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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

New in 2007:

Journal of Applied Geodesy

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Aims and Scopes

The Journal of Applied Geodesy (JAG) is a forum for peer-reviewed research articles in the area of application of geodesy to engineering and other natural sciences. It publishes innovative contributions on sensor developments, multi-sensor systems and sensor data fusion focusing on the capture of georeferenced data. Hence topics related to navigation and mobile mapping will also be covered by JAG. The scope includes optical and microwave 3-D measurement techniques and other sensors for geotechnical measurements. Furthermore, applied geodesy articles from all areas of satellite-based geodetic networks, deformation measurements, deformation analysis, modelling of local geodynamic processes and the development of intelligent alert systems, measurement techniques for large construction sites and mechanical engineering will be presented. With increased use of the tools of Artificial Intelligence for sensor control, sensor fusion and data analysis, manuscripts on these topics with a strong emphasis on applied geodesy will also be published.

Call for papers

A manuscript can be submitted in electronic form to the Editorial Office of the Journal of Applied Geodesy (Email: Journal.Applied-Geodesy@gmx.net).

Subscription Information

The Journal of Applied Geodesy has four issues per year, with approximately 100 pages per issue. Colour reproduction of figures is possible.

Approximate subscription rates for 2007:

Print only: € 378, approx. US\$ 458*

Online only: € 378, approx. US\$ 458*

Print + Online: € 408, approx. US\$ 488*

For more information on the Journal of Applied Geodesy, see the Website
www.degruyter.de/journals/jag.

Prices are subject to change. 05/06
* For orders placed in North America.

Meeting Announcements

3rd International GOCE User Workshop

November 6-8, 2006, ESA-ESRIN, Frascati, Italy.

The European Space Agency's Gravity field and steady-state Ocean Circulation Explorer (GOCE) Mission is planned for launch in 2007. This is the first of ESA's Core Earth Explorer satellite missions, and promises amongst others scientific applications in Geodesy, Solid-Earth Physics and Oceanography.

This is a preliminary announcement of the ESA's intent to hold the third in a series of International GOCE User Workshops from 6-8 November, 2006 at ESA-ESRIN, in Frascati, near Rome, Italy. This pre-launch workshop is timed to take place prior to the closure of the forthcoming GOCE Data Announcement of Opportunity (see: <http://eopi.esa.int>). It is intended to provide potential users of GOCE data products with the opportunity to obtain the latest information on satellite performance as well as details regarding ground segment operations, data products and user services. It will allow users the opportunity to learn about product specifications, and the plans for data calibration and validation. This Workshop will also offer the opportunity for users to present their planned scientific studies, prior to consolidating their GOCE Data AO proposals.

Conference proceedings are anticipated to be published as an ESA Special Publication by the ESA Publications Division, and so full scientific papers are encouraged in addition to the Workshop presentation material. The official language of the workshop is English.

Preliminary Calendar of Key Dates

- | | |
|---------------------------------------|---------------------------|
| • First Announcement | March 2006 |
| • Second Call & Web Announcement | May 2006 |
| • Deadline for Abstract Submission | 7 th July 2006 |
| • Notification of Abstract Acceptance | 8 September 2006 |
| • Preliminary Programme | 15 September 2006 |
| • Confirmation of Participation | 18 September 2006 |
| • Registration | 18 September 2006 |
| • Proceedings Paper Submission | 13 October 2006 |
| • Presentation Material for Meeting | 30 October 2006 |
| • GOCE User Workshop | November 6-8, 2006 |

Further information on Workshop objectives and themes are available on the Workshop web site:

<http://earth.esa.int/goce06>

We look forward to welcoming you at the Workshop. Please do not hesitate to forward this announcement to colleague you believe may be interested.

The 3rd International GOCE User Workshop 2006 - Organising Committee

M. R. DRINKWATER, J. BENVENISTE (CHAIRS)
R. FLOBERGHAGEN, R. HAAGMANS, M. KERN, G. PLANK, E. MONJOUX, C. COMPARETTO, C. MORRIS (MEMBERS)

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, co-sponsored 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@eprb.ru).

CHRISTOPHER JEKELI AND
LEONID VITUSHKIN

IAG Sponsored Meetings

Geodetic Reference Frames GRF2006

9-13 October 2006, Munich, Germany

The Commission 1 „Reference Frames“ of the International Association of Geodesy (IAG) invites scientists and experts from all countries to participate in the Symposium “Geodetic Reference Frames”. The topics of the Symposium include the advanced development and combination of geodetic observation techniques, analysis and processing methods for parameter estimation related to reference frames, definition and integration of regional reference frames, consistent determination of terrestrial and celestial reference frames and Earth orientation parameters. Detailed information is available at the symposium website: <http://iag.dgfi.badw.de/?grf2006>.

International Symposium “Modern Technologies, Education and Professional Practice in Geodesy and Related Fields

9-10 November 2006, Sofia, Bulgaria

The symposium (with a special session for young specialists and students) will be held at the House of Science and Techniques, 108 Rakovski Str., Sofia, 09-10 November 2006, from 9 a.m. to 6 p.m. For up-to-date information please, visit the symposium website at: <http://www.gis-sofia.bg/sgzb/>.

