

**Global Geodetic Observing System (GGOS)
Seventh Meeting of the Steering Committee
San Francisco Marriott, 55 Fourth Street, San
Francisco, CA 94103
December 12, 2006, 1:00 PM - 6:00 PM**

Minutes (Version 0.2b)
Written by
Hans-Peter Plag
(Version of 2007- 1-22 10:23).



Participants:

Markus Rothacher, GFZ (*Chair, GGOS Steering Committee*)
Ruth Neilan, JPL (*Vice-Chair, GGOS Steering Committee*)
Tom Herring, MIT (*GGOS2020 Writing Team, Lead Author Chapter 8*)
Claude Boucher, IPN (*GEO Committee representative*)
Gerhard Beutler, UNIBE (*IAG President*)
Hermann Drewes, DGFI (*Delegate, Commission 1, Chair WG on Conventions*)
Erricos Pavlis, JCET/UMBC (*Delegate, ILRS*)
Veronique Dehant, ROB (*Invited Participant*)
Chopo Ma, GSFC (*Executive Committee; Delegate, IERS*)
Dirk Berend, GSFC (*Delegate, IVS*)
Srinivas Bettadpur, University of Texas (*Chair, GGOS WG on Missions*)
Giles Tavernier, CNES, Toulouse (*Delegate, IDS*)
Per Erik Oppseth, Norwegian Mapping Authority (*Guest*)
Bjorn Engen, NMA (*Invited Participant*)
Andrea Donnellan, JPL (*Science Panel*)
Carey Noll, GSFC (*GEO Committee Representative*)
E. C. Malaimani, National Geophysical Research Institute, Hyderabad (*Member at Large*)
Richard Wonnacott (*Guest*)
Zuheir Altamimi, IGN (*Invited Participant*)
Felicitas Arias, IBWM (*Delegate*)
Michael Pearlman, Smithsonian (*Executive Committee; Chair, GGOS WG Network and Communications*)
Weijun Gan, China Earthquake Administration (*Member at Large*)
John Dow, ESA (*Delegate, IGS*)
Bernd Richter, BKG (*Chair, GGOS WG Data and Infrastructure*)
Susanna Zerbin, University of Bologna (*Executive Committee*)
Hans-Peter Plag, NBMG (*Vice-chair, GGOS Steering Committee*)

Agenda:

1 Welcome, Discussion of Agenda

2 Minutes of SC6

The draft minutes of SC6 are available as [../scm6/minutes_sc6.html](#) and [../scm6/minutes_sc6.pdf](#). The minutes will not be discussed in any detail. The participants are asked to identify necessary changes and/or corrections.

3 Action Item Status

The list of action items from the previous Steering Committee meetings is available as [ailist.html](#) and [ailist.pdf](#).

4 Brief report from the Chair

The Chair will briefly report on the main activities of the GGOS Executive Committee since the 6-th Steering Committee meeting.

5 Reports from GGOS WG

- 6 **Reports from GEO Representatives**
- 7 **Future GGOS ToR**
- 8 **The GGOS2020 Process**
- 9 **GGOS Contribution to IYPE**
- 10 **GGOS and regional implementations**
- 11 **GGOS and Liability issues**
- 12 **GGOS at IUGG**
- 13 **GGOS Retreat and Workshop**

Preliminary programs for the GGOS Retreat and the GGOS 2007 Workshop are available at <http://geodesy.unr.edu/ggos/sc/meetings/scm8/> and http://geodesy.unr.edu/ggos/ggosws_2007/, respectively. At the SC7, these draft agenda/program will be discussed and, if necessary, modified.

14 **GGOS Meeting Schedule**

The GGOS SC meeting Schedule is available at <http://geodesy.unr.edu/ggos/sc/meetings/> while an overview with all relevant meetings is kept at http://geodesy.unr.edu/ggos/ggos_meetings.php/

15 **Any other business**

16 **Summary of Action Items**

Welcome, Discussion of Agenda

The meeting was opened by Markus Rothacher, who welcomed all participants and asked for a brief introductory welcome round. Subsequently, Gerhard Beutler in his greeting words emphasized the importance of GGOS and the GGOS 2020 process for IAG. He sees GGOS making good progress and having a good work program.

