

TP-01088

TP-01088

NOAA FORM 76-35

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

## DESCRIPTIVE REPORT

This Map Edition will not be Field Edited

Type of Survey ..SHORELINE.....  
Job No. CM-8008..... Map No. TP-01088.....  
Classification No. III Edition No. 1.....

### LOCALITY

State .Minnesota-Wisconsin.....  
General Locality New Duluth.....  
Locality St. Louis River.....

1980 TO 1981

### REGISTRY IN ARCHIVES

DATE .....

MAP NOT INSPECTED BY  
QUALITY CONTROL OF PHOTOGRAMMETRY DIVISION  
PRIOR TO REGISTRATION

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	
<b>DESCRIPTIVE REPORT - DATA RECORD</b>		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
PHOTOGRAMMETRIC OFFICE  Rockville, Md		SURVEY TP. 01088  MAP EDITION NO. (1)  MAP CLASS III  JOB CM-8008	
OFFICER-IN-CHARGE  Cdr. Simmons		<b>LAST PRECEDING MAP EDITION</b>  TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	
JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__			
<b>I. INSTRUCTIONS DATED</b>			
<b>1. OFFICE</b>		<b>2. FIELD</b>	
Aerotriangulation October 16, 1980 Refer to: "Vertical Datum Reference for Map Features, Photogrammetric Surveys, Great Lakes" dated July 13, 1976.		Field, April 17, 1981	
<b>II. DATUMS</b>			
<b>1. HORIZONTAL:</b> <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify)	
<b>2. VERTICAL:</b> <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		OTHER (Specify) International Great Lake Datum 1955	
<b>3. MAP PROJECTION</b>  Lambert Conformal		<b>4. GRID(S)</b> STATE Wisconsin      ZONE North	
<b>5. SCALE</b> 1:5,000		STATE _____      ZONE _____	
<b>III. HISTORY OF OFFICE OPERATIONS</b>			
<b>OPERATIONS</b>		<b>NAME</b>	<b>DATE</b>
<b>1. AEROTRIANGULATION</b> METHOD: Analytic      LANDMARKS AND AIDS BY		S. Solbeck	12/81
<b>2. CONTROL AND BRIDGE POINTS</b> METHOD: Cal Comp      PLOTTED BY		A. Bethea	1/82
<b>3. STEREOSCOPIC INSTRUMENT</b> COMPILATION      PLANIMETRY BY		J. Schadt	1/82
INSTRUMENT: B-8      CHECKED BY		P. Dempsey	1/82
SCALE: 1:5,000      CONTOURS BY		N/A	
<b>4. MANUSCRIPT DELINEATION</b> METHOD: Instrument Worksheet      PLANIMETRY BY		J. Schadt	2/82
SCALE: 1:5,000      CHECKED BY		P. Dempsey	2/82
HYDRO SUPPORT DATA BY		N/A	
CHECKED BY		N/A	
<b>5. OFFICE INSPECTION PRIOR TO FIELD EDIT</b> BY		N/A	
<b>6. APPLICATION OF FIELD EDIT DATA</b> BY		N/A	
CHECKED BY		N/A	
<b>7. COMPILATION SECTION REVIEW</b> BY		P. Dempsey	8/82
<b>8. FINAL REVIEW</b> BY		J. Taylor/J. Schadt	10/83
<b>9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH</b> BY		N/A	
<b>10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH</b> BY			
<b>11. MAP REGISTERED - COASTAL SURVEY SECTION</b> BY		E. DAUGHERTY	NOV 1984

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(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## COMPILATION SOURCES

TP-01088

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) RC-8, focal length 152.71 mm		TYPES OF PHOTOGRAPHY LEGEND (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE <input type="checkbox"/> PREDICTED TIDES <input checked="" type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				ZONE Eastern	<input type="checkbox"/> STANDARD
				MERIDIAN 75 th	<input checked="" type="checkbox"/> DAYLIGHT
NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE	
80 E (c) 5776-78	8/31/80	1026	1:15,000	1.0 ft. above Lake Superior Low Water Datum	
80 E (c) 5788-89	8/31/80	1041	1:15,000		

## REMARKS

Lake Superior Low Water Datum = 600.0 ft.

