



GGOS Bureau of Networks and Observations: Network Infrastructure and Related Activities

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The GGOS Bureau of Networks and Observations works with the IAG Services (IVS, ILRS, IGS, IDS, IGFS, and PSMSL) to advocate for the expansion and upgrade of space geodesy networks for the maintenance and improvement of the reference frame and other applications, as well as for the integration with other techniques, including absolute gravity and sea level measurements from tide gauges. New sites are being established following the GGOS concept of “core” and co-location sites, and new technologies are being implemented to enhance performance in data yield as well as accuracy. The Bureau continues to meet with organizations to discuss possibilities, including partnerships, for new and expanded participation. The GGOS Network continues to grow as new stations join every year.

The Bureau holds meetings frequently, providing the opportunity for representatives from the services to meet and share progress and plans, and to discuss issues of common interest. It also monitors the status and projects the evolution of the network based on information from the current and expected future participants. Of particular interest at the moment is the integration of gravity and tide gauge networks and the forthcoming establishment of the new absolute gravity reference frame.

The IAG Committees and Joint Working Groups play an essential role in the Bureau activity. The Standing Committee on Performance Simulations and Architectural Trade-offs (PLATO) uses simulation and analysis techniques to project future network capability and to examine trade-off

options. The Committee on Data and Information is working on a strategy for a GGOS metadata system for data products and a more comprehensive long-term plan for an all-inclusive system. The Committee on Satellite Missions is working to enhance communication with the space missions, to advocate for missions that support GGOS goals and to enhance ground systems support. The IERS Working Group on Site Survey and Co-location (also participating in the Bureau) is working to enhance standardization in procedures, outreach and to encourage new survey groups to participate and improve procedures to determine systems' reference points, a crucial aid in the detection of technique-specific systematic errors.

We will give a brief update on the status and projection of the network infrastructure of the next several years, and the progress and plans of the Committees/Working Group in their critical role in enhancing data product quality and accessibility to the users.