TP-01395

NOAA FORM 76-35
(6-80)

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

DESCRIPTIVE REPORT

Map No. TP-01395	*Edition No.* 1st
Job No. CM-8511	
Map Classification CLASS III	
Type of Survey COASTAL MAPPING	

LOCALITY

State MICHIGAN

General Locality LAKE SUPERIOR

Locality VERMILLION POINT

19 86 TO 19

REGISTERED IN ARCHIVES

DATE

*U.S. GOVERNMENT PRINTING OFFICE: 1980-665-115

NOAA FORM 76-36A (3-72) — U. S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.

DESCRIPTIVE REPORT - DATA RECORD

TYPE OF SURVEY: [X] ORIGINAL [ ] RESURVEY [ ] REVISED

SURVEY TP- 01395

MAP EDITION NO. (1)

MAP CLASS III

JOB ~~PH-~~ CM-8511

PHOTOGRAMMETRIC OFFICE: Photogrammetry Branch, Rockville, MD

OFFICER-IN-CHARGE: Cdr. A. Y. Bryson

LAST PRECEEDING MAP EDITION

TYPE OF SURVEY: [ ] ORIGINAL [ ] RESURVEY [ ] REVISED

JOB PH- ____

MAP CLASS ____

SURVEY DATES: 19__ TO 19__

I. INSTRUCTIONS DATED

1. OFFICE		2. FIELD	
Aerotriangulation	April 20, 1987	Field	January 27, 1986
Office	July 27, 1987		

II. DATUMS

1. HORIZONTAL: [X] 1927 NORTH AMERICAN — OTHER (Specify)

2. VERTICAL: [ ] MEAN HIGH-WATER [ ] MEAN LOW-WATER [ ] MEAN LOWER LOW-WATER [ ] MEAN SEA LEVEL — OTHER (Specify): International Great Lake Datum (1955)

3. MAP PROJECTION: Transverse Mercator Projection

4. GRID(S): STATE: Michigan; ZONE: East

5. SCALE: 1:20,000 — STATE: ; ZONE:

III. HISTORY OF OFFICE OPERATIONS

OPERATIONS		NAME	DATE
1. AEROTRIANGULATION	BY	J. Taylor	May 1987
METHOD: Analytical	LANDMARKS AND AIDS BY	N/A	
2. CONTROL AND BRIDGE POINTS	PLOTTED BY	J. Taylor	May 1987
METHOD: Kongsberg Flatbed Plotter	CHECKED BY	N/A	
3. STEREOSCOPIC INSTRUMENT COMPILATION	PLANIMETRY BY	R. Johanson	Sept. 1987
	CHECKED BY	J. Schad	Sept. 1987
INSTRUMENT: Wild B-8	CONTOURS BY	N/A	
SCALE: 1:20,000	CHECKED BY	N/A	
4. MANUSCRIPT DELINEATION	PLANIMETRY BY	R. Johanson	Sept. 1987
	CHECKED BY	J. Schad	Sept. 1987
METHOD: Smooth Drafting	CONTOURS BY	N/A	
	CHECKED BY	N/A	
SCALE: 1:20,000	HYDRO SUPPORT DATA BY	N/A	
	CHECKED 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	Oct. 1987
8. FINAL REVIEW	BY	J. Schad	NOV 9, 1987
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH	BY	J. Schad	NOV 10, 1987
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH	BY	P. Dempsey	Dec. 1987
11. MAP REGISTERED - COASTAL SURVEY SECTION	BY	J. Rikon	APR 28, 1988

NOAA FORM 76-36A — SUPERSEDES FORM C&GS 181 SERIES

* U.S. G.P.O. 1972-769382/582 REG.#6

NOAA FORM 76-36B
(3-72)

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

COMPILATION SOURCES

TP-01395

1. COMPILATION PHOTOGRAPHY

CAMERA(S): Wild RC-8(E) F/L 152.71

TIDE STAGE REFERENCE
- ☐ PREDICTED TIDES
- ☒ REFERENCE STATION RECORDS
- ☐ TIDE CONTROLLED PHOTOGRAPHY

TYPES OF PHOTOGRAPHY LEGEND
- (C) COLOR
- (P) PANCHROMATIC
- (I) INFRARED

TIME REFERENCE
- ZONE: Eastern — ☒ STANDARD
- MERIDIAN: 75th — ☐ DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
86 E(C) 6228-6231	6/2/86	13:27	1:50,000	The water level at the time of photography was 601.7 ft. based on gage at Marquette, Michigan. (Sta#9018)

