

TP-01098

TP-01098

NOAA FORM 76-35 (6-80)	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT	
Map No. TP-01098	Edition No. 1
Job No. CM-8500	
Map Classification III	
Type of Survey SHORELINE	
LOCALITY	
State MICHIGAN	
General Locality LAKE SUPERIOR	
Locality BIG BAY POINT	
19 85 TO 19	
REGISTERED IN ARCHIVES	
DATE	

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY

- ☒ ORIGINAL
☐ RESURVEY
☐ REVISED

SURVEY TP. 01096

MAP EDITION NO. (1)

MAP CLASS 111

JOB CM 8500

PHOTOGRAMMETRIC OFFICE

Photogrammetry Branch
Rockville, MD

OFFICER-IN-CHARGE

Capt. 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

Aerotriangulation April 20, 1987
Office Sept. 21, 1987

2. FIELD

Field March 8, 1985

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

Transverse Mercator Projection

4. GRID(S)

STATE

Michigan

ZONE

West

5. SCALE

1:20,000 and 1:5,000 (inset)

STATE

ZONE

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION METHOD: Analytical	BY	J. Taylor	Aug. 1987
	LANDMARKS AND AIDS BY	J. Taylor	Aug. 1987
2. CONTROL AND BRIDGE POINTS METHOD: Kongsberg Flatbed Plotter	PLOTTED BY	J. Taylor	Aug. 1987
	CHECKED BY	N/A	
3. STEREOSCOPIC INSTRUMENT COMPILATION INSTRUMENT: Wild B-8 SCALE: 1:20,000 and 1:5,000	PLANIMETRY BY	D. Graham	March 1988
	CHECKED BY	J. Schad	March 1988
	CONTOURS BY	N/A	
	CHECKED BY	N/A	
4. MANUSCRIPT DELINEATION METHOD: Smooth Drafting SCALE: 1:20,000 & 1:5,000	PLANIMETRY BY	D. Graham	March 1988
	CHECKED BY	J. Schad	March 1988
	CONTOURS BY	N/A	
	CHECKED BY	N/A	
	HYDRO SUPPORT DATA BY	N/A	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT	BY	N/A	
6. APPLICATION OF FIELD EDIT DATA	BY	N/A	
	CHECKED BY	N/A	
7. COMPILATION SECTION REVIEW	BY	J. Schad	March 1988
8. FINAL REVIEW	BY	J. Schad	March 1988
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	J. Schad	Feb. 1989
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	P. Dempsey	Feb. 1989
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

COMPILATION SOURCES

TP-01098

1. COMPILATION PHOTOGRAPHY

CAMERA(S)

Wild RC -8(E) F/L 152.71

TYPES OF PHOTOGRAPHY
LEGEND

TIME REFERENCE

TIDE STAGE REFERENCE

☐ PREDICTED TIDES☒ REFERENCE STATION RECORDS☐ TIDE CONTROLLED PHOTOGRAPHY

(C) COLOR

(P) PANCHROMATIC

(I) INFRARED

ZONE

Eastern

☒ STANDARD

MERIDIAN

75th

☐ DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
85 E(C) 7932-7935	06/02/85	10:15	1:50,000	The water level at the time of photography was 601.4 ft. based on gage at Marquette, Michigan (Sta. 9018).
85 E(C) 7918-7922	06/02/85	09:59	1:50,000	
85 E(C) 7991-7992	06/02/85	12:22	1:15,000	

REMARKS

Plane of reference (Low Water Datum) for Lake Superior is 600.0 Ft.
The shoreline datum is lake level at time of photography.

2. SOURCE OF waterline:

The photographs listed above.

