NOAA FORM 76-35 (3-76)

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

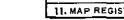
DESCRIPTIVE REPORT

This map edition will not be field edited.

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Map No. TP-00082	Edition No. I
Job No. CM-8316	
Map Classification Class III(Final)	
Type of Survey Shoreline	
LOCALITY	· ·
State Minnesota	,
General Locality	
Lake Superior	
Locality Two Harbors and Knife	River
1982 TO 19	
REGISTRY IN ARC	CHIVES
DATE	

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

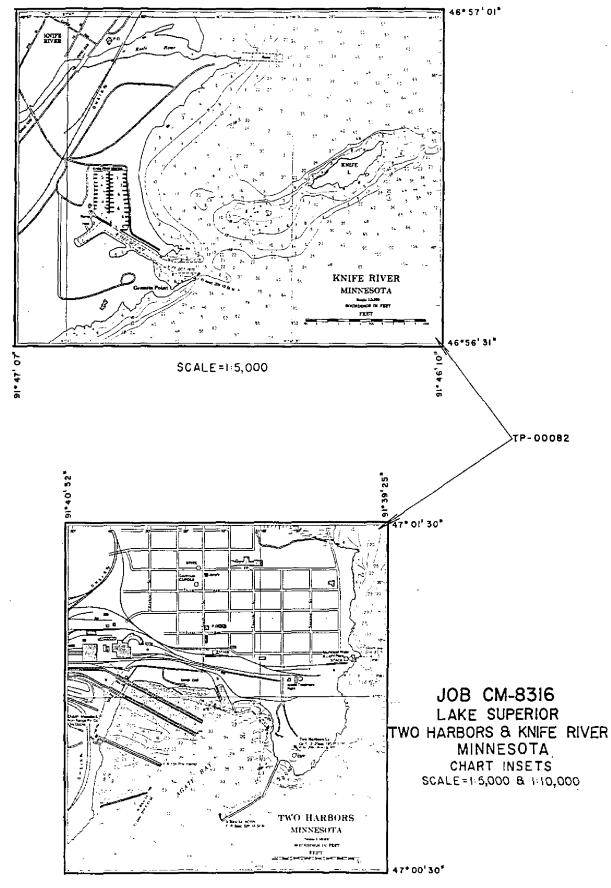
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NOAA FORM 76-36A U. S. DEPARTMENT OF COMMERCE (3-72) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.	TYPE OF SURVEY	SURVEY TP. 00082
	ORIGINAL	MAP EDITION NO. (1)
	□ RESURVEY	MAP CLASS III
DESCRIPTIVE REPORT - DATA RECORD	RESURVEY	
	REVISED	Jos XXX CM_8316
PHOTOGRAMMETRIC OFFICE	LAST PRECEED	ING MAP EDITION
Rockville, Maryland	TYPE OF SURVEY	JOB PH
OFFICER-IN-CHARGE	ORIGINAL RESURVEY	MAP CLASSSURVEY DATES:
Ronald K. Brewer	REVISED	19TO 19
	<u> </u>	<u> </u>
I. INSTRUCTIONS DATED	2.	FIELD
	<u></u>	
Office - March 1, 1984	Field - August	12, 1984
	,	
II. DATUMS	OTHER (Specify)	
1. HORIZONTAL: XX 1927 NORTH AMERICAN	o vii zii (Speedly)	
MEAN HIGH-WATER	OTHER (Specify)	
2. VERTICAL:	International G	reat Lakes
MEAN LOWER LOW-WATER MEAN SEA LEVEL	Datum 1955	
3. MAP PROJECTION		C Par Co
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5, SCALES	STATE	ZONE
1:5,000 and 1:10,000	l	<u> </u>
OPERATIONS	NAME	DATE
I. AEROTRIANGULATION BY	N/A	
METHOD: LANDMARKS AND AIDS BY	N/A	
2. CONTROL AND BRIDGE POINTS PLOTTED BY	R. Cauthorne	Feb., 1984
METHOD: Calcomp 748 Plotter CHECKED BY	N/A C. Heazel	March, 1984
3. STEREOSCOPIC INSTRUMENT PLANIMETRY BY COMPILATION CHECKED BY	J. Schad	March, 1984
INSTRUMENT: NOSAP CONTOURS BY	N/A	
scale: 1:5,000 and 1:10,000 CHECKED BY	N/A	
4. MANUSCRIPT DELINEATION PLANIMETRY BY	C. Heazel	March, 1984
CHECKED BY CONTOURS BY	J. Schad N/A	March, 1984
метноо: Smooth Drafting снескер ву	N/A	-
HYDRO SUPPORT DATA BY	N/A	
SCALE: 1:5,000 and 1:10,000 CHECKED BY	N/A	
5. OFFICE INSPECTION PRIOR TO FIELD EDIT BY	N/A	
6. APPLICATION OF FIELD EDIT DATA CHECKED BY	N/A N/A	
7. COMPILATION SECTION REVIEW BY	J. Schad	March, 1984
8. FINAL REVIEW BY	R. Rodkey	April, 1984
9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH BY	R. Rodkey	April, 1984
10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH BY 11. MAP REGISTERED - COASTAL SURVEY SECTION BY	C. Lewis E. DAUGHERTY	May, 1984
LII. MAP REGISTERED - CUASTAL SURVET SECTION BY J	L. DAUGHERTY	Nov. 1984



