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Sofia University GNSS Analysis Centre (SUGAC)

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The Sofia University GNSS Analysis Centre (SUGAC, suada.phys.uni-sofia.bg) is a new analysis centre established via collaboration between the Department of Meteorology and Geophysics of Sofia University, the IPOS - BuliPOS GNSS network in Bulgaria and the University of Luxembourg. In April 2014, the first processing campaign took place. One year GNSS data from 7 stations of the BuliPOS network are processed in collaboration with the University of Luxembourg. Tropospheric products (Zenith Total Delay and gradients) with 5 min temporal resolution are obtained using the NAPEOS software, developed by ESA. The tropospheric products from this campaign will be used for validation of the Weather Research and Forecasting (WRF) model as well as for case studies during intense precipitation events and fog. In this work the WRF model validation for Bulgaria will be presented. Future work will be the establishment of autonomous near real-time processing of the regional ground-based GNSS network in Southeast Europe in support of the EUMETNET E-GVAP and COST ES1206 ”Advanced Global Navigation Satellite Systems for Severe Weather Events and Climate” projects.