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

N/A

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
N/A	TP-01099	N/A	TP-01097

REMARKS

HISTORY OF FIELD OPERATIONS

I. ☒ FIELD OPERATION☐ FIELD EDIT OPERATION TP-01098

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J. Shea	May 1985
2. HORIZONTAL CONTROL	RECOVERED BY J. Shea ESTABLISHED BY J. Shea PRE-MARKED OR IDENTIFIED BY J. Shea	June 1985 June 1985
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 None	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY N/A	

II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
85E(C)7919	STORTZ, 1985		

3. PHOTO NUMBERS (Clarification of details)

N/A

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
85E(C)7935	BIG BAY POINT LIGHT.		
85E(C)7919	BIG BAY HARBOR WEST PIER LIGHT.		
85E(C)7919	BIG BAY HARBOR EAST PIER DAY-BEACON.		
85E(C)7919	STACK		

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)

One field work Brown Binder

RECORD OF SURVEY USE

TP-01098

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Final Reviewed Class III Map		Chart Maintenance Print		
Final Reviewed Class III Map		Notes to Hydrographer Print		

II. LANDMARKS AND AIDS TO NAVIGATION

J. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1 pg			Cartographic Feature of Charting Interest

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

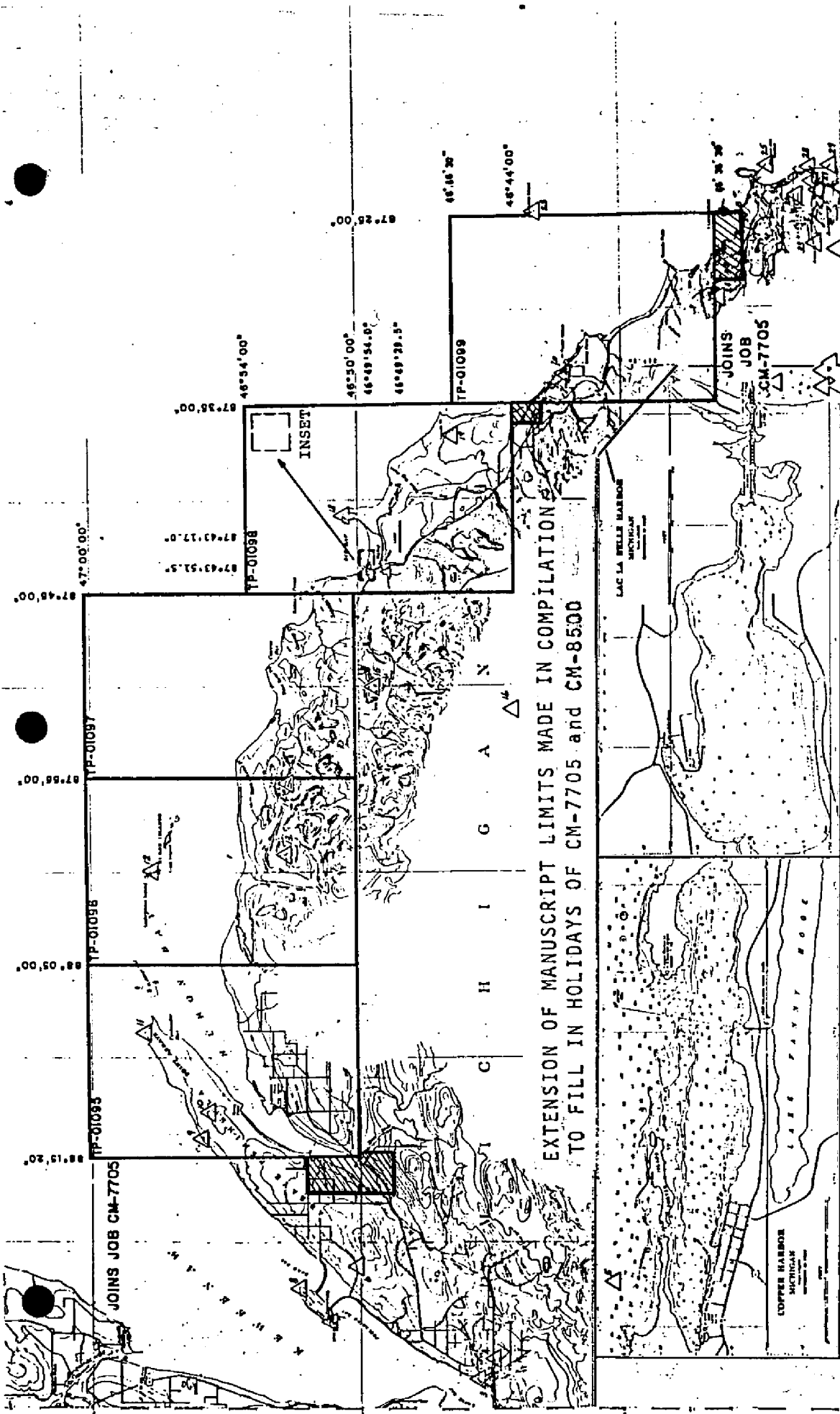
III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☐ COMPUTER READOUTS.
 2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☐ FORM NOS 567 SUBMITTED BY FIELD PARTIES.
 3. ☒ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.
 ACCOUNT FOR EXCEPTIONS:

