



# Munising MICHIGAN

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

**GEOLOGICAL SURVEY**

1983

Produced by the United States Geological Survey  
 Compiled from USGS 1:24 000 and 1:62 500-scale topographic maps dated 1958-1972. Planimetry revised from aerial photographs taken 1981 and other source data. Revised information not field checked. Map edited 1983.  
 Projection and 10 000-meter grid, zone 16, Universal Transverse Mercator  
 25 000-foot grid ticks based on Michigan coordinate system, north zone  
 1927 North American Datum  
 To place on the predicted North American Datum 1983, move the projection lines 7 meters north and 6 meters east.  
 There may be private inholdings within the boundaries of the National or State reservations shown on this map.

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

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
 FOR SALE BY U.S. GEOLOGICAL SURVEY  
 P.O. BOX 25286, DENVER, COLORADO 80225

| 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      | 29.5275 |
| 10     | 32.8084 |

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

UTM grid convergence (GN and 1983 magnetic declination) (MM) at center of map  
 Diagram is approximate

| 1 | 2 | 3 |
|---|---|---|
| 4 | 5 |   |
| 6 | 7 | 8 |

1 Marquette  
 2  
 3  
 4 Gwinn  
 5  
 6 Escanaba  
 7 Menistique  
 8

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 USGS WMD  
 HISTORICAL MAP ARCHIVES

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### 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
- Tunnel: 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; pit or cave; mine quarry; gravel pit
- Campground; picnic area; U.S. location monument
- Ruins; cliff dwellings
- Distorted surface: strip mine, lava, sand
- Contours: index; intermediate; supplementary
- Bathymetric contours: index; intermediate
- Stream, lake: perennial, intermittent
- Rapid, large and small; lake, large and small
- Area to be submerged; marsh, swampland
- Land subject to controlled inundation; woodland
- Scrub; mangrove
- Orchard; vineyard