

Toward the establishment of the GGP-ICET Service, a new component of IGFS

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Thanks to the establishment of the Global Geodynamics Project (GGP) in July 2007, 1-minute gravity and pressure data from about 30 worldwide superconducting gravimeters are shared within the Earth Tide community. The current database is hosted by the GGP/ISDC (Information System and Data Center) at GFZ in Potsdam, Germany. Some stations provide auxiliary parameters (water table levels, etc.), in addition to the raw gravity and pressure data. These raw data have to be corrected for major instrumental perturbations such as gaps, offsets, spikes, etc. in order to be used for tidal analysis and other studies.

We propose to upgrade the existing GGP including its products to a new and improved service. In particular we aim to add other corrections to the presently provided products taking opportunity of loading services (for example, <http://loading.u-strasbg.fr> and <http://atmacs.bkg.bund.de/>) already established.

In addition to the decimated 1-minute gravity, pressure and auxiliary records, we propose to develop different levels of products:

- raw one second data in parallel to DMC-IRIS for seismological and other high-frequency purposes;
- data quality control based on statistical noise levels of a site through analysis of power spectral densities of raw data,
- 1-min gravity and pressure corrected for major perturbations,
- 1-min gravity residuals corrected for atmospheric loading, tides (solid Earth and ocean tidal loading) and polar motion,
- 1-hour residual gravity corrected for the instrumental drift using absolute gravity records when available via BKG/BGI AGRAV (<http://agrav.bkg.bund.de>) database for instance.

We present here an archetype of such products using gravity and pressure records from a few stations. The goal of this proposition is to transform the current project into an official IAG service.