

AUSPOS On-Line GPS Data Processing in Detecting Crustal Displacements due to 2005 Nias Earthquake

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The development of on-line GPS data processing nowadays is promising to be used. Therefore, it is necessary to assess the on-line GPS data processing by comparing the results to scientific GPS data processing. The 8.7Mw earthquake on 28th March 2005 in Nias Island displaced northern part of Sumatera Island. It includes small islands in the western part of Sumatera. To detect these displacements, GPS campaigns have been conducted in Simeulue Island, Nias Island and Siberut Island. These GPS data are processed by using AUSPOS facilities. A root mean square (RMS) is used as a quality indicator in GPS data processing. The results show that on-line GPS processing can be used as a tool to process GPS data to detect crustal displacements due to a big earthquake.