



TWO HARBORS, MINN.; WIS.; MICH. (NL 15-3)
OCTOBER 1963

Base prepared by the Army Map Service (ASGC), Corps of Engineers, U. S. Army, Washington, D. C. Compiled in 1954 by photogrammetric methods and from: Minnesota Quadrangles, 1:24,000, USGS, 1951-1953; U. S. Lake Survey Charts 95, 96, 97, 1955. Planimetric detail revised by photogrammetric methods. Horizontal and vertical control by USGS, USFS, and USC&GS. Photography field annotated 1954.

HORIZONTAL CONTROL

Coast & Geodetic Survey

- ▲ Monumented Point - First Order
- △ Monumented Point - Second Order
- Monumented Point - Third Order
- Located Object - Third Order
- See separate index for names of numbered stations
- Station reported not recovered
- Measured Base - Electronic or Taped
- Line of triangulation observed
- Line of triangulation observed from one end only
- Measured Length - Electronic or Taped
- Theodolite Traverse - Electronic Distance
- Transit Traverse - Taped Distance Third Order
- Transit Traverse and Leveling Third Order

Geological Survey

- ▲ Monumented Point - First Order
- △ Monumented Point - Second Order
- Monumented Point - Third Order
- Located Object - Third Order
- See separate index for names of numbered stations
- Station reported not recovered
- Measured Base - Electronic or Taped
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- Measured Length - Electronic or Taped
- Theodolite Traverse - Electronic Distance
- Transit Traverse - Taped Distance Third Order
- Transit Traverse and Leveling Third Order

VERTICAL CONTROL

Coast & Geodetic Survey

- First Order
- Second Order
- Third Order

Geological Survey

- First Order
- Second Order
- Third Order

STATE SURVEY CONTROL

- Horizontal or Vertical

Scale 1:250,000

25,000 0 25,000 50,000 75,000 100,000 Feet

25,000 0 25,000 50,000 75,000 100,000 Meters

SECTIONIZED TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

TRANSVERSE MERCATOR PROJECTION

LEGEND

ROADS

- Hard surface, heavy duty
- Hard surface, medium duty
- Two lanes wide; Federal route marker
- Two lanes wide; State route marker
- Improved light duty
- Unimproved dirt
- Trail

RAILROADS

- Standard gauge
- Narrow gauge
- Interlocking
- State
- County
- Park or observation

BOUNDARIES

- International
- State
- County
- Park or observation

LANDMARKS: School; Church; Other

Horizontal control point

Spot elevation in feet

Marsh or swamp

Intermittent or dry stream

Power line

COAST AND GEODETIC SURVEY
THIRTY MINUTE QUADRANGLE DESIGNATION

INDEX TO COUNTY BOUNDARIES

47 091 4	47 091 1	47 090 4	47 090 1
1	2	3	4
MINNESOTA			
47 091 3	47 091 2	47 090 3	47 090 2
1	2	3	4
WISCONSIN			

GEOLOGICAL SURVEY
FIFTEEN MINUTE QUADRANGLE DESIGNATION

INDEX TO COUNTY BOUNDARIES

349	348	347	346	345	344	343	342
1	2	3	4	5	6	7	8
MINNESOTA							
349	348	347	346	345	344	343	342
1	2	3	4	5	6	7	8
WISCONSIN							

COUNTY DESIGNATIONS

- 1 St. Louis
- 2 Lake
- 3 Cook
- 4 Allegan

ORDER CONTROL DATA IN BLACK BY 30 MINUTE QUADRANGLE UNITS FROM DIRECTOR, COAST AND GEODETIC SURVEY, WASHINGTON 25, D.C.

ORDER CONTROL DATA IN RED BY 15 MINUTE QUADRANGLE UNITS FROM DIRECTOR, GEOLOGICAL SURVEY, WASHINGTON 25, D.C.

USCOMM-OSS-DC A-4957

U. S. DEPT. OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON, D. C.
FORM - 6471 (1-63)
DATE OCT. 1963

INDEX TO NUMBERED HORIZONTAL CONTROL STATIONS

by the
Coast and Geodetic Survey

QUADS 470901-2-3-4 & 470911-2-3-4
MINN-WISC
LATITUDE 47° 00' TO 48° 00'
LONGITUDE 90° 00' TO 92° 00'
DIAGRAM NL 15-3 TWO HARBORS

KEY NO.	STATION NAME	QUAD. NO.	STATION NO.	KEY NO.	STATION NAME	QUAD. NO.	STATION NO.
1.	TWO HARBORS, BETHLEHEM LUTHERN CHURCH, SPIRE TWO HARBORS, EMMANUEL LUTHERN CHURCH, SPIRE						
2.	TWO HARBORS, DM & IR RR POWER PLANT, STACK						
3.	TWO HARBORS LIGHTHOUSE TWO HARBORS, POWER AND LIGHT CO, STACK						