The draft agenda was accepted without changes.

Minutes of SC6

The minutes of the Sixth Steering Committee meeting were accepted without changes.

Action Item Status

The list of action items from the previous Steering Committee meetings were made available as [aillist.html](#) and [aillist.pdf](#) .

Markus Rothacher stated that most AIs were closed. Concerning ***Action Item GGOS-SC-6-5: Markus Rothacher to discuss informally with the IAG Executive Committee the potential options for the future GGOS ToR in order to ensur by the IAG EC. Responsible: Markus Rothacher, Deadline: 2006-12-01.***

Markus Rothacher informed the participants that he had talked to Klaus Peter Schwarz, who gave some helpful guidelines for the development of the future GGOS ToR.

Concerning *Action Item GGOS-SC-6-6: Chopo Ma and Wolfgang Schluetter to inform Markus Rothacher what actions should be taken concerning the closure of the Canadian VLBI sites. Responsible: Chopo Ma, Wolfgang Schluetter, Deadline: 2006-10-31.*

Markus Rothacher reported that no letter from GGOS had been sent to the Canadian Government. The German Government had sent a letter to Canada, but the response was rather negative. Gerhard Beutler mentioned that many letters from the Services had been written. Bjorn Engen expressed the opinion that more statements from geodetic organizations most likely just would be put in the same box.

At the GGOS Workshop in Munich, Hans-Peter Plag had proposed to send a note on the degradation of infrastructure for the monitoring of the reference frame to the GEO Plenary for consideration. Hans-Peter Plag drafted a note (see the original draft of 2006/10/17 available as [documents/geo_plenary_appeal.doc](#)) which was then iterated in a small group (see the final draft version of 2006/10/26 available as [documents/geo_plenary_appeal.doc](#)). Gerhard Beutler suggested an alternative version on 2006/10/27 (see [documents/gb_geo_plenary_note.txt](#)). However, in the end no agreement was reached and no note was sent to the GEO Plenary.

Michael Pearlman asked whether GEO is approaching the Canadian representative to discuss the issue. Hans-Peter Plag made clear that without having sent the note, GEO is not aware of the issue and has no basis to act. However, it was reported that at the GEO Plenary meeting in Bonn, Markus Rothacher, Susanna Zerbini, and Hans-Peter Plag did contact the Head of the Canadian Delegation, Stuart Salter, who actually turned out to be responsible for the decisions related to the operation of the VLBI stations in Canada. Hans-Peter Plag emphasized the importance of contacting GEO. Bente Lilja Bye asked why the note in the end was not sent to GEO. This led to considerable discussion: Markus Rothacher claimed that the note drafted by Hans-Peter Plag was too much focused on one country and VLBI as technique. Hans-Peter Plag responded that this was not the case, and explained that Canada was not mentioned and VLBI was mentioned together with other techniques. Gerhard Beutler stated that the time had been too short to agree on a note, since the note was discussed only two weeks before the plenary.

Brief report from the Chair

Markus Rothacher presented the report of the Chairs (see the [GGOS_SC7_Presentations/GGOS_Chairs_Report_121206.pdf](#) version of the presentation). The report addressed a considerable list of activities since the last SC meeting, including the preparation of the GGOS Retreat 2007, the preparation of the GGOS Workshop 2007, the GGOS2020 Strategy Document, GGOS participation in meetings (the GEO-III Meeting in Bonn, November 28-29, 2006, and the CEOS-20 and IGOS-P-13b Meetings in Buenos Aires, November 13-15, 2006), the potential GGOS contribution to IYPE, the new GGOS ToR, and the preparation of the Steering Committee Meeting SC7. With respect to the GGOS GEO Activities, he emphasized that the Task AR-07-03 "Global Geodetic Reference Frames" proposed by GGOS has been included in the GEO Work Plan 2007-2009. This Task has the goal to "Ensure the availability of accurate, homogenous, long term, stable, global geodetic reference frames as a mandatory framework and the metrological basis for Earth observation" and it aims at the "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." Concerning the GEO-III Meeting, which took place on November 29-30, 2006 in Bonn, Germany, he pointed out once more that no note concerning the status of the geodetic monitoring infrastructure had been submitted to the GEO plenary.

