCEPTIONS:

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	

Joins Job CM-7806



● = Water Level Gage Site

- 1 - Frechette Point
- 2 - Detour Village

JOB CM-8412
SAINT MARYS RIVER
SUGAR ISLAND TO POTAGANNISSING BAY
MICHIGAN
SHORELINE MAPPING
SCALE 1:20,000

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT

TP-00353

This 1:20,000 scale final Class III shoreline map is one of 7 maps (TP-00353, TP-00354, TP-00356, TP-00357, TP-00360, TP-00361, and TP-00431) that comprise project CM-8412, Sugar Island to Potagannissing Bay, St. Marys River, Michigan. This project junctions with a previous project, CM-7806, which features the northern region of St. Marys River.

This map features the shoreline of Lake Nicolet and defines the northwest limit of the project. Map TP-00206 from project CM-7806 junctions with this map.

The purpose of this map is to provide current charting information for nautical chart maintenance and to furnish shoreline support data for hydrographic survey operations.

Field work prior to photography was adequately provided in May 1984. This involved the recovery, establishment and identification (premarking) of horizontal control necessary for aerotriangulation. There was no field inspection performed.

Photo coverage was adequately provided by 1:40,000 scale panchromatic photography taken May 16, 1984 with the Wild RC-10(Z) camera. At the time of photography, a water level reading of 579.53 was recorded at the DeTour Village, Michigan gage. This established the shoreline datum for the map based on the 1955 International Great Lakes Datum.

Analytic aerotriangulation was adequately provided by the Washington Science Center in January 1985. Included in the bridge are two supplemental horizontal control substations previously photoidentified for adjoining project CM-7806. Aerotriangulation activity also included determining ratio values for the photographs and locating some of the visible navigational aids.

Compilation was performed at the Coastal Mapping Unit, Atlantic Marine Center in May 1985. Delineation of map detail was accomplished using stereo instrument methods based upon interpretation of the mapping photographs.

Final review was performed at the Atlantic Marine Center in June 1985. A Chart Maintenance Print was prepared and forwarded to the Marine Chart Branch. Also, a Notes to Hydrographer Print was prepared for future hydrographic activity.

This Descriptive Report contains all pertinent information used to compile this final Class III Map. The original base manuscript and related data were forwarded to the Washington Science Center for final registration.

FIELD INSPECTION

TP-00353

There was no field inspection prior to compilation. Field work accomplished consisted of aerial photography and the recovery, establishment, and identification (premarking) of horizontal control necessary for aerotriangulation.

PHOTOGRAMMETRIC PLOT REPORT
CM-8412
Saint Marys River, Michigan
January 1985

21. Area Covered

The area covered by this report is in the vicinity of the Saint Marys River from Sugar Island Southeastward to Potagannissing Bay, Michigan. It is covered by seven 1:20,000-scale manuscripts; TP-00353, TP-00354, TP-00356, TP-00357, TP-00360, TP-00361, and TP-00431.

22. Method

Eight strips of 1:40,000-scale photographs were bridged by analytic aerotriangulation methods and adjusted to ground on the Michigan State Plane Coordinage System, Michigan East Zone, using our Analytic Strip Adjustment program. Pabeled control was provided. Aids and landmarks were located on bridging photographs. Ratio values were determined for the 1:40,000-scale bridging photographs. A magnetic tape for plotting points and for ruling the base manuscripts were prepared. The Traverse Mercator projection was used.

23. Adequacy of Control

The horizontal control provided, proved to be adequate, was sparse in some areas. Tie points were used to supplement these areas. DIKE 387, 1984 Horizontal Panel No. 4 would not fit with the tie points and control points of the adjacent strip. The lack of fit is -19.86 feet in X and 6.51 feet in Y. It was not used in the adjustment. All positions established by aerotriangulation methods meet the National Standards of Map Accuracy.

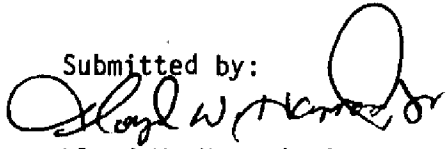
24. Supplemental Data

Vertical control was taken from USGS quads.


25. Photography

The coverage and quality of the photographs proved adequate for the project in most cases. The end lap in model 3810-3811 in strip 7 was computed to be about 51 percent, which is below the desired amount. This made it difficult to select and read pass points in some areas.

