



**International
Association of
Geodesy**

Newsletter

January 2008

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The *IAG Newsletter* is under the editorial responsibility of the *Communication and Outreach Branch* (COB) of the IAG.

It is an open forum and contributors are welcome to send material (preferably in electronic form) to the IAG COB (newsletter@iag-aig.org). These contributions should complement information sent by IAG officials or by IAG symposia organizers (reports and announcements). The *IAG Newsletter* is published monthly. It is available in different formats from the IAG new internet site: <http://www.iag-aig.org>

Each *IAG Newsletter* includes several of the following topics:

- I. news from the Bureau Members
- II. general information
- III. reports of IAG symposia
- IV. reports by commissions, special commissions or study groups
- V. symposia announcements
- VI. book reviews
- VII. fast bibliography

Books for review are the responsibility of:

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General Announcements

Summary of the Second Meeting of the IAG Executive Committee 2007 – 2011

Place: Hotel Westin, 50 Third Street, San Francisco, California 94103, USA

Time: Saturday, 8 December 2007, 10:00 - 18:15

Attendees (voting): Michael Sideris (President), Hermann Drewes (Secretary General), Gerhard Beutler (Immediate Past President), Zuheir Altamimi (President Commission 1), Pieter Visser (standing in for Yoichi Fukuda, President Commission 2), Michael Bevis (President Commission 3), Markus Rothacher (Chair of GGOS), Steve Kenyon, Ruth Neilan, Harald Schuh (Representatives of Services)

Attendees (non-voting): Ivan I. Mueller (Past President), Helmut Hornik (Assistant Secretary General)

- Agenda:**
1. Welcome and adoption of agenda (MS)
 2. Adoption of minutes of the first EC Meeting, Perugia, July 10, 2007 (MS)
 3. Final structure of Commissions (ZA, YF, MB, SV)
 4. Final structure of Services (SK, RN, HS)
 5. Status of new Services IAS and IDEMS (HD)
 6. Final structure of GGOS (MR)
 7. Final structure of Inter-Commission Committee on Theory (NS)
 8. Report of Communication and Outreach Branch (JA)
 9. Representation of developing countries (KH, RW)
 10. Relations to other scientific bodies (ICSU, FIG, JBGIS, ...) (MS, CR, HD)
 11. Representatives to Services and external bodies (HD)
 12. Status of Geodesist's Handbook 2007/2008 (JA, HD)
 13. Status of Perugia proceedings (MS, CR, GB, HD)
 14. Programme structure IAG Scientific Assembly, Buenos Aires, 2009-08-31 to 2009-09-04
 15. New IAG fellows
 16. ICSU Grants programme for 2008
 17. Next IAG EC meeting
 18. Any other business
 19. Adjourn

1. Welcome and adoption of agenda

M. Sideris welcomed the members of the IAG Executive Committee (10 out of 15 voting members and 2 non-voting members). He thanked especially *R. Neilan* for the organization of the meeting. The attendees introduced themselves. The draft agenda was previously distributed by e-mail. *M. Sideris* proposed to include two items in the agenda topic 18 (IUGG EC meeting, support of symposia). The proposal was adopted.

2. Adoption of minutes of the first EC Meeting, Perugia, July 10, 2007

A draft of the minutes had been distributed by e-mail. *M. Sideris* added some minor corrections. They were unanimously accepted. *H. Drewes* as the IAG Secretary General explained that the adopted minutes are published in the official IAG homepage <<http://www.iag-aig.org>> and in the IAG Newsletter in a summarized version without details. The draft as well as the final full versions with all discussions is put on the EC page of the internal IAG Office website <<http://iag.dgfi.badw.de/ec>>. It was proposed to protect this section by a password.

3. Final structure of Commissions

The bases of all discussions on topic 3 were the written reports available in the IAG Office homepage well before the meeting. The final reports will be published in the 2008 Geodesist's Handbook.

Z. Altamimi explained the structure of **Commission 1 – Reference Frames**. The objectives as well as the structure are more or less the same as in the past four years. *H. Drewes* asked whether IC-WG1.4 (Site Survey and Co-locations, joint with IERS, chaired by *G. Johnston*, Australia) should be in the Commission in addition to the IERS. *M. Rothacher* explained that this WG is dealing with the development of new techniques and bringing them forward to be applied. *M. Sideris* asked about the previous Project on Satellite Altimetry. He said that altimetry is at present not sufficiently covered by the commissions. *H. Drewes* answered that the International Altimeter Service (IAS) is being planned. There was an agreement that Satellite Altimetry should be included in the structure of Commission 2 with links to IGFS.

Concerning the number of IC-P1.2 (Vertical Reference Frames), *H. Drewes* explained the **numbering of Projects, Working Groups and Study Groups**. According to IAG Bylaw 12, WGs and SGs are established for one period or less, i.e., a maximum of four years. Projects may be extended to two periods. Before the re-organisation of IAG in 2003, Study Groups were numbered continuously. Numbers given once were not used again. Thereby the numbers were ever increasing and earlier groups could always be assigned unambiguously, all reports of the groups can clearly be cited. Doubling of the numbers would cause confusion. Therefore this project should be continued with number IC-P1.2. IC-P1.1 shall not be used because this number was occupied in the period 2003-2007 and then resolved. *M. Sideris* moved to adopt this general rule. It was accepted.

In this context *H. Drewes* explained that the **structures and duties** of all IAG components and sub-components are clearly defined in the IAG Bylaws. Changes of these definitions are possible in principle, but have to be adopted by the IAG Council. Commissions are IAG components and have a steering committee. They shall be open to all IAG members and therefore not list specific membership. Sub-commissions are long term sub-components established for several periods. They subdivide the commissions. Therefore they should have neither specific membership nor a steering committee. Projects are sub-components established to develop new methods or techniques. They last one period but may be extended to another period after a positive review. Study Groups and Working Groups are limited to a four-years-period.

