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Nature of Seismicity of the Northern Thailand

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This research studies the characteristics of local earthquakes occurring in the northern Thailand during the year 2006 to 2015. 780 seismic events ($M_L \geq 0.1$) are recorded and analyzed from denser seismic networks in Thailand. Seisan earthquake analysis software was used to calculate the magnitudes and to relocate the earthquake locations with the seismic velocity model of Thailand (TRF, 2014).

The result of this study indicates that the earthquakes in the study area consist of small to moderate earthquake and occurred at shallow depth (range from 0-33.8 kilometer). Most earthquakes have magnitudes of 0.1-3. Relocations of these earthquakes suggest that the distribution of the earthquakes is distinctly and essentially associated with the location of the known fault zones of Northern Thailand. However, some of smaller than magnitude 1, which can be considered to be the back-ground earthquake, do not relate to any lineament on ground surface. The study can also be concluded that the most seismically active area in the Northern Thailand is located between latitude $17^{\circ}00' - 20^{\circ}30'N$ and longitude $97^{\circ}00' - 101^{\circ}30'E$. The result of the study improve the location of seismicity and provide better understanding of seismotectonic of the Northern Thailand.

KEYWORD: Seismicity, active faults, earthquake relocation, northern Thailand.

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