



Status of GGOS

Markus Rothacher

GFZ Potsdam

Ruth Neilan

JPL/NASA, Pasadena

Hans-Peter Plag

UNR, Reno

7th GGOS Steering Committee Meeting

AGU, San Francisco

December 12, 2006

GGOS Activities since last SC Meeting (SC6)

- Preparation of the GGOS Retreat 2007
- Preparation of the GGOS Workshop 2007
- GGOS2020 Strategy Document
- GEO-III Meeting in Bonn (November 28-29, 2006): Rothacher, Plag, Zerbini; GEO Committee and WG Meetings
- CEOS-20, IGOS-P Meeting in Buenos Aires (November 13-15, 2006): Plag
- GGOS contribution to IYPE
- New GGOS ToR (Contact with K.P. Schwarz)
- Preparation of Steering Committee Meeting SC7

GGOS: GEO and IGOS-P Activities (1)

GEO Activities:

- New task “Global Geodetic Reference Frames” by GGOS has been included in the GEO Work Plan 2007-2009
- Comments and modifications for the GEO Work Plan 2007-2009 submitted September 2006

Task AR-07-03 “Global Geodetic Reference Frames”

- Ensure the availability of accurate, homogenous, long term, stable, global geodetic reference frames as a mandatory framework and the metrological basis for Earth observation.
- Identification of steps towards ensuring consistent, high-accuracy, homogeneous, and long-term stable global geodetic reference frames for Earth observation and the observing systems contributing to GEOSS.

GGOS: GEO and IGOS-P Activities (2)

GEO-III Meeting November 14-15, 2006 (Bonn):

- Discussion and acceptance of the GEO 2007-2009 Work Plan (including Task AR-07-03)
- No note to GEO plenary on the “Canadian VLBI issue”
- Meetings of the GEO Committees and WG took place

IGOS-P activities:

- IGOS-P Meeting in Buenos Aires, November 13-15, 2006 (attended by H.P. Plag)
- IGOS-P Theme in preparation (first priority is the GGOS reference document)

GGOS Next Major Steps

- Finalize the reference document: “GGOS – Meeting the requirements of a global society on a changing planet in 2020” (IUGG 2007 in Perugia)
- Write the GGOS strategy document
- New GGOS Terms of Reference for the time after Perugia 2007
- GGOS Portal
- How to support/incorporate regional GGOS activities
- Write GGOS “theme” proposal for IGOS-P

GGOS Meeting Calendar

December 11, 2006, AGU: GGOS Writing Team Meeting

December 12, 2006, AGU: GGOS Steering Committee Meeting (SC7)

February 19-21, 2007, Oxnard, California: GGOS Retreat

- Strong involvement of the Services envisaged
- Organization, technical structure of GGOS
- Contribution to GGOS, role of GGOS for the Services
- GGOS Steering Committee (SC8), Writing Team Meeting

July 2-11, 2007, Perugia, Italy: IUGG General Assembly

- Union Symposium U3: Global Earth Observation Systems (Beutler)
- 1/2 day IAG Symposium on GGOS

November 5-6, 2007, Frascati, Italy: GGOS Workshop

- Title “The GGOS Contribution to GEOSS”
- In conjunction with Third Workshop of the IGOS-P Geohazards Theme
- GGOS Steering Committee Meeting (SC9)

December 2007, AGU: Unified Analysis Workshop (all Services)

GGOS Terms of Reference (1)

Intermediate Terms of Reference:

- Modified and several times iterated among the Executive Committee members, then sent to the GGOS SC
- Accepted by the GGOS SC on July 10, 2006
- Accepted by the IAG EC on September 7, 2006

New Terms of Reference (for IUGG Perugia, 2007):

- Not in agreement with IAG By-Laws
- Klaus-Peter Schwarz will give advice (Casini Committee)
- Take into account new elements in the structure

GGOS Terms of Reference (2)

Compliance with IAG By-Laws:

The number of members of the steering committee could be kept by considering the services as components of GGOS:

- Establishing a GGOS "WG" for each of the GEO Committees and WGs as components of GGOS
- Establishing regional GGOS components to allow for enough "At Large Members" for the steering committee

New Structural Elements (see e.g. diagram by Beutler):