Submitted by:


Lloyd W. Harrod, Jr.

Approved and Forwarded:


Don O. Norman
Chief, Aerotriangulation Unit

Saint Marys River
Michigan
CM-8412

Fit to Control -X and Y in Feet

<u>STRIP 1</u>				<u>PT. NO.</u>	<u>X</u>	<u>Y</u>
2	Home CHS(9598)	1981	Horizontal Panel No. 2	(774100)	-1.2	7.5
Δ 2A	" " " "		Sub. Sta. A	(774101)	-1.6	7.7
Δ 12A	55 USLS - Sugar Island East Base	1878		(773101)	-3.5	3.9
	Tie from Strip 2			(742801)	1.6	0.4
	Tie " " "			(744801)	-0.1	-3.9
	Tie " " "			(745801)	1.2	-2.8
	Tie " " "			(746801)	0.6	-2.2
	Tie " " "			(747801)	0.1	-2.8
	Tie " " "			(748801)	2.7	-0.6
	Tie " " "			(749801)	-0.7	0.3
	Tie " " "			(750801)	0.5	-1.1
	Tie " " "			(751801)	-0.7	1.0
<u>STRIP 2</u>						
Δ 1	Cass	1943		(739100)	-0.1	-0.6
Δ 3	Ref. Mon.	16, 1911		(747100)	-0.5	3.4
Δ 5	Kolos	1984		(752100)	-0.1	-4.4
Δ 6	Ramp	1984		(755100)	-3.1	-0.1
	Tie from Strip 6			(793803)	2.8	1.6
<u>STRIP 3</u>						
	Tie from Strip 2			(748804)	-1.2	-0.8
	Tie " " "			(746804)	1.7	1.0
	Tie " " "			(745805)	-0.2	0.9
	Tie " " "			(744805)	0.5	-2.4
	Tie " " "			(743801)	1.0	-0.9
	Tie " " "			(742804)	-2.1	-1.6
	Tie " " "			(741805)	-1.0	5.8
	Tie " " "			(740801)	1.3	-2.1
<u>STRIP 4</u>						
	Tie from Strip 6			(792903)	0.5	-3.4
	Tie " " "			(792802)	1.0	-4.4
	Tie " " 2			(713802)	-4.2	5.0
	Tie " " "			(714801)	-1.1	2.0
	Tie " " "			(715801)	1.7	0.9
	Tie " " "			(716801)	1.5	0.4
	Tie " " "			(717801)	1.2	0.8
	Tie " " "			(718802)	1.2	-0.7
	Tie " " "			(719801)	-1.8	-0.7

STRIP 5

	Tie from Strip 3	(721801)	-0.5	0.3
	Tie " " "	(722801)	0.4	-0.4
	Tie " " "	(719804)	1.0	-0.6
	Tie " " "	(720801)	-0.9	0.7
4	Dike 387, 1984	(700100)	-19.9	6.5

STRIP 6

Δ 7	McKay 1984	(788100)	-0.6	-0.0
Δ 8	Tour 1980	(793100)	3.8	-0.1
8A	Tour 1980 Sub Pt. A	(793110)	3.8	-0.8
	Tie from Strip 7	(811803)	1.4	1.6
	Tie " " "	(813801)	-1.1	-3.5
	Tie " " "	(815801)	-2.7	-1.0
	Tie " " "	(818801)	-2.4	1.9
	Tie " " "	(818803)	-2.3	2.1

STRIP 7

Δ 11	Clear 388 1984	(809100)	0.3	-0.1
Δ 10	Marina 1984	(813100)	-1.3	0.2
Δ 9	State 1984	(815100)	1.5	0.3
Δ 6	Ramp 1984	(818100)	-0.4	-0.1

STRIP 8

	Tie from Strip 7	(811805)	0.2	0.2
	Tie " " "	(813804)	0.7	-0.2
	Tie " " "	(816804)	-3.2	-1.0
	Tie " " "	(817806)	2.0	-1.2
	Tie " " "	(817807)	1.7	0.1
	Tie " " "	(817808)	-0.7	2.0