## 2. SOURCE OF MEAN HIGH WATER LINE:

Shoreline was compiled from the above listed photographs and represents the visible line of contact between the water level and land features.

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

None

## 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 N/A	EAST TP-01089	SOUTH N/A	WEST TP-01087
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## REMARKS

NOAA FORM 76-36C  
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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## HISTORY OF FIELD OPERATIONS.

TP-01088

1. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION.

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R. Tibbetts	5/19/81
2. HORIZONTAL CONTROL	RECOVERED BY N/A ESTABLISHED BY J. Dunfries PRE-MARKED OR IDENTIFIED BY N/A	5/19/81
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 BY <input checked="" type="checkbox"/> NO INVESTIGATION	N/A
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

One station

2. VERTICAL CONTROL IDENTIFIED

None

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION
80EC5777	Photo, 1981		

3. PHOTO NUMBERS (Clarification of details)

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

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

7. SUPPLEMENTAL MAPS AND PLANS

SEE CM-7313-TP-00680

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

NOAA Form 76-53 (CSI) -1

NOAA FORM 76-36D  
(3-72)U. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

## RECORD OF SURVEY USE

TP-01088

## I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Shoreline and alongshore detail	1/82	Class III	6-22-84	

## II. LANDMARKS AND AIDS TO NAVIGATION

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
2 Pages		6-22-84	76-40's Landmarks

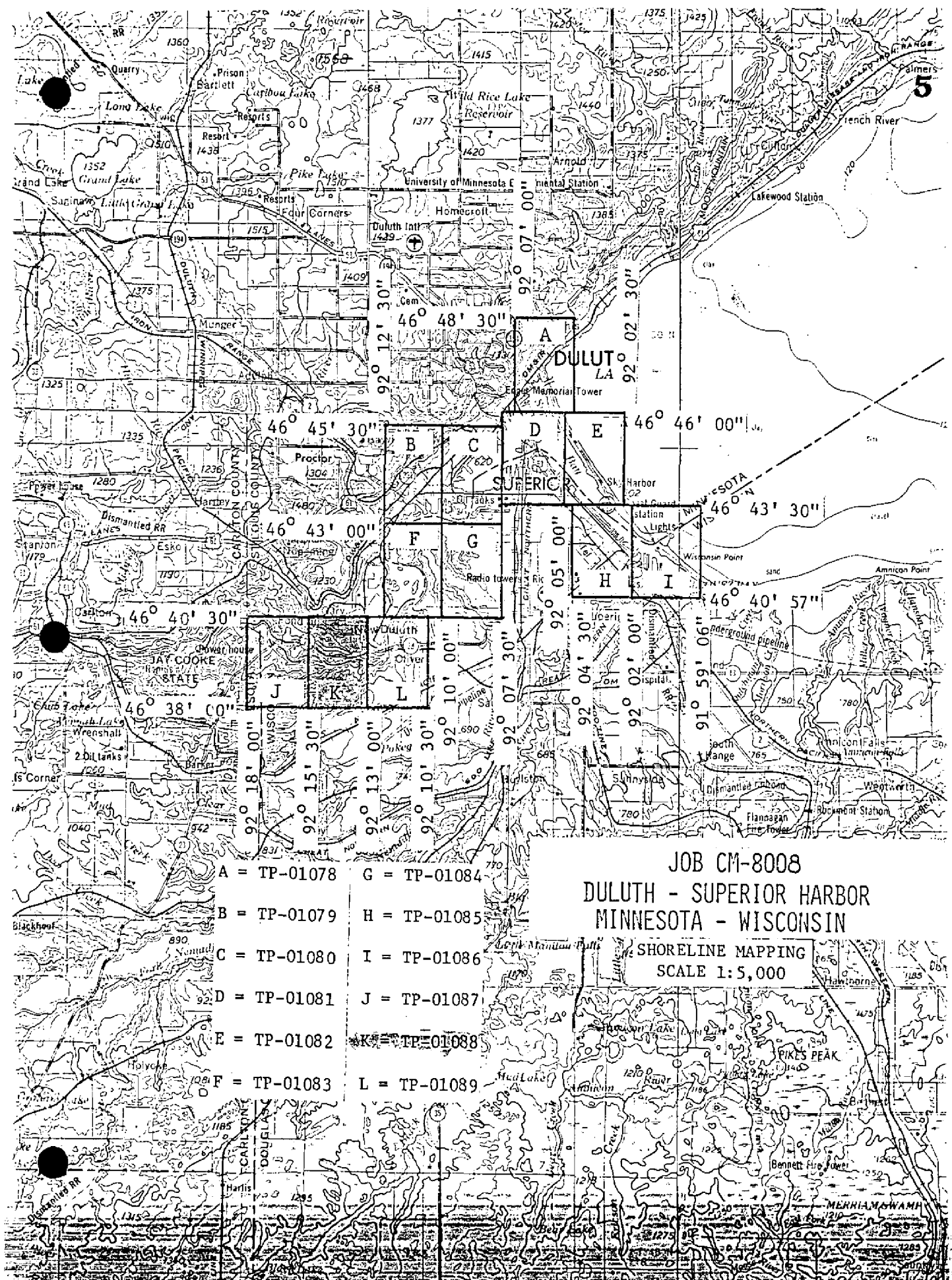
2. ☐ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: \_\_\_\_\_
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: \_\_\_\_\_

