



GEOdynamical Network of the Academy of Sciences of the Czech Republic (GEONAS) – Permanent GPS observations, their remote control and transfer to data centres

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GEOdynamic Network of the Academy of Sciences (GEONAS) of the Czech Republic was established to make regular GPS and other observations for geodynamic studies of the Bohemian Massif and the central European area. The permanent GPS observations of this network started in 2001 within activities of the Centre of Earth Dynamic Research, the Institute of Rock Structure and Mechanics (IRSM), Academy of Sciences of CR. The observatories Sněžka (SNEC) and Biskupská Kupa (BISK) operate since 2001, Mariánská near Jáchymov (MARI) and Poustka near Františkovy Lázně (POUS) since 2003 and Vacov (VACO) since 2004. In 2005 these five observatories were incorporated into the EUREF permanent network EPN and the IRSM was appointed as the Operation Centre IRS. In 2005 four new permanent GPS observatories were set up in the GEONAS: observatories Úpice (UPIC) and Bezděkov nad Metují (BEZD) are sited on both wings of the Hronov-Poříčí active fault and observatories Kynšperk nad Ohří – Kolová (KYNS) and Luby u Chebu (LUBY) are located close to the seismic active area of Nový Kostel, Vogtland. As evident, their positions in the Bohemian Massif were set up with respect to its geological structures and existence of recent earthquake events. The observatories are equipped with both Ashtech Z-18 and Topcon GB 1000 receivers and with precise choke-ring antennas, i.e. they are capable of monitoring under the GNSS both NAVSTAR and GLONASS satellite signals. In addition, the BISK observatory is equipped with meteorological sensors for temperature, atmospheric pressure and relative humidity. All GEONAS observatories are connected on-line to the IRS Operation Centre and their monitoring and record-

ing operations are under continuous remote control. Routine check of registered data is performed automatically at the IRS Operation Centre and data of the EPN observatories are transmitted to data centres BKG and OLG. Detailed information on the GEONAS configuration, equipment and data processing will be presented.