Δ Stations held in the strip adjustments

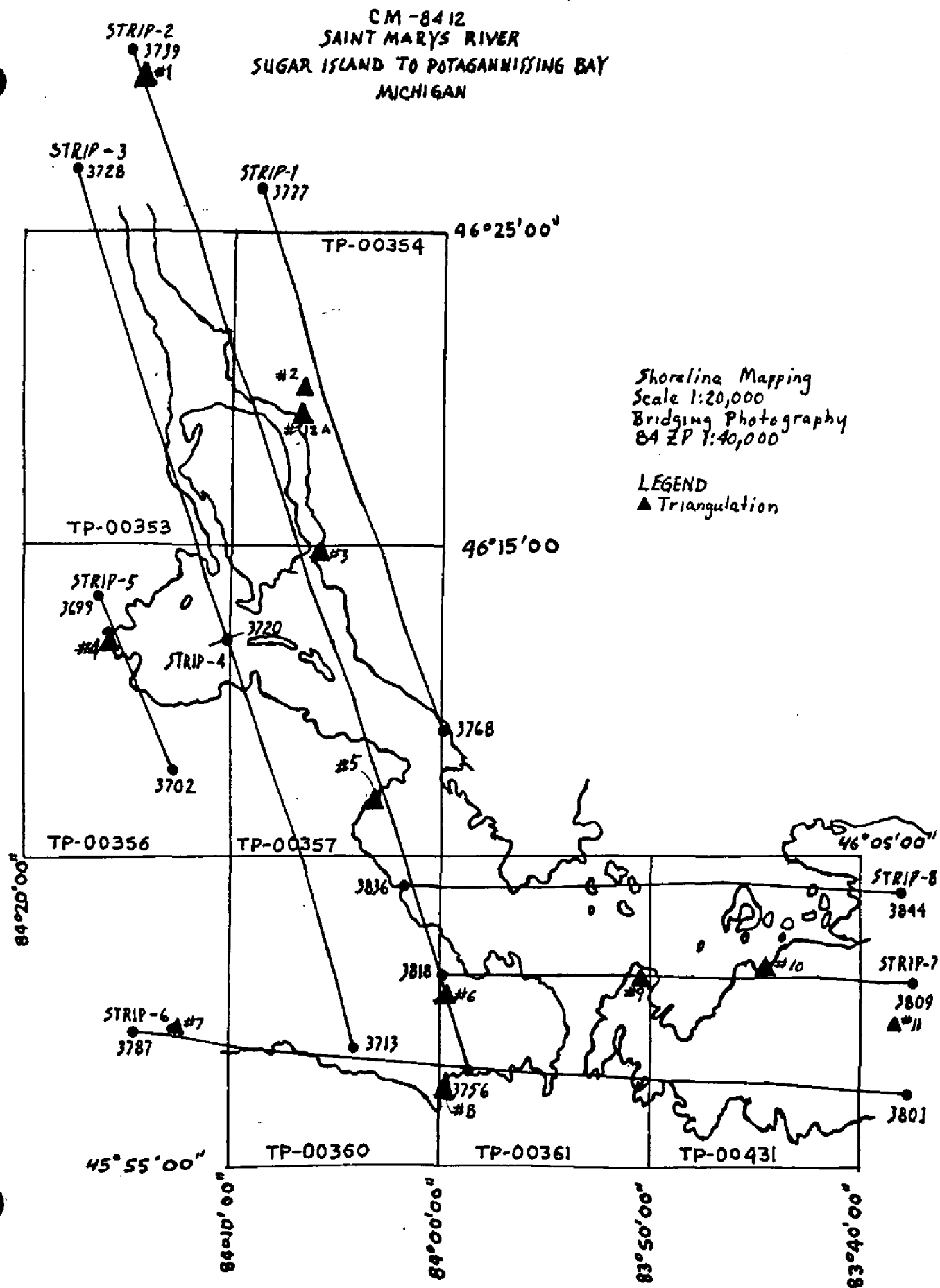
Saint Marys River, Michigan

CM-8412

January 1985

Ratio values for 1:40,000 scale, black and white bridging
photographs.