With respect to the GGOS activities related to IGOS-P, he reported that GGOS was represented by Hans-Peter Plag at the IGOS-P-13b Meeting in Buenos Aires, November 13, 2006, and at the subsequent CEOS meeting at the same location. The GGOS 2020 process was presented at the IGOS-P meeting, and the IGOS-P theme proposal is in preparation. However, first priority is on the GGOS reference document, which will provide a basis for the Theme proposal.

The list of the next steps presented by Markus Rothacher included the finalization of the GGOS 2020 reference document, the writing of the GGOS 2020 strategy document, the writing of new GGOS ToRs for the time after Perugia 2007, the setting up of the GGOS Portal, the clarification of how to support/incorporate regional GGOS activities, and the writing of the GGOS "theme" proposal for IGOS-P.

After the presentation, there was considerable discussion concerning the GEO Task AR-07-03 included in the Work Plan 2007-2009 of GEO. Claude Boucher saw a need to set up a group for this task. Hans-Peter Plag used this as an opportunity to inform the participants about the status. He briefly explained that for Version 3 of the GEO Work Plan, two task proposals had been submitted, one based on the original task proposal submitted for Version 2, and the other based on a recommendation of the GEO User Interface Committee (UIC) Meeting in Ottawa (5-6 September 2006), which recommended a specific task focusing on user-related issues of geodetic reference frames (see http://geodesy.unr.edu/ggos/geo/GEO_TS_AR-07-P4.pdf and http://geodesy.unr.edu/ggos/geo/GEO_TS-US-07-P3.pdf, respectively). Moreover, general comments on the Work Plan were submitted (see http://geodesy.unr.edu/ggos/geo/IAG_comments_on_WP_V2.pdf). Following up a request from the GEO Executive Committee to keep the number of tasks in the Work Plan as low as possible and to have larger, more comprehensive tasks, the GEO Secretariat combined the two task proposals into one Task AR-07-03 to be handled by the GEO Architecture and Data Committee (ADC). The combination of the two task proposals into one was done by the GEO Secretariat, which had ask Hans-Peter Plag for comments. The draft task sheets are intended to be released around 15 January 2007 and will then be further discussed by the responsible Committees, which for AR-07-03 is the ADC. He pointed out that for each GEO task, a task team will be established with representatives from all Member Countries and Participating Organizations interested in the task. Bernd Richter requested to use the Task to improve the reference frame. In his response, Hans-Peter Plag made clear that the Task is designed as a strategic and political activity addressing the framework conditions for the operation of reference frame related infrastructure and the conventions of what reference frames to use in GEO, and not a task to actually improve the reference frame, which is an objective inherent to the mission of GGOS. John Dow suggest that IAG should form a WG to address the contribution to that task. No decision was made.

Reports from GGOS WG

Michael Pearlman high-lighted in his report the activities of the Ground Networks and Communications WG (see the GGOS_SC7_Presentations/WG_GNC_report_121206.pdf version of the presentation). He emphasized the high level of activity of the WG, which has led to a number of results, and the impact the WG has through active interaction with and support of national activities (see the presentation for more details).

Srinivas Bettadpur reported on the activities towards a Space Mission WG (see the GGOS_SC7_Presentations/WG_SM_report_121206.pdf version of the presentation). Among others, he pointed out that there seems to be no "geodesy-specific" source of information on the history, principal accomplishments, data types/sources, and mission events. He indicated that a WG web page

with such information will be made available by July 2007. Hans-Peter Plag asked who the members of the WG are. Srinivas Bettadpur responded that the WG up to now has only two members, and that his focus currently is on clarifying the mission of the WG.

Bernd Richter presented the report of the WG on Data and Infrastructure (see the [GGOS_SC7_Presentations/WG_DI_report_121206.pdf](#) version of the presentation) and stated that the WG was not very active since it is awaiting relevant decisions in GEO concerning the protocols to be used for web services. However, he introduced some considerations with respect to the GGOS data portal, which are currently developed by a small group.