## 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	



- |              |              |
|--------------|--------------|
| A = TP-01078 | G = TP-01084 |
| B = TP-01079 | H = TP-01085 |
| C = TP-01080 | I = TP-01086 |
| D = TP-01081 | J = TP-01087 |
| E = TP-01082 | K = TP-01088 |
| F = TP-01083 | L = TP-01089 |

JOB CM-8008  
DULUTH - SUPERIOR HARBOR  
MINNESOTA - WISCONSIN

SHORELINE MAPPING  
SCALE 1:5,000

SUMMARY  
TP-01088

This map is one of five 1:5,000-scale shoreline maps that comprise Part II of Project CM-8008. There are twelve shoreline maps in this project. The purpose of this job is to provide contemporary shoreline data and alongshore detail for nautical chart revision.

This map portrays the shoreline and alongshore detail of the St. Louis River, Minnesota-Wisconsin from Perch Lake to Bear Island.

In May 1981, field operations provided horizontal control for the Aero-triangulation Unit for TP-01083, TP-01084, TP-01087, TP-01088, and TP-01089. The field information consisted of the provision of aerial photographs annotated with location of horizontal control station and supplemented with field data records.

Natural color photographs were taken August 31, 1980, with the Wild RC-8(E) camera at 1:15,000 scale which were provided to aerotriangulation and compilation.

Aerotriangulation was performed at the Washington Science Center, Rockville, Maryland. The 1:15,000 natural color photographs were bridged using analytic aerotriangulation methods.

Compilation was performed at the Washington Science Center, Rockville, Maryland, by the Coastal Mapping Section. The interior compilation was limited to detail to the first road adjacent to the shoreline. Detail within this area was kept to a minimum. (See Compilation Report.)

Final Review for this map was performed at the Washington Science Center, Rockville, Maryland, in November 1983. This map complies with the National Standards of Map Accuracy.

A Chart Maintenance Print was prepared during the final review and forwarded to the Marine Chart Branch. Accompanying the above forwarded print are 76-40 forms, listing of landmarks and nonfloating aids to navigation.

The context of this Descriptive Report contains all pertinent reports and listings of data used to compile this final map.

A stable base positive copy of this final map and the Descriptive Report will be registered in the NOS Archives.



PHOTOGRAMMETRIC PLOT REPORT  
Duluth-Superior Harbor  
Minnesota-Wisconsin  
CM-8008  
December 1981

21. Area Covered

The area covered by this report is the shoreline of the St. Louis River from Fond Du Lac, Minnesota, northeast to where the river enters St. Louis Bay at Duluth, Minnesota. The river provides the boundary between Minnesota and Wisconsin. The project is covered by five (5) 1:5,000 scale manuscripts: TP's 01083, 01084, 01087, 01088, and 01089. TP-01081 will also be included in this project.

