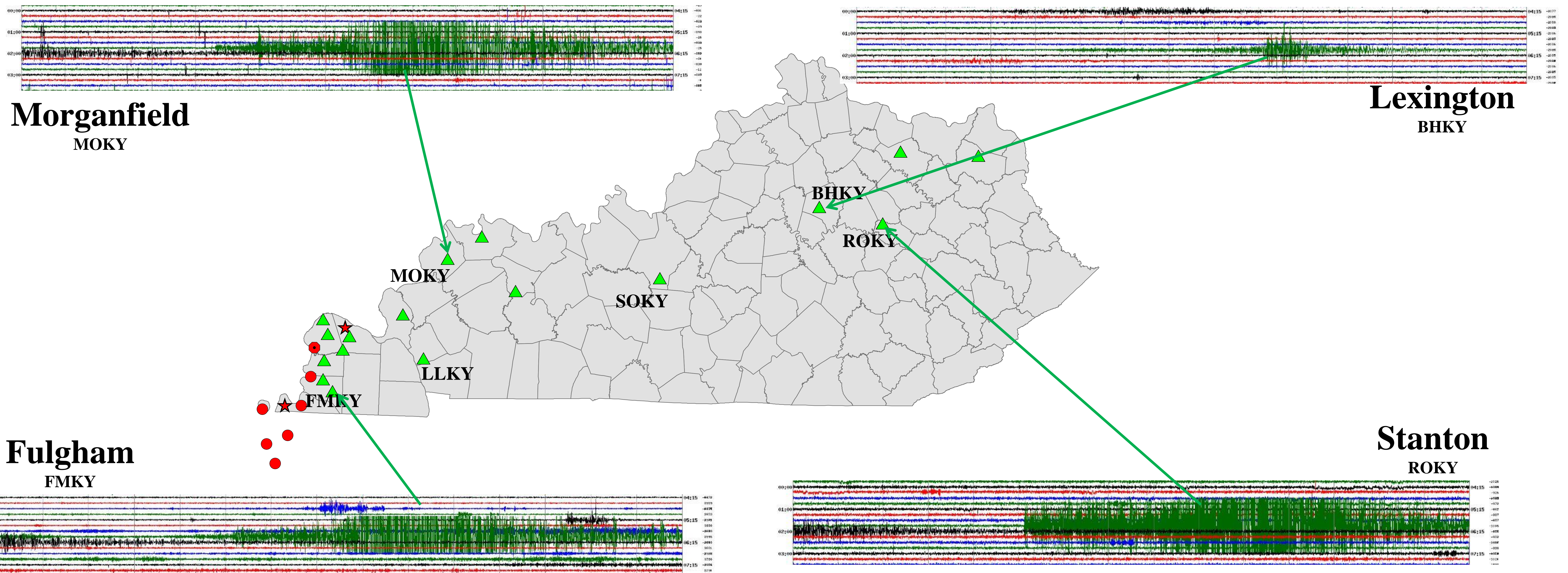


# August 23, 2011 Colorado earthquake (M 5.3)

05:46:19 UTC / 1:46:19 AM EDT

## University of Kentucky – Kentucky Geological Survey Kentucky Seismic and Strong-Motion Network



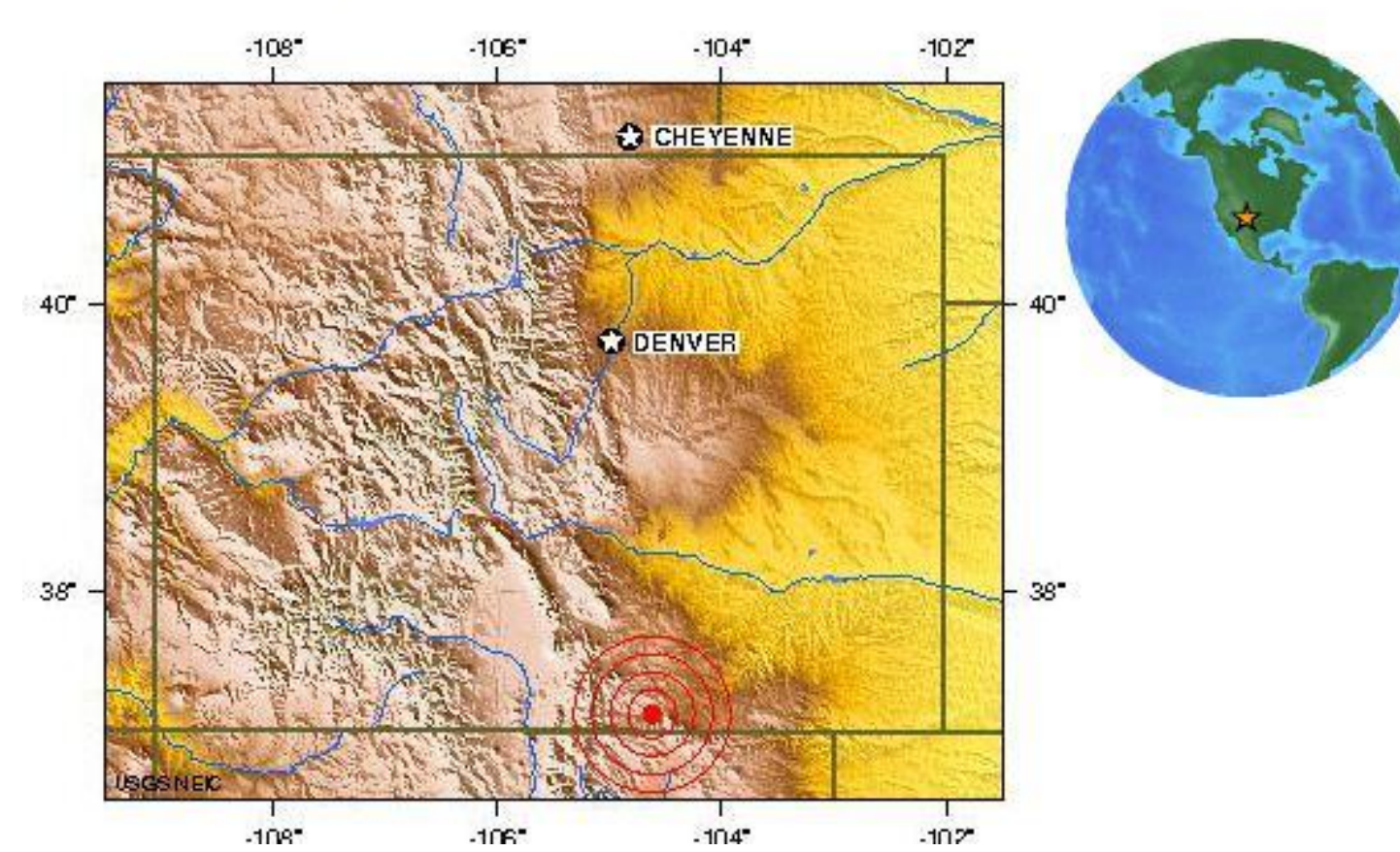
### Earthquake Details

This event has been reviewed by a seismologist.

<b>Magnitude</b>	5.3
<b>Date-Time</b>	Tuesday, August 23, 2011 at 05:46:19 UTC Monday, August 22, 2011 at 11:46:19 PM at epicenter <a href="#">Time of Earthquake in other Time Zones</a>
<b>Location</b>	37.070°N, 104.700°W
<b>Depth</b>	4 km (2.5 miles)
<b>Region</b>	COLORADO
<b>Distances</b>	15 km (9 miles) WSW of Trinidad, Colorado 33 km (20 miles) NW of Raton, New Mexico 54 km (33 miles) S of Walsenburg, Colorado 290 km (180 miles) S of DENVER, Colorado
<b>Location Uncertainty</b>	horizontal +/- 12.5 km (7.8 miles); depth +/- 2.8 km (1.7 miles)
<b>Parameters</b>	NST=372, Nph=372, Dmin=18.9 km, Rmss=1.25 sec, Gp= 14°, M-type=centroid moment magnitude (Mw), Version=A
<b>Source</b>	Magnitude: USGS NEIC (WDCS-D) Location: USGS NEIC (WDCS-D)