- Central Bureau of GGOS (Call for Proposals)
- Interface component to "geodetic" satellite missions
- Geodetic Standards ??? (IERS ???)
- Coordination of Communication and Network aspects
- GGOS Portal (Call for Proposals)

IUGG General Assembly 2007 in Perugia

Activities:

- IUGG Union Symposium U3:
 - Title: Global Earth Observing Systems
 - Conveners: Gerhard Beutler, Keith Alverson
 - Presentation on GGOS: Rothacher (?)
- 1/2-day IAG Symposium on GGOS with sessions
 - GGOS Status and Future
 - Earth System Dynamics (IGOS-P Theme)
 - Consistent Modeling and Standards
 - Data Analysis, Data Management Portal
- GGOS Steering Committee Meeting
- IAG Executive Committee Meeting

IUGG General Assembly 2007 in Perugia

Preparations:

- Annoucement of GGOS Session
- New GGOS Term of Reference
- GGOS2020 Documents
- Side event (GGOS2020 Document)
- Preparations of GGOS Sessions
- GGOS Steering Committee Meeting
- IAG Executive Committee Meeting

GGOS2020 Document

- **Document title “The Global Geodetic Observing System: Meeting the Requirements of a Global Society on a Changing Planet in 2020”**
- **Writing Team:** Plag, Rothacher, Rummel, Sahagian, Rizos, Zumberge, Gross, Herring, Beutler, and many, many more ...
- **Meetings:**
 - June 9, 2006, Paris: Discussion on document goals and structure
 - August 21-22, 2006, Washington: Document structure
 - October 11, 2006, Munich: Discussion of first internal draft
 - 5 Telecons
- **GGOS Workshop, October 8-9, 2006, Munich:**
 - Discussion of the draft GGOS2020 document
 - Many experts in different fields (not only geodesy)
 - Presentations available on the GGOS web pages at UNR
- **Document to be ready by IUGG in Perugia in July 2007**

GGOS Retreat Question: Relationship with GGOS

- What is the role your Service should and want to play in the GGOS family?
- What individual outside relations does your Service want to continue independently of GGOS?
- Would your Service be ready to implement and adhere to standards agreed upon in GGOS, both as a reaction of internal decisions and outside requirements?
- What does your Service expect from GGOS, and, in particular, what new functions of GGOS would your Service like to take over and what should be done by GGOS itself?
- Where does your Service see the added value of GGOS as a family?

GGOS Retreat Question: GGOS2020 Document

- Does your Service agree with the organizational structure of GGOS as proposed in Chapter 9 (lead author Gerhard Beutler) of the Reference document or does your Service have comments and suggestions for improvements?
- What are your Services' thoughts and comments concerning the technical components of GGOS as proposed in Chapter 8 (lead author: Markus Rothacher)?
 - To which of these components would your Service contribute?
 - Should there be new components set up ?
- Does your Service find itself appropriately represented and described in the document?

GGOS Retreat Question: GGOS Portal / Standards

What would be the appropriate level of standardization needed for a GGOS portal?

- The data of all services should be linked through a common portal?
- Only meta data should be made available at the GGOS portal?
- Would your Service as a service be ready to comply to GGOS meta data standards to be delivered by the service with each product?
- Should there be a common layout of web-pages for all the services contributing to GGOS?

GGOS2020 High-Level Components (Beutler)

?Gov. Board?

