

Recent Earthquake Swarm around Fentale volcano

Fentale (8.975°N, 39.93°E) is a large stratovolcano located in south Afar (Figure 1). The latest eruption is known to occur in 1820 where basaltic lava flows were extruded onto the rift floor. A colossal seismic activity occurred in January and February 1981 while another moderate earthquake activity occurred in June 1989. Both swarms were recorded by the AAE which was the analog WWSSN station.

A recent swarm of earthquakes occurred from March 22 to April 20, 2015 with a maximum magnitude of 3.5 ML. This activity was captured by the Ethiopian Seismic Station Network (ESSN) with additional installation of SABU station very close to the activity (Figure 1). Very few events are located as displayed in Figure 1 while the whole data from other stations of ESSN is collected in a recent field service and exhaustive analysis is underway. SABU was installed in the middle of the activity and collected high quality data but the whole range of the swarm is captured by ANKE and other stations.

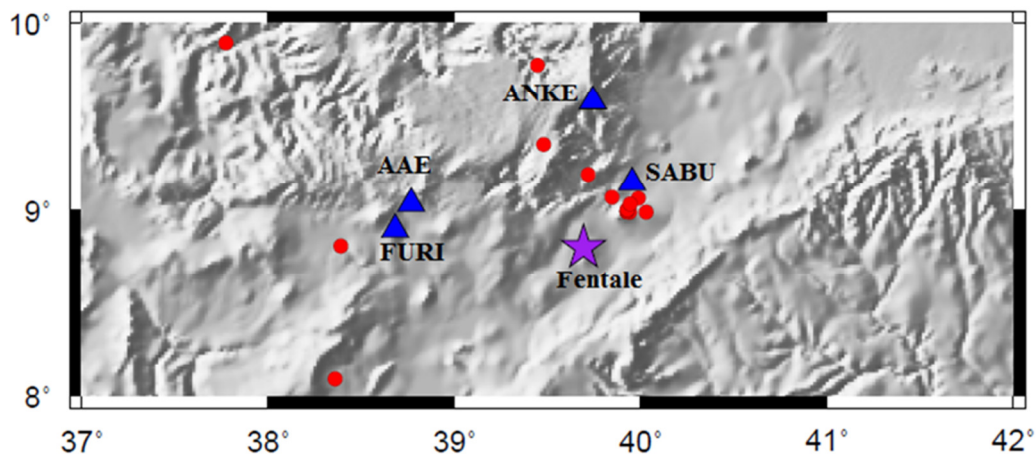


Figure 1. Locations for very few earthquakes analyzed (red dots) and seismic stations close to the activity (blue triangles). The purple star is the center of the Fentale Caldera.

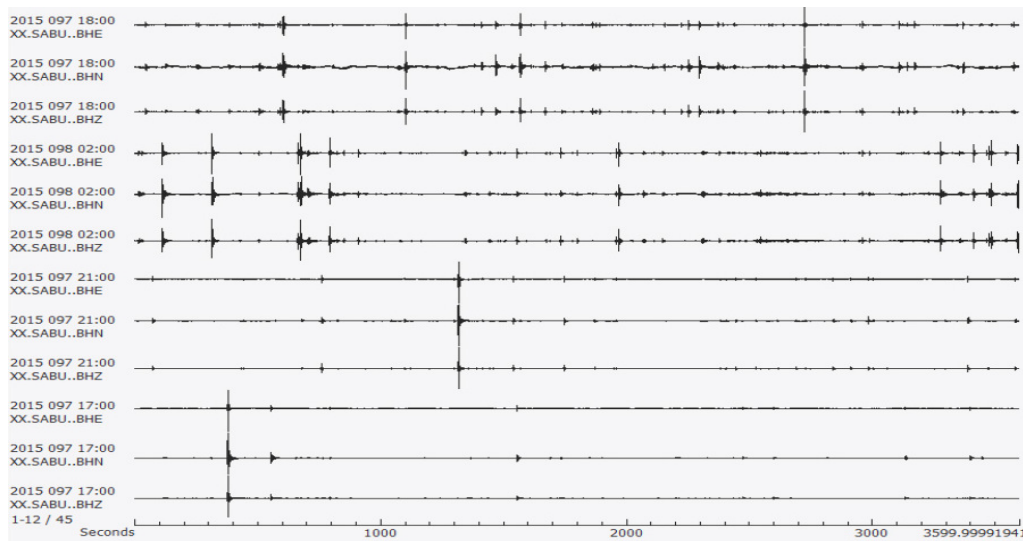


Figure 2. Sample helicorder at SABU station on the first day of installation.