Bente Lilja Bye provided the report of the Outreach and User Linkage WG (see the [GGOS_SC7_Presentations/WG_OUL_report_121206.pdf](#) version of the presentation). She pointed out that the GGOS web page at <http://www.ggos.org> needs to be updated in order to be useful for outreach. She presented consideration for drafting an outreach plan (see the [GGOS_SC7_Presentations/WG_OUL_outreach_plan_discussion.pdf](#) version of the plan), and pointed out that the plan will be discussed during the upcoming WG meeting. Ruth Neilan brought to the attention of the participants that there is an outreach branch in IAG, and suggested that the WG activities are coordinated with this branch.

Action Item GGOS-SC-7-1: Bente Lilja Bye to contact the IAG Outreach Branch in order to ensure coordination of GGOS and IAG outreach activities. ***Responsible: Bente Lilja Bye, Deadline: 2007-02-15.***

Markus Rothacher suggested that a simple flyer is produced for GGOS, which could be used to promote GGOS at various meetings. Bente Lilja Bye confirmed that such a flyer is part of the outreach plan. Gerhard Beutler informed that IAG is currently preparing a flyer for IAG, and emphasized that GGOS should be included in this flyer.

Action Item GGOS-SC-7-2: Gerhard Beutler to ensure that GGOS is appropriately represented in the IAG flyer. ***Responsible: Gerhard Beutler, Deadline: 2007-02-15.***

Hermann Drewes presented the report concerning the status of the WG on Conventions, Models, Analysis (see the [GGOS_SC7_Presentations/WG_CMA_report_121206.pdf](#) version of the presentation). He introduced the membership of the WG (currently some 14 members representing most of the services) and mentioned several informal meetings of the WG in 2006. Main activities concentrated on checking the consistency in geometric and gravimetric analysis and parameter representation by reviewing the definition and the current use of fundamental geodetic constants, conventions, models, and parameters. He reported on a discussion on the need of a new Geodetic Reference System (GRS), which is compiling new arguments and requirements. Inconsistencies between GRS80 and IERS2003 and also with respect to actual uses, which differ from both, seem to indicate that a revision of the GRS is needed. The WG will continue this discussion by checking the parameters in the frequently used program packages, do a sensitivity analysis concerning the effect of differences, and prepare recommendations and common conventions (GGOS Conventions). This should help to answer the question whether a new GRS is needed.

Reports from GEO Representatives

Susanna Zerbini presented a report on the GGOS contributions to the GEO Science and Technology Committee (STC, see the [GGOS_SC7_Presentations/GEO_STC_121206.pdf](#) version of the presentation). The STC is currently preparing a document defining the role of the STC and a science and technology plan for GEOSS. Susanna Zerbini pointed out that the Document needs to be rewritten.

One critical point is that the solid Earth is not sufficiently represented. She reported that Susanna Zerbini, Michael Pearlman, and Hans-Peter Plag had a meeting and wrote a new draft, which will be further iterated and then sent before December 15, 2006 to the STC co-chairs.

Bernd Richter reported on GGOS interactions with the GEO Architecture and Data Committee (ADC, see the [GGOS_SC7_Presentations/GEO_ADC_121206.pdf](http://geodesy.unr.edu/ggos/sc7/Presentations/GEO_ADC_121206.pdf) version of the presentation). He also referred to the ADC report distributed at the GEO Plenary meeting (see the http://geodesy.unr.edu/ggos/geo/geo-iii/report_adc.pdf version of the report). GGOS will intensely interact with the ADC because of the Task AR-07-03. As a main achievement of the ADC, Bernd Richter introduced the GEO clearinghouse, which is under development.

Concerning the GEO Capacity Building Committee (CBC), the participants were informed that Ludwig Combrinck had provided a report prior to the meeting (see the http://geodesy.unr.edu/ggos/reports/sc7/CBC_report.txt text). The report of the CBC to the GEO Plenary is available as http://geodesy.unr.edu/ggos/geo/geo-iii/report_cbc.pdf, too. Hermann Drewes added that participation of GGOS in the upcoming large Capacity building conference in July 2007 in Madrid would be a good opportunity to promote GGOS.