The new structure of **Commission 2 – Gravity Field** was presented by *P. Visser*. *H. Drewes* mentioned that the former Commission Project CP2.2 – North American Geoid was dissolved. The EC suggested that it should be re-established right away given the recent interest by the Canadian and US geodetic agencies to establish a geoid-based vertical datum. In contrary to the other continents, South America has two CPs, i.e. one for the Geoid (CP2.4) and another one for Gravity in South America (CP2.6). The representatives in both CPs are mostly members of administrations and less scientifically oriented, some of them have already retired from their former posts. *H. Drewes* moved to merge both CPs and, as far as possible, to nominate competent scientists for the work. *P. Visser* will discuss this item with the Commission President *Y. Fukuda*. *H. Schuh* asked whether, besides the no longer existing CP2.2 for North America, all continents would be treated by Commission 2. *H. Drewes* moved to re-name CP2.5 – South Asia Geoid into “Asia-Australia” or even better “Asia-Pacific”. *M. Sideris* repeated (see above, Commission 1) his proposal to install a Sub-commission on Altimetry, which together with the IGFS, will also be asked to see that the IAS gets established soon.

M. Bevis presented the structure of **Commission 3 – Earth Rotation and Geodynamics**. Sub-commission SC 3.1 – Earth Tides was extended to “Earth Rotation and Earth Tides”, and a new SC 3.4 (Cryospheric Change and Earth Deformation) was established. The question whether a new WG on South America can be established was answered by *H. Drewes* saying that any Commission is free to install such groups as long as the Bylaws are observed. He then asked whether the former Inter-commission Project on WEGENER shall be continued. *M. Bevis* will look after this issue. *M. Sideris* asked for a Sub-commission or a Project on InSAR. It should be established together with Commission 4.

The last report in this series was given by *R. Neilan* on behalf of *S. Verhagen* for **Commission 4 – Positioning and Applications**. The Sub-commissions within Commission 4 have their main tasks in practical applications; their main work, however, is scientifically based. *M. Sideris* suggested the establishment of a Commission 4 subcomponent dealing with the use of GNSS for tectonics and geodynamics. *R. Neilan* agreed to see that a corresponding action be taken. Further *R. Neilan* mentioned the intensive links with relevant sister organizations, e.g., FIG, as well as the emphasis on outreach to make the work known in the scientific community.

H. Schuh reminded the EC that according to the Bylaws the Commission’s Steering Committees should have, among others, up to three **representatives of the Services** relevant to the work of the Commission. It was also mentioned that, for the sake of uniformity, all sub-commissions should have Presidents instead of Chairs.

4. Final structure of Services

The bases of all discussions on topic 4 were the written Service reports available in the IAG Office homepage well before the meeting. The final reports will be published in the Geodesist's Handbook 2008.

Regarding the nomination of representatives to the EC, *R. Neilan* reminded the EC to observe carefully the Bylaw 6.d (“*The representatives of the Services shall be appointed by the Commission President and Vice-president upon proposal of the Services*”) such that really all fields of interest are covered.

The **IAG Bibliographic Service (IBS)** written report was discussed. *H. Drewes* gave a sketch of this Service which had been established already a long time ago and had mainly been operated by colleagues in the former German Democratic Republic. Later the IBS was transferred to the Federal Agency for Cartography and Geodesy (BKG) in its branch in Leipzig. The main task is the collection of bibliographies, formerly for card indices distributed worldwide, today in digital files. *M. Sideris* raised the question whether it might be useful to connect the IBS directly to the COB instead of keeping it as an independent IAG Service in order to become more visible and operational, i.e., to improve the access and the handling of the data base, and further to install an attractive website under the IAG logo. A representative of the IBS should be invited by the Bureau for the next EC Meeting to report on the progress. The proposal was unanimously accepted.

S. Kenyon then presented a summarizing report on all Services related to gravity, earth tides etc. (**IGFS, BGI, ICET, ICGEM, IDEMS, IGeS**). *G. Beutler* mentioned a former discussion to have all these Services under the umbrella of the International Gravity Field Service (IGFS), which would provide the focal point in this area. *S. Kenyon* pointed out that a common website is in preparation. *H. Drewes* said that it should be discussed whether the individual Services may be ordered within a hierarchy or all should all be kept independent of each other. *M. Sideris* mentioned that some Services are not – and cannot be – strictly organized according to the IAG Statutes and Bylaws, since they report to and are funded by other organizations or countries. *G. Beutler* and *I. I. Mueller* said that the main purpose should be the contribution to a common goal. Some of the gravity-oriented Services had been created together with new satellite missions and are still rather young in comparison to the Services related to the IERS. *M. Sideris* pointed out that, in addition to organizational issues in each Service, the real constraints concerning man power and finances are to be considered for their long term viability. *M. Rothacher* proposed that all gravity oriented Services should set up a Steering Committee which formulates the objectives and a Central Bureau to coordinate the work. It was unanimously adopted. *S. Kenyon* will formulate the ideas for the general structure of the IGFS with its centres, as well as for a Steering Committee and Central Bureau.

The reports on the geometry oriented Services were given by *M. Rothacher* for the **IERS, ILRS, and IDS**, by *H. Schuh* for the **IVS**, and by *R. Neilan* for the **IGS** and also for the **PSMSL**. There were no major discussions.

5. Status of new Services IAS and IDEMS

A short remark on the **International Digital Elevation Models Service (IDEMS)** was given by *H. Drewes*. It is not clear when this Service was adopted by the IAG Executive Committee. A new description to be published in the Geodesist's Handbook is announced by the Director *Ph. Berry*. He emphasized that the access to the products has to be guaranteed like in any other Service.

