Geophysical Research Abstracts
Vol. 16, EGU2014-13479, 2014
EGU General Assembly 2014

Status of the HemusNET permanent GNSS network data maintenance, data processing and analysis

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The presentation outlines the current status of the HemusNET permanent GNSS network sites and presents results from their data processing and analysis. New permanent sites are installed in Bulgaria and are included in the routine processing. Two of them are in the area of the Pernik earthquake (May 2012) with M=5.6. New data from commercial GNSS networks in Bulgaria provided to the National Institute of Geophysics, Geodesy and Geography and Greek stations from the National Observatory of Athens permanent GNSS network (NOANET) are also included in the processing. The velocity field in Bulgaria and Northern Greece obtained by processing and analyzing the GPS observations for the period 2007 – 2013 is presented. Estimates of horizontal velocities are obtained by GAMIT/GLOBK software. The obtained results from strain analysis confirm that the transition zone between (stable) Eurasian plate and the Aegean extensional region is located south from the Balkan (Hemus) Mountain, towards the north and west of the North Anatolian Fault – the so-called South Balkan extensional region.