22. Method

Three strips of 1:15,000 scale color photography were bridged by standard analytic aerotriangulation methods. Strips 1A and 2A were each extended to include that portion of their respective strips which were bridged in December 1980. Strip 1 consisted of photographs 80E(C) 5795 through 5799, and Strip 1A was 80E(C) 5787 through 5796. Strip 2 was 80E(C) 5729 through 5739, and 2A was 80E(C) 5723 through 5731.

Field identified control was provided and supplemented by office identified control. Tie points were used to ensure an adequate junction between the strips and to control Strip 2. The State Plane Coordinates for this project were based on the Wisconsin North Zone.

Ratio values were determined from the bridging photography, which is also to be used for compilation purposes.

23. Adequacy of Control

In May 1981, a field party established five 3rd order control stations to be used to control Strips 1A, 2A, and 5. This photography covers TP-01083, TP-01084, TP-01087, TP-01088, and TP-01089. This control meets the National Standards of Map Accuracy.

Oliver 1981, sub point two, is the centerline end of a pier. It would not fit the other control by 1 foot in X and 10 feet in Y. Jim Shea, Coastal Survey Section, AMC, believes that the pier was rebuilt after the photography was taken. This point was not used in the adjustment.

Photos 7595 and 7596 were used in the adjustment of Strip 2, as well as in the adjustment of Strip 2A. Points on these photos differed by up to 10 feet in the two adjustments. The discrepancy was probably due to the quality of the control (which had an accuracy of 1.0 to 2.0 meters) and the inability to determine the exact image of the photo control point during mensuration of Strip 2.

It was decided to readjust Strips 1 and 1A as one continuous strip, as followed by readjusting Strips 2 and 2A as one continuous strip using tie points from 1 and 1A.

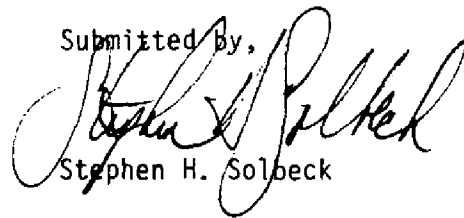
24. Supplemental Data

USGS quads were used to provide vertical control for the adjustments. Nautical Charts were used to locate aids and landmarks.

