March 2006

Editor: Gyula Tóth

IAG Communication and Outreach Branch MTA-BME Research Group for Phys. Geod. and Geodyn. Department of Geodesy and Surveying Budapest University of Technology and Economics H-1521 Budapest, Hungary

Information Service of the International Association of Geodesy

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newsletter@iag-aig.org

http://www.iag-aig.org

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 (<u>newsletter@iag-aig.org</u>). 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: <u>http://www.iag-aig.org</u>

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:

C.C Tscherning University of Copenhagen Dept. of Geophysics *Copenhagen, Denmark* Fax: +45 35365357 E-mail: cct@gfy.ku.dk

General Announcements

Special Issue 'VLBI' of the Journal of Geodesy

CALL FOR PAPERS

We are seeking contributions for a special issue of the Journal of Geodesy (JoG) which will be dedicated to VLBI. JoG is the official journal of the International Association of Geodesy. All papers will be peer-reviewed according to JoG review procedures.

Deadline for submissions: March 31, 2006.

We solicit papers that focus on topics such as

- results of geodetic and astrometric VLBI and interpretations,
- theoretical and/or modeling studies,
- combination of VLBI with other space geodetic techniques.

The special issue is not intended to include papers on purely instrumental aspects of the VLBI technique.

Submissions should be marked "VLBI special issue" and sent to the Editorial Office of the Journal of Geodesy in the usual way (double-spaced, single-column, with figures and tables at the end). Instructions for authors are available at the Springer web site at the URL:

http://www.springer.com/sgw/cda/frontpage/0,11855,4-110-70-1101678-0,00.html

The editors of the special issue will be happy to take a look at abstracts and drafts ahead of time, to let you know whether the paper would fit with the issue. In this case, please send your material to one of the editors.

Special issue editors: Harald Schuh (<u>harald.schuh@tuwien.ac.at</u>) Axel Nothnagel (<u>nothnagel@uni-bonn.de</u>) Chopo Ma (<u>Chopo.Ma@nasa.gov</u>)

DIRK BEHREND IVS COORDINATING CENTER

Call for Contributions: VI Hotine-Marussi Symposium of Theoretical and Computational Geodesy: Challenge and Role of Modern Geodesy

Wuhan University, PR China, 29 May - 2 June 2006.

The symposium will focus on the following five topics:

- 1. Satellite gravity missions: open theoretical problems and their future application;
- 2. Earth-environmental, disaster monitoring and prevention by geodetic methods;
- 3. GNSS: Mathematical theory, engineering applications, reference system definition and monitoring;
- 4. Deterministic and Ramdon fields analysis with application to BVP, approximation theory and inverse problems; and
- 5. Statistical estimation and prediction theory, quality improvement and data fusion.

All scientists are welcome to attend the Symposium. The deadline of submitting an abstract is 17 March 2006. For more information, please visit the website: <u>http://www.sgg.whu.edu.cn/icct_hm.html</u>.

PEILIANG XU

Assistant Professor in Cadastres and Land Tenure

The *Department of Geomatics Engineering*, in the Schulich School of Engineering at the University of Calgary, invites applications for the position of Assistant Professor (tenure track) effective August 1, 2006 or shortly thereafter. Applicants with a PhD in geomatics engineering or applied science related to geomatics, and with demonstrated research excellence in land information systems and land tenure, are encouraged to apply.

The selected candidate is expected to provide leadership and vision to the cadastral studies/land tenure core of the undergraduate curriculum and to further develop research and graduate studies in this area. He/she should have expertise in several of the following areas: land tenure legislation and regulation, real property law, land surveying, geospatial information technologies applied to land tenure problems, environmental and land use planning. The selected candidate must be able to teach various undergraduate courses related to land tenure and land law, surveying, GIS and planning. He/she is expected to develop and externally fund a strong research program and be capable of attracting graduate students. He/she will be required to register as a Professional Engineer in the Province of Alberta and/or as a land surveyor under one of the provincial or national jurisdictions in Canada.