The status of the **International Altimeter Service (IAS)** was also presented by *H. Drewes*. He reminded everybody of the decision of the EC to set up this Service already in 2003. A Planning Group had been convened by *W. Bosch*, the group met several times, a website as a discussion forum was installed. A problem arises through existing institutions which are intensively engaged in the collection and commercialization of altimeter data, and thus are not prepared to accept any governing board or other hierarchical structure. The call for an IAS Integrating Office in early 2007 had no responses. The IAS has no intention to build up an own data bank, but to enable the geodetic community to have free access to the data in a standardized format in order to generate new products. The IAS could provide formulae and detailed documents which clearly describe the various formats and the way to use the data sets. Summarizing the discussion, *M. Sideris* moved that IAG should establish an IAS Steering Committee with emphasis on the “integration of all concerned groups”. The IAS SC should intensively cooperate with the other IAG Services, GGOS, and the Commissions, and in particular with Commission 2, the IGFS and the existing IAS Planning Group, so as to bring the IAS establishment to a successful conclusion. Independently of the IAS Service, a relevant Sub-commission should be established in Commission 2; both groups would have separate clearly defined tasks. A progress report

including a draft of IAS Terms of Reference shall be submitted to the next EC Meeting by the chair of the IAS Planning Group, *W. Bosch*.

6. Final structure of GGOS

M. Rothacher gave the status of GGOS as also described in the written report. The Steering Committee (at present 33 members) serves as a plenary, however, the practical work is generally carried out by the GGOS EC (6 members). According to the rules, each IAG Commission and Service should nominate one delegate, but up to now not all of them are represented. The ICET (International Centre for Earth Tides) is not included, and this position is taken over by the GGP (Global Geodynamics Project). *M. Rothacher* expressed his opinion that there is no necessity for a representative from all services but only from those that really are connected to the work of GGOS. *R. Neilan* argued that GGOS represents a kind of an umbrella where all IAG groups should be involved. New in the GGOS structure is a Coordinating Office and three Bureaus for Communication and Networks, Conventions, Models and Analysis, and Space and Satellite Missions. In the discussion *M. Sideris* emphasized the need to make GGOS better known to the public. The use and benefit of GGOS for geodesy and Earth sciences in general are to be described clearly especially on the web. *M. Rothacher* answered that, e.g., NASA or ESA are quite familiar with the objectives of GGOS. The idea of GGOS to investigate the Earth as a whole is highly appreciated especially in connection with monitoring global change. *R. Neilan* added that GGOS represents the first serious attempt to unify all sections of geodesy to observe and describe consistently the whole planet Earth. Concerning the interpretation of the results and especially the prediction of phenomena as future steps, *M. Rothacher* emphasized the need to improve the modelling. *I. I. Mueller* added that GGOS should concentrate its view on global phenomena. The question by *G. Beutler* on the role of GGOS in GEO (Group of Earth Observations) was answered by *M. Rothacher* who stated that GGOS represents the IAG in GEO.

7. Final structure of Inter-Commission Committee on Theory (ICCT)

Speaking on behalf of the President of the ICCT, *N. Sneeuw*, *H. Drewes* explained that the sub-components of the ICCT, i.e., the Study Groups, were already mentioned in the Commissions' reports, because all of them are Inter-Commission SGs. Concerning the Geodesist's Handbook, it has to be observed that all SGs are only described once in the ICCT in order to avoid double descriptions. All SGs will report to the ICCT but the activities should be mentioned in the respective Commissions, too.

8. Report of Communication and Outreach Branch (COB)

H. Drewes reported for *J. Ádám*, President of the COB. All colleagues are urgently asked to communicate permanently any kind of information on events or other items which might be of general interest to the COB for publication in the IAG Newsletter. The urgently necessary update of the web page is planned for next month. The COB issued a new leaflet of the IAG, the first copies were distributed. The new IAG membership application form was put on the web site (<http://www.iag-aig.org/attach/IAGMAF2008.pdf>). It was mentioned that the membership generally is scheduled for a four years period, in general between the IUGG General Assemblies. So, more or less all IAG members have to renew their membership. Normally any person who wants to become a member is accepted, however, there should be a plausible relation to geodesy. By this rule it should be avoided to get members who might use this status for aspects which have no relation to science. For the IAG Office *H. Drewes* reported that the payment by cheque will no longer be accepted due to the enormous bank costs, and in the future only direct bank transfer, payment by credit card or cash will be possible. The payment can also easily be transferred by internet. An e-mail will be sent to all members to renew their memberships. *I. I. Mueller* mentioned that the previous IAG Secretary General *C. C. Tscherning* had written letters from time to time to all IAG officers to contribute to the funds. Although no big contributions can be expected, these letters should be repeated in order to try to collect some funds for the IAG. In this context, *J. Ádám* has submitted an article on the recent history of geodesy. The article will be published in the new Geodesist's Handbook.

9. Representation of developing countries

H. Drewes reminded everybody of a decision at the General Assembly in Perugia urging the Members at Large to take care of issues of developing countries. A report for Africa has been submitted by *R. Wonnacott* to this meeting. The other regions of the world are missing. *M. Sideris* stated that the African countries are meanwhile in general better organized than before. *R. Neilan* mentioned the technical workshop for AFREF where good progress was made for the installation of observation stations and common projects. The chances for funding

the next meetings are rather positive. *Z. Altamimi* said that the maintenance of operations is still a problem; therefore especially the practical work should be supported.