25. Photography

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

Submitted by,



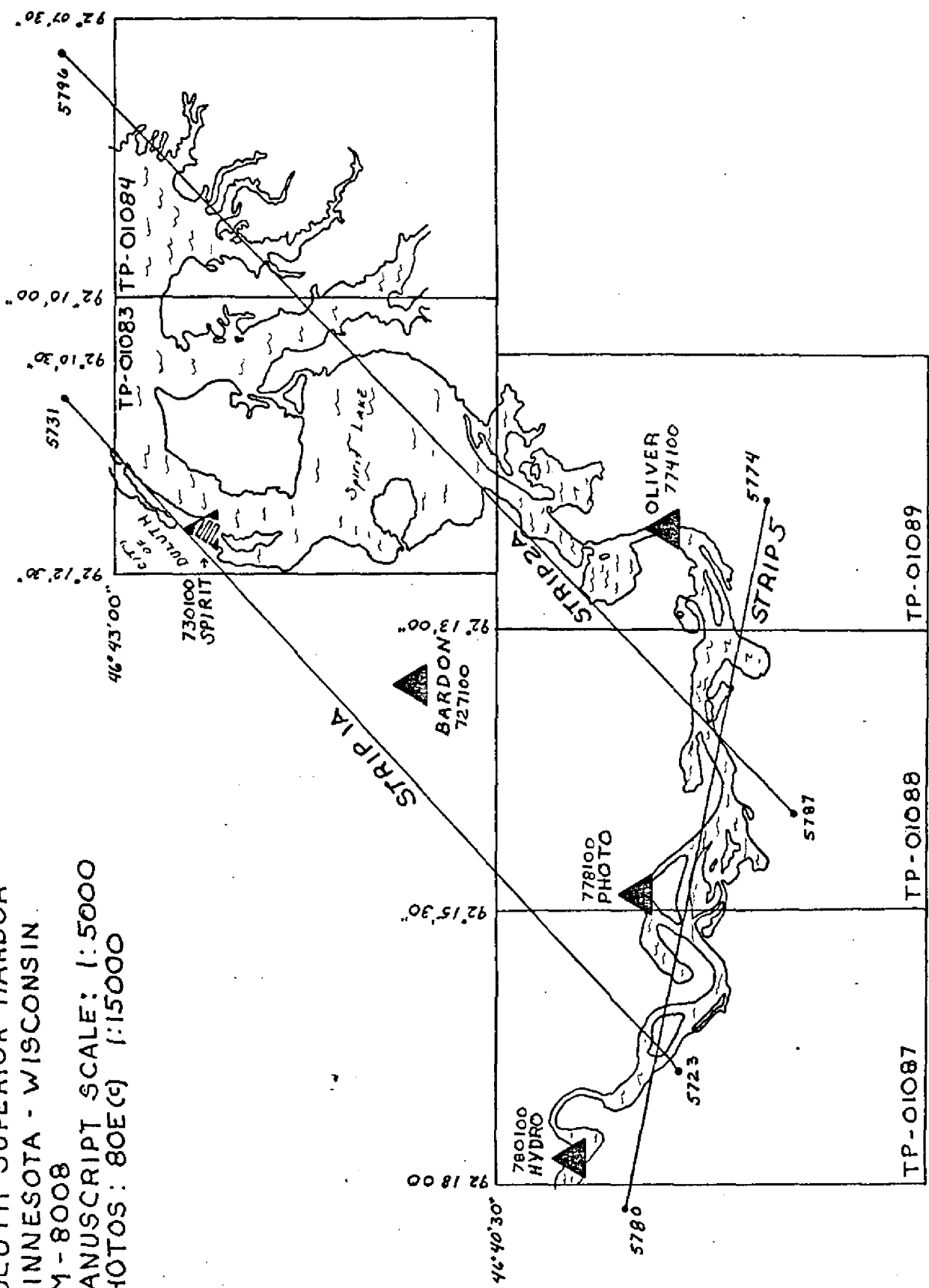
Stephen H. Solbeck

Approved and Forwarded:



Don O. Norman  
Chief, Aerotriangulation Unit

DULUTH-SUPERIOR HARBOR  
MINNESOTA - WISCONSIN  
CM-8008  
MANUSCRIPT SCALE: 1:5000  
PHOTOS: 80E(G) 1:15000



CM-8008  
FIT TO CONTROL  
(in feet)

## STRIP 1 and 1A (combined)

	<u>X</u>	<u>Y</u>
▲ 780101	-1.077	- .779
780102	- .095	-1.680
723801	1.249	-1.233
723802	1.013	-1.799
723803	.990	-1.527
724801	.873	- .963
724802	.457	- .560
724803	.822	- .283
▲ 778101	1.593	.835
▲ 778102	.519	.195
727101	-1.751	.538
▲ 727102	-1.681	- .108
729869	-3.832	3.134
729870	- .444	2.141
730101	-1.598	.426
▲ 730102	- .623	1.506
731867 (plotted 731467)	2.103	6.988
731868 (plotted 731468)	- .091	2.565
▲ 733124	1.513	-1.115
▲ 733862	.447	-1.298
735855	4.411	5.460
735856	1.109	1.518
736110	.482	2.310
736805	- .310	2.992
738103	-1.406	.891
738801 (plotted 738501)	-9.282	-7.111
▲ 738802 (plotted 738502)	- .690	.764

## STRIP 2 and 2A (combined)

724804	1.276	-1.292
▲ 724805	.728	- .749
▲ 725802	- .682	.636
726801	.026	.416
726802	.263	- .041
774101	.578	.936
774102	1.068	-9.104
727801	.840	.606
727802	.053	1.233
▲ 728801	- .398	.862
728802	.610	.162

FIT TO CONTROL  
(continued)