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.

IAG Related Meetings

ION GNSS 2006

September 26-29, 2006, Fort Worth, Texas

The Institute of Navigation (ION), hosts the ION GNSS 2006 technical meeting in September. For details, please visit <http://www.ion.org/meetings/#gnss>.

Geodetic Week 2006

10-12 October 2006, Munich, Germany

The Geodetic Week is a forum for university and research institutes working in the fields of geodesy, surveying and neighbouring disciplines. Its goal is to foster information exchange between scientists and users with respect to the major topics listed below. Young scientists are particularly invited to give appropriate contributions. Further information and registration forms are available: <http://ifen.bauv.unibw-muenchen.de/gw06/>.

3rd International GOCE User Workshop

November 6-8, 2006, ESA-ESRIN, Frascati, Italy.

ESA's intent is to hold the third in a series of International GOCE User Workshops from 6-8 November, 2006 at ESA-ESRIN, in Frascati, near Rome, Italy. Further information on Workshop objectives and themes, as well as details for abstract and paper/poster submission, are available on the Workshop web site: <http://earth.esa.int/goce06>.

International Symposium on Advances in Geographic Information Systems – ACM-GIS 2006

November 10-11, 2006 Arlington, Virginia, USA

The 2006 International Symposium of ACM GIS will be the fourteenth of a series of symposia/workshops that began in 1993 with the aim of bringing together researchers, developers, users, and practitioners carrying out research and development in novel systems in which geospatial data and knowledge is central. Please visit the website <http://www.itc.nl/acmgis06> for details.

125th Anniversary of Seismology in Hungary

November 13-14, 2006 Budapest, Hungary

The Permanent Seismological Commission was organised according to resolution of the Hungarian Geological Society of 9 November 1881. In the activity of the Commission took part the most prominent geologists, geographers and geophysicists of the country. Among them Radó Kövesligethy who made a lot to develop the theoretical backgrounds of seismology, organised the national network of earthquake observatories and was one of the founders of international collaboration in seismology.

To commemorate this anniversary of seismology in Hungary the Hungarian Academy of Sciences organises 13-14 November 2006 a meeting in the main building of the Hungarian Academy of Sciences (Budapest, Roosevelt square 9).

For more information contact please Péter Varga (varga@seismology.hu)

UN/China/ESA Training Course on the Use and Applications of GNSS

4 – 8 December 2006, Beijing, China

This training course is being organized in cooperation with the Government of China and the European Space Agency (ESA), as part of the activities of the United Nations Programme on Space Applications, for the benefit of the developing countries in Asia and the Pacific region. The training course will be hosted by the National Remote Sensing Centre of China and China-Europe GNSS Technology Training and Cooperation Centre in Beijing from 4 to 8 December 2006. The website link of the above planned training course is <http://www.unoosa.org/oosa/en/SAP/gnss/index.html>.

Munich Satellite Navigation Summit 2007

6 - 8 March 2007, Munich, Germany

The Munich Satellite Navigation Summit 2007 – the fifth one – to be held 6-8 March, 2007 in the famous “Residenz München”, Germany, has been established as the European and international conference with global impact featuring invited high-ranking worldwide speakers from industry, science and governments dealing with the directions of satellite navigation now and in the future. Further information is available on the website <http://www.munich-satellite-navigation-summit.org>.

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. Visit the conference homepage at <http://www.iiis-cyber.org/wmsci2007> for further details.

IAG Sister Societies' General Assemblies

FIG 2006

October 8-12, 2006, Munich, Germany

The Organising Committee has the pleasure of cordially inviting you to Munich to attend the XXIII International FIG World Congress from 8 to 13 October 2006. This event will take place concurrently with the INTERGEO 2006, the largest international congress and fair for geodesy, geo-information and land management. For details, please visit <http://www.fig2006.de>.

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>.

Meeting Reports

Report on the 16th Symposium of the IAG Reference Frame Sub-commission for Europe (EUREF)

By invitation of the University of Latvia, Riga Technical University, Latvian Geospatial Information Agency and Rigas Geometrs SIA, the EUREF Sub-commission held its 15th Symposium from June 14-17, 2006 in Riga/Latvis. The EUREF Technical Working Group (TWG) met as usual the day before the beginning of the symposium, i.e. on June 13.

The symposium took place in the splendid audience hall of the University of Latvia. More than 110 geodesists representing 25 European countries met for this 2006 annual EUREF symposium.

The symposium was opened by the chairman of the Local Organizing Committee, J. Balodis. Welcome addresses were given by representatives of the host organisations and IAG.

In general the work of EUREF aims the support of the Europe-wide use of the European Reference Systems in all scientific and practical aspects related to precise geo-referencing and navigation, Earth Sciences research and multidisciplinary applications. The EUREF Symposia are an open forum and may be attended by any person interested in the work of the Sub-commission. The frame of the scientific programme therefore is orientated on the recent activities of EUREF, further to discuss further new, focusing on a continuous innovation and on the changing user needs. So the scientific programme was dedicated to the topics

- EUREF Permanent Network ([EPN](#))
- [ETRS89](#) (European Terrestrial Reference System) and the [EVRS2000](#) (European Vertical Reference System)
- ([UELN](#)) Unified European Levelling Network
- [ECGN](#) (European Combined Geodetic Network) and EUVN_DA (European Vertical GPS Reference Network Densification Action)
- IAG Project [GGOS](#) (Global Geodetic Observing System).

