



**HYDROGRAPHIC DATUM** ..... MEAN LOWER LOW WATER

Depth curve (meters)

Foreshore flats

Rocks awash; Reef

Wreck: Exposed; Sunk with masts exposed

Wharf; pier

Seawall

Oilrig; rig

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

MAP INFORMATION AS OF 1981

**LEGEND**

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

**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")
- Single track
- Multiple 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**

- Building
- Church; School
- Power substation
- Windmill; Watermill
- Well; Tank
- Mine shaft
- Open pit mine or quarry
- Horizontal control station
- Bench mark, monument
- Bench mark, non-monumented
- Spot elevations in meters
- Leaves, rims, dikes
- Bluffs, cliffs
- Woodland
- Scattered trees; Scrub
- Viewyard; Orchard; plantation
- Intermittent lake; Dam; Earthen; Masonry
- Stream; Perennial; Intermittent
- Marsh; swamp
- Small falls; Large falls
- Small rapids; Large rapids

**CONVERSION GRAPH**

(1 meter = 3.28 feet)

Meters	Feet
0	0
100	328
200	656
300	984
400	1312
500	1640
600	1968
700	2296
800	2624
900	2952
1000	3280
1100	3608
1200	3936
1300	4264
1400	4592
1500	4920
1600	5248
1700	5576
1800	5904
1900	6232
2000	6560

**ELEVATIONS IN METERS**

**CONTOUR INTERVAL 20 METERS**

**SPHEROID** ..... GEODETIC REFERENCE SYSTEM 80  
 GRID ..... 1,000-METER UTM ZONE 5 (BLACK NUMBERED LINES)  
 TRANSVERSE INDICATOR  
**PROJECTION** ..... 5,000-METER STATE GRID TICKS; HAWAII ZONE II  
**VERTICAL DATUM** ..... MEAN SEA LEVEL  
**HORIZONTAL DATUM** ..... NORTH AMERICAN DATUM 1983  
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**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

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

Example: KB123456

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

Example: 50K123456

**BOUNDARIES**

**ADJOINING SHEETS**

**ELEVATION GUIDE**

**SLOPE GUIDE**

PERCENTAGE DEGREE

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

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

GRID CONVERGENCE 0°47' (14 METERS FOR CENTER OF SHEET)

GRID NORTH

MAGNETIC NORTH

TRUE NORTH

1985 G-M ANGLE 11° (100 METERS)

40-HORIZONTAL DISTANCE BETWEEN CONTOURS

40-HORIZONTAL DISTANCE BETWEEN CONTOURS