

THE EARTHQUAKE ACTIVITY IN CENTRAL BELGIUM SINCE JULY 2008

Thomas Lecocq, Denis Lombardi, Michel Van Camp, Kris Vanneste, Koen Verbeeck and
Thierry Camelbeeck
Royal Observatory of Belgium

Since 12 July 2008, a seismic sequence started in the region of Ottignies – Court-Saint-Etienne some 20 km to the southeast of Brussels. The most important earthquake occurred on July 13 and had a magnitude $M_L=3.2$. Up to April 2009, 200 earthquakes have been recorded with magnitude as low as 0.

Surprisingly, even earthquake of magnitude smaller than $M_L=1.0$, not necessarily recorded by the Belgian monitoring permanent network, have been observed despite the fact that their focal depth, well-constrained by a mobile seismic network, is around 5 km.

We present a preliminary analysis of the numerous collected data and observations. We will interpret them in the framework of the seismotectonic model of stable continental Europe.

Based on the macroseismic inquiries and the seismic recordings at the Uccle seismic station, we also compared this seismic sequence with the one that occurred in the same region between 1953 and 1957.