Call for Proposals for the GGOS Bureau for Satellite Missions

(Version: July 7, 2008)

INTRODUCTION

The Global Geodetic Observing System (GGOS) was established by the International Association of Geodesy (IAG) in July 2003 as a project of the IAG. In April 2004 the IAG, represented by GGOS, became a participating organization of the Group on Earth Observations (GEO), in May 2006 GGOS was accepted as a member of the Integrated Global Observation Strategy Partnership (IGOS-P) and in July 2007 at the IUGG General Assembly GGOS became an official component of the IAG, i.e., the Global Geodetic Observing System of the IAG.

GGOS is the contribution of geodesy to a global Earth monitoring system. In particular, it provides the metrological basis and the reference systems and frames, which are crucial nowadays for all Earth observing systems. GGOS is built on the IAG Services (IGS, IVS, ILRS, IDS, IERS, IGFS, etc.) and the products they derive on an operational basis for Earth monitoring making use of a large variety of space- and ground-based geodetic techniques such as Very Long Baseline Interferometry (VLBI), Satellite and Lunar Laser Ranging (SLR/LLR), Global Navigation Satellite Systems (GNSS), Doppler Orbitography and Radiopositioning Integrated by Satellite (DORIS), altimetry, InSAR (Interferometric Synthetic Aperture Radar) and gravity satellite missions, gravimetry, etc. All of these observation techniques are considered integral parts of GGOS, allowing the monitoring of the Earth's shape and deformation (including water surface), the Earth's orientation and rotation and the Earth's gravity field and its temporal variations with an unprecedented accuracy. The observed quantities give direct evidence of many global processes that have a crucial impact on human society such as earthquakes, volcanism, floods, sea level change, climate change, water redistribution, mass balance of the polar ice sheets, etc.

GGOS relies on the observing systems and analysis capabilities already in place in the IAG Services and envisions the continued development of innovative technologies, methods and models to improve our understanding of global change processes. GGOS provides a framework that ranges from the acquisition, transfer and processing of a tremendous amount of observational data to its consistent integration.

With specific Calls for Proposals (CfP), GGOS intends to complement its present structure (see www.ggos.org) with the addition of the following four components (see Figure 1 below):

- Coordination Office and GGOS Portal
- Bureau for Standards and Conventions
- Bureau for Satellite Missions
- Bureau for Networks and Communication

This document contains the details on the Call for Proposals for the GGOS Bureau for Satellite Missions.

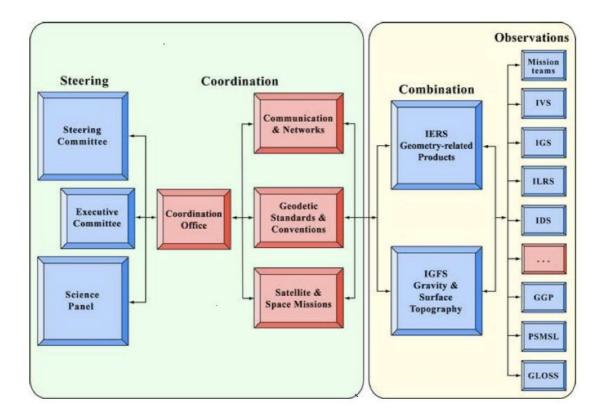


Figure 1: Structure of the GGOS with the four new components, for which a Call for Proposals is issued, in red.

THE BUREAU

Charter

The viability and effectiveness of GGOS depends on un-interrupted contributions from satellite missions. To enable this, the Bureau for Satellite Missions (BSM) shall be a point-of-contact for the geodetic community and the space agencies, and in this role, will facilitate the satellite missions required for GGOS (including access to observations), and facilitate geodetic support required for various satellite missions. The BSM will form linkages with CEOS, GEO and will foster relationships with space agencies, as required.

The BSM will draw upon the resources and expertise available within the IAG Services in order to carry out its mission. The BSM will create and lead *ad hoc* working groups of volunteers from within the geodetic community to execute its tasks.