Hans-Peter Plag reported briefly on the GGOS interactions with the GEO UIC. In 2006, the UIC had three meetings (in Rome, Ottawa, and Bonn), and GGOS was represented by Hans-Peter Plag at the two latter ones. He also participated in the preparation of proposal for the Coastal Zone Community of Practice (CoP). For the meeting in Ottawa, 5-6 September, he prepared a proposal for a CoP related to geodetic reference frames, which at the UIC meeting was discussed. The discussion resulted in the recommendation for a new task proposal. As reported above, the GEO Secretariat did not accept the new one, which triggered to some discussion between the GEO Secretariat and the UIC Co-chairs. In the end, all parts agreed to have one comprehensive task addressing also the user-related aspects.

Hans-Peter Plag also mentioned that during the GEO plenary meeting in Bonn, comments concerning the need to get a user needs and requirements facility for GEOSS, led to discussions between UIC co-chairs and GEO Secretariat, and during the UIC meeting on the following day, it was suggested to establish a small writing team with the task to draft a proposal for the functions and properties of a user requirement facility. Hans-Peter Plag was assigned the task to compile a writing group to draft the strategy, with the draft expected to be ready by end of January 2007. This work is supposed to be done in cooperation with the UIC and ADC co-chairs. Therefore, Hans-Peter Plag asked to be added to the GGOS representatives on the ADC. This was supported by the SC.

Action Item GGOS-SC-7-3: Markus Rothacher to inform the GEO Secretariat that Hans-Peter Plag is to be added to the GGOS representatives on the GEO ADC. **Responsible:** Markus Rothacher, **Deadline:** 2007-01-31.

Hans-Peter Plag also reported briefly on the GEO Tsunami Working Group by saying that there has been no activity of the Group since Spring 2006. He pointed out that the task DI-06-02 is relevant for GGOS, and particularly IGS, since the task addresses the availability of real-time GNSS data. Therefore, IGS should report related activities to the task. Ruth Neilan informed that she was in contact with Rhett Buttler, the task leader, and that they want to improve cooperation between the task and IGS.

Future GGOS ToR

Markus Rothacher presented two slides summarizing the situation and issues related to the GGOS ToRs (see slides 7 and 8 in the [GGOS_SC7_Presentations/GGOS_Chairs_Report_121206.pdf](http://geodesy.unr.edu/ggos/sc7/Presentations/GGOS_Chairs_Report_121206.pdf) version of the

presentation). Since the current ToRs are not in agreement with IAG By-Laws new ToRs are needed. He repeated that Klaus-Peter Schwarz will give advice based on the Casini Committee's view. The new ToR should be ready for the IUGG meeting so that they can be accepted by the IAG Executive Committee. He emphasized that the future ToRs will have to take into account new elements in the structure of GGOS. In order to achieve compliance with IAG By-Laws, the number of members of the Steering Committee could be kept by considering the services as sub-groups of GGOS, establishing a GGOS "WG" for each of the GEO Committees as sub-groups, and considering the GGOS WGs as sub-groups of GGOS. In order to achieve representation of the geographical regions, regional GGOS sub-groups could be established, and then the number of "At Large Members" could be reduced to two. With respect to new structural elements, he referred to the diagram proposed by Gerhard Beutler in the GGOS 2020 reference document, which includes a Central Bureau, additional bureaus, for example as interface component to "geodetic" satellite missions, geodetic standards, and coordination of communication and network aspects. The new ToR should be flexible enough to allow for these new components without changes. There was some discussion of the different issues, which had already been taken up during SC6 (see the minutes at the [./scm6/](#) web page). Hans-Peter Plag pointed out that the IAG By-Laws do not mention that an IAG Project needs to have ToRs or that these ToR need to be accepted by the IAG EC. He also emphasized that while the Service determine their own chairs, the chairs of IAG projects are determined solely by the IAG EC. Potentially, this situation could lead to a GGOS Steering Committee chair being determined by the IAG EC who does not have a strong support from the GGOS SC. He suggested a solution where the chair is nominated by the Steering Committee and confirmed by the IAG EC. This approach would maintain IAG EC's influence and ensure broad support of a chair in the Steering Committee. Markus Rothacher and others confirmed that the problem of the large Steering Committee can be solved by defining the Services as sub-groups of GGOS.