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 ~~MEAN HIGH WATER~~ Shoreline:

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-01396 TP-01397	N/A	CM-8509

REMARKS

NOAA FORM 76-36B
(3-72)

NOAA FORM 76-36C
(3-72)

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

HISTORY OF FIELD OPERATIONS TP-01395

I. [X] FIELD ~~INSPECTION~~ OPERATION [ ] FIELD EDIT OPERATION

OPERATION		NAME	DATE
1. CHIEF OF FIELD PARTY		J. E. Dunford	June, 1986
2. HORIZONTAL CONTROL	RECOVERED BY	J. E. Dunford	May, 1986
	ESTABLISHED BY	J. E. Dunford	May, 1986
	PRE-MARKED OR IDENTIFIED BY	J. E. Dunford	May, 1986
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 [ ] COMPLETE [ ] SPECIFIC NAMES ONLY [X] NO INVESTIGATION — BY		
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
86 E(6)6230	VERMILION, 1965		

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 [X] NONE

6. BOUNDARY AND LIMITS: [ ] REPORT [X] 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.

NOAA FORM 76-36C
(3-72)

☆U.S. Government Printing Office: 1975 – 666-661/1110, Region No. 6

NOAA FORM 76-36D
(3-72)

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

RECORD OF SURVEY USE TP-01395

I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Final Reviewed Class III Map	Dec., 1987	Chart Maintenance Print		
Final Reviewed Class III Map	Dec., 1987	Notes to Hydrographer Print		

II. LANDMARKS AND AIDS TO NAVIGATION

1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
			Listing of Landmarks and Aids to Navigation (None)

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:

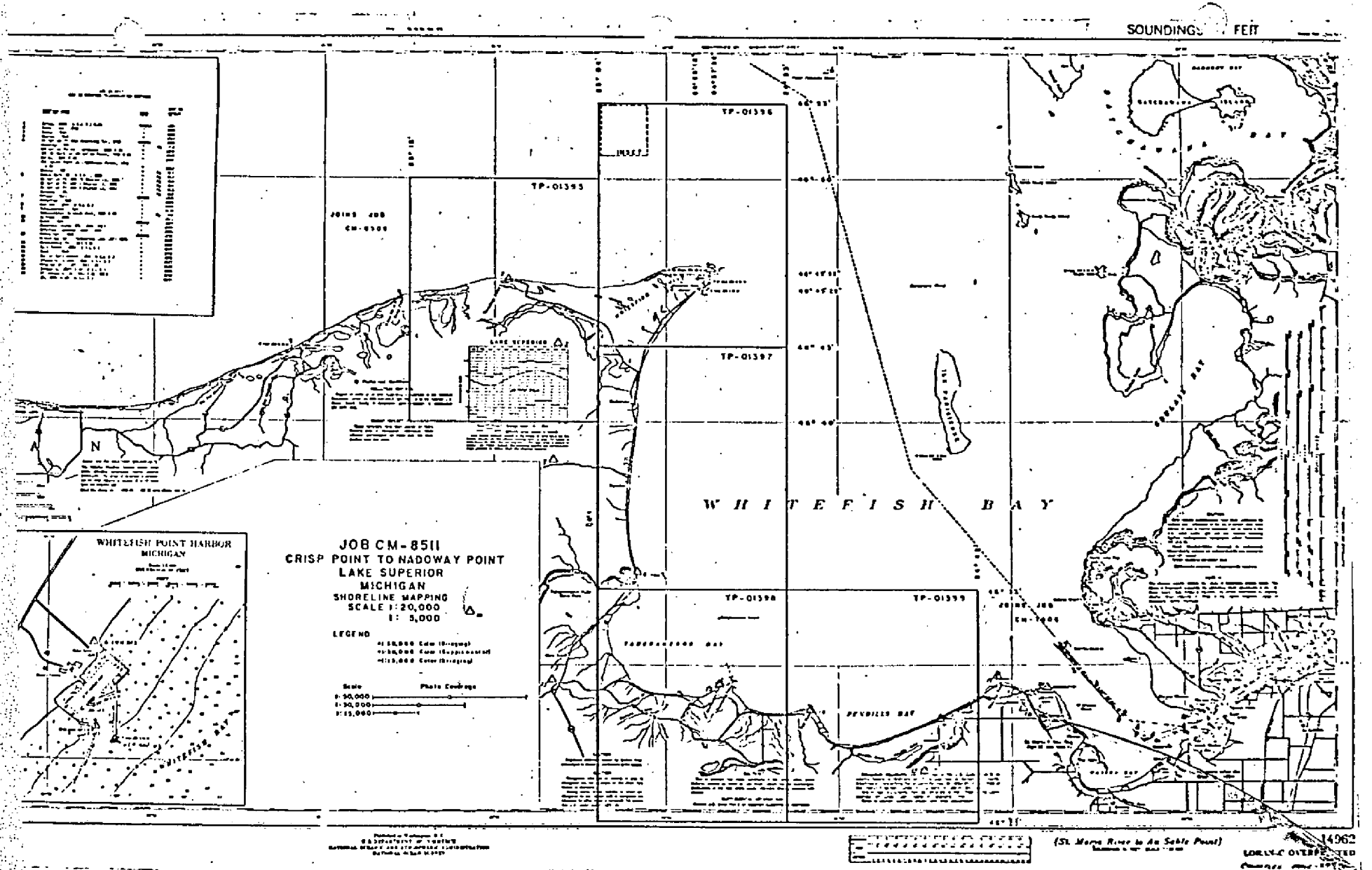
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: _____

