



**MAP INFORMATION AS OF 2001**

**LEGEND**

**POPULATED PLACES**  
 Densely built-up areas  
 Sparingly to moderately built-up areas  
 One-line built-up areas

**ROADS**  
 All weather, hard surface  
 Divided highway  
 Two or more lanes wide  
 One lane wide  
 All weather, loose surface  
 Two or more lanes wide  
 One lane wide  
 Fair or dry weather, loose surface  
 Track, Trail  
 Route markers: Interstate, National, Secondary  
 RAILROADS  
 Normal gauge 1.44m (4' 8 1/2")  
 Single Track  
 Multiple Track  
 Narrow gauge  
 Electrified  
 BOUNDARIES  
 International  
 First-order  
 Second-order  
 MISCELLANEOUS CULTURAL FEATURES  
 Building, Place, School  
 Church  
 Cemetery  
 Hospital, Helipoint  
 Cistern, Tank, Located object  
 Well, Landmark area  
 Artificial/Roadway, Dam  
 Mine, Active, Abandoned  
 Bridge, Pedestrian bridge

**OBSTRUCTIONS (46m or higher)**  
 Elevation of obstruction top above sea level  
 Elevation of obstruction top above ground level

**DRAINAGE**  
 Stream  
 Less than 25m wide  
 25m wide or more  
 Ditch  
 Less than 25m wide  
 Spring  
 Wet  
 Lakepond  
 Swamp; Land subject to natural inundation  
 Stream: Disappearing, Disappearing  
 MISCELLANEOUS RELIEF  
 Spot elevation: Highest, Normal  
 Depression  
 Contour interval  
 Level  
 Escarpment  
 Supplementary contour  
 Sand, Gravel, Distorted surface  
 VEGETATION  
 Woodland  
 Scrub, Orchard  
 Scattered trees  
 Area name  
 Alee

**NOTES**  
 A LAND 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.  
 NORTH AMERICAN DATUM 1983 (NAD 83) AND WORLD GEODETIC SYSTEM 1984 (WGS 84) ARE EQUIVALENT FOR MAPPING, CHARTING AND NAVIGATION AT THIS SCALE.

**CONVERSION GRAPH**  
 (1 meter = 3.28 feet)  
 Meters: 0, 100, 200, 300, 400  
 Feet: 0, 300, 600, 900, 1200, 1500

**NOTES**

**ELEVATIONS IN METERS**  
 CONTOUR INTERVAL 10 METERS

**ELLIPSOID**  
 WORLD GEODETIC SYSTEM 1984  
 1,000-METER STATE GRID TICS, TEXAS SOUTH CENTRAL AND SOUTH CENTRAL  
 UNIVERSAL TRANSVERSE MERCATOR  
 PROJECTION  
 VERTICAL DATUM  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
 HORIZONTAL DATUM  
 NORTH AMERICAN DATUM 1983/WORLD GEODETIC SYSTEM 1984  
 PRINTED BY  
 NIMA 9-02

