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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

Agenda of IAG EC Meeting in Vienna, Austria April 16 2007

- 0. Adoption of agenda.
- 1. Result of elections (FS)
- 2. Bomford Prize (GB)
- 3. Levallois Medal (FS/GB)
- 4. Best paper award 2006 (CCT/WF)
- 5. GGOS (MR)
- Statutes and By-Laws (KPS proposals for changes have been distributed), see http://www.gfy.ku.dk/~iag/IAG_Statutes_-final.Feb26-2.pdf
 http://www.gfy.ku.dk/~iag/IAG_Bylaws_-Restructured_vs_original.Feb26.pdf
- 7. IUGG07 (CCT, see http://www.gfy.ku.dk/~iag/IAG_program_07_rev6.pdf)
- 8. Sponsorships (CCT)
- 9. Travaux (JA/CCT)
- 10. IAU Resolution B1 and B2. (Should IA/IUGG adopt similar resolutions ?) http://www.iau.org/fileadmin/content/pdfs/IAU2006_Resol2.pdf http://www.iau.org/fileadmin/content/pdfs/IAU2006_Resol1.pdf
- 11. Next meeting, July 2, 9-12:30, Perugia.
- 12. AOB.

GB=Gerhard Beutler, CCT=C.C.Tscherning, KPS=Klaus-Peter Schwarz, FS=F.Sansò, WF=W.Featherstone, MR=M.Rotacher, JA=J.Ádám

IAG BUREAU

Preliminary program and Draft Council Agenda of IAG for IUGG XXIV General Assembly Perugia

IAG General Assembly at IUGG XXIV 2007, Perugia Italia, July 2-13, 2007.

JGS001 Ocean Circulation and contributions from new satellite missions (IAPSO)

JGS002 Global sea-level change: Altimetry, GNSS and tide gauge measurements (IAPSO)

JGS003 Earthquake and Volcano Geodesy (IASPEI, IAVCEI)

JGS005 Observations of the Cryosphere from Space (CCS, IAMAS, IAPSO, IAHS, CliC)

Monday 2	Tuesday 3	Wedensday 4	Thursday 5	Friday 6	Saturday 7
Union		EC	Union	EC	
EC	GS001	GS005	GS001	GS004	
	GS002	GS002	GS002	GS003	
Council	U 03: Global	GS001	JGS001	JGS002	
Opening	Observations	GS002	GS004	GS004.	
	GS002				
IUGG		IAG			
Opening		Reception			
Monday 9	Tuesday 10	Wedensay 11	Thursday 12	Friday 13	
	Union			Union	
GS003	JGS003				
JGS005					
GS003	JGS003				
JGS005	Closing				
Council	New EC				
IAG					
Dinner					
	Union EC Council Opening IUGG Opening Monday 9 GS003 JGS005 GS003 JGS005 Council	Union EC	Union EC GS001 GS002 GS002 Council Opening Observations GS002 IUGG Opening IUGG Opening Tuesday 10 Union GS003 JGS005 GS003 JGS005 GS003 JGS005 GS003 JGS005 Closing Council New EC	Union EC GS001 GS005 GS001 GS002 GS002 GS002 Council U 03: Global GS001 JGS001 Opening Observations GS002 GS004 GS002 IUGG IAG Opening Reception Monday 9 Tuesday 10 Wedensay 11 Thursday 12 Union GS003 JGS003 JGS005 GS003 JGS003 JGS005 Closing Council New EC	Union EC Union EC EC GS001 GS004 GS004 GS002 GS002 GS002 GS003 Council U 03: Global GS001 JGS001 JGS002 Opening Observations GS002 GS004 GS004. IUGG IAG Reception Friday 13 Monday 9 Tuesday 10 Wedensay 11 Thursday 12 Friday 13 Union GS003 JGS003 JGS003 JGS003 JGS005 Closing Council New EC Very Council V

last update 2007-03-08

Draft COUNCIL AGENDA 2007.

