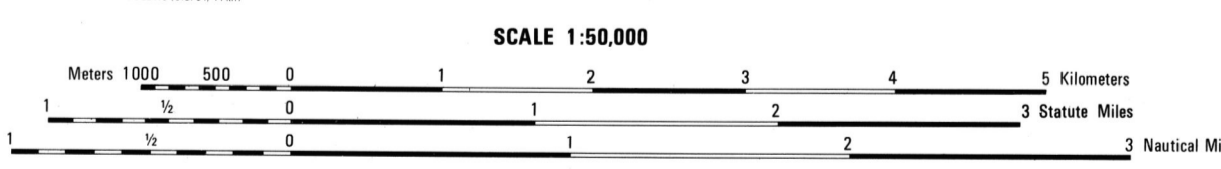


Prepared by the U.S. Geological Survey for publication by the Defense Mapping Agency Hydrographic/Topographic Center, Washington, D.C.  
 MAP INFORMATION AS OF 1989.

**LEGEND**

CAUTION: ALL TELEPHONE AND ELECTRIC SERVICE LINES ARE NOT SHOWN.  
 A LANE ON THIS MAP IS CONSIDERED TO BE 2.5 METERS WIDE.  
 IN DEVELOPED AREAS ONLY THROUGH ROADS ARE CLASSIFIED.  
 THERE MAY BE PRIVATE WOODINGS WITHIN THE BOUNDARIES OF THE NATIONAL OR STATE RESERVATIONS SHOWN ON THIS MAP.

- AREAS COVERED BY DASHED LIGHT BLUE PATTERNS ARE SUBJECT TO CONTROLLED INUNDATION.
- 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
    - Road markers: Interstate, Federal, State
    - Bridge
    - Railroads (Standard gauge 1.44m - 4'8 1/2")
    - Multiple track
    - Single track
    - Nonoperating
    - Railroad station: Location known; Location unknown
    - Car line
    - Railroad bridge
    - Tunnel: Highway, Railroad
  - BOUNDARIES**
    - National, with monument
    - State, territory
    - County, parish
    - Civil township, town
    - Incorporated city, village, town
    - Reservation: National, State, Military
  - Power transmission line**
  - Buildings**
  - Structures**
  - Church, School
  - Power substation
  - Windmill, Watermill
  - Well, Tank
  - Mine shaft
  - Open pit mine or quarry
  - Historical central station
  - Bench mark, monument
  - Bench mark, non-monumented
  - Spot elevations in meters
  - Leaves, rims, dikes
  - Bluffs, cliffs
  - Woodland
  - Scattered trees, Scrub
  - Vineyard, Orchard, plantation
  - Intermittent lake: Dam, Earthen, Masonry
  - Stream: Perennial, Intermittent
  - Marsh, swamp
  - Small falls, Large falls
  - Small rapids, Large rapids



**ELEVATIONS IN METERS**  
**CONTOUR INTERVAL 10 METERS**

**CONVERSION GRAPH**  
 (1 meter = 3.28 feet)

Meters	Feet
400	1300
1000	3300
2000	6600
3000	9900
4000	13200
5000	16500
6000	19800
7000	23100
8000	26400
9000	29700
10000	33000

**ELLIPSOID** GEODETIC REFERENCE SYSTEM 1980  
**GRID** 1,000 METER UTM ZONE 15 (BLACK NUMBERED LINES)  
 5,000 METER STATE GRID TICKS, MISSOURI (WEST AND CENTRAL ZONES)  
 PROJECTION TRANSVERSE MERCATOR  
 VERTICAL DATUM NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 HORIZONTAL DATUM NORTH AMERICAN DATUM OF 1983  
 CONTROL BY USGS AND NOS/NOAA  
 PREPARED BY U.S. GEOLOGICAL SURVEY  
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**SAMPLE 1,000 METER GRID SQUARE**

48	49
12	13

**100 METER REFERENCE**

1. Read large numbers labeling the VERTICAL grid line left of point and estimate tenths (100 meters) from grid line to point 12.3  
 2. Read large numbers labeling the HORIZONTAL grid line below point and estimate tenths (100 meters) from grid line to point 45.6  
 Example: 123456  
 Example: VC123456  
 Example: 15SVC123456

**GRID ZONE DESIGNATION**  
 15S

WHEN REPORTING ACROSS THE GRID ZONE DESIGNATION AREA, PREFIX THE GRID ZONE DESIGNATION.

Example: 15SVC123456

USERS SHOULD REFER TO CORRECTIONS, ADDITIONS, AND COMMENTS TO THE NIMA OPERATIONAL HELP DESK: 1-800-455-0899; COMMERCIAL 316-263-4864; DSN 693-4864; OR WRITE TO: DIRECTOR, NATIONAL IMAGERY AND MAPPING AGENCY, ATTN: ES, MAIL STOP 1-88, 4600 SANGAMORE ROAD, BETHESDA, MD 20816-5002.

THIS MAP IS RED-LIGHT READABLE