The Department of Geomatics Engineering is actively involved in all aspects of geomatics engineering and comprises 20 faculty members, some 90 graduate students and 50 students in each year of the undergraduate program. State-of-the-art geomatics engineering equipment and computer facilities are available. Related information can be found at <u>http://www.geomatics.ucalgary.ca/</u>

The University of Calgary is a co-educational, non-denominational, government supported institution with a student population of about 27,000. The City of Calgary has population of over one million and is one of the fastest growing cities in Canada. It is situated within an hour's drive of Banff National Park, one of the most beautiful areas in the Canadian Rocky Mountains.

Applications should include a detailed curriculum vitae and a complete list of publications. Three letters of reference should be mailed directly to:

Head, Department of Geomatics Engineering, Schulich School of Engineering University of Calgary 2500 University Drive NW, Calgary, Alberta T2N 1N4, Canada E-mail: minch@ucalgary.ca

Closing date: April 30, 2006

All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

The University of Calgary respects, appreciates and encourages diversity.

To see all University of Calgary academic positions, please visit www.ucalgary.ca/hr/career

Meeting Announcements

International Workshop "Height Systems, Geoid and Gravity of the Asia-Pacific"

Ulaanbaatar, Mongolia, June 6-8, 2006.

Organized by MonMap Engineering Services, Administration of Land Affairs, Geodesy and Cartography, and the Mongolian Academy of Science.

Sponsored by the International Association of Geodesy and the International Gravity Field Service.

Web site with meeting information: www.igfs.net.

The *International Gravity Field Service* (International Association of Geodesy) is the host organization for the "Height Systems, Geoid and Gravity" Workshop, June 6-8, 2006. The aim of the workshop is to bring together geodesists and geophysicists from the region working in the gravity field and height determination fields. The workshop will be arranged around the following topics:

- Height systems and national leveling networks
- Regional and local geoid modeling
- Airborne gravity survey
- Satellite gravity and new earth gravity field models
- Different vertical datums and dynamic reference systems

Papers for oral or poster presentations are solicited in the above areas. We also encourage presentations of ongoing and future international or national projects.

Deadlines:

Apr 15: Abstract submission deadline and deadline for travel support grants May 5: Deadline for registration/visa invitations and housing requests

> Chairman of the Scientific Committee and liason to the LOC: RENE FORSBERG (chairman of IGFS) Danish National Space Center

IGeS Geoid School 2006. "The Determination and Use of the Geoid"

University of Copenhagen, June 19-23, 2006.

The new Geoid School 2006 will be organized in Copenhagen, Denmark. The Preliminary Program and the Registration Form are now available from the IAG webpage: http://www.iag-aig.org/index.php?tpl=text&id c=23&id t=197

The final deadline for the Registration is 15th May 2006.

Local Organizing Committee:

C.C.Tscherning, M.Veicherts, C.Schneider Pedersen, E.Enemærke, all at Niels Bohr Institute, University of Copenhagen, Juliane Maries Vej 30, DK-2100 Copenhagen Ø, Denmark. Phone: 004535320605, Fax: 004535365357. E-mail: <u>geoid06@gfy.ku.dk</u>.

Registration fee: Payment before May 15, 2006 or IAG Individual Member: Euro 300; Full registration 350 Euro. Payment cover CD with software used at the school and lecture notes.

4 IAG Travel Grants à 500 Euro available, with preference for participants from developing countries.

Preliminary Program

1^{st} day (June 19):			
09.00	Registration and Opening Cerimony		
09.30	Lecture 1 – General Introduction to Physical Geodesy (Prof. F.Sansò)		
11.00-11.15	Coffee Break		
11.15	Lecture 2 – General theory of Geoid Computation (Prof. F.Sansò)		
12.30-13.30	Lunch		
13.30	Lecture 3 – The romove – restore concept (Prof. F.Sansò)		
15.00 - 15.15	1		
15.15	Seminar: Geoid, gravity and sea-level from radar altimetry (Dr. O.B.Andersen)		
16.30	Day ends		
17.00	Ice-breaker reception		
17.00	ice-breaker reception		
2^{nd} day (June 20):			
09.00	Lecture 4 – The global geopotential models (Prof. N.Pavlis)		
10.45-11.00	Coffee Break		
11.00	Lecture 4- continued		
12.30-13.30	Lunch		
13.30	Exercises 1, Global Models (Prof. N.Pavlis)		
15.00-15.15	Coffee Break		