Monday, July 2, 2007, 14.30 - 15.00

Subject and Responsible:

- 1. Welcome, greetings to delegates. GB/CCT
- 2. Perugia Organisation GB/CCT
- 3. Change of Statutes and By-Laws (KPS)
- 4. Appointment of Audit Committee CCT
- 5. Appointment of Resolution Committee GB
- 6. IAG Budget Proposal 07 11 CCT
- 7. Information on IAG awards GB (Levallois Medal, Bomford Prize)
- 8. Review of election procedures and results. FS (This is followed by the opening session and a reception).

Monday, July 9, 2007, 19 - 21.

Subject and Responsible

- 1. Report of audit committee. AC
- 2. IAG Budget Approval. CCT
- 3. IAG Representatives. CCT
- 4. Venue of Scientific Assembly 2009. GB.
- 5. Adoption of changes to statutes and by-laws. KPS/GB.
- 6. Approval of continuation or establishment of Inter Commission Committee and/or projects.
- 7. Resolutions. GB

GB=Gerhard Beutler, CCT=C.C.Tscherning, KPS=Klaus-Peter Schwarz, FS=F.Sansò

IAG BUREAU

Report of SC1.2 for the next General Assembly of IAG

The report of Commission 1 (Reference Frames), Sub-Commission SC1.2 (Global Reference Frames) is being prepared for the next General Assembly of IAG. Should you have any input to the above report please send it directly to the SC President Claude Boucher.

Meeting Announcements

Early Registration Deadline for IUGG General Assembly

Please note that registrations are now being accepted, the form is available on line. The <u>deadline</u> <u>for early registration and accommodation bookings</u> is <u>30 April</u>. That deadline is firm and cannot be changed.

The Website for the Perugia General Assembly: www.iugg2007perugia.it.

VLBI meetings of the IVS

April 12 - 15, 2007, Vienna, Austria

• 18th European VLBI for Geodesy and Astrometry (EVGA) Working Meeting, (April 12-13, 2007)

- 8th IVS Analysis Workshop, (April 14, 2007)
- 2nd IVS VLBI2010 Working Meeting, (April 15, 2007)

The meetings are organized by the VLBI Group of the Institute of Geodesy and Geophysics (IGG), Vienna University of Technology. The purpose of the 18th Working Meeting on European VLBI for Geodesy and Astrometry (EVGA) is to exchange results of the most recent geodetic and astrometric VLBI research, information on VLBI stations and discussion of future projects. Colleagues from all over the world working in the various fields of geodetic and astrometric VLBI are kindly invited to attend the meeting and present their activities and results. Deadline for submitting an abstract is February 23, 2007. Late abstracts possible.

Scientists involved in geodetic and astrometric VLBI data analysis are invited to attend the 8th IVS Analysis Workshop for an exchange of technical and conceptual ideas related to generating state-of-the-art IVS products.

URL: http://vlbi.geod.uni-bonn.de/IVS-AC/workshops/workshop2007/workshop2007.html

Deadline for registration is March 16, 2007. Detailed information of all three meetings, further information and the registration form can be found on the web page: http://mars.hg.tuwien.ac.at/~evga/

LOCAL ORGANIZING COMMITTEE Harald Schuh, Johannes Boehm, Joerg Wresnik

GNSS Base Station Installation and Data Processing Training Course

Regional Centre for Mapping of Resources for Development (RCMRD), Nairobi, Kenya, 30 July - 10 August 2007

GNSS/GPS data users have greatly increased in the last few years. However in Africa there is lack of GNSS base stations that could enhance the application and use of GNSS data. Furthermore in Africa, there is no uniform geodetic reference system making maps not compatible and sharing of map information difficult. To overcome these difficulties the AFREF project was initiated by the United Nations for Economic Commission for Africa (UNECA) in 2005.

When fully implemented, AFREF will consist of a network of continuous, permanent GNSS/GPS stations such that a user anywhere in Africa would have free access to the generated data.

The purpose of the course is to provide technical skills in base station installation, data handling and dissemination and precise analysis using scientific GNSS processing software. The qualifying participants shall be Land surveyors, Geodesist, Engineers, Cartographers from African countries with experience in Global Navigation satellite System (GNSS) technologies. Tuition is free but participants have to meet their traveling and accommodation costs.