**GRID CONVERGENCE**  
 0°11' (3.4 M/S)  
 FOR CENTER OF SHEET

**SLOPE GUIDE**  
 PERCENTAGE  
 DEGREE  
 1% 0.6°  
 2% 1.1°  
 3% 1.7°  
 4% 2.3°  
 5% 2.9°  
 6% 3.5°  
 7% 4.1°  
 8% 4.7°  
 9% 5.3°  
 10% 5.9°  
 11% 6.5°  
 12% 7.1°  
 13% 7.7°  
 14% 8.3°  
 15% 8.9°  
 16% 9.5°  
 17% 10.1°  
 18% 10.7°  
 19% 11.3°  
 20% 11.9°  
 21% 12.5°  
 22% 13.1°  
 23% 13.7°  
 24% 14.3°  
 25% 14.9°  
 26% 15.5°  
 27% 16.1°  
 28% 16.7°  
 29% 17.3°  
 30% 17.9°  
 31% 18.5°  
 32% 19.1°  
 33% 19.7°  
 34% 20.3°  
 35% 20.9°  
 36% 21.5°  
 37% 22.1°  
 38% 22.7°  
 39% 23.3°  
 40% 23.9°  
 41% 24.5°  
 42% 25.1°  
 43% 25.7°  
 44% 26.3°  
 45% 26.9°  
 46% 27.5°  
 47% 28.1°  
 48% 28.7°  
 49% 29.3°  
 50% 29.9°  
 51% 30.5°  
 52% 31.1°  
 53% 31.7°  
 54% 32.3°  
 55% 32.9°  
 56% 33.5°  
 57% 34.1°  
 58% 34.7°  
 59% 35.3°  
 60% 35.9°  
 61% 36.5°  
 62% 37.1°  
 63% 37.7°  
 64% 38.3°  
 65% 38.9°  
 66% 39.5°  
 67% 40.1°  
 68% 40.7°  
 69% 41.3°  
 70% 41.9°  
 71% 42.5°  
 72% 43.1°  
 73% 43.7°  
 74% 44.3°  
 75% 44.9°  
 76% 45.5°  
 77% 46.1°  
 78% 46.7°  
 79% 47.3°  
 80% 47.9°  
 81% 48.5°  
 82% 49.1°  
 83% 49.7°  
 84% 50.3°  
 85% 50.9°  
 86% 51.5°  
 87% 52.1°  
 88% 52.7°  
 89% 53.3°  
 90% 53.9°  
 91% 54.5°  
 92% 55.1°  
 93% 55.7°  
 94% 56.3°  
 95% 56.9°  
 96% 57.5°  
 97% 58.1°  
 98% 58.7°  
 99% 59.3°  
 100% 59.9°

**ELEVATION GUIDE**  
 High  
 Medium  
 Low  
 200, 150, 100, 50, 0, 50, 100, 150, 200

**BOUNDARIES**

**ADJOINING SHEETS**

6040 I	6140 IV	6140 I
6040 II	6140 III	6140 II
6039 I	6139 IV	6139 I

**CONVERSION GRAPH**  
 (1 meter = 3.28 feet)  
 Meters: 0, 100, 200, 300, 400  
 Feet: 0, 300, 600, 900, 1200, 1500

**100 METER REFERENCE**  
 1. Read large numbers labeling the VERTICAL grid line left of point and measure from 100-meter line below point to point. Example: 123456  
 2. Read large numbers labeling the HORIZONTAL grid line below point and measure from 100-meter line below point to point. Example: 123456  
 WHEN REPORTING ACROSS A 100-METER LINE, PREFIX THE 100-METER SQUARE IDENTIFICATION IN WHICH THE POINT LIES.  
 Example: MS 123456  
 WHEN REPORTING OUTSIDE THE GRID ZONE DESIGNATION AREA, PREFIX THE GRID ZONE DESIGNATION.  
 Example: 14R  
 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

**USERS SHOULD REFER TO CORRECTIONS, ADDITIONS, AND COMMENTS TO THE NIMA OPERATIONAL HELP DESK: 1-800-455-0899; COMMERCIAL 314-263-4864; DSN 693-4864 OR WRITE TO: DIRECTOR, NATIONAL IMAGERY AND MAPPING AGENCY, ATTN: E. MAIL STOP 1-88, 4830 SANGAMORE ROAD, BETHESDA, MD 20816-5003.**

**THIS MAP IS RED-LIGHT READABLE**  
**NAD 83/WGS 84**

**EDITION 1-NIMA**

**ENCINAL, TEXAS 6140 III V782**

**BOUNDARIES**

**ADJOINING SHEETS**

**ELEVATION GUIDE**

**CONVERSION GRAPH**

**100 METER REFERENCE**

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**NAD 83/WGS 84**

**EDITION 1-NIMA**

**ENCINAL, TEXAS 6140 III V782**

**NSN 754014952938**  
**NIMA Ref No. V782X61403**

**ED No. 001**