

Seismic Networks WEBNET and REYKJANET

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Institute of Geophysics (Czech Academy of Sciences) and Institute of Rock Structure and Mechanics (Czech Academy of Sciences) operate two local seismic networks which are monitoring seismic swarm activities. These two networks are integral parts of a project which compares seismic swarm activities in different tectonic settings. WEBNET network is situated in the West Bohemia/Vogtland on the border area between the Czech Republic and Germany. It is part of the Bohemian Massif that is a part of the relatively stable Variscan belt of Central Europe. This activity is related to quaternary volcanism and intraplate seismicity. Webnet network is monitoring seismic activity in this area for 30 years. It contains 13 online stations and 8 offline stations with continuous data recording. Online stations gone through large modernization last year. Short period sensors were replaced by modern broad band sensors and online acquisition units support SeedLink protocol now. From online stations data is transferred to two data servers and is processed in real-time. Offline stations offer data for detailed studies such as focal mechanisms with small time delay. Although the State of Health (SOH) of all offline stations is checked every two days.

REYKJANET network is situated in Reykjanes peninsula on Southwest Iceland. There are 15 stations placed around epicentral area. The tectonic setting is different from the former one. This area is the onshore part of the mid-Atlantic plate boundary between the North America and Eurasia Plates. This network is working from 2013 with continuous record. Here is used ecological powering exploiting renewable natural resources - wind and sun. Some of Reykjanet stations are connected into international project Image which studies this area for geothermal energy and these stations are online. Similarly to Webnet network all stations are checked for SOH every two days.