GGOS2020

Science panel

GGOS2020 Bureaus

Central Bureau

Satellite & Space Missions

Geodetic Standards

Comm. & Networks

GGOS2020 Combination Centers

Geometry-related Products

Gravity & Surface Topography

IERS

IGFS

GGOS2020 Technique-specific Services

IVS

IGS

ILRS

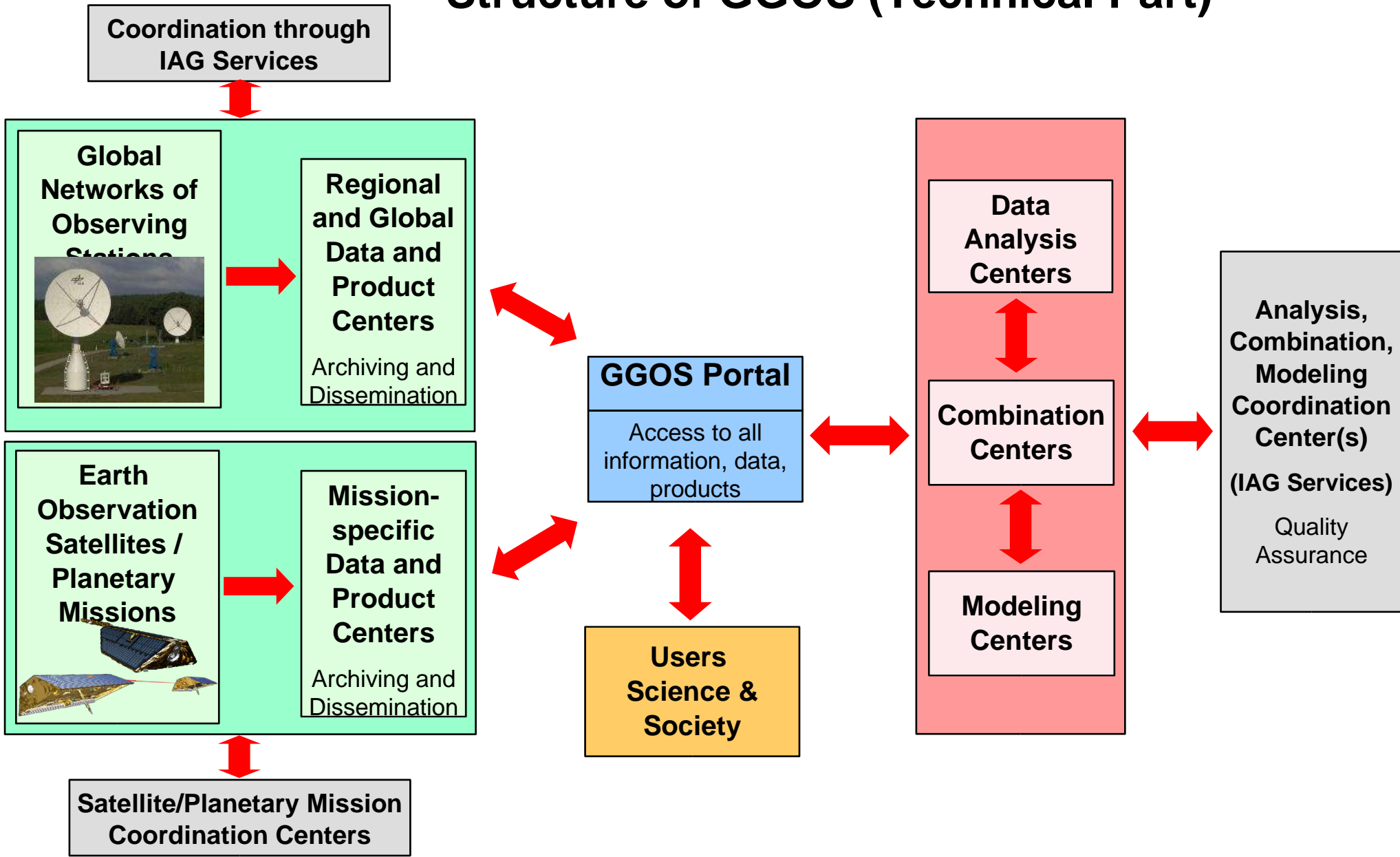
IDS

IAS

