

Grayling

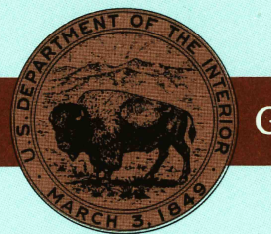
MICHIGAN

**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 1949-1978. 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, central zone
 1927 North American Datum
 To project on the predicted North American Datum 1983 move the projection line 2 meters east and 2 meters west
 There may be private inholdings within the boundaries of the National or State reservations shown on this map

CONTOUR INTERVAL 20 METERS
SUPPLEMENTARY CONTOUR INTERVAL 10 METERS
NATIONAL GEODETIC VERTICAL DATUM OF

ELEVATIONS SHOWN TO THE NEAREST METERS

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

CONVERSION TABLE		DECLINATION DIAGRAM		ADJOINING MAPS		
Meters	Feet			1	2	3
1	3.2808					
2	6.5617					
3	9.8425					
4	13.1234					
5	16.4043					
6	19.6850					
7	22.9659					
8	26.2467					
9	29.5276					
10	32.8084					
To convert meters to feet multiply by 3.2808		UTM grid convergence (GN and RP) magnetic declination (MN) at center of map. Diagram is approximate				
To convert feet to meters multiply by 0.3048						
				4	5	6
				7	8	
				1 Charlevoix 2 Ptolemy 3 Alpena 4 Traverse City 5 Hubbard Lake 6 Cadillac 7 Houghton Lake 8 Tawas City		

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

D HISTORICAL MAP

R 0 9 1989

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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; adit or cave; mine, quarry, gravel pit
Cannon; platform; picnic area; U.S. location monument
Ruins; cliff dwelling
Dissected country; strip mine, lava, sand
Contours; index; intermediate, supplementary
Bathymetric contours; index; intermediate
Stream line: perennial; intermittent
Rapids, large and small; falls, large and small
Areas to be submerged; marsh, swamp
Land subject to controlled inundation; woodland
Scrub, mangrove
Orchard; vineyard

A pamphlet describing topographic maps is available on request.

GRAYLING, MICHIGAN

44084-E1-TM-100

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