



First results of BeRTISS project

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The BeRTISS (Balkan-Mediterranean Real Time Severe weather Service) project was launched at the September of 2017 and is funded under the frame of the European Territorial Cooperation Programme “Interreg V-B Balkan-Mediterranean 2014-2020”. The main objective of BeRTISS is to develop and establish a pilot transnational severe weather service by exploiting Global Navigation Satellite Systems (GNSS) tropospheric products, providing the possibility to improve the Geodetic and Meteorological infrastructure of the Balkan – Mediterranean region.

The GNSS-Meteorology is one of the most interesting and growing up scientific topic at the last years. The near real time GNSS delay data contain information about the amount of water vapour above the GNSS sites. Water vapour plays a key role in some of the most important weather phenomena. It is obviously related to precipitation, but also provides about half the energy to the atmosphere, contributing to atmospheric dynamics, and it is the dominant greenhouse gas. As a consequence, it is a very useful tool for climate change monitoring and generally in geo-hazard. For that reason, a creation of a dedicated website to provide in real-time to the National Meteorological Services and to the public with PWV data and warnings of severe weather events is under development.

We present for first time the methodology and the schema of the tropospheric products (e.g. ZTD, PW) which performed in one hour time window for over 90 sites in the Hellenic area. The automated GNSS processing was carried out with Bernese v.5.2 software package which have been installed in a local processing data server.

In the frame of WP3 we perform in automatic mode the quality check of GNSS RINEX files and the data management manipulation coding in bash/shell scripting.