4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

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



JOB CM-8500
POINT ABBAYE TO THONEY'S POINT
LAKE SUPERIOR

MICHIGAN
SHORELINE MAPPING
SCALE 1:20,000
LEGEND

- 1:50,000 Color (Bridging)
- 1:30,000 Color (Supplemental)

Scale
 1:50,000
 1:30,000
 1:15,000
Photo Coverage

Graphic Scale = 1:180,000

Revised 10-31-84, One Sheet, TP-0100 Added. EPJr.

Revised 4-14-87, Limits TP-01099, JDM
 Revised 9-21-87, TP-01100 Changed to INSET, Limits of INSET Revised
 TP-01100 Canceled, JDM

6

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT
TP-01098 and 1:5,000 scale inset

Project CM-8500 consisted of the production of Class III shoreline maps. Five 1:20,000-scale and one 1:5,000-scale maps were compiled. The area compiled extends from Point Abbaye to Thoneys Point, Michigan.

The purpose of this map, TP-01098, 1:20,000 scale, is to provide contemporary shoreline data for maintenance of the nautical charting program.

Field operations consisted of aerial photography and the recovery, establishment, and identification (premarking) of horizontal control necessary for aerotriangulation. Thirteen horizontal control stations were paneled for use in aerotriangulation. Field operations for project CM-8500 commenced in May 1985 and concluded in June 1985.

Natural color photographs 1:50,000 scale and 1:15,000 scale were taken in June 1985 with the Wild RC-8(E) camera.

Five strips of 1:50,000-scale color photographs and one strip of 1:15,000-scale color photographs were bridged and adjusted to the ground using the IDPF system.

Horizontal control stations used in the adjustment were premarked panels. Elevations from U.S.G.S. quadrangles were used as vertical control. The amount of aerotriangulated control proved adequate and meets National Standards of Map Accuracy.

Compilation was performed by the Special Project Unit, Rockville Office. This map delineation was based on office interpretation of the natural color photographs using the Wild B-8 stereoplotter and the ratio color photographs. All line work was smooth drafted. An extension to map limits was necessary to fill in a holiday between TP-01098 and TP-01099.

Final review was performed by the Special Project Unit, Rockville office. This map complies with the project instructions and meets the requirement for the National Standard of Map Accuracy.

The Descriptive Report contains all the information pertinent to the completion of this map.

FIELD INSPECTION
TP-01098

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.

AEROTRIANGULATION REPORT
CM-8500
POINT ABBAYE TO THONEY~~S~~ POINT, MICHIGAN

AUGUST 1987

21. AREA COVERED

The area covered by this report is from Point Abbaye to Thoney~~S~~ Point on Lake Superior, Michigan. This area is covered by five 1:20,000-scale manuscripts, TP-01095, TP-01096, TP-01097, TP-01098, TP-01099, and one 1:5,000-scale manuscript, TP-01100.

22. METHOD

Five strips of 1:50,000-scale color photographs and one strip of 1:15,000-scale color photographs were bridged and adjusted to the ground using the IDPF system. Tie points were used to supplement the ground control. All strips were drilled out and the drilled points were measured so this project may be compiled by analog or analytic methods using the IDPF system.

Ratio values were determined for the color bridging photographs.

No black-and-white infrared photographs were secured for this project.

Two aids to navigation and one landmark were located and positioned during aerotriangulation.

A liquid ink manuscript and a ballpoint pen worksheet manuscript of each TP were plotted on the Kongsburg flatbed plotter using the Michigan State Plane Coordinate System, West Zone. This is a Transverse Mercator Projection. The data is the NAD 27.

23. ADEQUACY OF CONTROL

The horizontal control provided for this project was adequate. Eleven control stations were provided and used in the adjustment.

