

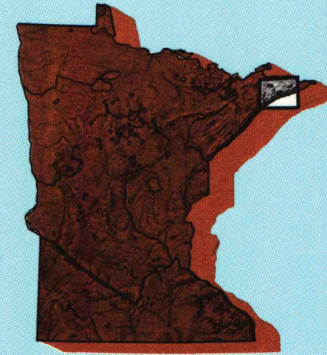
GRAND MARAIS, MINNESOTA

30 X 60 MINUTE SERIES (TOPOGRAPHIC)



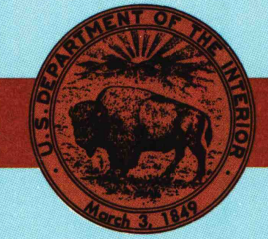
Grand Marais
MINNESOTA

1:100 000-scale metric
topographic map



30 X 60 MINUTE QUADRANGLE
SHOWING

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



U. S. GEOLOGICAL SURVEY

1977

PHOTOINSPECTED 1991

Produced by the United States Geological Survey
Compiled from USGS 1:24 000 and 1:62 500-scale topographic maps dated 1955-1976. Planimetry revised from aerial photographs taken 1973 and other source data. Revised information not field checked. Map edited 1977
1927 North American Datum (NAD 27). Projection and 10 000-meter grid: Universal Transverse Mercator, zone 15 25 000-foot ticks: Minnesota coordinate system, north zone
The difference between NAD 27 and North American Datum of 1983 (NAD 83) is too small to show at this scale. The values of the shift between the datums for 7.5-minute intersections are given in USGS Bulletin 1875
There may be private inholdings within the boundaries of the National or State reservations shown on this map
Map photoinspected using 1991 photographs
No major culture or drainage changes found

CONTOUR INTERVAL 10 METERS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
ELEVATIONS SHOWN TO THE NEAREST METER

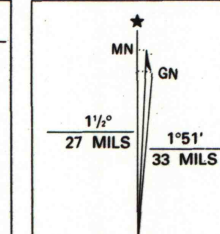
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

CONVERSION TABLE

Meters	Feet
1	3.2808
2	6.5617
3	9.8425
4	13.1234
5	16.4042
6	19.6850
7	22.9659
8	26.2467
9	29.5276
10	32.8084

To convert meters to feet
multiply by 3.2808
To convert feet to meters
multiply by 0.3048

DECLINATION DIAGRAM



UTM grid convergence
(GN) and 1977 magnetic
declination (MN)
at center of map
Diagram is approximate

ADJOINING MAPS

1	2	3
4	5	6
7	8	9

1 Basswood Lake
2 Saganaga Lake
3 Pigeon Point
4 Elk
5 Grand Portage
6 Two Harbors
7 Outer Island
8

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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 gauge, narrow gauge	Bridge: overpass, underpass	Tunnel: road, railroad	Built up area; locality; elevation	Airport: landing field; landing strip	National boundary	State boundary	County boundary	Civil township 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	Ruins; cliff dwelling	Distorted surface: strip mine, lava, sand	Contours: index, intermediate, supplementary	Bathymetric contour: 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	Scrub; mangrove	Orchard; vineyard
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A pamphlet describing topographic maps is available on request

GRAND MARAIS, MINNESOTA
47090-E1-TM-100
1977
PHOTOINSPECTED 1991

SET 8000-7/8