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REMARKS Lake Level data Maryland.	was furnished	by the Tic	des and Water	Levels Branch,	Rockville
the interface betw	een the water s	antiace and	, Idio leacul	es at the time	
3. SOURCE OF MEAN LOW-WATE	ER OR MEAN LOWER L(DW-WATER LINE:			
	<u>.</u>	only those surveys	s that are sources fo		
None 4. CONTEMPORARY HYDROGRA	PHIC SURVEYS (List o	only those surveys	s that are sources for		nformation.) EY COPY USED

NOAA FORM 76-360 (3-72)	5		NATIONAL OCEA		DEPARTMENT OF COM MOSPHERIC ADMINISTI NATIONAL OCEAN S	RATIO
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2. HORIZONTAL C	CONTROL	ESTABLISHED BY	11		11	
		PRE-MARKED OR IDENTIFIED BY	It .		ti .	
		RECOVERED BY	N/A			
3. VERTICAL CON	ITROL	ESTABLISHED BY	N/A N/A			
		PRE-MARKED OR IDENTIFIED BY	James E. Di	inford	August	. 183
4. LANDMARKS A		ECOVERED (Triangulation Stations) BY	James L. Di	4111 UL U	August	<u>, 00</u>
AIDS TO NAVIG		LOCATED (Field Methods) BY	†t		11	-
		TYPE OF INVESTIGATION				
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INVESTIGATION	N	SPECIFIC NAMES ONLY	1			
. <u></u>		NO INVESTIGATION				
6. PHOTO INSPEC		CLARIFICATION OF DETAILS BY	N/A			
7. BOUNDARIES A		SURVEYED OR IDENTIFIED BY	N/A	 		
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82Z(C)2943		bors Lighthouse 1952				
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4. LANDMARKS A	ND AIDS TO P	NAVIGATION IDENTIFIED		·		
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82Z(C)2943	Two Har	bors Radio Mast 1977				
82Z(C)2943		bors Power and Light Co. 1952				
82Z(C)2943	l	bors Lighthouse 1952				
5. GEOGRAPHIC N	NAMES:	REPORT NONE	6. BOUNDARY AND	LIMITS:	REPORT X NO	DNE
7. SUPPLEMENTA	L MAPS AND	PLANS				
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IV. SURVEY	EDITIONS (This section s.	hall be			o edition is re							
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SCALE=1:10,000

SUMMARY TO ACCOMPANY DESCRIPTIVE REPORT TP-00082

This shoreline map consists of two insets covering the shoreline area of Knife River and Two Harbors, which are located on the western shore of Lake Superior, Minnesota.