10. Relations to other scientific bodies (ICSU, FIG, JBGIS, ...)

R. Neilan mentioned a joint meeting of the **ICSU Ad hoc Strategic Committee on Information and Data (SCID)** to support AFREF. The ICSU confirmed to support the efforts for an open data policy. It was proposed that IAG should submit detailed reports on its work to ICSU, especially the activities of GGOS and the various IAG Services. It should be tried to provide high quality and understandable information on geosciences with easy access for the public. *G. Beutler* suggested to continue the cooperation with the ICSU SCID and moved for *R. Neilan* and *B. Richter* as IAG representatives. The motion was unanimously accepted.

A close cooperation exists with the **Fédération Internationale des Géomètres (FIG)**, e.g. in a joint Symposium with IAG Commission 1 in Munich 2006. This liaison shall be continued. Most contacts are established in the frame of IAG Commission 4 and FIG Commission 5 – Positioning and Measurements.

The **Joint Board of Geospatial Information Societies (JB GIS)** is a coalition of leading international geospatial societies which can speak on behalf of the geospatial profession at international level, especially to the United Nations and other global stakeholders. The current members of the JB GIS are IAG, ICA, FIG, IHO, IMTA, ISCGM and ISPRS. The IAG representative is the President *M. Sideris*, however, attending the meetings has been problematic in the past due to scheduling and teaching conflicts. The COB shall be asked to send the IAG Newsletter regularly to JB GIS.

11. Representatives to Services and external bodies

a) Representatives to Services

H. Drewes reminded the EC that the Bylaws require that each Service should have an IAG representative, appointed by the IAG Executive Committee, as a voting member of its Directing or Governing Boards (Bylaw 13c). In some services there are no DBs or GBs. In this case the representation has to be decided with the services. The following list was adopted:

BGI: delegated to Commission 2; BIPM: delegated to Commissions 1 and 2; IBS: see topic 4; ICET: *H. Schuh* confirmed; ICGEM: *M. Rothacher* confirmed; IDS: delegated to Commission 1; IERS: *C. Wilson* confirmed; IGeS: *H. Denker* confirmed; IGFS: *S. Kenyon*; IGS: *G. Blewitt* and *G. Beutler* confirmed; ILRS: ex officio President Commission 1, i.e. *Z. Altamimi*; IVS: *H. Schuh* confirmed; PSMSL: *P. Knudsen* confirmed.

b) External Bodies

IUGG Commissions

GeoRisk: up to now no official member. *H. Drewes* mentioned that his name is on the mailing list, however, this post would be better a position for GGOS, so GGOS should nominate officially a representative. CMG (Committee on Mathematical Geophysics): delegated to ICCT; SEDI (Study of the Earth Deep Interior): *V. Dehant* appointed. Commission for Data and Information: *B. Richter* and *R. Neilan* confirmed.

Others

ABLOS (Advisory Board on the Law of the Sea): Additionally to the earlier nominated three representatives (*Ch. Rizos*, *L. Sjöberg* and *D. Grant*), another person has to be nominated. GEO Plenary: ex officio *M. Rothacher*, representatives to the Committees to be nominated by GGOS. ISO (International Organization for Standardization), TC211: ex officio *H. Drewes*, confirmed *J. Ihde*. (The representative of ISO to IAG is *L. D. Hothem*). SIRGAS: *H. Drewes* confirmed; UNOOSA (United Nations Office for Outer Space Affairs): no nomination up to now.

All nominations should be listed in the next Geodesist's Handbook. The representatives have to report to the EC continuously. Their reports are published in the IAG Reports (Travaux) every two years.

12. Status of Geodesist's Handbook 2007/2008

H. Drewes mentioned that not all necessary articles and data have been delivered. The deadline is fixed for the end of January 2008. At the moment, some texts are taken from the internet pages of the respective services, it is hoped that they will provide new texts for the Handbook. A longer discussion arose concerning the address

list in the Handbook. In the last issue, about 2400 addresses of “officers, fellows and individual members” are listed. These addresses have not been checked since a longer time, so it can be assumed that plenty of them are no more valid. For the existing e-mail addresses, all colleagues will be contacted to confirm within a certain deadline their address. If no response is received, the respective address will be deleted. Furthermore, the EC decided to restrict the addresses to those persons which took part in an IAG conference since Sapporo 2003 as well as those colleagues who explicitly ask for inclusion in the list. *M. Sideris* moved to publish this address list no more in printed form but only in the web where it also can be permanently updated as far as necessary. *I. I. Mueller* argued that especially colleagues in developing countries might not have sufficient access to the web to get the address file, further the list also represents some kind of publicity for geodesy within the community. to publish the list only in the web, but a sentence will be printed in the Handbook offering a hard copy to everybody who asks for. József Adam also wrote to the national Correspondents in IAG to update the status of their national data centres, and only about 10% of them responded. The list of National Correspondents is also not up to date and few answers are received. *H. Drewes* will look after the latter issue in contact with the IUGG Secretary General.

13. Status of Perugia proceedings

M. Sideris reported that a large number of papers submitted to the Perugia Assembly are accepted for publication, and about 20% have been rejected. All papers to be published will be thoroughly reviewed and revised. The work should be finished by February 2008. Texts arriving later will not be considered. It was reminded to cite the Springer series with the official name “IAG Symposia” and not “Proceedings”.

14. Programme structure of IAG Scientific Assembly, Buenos Aires, 2009-08-31 to 2009-09-04

H. Drewes mentioned that the programme for the next IAG Scientific Assembly has to be set up in time. The Local Organizing Committee has already been established but the Scientific Committee still has to be nominated. *M. Sideris* proposed for the SC the following persons: Commission Presidents or representatives (4 persons), Representatives of the geometric Services (2), Representatives of the gravimetric Services (2), Representative of GGOS (1), Representative of ICCT (1), Representative of LOC (1). The proposed list was unanimously accepted. The Scientific Committee has to define very soon the title for the conference to be used for the first announcement, and the preliminary programme structure has to be set up.

