

# **GGOS: the IAG Contribution to Earth Observation**

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At the IAG General Assembly 2003 in Budapest the IAG formally established the Global Geodetic Observing System (GGOS) as its major and, at present, its only project. In view of the natural hazards that occurred in recent years and the ever increasing influence of human society on the Earth system, the monitoring of this complex system with its components (solid Earth, oceans, atmosphere, hydrosphere, and biosphere etc.) is of utmost importance for mankind. GGOS is the contribution of geodesy (and IAG) to the monitoring of the Earth System and, thus, to the international activities like the Group on Earth Observation (GEO) with the Global Earth Observing System of Systems (GEOSS), the Integrated Global Observing Strategy Partnership (IGOS-P) and other initiatives. GGOS itself should not be considered a service generating products of its own. It is heavily relying on the operational and scientific work of the IAG Services and IAG Commissions. Therefore, GGOS represents an umbrella for the products derived by the IAG Services (IVS, ILRS, IGS, IDS, IGFS, ...) using the space geodetic techniques (VLBI, SLR/LLR, GNSS, DORIS), altimetry, InSAR, gravity missions, and in-situ measurements etc. that allow the observation of the Earth system with an unprecedented accuracy of less than one part in one billion. To the outside world, the IAG Services should appear as the components of a unique large integrated observing system that spans the activities from the collection of the raw data (of stations and satellites), the determination of the geometry, Earth rotation and gravity field of the Earth and the temporal variations thereof, to the combination, modeling and interpretation of the space geodetic results. This setup will allow GGOS to make major contributions to the monitoring and observation of the Earth system and, thus eventually, to a safer future of society. In this contribution we will give an overview of the present status of GGOS and the future developments foreseen.