16.30 Day ends.

3 rd day (June 21)):		
09.00	Lecture 5 – The collocation method in Physical Geodesy, (Prof. C.C.Tscherning)		
10.45-11.00	Coffee Break		
11.00-12.30	Exercise 1 on Collocation		
12.30-13.30	Lunch		
13.30	Lecture 6 – The FFT methods in Physical Geodesy, (Prof. M.Sideris)		
15.00-15.15	Coffee Break		
15.15	Lecture 6, continued (Prof. M.Sideris)		
16.30	Day ends		
18.30	Official Dinner		
4 th day (June 22):			
09.00	Lecture 5 – continued (Prof. C.C. Tscherning)		
10.45-11.00	Coffee Break		
11.00			

07.00	Leetare 5 continued (1101. C.C. 15enerinig)
10.45-11.00	Coffee Break
11.00	Exercise 2 on Collocation
12.30-13.30	Lunch
13.30	Exercise 1 on FFT (Prof. M.Sideris)
15.00-15.15	Coffee Break
15.15	Exercise 2 on FFT
16.30	Day Ends

5th Day (June 23):

	-) -
09.00	Lecture 7 – The terrain effect in geoid estimation (Prof. R.Forsberg)
10.45-11.00	Coffee Break
11.00	Lecture 7 – continued
11.30	Lecture 8 - Fitting Gravimetric Geoids to GPS-levelling - "the GPS geoid"
12.30-13.30	Lunch
13.30	Exercise on Terrain effects and Geoid Fits (Prof. R.Forsberg)
15.00-15.15	Coffee Break
15.15-16.00	Closing Session.

International workshop on quality improvement and coast-land applications of satellite altimetry

An IAG Special Group 2.3 workshop on satellite altimetry July 21-22, 2006, Beijing, China.

Organized by Chinese Academy of Surveying and Mapping, National Chiao Tung University, and Ohio State University.

Web site with meeting information: <u>http://space.cv.nctu.edu.tw/altimetryworkshop/ALT2006.htm</u>.

This workshop is dedicated to the problems and solutions of coast and land applications of satellite altimetry in such areas as coastal gravity field modeling, coastal circulations, river level and lake level monitoring and desert study using satellite altimetry. This workshop is part of the activities of Special Group 2.3, International Association of Geodesy. The scientific committee and local organizing committee welcome world scientists interested in the these topics to participate in this workshop. The participants of this workshop are also encouraged to attend the Western Pacific Geophysical Meeting, July 24-27, 2006, Beijing (<u>http://www.agu.org/meetings/wp06</u>) to extend the discussions in a related session. Themes of the workshop are:

- methods for improving quality of coastal altimetry data
- waveform retracking for altimetry
- shallow-water tides from altimetry
- coastal gravity field modeling with altimetry
- vertical datum connection using altimetry
- land applications of altimetry

- altimetry applications and problems in polar seas
- lake level and river level changes from altimetry
- coastal circulations from altimetry
- Applications of altimetry to desert study

Submit your abstract to Xiaotao Chang at <u>changtao@public.bta.net.cn</u> and Cheinway Hwang at <u>hwang@geodesy.cv.nctu.edu.tw</u> in the word format. The deadline is <u>April 30, 2006</u>.

Chairman of the Scientific Committee: C. HWANG National Chiao Tung University

IAG Sponsored Meetings

Fifteen Years of Progress in Radar Altimetry Symposium

13-18 March 2006, Venice, Italy

Fifteen years after the launch of ERS-1 and TOPEX/POSEIDON, the European Space Agency, in collaboration with the French Space Agency, CNES, is organising an exceptional Symposium on "15 Years of Progress in Radar Altimetry". For details, visit the website <u>http://www.esa.int/venice06</u>.

