



Improved accuracy of the reference network of Bosnia and Herzegovina

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Availability of the reprocessed IGS05 precise orbits opened the door to the possibilities of the re-processing of two GPS campaigns in the Bosnia and Herzegovina, organized in the year 2000 and 2005. The data of the GPS observations processed using the Bernese software, version 5.0. Results were in the IGS05 reference frame. Corrections for the delays of GPS signals passing through the troposphere were estimated for every 2 hours, and their projection on the observed height of the stations was calculated using wet Neill mapping functions, but horizontal gradients were estimated for every 4 hours. Results of reprocessing shows improved accuracy.

It could be generally said that the accuracy of the all three components of the positions were within the 10 mm and accuracy of the processed velocities for the identical stations were about 1mm/year.

Common campaign in the middle epoch used to evaluate velocities of identical stations. For stations that are not observed in both of these campaigns, velocities were interpolated using a polynomial of third degree.

So, re-processing of the campaigns resulted in the improved accuracy of the realization of a geodetic reference network for Bosnia and Herzegovina.