



Progress of IAG SC1.3 Working Group in Providing a Dense Global Velocity Field based on GNSS Observations

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The IAG Working Group on "Regional Dense Velocity Fields" was created within IAG sub-commission 1.3 "Regional Reference Frames" at the IUGG General Assembly in Perugia in 2007. The goal of the Working Group is to densify the latest realization of the ITRS and provide regional dense velocity information in a common global reference frame. For that purpose, working group members join efforts with the regional sub-commissions (AFREF, NAREF, SIRGAS, EUREF, ...) and with the analysis groups processing data from local/regional continuous or episodic GNSS stations.

Presently, dedicated region coordinators gather as many as possible velocity solutions (in accordance with the WG requirements) for their region and combine these solutions with the sub-commission regional solutions to produce a regional cumulative combined solution in the SINEX format. A call for participation has been launched end of 2008 and up to now velocity solutions for more than 5000 sites have been proposed to the Working Group.

Once the regional cumulative SINEX solutions will be available, combination coordinators will perform combinations of the regional velocity solutions and SINEX solutions from global GNSS networks like e.g. TIGA. The purpose of multiple combination coordinators is to evaluate both the results and different approaches.

At the same time, the WG studies the strengths and shortcomings of local/regional and continuous/episodic GNSS solutions to determine site velocities, and defines optimal strategies for the combination of regional and global SINEX solutions.

More details on the Working Group are available from <http://epncb.oma.be/IAG/>.