The purpose of this survey is to provide contemporary shoreline data for the maintenance of nautical charts and to supplement future hydrographic surveys.

Field operations consisted of aerial photography and the recovery, establishment and photoidentification of geodetic control necessary for compilation. Triangulated control was established using Third-Order, Class I methods. There was no field inspection of the shoreline performed.

High and low altitude natural color photography was taken with the Wild RC-10(Z) camera on May 30, 1982. The compilation photography for 1:10,000 mapping(Two Harbors inset) was obtained at 1:30,000 scale and for 1:5,000 scale mapping(Knife River inset) at 1:15,000 scale. Supplemental color photography of the Two Harbors area was secured at 1:15,000 scale to complement the interpretation of detail.

Compilation was performed by the Coastal Mapping Unit, Rockville, Maryland. Delineation is based on office interpretation of the aerial photographs and was accomplished through photogrammetric compilation techniques utilizing the National Ocean Service Analytical Plotter(NOSAP). All line work is smooth drafted.

Final review was performed by the Coastal Mapping Unit, Rockville, Maryland. The map was registered as Class III (Final). This map complies with the project instructions and meets the requirements for National Standards of Map Accuracy.

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

FIELD REPORT

CM-8316

Two Harbors and Knife River, MN

Project was completed in accordance with N/CG2 instructions dated August 12, 1983. Three (3) new 3rd order, Class I traverse stations were established (STONY POINT, KR 100 C.O.E., and TH 100 C.O.E.). These stations were established in a traverse run from NGS station BUCHANAN 1952 to TWO HARBORS LIGHTHOUSE. Data for this traverse will be entered into the NGS data bank. Traverse station AGATE BAY was established by AMC Operations Division in 1982 using the MAGNAVOX MX1502 SATELLITE SURVEYOR. This station was included in our traverse and used as one station to spur in photo points. Our field position missed the 1982 position by 2.421 meters. A position check of 1.006 meters was obtained at TWO HARBORS LIGHTHOUSE. In order to keep the data consistent, all photo point positions are based on unadjusted field positions determined in our traverse. The published NGS position for BUCHANAN 1952 was used as the starting station for the control data.

Eight (8) photo points (1A through 8A) were pricked on photo ZC-2958 at Knife River. Positions for the photo points were determined by traversing from station KR-100 C.O.E. Nine (9) photo points (1 through 9) were pricked on photo ZC-2943 at Two Harbors. Photo points 2,3,4,7,8, and 9 were determined by traverse from station AGATE BAY. Photo Points 1,5,6, were determined by traverse from station TH-100 C.O.E.

All data and records were sent to N/CG2313.

Approved by:

Jim D. Shea

Submitted by:

James Dunford

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		DESCRIPTIV	PTIVE REPORT CONTROL RECORD		TP-00082
MAP NO.	JOB NO.		GEODETIC DATUM	ORIGINATING ACTIVITY COASTAL	VIT Coastal Mapping
TP-00082	CM-8316	i	1927 North American	Unit Rockville	Md.
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STATION NAME	INFORMATION (Index)	POINT	zone North	γ LAINIUDE λ LONGITUDE	2000
KR-100 (1983)	Pro.ject		-χ	4 46-56-36.231	New NGS station
	field book		=ĥ	γ 31-46-46.041	established in 1903 plotted on map
Two Harbors Power and Light	t Quad 470913		x= 2359201.06	φ 47-01-06.710	å Ļ
	Sta#		y= 192477.60	λ 91-39-35.787	Plotted on map
Two Harbore Lighthouse	Quad 470913		x= 2358297.23	\$84.00-50.488	Charted Light
(1952)	Sta # 1032		y= 19081 €.97	λ 91-39-49.274	Plotted on map
Two Harbors Radio Mast	Project		=χ	47-00-45.259	Outside map limits
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HAND PLOTTING BY		DATE	HAND PLOTTING CHECKED BY		DATE

COMPILATION REPORT TP-00082 MARCH 1984

31. Delineation

Compilation of this map was accomplished through photogrammetric techniques utilizing the natural color compilation photographs and the National Ocean Service Analytical Plotter(NOSAP). The scale of the photographs used for the Two Harbors inset is 1:30,000. The scale of the photographs used for the Knife River inset is 1:15,000.