No specific plan was made how to progress towards drafting the new ToRs. It is assumed that the GGOS Executive Committee will take care of the preparation of the new ToRs.

The GGOS2020 Process

Hans-Peter Plag reported on the status and progress of the GGOS 2020 Strategy Process (see the [GGOS_SC7_Presentations/GGOS_2020_status.pdf](#) version of the presentation). He pointed out that since the SC6, work had been focussed more around the document than actually on the document. In particular, the GEO Task proposals had been prepared and they were accepted as the Task AR-07-03 "Global Geodetic Reference Frames" for the GEO Work Plan 2007 - 2009. This task has the GGOS 2020 documents as first deliverables, which implies that the GGOS 2020 reports will be GEO reports. He also mentioned that the results of this process may be reported by GEO into the next Earth Observation Summit, which will take place together with the GEO Plenary in November 2007 in Capetown, South Africa. The next main work phase on the document will be from 27 December 2006 to 13 January 2007, in order to prepare the Retreat and the subsequent Writing Team. The schedule of the GGOS 2020 process includes as milestones the revision/completion of the current document by 15 January, one iteration prior to the Retreat with the whole Writing Team, discussion of the document at the GGOS Retreat and GGOS 2020 SWT Meeting, February 19-22, 2007, Oxnard, California, the availability of the Strategy and Reference documents on 15 March 2007, the completion of an extensive Hearing phase by 15 May, the availability of the final revision by 15 June, and the availability of printed versions by 1 July 2007, just in time for the IUGG, July 2-13, 2007, Perugia, Italy.

In his report, Hans-Peter Plag also mentioned that the Report "National Geodetic Infrastructure: Current status and future requirements - the Example of Norway" (Plag, 2006) might be of interest for the GGOS 2020 process. The report is available at <http://www.nbm.unr.edu/dox/b112.pdf>.

There was considerable discussion about concerning a lead author for the new Chapter 2 "The ways, means and achievements of geodesy", which is going to be an introduction to the geodesic techniques, methods and some of the main results. Gerhard Beutler was suggested as lead author, and he referred to a text he had previously written for another purpose (see the [GGOS_SC7_Presentations/FIG_IAG_2004.pdf](#) version of the document). Considering the text in more details, it became clear that significant changes are needed. Gerhard Beutler stated that he could help but would not have the time to commit as lead author. No decision concerning the lead author was made.

In the subsequent discussion, Claude Boucher came back to the GEO Task AR-07-03 and emphasized the need that IAG/GGOS get broadly involved in this task.

GGOS Contribution to IYPE

Susanna Zerbini and Hans-Peter Plag reported on the activities related to IYPE, which were done in order to follow up **Action Item GGOS-SC-5-16: The Executive Committee to consider a GGOS contribution to the IYPE for discussion by the Steering Committee. Responsible: Executive Committee, Deadline: 2006-05-31.**

Several contacts with Robert Missotten, UNESCO, who is on the Board of IYPE, lead to the conclusion that IYPE will be implemented as a outreach activity of geosciences to society in general and decision makers in particular. Contacts to the Chair of IYPE were not successful, and Hans-Peter Plag pointed out that it is not clear how much of IYPE actually will be implemented. In conclusion, it was agreed that the Outreach and User Linkage WG should follow this up.

Action Item GGOS-SC-7-4: Bente Lilja Bye to contact the chair of IYPE, who is located in Trondheim, Norway, and to discuss with him a participation of GGOS in IYPE outreach activities. Responsible: Bente Lilja Bye, Deadline: 2007-02-15.

