



- 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 and 1:62 500-scale topographic maps dated 1959-1976. Planimetry revised from aerial photographs taken 1982 and other source data. Revised information not field checked. Map edited 1984.
 Projection and 10 000-meter grid, zone 17, Universal Transverse Mercator
 25 000-foot grid ticks based on Michigan coordinate system, central and south zones
 1927 North American Datum
 To place on the predicted North American Datum 1983, move the projection lines 1 meter north and 5 meters west
 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 GEODETIC 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			1	2	3
2	6 561.7			4	5	
3	9 842.5			6	7	8
4	13 123.4					
5	16 404.2					
6	19 685.0					
7	22 965.8					
8	26 246.6					
9	29 527.4					
10	32 808.2					

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

UTM grid convergence (GN) and 1984 magnetic declination (MD) at center of map Diagram is approximate

1	Grayling
2	Hubbard Lake
3	Houghton Lake
4	Point Aux Barques
5	Midland
6	Bay City
7	Bay Beach



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: projected
- 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
- Ruins; cliff dwelling
- Distorted surface: strip mine, lava, sand
- Contours: index; intermediate; supplementary
- Bathymetric contours: index; intermediate
- Stream, lake general; 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

A pamphlet describing topographic maps is available on request

FOR SALE BY U.S. GEOLOGICAL SURVEY DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092