The schedule of the scientific programme was subdivided into 7 sessions for oral presentations. The sessions were dedicated as usual to the topics

1. Activities of the EUREF Technical Working Group (TWG) (5 reports)
2. European Vertical Reference System (EVRS) / Height Systems (7)
3. Activities of the Expert Group on Geodesy (ExGG) (4)
4. EUREF Permanent Network (EPN): Status, Analysis and Projects (6)
5. EPN-related Applications (7)
6. Implementation of ETRS89 / ETRF Improvements (8)
7. National Reports (27)
8. Other EUREF-related contributions (5)

Moreover 12 posters to relevant topics were presented. The EuroGeographics Expert Group on Geodesy (ExGG) met for a business meeting.

The scientific sessions were accompanied by a social programme with impressive arrangements of Latvian hospitality and culture.

A detailed overview on this symposium (programme, participants, ppt-files of presentations, photo gallery etc.) can be found in the EUREF homepage (registered now as an European address) <http://www.euref.eu/> – see symposia. There also the previous symposia are documented. Moreover the EUREF homepage comprises manifold other information on EUREF such as TWG, ETRS89, EPN, campaigns, EVRS, ECRS, documentation, EUREF mail and links.

The EUREF Sub-commission acknowledges the financial support given by EuroGeographics for the enabling the participation of delegates from economical weak countries.

By courtesy of the Ordnance Survey the EUREF Sub-commission is invited to hold its 2007 symposium in London.

J. A. TORRES, H. HORNIK

Resolutions – EUREF 2006.

Resolution no. 1

The IAG Reference Frame Sub-commission for Europe (EUREF)

recognising that

- in October 1993 the EUREF-BG-93 campaign in Bulgaria was observed and was reprocessed in 2005,
 - in August-September-October 2004 the EUREF-BG-2004 campaign was observed,
 - in September-October 2003 the EUREF-NKG-2003 in Scandinavia and the Baltic countries was observed, including points in Latvia and Lithuania, and
- all the results were submitted to the EUREF technical working group, where they were accepted as Class B standard (about 1 cm at the epoch of observation)

endorses the subset of points submitted to the EUREF Technical Working Group as extensions to the current realisation of ETRS89

Resolution no. 2

The IAG Reference Frame Sub-commission for Europe (EUREF)

noting the close collaboration between EUREF, European GNSS Analysis Centres and European national meteorological institutes (represented by EUMETNET) for the near real-time determination of Zenith Total Delay (ZTD) and Integrated Water Vapour (IWV),

and considering the needs of European national meteorological institutes to have continued access to EPN data and products,

approves the establishment of a Memorandum of Understanding (MoU) between EUREF and EUMETNET for

- free access to EUREF data for the determination of ZTD and IWV,
- free access to meteorological data by EUREF,
- exchange of data based on common guidelines,

and invites European GNSS network operators to collaborate with European national meteorological institutes on co-located observations (GNSS and meteorological observations) and support GNSS data processing from dense national networks to contribute to meteorological applications.

Resolution no. 3

The IAG Reference Frame Sub-commission for Europe (EUREF)

noting the resolution No. 1 of the EUREF 2005 symposium concerning the absolute antenna radome calibration

and further noting the forthcoming introduction of standards for the use of absolute antenna calibrations within the International GNSS Service (IGS) and the EUREF Permanent GPS Network (EPN)

considering that not all stations of the EPN use antennae for which APVC are available

requests EPN station managers to only use absolutely calibrated antenna types on new EPN stations or when a replacement antenna radome combination is introduced to a EPN station

and also encourages absolute calibration of antennae/radomes that are not already absolutely calibrated after removal from an EPN station.

Resolution no. 4

The IAG Reference Frame Sub-commission for Europe (EUREF)

noticing

- the commitment to complete the GLONASS satellite constellation before the end of 2007 and maintain its capabilities afterwards
- the upcoming Galileo system
- the availability of new geodetic-type multi-GNSS receivers/antennae and analysis software

recognizing the importance of tracking all active GNSS satellites

intends to fully integrate GLONASS observations within the EPN

recommends station managers to use multi-GNSS equipment with “all in view” tracking capabilities when upgrading existing EPN stations or installing new EPN stations.

Resolution no. 5

The IAG Reference Frame Sub-commission for Europe (EUREF)
which held its sixteenth symposium in Riga from June 14 – 17, 2006

expresses its heartfelt thanks to the Local Organising Committee chaired by Janis Balodis and Janis Kaminskis as well as Gunars Silabriedis and Janis Strauhmanis for organising the symposium and for the excellent arrangements resulting in a very successful meeting

and for the support given by;

- University of Latvia
- Latvian Geospatial Information Agency
- Riga Technical University
- Rigas Geometrs SIA.