15. New IAG fellows

H. Drewes cited a letter of *C. C. Tscherning* reminding the EC that it was forgotten to nominate *B. Richter* as IAG Fellow. He moved for nomination; it was adopted.

16. ICSU Grants programme for 2008

M. Sideris informed the EC that every 4 years applications for funding by the ICSU Grants programme can be submitted. The maximum sum amounts to 300.000 EURO or 30.000 per project. *M. Sideris* proposed to ask for funds to support GGOS. *M. Rothacher* should formulate the application.

17. Next IAG EC meeting

The next EC meeting has been scheduled during the EGU General Assembly (Vienna, 13.-18.04.2008). Subsequent consultation with EC members fixed the date to be Saturday, April 19, 2008.

18. Any other business

a) Support of symposia

The Crete International Symposium on "Gravity, Geoid and Earth Observation, GGEO 2008" (Chania/Crete, 23-27.06.2008) organized by *S. Mertikas* shall be supported. The organizers of this meeting shall put the new IAG logo on the next flyers and other papers as well as the website. *H. Drewes* mentioned an application for support of the 14th General Assembly of WEGENER in Darmstadt/Germany organized by *M. Becker* (15-18.09.2008). Before adopting this, WEGENER has to be included in the IAG structure (as a Project in Commission 3).

b) IUGG meeting

M. Sideris informed that there will be a meeting of IUGG Association Presidents in Karlsruhe, Germany, August 5 and 6, 2008. This meeting should be prepared by the EC with all necessary information. It is a good opportunity to promote the work of IAG within the Union. GGOS has been placed on the agenda and thus the GGOS EC should inform the IAG Bureau of the GGOS-related items that should be raised and discussed at the IUGG meeting in Karlsruhe.

19. Adjourn

M. Sideris thanked the participants for their contributions and discussions and closed the meeting at 6:15 p.m.

RESPECTFULLY SUBMITTED BY HERMANN DREWES, SECRETARY GENERAL

IAG Membership Application Form 2008

The Membership Application Form 2008 in PDF can be downloaded from the IAG website: <http://www.iag-aig.org>. Those members, whose membership expired by the end of 2007 may consider renewing their membership for 2008 or longer period (2008-2011). The IAG Communication and Outreach Branch is continuing to improve the service, especially for the IAG individual members.

IAG COB

Planned release of the Earth Gravitational Model EGM2008

Dear Colleagues,

Several of you have been inquiring about the specific time for the release of the Earth Gravitational Model EGM2008 to degree 2160, developed by the National Geospatial-Intelligence Agency (NGA) of the USA.

We are currently in the process of the final re-iteration of our modeling and estimation approach, and expect to have the final model completed in time for the upcoming General Assembly of the European Geosciences Union, to be held in Vienna, Austria, 13-18 of April 2008. During this meeting we plan to present and make our final model publicly available to all.

We are very thankful for the interest that you have expressed regarding our model.

Best Regards,
EGM2008 MODELING TEAM

ILRS Summary Report of service activities for 2005-2006

The International Laser Ranging Service has recently published a summary report of service activities for 2005-2006:

Noll, C., Pearlman, M. (Eds.). (2007). International Laser Ranging Service 2005-2006 Report. NASA Technical Paper NASA/TP-2007-214153. Washington, D.C: National Aeronautics and Space Administration.

An electronic version is available through the ILRS Web site at:

http://ilrs.gsfc.nasa.gov/reports/ilrs_reports/ilrsreport_2005.html. Requests for hardcopy versions can be sent to Carey Noll, Secretary of the ILRS Central Bureau (Carey.Noll@nasa.gov).

ILRS CENTRAL BUREAU

JGR paper on ITRF2000 is one of the most cited papers

Essential Science Indicators (ESI) reported that the paper

Altamimi, Z., P. Sillard, and C. Boucher (2002), ITRF2000: A new release of the International Terrestrial Reference Frame for earth science applications, *J. Geophys. Res.*, 107(B10), 2214, doi:10.1029/2001JB000561.

has been identified by Thomson-ISI® to be the one of the most cited papers in the field of Space Science. One of the authors, Zuheir Altamimi has been asked by ESI and his answers are posted at the following web page:

<http://www.esi-topics.com/erf/2007/april07-ZuheirAltamimi.html>.

A paper on ITRF2005 is published in JGR

An article, "ITRF2005: A new release of the International Terrestrial Reference Frame based on time series of station positions and Earth Orientation Parameters", was published in Journal of Geophysical Research (JGR).

The complete citation is

Altamimi, Z., X. Collilieux, J. Legrand, B. Garayt, and C. Boucher (2007), ITRF2005: A new release of the International Terrestrial Reference Frame based on time series of station positions and Earth Orientation Parameters, *J. Geophys. Res.*, 112, B09401, doi:10.1029/2007JB004949.

IAG COB

Meeting Announcements

EGU General Assembly 2008 – Geodesy Sessions & Abstract Deadline

The next General Assembly of the European Geosciences Union will be held in Vienna, Austria, April 13-18, 2008. Here is a list of Geodesy (G) sessions at the EGU 2008 with the names of Conveners:

- G1 Marine gravity field modeling (Ardalan, A.)
- G2 Recent Developments in Geodetic Theory (Holota, P.)
- G3 GRACE Science Applications (Flechtner, F.)
- G4 The impact of technique errors on reference frame accuracy and stability (Altamimi, Z.)
- G5 Observing and understanding Earth rotation variability and its geophysical excitation (Salstein, D.)
- G6 Advances in GPS and InSAR techniques for geodynamic modelling and analysis of natural hazard (co-listed in GD) (Meghraoui, M.)
- G7 GNSS new capabilities for geosciences (Perosanz, F.)
- G8 Monitoring of the lower atmosphere and ionosphere by space geodetic techniques (Boehm, J.)
- G9 Geophysical models for the analysis of space-geodetic techniques (Nothnagel, A.)
- G10 Geodetic and Geodynamic Programmes of the CEI (Central European Initiative) (Sledzinski, J.)
- G11 European cartographic heritage - Historical topographic and cadastral maps and their geodetic basis (Timár, G.)
- G12 GGOS: Observing and Interpreting Earth's Mass Transports (Gross, R.)
- IS9 - G14/CL52/GD24/GMPV41 Upper Mantle and Lithosphere Dynamics, Glacial Isostatic Adjustment and Quaternary Climate (Poutanen, M.)
- IS27 - MPRG13/G15/GD23 Small scales for potential fields - tools and models (co-organized by MPRG, G & GD) (Panet, I.)
- IS64 - TS19/GD33/G16 Geology, tectonics, kinematics, seismology, and geodynamics of the Mediterranean-Near/Middle East region (Govers, R.)
- IS10 - G17/HS1.7/NH10.4 Ground Movement: Measurements, Subsurface Causes, and Interpretation (Fokker, P.)

For more information see <http://meetings.copernicus.org/egu2008>.

Important dates:

14 January 2008: Deadline for receipt of abstracts

31 March 2008: Deadline for pre-registration & hotel booking

WWW.COSIS.NET

Geodetic Techniques (GNSS, VLBI, SLR) and Its Applications on Atmosphere/Geodynamics session in AOGS 2008

Asia Oceania Geosciences Society (AOGS) is the one of the biggest society on Geosciences and has the mission to promote the Geophysical sciences for the benefit of humanity in Asia and Oceania. The 5th annual meeting of AOGS will hold in Busan, South Korea on 16-20 June, 2008. You can find more information at the AOGS web

site <http://www.asiaoceania.org/aogs2008/index.asp> and http://www.asiaoceania.org/aogs2008/doc/aogs2008_8pp_brochure.pdf. The session for Space Geodesy was accepted like as "Geodetic Techniques (GNSS, VLBI, SLR,,) and Its Applications on Atmosphere/Geodynamics" (Session number : SE87)

The deadline of submitting abstract is **7 February, 2008**.

SE87: Geodetic Techniques (GNSS, VLBI, SLR,,) and Its Applications on Atmosphere/Geodynamics

The current Space/Ground Geodetic techniques (e.g. GNSS (both ground and LEO based), VLBI, SLR,) with an unprecedented accuracy enable to characterize a broad range of Earth sciences, especially increasingly GPS/SLR/VLBI networks in Asia-Oceania areas cooperating with IGS, ILRS, IVS and GGOS as well as the CHAMP/GRACE and the recently launched Formosat-3/COSMIC mission. Each or combination of geodetic techniques provide valuable insights for Atmosphere (troposphere and ionosphere) and Geodynamics, such as Space-borne GNSS Radio Occultation and Ground-based GNSS meteorology, crustal deformation, Earth Rotation and Polar Motion, Precise Orbit Determination, Positioning and Navigation (RTK, PPP.), land subsidence, natural hazard monitoring as well as deep-space exploration. This session welcomes all Space Geodetic techniques issues/developments and their integration applications in Atmosphere/Geodynamics.

JAMES PARK AND MIKE PEARLMAN

EUREF Symposium 2008

*18-20 June, 2008
Brussels, Belgium*

The EUREF symposium is organised yearly. It is the forum where the EUREF activities are discussed and resolutions are taken. The 2008 symposium will be organised by the Royal Observatory of Belgium (ROB), the Royal Military Academy (RMA) and the National Geographic Institute (NGI).

Important deadlines:

- Abstract submission : **April 30, 2008**
- Registration : **May 15, 2008**.

Details are available through the Symposium homepage <http://epncb.oma.be/EUREF2008/>.

WWW.EUREF-IAG.NET

International Symposium on Gravity, Geoid and Earth Observation GGEO 2008

*23-27 June, 2008
Chania, Crete, Greece*

The symposium aims at bringing together geodesists and geophysicists working in the general areas of gravity, geoid, geodynamics and Earth observation. Besides covering the traditional research areas, special attention will be paid to the use of geodetic methods for

- Earth observation,
- Environmental monitoring,
- Global Geodetic Observing System (GGOS)
- Earth Gravity Models (e.g., EGM08),
- Geodynamics studies,
- Dedicated gravity satellite missions (i.e., GOCE),
- Airborne gravity surveys,
- Geodesy & geodynamics in polar regions, and
- The integration of geodetic and geophysical information.

The **first circular letter** is available http://www.geomatlab.tuc.gr/files/ggeo2008/GGEO2008_1st_Circular.pdf. The web site of the Symposium is (<http://www.geomatlab.tuc.gr/GGEO2008>) with additional information.

The abstract submission deadline is **29 February 2008**.

SOURCE: WWW.GEOMATLAB.TUC.GR/GGEO2008

37th Scientific Assembly of the Committee on Space Research and Associated Events – COSPAR 2008

50th Anniversary Assembly

13 - 20 July 2008, Montreal, Canada.