The photo images of the panels for 926100 and 992110 were very poor. The light background creates a poor contrast with the white panel.

This project meets NOS requirements for map manuscripts.

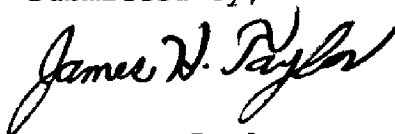
24. SUPPLEMENTAL DATA

Nautical charts were used to locate objects on the color bridging photographs. USGS quads were used to obtain elevations to furnish vertical control for the strip adjustments.

25. PHOTOGRAPHY

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

Submitted by,



James H. Taylor

Approved and Forwarded:



Don O. Norman
Chief, Aerotriangulation Unit

FIT TO CONTROL
BLOCK ADJUSTMENT
CM-8500

▲ = CONTROL HELD

<u>STATION NAME</u>	<u>AERO NO.</u>	<u>X FT.</u>	<u>Y FT.</u>
CLUB, 1985	▲143100	-0.5	+0.4
HURON, 1955	▲144100	+1.7	-0.1
NANK, 1985	▲148100	-1.5	-0.4
AURA, 1985	▲151100	+1.0	+0.5
ABBAYE, 1985	▲907100	+0.1	+0.3
NUMBER TEN	▲912101	-0.3	-0.4
LOMA, 1955	▲923100	+0.5	-2.1
HARLOW, 1985	▲926100	-0.2	+1.2
DANDREA, 1985	▲990100	-0.9	-0.3
STORT 2, 1985	992110	+0.1	-1.1
STORT 2, 1985 SUB POINT	▲995101	0.0	-0.1

TIES BETWEEN 151 AND 504

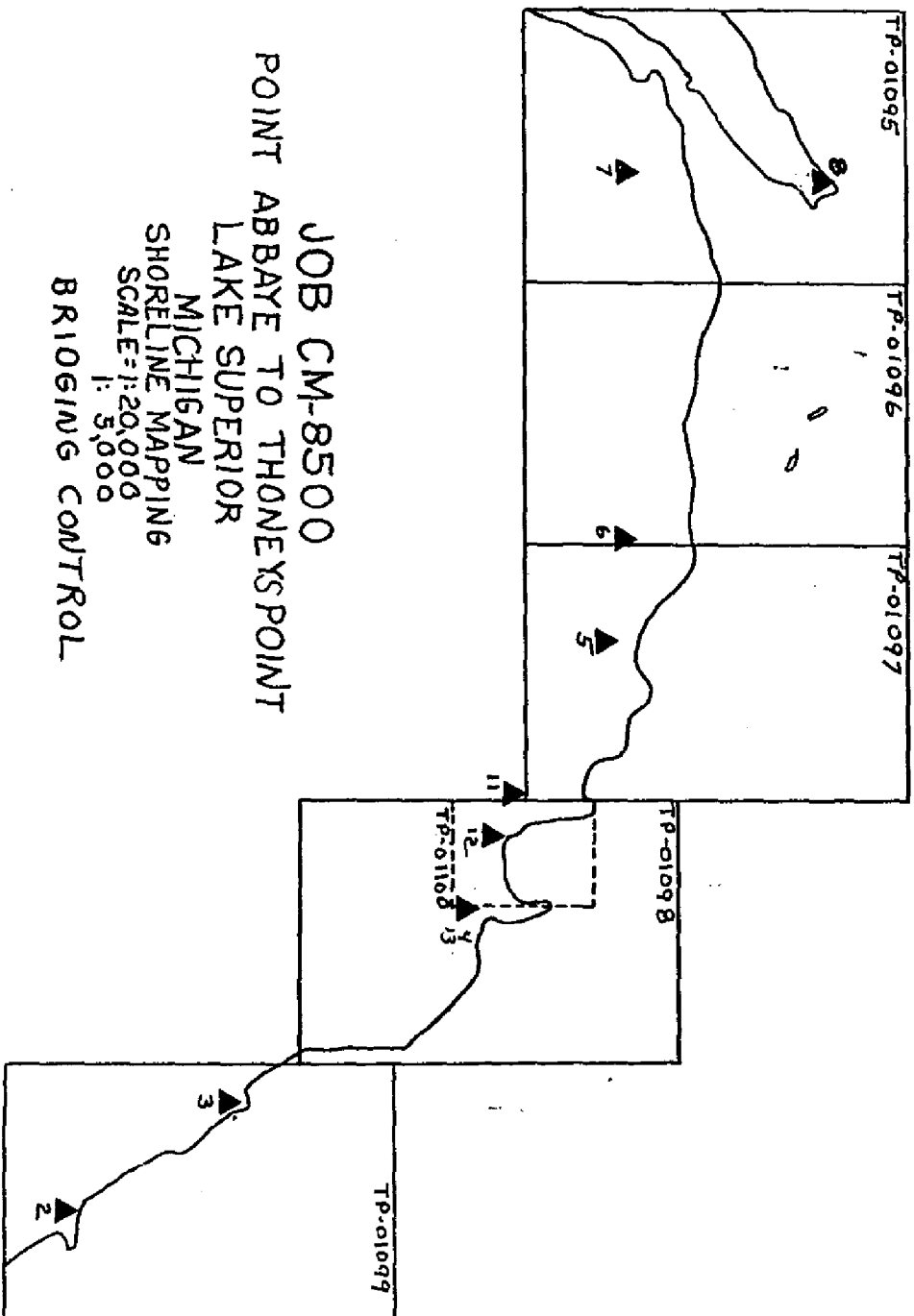
TIE 1	1.3	0.6
TIE 8	4.8	2.4
TIE 6	1.1	5.8
TIE 5	2.1	1.0