32. Control

Horizontal control for the compilation of the Two Harbors and Knife River insets are thirteen photoidentified control points established by a NOAA field survey unit. Refer to the Field Report bound with this Descriptive Report for information regarding the establishment of the photo points.

Vertical control was identified from USGS guadrangles.

33. Supplemental Data

None

34. Contours and Drainage

The compilation of contours is not a requirement for this map.

No drainage was delineated on the Two Harbors inset. Drainage delineated on the Knife River inset was compiled through photogrammetric compilation techniques utilizing the natural color compilation photographs.

35. Shoreline and Alongshore Details

There was no preliminary field inspection prior to compilation.

The shoreline and alongshore details were compiled from office interpretation of the mapping photographs as indicated in item #31.

36. Offshore Details

No unusual problems were encountered in compiling the offshore details depicted on this map.

37. Landmarks and Aids

One fixed aid to navigation was identified and measured during compilation of the Knife River inset.

Three fixed aids to navigation and three charted landmarks were identified and measured during the compilation of the Two Harbors inset. One charted landmark was identified and measured, but is outside the limits of the inset. It was also reported on the NOAA Form 76-40 for application.

38. Control for Future Surveys

None

39. Junctions

None

40. Horizontal and Vertical Accuracy

This map meets the requirements of the National Standards for Map Accuracy.

41. Map Features of Possible Landmark Value

During the compilation of the Knife River inset, three map features of possible landmark value were identified and measured. During the compilation of the Two Harbors inset, nine map features of possible landmark value were identified and measured. One additional map feature of possible landmark value which is outside the limits of the Two Harbors inset was identified and measured. For the identification and geographic positions of these features, refer to the Map Features of Possible Landmark Value listings bound with this Descriptive Report.

42 - 45. Not applicable

46. Comparison with Existing Maps

Comparison was made with the following USGS quadrangles:

Knife River, Minnesota; 1:24,000, 1953, photorevised 1969, photoinspected 1975.

Two Harbors, Minnesota; 1:24,000, 1957, photorevised 1969.

47. Comparison with Existing Charts

Comparison was made with the following:

Chart 14966, 19th Edition, January 15, 1983, scale 1:120,000 and Insets of Two Harbors(1:10,000) and Knife River(1:5,000).

Submitted by:

Charles M. Heazel

Cartographer

Approved and Forwarded:

Robert W. Rockey, J

Chief, Coastal Mapping Unit

REVIEW REPORT

TP-00082

61. General Statement

Refer to the Summary bound with this Descriptive Report for general information regarding the completion of this map.

- 62. Comparison with Registered Topographic Surveys None
- 63. Comparison with Maps of Other Agencies

Refer to the Compilation Report, item 46, for information on this subject.

- 64. Comparison with_Contemporary Hydrographic Surveys None
- 65. Comparison with Nautical Charts

Refer to the Compilation Report, item 47, for information on this subject.

66. Adequacy of Results and Future Surveys

This map complies with the project instructions and the requirements for the National Standards of Map Accuracy.