84 ZP 3768-3777	x2.03
3739-3756	x2.03
3720-3728	x2.03
3713-3720	x2.04
3699-3702	x2.05
3790-3801	x2.04
3811-3818	x2.04
3836-3844	x2.04



DESCRIPTIVE REPORT CONTROL RECORD

MAP NO. TP-00353	JOB NO. CM-8412	GEODETIC DATUM N.A. 1927	ORIGINATING ACTIVITY Coastal Mapping Unit, AMC, Norfolk, VA
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET STATE Michigan ZONE East
			ϕ LATITUDE λ LONGITUDE
None		$x=$	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
		$x=$	ϕ
		$y=$	λ
		$x=$	ϕ
		$y=$	λ
COMPUTED BY		COMPUTATION CHECKED BY	DATE
LISTED BY P. L. Evans, Jr.		LISTING CHECKED BY	DATE
HAND PLOTTING BY		HAND PLOTTING CHECKED BY	DATE

COMPILATION REPORT
TP-00353
CM-8412

31 - DELINEATION

Delineation was accomplished using stereo instrument compilation methods. Instrument compilation was used to delineate shoreline, alongshore, and interior detail based upon office interpretation of the 1:40,000 scale bridging/compilation black-and-white photographs. All photographs used to compile this map are listed on NOAA Form 76-36B. The photography was adequate.

32 - CONTROL

The horizontal control was adequate. Refer to the Photogrammetric Plot Report, dated January 1985.

33 - SUPPLEMENTAL DATA

None.

34 - CONTOURS AND DRAINAGE

Contours are not applicable to the 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 photographs. The shoreline compiled was the visible line of contact between land features and the water surface at the time of photography. Based on the International Great Lakes Datum (1955), the water level taken at DeTour Village, Michigan gage was 579.53 feet.

36 - OFFSHORE DETAILS

Offshore details were compiled by instrument methods as described in item #31.

37 - LANDMARKS AND AIDS

There was 1 landmark and 29 aids within the mapping limits of this manuscript. Among these, 0 landmarks and 28 aids were either located or verified photogrammetrically. Appropriate information was prepared on the 76-40 forms and submitted with this map.

38 - CONTROL FOR FUTURE SURVEYS

None.

TP-00353
CM-8412

39 - JUNCTIONS

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

40 - HORIZONTAL AND VERTICAL ACCURACY

See item #32.

46 - COMPARISON WITH EXISTING MAPS

A comparison was made with the following U.S. quadrangles:
Oak Ridge, Mich.-Ont., 1951, photorevised 1976, scale 1:24,000
Baie De Wasai, Mich.-Ont., 1951, photorevised 1976, scale 1:24,000
Sault Ste Marie South, Mich.-Ont., 1951, photorevised 1975, scale 1:24,000.

47 - COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following NOS charts:
14883, scale 1:40,000, 35th edition, dated December 13, 1980
14960, scale 1:600,000, 28th edition, dated July 28, 1984
14961, scale 1:600,000, 6th edition, dated November 10, 1984
14860, scale 1:500,000, 29th edition, dated March 10, 1984.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None.

ITEMS TO BE CARRIED FORWARD

None.

Submitted by:

James L. Evans, Jr.
for
P. L. Evans, Jr.
Cartographic Technician
30 April 1985

Approved:

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

16
JUL 10 1968

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8412 (St. Marys River, Michigan)

TP-00353

Charlotte River
Hursley Creek
Lake George
Lake Nicolet
Little Rapids Channel
Middle Neebish Channel
Neebish Island
Ninemile Point
Oak Ridge (locality)
Sailors Creek
Saint Marys River
Sand Island
Shingle Bay
Shingle Point
Sugar Island
West Neebish Channel
Sawmill Point *CH.*

Approved by:

Charles E. Harrington

Charles E. Harrington
Chief Geographer
Nautical Charting Division

REVIEW REPORT
TP-00353
SHORELINE

61 - GENERAL STATEMENT

Refer to the Summary included in this Descriptive Report.

62 - COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

Not applicable.

63 - COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with the following 1:24,000 scale U.S.G.S. quadrangles:
Sault Ste. Marie South, Mich.-Ont., dated 1951, photorevised 1975
Baie De Wasai, Mich.-Ont., dated 1951, photorevised 1976
Oak Ridge, Mich.-Ont., dated 1951, photorevised 1976

64 - COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

No contemporary hydrographic survey was conducted prior to this shoreline mapping project.