Contact:

COSPAR Secretariat, c/o CNES, 2 place Maurice Quentin, 75039 Paris Cedex 01, France. Tel: +33 1 44 76 75 10, Fax: +33 1 44 76 74 37. E-mail: cospar@cosparhq.cnes.fr
<http://www.cospar2008.org/> or <http://www.cospar-assembly.org>

Scientific Program Chair:

Prof. Jean-Pierre St.-Maurice, University of Saskatchewan, Saskatoon, Canada

Abstract Deadline:

February 17, 2008

Topics:

Approximately 85 meetings covering the fields of COSPAR Scientific Commissions (SC) and Panels:

- SC A: The Earth's Surface, Meteorology and Climate
- SC B: The Earth-Moon System, Planets, and Small Bodies of the Solar System
- SC C: The Upper Atmospheres of the Earth and Planets Including Reference Atmospheres
- SC D: Space Plasmas in the Solar System, Including Planetary Magnetospheres
- SC E: Research in Astrophysics from Space
- SC F: Life Sciences as Related to Space
- SC G: Materials Sciences in Space
- SC H: Fundamental Physics in Space
- Panel on Satellite Dynamics (PSD)
- Panel on Scientific Ballooning (PSB)
- Panel on Potentially Environmentally Detrimental Activities in Space (PEDAS)
- Panel on Radiation Belt Environment Modelling (PRBEM)
- Panel on Space Weather (PSW)
- Panel on Planetary Protection (PPP)
- Panel on Capacity Building (PCB)
- Panel on Education
- Special events: 50th anniversary lectures, interdisciplinary lectures, space agency round table, session on EGY - Towards an Earth and Space Science Commons

Papers Published in *Advances in Space Research*, a fully refereed journal.

A. JANOFSKY
Associate Director
COSPAR

16th International Workshop on Laser Ranging – Initial Announcement

Poznan Poland, September 22-26, 2008.

The Space Research Centre of the Polish Academy of Sciences has confirmed that the next International Workshop on Laser Ranging will be held in Poznan Poland (15 km from the Borowiec SLR station) on September 22-26, 2008. We ask you to reserve this date on your calendars and plan to attend what will surely be another exciting laser workshop.

CAREY NOLL
Crustal Dynamics Data Information System (CDDIS)

IAG Sponsored Meetings

EUREF Symposium 2008

June 18-20, 2008, Brussels, Belgium

The EUREF Symposium 2008 will take place in Brussels, Belgium from 18th to 20th June 2008. Details are available through the home page of the Symposium: <http://epncb.oma.be/EUREF2008/>.

International Symposium on Gravity, Geoid and Earth Observation GGEO 2008

June 23-27, 2008, Chania, Crete, Greece

The symposium aims at bringing together geodesists and geophysicists working in the general areas of gravity, geoid, geodynamics and Earth observation. Besides covering the traditional research areas, special attention will be paid to the use of geodetic methods for Earth observation, environmental monitoring, Earth Gravity Models, geodynamics studies, dedicated gravity satellite missions, airborne gravity surveys, Geodesy & geodynamics in polar regions, and the integration of geodetic and geophysical information. The website of the Symposium is <http://www.geomatlab.tuc.gr/GGEO2008>.

New Challenges in Earth's Dynamics ETS2008

September 1-5 2008, Jena, Germany

Under the sponsorship of the International Association of Geodesy (IAG), the Commission 3 (Geodynamics) & the sub-commissions on earth Tides (3.1), Crustal Deformation (3.2), Geophysical Fluids (3.3) and the Global Geodynamics Project (GGP) organise for the first time a joint meeting which will include the 16th International Symposium on earth Tides. The assembly will provide a unique opportunity to exchange new results and strategies to meet the current challenges of earth's dynamics from different viewpoints. For details, please visit www.ets2008.de.

IAG Related Meetings

ISU's 12th Annual Symposium 'Space Solutions to Earth's Global Challenges'

February 20-22 2008, Strasbourg, France

The 12th Annual International Symposium: "Space Solutions to Earth's Global Challenges" organized by the International Space University (ISU) will be held in Strasbourg, France from 20-22 February 2008. Abstract Deadline is 5th October 2007. See <http://www.isunet.edu/>.

GEOS 2008

February 27 – 28 2008, Prague, Czech Republic

The international conference GEOS 2008 will take place in Prague during 27 February to 28 February 2008. The conference will be followed by the General Assembly meeting of the Council of European Geodetic Surveyors, that will take place in Prague immediately after the conference during 29 February to 1 March 2008. At the same time the International Fair of Geodesy and Cartography GEOS 2008 will be held during 28 February to 1 March. Other information dealing with the conference will be available at http://www.vugtk.cz/geos/2008/index_aj.php.

High Precision Navigation and Positioning Conference and INS Tutorial

March 11-12 2008, Oslo, Norway

The Nordic Institute of Navigation (NNF) will arrange the High Precision Navigation and Positioning Conference and Exhibition on March 11th – 12th 2008. The conference venue will be the Norwegian Space Centre, Drammensveien 165, Oslo. This time, the conference is focusing on high precision. More information on the conference is available here: <http://www.nornav.org/high-precision-navigation-and-positioning-conference-and-ins-tutorial.4443838-27945.html>.

PLANS 2008: Position Location and Navigation Symposium

May 6 - 8 2008, Monterey, California, USA

PLANS 2008 is the second biennial conference co-sponsored by the IEEE and the ION. Please visit the website www.plansconference.org for details.

Measuring the changes

May 12-15 2008, Lisbon, Portugal

This conference is the second joint meeting of the two groups under the theme “Measuring the Changes”, combining the 13th FIG Symposium on Deformation Measurements and Analysis with the 4th IAG Symposium on Geodesy for Geotechnical and Structural Engineering.. The recent catastrophic disasters have dramatically increased the importance, and demand, for fully automated, continuous, and reliable deformation monitoring in the civil engineering, mining, and energy sectors. The Conference webpage is <http://measuringchanges.lnec.pt/>.