Submitted by,

Robert W. Rodkey

Final Reviewer

Approved and Forwarded:

ect. Chief, Photogrammetric Section

Chief, Photogrammetry Branch

GEOGRAPHIC NAMES

FINAL NAME SHEET

CM-8316 (Two Harbors and Knife River, Minnesota)

TP-00082

Agate Bay

Burlington Bay

Duluth Messabe and Iron Range (RY)

Granite Point

Knife Island

Knife River

Knife River (locality)

Knife River Marina (cultural)

Lake Superior

Two Harbors

Approved:

Charles E. Harrington Chief Geographer

Nautical Charting Division

Page 1 of 2

	IVITY		<u></u>	REVIEW GRP,	e personne!)			CHARTS	AFFECTED			14966		14966	14966	14966			
Page 1 of 2	ORIGINATING ACTIVITY	GEODETIC PARTY	COMPILATION ACTIVITY	PINAL REVIEWER QUALITY CONTROL & REVIEW GRP. COAST PILOT BRANCH	(See reverse for responsible personnel)		E OF LOCATION		Position	Quality		Aero- triangulated		Geodetic	Aero- triangulated	Aero- triangulated			
	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION		DATE	3/84			METHOD AND DATE OF LOCATION	(See instructions on reverse side)		OFFICE		822(C)2958 5/30/82		822(C)2943 5/30/82	822(C)2943 5/30/82	822(C)2943 5/30/82			
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	IONAL OCE	FOR CHARTS	LOCALITY	Two Harbors River, Lake	ermine the		1927 NA	POSITION	UDE	// D.M. Meters		37,15		50,488	38,45	43,39			
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		NONFLO	REPORTING UNIT	Coastal Mapping Unit, Minnesota Two Harbors and Knife Rockville, Maryland River, Lake Superior	HAVE HAVE NOT	JOB NUMBER	CM-8316		DESCRIPTION	(Record reason for deletion of landmark or sid to navigation. Show triangulation station names, where applicable, in perentheses)	NORTHWEST Knife River	ENTRANCE LIGHT	Two Harbors	(Two Harbors Lighthouse	EAST BREAKWATER LIGHT	BREAKWATER			
	-40				ects	O				(Record re Show tries		- EN		(Two	- EAS	- WEST	 	_	
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entirely, or in part, upon control established		8-12-75
	field work.	location and date
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Enter 'V-Vis.' and date.		4 - Resection 8 -
III. POSITION VERIFIED VISUALLY ON PHOTOGRAPH	Planetable	tion
	· Field identified	l - Triangulation 5 - 2 - Traverse 6 -
Triang. F	•	
angulation station is recovered, enter 'Triang. Rec.' with date of recovery.	P - Photogrammetric Vis - Visually	F - Field Vis
When a landmark or aid which is also a tri-	ta by symbols as follows:	applicable of
		FIELD
8-72-75 74L(C)2982		8-12-75
graph used to locate or identify the object. EXAMPLE: $P-8-V$: ∵bject.	EXAMPLE: $75E(C)6042$
date of field work and number of the photo-	hotograph used to	day, and year) of the photograph used to
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(Consult Photogrammetric Instructions No. 64,	(Consult Photogramm	
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OTHER (Specify)		
GEODETIC PARTY		OBJECTS INSPECTED FROM SEAWARD
HYDROGRAPHIC PARTY		
☐ PHOTO FIELD		
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RESPONSIBLE PERSONNEL	RESPONSIBLE	

NOAA FORM 76-40 (8-74)

