



Short time information in GPS time series

Andrzej Araszkiewicz, Janusz Bogusz, and Mariusz Figurski
Military University of Technology, Warsaw, Poland (jbogusz@wat.edu.pl)

This paper presents adjustment's results of the Polish Active Geodetic Network (ASG-EUPOS). ASG-EUPOS is the multifunctional precise satellite positioning system established by the Head Office of Geodesy and Cartography in 2008. It consists of 84 Polish sites with GPS module, 14 Polish sites with GPS/GLONASS module and 20 foreign sites. The adjusted network consisted of over 100 stations, the period covered observations collected from June 2008. The method of adjustment elaborated in the CAG, which is the newest, seventeenth EPN LAC (EPN Local Analysis Centre) established at the end of 2009, is similar with applied in EPN. It is based on the Bernese 5.0 software. The difference to the EPN's solutions lies in the resolution time of adjustment. In the presented research the 1-hour sampling rate with 3-hour windowing is applied. This allows us to make the interpretations concerning short time information in GPS coordinates series. The time span (over 1.5 year) permits the separation between the pure dynamic phenomena (tides) and thermal oscillations in the diurnal and sub-diurnal frequency bands. The presentation contains also the plans for multidimensional applications of the dense national active GNSS networks.