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

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

NOAA FORM 76-36D

☆U.S. Government Printing Office: 1975 — 665-661/1108, Region No. 6


SOUNDINGS IN FEET
TP-01396
TP-01395
TP-01397
TP-01398
TP-01399
WHITEFISH BAY
N
WHITEFISH POINT HARBOR
MICHIGAN
JOB CM-8511
CRISP POINT TO NADOWAY POINT
LAKE SUPERIOR
MICHIGAN
SHORELINE MAPPING
SCALE 1:20,000
1: 5,000
LEGEND
(St. Marys River to Au Sable Point)
14962

SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORT
TP-01395

Project CM-8511 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 Crisp Point to Nadoway Point, Michigan.

The purpose of this map, TP-01395, 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. Twelve horizontal control stations were paneled for use in aerotriangulation. Field operations for project CM-8511 commenced in May 1986 and concluded in June 1986.

Natural color photographs 1:50,000 scale and 1:15,000 scale were taken in June 1986 with the Wild RC-8C(E) camera. Supplemental natural color photographs at 1:30,000 scale were not used for compilation.

Three strips of 1:50,000-scale color photographs were bridged using analytical aerotriangulation methods. One 1:50,000-scale model and one 1:15,000-scale model were bridged using the NOSAP (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.

Final review was performed by the Special Project Unit, Rockville office. This map compiles 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-.01395

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-8511
CRISP POINT TO NADOWAY POINT, MICHIGAN

MAY 1987

21. AREA COVERED

The area covered by this report is from Crisp Point to Nadoway Point in Lake Superior, Michigan. This area is covered by five 1:20,000-scale manuscripts and one 1:5,000-scale inset that is part of TP-01396. The manuscripts are TP-01395, TP-01396, TP-01397, TP-01398, and TP-01399.

22. METHOD

Three strips of 1:50,000-scale color photographs were bridged and adjusted to the ground using analytic aerotriangulation methods. The measurements were made with the Wild STK comparator. One 1:50,000-scale model and one 1:15,000-scale model of color photographs were bridged and adjusted to the ground with the IDPF system. Tie points were used to supplement control.

Ratio values were determined for the color bridging photographs. No black-and-white infrared photography was secured for this project.

No aids to navigation or landmarks were located during aerotriangulation.

The manuscripts were plotted on the Kongsburg flatbed plotter in the Michigan State Plane Coordinate System, East Zone. This is a Transverse Mercator projection. The data is NAD 27.

