Analyses of the Long-Term DORIS Observation Time Series at GOP Analysis Centre in the Framework of International DORIS Service.

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DORIS data analysis capabilities were implemented into a development version of the Bernese GPS Software in a cooperation of the AIUB (Astronomical Institute, University of Bern), the GOP (Geodetic Observatory Pecný) and the IGN (Institut Géographique National). 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. An automatic analysis procedure, developed at GOP, allows the routine processing of the long data series. The results, achieved using the independent method, showed comparable quality as the corresponding solutions routinely computed by IDS and thus GOP was accepted as the official IDS analysis centre. The outputs of the processed long-time series 1998-2008, based on weekly free-network solutions, are presented at this paper. They include the comparison of the station coordinates series with ITRF2005 and of estimated Earth orientation parameters with IERS model C04 as well as the comparison of the estimated total zenithal delay with corresponding IGS products. The presentation also focuses on analysis of the correlations between the length of the observation time interval and the measurement precision.