Course contents

- Introduction to GNSS and IGS data and products
- Reference systems and frames
- Requirements of Continuously Operating Reference GNSS Stations (CORS)
- Operation of AFREF project
- Theory of GPS data processing
- Training with Scientific software processing

Application deadline: Applications should reach RCMRD at contacts given below latest by 16 July 2007

Contact: Dr. H.O. Farah/Mr. C.M.Kamamia

Regional Centre for Mapping of Resources for Development

P. O Box 632-00618 Nairobi Kenya

Tel.+254-20-8560227/0265/1775, Fax. +254-20-8561673/3767

Email: farah@rcmrd.org /muyack@rcmrd.org; Web: www.rcmrd.org

Symposium on Terrestrial Gravimetry: Static and Mobile Measurements

St. Petersburg, Russia, 20 - 22 August 2007.

The meeting is being organized by Leonid Vitushkin, Chair of the Study Group 2.1 (Comparison of Absolute Gravimeters) of Commission 2. The symposium is officially sponsored by the IAG, cosponsored by the Institute of Earth Physics of the Russian Academy of Sciences, Moscow; and the BIPM.

The topics of the conference will include the design and investigations of the measuring instruments for the absolute and relative measurement of the gravity field, their applications for terrestrial, shipboard and airborne platforms, and in the metrology of gravimetry. Traditional free-fall, superconducting, and spring-type gravimeters, gradiometers, and new technologies, such as based on atom interferometry, will be especially welcome, as will results and methodologies of static and mobile campaigns, as well as current and future networks. Geophysical interpretation of results and connection with space-borne systems are of limited interest, since the emphasis is on terrestrial (including airborne) instrumentation and methods to extract gravity field measurements for a variety of applications.

More details about the symposium will soon be available on the website of the meeting. Contact person of the Local Organising Committee is Mrs. Margarita Grishina (mgrishina@eprib.ru).

CHRISTOPHER JEKELI AND LEONID VITUSHKIN

"Scientific and Fundamental Aspects of the Galileo Programme"

2-4 October 2007, Toulouse, France.

An international colloquium on fundamental aspects and scientific applications of Galileo and GNSS will be held in Toulouse in October 2007. ANAE (Académie Nationale de l'Air et de l'Espace), Bureau des Longitudes, Académie de Marine and ESA (European Space Agency), are the main instigators of this colloquium meant to contribute to the 50th anniversary celebrations of the launch of Sputnik.

The colloquium will address three major issues:

- The fundamental aspects of navigation by satellites and Galileo: geodetic and temporal reference frames, relativistic frame, on board and ground clocks, orbits, radiative environment in orbit, intersatellite links, fundamental aspects of propagation, tropospheric and ionospheric corrections, calibration and validation, relations with international organisations (BIPM, IGS).
- Scientific applications in meteorology, geodesy, geophysics, space physics, oceanography, land surface and ecosystem studies, using either normal or reflected signals, differential measurements, phase measurements, occultations, in real or delayed modes, using receivers placed on the ground, in airplanes or in scientific satellites.
- Scientific developments in physics and dealing with future systems, particularly in testing fundamental laws, in astronomy, in quantum communication, and in developing clocks or experiments based on GNSS.

This colloquium intends to bring together leading members of the European scientific community and their international partners. One of its aims is to propose to Galileo partners means of enhancing the scientific use of Galileo and to contribute to GNSS development based on scientific approaches.

Contact Points:

Organisation Committee: <u>Martine.Segur@anae.fr</u> Scientific Committee: <u>Clovis.de.Matos@esa.int</u>

Source: http://www.congrex.nl/07a06/

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:

Mid-February 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 an 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

24th General Assembly of the IUGG

2 - 13 July 2007, Perugia, Italy

The XXIV IUGG General Assembly will be held in Perugia from July 2nd to July 13th 2007. The conference events (sessions, workshops, lectures, symposia) will take place on the campus of the University of Perugia. The poster session and special events will take place in the historical center of the city. The deadline for early bird registration is April 15, 2007. The website of the Assembly is http://www.iugg2007perugia.it/.

Symposium on Terrestrial Gravimetry: Static and Mobile Measurements

20 - 22 August 2007, St. Petersburg, Russia.

