

Learning from Earthquakes

M5.6 Oklahoma EQ of November 5, 2011

Contributed by EERI member Lisa Holliday of the University of Oklahoma.

An M5.6 earthquake struck Oklahoma at 11:53 p.m. EST, with an epicenter between the towns of Meeker and Prague, at N35.54 W96.75 at a depth of 5 km. Residents near Meeker described the shaking as violent and terrifying. There were no deaths or serious injuries, but buildings were damaged in the area and a power outage occurred. Several historic unreinforced masonry buildings on Main Street in Meeker were severely damaged, and many chimneys and brick veneers collapsed. Several houses

were damaged severely, and residents consider them destroyed (Figure 1).

Although some buildings were heavily damaged, some unreinforced masonry buildings were untouched. Adobe construction is uncommon in Oklahoma, but an adobe house built in 1938 located about six miles from the epicenter survived the quake undamaged.

At Meeker High School, classes were disrupted as crews cleared the fallen building contents and ceiling tiles. Classes were also disrupted at St. Gregory's University in nearby Shawnee, Oklahoma, where the



Figure 1. A severely damaged home in Meeker, Oklahoma.

turrets on the historic Benedictine Hall collapsed. Several highways buckled. Oklahomans are not accustomed to earthquakes of this magnitude and very few residents affected had insurance coverage for earthquake damage.