

## Crustal deformation monitoring in the Asia-Pacific region

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Geospatial Information Authority of Japan (GSI) has been operating continuous GPS observation in the Asia-Pacific region and analyzing the data combined with IGS data obtained in the region. Purpose of the observation and analysis is to monitor crustal deformation in the region and establish regional reference frame consistent with ITRF. In order to establish analysis strategy for estimating enough stable coordinates for the purpose, we performed past data analysis and evaluate the stability of the estimated coordinate of the network composed of long baselines up to several thousand kilometers. This time series also includes gaps caused by events such as earthquakes. Therefore, we also evaluate detection capability of this analysis for crustal deformation.

Keywords: Asia-Pacific region, GPS, Long baseline, Crustal deformation, Bernese