The topics of the conference will include the design and investigations of the measuring instruments for the absolute and relative measurement of the gravity field, their applications for terrestrial, shipboard and airborne platforms, and in the metrology of gravimetry. Traditional free-fall, superconducting, and spring-type gravimeters, gradiometers, and new technologies, such as based on atom interferometry, will be especially welcome, as will results and methodologies of static and mobile campaigns, as well as current and future networks. More details about the symposium will soon be available on the website of the meeting.

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IAG Related Meetings

VLBI meetings of the IVS

12 – 15 April, 2007, Vienna, Austria

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First Asia workshop on superconducting gravimetry

12-16 March 2007, Hsinchu, Taiwan

The promotion of superconducting gravimetry research includes, among others, exchange of gravity data, software, research personnel and inter-comparison of absolute gravimeters. The workshop is open not only to scientists in Asia, but also to scientists in the world. The abstract submission deadline is December 31, 2006. Please visit http://space.cv.nctu.edu.tw/SG/Asia_workshop.html for details.

EGU General Assembly 2007

15-20 April 2007, Vienna, Austria

The EGU General Assembly 2007 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. The EGU invites all geoscientists to participate in the assembly, submit contributions to the topical sessions and share their research with colleagues and friends. Please also visit the conference website for further details: http://meetings.copernicus.org/egu2007/.

ASMDA 2007

29 May – 1 June, 2007, Chania, Crete, Greece

The 12th International Conference on Applied Stochastic Models and Data Analysis (ASMDA 2007,), which will take place in Chania, Crete, Greece (May 29 – June 1, 2007).

The ASMDA Conferences are organized every two years starting 25 years ago with the first ASMDA Symposium organized in Brussels, Belgium (1981). The papers presented are included in special volumes. The best papers appear in special issues of the leading journals of the ASMDA field. Further information at the Conference Web site: http://www.asmda.com.

WMSCI 2007

8-11 July 2007, Orlando, Florida, USA

The 11th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2007)) will take place in Orlando, Florida, USA, from July 8-11, 2007. WMSCI 2007 is an international forum for scientists and engineers, researchers and consultants, theoreticians and practitioners in the fields of Systemics, Cybernetics and Informatics. The topic of the conference is related to the area of Geographical Information Systems. March 1st is the new deadline for papers/abstracts submissions and Invited Sessions Proposals for WMSCI 2007. Visit the conference homepage at http://www.iiis-cyber.org/wmsci2007 for further details.

CITSA 2007

12-15 July 2007, Orlando, Florida, USA

The 4th International Conference on Cybernetics and Information Technologies, Systems and Applications: CITSA 2007 jointly with the 5th International Conference on Computing, Communications and Control Technologies: CCCT 2007 will take place in Orlando, Florida, USA, from July 12-15, 2007. CITSA '07 is an International Multi-Conference being organized with the purpose of providing researchers, practitioners, developers, consultants, and end-users of computerized, communications and/or control systems and technologies, as well as their industrial and social applications in the private and the public sectors, an opportunity to join in a common place sharing experience and knowledge. The conference homepage is at http://www.info-cyber.org/citsa2007.

GNSS Base Station Installation and Data Processing Training Course

Regional Centre for Mapping of Resources for Development (RCMRD), Nairobi, Kenya, 30 July - 10 August 2007

GNSS/GPS data users have greatly increased in the last few years. The AFREF project was initiated by the United Nations for Economic Commission for Africa (UNECA) in 2005. The purpose of the course is to provide technical skills in base station installation, data handling and dissemination and precise analysis using scientific GNSS processing software. The qualifying participants shall be Land surveyors, Geodesist, Engineers, Cartographers from African countries with experience in Global Navigation satellite System (GNSS) technologies. Tuition is free but participants have to meet their traveling and accommodation costs. The RCMRD website is www.rcmrd.org.

4th AOGS Assembly

30 July - 4 August 2007, Bangkok, Thailand

Having hosted its Scientific Assemblies annually since 2004, Asia Oceania Geosciences Society (AOGS) Assembly has become an ideal forum for addressing to and interacting with geoscientists from all over Asia and Oceania as well as those from U.S. and Europe. There will also be a special GPS/VLBI/SLR Networks and Geosciences Applications session in AOGS Assembly 2007. The deadline of submitting abstract is 15 February, 2007. For details, please visit http://www.asiaoceania.org/aogs2007/.

