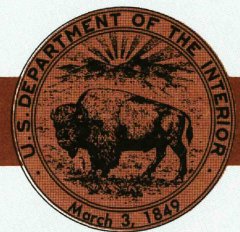


30 X 60 MINUTE QUADRANGLE  
SHOWING

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



GEOLOGICAL SURVEY

1986

Produced by the United States Geological Survey  
Compiled from USGS 1:250 000-scale and DMA 1:50 000-scale topographic maps dated 1970–1978. Planimetry revised from aerial photographs taken 1980–1984 and other source data. Revised information not field checked. Map edited 1986.  
Projection and 10 000-meter grid, zone 18; Universal Transverse Mercator. 25 000-foot grid ticks based on Virginia coordinate system, north zone, and Maryland coordinate system.  
1927 North American Datum.  
To place on the predicted North American Datum 1983 move the projection lines 9 meters south and 25 meters west.  
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	4	5
1	3.2808		4	5	6	7	8
2	6.5617						
3	9.8425						
4	13.1234						
5	16.4042						
6	19.6850						
7	22.9659						
8	26.2467						
9	29.5275						
10	32.8084						

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 (M) at center of map  
Diagram is approximate

ADJOINING MAPS:  
1 Winchester  
2 Frederick  
3 Baltimore  
4 Front Royal  
5 Washington East  
6 Charlottesville  
7 Fredericksburg  
8 Leesville

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: protected	
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	
Decorated 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



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

WASHINGTON WEST, D. C. – VA. – MD.

38077-E1-TM-100

1986