23. ADEQUACY OF CONTROL

The horizontal control provided for this project was adequate. Twelve control stations were provided and used in the adjustment. This project meets NOS requirements for map manuscripts.

24. SUPPLEMENTAL DATA

Nautical charts were used to try to locate objects on the color bridging photography. USGS quads were used to obtain elevations to level the strips.

25. PHOTOGRAPHY

The coverage, overlap, and quality of the photographs proved adequate for this project. Some control station panels were difficult to measure due to poor image quality of the photographs.

Submitted by,

James H. Taylor

Approved and Forwarded:

Don O. Norman

Don O. Norman
Chief, Aerotriangulation Unit

FIT TO CONTROL
CM-8511
▲ CONTROL HELD
■ TIE POINT HELD

STATION NAMES	POINT NUMBER	VALUES IN FEET X	Y
STRIP 15-1			
Whitefish Point Hbr N. Brkwtr Lt., 1981	▲861110	0.2	0.0
Whitefish Point Hbr In Brkwtr Lt., 1981	▲220110	-2.0	-0.8
White, 1965 Sub Station #5	▲220101	0.2	-0.3
Whitefish Point Hbr. S. Brkwtr. Lt., 1981	▲861100	1.7	0.2
Whitefish Point Lighthouse, 1965	220120	0.6	1.6
Whitefish Point Red Receiving Twr., 1965	220130	0.5	-1.9
STRIP 50-1			
Pris	▲227100	0.3	-0.5
Vermillion, 1965	▲230100	1.6	1.4
Betsy, 1965 Sub Station #3	▲230111	-1.8	-1.5
Tie From Strip 50-4	219801	3.1	1.9
Tie From Strip 50-4	219802	1.9	2.6
Tie From Strip 50-4	219803	-1.3	2.7
Andrus, 1965 Sub Station #4	▲218101	0.0	0.6
STRIP 50-2			
Menekaunce Pt., 1965 Sub Station #9	▲204101	0.8	1.4
Tie From Strip 50-3	■193801	-1.0	-1.8
Tie From Strip 50-3	■193802	0.4	0.8
Tie From Strip 50-3	■193803	-0.7	0.2
Tie From Strip 50-3	■193804	0.7	-0.6
STRIP 50-3			
Pt. Iroquis L.H. Sub Point #12	▲198101	1.1	1.6
Sub Station #11 TP	▲200101	-3.8	-1.6
Pen, 1986	▲202100	0.6	-0.1
Tie From Strip 50-2	193801	1.0	1.7
Tie From Strip 50-2	193802	-0.3	-0.7
Tie From Strip 50-2	193803	0.7	-0.1
Tie From Strip 50-2	193804	-0.7	0.5

Tie From Strip 50-4	206801	-2.0	3.8
Tie From Strip 50-4	206802	-2.2	5.1
Tie From Strip 50-4	206803	-3.6	5.3
Sub Station #8 TP	▲213101	-1.5	-0.5

