



TopoIberia CGPS Network: preliminary GPS analysis at ROA

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The Iberian Peninsula is one of the natural laboratories proposed in the framework of the TopoEurope program for monitoring, imaging, and modeling of the interplay between processes controlling continental topography and related natural hazards. TopoIberia is the regional initiative developed to cover these objectives in that area through a multidisciplinary approach linking geology, geophysics, geodesy and geotechnology.

In 2008 the geodetic working group installed a new CGPS network with twenty two new stations in Spain, and other four new stations in Morocco. Data files collected are processed by three different analysis groups. Since each uses different data processing software, their approaches are not the same. But every group is using the same fiducial station subset to link their results to ITRF2005.

This paper is related to the strategy used by the San Fernando Naval Observatory GPS analysis group. We are using the Precise Point Positioning, (PPP) approach, with the JPL's GIPSY-OASIS software, version 5.1. It is quite flexible to add new individual stations to the analysis, and there is no need to repeat the whole network analysis. We use the TOPOIBERIA project stations plus a broad set of data files downloaded from different geographic services in the region, i.e. those which data are uploaded to the EUREF data servers, besides data files we have collected from public GPS data services in Spain, Morocco and Portugal. To be included in our analysis, data files must pass some data quality tests. The final network is formed by about one hundred stations. Preliminary time series have a length of about one year and a half. It is not time enough to get conclusions, so what we can show up to now are preliminary trends in the global frame for stations in the region.