High Level Tasks

 Create and maintain a comprehensive list of space-borne observation requirements with respect to the determination of the Earth's shape, rotation and gravity field – for a wide range of applications. This will require a well-structured and organized interaction of the BSM with the GGOS Science Panel, the GEO User Interface Committees, Science & Technology Committee, and the Communities of Practice;

- Monitor the performance of the relevant satellite missions, and identify gaps in the space-borne components of GGOS;
- Communicate with the space agencies and GEO about the requirements of GGOS with respect to satellite missions, and provide an efficient communication channel from the GGOS components (Services and the Working Groups) to the space agencies;
- Communicate with GGOS components about the geodetic requirements of satellite missions, and provide an efficient communication channel for these requirements from space agencies or mission operations to the GGOS components;
- Facilitate, together with GGOS Science Panel and other experts, the development of concepts required to meet future geodetic requirements;

Outcomes:

- Lead the development of, and maintain, a plan for the GGOS space segment.
- Assessment document, regularly updated and presented, for example, every 4
 years at IAG meetings, on the state of the satellite components of GGOS.
- Occasional targeted recommendations to the GGOS Steering Committee regarding opportunities that might be relevant for implementing the plan.

Organization

- Tasks of a permanent nature will reside within the Bureau; Tasks of temporary nature maybe delegated to task forces or standing committees;
- The Bureau will be headed by a director and will include a secretariat to attend to administrative, communications, data base and web support;
- The Bureau will include such expertise as is necessary to conduct Bureau business and provide guidance and oversight to the supporting entities;
- The Bureau must have official representation from all of the relevant IAG Services and Commissions to act as liaison with the Bureau;
- The Bureau Head will be a member of the GGOS Steering Committee (pending);
- The Bureau will report to the GGOS Steering Committee.

CALL FOR PROPOSALS

GGOS requests proposals for the operation of the GGOS Satellite Missions Bureau (BSM). Proposals may include more than one organization cooperating on the activities. One organization must be identified as the lead. An organizational structure to operate the Bureau and an operational plan must be provided in the proposal. The proposal should clearly address the capabilities being offered by the institution (or institutions), its financial ability to carry them out, and appropriate points of contact.

RESOURCES

The funds required for the GGOS Bureau for Satellite Missions have to be provided by the proposing institution(s). Proposers may also solicit support from external entities in terms of financial contributions and expertise. From the proposal it should become clear that the proposing institution(s) has/have the expertise, capabilities and financial background to perform the proposed tasks.

TERM

The term of this appointment will be 4 years. It may be terminated by either party with a 6 months notice. The term will be automatically renewed, unless either party gives notice 6 months prior to the end of the term.

PROPOSAL STRUCTURE, DEADLINE AND SUBMISSION

The proposal should contain the following parts: title, proposing institution(s) with its/their address(es), designated Head of the new component, abstract, goals, expertise, work and schedule, responsibilities (if more than one institution involved), and allocated resources. Proposals should be concise, 4 – 5 pages in length. Proposals should be submitted electronically and by mail not later than October 15, 2008, signed by the responsible head(s) of the proposing institution(s) with the authority for the commitment of human and financial resources, to the Chair of the GGOS Steering Committee

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SCHEDULE:

July 15, 2008: Dissemination of the Call for Proposals

October 15, 2008: Due date for proposals

November 30, 2008: Report by the evaluation committee to the GGOS Steering

Committee

December 14, 2008: Decision by GGOS Steering Committee

December 16, 2008: Notification of proposers on proposal acceptance

January 1, 2009: Start of the GGOS Bureau for Satellite Missions activities

PROPOSAL REVIEW

The proposals will be evaluated and ranked by an independent evaluation committee and decided upon at a special meeting of the GGOS Steering Committee to be held in San Francisco on December 14, 2008. Successful proposers will be notified by December 16, 2008 with the goal to start the GGOS Bureau for Satellite Missions activities and work by January 1, 2009.