STRIP 50-4

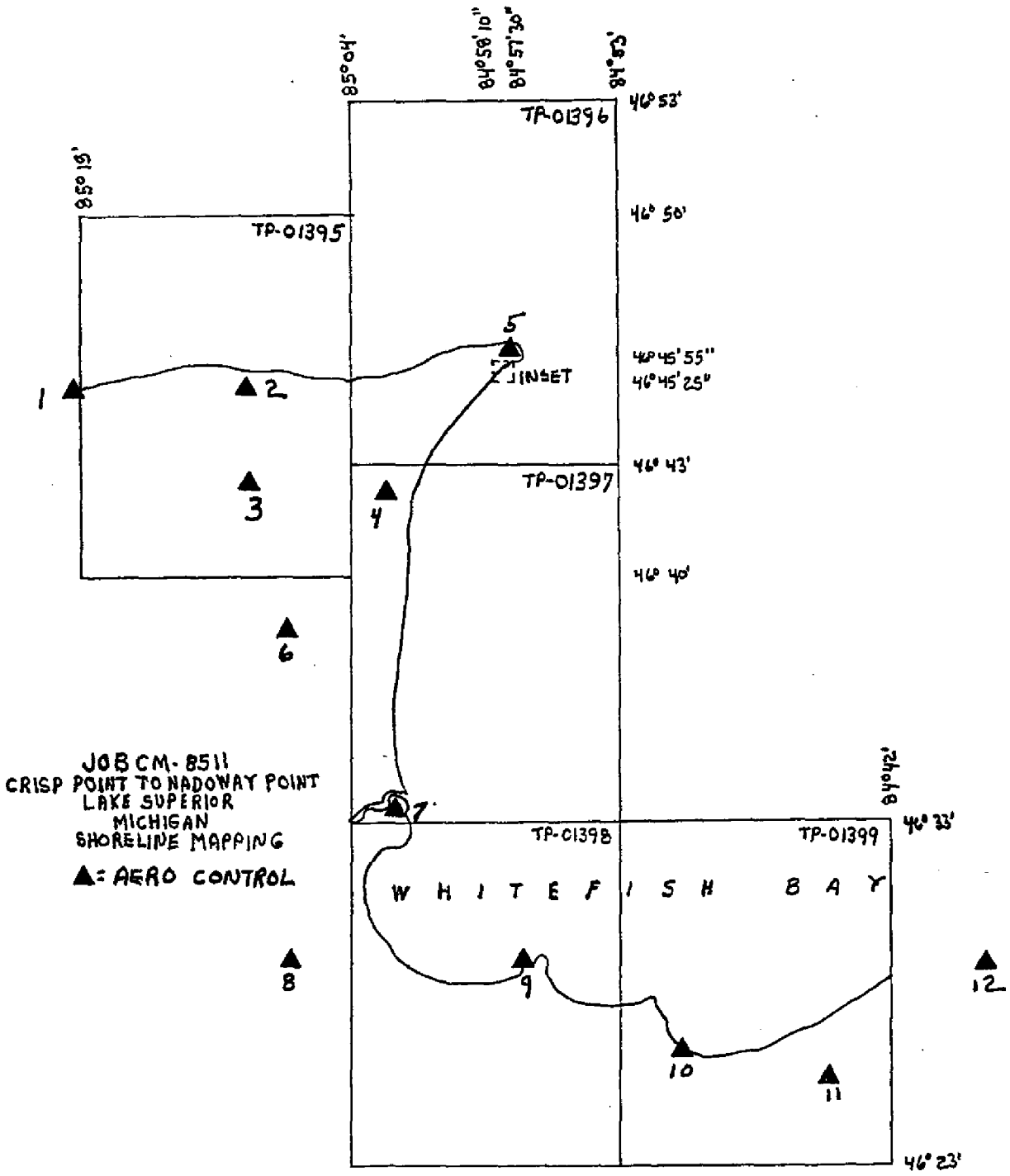
Tie From Strip 50-3	206801	2.0	-3.8
Tie From Strip 50-3	206802	2.2	-5.1
Tie From Strip 50-3	206803	3.6	-5.3
Sub Station #8 TP	▲213101	-0.2	0.9
Tahqumenon, 1965, Az. Mk. Sub Station #7	▲215101	1.9	-1.4
Prison, 1965 Sub Station #6	▲217101	-1.7	1.1
Andrus, 1965 Sub Station #4	▲218101	0.9	2.3
Tie From Strip 50-1	219801	-3.1	-1.9
Tie From Strip 50-2	■219802	-1.9	-2.6
Tie From Strip 50-3	219803	1.3	-2.7
White, 1965 Sub Station #5	▲220101	1.5	-1.5
Whitefish Point Hrb In Brkwtr Lt., 1981	▲220110	-0.5	1.1

