Earthquake History of Texas

The October 22, 1882 earthquake felt, in Texas, was probably centered in Oklahoma or Arkansas; the total felt area covered about 375,000 square kilometers. At Sherman, Texas, heavy machinery vibrated, bricks were thrown from chimneys, and movable objects overturned. A May 3, 1887, earthquake in Sonora, Mexico, caused damage at Bavispe and was felt strongly in parts or Arizona, New Mexico and Texas. The epicenter was in the Sierra Madre Occidental Range.

On January 8, 1891, violent shaking of buildings and a few toppled chimneys were reported from Rusk, Texas. These effects were evaluated as intensity VII, although other towns in eastern Texas along a northeast- southwest line through Rusk experienced tornadoes and sudden, violent wind storms producing effects similar to, and in some cases more damaging than, those in Rusk.

A locally damaging earthquake occurred at Panhandle, Texas, on March 28, 1917. Some cracked plaster was reported, and children were evacuated from a school building (VI).

Another disturbance occurred in the area on July 30, 1925. There were three distinct shocks over a period of 15 seconds. Major problems were the shaking of dishes from shelves and rattling and creaking of furniture (V). The shocks were felt over an area of approximately 518,000 square kilometers including distant points such as Roswell, New Mexico, 350 kilometers away; Tulsa, Oklahoma, 480 kilometers away; and Leavenworth, Kansas, 640 kilometers away.

The 1931 western Texas earthquake heavily damaged many buildings at Valentine. Also, many chimneys fell (VIII). The shock occurred at 5:40 a.m. on August 16; although people were panic stricken, there were no fatalities and only a few minor injuries from falling adobe. Adobe buildings suffered most, and cement and brick walls in many places were badly cracked. Even though Valentine bore the brunt of the shock, damage was reported from widely scattered points in Brewster, Culberson, Jeff Davis, and Presidio Counties. Cracked walls and damaged chimneys were reported from several towns. The total felt area covered about 647,000 square kilometers in Texas and New Mexico and an estimated 518,000 square kilometers in Mexico. The earthquake was accompanied by rumbling subterranean sounds heard over practically the entire affected area. The shock, measured at magnitude 6.4, was strongly recorded on all seismographs in North America and at stations all over the world. Numerous aftershocks were felt in the epicentral region; the strongest, on August 18, was intensity V at Alpine, Lobo, Pecos, and Valentine and intensity IV at Carlsbad, New Mexico. A minor aftershock was felt at Valentine on November 3.

Slight damage resulted from an earthquake in the Mexia - Wortham area on April 9, 1932. Loose bricks were thrown down, and some plaster cracked (V-VI). The shock was also felt at Coolidge, Currie, Groesbeck, Hillsboro, Teague, and Richland. A moderate earthquake affected an area of about 7700 square kilometers in northeastern Texas and an adjoining portion of Oklahoma on April 11, 1934. The tremor was most distinctly felt at Arthur City, Caviness, Chicota, Powderly, and Trout Switch (intensity V). Many persons who felt the shock reported having heard a roaring or rumbling noise. Two shocks were recognized by many observers.

A widely felt earthquake with an epicenter in the Panhandle region occurred on June 19, 1936. Intensity V effects were noted at Gruver, White Deer, and Whittenberg, Texas, Kenton, Oklahoma, and Elkhart, Kansas. The area of perceptibility covered about 103,000 square kilometers. On March 11, 1948, another shock in the Panhandle area caused minor damage, consisting mainly of cracked plaster, in northern Texas, a few places in northeastern New Mexico and northwestern Oklahoma, and one place in southeastern Colorado. The strongest effects (VI) were reported from Amarillo, Channing, Dalhart, Electric City, Panhandle, Perico, and Perryton. The felt area, which was slightly larger than that of the preceding earthquake, covered about 129,000 square kilometers. The Texas Panhandle area was the center for another moderate shock on June 20, 1951. Damage to plaster (VI) occurred at Amarillo and Hereford. The felt region extended from Lubbock to Borger.

Four shocks over 6 hours affected an area of about 26,000 square kilometers in northeastern Texas and bordering portions of Arkansas and Louisiana on March 19, 1957. Press reports noted that a few objects were upset and at least one or two windows were broken. Newspaper office and police station switchboards were swamped with calls from alarmed residents. Intensity V effects were felt at Diana, Elkhart, Gladewater, Marshall, Nacogdoches, and Troup, Texas, and Magnolia, Arkansas.

A series of moderate earthquakes in the Texas - Louisiana border region near Hemphill started on April 23, 1964. Epicenters were determined on April 23, 24, 27, and 28. There were numerous additional shocks reported felt at Pineland, Hemphill, and Milam. The only damage reported was from the magnitude 4.4 earthquake on April 28 - wall paper and plaster cracked at Hemphill (V). The magnitude of the other epicenters changed from 3.4 to 3.7. Shocks were also felt at Pineland on April 30 and May 7. On June 2, three more shocks were reported in the same area. The strongest was measured at magnitude 4.2; intensities did not exceed IV. Another moderate earthquake on August 16 awakened several people at Hemphill and there were some reports of cracked plaster (V). The shock was also felt at Bronson, Geneva, Milam, and Pineland.

The Texas Panhandle region experienced another tremor on July 20, 1966. The magnitude 4.8 earthquake knocked books from a shelf in one home and was felt by nearly all (V) in Borger. At Amarillo, an observer in the courthouse reported a chair moved 4 or 5 inches. A similar effect was noted at the Federal Aviation Administration control tower at the Municipal Airport; observers thought a truck had hit the tower. Several street signs were knocked down and windows were broken (VI) at Kermit from a magnitude 3.4 earthquake on August 14, 1966. The shock was also felt at Wink, Texas, and Loco Hill, New Mexico.

Four small earthquakes occurred near El Paso on May 12, 1969. The first two shocks, 23 minutes apart, were measured at magnitude 3.3 and 3.4. One house in El Paso had hairline cracks in the ceiling and cracks in the cement driveway (VI). These earthquakes were also felt at Newman.

On February 15, 1974, an earthquake in the Texas Panhandle caused plaster cracks (V) at Booker, Darrovzett, and Perryton. Similar effects were noted at Liberal, Kansas, and Texhoma and Woodward, Oklahoma. The magnitude 4.5 shock was felt over an area of about 37,000 square kilometers.

Earthquake Information Bulletin, Volume 9, Number 3, May - June 1977, by Carl A. von Hake.

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Page Last Modified: March 07, 2006 2:46:30 PM.