<u>3rd IAG Symposium on Geodesy for Geotechnical and Structural Engineering and 12th FIG Symposium on</u> <u>Deformation Measurements</u>

22-24 May, 2006, Baden, Austria

The FIG symposia on deformation measurements and analysis have a long tradition dated back to 1975. The IAG Symposium was established in 1998 and held twice. It will be the first time that the two symposia will be held together as a joint conference. Researchers, engineers, educators, designers, manufacturers, contractors, public authorities, and other professionals are cordially invited to attend this international event. Please also visit the symposium website for further details: http://info.tuwien.ac.at/ingeo/sc4/baden.

<u>VI Hotine-Marussi Symposium of Theoretical and Computational Geodesy: Challenge and Role of Modern</u> <u>Geodesy</u>

29 May - 2 June 2006, Wuhan University, PR China

The symposium will be held at Wuhan University, PR China, 29 May - 2 June 2006. More information will be circulated as soon as available and can be found at the website: http://www.sgg.whu.edu.cn/icct hm.html

International Workshop "Height Systems, Geoid and Gravity of the Asia-Pacific"

6-8 June, 2006, Ulaanbaatar, Mongolia

The aim of the workshop is to bring together geodesists and geophysicists from the region working in the gravity field and height determination fields. The workshop will be arranged around the following topics: Height systems and national leveling networks, Regional and local geoid modeling, Airborne gravity survey, Satellite gravity and new earth gravity field models, Vertical datum and dynamic reference systems. Web site with meeting information: www.igfs.net.

EUREF Symposium 2006 RIga

14-17 June 2006, Riga, Latvia

The 2006 Symposium of EUREF, the Reference Frame Sub-Commission for Europe of IAG, will be held in Riga, Latvia, from 17 to 20 May, invited by the University of Latvia, State Land Service, Rigas GeoMetrs SIA and Riga Technical University. For further information visit the website <u>http://euref-2006.lu.lv/</u>.

IGeS Geoid School 2006. "The Determination and Use of the Geoid"

19-23 June, 2006, Copenhagen, Denmark

The new Geoid School 2006 will be organized in Copenhagen, Denmark. The Preliminary Program and the Registration Form are now available. For further information visit the IAG website http://www.iag-aig.org.

International workshop on quality improvement and coast-land applications of satellite altimetry

21-22 July 2006, Beijing, China

An IAG Special Group 2.3 workshop on satellite altimetry will be held from 21-22 July 2006, Beijing, China. This workshop is dedicated to the problems and solutions of coast and land applications of satellite altimetry in such areas as coastal gravity field modeling, coastal circulations, river level and lake level monitoring and desert study using satellite altimetry. The webpage of the workshop can be reached at the following URL: <u>http://space.cv.netu.edu.tw/altimetryworkshop/ALT2006.htm</u>.

"Gravity Field of the Earth" – 1st International Symposium of the IGFS

28 August - 1 September 2006, Istanbul, Turkey

The 1st symposium of IGFS as being a continuation of the symposia series of the former International Gravity and Geoid Commission will be held in Istanbul, Turkey. The major objective is to bring together the geoscientists working in general areas of modeling the Earth's gravity field. For more information visit the website: www.igfs2006.org.

XIII Assembly of the Wegener project

4-7 September 2006, Nice, France

The 13th Assembly of WEGENER will provide a forum for discussion, coordination and scientific support for geoscientists interested in unravelling the kinematics and mechanisms of the broad Eurasian/African/Arabian collision zone. Details of the meeting are available: <u>http://wegener.unice.fr/</u>.

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 symposium shall give the opportunity to present new ideas, discuss improved models and approaches, and report on latest results of the definition and realization of geodetic reference frames. Detailed information is available at the symposium website: <u>http://iag.dgfi.badw.de/?grf2006</u>.

IAG Related Meetings

GEOS 2006

March 16-18, 2006, Prague, Czech Republic Invitation To the GEOS Conference, to be held at the occasion of the 1st International Fair of Geodesy, Cartography, Navigation and Geoinformatics. For details, please visit

http://www.vugtk.cz/geos/2006/index_aj.php.

