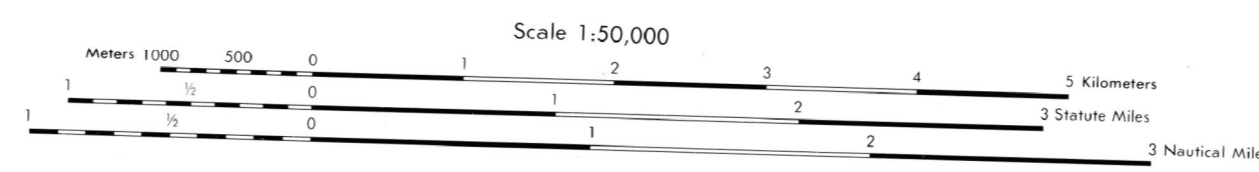


Prepared by the U.S. Geological Survey for publication by the Defense Mapping Agency Hydrographic/Topographic Center, Washington, D.C.

**LEGEND**

- ON THIS MAP, A LANE IS GENERALLY CONSIDERED AS BEING A MINIMUM OF 2.5 METERS (8 FEET) IN WIDTH. IN DEVELOPED AREAS, ONLY THROUGH ROADS ARE CLASSIFIED.
- ROADS**
    - Divided highway with median strip
    - Primary, all weather, hard surface
    - Secondary, all weather, hard surface
    - Light duty, all weather, hard or improved surface
    - Fair or dry weather, unimproved surface
    - Trail
    - Route markers: Interstate, Federal, State
    - Bridge: With superstructure, Without superstructure
    - Single track
    - Multiple track
    - Nonoperating
    - Railroad station, location known, location unknown
    - Car line
    - Railroad bridge: With superstructure, Without superstructure
    - Tunnel: Highway, Railroad
  - BOUNDARIES**
    - National, with monument
    - State, territory
    - County, parish
    - City, township, town
    - Incorporated city, village, town
    - Reservation: National, State, Military
  - Other Features**
    - River transmission line
    - Railroads
    - Structures
    - Church, School
    - Power substation
    - Windmill, Watermill
    - Well, Tank
    - Mine shaft
    - Open pit mine or quarry
    - Horizontal control station
    - Bench mark, monumented
    - Bench mark, non-monumented
    - Spot elevations in meters
    - Levees, rims, dikes
    - Bluffs, cliffs
    - Woodland
    - Scattered trees, Scrub
    - Vineyard; Orchard; plantation
    - Interment (lake, Dam, Earth); Masonry
    - Stream, Perennial, Intermittent
    - Head, weir
    - Small rapids, Small falls
    - Large rapids, Large falls



**ELEVATIONS IN METERS**

CONTOUR INTERVAL 10 METERS  
SUPPLEMENTARY CONTOURS 5 METERS

**SPHEROID** ..... CLARKE 1866  
**GRID** ..... 1,000 METER UTM ZONE 18 (BLACK NUMBERED LINES)  
 ..... 1,000 METER UTM ZONE 14 (BLUE NUMBERED LINES)  
 ..... 10,000 FOOT STATE GRID TICKS (KANSAS, NORTH ZONE)

**PROJECTION** ..... UNIVERSAL TRANSVERSE MERCATOR  
**VERTICAL DATUM** ..... NATIONAL GEODESIC VERTICAL DATUM OF 1929  
**HORIZONTAL DATUM** ..... 1927 NORTH AMERICAN DATUM  
**CONTROL** ..... USGS AND NOS/NOAA  
 ..... U.S. GEOLOGICAL SURVEY

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 OR RESTON, VIRGINIA 22092

**100 METER REFERENCE**

- Read large numbers labeling the VERTICAL grid (line left of point and estimate tenths (100 meters) from grid line to point. Example: 12 3
- Read large numbers labeling the HORIZONTAL grid line below point and estimate tenths (100 meters) from grid line to point. Example: 12450

WHEN REPORTING COORDINATE THE 100,000 METER SQUARE AREA IN WHICH THE POINT LIES. PREFIX THE 100,000 METER SQUARE IDENTIFICATION. Example: TP12450

WHEN REPORTING OUTSIDE THE GRID ZONE DESIGNATION AREA IN WHICH THE POINT LIES, PREFIX THE GRID ZONE DESIGNATION. Example: 18S TP12450

**ELEVATION GUIDE**      **ADJOINING SHEETS**      **BOUNDARIES**



TO CONVERT A MAGNETIC AZIMUTH TO A GRID AZIMUTH ADD G-M ANGLE

TO CONVERT A GRID AZIMUTH TO A MAGNETIC AZIMUTH SUBTRACT G-M ANGLE

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THIS MAP IS RED-LIGHT READABLE