International Symposium on the Effect of Climate Change on the World's Oceans

May 19-23 2008, Gijón, Spain

Climate change is the most important threat to the Earth. Even if we stabilize CO₂ emissions, the 2007 IPCC (Intergovernmental Panel on Climate Change) Assessment confirms that warming will continue for decades and sea level will continue to rise for centuries. The Symposium will bring together results from observations, analyses and model simulations, at a global scale, and will include discussion of the climate change scenarios and the possibilities for mitigating and protecting the marine environment and living marine resources. For details, please visit http://www.pices.int/meetings/international_symposia/2008_symposia/Climate_change/

SIRGAS 2008 General Meeting and Workshop

May 26-29 2008, Montevideo, Uruguay

The next SIRGAS meeting will take place in Montevideo, Uruguay, from 28 to 29 May 2008, in combination with the second workshop of the SIRGAS Working Group I (Reference System), which will be held two days before, from 26 to 27 May, 2008. The corresponding web site is <http://www.sirgas.org/index.php?id=156&L=2>.

Asia Oceania Geosciences Society's 5th Annual Meeting (AOGS 2008)

June 16-20, 2008, Busan, South Korea

The AOGS mission is to promote geophysical science for the benefit of humanity in Asia and Oceania. Hence, AOGS 2008 will once again bring together geoscientists from all over Asia, Oceania and the rest of the world to present their works and ideas. AOGS invites all geoscientists to convene their own sessions and present their findings at AOGS 2008 in Busan. The session for Space Geodesy was accepted like as "Geodetic Techniques (GNSS, VLBI, SLR,.) and Its Applications on Atmosphere/Geodynamics" (Session number : SE87) For further details, visit <http://www.asiaoceania.org/aogs2008/index.asp>.

37th Scientific Assembly of the Committee on Space Research and Associated Events – COSPAR 2008

50th Anniversary Assembly

13 - 20 July 2008, Montreal, Canada.

The 50th Anniversary Assembly COSPAR 2008 will be held in Montreal, Canada. For more information about this particular event please visit the Assembly website at <http://www.cospar2008.org/>.

16th International Workshop on Laser Ranging

22-26 September 2008, Poznan, Poland

The next International Workshop on Laser Ranging will be held in Poznan Poland (15 km from the Borowiec SLR station) on September 22-26, 2008.

HydroChange 2008

October 1-3, 2008, Kyoto, Japan

The HydroChange 2008 Symposium “Hydrological changes and management from headwater to the ocean” will be held at Kyoto Garden Palace, Kyoto, Japan. Please visit the official web site of the Symposium at http://www.chikyu.ac.jp/HC_2008.

21st CODATA International Conference

5-8 October 2008, Kyiv, Ukraine

CODATA - International Council for Science : Committee on Data for Science and Technology's 21st International Conference: "Scientific Information for Society - from Today to the Future" will be held in Kyiv, Ukraine. Visit <http://www.codata.org/08conf/index.html> for more information.

The Role of Hydrology in Water Resources Management

October 13-16 2008, Isle of Capri, Naples, Italy

A joint IAHS UNESCO Symposium on The Role of Hydrology in Water Resources Management will be held in Naples, Italy. The purpose of the Symposium "The Role of Hydrology in Water Resources Management" is to discuss ways in which hydrologists can contribute most effectively to the planning and management of freshwater projects, including the efficient operation of existing systems faced with new socio-political situations. Web page of the Symposium is www.ihp2008capri.it.

XXXVI IAH Congress

October 26-31, 2008, Toyama, Japan

"Integrating Groundwater Science and Human Well-being" congress is planned to be held in Toyama, Japan. Please visit <http://www.envr.tsukuba.ac.jp/~IAH2008>.

IAG Sister Societies' General Assemblies

Associations' Scientific Assemblies of the IUGG

- IUGG/IAGA, August 23-30, 2009, Sopron, Hungary
- IUGG/IAHS, September 7-12, 2009, Hyderabad, India
- IUGG/IASPEI, January 10-16, 2009, Cape Town, South Africa
- IUGG/IAG, August 31-September 4, 2009, Buenos Aires, Argentina
- IUGG/IACS-IAMAS-IAPSO, July 19-29, 2009, Montreal, Canada
- IUGG/IAVCEI, August 18-25, 2008, Reykjavik, Iceland

EGU 2008

April 13-18, 2008, Vienna, Austria

The European Geosciences Union (EGU) General Assembly will bring together geoscientists from all over Europe and the rest of the world into one meeting covering all disciplines of the Earth, Planetary and Space Sciences. Especially for young scientists the EGU appeals to provide a forum to present their work and discuss their ideas with experts in all fields of geosciences. Please visit <http://meetings.copernicus.org/egu2008/> for more information

XXI ISPRS Congress

July 3-11, 2008, Beijing, China

The quadrennial ISPRS Congress will be hosted by the Chinese Society of Geodesy, Photogrammetry and Cartography, with the theme 'Silk Road for Information from Imagery'. It is worth mentioning that ISPRS 2008 Beijing will be held just one month before 2008 Beijing Olympic Games when the city will become the focus of world attention. Detailed information is available from the Congress website: <http://www.isprs2008-beijing.org/>.

33rd International Geological Congress IGC

August 6-14, 2008, Oslo, Norway

The 2008 Congress will be held in collaboration with the International Union of Geological Sciences (IUGS) and many other international and national organisations, the National IUGS Committees in the five Nordic Countries (Norden): Norway, Denmark, Finland, Iceland and Sweden. Please visit <http://www.33igc.org/> for more information about the IGC 2008.

IAVCEI 2008 General Assembly

August 18-25, 2008, Reykjavik, Iceland

Reykjavik is an excellent place to host the IAVCEI General Assembly in 2008. The main theme of the meeting will be "Understanding Volcanoes". The meeting is devoted to volcanism and volcano-tectonics of all

environments and the impact of volcanic eruptions on the surface environment and human activities. The website of the Assembly is <http://www.iaucei2008.hi.is/>.