



Alma MICHIGAN

1:100 000-scale planimetric map

30 X 60 MINUTE QUADRANGLE SHOWING

- Elevations in meters
- Highways, roads and other manmade structures
- Water features
- Woodland areas
- Geographic names

GEOLOGICAL SURVEY

1985

Produced by the United States Geological Survey
 Compiled from USGS 1:24 000-scale topographic maps dated 1965-1975. Planimetry revised from aerial photographs taken 1981 and other source data. Revised information not field checked. Map edited 1985.

Projection and 10 000-meter grid, zone 16, Universal Transverse Mercator
 25 000-foot grid ticks based on Michigan coordinate system, south zone
 1927 North American Datum
 To place on the predicted North American Datum 1983, move the projection lines 1 meter north and 2 meters west
 There may be private inholdings within the boundaries of the National or State reservations shown on this map

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	Miles	Feet	1	2	3
1	3.2808	0.62137	1.9161	4	5	
2	6.5616	1.24274	3.8322	6	7	8
3	9.8424	1.86411	5.7483			
4	13.1232	2.48548	7.6644			
5	16.4040	3.10685	9.5805			
6	19.6848	3.72822	11.4966			
7	22.9656	4.34959	13.4127			
8	26.2464	4.97096	15.3288			
9	29.5272	5.59233	17.2449			
10	32.8080	6.21370	19.1610			

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 (MD) at center of map
 Diagram is approximate

1 Big Rapids
 2 Midland
 3 Bay City
 4 Cedar Springs
 5 Flint
 6 Grand Rapids
 7 Lansing
 8 Pontiac

FOR SALE BY U.S. GEOLOGICAL SURVEY
 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 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, grouted
- 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, perennial; intermittent
- Rapids, large and small; falls, large and small
- Area to be submerged; marsh, swampland
- Land subject to controlled inundation; woodland
- Scrub; mangrove
- Orchard; vineyard