### Earthquake Location

Magnitude 5.3 COLORADO  
Tuesday, August 23, 2011 at 05:46:19 UTC

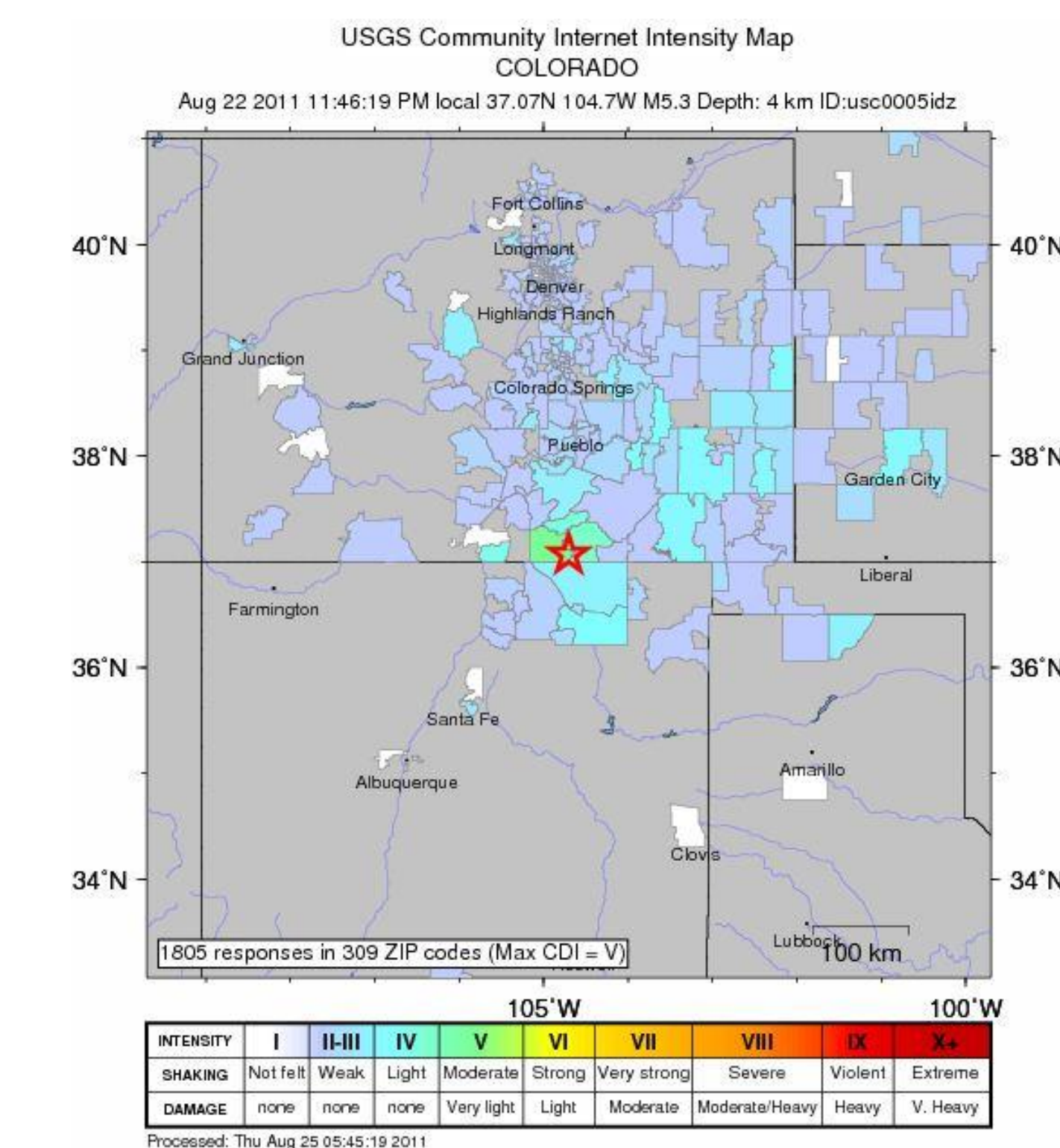


### Historical seismicity and structural geology

The magnitude 5.3 southern Colorado earthquake of 23 August 2011 occurred in a region that has experienced numerous small and moderate shocks in the last decade. Since August 2001, eight shocks of magnitude greater than 4.0 have occurred, with the previous largest having been a shock of magnitude 5.0 that occurred in August 2005. Many of the shocks have occurred in episodes of activity known as seismic "swarms", in which more than one earthquake occurred at nearly the same location within a period of several days and in which the largest shock occurred after the beginning of the sequence and was not greatly larger than the preceding or following events of the swarm.

The shock of 23 August 2011 occurred as the result of normal faulting, at a shallow depth of focus. The preliminary location, depth, and style of faulting for the 2011 earthquake are very similar to the earthquakes in the previously-cited 2001 swarm. The 2001 swarms did not occur on a mapped geologic fault. The north or north-northeast strike of the causative faults of the largest 2001 and 2011 earthquakes are consistent with the east-west extension that has formed the Rio Grande rift to the west of the epicentral region.

Source: USGS



Intensity map