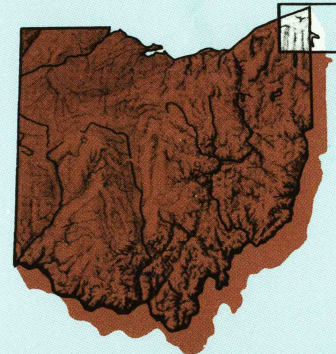


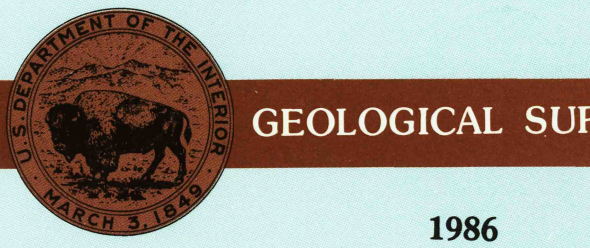
# Ashtabula OHIO-PENNSYLVANIA

1:100 000-scale  
planimetric map



30 X 60 MINUTE QUADRANGLE  
SHOWING

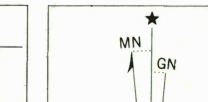
- Elevations in meters
- Highways, roads and other manmade structures
- Water features
- Geographic names



Produced by the United States Geological Survey  
Compiled from USGS 1:24 000-scale topographic maps  
dated 1959-1979. Planimetry revised from aerial photographs  
taken 1982 and other source data. Revised information not  
field checked. Map edited 1986.  
Projection and 10 000-meter grid, zone 17,  
Universal Transverse Mercator  
25 000-foot grid ticks based on Pennsylvania coordinate system,  
north zone and Ohio coordinate system, north zone  
1927 North American Datum  
To place on the predicted North American Datum 1983, move  
the projection lines 2 meters south and 17 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		
Meters	Feet			1	2	
1	3.2808			4		
2	6.5617					
3	9.8425					
4	13.1234			6	7	
5	16.4042					
6	19.6850					
7	22.9658					
8	26.2467			1		
9	29.5276			2 Erie		
10	32.8084			3 Jamestown		
To convert meters to feet multiply by 3.2808		UTM grid convergence (GN) and 1986 magnetic declination (MN) at center of map Diagram is approximate		4 Cleveland		
To convert feet to meters multiply by 0.3048				5 Warren		
				6 Cleveland		
				7 Youngstown		
				8 Oil City		

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 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: protracted  
Range, cliff dwelling  
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  
Ripple, 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

USGS NHD HISTORICAL MAP  
SEP 12 1986  
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