STRIP 2 and 2A (cont)	<u>X</u>	<u>Y</u>
729801	- .134	.429
729802	- .372	- .505
▲ 730801	.405	- .776
730802	- .206	- .811
731801	- .883	- .503
▲ 732801	- .123	- .435
732802	- .359	.570
733801	.396	-1.004
733802	-1.322	-1.376
797849	-1.899	4.628
756801	-1.359	3.288
▲ 756802	-1.183	2.708
798801	.128	- .784
▲ 798802	.679	- .627
▲ 799801	.579	-1.616
STRIP 5		
▲ 774101	- .005	.001
774102	.085	-11.028
778101	.705	-2.271
▲ 778102	.024	- .011
▲ 780101	- .454	.740
▲ 780102	.435	- .730

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▲ Stations held during bridging

## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO. TP-01088	JOB NO. CM-8008	STATION NAME	SOURCE OF INFORMATION (Index)	AEROTRI- ANGULATION POINT NUMBER	GEODEIC DATUM		ORIGINATING ACTIVITY		REMARKS
					NA 1927	Rockville			
					COORDINATES IN FEET		GEOGRAPHIC POSITION		
					STATE	ZONE	$\phi$ LATITUDE	$\lambda$ LONGITUDE	
					Wisconsin	North			
Photo 1981 FIELD POSITION	AMC Comp	778100			x=	1433680.029	$\phi$	46 39 32.78	
					y=	552266.979	$\lambda$	92 15 19.958	
					x=		$\phi$		
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## COMPILATION REPORT

TP-01088

31. Delineation

The map manuscript was compiled using the Wild B-8 stereoplotter and holding to pass points established by the Aerotriangulation Unit.

32. Control

See the Photogrammetric Plot Report for the adequacy of horizontal control. Vertical control, taken from USGS quads, was used in the leveling of the stereomodels.

33. Supplemental Data - None34. Contours and Drainage

Contours are not applicable. Drainage was compiled from office interpretation of the photos.

35. Shoreline and Alongshore Details

The shoreline and alongshore detail shown on this manuscript represent the lake level at the time photography, 1 foot above the Lake Superior Low Water Datum. All shoreline and alongshore details are from office interpretation of the photographs. There was no field inspection prior to compilation.

36. Offshore Details

All offshore details were compiled from office interpretation of the photographs.

37. Landmarks and Aids

No aids appear on this. Six landmarks on Chart 14975 fall on this map. One aid and building appear destroyed.

38. Control for Future Surveys - None39. Junctions

TP-01088 junctions with TP-01087 to the west, TP-01089 to the east, and there are no junctions to the north or south.

40. through 45. Inapplicable

#### 46. Comparison with Existing Maps

During compilation a continuous comparison was made with TP-00680. This survey was compiled at a scale of 1:15,000 using the format for chart 14975 and is intended as a new base for this chart, but has yet to be applied. Although some duplication of features exist, the interior detail shown on TP-01088 consists mainly of features that have been constructed or changed since TP-00680 was compiled. This survey is not intended to supercede the interior portion of TP-00680 but should be used only to add those new features compiled.

Comparison was made with USGS quadrangle maps West Duluth, Wisc-Minn, 1954, photo-revised 1969, 1975, scale 1:24,000 and Esko, Minn-Wisc, 1954, photorevised 1969, 1975, scale 1:24,000.

#### 47. Comparison with Nautical Charts

Comparison was made with Nautical Chart 14975, scale 1:30,000, 26th Edition, April 26, 1980.

Submitted by

*James Schad*  
James Schad

Approved and Forwarded:

*Patrick J. Dempsey*

For: Frank Wright  
Chief, Coastal Mapping Section



REVIEW REPORT  
SHORELINE SURVEY  
TP-01088

GENERAL STATEMENT

A final review was performed for this shoreline map and no major discrepancies were encountered. This map is registered as a Class III map. For a complete analysis of the compilation, refer to the Compilation Report bound with this Descriptive Report.