GGOS and regional implementations

Prior to the SC7, Hans-Peter Plag had contacted a number of Steering Committee members and guests and asked them for their thoughts and comments on the role of regional organizations in GGOS. The comments were made available at <http://geodesy.unr.edu/ggos/sci/>. Claude Boucher asked whether there is any need for regional organizations. Hans-Peter Plag pointed out that such organizations could be a way to solve the problem with the Members at Large in the Steering Committee, which currently are the only way to ensure a sufficient geographical representations (see Topic 7 above). Hermann Drewes doubted that a regional implementation actually could represent the activities in a region. Hans-Peter Plag responded that a regional implementation would certainly be a better representation than a single person chosen by the SC. And GGOS could have minimal requirements for a regional implementation, so that the regions would be able to find an appropriate way to establish a regional partner for GGOS. The only requirements would be that the organization is open for all relevant activities in the region, and that a chair has been elected in a defined way. Bjorn Engen emphasized that besides the formal aspect, there is also the issue of linking on-going regional activities to GGOS.

In the end, there was no sensible consensus and no conclusion. The issue of regional implementations will have to be taken up in the future.

GGOS and Liability issues

Claude Boucher suggested that he provides input concerning GGOS and liability issues for the GGOS 2020 document.

Action Item GGOS-SC-7-5: Claude Boucher to provide input for the GGOS 2020 documents concerning GGOS and liability issues. ***Responsible: Claude Boucher, Deadline: 2007-01-31.***

GGOS at IUGG

Markus Rothacher briefly reviewed the main activities at the upcoming IUGG meeting (see slides 9 and 10 in the [GGOS_SC7_Presentations/GGOS_Chairs_Report_121206.pdf](#) version of the presentation). He also introduced the preliminary plan for the geodesy-related sessions at the IUGG meeting in Perugia (see the [GGOS_SC7_Presentations/IAG_program_07_rev1.htm](#) or [GGOS_SC7_Presentations/IAG_program_07_rev1.pdf](#) version of the overview). He stated that there will be a GGOS session, but obviously only half a day. This was considered too short, and the following AI was agreed: **Action Item GGOS-SC-7-6:** Markus Rothacher to clarify whether the GGOS session at IUGG can be extended to one day. ***Responsible: Markus Rothacher, Deadline: 2007-01-31.***

It was agreed that the GGOS session should be convened by the three chairs. **Action Item GGOS-SC-7-7:** Markus Rothacher to ensure that the two GGOS Vice-Chairs are added as conveners of the GGOS session at IUGG. ***Responsible: Markus Rothacher, Deadline: 2007-01-31.***

It was also suggested to have a side event to introduce the GGOS2020 documents to the public. This introduction should be done by the IAG President. **Action Item GGOS-SC-7-8:** The three GGOS Chairs to plan and organize a side event at IUGG for the introduction of the GGOS 2020 documents to the public, with the IAG President giving the main presentation at this side event. ***Responsible: Markus Rothacher, Hans-Peter Plag, Ruth Neilan, Deadline: 2007-03-31.***

GGOS Retreat and Workshop

Preliminary programs for the GGOS Retreat and the GGOS 2007 Workshop were made available at <http://geodesy.unr.edu/ggos/sc/meetings/scm8/> and http://geodesy.unr.edu/ggos/ggosws_2007/, respectively. Markus Rothacher introduced the agenda for the Retreat and presented the questions that had been sent to the Services and Commissions in order to focus the presentations of these components on specific issues (see the slides 12 to 16 in the [GGOS_SC7_Presentations/GGOS_Chairs_Report_121206.pdf](#) version of the presentation). In order to support some potential participants of the Retreat who had insufficient funds, the following AI was agreed:

Action Item GGOS-SC-7-9: Markus Rothacher to contact the IAG Secretary and investigate whether there are any funds to support participants at the Retreat. ***Responsible: Markus Rothacher, Deadline: 2007-01-31.***

In the subsequent discussion, Bernd Richter suggested to include the role of GGOS for FAGS and World Data Centers in the Retreat discussion. He pointed out that it would be good to have a statement from GGOS for the next meeting of FAGS in Paris in April at ICSU.