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

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567	m 567.		NATIONAL OCEANIC	FOR CH	ANIC AND	S. DEPARTA ATMOSPHER	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION KS FOR CHARTS	ORIGINATING ACTIVITY HYDROGRAPHIC PARTY CEODETIC PARTY PHOTO FIFTO GARTY	CTIVITY ARTY
TO BE CHARTED TO BE REVISED TO BE DELETED		Ing Unit, Minnesota Aryland	sota	Lake Superi	ocality Two Harbors at Lake Superior	and Knife r	Biver, 3/84	COMPLETION ACTIVITY FINAL REVIEWER QUALITY CONTROL & REVIEW GRP.	JVJTY LEREVIEW GRP NCH
The following objects	- 1	HAVE MOT XX been inspected from seaward to determine their value as landmarks	eaward to de	termine the	ir value as	landmarks.		(See reverse for responsible personnel)	ible personnel)
OTA PROJEC		SORVET NUMBER	WO LVO	AM 7001					
	CM-8316	TP-00082		NOILION	NO		METHOD AND DATE OF LOCATION (See instructions on reverse side)	on reverse side)	CHARTS
	DESCRI	NOILE	LATITUDE	ruoe	LONGITUDE	TUDE		Position	AFFECTED
CHARTING	(Record reason for deletion of landmark or aid to nevigation, Show triangulation atation names, where applicable, in perentheses)	ndmerk or eld to nevigation. , where applicable, in perenthese	•	// D.M. Meters		// D.P. Meters	OFFICE	Quality	
STACK	(Two Harbors Power Stack 1952)	and Light Co.	47-01	06.710	91-39	35,787	82Z(C)2943 5/30/82	Geodetic	14966
CUPOLA		,	47-01	19.87	91~40	16.41	82Z(C)2943 5/30/82	Aero- triangulated	14966
CUPOLA			47-00	49,70	91-39	50,55	82Z(C)2943 5/30/82	Aero- trianguaated	14966
	The following charing the limits of the Two	charted landmarks were Two·Harbors Inset:		verifie <mark>d durin</mark> g	g compil	ation,	but are located	outside the	nap
TANK			47-02	08.01	91-40	21.98	822(C)2943 5/30/82	Aero- triangulated	14966
R RELAY MAST	(Two Harbors Radio	Mast 1977)	47-00	45,259	91-41	13,274	82Z(C)2943 5/30/82	Geodetic	14966
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FIELD POSITIONS are determined by field obser- vations based entirely upon ground survey methods.	iocation and date of fielexAMPLE: F-2-6-L 8-12-75	A. Field positions require	1	10,	л i	F - Field P - Photogramm	applicable	FIELD	8-12-75		Enter the number and date (including month, day, and year) of the photograph used to	OFFICE IDENTIFIED AND LOCATED OBJECTS	INST	ACTIVITIES	AND REVIEW GROUP AND FINAL REVIEW	FORMS ORIGINATED BY QUALITY CONTROL	COST IONS DE LEXMINED AND/OR VERTITIED			OBJECTS INSPECTED FROM SEAWARD			TYPE OF ACTION	
, 10ds.	**PHOTOGRAMMETR	require entry of method of EXAMPLE:			Field identified EXAMPLE:	etric	s as follows:	•				FIELD B.	INSTRUCTIONS FOR ENTRIES UNDER 'METHOD AND DATE OF (Consult Photogrammetric Instructions No. 64,										NAME	RESPONSIBLE PERSONNEL
entirely, or in part, upon control established by photogrammetric methods.		LE: V-Vis. 8-12-75	Enter 'V+Vis.' and date.	TON VEDICIED VICIALLY ON DUOTOOBADII	LE: Triang. Rec. 8-19-75	angulation station is recovered, enter 'Triang. Rec.' with date of recovery.	TRIANGULATION STATION RECOVERED when a landmark or aid which is also a tri-		EXAMPLE : F-0-V 8-12-75 74L(C)2982	· ທ	method of location or ver field work and number of t	(Cont'd) Photogrammetric field positions** require	No. 64,	REPRESENTATIVE	QUALITY CONTROL AND REVIEW GROUP	REVIEWER	OFFICE ACTIVITY REPRESENTATIVE	FIELD ACTIVITY REPRESENTATIVE	OTHER (Specify)	GEODETIC PARTY	HYDROGRAPHIC PARTY	PHOTO FIELD PARTY	ORIGINATOR	

NOAA FORM 76-40 (8-74)