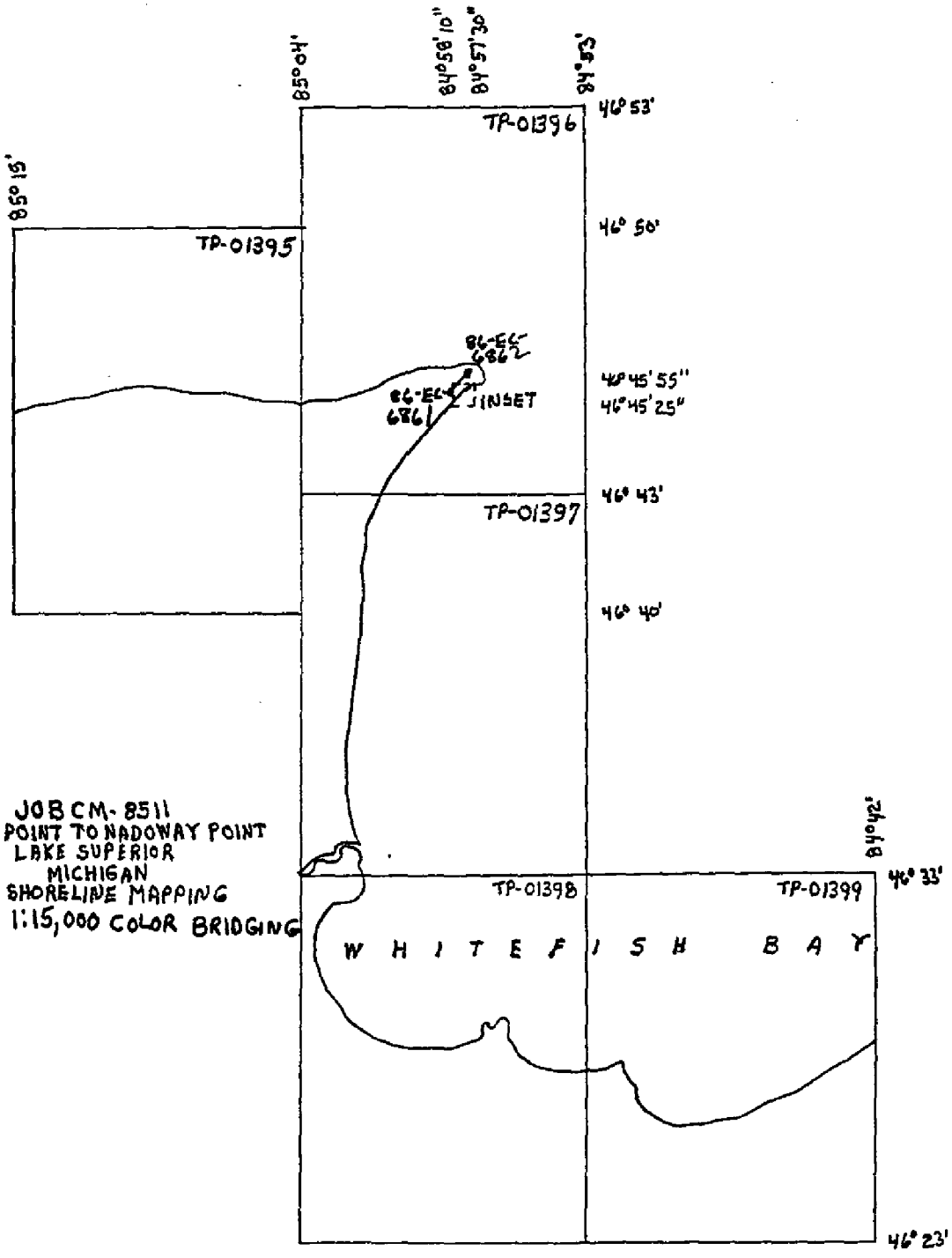
COLOR BRIDGING RATIO VALUE
CM-8511

86-EC-6191 and 6193	Ratio 2.580
86-EC-6200 thru 6205	Ratio 2.568
86-EC-6213 thru 6221	Ratio 2.581
86-EC-6228 thru 6231	Ratio 2.583
86-EC-6861 and 6862	Ratio 2.980