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

None

63. COMPARISON WITH MAPS OF OTHER AGENCIES

Refer to paragraph 46 of the Compilation Report, bound with this Descriptive Report.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

None

65. COMPARISON WITH NAUTICAL CHARTS

Refer to paragraph 47 of the Compilation Report, bound with this Descriptive Report.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

This map complies with photogrammetric instructions for shoreline mapping and meets accuracy required by National Standards of Map Accuracy.

Submitted by:

  
James Taylor/James Schad

Approved:

George M. Ball  
Chief, Photogrammetric Section

Lawrence W. Fritz  
Chief, Photogrammetry Branch

June 27, 1983

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM--8008 (Duluth-Superior Harbor, Minn.-Wis.)

TP-01088

Burlington Northern (RR)

Duluth Massabe and Iron Range (RR)

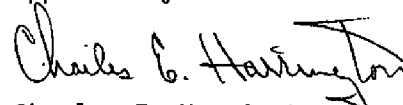
New Duluth

Perch Lake

Red River

St. Louis River

Approved by:



Charles E. Harrington  
Chief Geographer, N/CG2x5

[illegible]

RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	<i>James Schuch</i>
FORMS ORIGINATED BY QUALITY CONTROL AND REVIEW GROUP AND FINAL REVIEW ACTIVITIES	<i>James Schuch</i>
INSTRUCTIONS FOR ENTRIES UNDER METHOD AND DATE OF LOCATION* (Consult Photogrammetric Instructions No. 64.)	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> 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	<b>FIELD (Cont'd)</b> <b>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.</b> EXAMPLE: P-8-V 8-12-75 74L(C)2982
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> 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	<b>II. TRIANGULATION STATION RECOVERED</b> 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 <b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75 <b>**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, for in part, upon control established by photogrammetric methods.</b>
*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.	

Replaces C&amp;GS Form 567.

## NONFLOATING AIDS OR LANDMARKS FOR CHARTS

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

**ORIGINATING ACTIVITY**

- ☐ HYDROGRAPHIC PARTY  
☐ GEODETIC PARTY  
☐ PHOTO FIELD PARTY  
☒ COMPILATION ACTIVITY  
☐ FINAL REVIEWER  
☐ QUALITY CONTROL & REVIEW GRP.  
☐ COAST PILOT BRANCH

(See reverse for responsible personnel)

<input checked="" type="checkbox"/> TO BE CHARTERED	REPORTING UNIT (Field Party, Ship or Office)	STATE	LOCALITY	DATE
<input checked="" type="checkbox"/> TO BE REVIEWED	Rockville	Wisc.-Minn.	New Duluth	2-82
<input checked="" type="checkbox"/> TO BE DELETED				

The following objects HAVE ☐ HAVE NOT ☒ been inspected from seaward to determine their value as landmarks.

OPR PROJECT NO.	JOB NUMBER	SURVEY NUMBER	DATUM	METHOD AND DATA (See Instructions)
	CM-8008	TP-01088	NA 1927	POSITION

**POSITION**

CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	LATITUDE		LONGITUDE		OFFICE
		° /	"	° /	"	
				D.M. Meters	D.P. Meters	

Chimney	Chimney is destroyed	46	39.2	92	13.5
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RESPONSIBLE PERSONNEL	
TYPE OF ACTION	NAME
OBJECTS INSPECTED FROM SEAWARD	
POSITIONS DETERMINED AND/OR VERIFIED	<i>James S. Clark</i>
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.)	
<b>OFFICE</b> <b>I. OFFICE IDENTIFIED AND LOCATED OBJECTS</b> 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	<b>FIELD (Cont'd)</b> <b>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.</b> EXAMPLE: P-8-V 8-12-75 74L(C)2982
<b>FIELD</b> <b>I. NEW POSITION DETERMINED OR VERIFIED</b> 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	<b>III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH</b> Enter 'V-Vis.' and date. EXAMPLE: V-Vis. 8-12-75
<b>**PHOTOGRAMMETRIC FIELD POSITIONS are dependent entirely, or in part, upon control established by photogrammetric methods.</b>	
<b>*FIELD POSITIONS are determined by field observations based entirely upon ground survey methods.</b>	