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

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MAP NO. JC TP-00082		MAP FEATUR	ES OF	POSSIBLE LANDMARK VALUE	JE	10/ 33
	JOB NO. CM-8316	GECY::A FHIC Al Knife River an Lake Superior,	AFHIC AREA River and Two Harbors, Superior, Minnesota	GEODETIC DATUM 1927 NA	ORIGINATING ACT) Coastal Mapping Un Branch, Rockville,	ACTIVITY ig Unit, Photogrm. lle, Maryland
CHARTING NAME	DESCRIPTION		PHOTO NO. Date of Photo	PLANE COOR. (FT) STATE Minnesota ZONE North	GEOGRAPHIC POSITION	POSITION QUALITY
	Knife River			X	φ	
Light Light Pole Marir	Pole at la	Knife River	822(C)2958 5/30/82	X 2,329,095.4 Y 165,562.9	φ 46-56-46.40 λ 91-46-56.82	Aero- triangulated
Light Light Pole Marir	Pole at	Knife River	82Z(C)2958 5/30/82	X 2,329,095,8 Y 165,355,9	φ' 46-56-44.36 λ 91-46-56.87	Aero- triangulated
Light Ligh Pole Mar	Light Pole at K Marina	Knife River	82 <u>Z(C)2958</u> 5/30/82	X 2,328,980.4 Y 165,212.9	φ 46–56–42.96 λ 91–46–58.57	Aero- triangulated
	Two Harbors	ors		×	φ	
Light Light Pole compl	Pole in .ex	industrial	822(C)2942 5/30/82	X 2,354,543,6 Y 191,492.7	φ 47-00-57.86 λ 91-40-44.55	Aero- triangulated
Tank Tank	k in industrial	rial complex	82 Z(C) 2942 5/30/82	X 2,354,732,4 Y 192,047,0		Aero- triangulated
Vent Tall	vent on	building	822(C)2942 5/30/82	2.	φ 47 <u>-01</u> -06,87 λ 91-40-44,03	Aero- triangulated
Tank East	Easterly of Two			2,	φ 47 <u>-01</u> -13,99 λ 91-40-42,65	Aero- triangulated
Tank West	Westerly of Two		822(C)2942 5/30/82	2	φ 47 <u>-01</u> -14.01 λ 91-40-43.22	Aero- triangulated
Tank in i	industrial c	complex	82Z(C)2942 5/30/82	2	φ 47-01-08.48 λ 91-40-29.41	Aero- trianguæated
Tank Large 1 Plant	tank at	Waste Treatment	822(C)2942 5/30/82	2.	φ 47-01-03.30 λ 91-39-48.82	Aero- triangulated
NOTE: The objects	ts have not	been inspected	from seaward t	to determine their value	as landmarks.	
LISTED BY Charles	rles Heazel		DATE 3/28/84	LISTING CHECKED BY	James Schad	DATE 3/29/84

					10/83
	MAP F	MAP FEATURES OF PC	POSSIBLE LANDMARK VALUE	UE	
MAP NO. TP-00082	JOB NO. GECTRA PHIC ARI Knife River an Lake Superior,	Knife River and Two Harbors, Lake Superior, Minnesota	GEODETIC DATUM 1927 NA	ORIGINATING ACTIVITY Coastal Mapping Unit, Branch, Rockville, Mar	ACTIVITY ng Unit, Photogrm.
CHARTING NAME	DESCRIPTION	PHOTO NO.	PIANE COOR. (FT) STATE Minnesota ZONE North		
Stack	Easterly of Two; at power plant	82 <u>2 (C) 29</u> 42 5/30/82	X 2,354	φ 47-01-06.54 λ 91-39-34.80	Aero-
Tower	possible radio tower	198	2,		Aero-triangulated
		1 1			
	The following map feature has NOS Nautical Chart 14966. It is	been identifices outside the	A as having possible landmark value Yimits of the Two Harboak Inset.	denark value for application	ion to
Water Tank	N of Iw	32 <u>Z (C)2942</u> 5/30/82	X 2,351,491, Y 200,301,	→ ~	Aero- triangulated
			X	*	
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			X	Φ //	
NOTE: The	objects have not been inspected	from seaward	to determine their value	as landmarks.	
LISTED BY	Charles Heazel	DATE 3/28/84	LISTING CHECKED BY	James Schad	DATE 3/29/84

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. _ TP-00082

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.

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