<u>Workshop on Analysis of Data from Superconducting Gravimeters and Deformation Observations</u> regarding Geodynamic Signals and Environmental Influences

March 27-31, 2006, Jena, Germany

The workshop will concentrate on all issues surrounding superconducting gravimetry - instrumentation, site development, data processing and analysis techniques, and integrated analyses including absolute gravity data. Besides gravity, the workshop will also address the environmental effects on tilt, strain measurements and on seismometer data. The workshop is within the new framework of the IAG, covering IC-P3 (GGP) - an inter-commission project of Commission 2 (Gravity Field) and Commission 3 (Earth Rotation and Geodynamics) - and WG 3.1.3, a special study group on the Analysis of Environmental Data for the Interpretation of Gravity Measurements, under the Earth Tide sub-commission. Please also visit <u>http://www.geo.uni-jena.de/geophysik/environ/envwork2.htm</u> for more information.

EGU General Assembly 2006

02 – 07 April 2006, Vienna, Austria

The EGU General Assembly 2006 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: <u>http://meetings.copernicus.org/egu2006/</u>.

EURISY Conference "GALILEO Services: Chances for Business"

24-25 April 2006, Prague, Czech Republic

In cooperation with the Czech Space Office, Eurisy organises a conference entitled "Galileo Services: Chances for Business" which will take place on 24/25 April 2006 in Prague, Czech Republic. This Conference is co-sponsored by ESA, UN/OOSA and the Galileo Point Poland. For details, please visit http://www.eurisy.org.

IEEE/ION PLANS 2006

April 24-27, 2006, Loews Coronado Bay Resort, San Diego, California

IEEE – the world's largest professional engineering organization – through its Aerospace and Electronics Systems Society (AESS), and the Institute of Navigation (ION), invite you to attend and enjoy the Position Location and Navigation Symposium, PLANS 2006. PLANS is sponsored every two years. For details, please visit <u>http://www.plans2006.com/</u>.

UN/Zambia/ESA Regional Workshop on the Application of GNSS Technologies in Sub-Saharan Africa

June 26-30, 2006, Lusaka, Zambia

This Regional Workshop is hosted by the Ministry of Health on behalf of the Government of Republic of Zambia. The workshop will aim at initiating projects that benefit the Sub-Saharan African countries and strengthening the networking in the region. It will also address the areas of natural resources management and environmental monitoring by applying GNSS technologies to thematic mapping, forest management, water resources management, and habitat restoration. All available information on this workshop is posted on the OOSA's website: <u>http://www.unoosa.org/oosa/en/SAP/gnss/index.html</u>.

Asia Oceania Geosciences Society's 3rd Annual Meeting (AOGS 2006)

July 10-14, 2006, Singapore, Malaysia

The AOGS mission is to promote geophysical science for the benefit of humanity in Asia and Oceania. Hence, AOGS 2006 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 2006 in Singapore. For further details, visit http://www.asiaoceania-conference.org/.

<u>3rd International conference on Cybernetics and Information Technologies, Systems and Applications</u>

July 20-23, 2006, Orlando, Florida

CITSA '06 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. For details, please visit the conference website <u>http://www.info-cybernetics.org/citsa2006/</u>.

IAU Joint Discussion 16 at the XXVIth IAU General Assembly

August 22-23, 2006, Prague, Czech Republic

IAU Joint Discussion 16 entitled "Nomenclature, Precession and New Models in Fundamental Astronomy. Applications and scientific contribution to astronomy" will be held during the XXVIth IAU General Assembly, on 22 and 23 August 2006, in Prague. Please see the IAU GA scientific program at: <u>http://www.astronomy2006.com/scientific-program.php</u> and the JD16 web page at <u>http://syrte.obspm.fr/iauJD16/</u>.

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.

IAG Sister Societies' General Assemblies

IAU XXVIth General Assembly

August 14-25, 2006, Prague, Czech Republic

The XXVIth General Assembly of the International Astronomical Union (IAU) will be held in Prague, Czech Republic, in a city with a rich astronomical history going back to the middle of XIVth century, when the oldest central European university was established there. The webpage of the Assembly is http://www.astronomy2006.com.

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 <u>http://www.fig2006.de</u>.