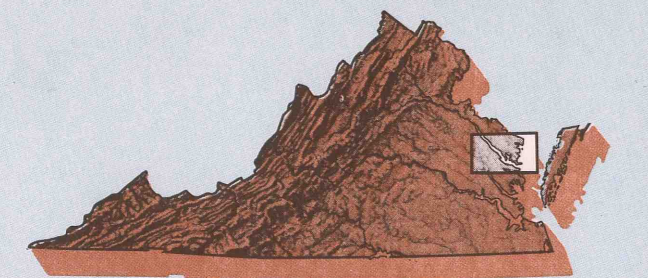


Tappahannock

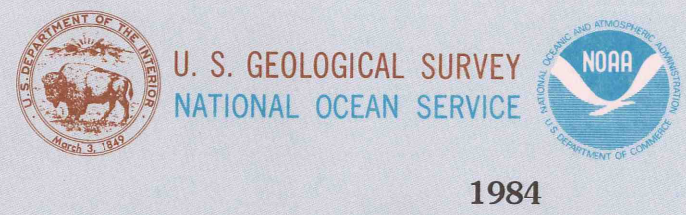
VIRGINIA-MARYLAND

1:100 000-scale metric
topographic-bathymetric map



30 X 60 MINUTE QUADRANGLE
SHOWING

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



Produced by the United States Geological Survey and the National Ocean Service
Compiled from USGS 1:24 000-scale maps dated 1964-1982. Planimetry revised from aerial photographs taken 1982 and other source data. Revised information on field checked. Map dated 1984.
Bathymetry compiled by the National Ocean Service from tide-coordinated hydrographic surveys. This information is not intended for navigational purposes.
Mean lower low water (dotted line) and mean high water (heavy solid line) compiled by NOS from tide-coordinated aerial photographs.
Projection and 10 000-meter grid, zone 17, Universal Transverse Mercator.
25 000-foot grid ticks based on Virginia coordinate system, north zone, and Maryland coordinate system.
To place on the predicted North American datum 1983, move the projection lines 10 meters south and 28 meters east.
There may be private inholdings within the boundaries of the National or State reservations shown on this map.

CONTOUR INTERVAL 5 METERS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
ELEVATIONS SHOWN TO THE NEAREST METER
BATHYMETRIC CONTOUR INTERVAL 2 METERS WITH SUPPLEMENTARY 1 METER CONTOURS. DATUM IS MEAN LOWER LOW WATER. THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE.

BASE MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS. BATHYMETRIC SURVEY DATA COMPLIES WITH INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO) SPECIAL PUBLICATION 44 ACCURACY STANDARDS AND/OR STANDARDS USED AS OF THE DATE OF THE SURVEYS.

CONVERSION TABLE		DECLINATION DIAGRAM		ADJOINING MAPS		
Meters	Feet			1	2	3
1	3.2808			4	5	6
2	6.5617			7	8	
3	9.8425					
4	13.1234	UTM grid convergence (GTM) per the magnetic declination (MDN) in center of map. Diagram is approximate.				
5	16.4042					
6	19.6850	To convert meters to feet multiply by 3.2808				
7	22.9659					
8	26.2467	To convert feet to meters multiply by 0.3048				
9	29.5276					
10	32.8084					

FOR SALE BY U.S. GEOLOGICAL SURVEY
DENVER, COLORADO 80292, OR RESTON, VIRGINIA 22092
AND NATIONAL OCEAN SERVICE, ROCKVILLE, MARYLAND 20852

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	
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	
Shoreline surface: strip mine; live; 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