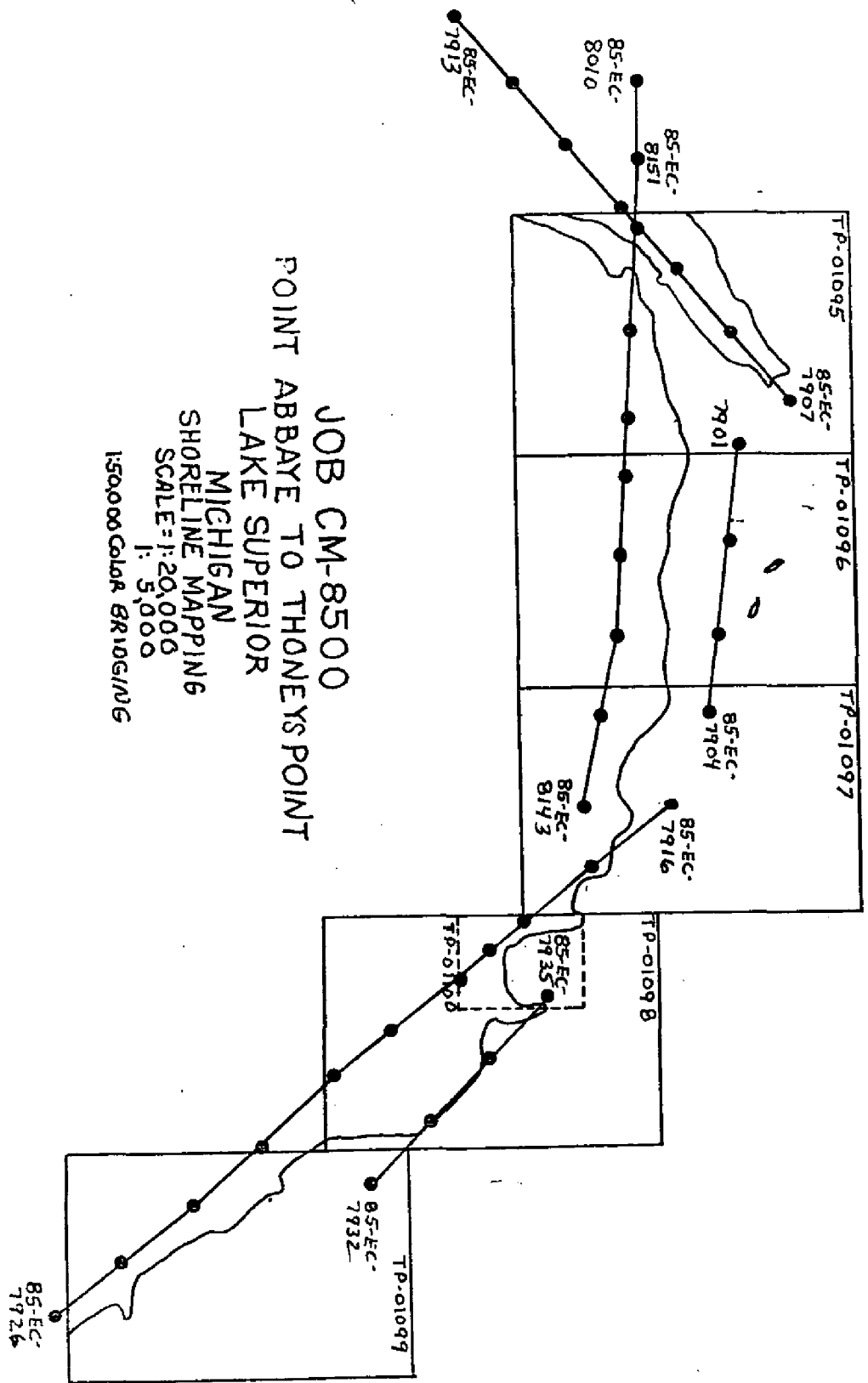
COLOR BRIDGING RATIOS
CM-8500

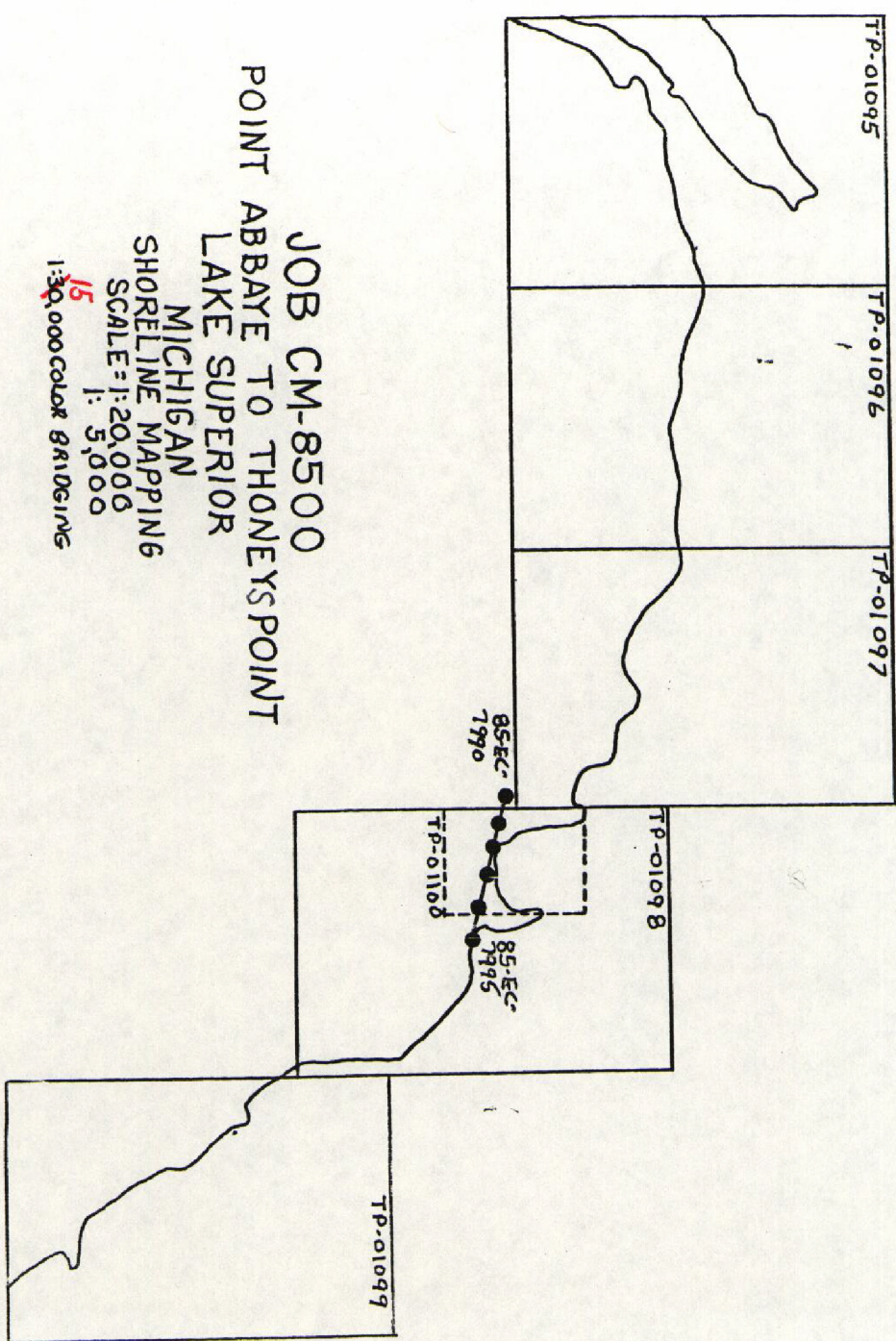
85-EC-7990 thru 7995	Ratio <u>3.020</u>
85-EC-7901 thru 7903	Ratio <u>2.500</u>
85-EC-8143 thru 8151	Ratio <u>2.505</u>
85-EC-7907 thru 7913	Ratio <u>2.500</u>
85-EC-7916 thru 7926	Ratio <u>2.502</u>
85-EC-7932 thru 7935	Ratio <u>2.501</u>

