



Recent DORIS data analysis on Geodetic Observatory Pecny

P. Štěpánek (1), V. Filler (1), U. Hugentobler (2)

(1) Research Institute of Geodesy, Topography and Cartography, GO Pecny, CZ-251 65 Ondrejov (stepanek@vugtk.cz, filler@pecny.cz); (2) Institut für Astronomische und Physikalische Geodäsie, Technische Universität München, Arcisstrasse 21, D-80333 München, Germany (urs.hugentobler@bv.tu-muenchen.de)

In a cooperation of the AIUB (Astronomical Institute, University of Bern), the GOPE (Geodetic Observatory Pecny) and the IGN (Institut Géographique National) DORIS data analysis capabilities were implemented into a development version of the Bernese GPS Software. The DORIS observables are reformulated such that they resemble GNSS phase observations as much as possible allowing to use the same observation models and algorithms as for GNSS phase data analysis with only minor modifications. The same algorithm may be used to process DORIS phase observations. An automatic analysis procedure, developed at GOPE, allows the routine processing of the long data series. The results of currently processed campaign 2005-2006, based on weekly free-network solutions, are presented at this paper. They include the comparison of station coordinates with coordinate estimates from other sources and of Earth orientation parameters with IERS C04. The estimated orbit quality for January 2005 is presented in addition. The results achieved comparable quality as corresponding solutions routinely computed within the IDS (International DORIS Service). The weekly coordinate repeatability RMS is of the order of 2-3 cm for each station coordinate. The quality of obtained long-time results allows GOPE to candidate for the position of routine IDS analysis centre.