ION GNSS 2007

24-25 September 2007, Fort Worth, Texas, USA

The 20th International Technical Meeting of the Satellite Division of the Institute of Navigation will be held at Fort Worth, Texas, USA. Abstracts should be submitted electronically via ION's Web site no later than March 7, 2007. Program information and further details are found on the webpage of the meeting http://www.ion.org/meetings/#gnss.

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.

IAG Sister Societies' General Assemblies

XXXth FIG General Assembly and Working Week

13-17 May 2007, Hong Kong SAR, China

The XXX FIG General Assembly and Working Week will be organised in Hong Kong 13-17 May 2007. The theme of the Working Week is Strategic Integration of Surveying Services. Conference web site is open at: www.figww2007.hk.

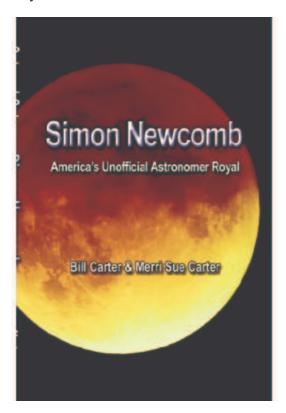
XIIIth ISM Congress

September 24-28, 2007, Budapest, Hungary

The XIIIth Congress of International Society for Mine Surveying (ISM) will be held at Budapest University of Technology and Economics, Budapest, Hungary. The preliminary program is available from the ISM website: http://www.ism.rwth-aachen.de.

Book Review

Bill Carter and Merri Sue Carter: Simon Newcomb: America's Unofficial Astronomer Royal



Title: Simon Newcomb: America's Unofficial Astronomer Royal

Authors: Bill Carter and Merri Sue Carter

Publisher: Mantanzas Publishing

ISBN-10 1591138035 ISBN-13 978-1591138037

Year: 2006
Price: US\$26.95
Pages: 228 p.
Details: Hardcover

Simon Newcomb was one of the most important American scientists of the nineteenth century. He performed his most important work as Director of the Nautical Almanac Office, a branch of the U.S. Navy. He reorganized the theory and means of computing lunar and planetary tables. He was much concerned that different countries published almanacs based on different theories and different values for fundamental constants. He was an early leader in organizing international scientific conferences to address these differences.

In the hands of these authors Simon Newcomb comes alive. There is plenty of source material on Newcomb (the authors mention that the holdings at the U.S. Library of Congress occupy 62 feet of shelf space). Bill and Merri Sue Carter have chosen material that show Newcomb not only as a scientist but also as a man with a family, friends, and scientific colleagues. The reader gets the impression that in their research the authors became quite fond of Newcomb.

Many geodesists know Bill Carter as a leader in the use of VLBI and GPS for geodetic purposes and as an organizer of the International Earth Rotation Service. His daughter, Merri Sue, is an astronomer at the U.S. Navel observatory, studying many of the same problems and technologies as

her father. They are also the authors of *Latitude: How American Astronomers Solved the Mystery of Variation*, which focused on polar motion and the work of Seth Chandler.

Those readers familiar with the early history of the U.S. Coast and Geodetic Survey will find many familiar individuals in this book. Newcomb's wife was Mary (Mollie) Hassler, granddaughter of Ferdinand Hassler, founder and first Superintendent of the U.S. Coast Survey.

In 1856 Newcomb applied for a position with the Coast Survey, which was then directed by Alexander Bache. Unfortunately there were no openings at that time, but J. E. Hilgard, the assistant in charge of the office, was sufficiently impressed with Newcomb's abilities to suggest that he apply to the Nautical Almanac Office in Cambridge, Massachusetts. There he found an entry level position performing numerical calculations. This was a missed opportunity for the Coast Survey. One can only imagine what might have happened if Newcomb's enormous talents had been applied to geodetic problems.

In addition to his hundreds of technical papers in mathematical astronomy, Newcomb was a popularizer of science. Two of his books are *Popular Astronomy* and *Astronomy for Everybody*. He even wrote science fiction. For a time he was the person to whom journalists came for understandable explanations of scientific developments. In the same spirit, this enjoyable new book makes the life of this extraordinary astronomer available to a popular audience.

CHARLES R. SCHWARZ