KEY TO NUMBERED STATIONS
CM-8500

<u>STATION NAME</u>	<u>PANEL NO.</u>	<u>AERO NO.</u>
MESNARD, 1955 (Not used)	1	
HARLOW, 1985	2	926100
LOMA, 1955	3	923100
STORT 2, 1985 SUB STATION (Same as Panel 13)	4	995101
CLUB, 1985	5	143100
HURON, 1955	6	144100
NANK, 1985	7	148100
ABBAYE, 1985	8	907100
AURA, 1985	9	151100
NUMBER TEN	10	912101
DANDREA, 1985	11	990100
STORT 2, 1985	12	992110
STORT 2, 1985 SUB STATION (Same as Panel 4)	13	995101







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		
TP-01098	CM 8500	N.A. 1927		Special Projects Rockville, MD.		
STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET		REMARKS	
			STATE	ZONE		
STORTZ, 1985	Field Binder	992110				
			X=	756,155.799	ϕ 46° 49' 03.455"	Geodetic Doppler
			Y=	1,940,019.105	λ 87° 43' 36.654"	Satellite Position
			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 Lloyd W. Harrod Jr.		LISTING CHECKED BY D.O. Norman, <i>Norman School</i>		DATE 03-25-86		
HAND PLOTTING BY		HAND PLOTTING CHECKED BY		DATE		

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

COMPILATION REPORT
TP-01098 and 1:5,000 scale inset

31. DELINEATION

Delineation of detail was accomplished using a Wild B-8 stereoplotter.

32. CONTROL

Horizontal control furnished by the Aerotriangulation Unit was adequate for controlling the stereomodels. Refer to the Aerotriangulation Report bound with this Descriptive Report for additional information.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

The compilation of contours was not a requirement of this project. Drainage was compiled based on office interpretation of the bridging/compilation photographs.

35. SHORELINE AND ALONGSHORE DETAILS

The visible line of contact between land features and the water was compiled as the shoreline. The water level at the time of photography was 601.4 feet. Alongshore detail consisted of breakwaters, piers and a ramp.

Shoreline and alongshore delineation was compiled as described in item 31 of this report.

36. OFFSHORE DETAIL

Offshore detail consisted of rocks, ruins, and one obstruction. Offshore detail was compiled as described in item 31 of this report.

37. LANDMARKS AND AIDS

Refer to the listing "Cartographic Features of Charting Interest" bound with this Descriptive Report for information relating to charted landmarks and fixed aids to navigation measured or confirmed during photogrammetric operations.

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

Refer to item 5 of NOAA Form 76-36B, bound with this Descriptive Report, for information on map junctions.

40. HORIZONTAL AND VERTICAL ACCURACY

This map meets the National Standards of Map Accuracy. For additional information, refer to the Aerotriangulation Report bound with this Descriptive Report.