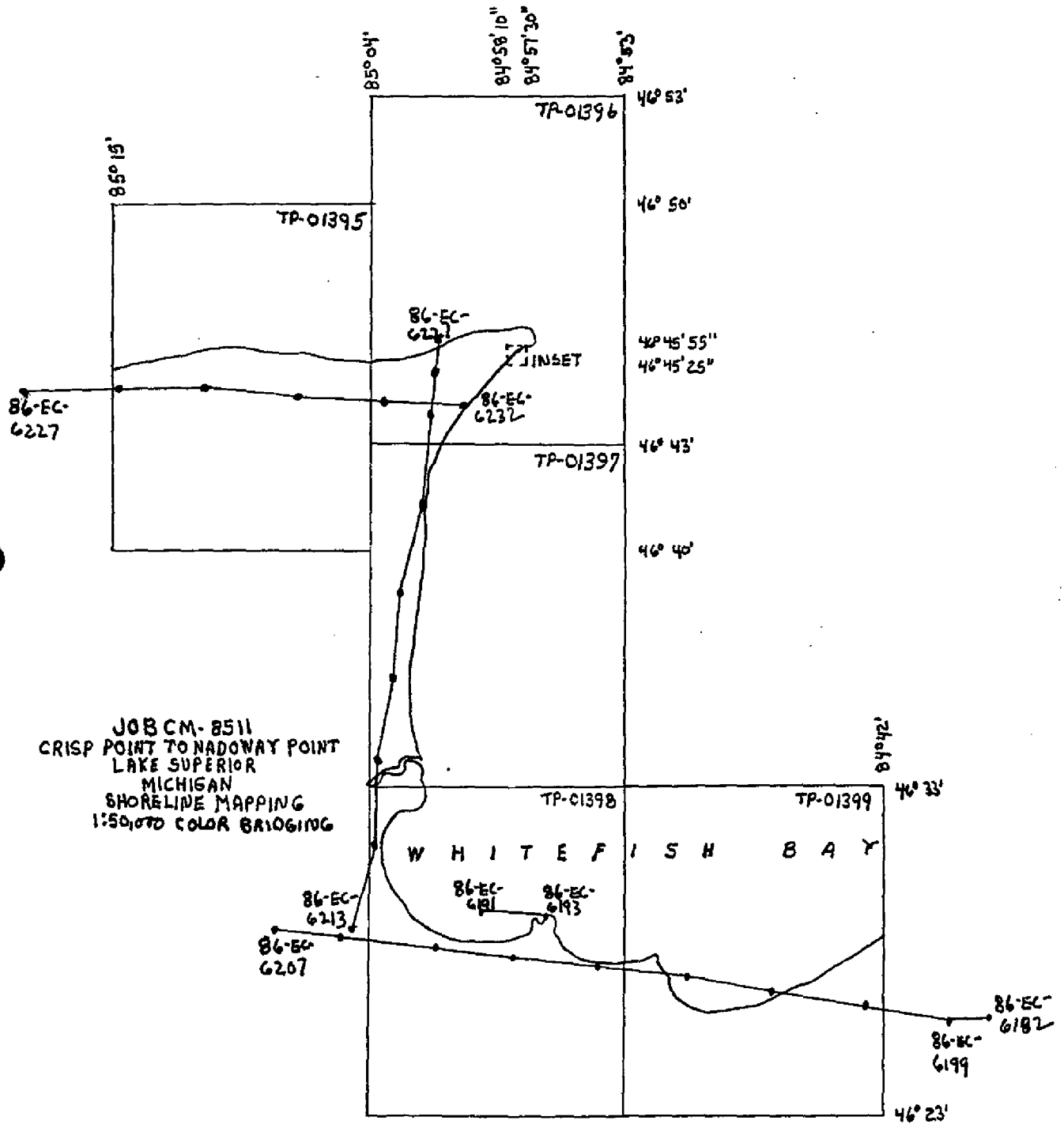
KEY TO NUMBERED STATIONS
CM-8511

STATION NAME	PANEL NO.	AERO NO.
Pris	1	227100
Vermillion, 1965	2	230100
Betsy, 1965 Sub Station #3	3	230111
Andrus, 1965 Sub Station #4	4	218101
White, 1965 Sub Station #5	5	220101
Prison, 1965 Sub Station #6	6	217101
Tahqumenon, 1965 Az. Mk. Sub Station #7	7	215101
Sub Station #8 TP	8	213101
Menekaunce Pt. 1965 Sub Station #9	9	204101
Pen, 1986	10	202100
Sub Station #11 TP	11	200101
Pt. Iroquis Lt. Ho. Sub Point #12	12	198101


