



Crystal Lake MICHIGAN-WISCONSIN

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

1984 PHOTOINSPECTED 1988

Produced by the United States Geological Survey
 Compiled from USGS 1:62 500-scale topographic maps dated 1956-1957. Planimetry revised from aerial photographs taken 1977 and other source data. Revised information not field checked. Map edited 1984.
 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 place on the predicted North American Datum 1983, move the projection lines 4 meters north and 3 meters east
 There may be private inholdings within the boundaries of the National or State reservations shown on this map
 Map photoinspected using 1986 and 1988 photographs
 No major culture or drainage changes found
 CONTOUR INTERVAL 10 METERS
 NATIONAL GEODESIC 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	Miles		1	2	3	4
1	3.2808	44 MILES		4	5	6	7
2	6.5617	48 MILES		8	9	10	11
3	9.8425	52 MILES		12	13	14	15
4	13.1234	56 MILES		16	17	18	19
5	16.4042	60 MILES		20	21	22	23
6	19.6850	64 MILES		24	25	26	27
7	22.9659	68 MILES		28	29	30	31
8	26.2467	72 MILES		32	33	34	35
9	29.5275	76 MILES		36	37	38	39
10	32.8084	80 MILES		40	41	42	43

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

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

1 Marquette
 2 Washington Island
 3 Charlevoix
 4 Sturgeon Bay
 5 Traverse City
 6 Manistowic
 7 Manistee
 8 Cadillac

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



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, uncontracted
- Power transmission line, pipeline
- Dam: dam with lock
- Cemetery, building
- Windmill, water well, spring
- Mine shaft, adit or cave, mine, quarry, gravel pit
- Carriageway, picnic area, U.S. location monument
- Ruin, shell, dwelling
- Distorted surface: strip mine, lava, 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
- Orchard; vineyard

A pamphlet describing topographic maps is available on request

CRYSTAL LAKE, MICHIGAN-WISCONSIN 44086-E1-TM-100 1984 PHOTOINSPECTED 1988

SCALE 1:100 000
 1 CENTIMETER ON THE MAP REPRESENTS 1 KILOMETER ON THE GROUND
 CONTOUR INTERVAL 10 METERS

KILOMETERS 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
 MILES 0 1 2 3 4 5 6 7 8 9 10 11 12 13

0 5000 10000 15000 20000 25000 30000 35000 40000 45000 50000 55000 60000 65000 70000 METERS
 0 10000 20000 30000 40000 50000 60000 70000 FEET