

Prepared by the U.S. Geological Survey for Publication by the National Imagery and Mapping Agency

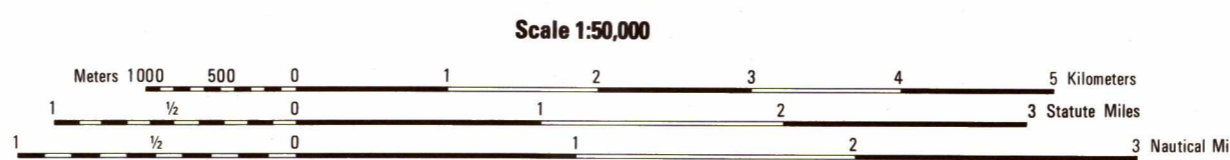
MAP INFORMATION AS OF 1996

**LEGEND**

- POPULATED PLACES**
  - Densely built-up areas
  - Sparsely to moderately built-up areas
- ROADS**
  - Divided highway
  - All weather, hard surface
  - Two or more lanes wide
  - One lane wide
  - All weather, loose or light surface
  - Two or more lanes wide
  - One lane wide
- RAILROADS**
  - Normal gauge 1.44m (4'8 1/2")
  - Narrow gauge 0.91m (3'0")
  - Electrified
- BRIDGES**
  - Pavement
  - Standard
  - Culvert
- MISCELLANEOUS CULTURAL FEATURES**
  - Church
  - Building, School, Hospital
  - Located object: Tank, Well
  - Mine: Active, Abandoned
  - Area name
- OBSTRUCTIONS**
  - Elevation of obstruction top above sea level
  - Elevation of obstruction top above ground level
  - High tension power line, communication tower
- BOUNDARIES**
  - International
  - First-order administrative division
- RELIEF**
  - Bluff, cliff, escarpment
  - Depression
  - Level: Sand
  - Spot elevations: Highest, Normal
  - Drainage
  - Streams
  - Lakepond
  - Spring
  - Well
  - Ditches
  - Tank
  - Disappearing stream
  - Land subject to inundation
  - Vegetation
  - Woodland
  - Shrub, Scattered trees
  - Orchard, Vineyard

**NOTES**

A LANE ON THIS MAP IS CONSIDERED TO BE AT LEAST 2.5 METERS (8 FEET) WIDE. ROAD CLASSIFICATION SHOULD BE REFERRED TO WITH CAUTION. IN DEVELOPED AREAS ONLY THROUGH ROADS ARE CLASSIFIED. CAUTION: NOT ALL TELEPHONE AND ELECTRIC SERVICE LINES ARE SHOWN. THE NUMBER IN BRACKETS, FOLLOWING THE POPULATED PLACE NAME, INDICATES THAT MORE THAN ONE PLACE IS SO NAMED ON THIS MAP.



**ELEVATIONS IN METERS**  
**CONTOUR INTERVAL 20 METERS**

ELLIPSOID: WORLD GEODETIC SYSTEM 1984  
 GEODETIC REFERENCE SYSTEM 1980  
 GRID: 1,000-METER UTM ZONE 13 (BLACK NUMBERED LINES)  
 PROJECTION: TRANSVERSE MERCATOR  
 VERTICAL DATUM: NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 HORIZONTAL DATUM: WORLD GEODETIC SYSTEM 1984  
 PREPARED BY: U.S. GEOLOGICAL SURVEY

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**SAMPLE 1,000 METER GRID SQUARE**

**100 METER REFERENCE**

- Read large numbers labeling the VERTICAL grid line left of point and estimate tenths (100 meters) from grid line to point. 12.3
- 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, PREFER THE 100,000 METER SQUARE IDENTIFICATION IN WHICH THE POINT LIES.**

Example: 00123456

**WHEN REPORTING OUTSIDE THE GRID ZONE DESIGNATION AREA, PREFER THE GRID ZONE DESIGNATION.**

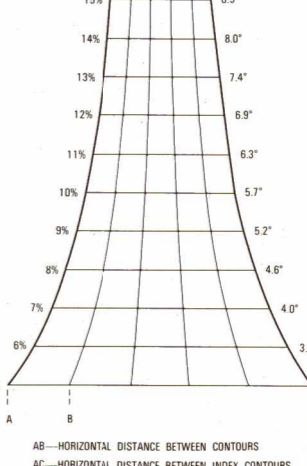
Example: 13R01123456

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

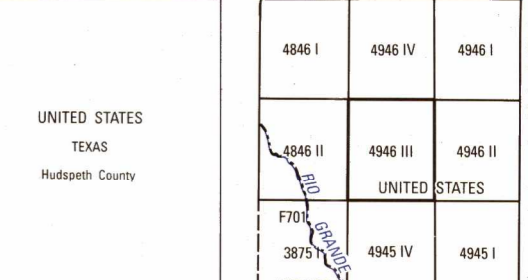
Meters	Feet	Meters	Feet
1600	5250	1800	5910
1700	5580	1900	6210
1800	5910	2000	6560
1900	6210	2100	6910
2000	6560	2200	7260
2100	6910	2300	7610
2200	7260	2400	7910
2300	7610	2500	8260
2400	7910	2600	8610
2500	8260	2700	8910
2600	8610	2800	9260
2700	8910	2900	9610
2800	9260	3000	9910
2900	9610	3100	10260
3000	9910		

**GRID CONVERGENCE**  
 1995 G.M. ANGLE (19 STATUTE MILES)  
 TO CONVERT A GRID AZIMUTH TO A MAGNETIC AZIMUTH SUBTRACT G.M. ANGLE  
 TO CONVERT A MAGNETIC AZIMUTH TO A GRID AZIMUTH ADD G.M. ANGLE

**SLOPE GUIDE**



**BOUNDARIES**      **ADJOINING SHEETS**



**ELEVATION GUIDE**