85°04'
84°58'10"
84°57'30"
84°53'
85°15'
46°53'
46°50'
46°45'55"
46°45'25"
46°43'
46°40'
46°33'
46°23'
TP-01396
TP-01395
TP-01397
TP-01398
TP-01399
1
2
3
4
5
6
7
8
9
10
11
12
INSET
WHITEFISH BAY
JOB CM-8511
CRISP POINT TO NADOWAY POINT
LAKE SUPERIOR
MICHIGAN
SHORELINE MAPPING
▲= AERO CONTROL



JOB CM-8511
CRISP POINT TO NADOWAY POINT
LAKE SUPERIOR
MICHIGAN
SHORELINE MAPPING
1:15,000 COLOR BRIDGING



JOB CM-8511
CRISP POINT TO NADOWAY POINT
LAKE SUPERIOR
MICHIGAN
SHORELINE MAPPING
1:50,000 COLOR BRIDGING

NOAA FORM 76-41
(6-75)

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

DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	GEODETIC DATUM	ORIGINATING ACTIVITY
TP-01395	CM 8511	NA 1927	Special Project, Rockville, MD

STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI-ANGULATION POINT NUMBER	COORDINATES IN FEET STATE Michigan ZONE East	GEOGRAPHIC POSITION φ LATITUDE λ LONGITUDE	REMARKS
VERMILION, 1965	CSI Field Binder	230100	x= 131,091.7807 y= 1,918,246.8713	φ46 45 10.2807 λ85 08 18.1419	Direct
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	
			x= y=	φ λ	

COMPUTED BY	DATE	COMPUTATION CHECKED BY	DATE
LISTED BY D. Norman	DATE 11-12-86	LISTING CHECKED BY L. W. Harrod, Jr. / J. Schad	DATE 12-11-86
HAND PLOTTING BY	DATE	HAND PLOTTING CHECKED BY	DATE

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

17

COMPILATION REPORT
TP-01395

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 Photogrammetric Plot Report bound with this Descriptive Report for additional information.

Vertical control was achieved by using a combination of elevations provided by the Aerotriangulation Unit, USGS quadrangles, and the land/water interface.

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 601.7 feet. Shoreline delineation was compiled as described in item 31 of this report.

36. OFFSHORE DETAIL

No offshore detail was located on this map.

37. LANDMARKS AND AIDS

There are no landmarks and aids within the limits of this map.

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

Refer to item 5 of NOAA Form 76-36B, which is 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.through 45. - Not Applicable

46. COMPARISON WITH EXISTING MAPS

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

Vermilion, Michigan 1951
Sheephead Lake, Michigan 1951
Vermilion SE, Michigan 1951
Shelldrake, Michigan 1951, Photorevised 1975

47. COMPARISON WITH NAUTICAL CHARTS

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

14962, 17th Edition (October 12, 1985), scale 1:120,000.

A Chart Maintenance Print indicating the results of the comparison was forwarded to the Marine Chart Branch, Rockville, Maryland. Refer to the print for items to be immediately applied and carried forward.

Submitted by,

Rick O. Johanson
Rick O. Johanson
Cartographer

Approved and Forwarded:

John A. Mooney
John A. Mooney
Chief, Special Projects Unit

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8511 (Crisp Point to Nadoway Point, Lake Superior, MI)

TP-01395

Browns Creek

Browns Lake

McMullan Lakes

Shelldrake Lake

Shelldrake River

Superior, Lake

Twomile Lake

Vermillion

Vermillion Point

Weatherhogs Creek

Weatherhogs Lake

Widewaters, The

Approved:

Charles E. Harrington

Charles E. Harrington
Chief Geographer
Nautical Charting Division

FINAL REVIEW REPORT
TP-01395

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:

Shelldrake, Michigan 1951, Photorevised 1975
Vermilion SE, Michigan 1951
Vermilion, Michigan 1951
Sheephead Lake, Michigan 1951

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS-None

65. COMPARISON WITH NAUTICAL CHARTS

14962, Scale 1:120,000, 17th Edition, dated October 12, 1985.

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 Mooney

Chief, Special Projects Unit

Approved:

Jay O. Rahorn, Jr.

Chief, Photogrammetric Production Section

C. Y. Bryson

Chief, Photogrammetry Branch

FORM C&GS-8352
(3-[illegible]-63)

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
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