

BIG RAPIDS, MICHIGAN

30 X 60 MINUTE SERIES (TOPOGRAPHIC)

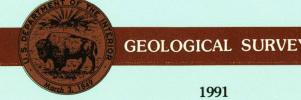
Big Rapids MICHIGAN

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



Produced by the United States Geological Survey
 Compiled from USGS 1:24 000-scale topographic maps dated 1964-1987. Planimetry revised from aerial photographs taken 1986-1988 and other source data. Revised information not field checked. Map edited 1991.
 Projection and 10 000-meter grid, zone 16, Universal Transverse Mercator
 25 000-foot grid ticks based on Michigan coordinate system, south and central zones
 1927 North American Datum
 To place on the predicted North American Datum 1983, move the projection lines 1 meter north and 1 meter east
 There may be private inholdings within the boundaries of the National or State reservations shown on this map

CONTOUR INTERVAL 10 METERS
 NATIONAL GEOGRAPHIC 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	4° 11' 10"		4	5	
2	6.5617	18 MILES		6	7	8
3	9.8425	18 MILES				
4	13.1234	18 MILES				
5	16.4043	18 MILES				
6	19.6852	18 MILES				
7	22.9661	18 MILES				
8	26.2470	18 MILES				
9	29.5279	18 MILES				
10	32.8088	18 MILES				

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

UTM grid convergence (GM) and 100 magnetic declination (MD) at center of map
 Diagram is approximate

1	Manistee
2	Cadillac
3	Houghton Lake
4	Lansing
5	Midland
6	Muskegon
7	Cedar Springs
8	Alma

FOR SALE BY U.S. GEOLOGICAL SURVEY
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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 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
- 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
- Distorted surface: strip mine, levee, 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
- Scrub; mangrove
- Driveway; viewshed

A pamphlet describing topographic maps is available on request

