

Prepared by the U.S. Geological Survey for publication by the Defense Mapping Agency Hydrographic Center, Washington, D.C.
 MAP INFORMATION AS OF 1987.

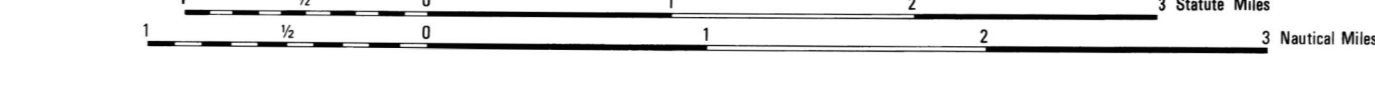
LEGEND

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 INCLUSIONS WITHIN THE BOUNDARIES OF THE NATIONAL OR STATE RESERVATIONS SHOWN ON THIS MAP.

<p>ROADS</p> <ul style="list-style-type: none"> 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 Single track Multiple track Nonoperating Railroad station: Location known; Location unknown Car line Railroad bridge Tunnel: Highway, Railroad 	<p> <ul style="list-style-type: none"> Power transmission line Buildings Structures Church, School Power substation Windmill, Watermill Well, Tank Mine shaft Open pit mine or quarry Historical control station Bench mark, monumented 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 </p>
---	---

BOUNDARIES

- National, with monument
- State, territory
- County, parish
- Civil township, town
- Incorporated city, village, town
- Reservation: National, State, Military



CONVERSION GRAPH

(1 meter = 3.28 feet)

Meters	Feet
0	0
100	328
200	656
300	984
400	1312
500	1640

GRID ZONE DESIGNATION

18R UTM ZONE
 18R UTM ZONE
 18R UTM ZONE

100 METER REFERENCE

1. Red large numbers labeling the VERTICAL grid line left of point and distance (100 meters) from grid line to point: 12 3
 2. Red large numbers labeling the HORIZONTAL grid line below point and distance (100 meters) from grid line to point: 45 6
 Example: 123456

WHEN REPORTING ACROSS A 100,000 METER LINE PREFIX THE 100,000 METER SQUARE IDENTIFICATION IN WHICH THE POINT LIES.
 Example: MB123456

WHEN REPORTING ACROSS THE GRID ZONE DESIGNATION PREFIX THE GRID ZONE DESIGNATION.
 Example: 18RMB123456

USERS SHOULD REFER TO CORRECTIONS, ADDITIONS, AND COMMENTS TO THE NIMA CUSTOMER HELP DESK: 1-800-485-0888 COMMERCIAL: 800-525-0888 OR WRITE TO: DIRECTOR, NATIONAL IMAGERY AND MAPPING AGENCY, ATTN: CDD, MAIL STOP P-37, 4800 SANDHARBOUR ROAD, BETHESDA, MD 20815-5002.

BOUNDARIES

ADJOINING SHEETS

4642 II	4642 III	4642 IV
4641 I	4641 IV	4641 V
4641 II	4641 III	4641 VI

ELEVATION GUIDE

SLOPE GUIDE

PERCENTAGE DEGREE

Percentage	Degree
1%	5.7°
2%	11.3°
3%	17.0°
4%	22.6°
5%	28.2°
6%	33.8°
7%	39.4°
8%	45.0°
9%	50.6°
10%	56.2°
11%	61.8°
12%	67.4°
13%	73.0°
14%	78.6°
15%	84.2°
16%	89.8°
17%	95.4°
18%	101.0°
19%	106.6°
20%	112.2°

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

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

THIS MAP IS RED-LIGHT READABLE

NSN 7643014028083
 NIMA Ref No: V747X46414