41. EXTENSION OF MANUSCRIPT LIMITS

An extension was made on this manuscript to fill a holiday between TP-01098 and TP-01099. The extension was made from latitude 46 44' 00" to 46 43' 00", and from longitudes 87 35' 00" to 87 36' 00".

42. through 45. - Not applicable.

46. COMPARISON WITH EXISTING MAPS

Comparisons were made with the following 1:24,000 scale U.S. Geological Survey quadrangles:

Buckroe, Michigan, Provisional Edition 1985
Granite Point, Michigan, Provisional Edition 1985
Big Bay, Michigan, Provisional Edition 1985

47. COMPARISON WITH NAUTICAL CHARTS

A comparison was made with the following National Ocean Service nautical chart:

14963, 17th Edition (Feb. 1, 1986), scale 1:120,000.

Submitted by,

Douglas Graham

Douglas Graham
Cartographer

Approved and Forwarded:

John A. Mooney

John A. Mooney
Chief, Special Projects Unit

GEOGRAPHIC NAMES

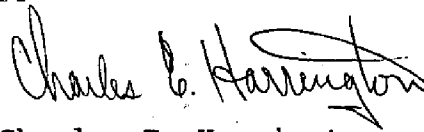
FINAL NAME SHEET

CM-8500 (Lake Superior, Michigan)

TP-01098

Alder	Independence, Lake
Alder Creek	Iron River
Bear Lake	Johnson Creek
Big Bay	McKenzie Bay
Big Bay (locality)	Salmon Trout Point
Big Bay Harbor	Squaw Beach
Big Bay Point	Superior, Lake
Black Rock Point	Yellow Dog Point
Brandts Pond	Yellow Dog River
Granite Point	
Homeier	

Approved:



Charles E. Harrington
Chief Geographer
Nautical Charting Division

FINAL REVIEW REPORT
TP-01098 and 1:5,000-scale inset

61. GENERAL STATEMENT

Refer to the Summary bound with this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS - None

63. COMPARISON WITH MAPS OF OTHER AGENCIES

A comparison was made with the following 1:24,000 scale U.S. Geological Survey quadrangles:

Buckroe, Michigan, Provisional Edition 1985
Granite Point, Michigan, Provisional Edition 1985
Big Bay, Michigan, Provisional Edition 1985

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS - None

65. COMPARISON WITH NAUTICAL CHARTS

14963, Scale 1:120,000, 17th Edition, dated February 1, 1986.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map meets the National Standards of Map Accuracy and requirements specified in the Project Instructions.

Submitted by,

James E. Schad

James E. Schad
Unit Reviewer

Approved for forwarding:

John A. Mearns
Chief, Special Projects Unit

Approved:

Chief, Photogrammetric Production Section

A. J. Bryson
Chief, Photogrammetry Branch

CHARTED LANDMARKS AND NONFLOATING AIDS TO NAVIGATION LISTING

Page of

PROJECT: CM 8500

MAP NUMBER (Scale); Locality: TP-01098 1:50,000/1:20,000 BIG BAY, MICHIGAN

GEODETIC DATUM: N/A 1927

The following charted landmarks and nonfloating aids to navigation have been measured and or confirmed during photogrammetric operations. Refer to Nautical Charting Division Standard Digital Data Exchange Format documentation for quality code (QC) criteria and clarification of cartographic codes (CC).

FEATURE DESCRIPTION	NCD CC	GEOGRAPHIC POSITION(°-'-")		NCD QC	DATE OF LOCATION
		LATITUDE	LONGITUDE		
BIG BAY POINT LIGHT	200	46° 50'29.445"	87° 40'48.683"	1	00155
BIG BAY HARBOR WEST PIER LIGHT	200	46° 49'43.6"	87° 43'30.2"	2	15385
BIG BAY HARBOR EAST PIER DAYBEACON	767	46° 49'41.6"	87° 43'31.0"	2	15385
STACK	086	46° 49'04.8"	87° 43'20.3"	2	15385
TANK	993	46° 49'09.4"	87° 43'55.3"	4	15385

Listing approved by:

James E. Schaal
Final Reviewer

Feb. 21, 1989
Date

(5/87)

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.

[illegible]