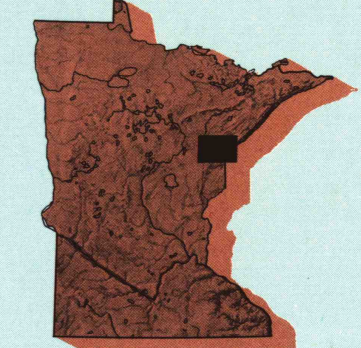


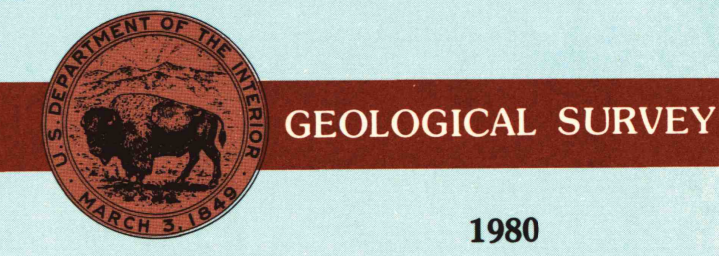


1:100 000-scale metric topographic map of **Duluth** MINNESOTA-WISCONSIN



30 X 60 MINUTE QUADRANGLE SHOWING

- Contours and elevations in meters
- Highways, roads and other manmade structures
- Water features
- Woodland areas
- Geographic names



Produced by the United States Geological Survey
 Compiled from USGS 1:24 000-scale topographic maps dated 1953-1980. Planimetry revised from aerial photographs taken 1977 and other source data. Revised information not field checked. Map edited 1980.
 Projection and 10 000-meter grid, zone 15, Universal Transverse Mercator
 25 000-foot grid ticks based on Minnesota coordinate system, north and central zones and Wisconsin coordinate system, north zone. 1927 North American Datum
 To place on the predicted North American Datum 1983 move the projection lines 8 meters north and 15 meters east
 There may be private inholdings within the boundaries of the National or State reservations shown on this map

CONTOUR INTERVAL 10 METERS
 SUPPLEMENTARY CONTOUR INTERVAL 5 METERS
 NATIONAL GEODESIC VERTICAL DATUM OF 1929
 ELEVATIONS SHOWN TO THE NEAREST METER

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

CONVERSION TABLE		DECLINATION DIAGRAM		ADJOINING MAPS		
Meters	Feet	Magnetic Declination		1	2	3
1	3.2808	71° 7' 11" W		4	5	
2	6.5617	71° 7' 11" W		6	7	8
3	9.8425	71° 7' 11" W		1 Polkama		
4	13.1234	71° 7' 11" W		2 Hibbing		
5	16.4042	71° 7' 11" W		3 Two Harbors		
6	19.6850	71° 7' 11" W		4 Aitkin		
7	22.9658	71° 7' 11" W		5 Fort Wing		
8	26.2467	71° 7' 11" W		6 Sandstone		
9	29.5275	71° 7' 11" W		7 Solon Springs		
10	32.8084	71° 7' 11" W				

To convert meters to feet multiply by 3.2808
 To convert feet to meters multiply by 0.3048
 UTM grid convergence (GN) and 1980 magnetic declination (MN) at center of map
 Diagram is approximate

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 RESTON, VIRGINIA 22092
MAP AND AIR PHOTO LIBRARY
 NOV 1 0 1980
 University of Wisconsin
 Madison

Topographic Map Symbols

- Primary highway, hard surface
- Secondary highway, hard surface
- Light duty road, principal street, hard or improved surface
- Other road or street; trail
- Route marker: Interstate; U.S.; State
- Railroad: standard gage; narrow gage
- Bridge: overpass; underpass
- Canal: road; railroad
- Built up area, locality, elevation
- Airport: landing field; landing strip
- National boundary
- State boundary
- County boundary
- National or State reservation boundary
- Land grant boundary
- U.S. public lands survey: range, township, section
- Range, township, section line: protracted
- Power transmission line; pipeline
- Dam; dam with lock
- Cemetery; building
- Windmill; water well; spring
- Mine shaft; adit or cave; mine, quarry; gravel pit
- Campground; picnic area; U.S. location monument
- Road; cliff dwelling
- Distorted surface: strip mine, lava, sand
- Contours: index; intermediate; supplementary
- Bathymetric contours: index; intermediate
- Stream, lake: perennial; intermittent
- Rapids, large and small; falls, large and small
- Area to be submerged; marsh, swamp
- Land subject to controlled inundation; woodland
- Shrub; mangrove
- Orchard; vineyard

A pamphlet describing topographic maps is available on request

SCALE 1:100 000
 1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
 CONTOUR INTERVAL 10 METERS
 SUPPLEMENTARY CONTOUR INTERVAL 5 METERS

DULUTH, MINNESOTA-WISCONSIN
 N4630-W9200/30X60

NON-CIRCULATING 1980

B006-9/8 SET
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