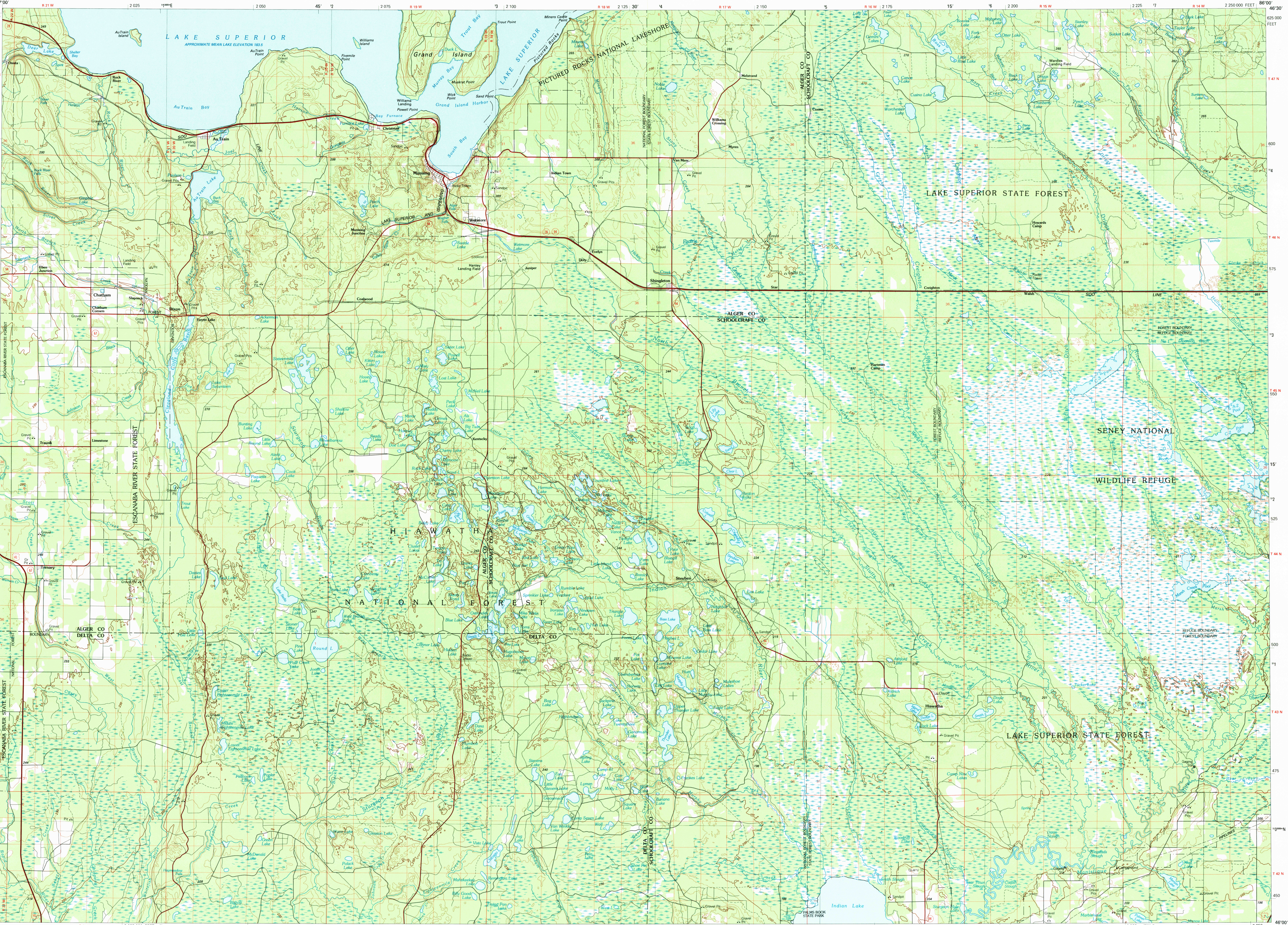


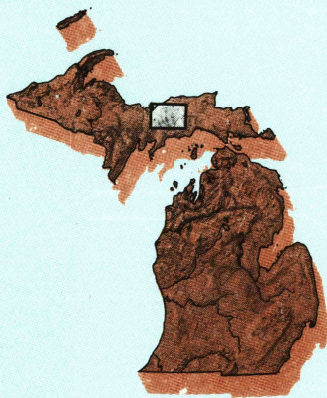
MUNISING, MICHIGAN

30 X 60 MINUTE SERIES (TOPOGRAPHIC)



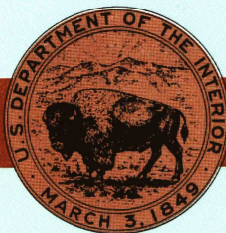
Munising
MICHIGAN

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

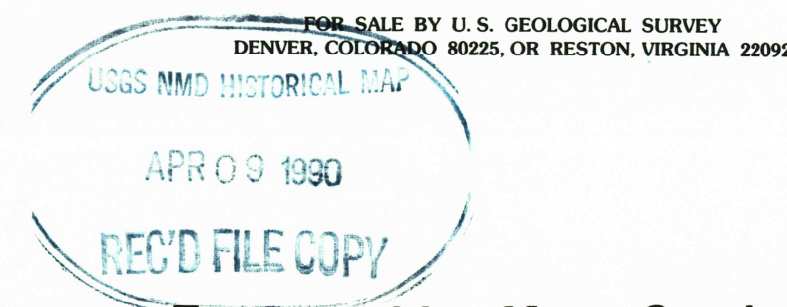
1983

Produced by the United States Geological Survey
Compiled from USGS 1:24 000 and 1:62 500-scale topographic maps dated 1958-1972. 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, north zone
1927 North American Datum
To place on the predicted North American Datum 1983, move the projection lines 7 meters north and 6 meters east
There may be private inholdings within the boundaries of the National or State reservations shown on this map

CONTOUR INTERVAL: 10 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
1	3.2808		4	5	
2	6.5617				
3	9.8425		6	7	8
4	13.1234				
5	16.4042				
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 1983 magnetic declination (MN) at center of map. Diagram is approximate	1	2	3
To convert feet to meters multiply by 0.3048			4	5	6
			7	8	

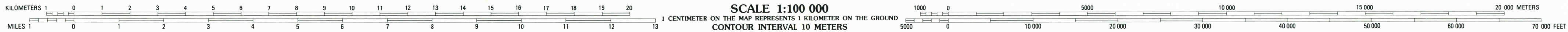


Topographic Map Symbols

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.....	
Campground; picnic area; U.S. location monument.....	
Ruin; 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, swamp.....	
Land subject to controlled inundation; woodland.....	
Shrub; mangrove.....	
Orchard; vineyard.....	

A pamphlet describing topographic maps is available on request

• INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1983



SCALE 1:100 000
CONTOUR INTERVAL 10 METERS

MUNISING, MICHIGAN
46086-A1-TM-100

1983