65 - COMPARISON WITH NAUTICAL CHARTS

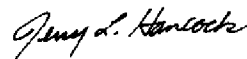
A comparison was made with NOS chart:
14883, scale 1:40,000, 35th edition, dated December 13, 1980.

This most current chart is outdated and in numerous areas there are significant shoreline discrepancies with the map. Also, there are several variations between the charted nonfloating navigational aids and the descriptions in the 1985 U.S. Coast Guard Light List. These discrepancies were addressed on the Chart Maintenance Print.

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:



Jerry L. Hancock
Final Reviewer

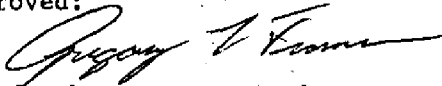
TP-00353

Approved for forwarding:

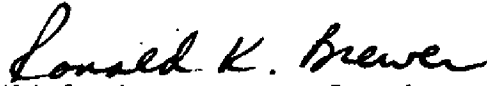


Billy H. Barnes
Chief, Photogrammetric Section

Approved:



Chief, Photogrammetric Operations,
Rockville



Chief, Photogrammetry Branch,
Rockville

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.				U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION				ORIGINATING ACTIVITY	
NONFLOATING AIDS OR LANDMARKS FOR CHARTS				LOCALITY		DATE		<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)	
REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA		STATE Michigan		LOCALITY St. Marys River		DATE 4/8/85			
The following objects HAVE <input type="checkbox"/> HAVE NOT <input checked="" type="checkbox"/> been inspected from seaward to determine their value as landmarks.		SURVEY NUMBER CM-8412		TP-00353		D.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		METHOD AND DATE OF LOCATION (See instructions on reverse side)	
				° / ' "		° / ' "		OFFICE	
LIGHT	Rock cut lower leading light	46 15	06.2	84 10	33.5	84Z(P) 3721	5-16-84	14883	
LIGHT	West Neebish Channel Light 25	46 16	00.0	84 11	34.2	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Light 26	46 16	02.0	84 11	30.4	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Light 27	46 16	27.1	84 12	03.2	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Light 28	46 16	29.0	84 11	59.9	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Light 29	46 16	54.4	84 12	32.3	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Light 30	46 16	56.3	84 12	28.6	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Range Rear Light A	46 16	48.9	84 12	57.4	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Range Front	46 17	08.3	84 12	57.2	84Z(P) 3722	5-16-84	14883	
LIGHT	West Neebish Channel Light 32	46 17	07.6	84 12	40.3	84Z(P) 3722	5-16-84	14883	

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	P. L. Evans, Jr.
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) 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 P - Photogrammetric L - Located V - Verified 1 - Triangulation 2 - Traverse 3 - Intersection 4 - Resection 5 - Field identified 6 - Theodolite 7 - Planetable 8 - Sextant A. Field positions* require entry of method of location and date of field work. EXAMPLE: F-2-6-L 8-12-75	III. TRIANGULATION STATION RECOVERED When a landmark or aid which is also a triangulation station is recovered, enter 'Triang. Rec.' with date of recovery. EXAMPLE: Triang. Rec. 8-12-75 III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75
*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.	