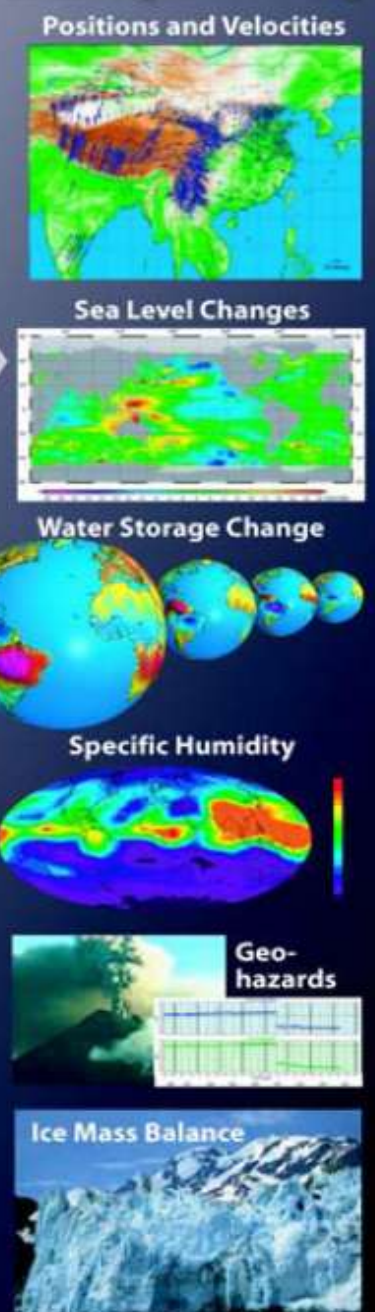
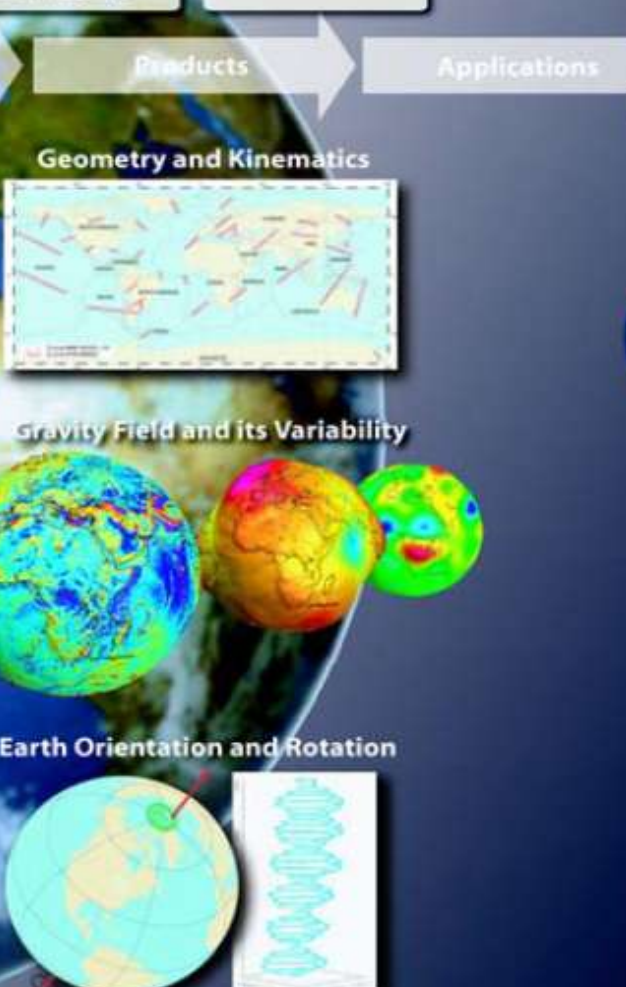
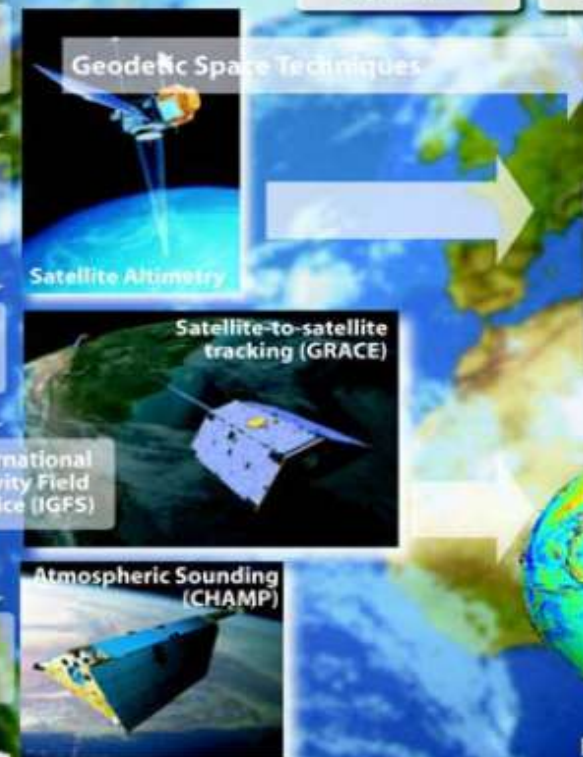
Mission team

Blue: Existing, Red: New

Structure of GGOS (Technical Part)



IAG's Global Geodetic Observing System (GGOS)



IAG services are based on more than 400 global observation stations.

GGOS
<http://www.ggos.org>