



Oklahoma Geological Survey

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M4+ aftershocks in Woods County

The recent M4.2, M4.2, and M4.4 that occurred on 2016 July 08 are considered aftershocks of the M5.1 earthquake that happened on 2016 Feb 13. This sequence brings the total of M4 or greater aftershocks on the Gale na Township Fault Zone (GTFZ) up to eight.

Empirical relations from global observations suggest that a few more aftershocks of M4+ are expected to occur on the GTFZ, as the crust adjusts to the displacement done by the M5.1 mainshock.

Clustered aftershocks of similar magnitude are not uncommon in seismically active regions. The duration of aftershock sequences is typically longer in mid-continental settings than along plate boundaries.

We derived three focal plane solutions (FPS or beachball diagrams) from each event that indicate strike-slip displacement dominated the motion along the fault.

In case of further seismicity, we urge the public to protect themselves from falling objects: (1) drop to the ground; (2) cover your head and neck; and (3) hold on to any sturdy cover.