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NONFLOATING AIDS OR LANDMARKS FOR CHARTS										ORIGINATING ACTIVITY									
<input checked="" type="checkbox"/> TO BE CHARTED <input type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED										<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)									
REPORTING UNIT (Field Party, Ship or Office)		STATE		LOCALITY		DATE		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED									
Coastal Mapping Unit, AMC, Norfolk, VA		Michigan		St. Marys River		4-8-85		OFFICE		14883, 35th edition									
OPR PROJECT NO.		JOB NUMBER		SURVEY NUMBER		DATUM		POSITION		CHARTS AFFECTED									
CM-8412		TP-00353				N.A. 1927		LATITUDE		LONGITUDE									
								D.M. Meters		D.P. Meters									
CHARTING NAME		DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)		LATITUDE		LONGITUDE		OFFICE		CHARTS AFFECTED									
				° /		° /				14883, 35th edition									
LIGHT	Middle Neebish South Range Front Light	46 19	56.3	84 11	04.4	84Z (P) 3745	5-16-84	14883											
LIGHT	Middle Neebish South Range Rear Light (Foundational structure is collocated with West Neebish Channel Upper Range Front Light)	46 20	16.8	84 12	17.7	84Z (P) 3724	5-16-84	14883											
LIGHT	West Neebish Channel Upper Range Front (Foundational structure is collocated with Middle Neebish South Range Rear Light)	Lt.	16.8	84 12	17.7	84Z (P) 3724	5-16-84	14883											
LIGHT	West Neebish Channel Upper Range Rear Light	46 19	19.3	84 11	47.3	84Z (P) 3724	5-16-84	14883											
LIGHT	West Neebish Channel Light 45	46 20	44.4	84 12	50.5	84Z (P) 3724	5-16-84	14883											
LIGHT	West Neebish Channel Light 49	46 21	33.4	84 13	02.3	84Z (P) 3725	5-16-84	14883											
LIGHT	West Neebish Channel Light 54 (Charted as buoy; light now exist, 1984 Light List #1528.10)	46 22	50.8	84 13	37.9	84Z (P) 3725	5-16-84	14883											
LIGHT	Lake Nicolet Light 80	46 23	34.9	84 13	48.0	84Z (P) 3726	5-16-84	14883											
LIGHT	Sugar Island Leading Light Middle Neebish Channel North Range Rear Daybeacon, (Not in 1984 nor 1985 Light List)	46 24	44.4	84 13	58.8	84Z (P) 3726	5-16-84	14883											
W BN		46 20	05.5	84 11	30.4	84Z (P) 3724	5-16-84	14883											

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	P. L. Evans, Jr.
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) 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 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	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.
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NONFLOATING AIDS TO NAVIGATION										ORIGINATING ACTIVITY									
REPORTING UNIT (Field Party, Ship or Office) Coastal Mapping Unit AMC, Norfolk, VA										<input type="checkbox"/> HYDROGRAPHIC PARTY <input type="checkbox"/> GEODETIC PARTY <input type="checkbox"/> PHOTO FIELD PARTY <input checked="" type="checkbox"/> COMPILED BY <input type="checkbox"/> FINAL REVIEWER <input type="checkbox"/> QUALITY CONTROL & REVIEW GRP. <input type="checkbox"/> COAST PILOT BRANCH (See reverse for responsible personnel)									
TO BE CHARTED <input checked="" type="checkbox"/> TO BE REVISED <input type="checkbox"/> TO BE DELETED										DATE 4-8-85									
The following objects HAVE <input type="checkbox"/> HAVE NOT <input checked="" type="checkbox"/> been inspected from seaward to determine their value as landmarks. OPR PROJECT NO.										METHOD AND DATE OF LOCATION (See instructions on reverse side)									
JOB NUMBER CM-8412 SURVEY NUMBER TP-00353										DATUM N.A. 1927									
CHARTING NAME (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)										POSITION LATITUDE LONGITUDE D.M. Meters D.P. Meters									
DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)										OFFICE FIELD CHARTS AFFECTED 14883, 35th edition									
LIGHT	West Neebish Channel Light 33	46 17	10.1	84 12	50.3	84Z (P) 3722	5-16-84		14883										
LIGHT	Lower Nicolet West Range Rear Light	46 18	56.1	84 10	08.4	84Z (P) 3745	5-16-84		14883										
LIGHT	Lower Nicolet West Range Front Light	46 19	28.2	84 10	35.2	84Z (P) 3745	5-16-84		14883										
W B N	Lower Nicolet East Range Front Daybeacon	46 19	29.2	84 10	32.7	84Z (P) 3745	5-16-84		14883										
W B N	Lower Nicolet East Range Rear Daybeacon	46 19	13.9	84 10	20.0	84Z (P) 3745	5-16-84		14883										
LIGHT	Middle Neebish Light 62 (Charted as buoy, light established in 1983, 1984 Light List #1518)	46 20	07.1	84 11	0.5	84Z (P) 3745	5-16-84		14883										
LIGHT	Middle Neebish Channel Light 58	46 19	46.9	84 10	13.7	84Z (P) 3745	5-16-84		14883										
LIGHT	Middle Neebish Channel Light	46 19	57.6	84 11	03.0	84Z (P) 3745	5-16-84		14883										

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	P. L. EVANS, JR.
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) 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.
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RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. TP-00353 (CM-8412)

INSTRUCTIONS

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

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

[illegible]