Claude Boucher mentioned that over the past, a couple of other technologies such as InSAR have been discussed, and he asked what the status is concerning the relation of GGOS to these new technologies. Markus Rothacher responded that these techniques are important, and Hans-Peter Plag added that they will be considered during the Retreat.

Action Item GGOS-SC-7-10: Markus Rothacher and Hans-Peter Plag to ensure that InSAR is appropriately represented during the retreat and a presentation from relevant InSAR initiatives is invited. ***Responsible: Markus Rothacher, Hans-Peter Plag, Deadline: 2007-01-31.***

Hans-Peter Plag presented the status of the preparation of the GGOS 2007 Workshop (see the [GGOS_SC7_Presentations/GGOS_Workshop_2007.pdf](http://geodesy.unr.edu/ggos/sc/presentations/ggos_workshop_2007.pdf) version of the presentation). The Workshop, which will take place on November 5-6, 2007 at ESRIN, the ESA facility in Frascati, Italy, is organized in conjunction and coordination with the Third International Geohazards Workshop. The GGOS Workshop will be based on the results of the GGOS 2020 process and be organized as an outreach activity mainly to the space agencies and the Geohazards community.

Since the workshop is an outreach activity, the Chair of the GGOS Outreach and User Linkage WG, Bente Lilja Bye was added to the program committee. Claude Boucher emphasized the importance to reach out to the space agency. Moreover, he expressed his opinion that InSAR is of very big interest for GGOS and that it is good that InSAR will be addressed during this workshop.

GGOS Meeting Schedule

The GGOS SC meeting Schedule is available at <http://geodesy.unr.edu/ggos/sc/meetings/> while an overview with all relevant meetings is kept at http://geodesy.unr.edu/ggos/ggos_meetings.php/

Markus Rothacher presented a meeting schedule for GGOS (see slide 6 in the [GGOS_SC7_Presentations/GGOS_Chairs_Report_121206.pdf](http://geodesy.unr.edu/ggos/sc/presentations/ggos_chairs_report_121206.pdf) version of the presentation). Hans-Peter Plag added that additional SC meetings are tentatively scheduled for the EGU and the IUGG meeting. He also mentioned the GGOS meeting page, and offered to include all relevant meetings brought to his attention by Steering Committee members and others.

Any other business

There was no other business.

Summary of Action Items

Action Item GGOS-SC-7-1: Bente Lilja Bye to contact the IAG Outreach Branch in order to ensure coordination of GGOS and IAG outreach activities. **Responsible: Bente Lilja Bye, Deadline: 2007-02-15.**

Action Item GGOS-SC-7-2: Gerhard Beutler to ensure that GGOS is appropriately represented in the IAG flyer. **Responsible: Gerhard Beutler, Deadline: 2007-02-15.**

Action Item GGOS-SC-7-4: Bente Lilja Bye to contact the chair of IYPE, who is located in Trondheim, Norway, and to discuss with him a participation of GGOS in IYPE outreach activities. **Responsible: Bente Lilja Bye, Deadline: 2007-02-15.**

Action Item GGOS-SC-7-5: Claude Boucher to provide input for the GGOS 2020 documents concerning GGOS and liability issues. **Responsible: Claude Boucher, Deadline: 2007-01-31.**

Action Item GGOS-SC-7-6: Markus Rothacher to clarify whether the GGOS session at IUGG can be extended to one day. **Responsible: Markus Rothacher, Deadline: 2007-01-31.**

Action Item GGOS-SC-7-7: Markus Rothacher to ensure that the two GGOS Vice-Chairs are added as conveners of the GGOS session at IUGG. **Responsible: Markus Rothacher, Deadline: 2007-01-31.**

Action Item GGOS-SC-7-8: The three GGOS Chairs to plan and organize a side event at IUGG for the introduction of the GGOS 2020 documents to the public, with the IAG President giving the main presentation at this side event. **Responsible: Markus Rothacher, Hans-Peter Plag, Ruth Neilan, Deadline: 2007-03-31.**

Action Item GGOS-SC-7-9: Markus Rothacher to contact the IAG Secretary and investigate whether there are any funds to support participants at the Retreat. ***Responsible: Markus Rothacher, Deadline: 2007-01-31.***