



A Regional Contribution of CEI Countries to GGOS: Case Study GO Pecny, Czech Republic

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In 1994 the Central European GPS Geodynamic Network (CEGRN) was established as a basis for investigations of regional geodynamics in Central Europe (project CERGOP). The network, which covers the area between Scandinavia and Mediterranean, was many times repeatedly observed by a cooperative effort of 14 research groups from 13 European countries. In 1999 the CEGRN network was significantly densified, its long-term operability was ensured by establishment of a CEGRN consortium in 2001 and a new project CERGOP-2/Environment was realized in 2003-2006 with a financial support of the European Union. Meanwhile, many CEGRN stations were converted from epoch to permanent facilities, a special project UNIGRACE brought new observables related to gravity space and several CERGOP participants joined in different ways international services and their special projects. This approach fully complies with the objectives of the IAG Global Geodetic Observing System (GGOS) which provides observations of the three fundamental geodetic observables - Earth's shape (geometry and kinematics, gravity field and orientation) and integrates different geodetic techniques, models and approaches to achieve a long-term consistency, reliability and understanding of geodetic, geodynam and global change processes. An example of the Geodetic Observatory Pecny (GOP) shows a possible way how a complex permanent observational facility can contribute to both GGOS and regional projects. A summary of recent results achieved at GOP is given with regard to different aspects of GGOS - participation in international scientific services (IGS, EUREF, DORIS), extending observational infrastructure, absolute and tidal gravimetry, time dissemination service, interdisciplinary synergy (meteorology, contribution to E-GVAP project), theory and gravity field modelling. Some open problems and challenges are briefly discussed - use of very dense national GNSS permanent network for science (tropo-

sphere and ionosphere investigations), combination of geometric and terrestrial (AG, SG) gravity data, enhancing interdisciplinary synergy (SG, WVR, seismic observations).