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GPS continuous observation in Mindanao, the Philippines (preliminary report)

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Geospatial Information Authority of Japan (GSI) established two GPS continuous observation sites in Mindanao island, Philippines. The establishment of these sites is a part of the project named as "Enhancement of Earthquake and Volcano Monitoring and Effective Utilization of Disaster Mitigation Information in The Philippines", which is supported by JST (Japan Science and Technology Agency) and JICA (Japan International Cooperation Agency), carried out by NIED (National Institute of Earth Science and Disaster Prevention) and PHIVOLCS (The Philippine Institute of Volcanology and Seismology) as the representing organization of Japan and the Philippines.

Two observation sites settled in Butuan and Tandag equip Trimble 4000SSi receivers and LINUX BOX data loggers to obtain and to keep the observation data. The data archived would be used for the analysis to calculate the strain velocity to estimate the temporal variation of plate coupling along the Philippine trench. Those sites are also utilized for the campaign GPS observation, which is carried out by Nagoya university and other collaborating organizations to estimate the spatial distribution of the crustal strain along the Philippine fault and plate coupling along the Philippine trench.

The poster will present the outline of observation sites installation work and preliminary analysis result of the data obtained at those two sites.

Keywords: GPS, Continuous Observation, Crustal Deformation, Plate Coupling, Philippine Trench