



**INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS**  
**UNION GEODESIQUE ET GEOPHYSIQUE INTERNATIONALE**

## **The IUGG Electronic Journal**

**Volume 10 No. 8 (1 August 2010)**

This informal newsletter is intended to keep IUGG Member National Committees informed about the activities of the IUGG Associations, and actions of the IUGG Secretariat. Past issues are posted on the IUGG Web site (<http://www.iugg.org/publications/ejournals/>). Please forward this message to those who will benefit from the information. Your comments are welcome.

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### **1. Call for Delegates to the XXV IUGG General Assembly**

In a formal letter posted on 15 July 2010 to all IUGG Adhering Bodies, a request was made for the name of the official delegate to the IUGG Council meetings in Melbourne, Australia, 27 June – 8 July 2011. This person must be accredited by means of a signed letter from the IUGG Adhering Body. This person will be admitted to the Council meeting and may participate in Council business. Delegates from Adhering Bodies in Observer status (that is, dues not paid through 2010), may participate in Council Business but may not vote on issues requiring a ballot, including elections of officers and approval of the budget. IUGG Members in Associate status may send one representative to the Council meetings as a Listener; Listeners are not permitted to engage in discussions or vote on IUGG business. The Adhering Bodies are asked to send these letters so that they arrive at the IUGG Office by 1 February 2011. In order to expedite the Council meetings, documents regarding items of business will be sent directly to the delegates for consideration in advance of the General Assembly.

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### **2. Reminder: Nominations for IUGG Officers and the Finance Committee are open**

An important matter for the IUGG Council at its meeting in Melbourne, Australia, in 2011 will be the election of IUGG officers (President, Vice-President, Treasurer, and 3 Bureau Members), as well as the 4 members of the Finance Committee. (The IUGG Secretary-General was elected for

two terms in 2007.) The Nominations Committee has the task of collecting the nominations and preparing the ballot, following the rules regarding nominations and elections for these positions (IUGG Statute 11 and By-Laws 10). The members of the Nominations Committee are as follows: Chair: *Masaru Kono* (Japan); Members: *Gerhard Beutler* (Switzerland), *Marta Calvache* (Colombia), *Vladimir Cermak* (Czech Republic). Alternate Member: *Corina Risso* (Argentina). Instructions regarding the procedures to be used to submit nominations have been sent to all IUGG/ Association officers and Adhering Bodies in January 2010. The first deadline for nominations is 25 September 2010. For further information, contact M. Kono ([masarukono@gmail.com](mailto:masarukono@gmail.com)) or the IUGG Secretariat (Ms. Simone Oswald, [Simone.Oswald@kit.edu](mailto:Simone.Oswald@kit.edu)).

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### **3. Report on the Executive Council Meeting of the World Meteorological Organization**

The World Meteorological Organization (WMO) is governed by the World Meteorological Congress, which meets every four years. The Congress elects an Executive Council (EC) composed of 37 individuals who meet on an annual basis to oversee the work of the Organization. The sixty-second session of the Council was held in Geneva from 8 to 18 June 2010 and, following long-established practice, IUGG was invited to send a representative to the meeting.

As this was the last session of the Council before the Sixteenth Congress meets in May-June 2011, considerable attention focussed on the structure and funding of WMO's activities in the years 2012-2015. In recent years WMO has increasingly presented and discussed its programme and budget on the basis of a series of strategic themes and expected results, which cut across traditional disciplinary boundaries. It is interesting to note that next Congress will revert to the traditional subdivision of the Organization's fields of interest, which will facilitate IUGG's contacts with WMO.

Various items on the agenda were of interest to IAHS and IAMAS, but they did not call for any new actions on the part of IUGG. On the other hand, this session of the EC saw volcanology on the agenda for the first time in relation to the ash cloud that resulted from the eruption of the Eyjafjallajökull volcano in Iceland in April-May 2010. The London Volcanic Ash Advisory Centre made a very interesting presentation on the action it took in response to the eruption. This emphasised the importance of data on the source of the ash and the extent to which a lack of such data limited the ability of the Centre to forecast the future development of the ash cloud. Arthur Askew, an IUGG representative to WMO, presented members of the Council with copies of the statement on "Volcanological and Meteorological Support for Volcanic Ash Monitoring" that was adopted by the IUGG Executive Committee in May 2010.

The WMO Executive Council "noted with appreciation" the IUGG statement and "welcomed the kind offer of the Union to work closely with WMO in the context of the Scientific Advisory Group" that is being set up, comprising experts in volcanology, transport and dispersion modelling and aerosol observations. As a result, close personal contact is being established between officers of IUGG and senior staff of the WMO Secretariat to agree on how best to encourage collaboration at local level between meteorologists and volcanologists so as to ensure that both scientific communities can react rapidly and together in the event of future eruptions and thus minimize the impact on the economic and social lives of the effected communities.

Received from Arthur Askew, IUGG Liaison to WMO

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### 3. News from the International Council for Science

#### *2009 Annual Report*

The ICSU Annual Report 2009 is now available. The online version is an interactive, document that allows you to flip through pages like a printed document. You can zoom in and out, search the text, download or print the document ([http://www.icsu.org/2\\_resourcecentre/AnnReport2009.html](http://www.icsu.org/2_resourcecentre/AnnReport2009.html)).

#### *Vacancy announcement: Director, ICSU Regional Office for Latin America and the Caribbean*

ICSU invites applications for the post of Director of its Regional Office for Latin America and the Caribbean (ROLAC), which was established in 2007 and previously hosted at the Brazilian Academy of Sciences. The Office will be moving to Mexico in October 2010 and will be hosted at the Mexican Academy of Sciences; which is where the new Director will take up duty. The Director is responsible for the activities of the Regional Office under the direction of Prof. D. Chen, the ICSU Executive Director. The Director is appointed for a term of three years, renewable, under the general conditions applicable to staff at the Mexican Academy of Sciences. The closing date for applications is **31 August 2010**. This position is only open to citizens of countries of the Latin America and the Caribbean region. Additional information can be found at the ICSU web page: [http://www.icsu.org/9\\_latestnews/latest\\_50.html](http://www.icsu.org/9_latestnews/latest_50.html).

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### 4. Launch of the Polar Information Commons (PIC)

The data generated during the International Polar Year – IPY (2007-2008) may be one of the most important long-term outcomes of this exciting international initiative. Where will these data be in 50 years? Will they be available and accessible for future scientists and other users? The Polar Information Commons (PIC), was officially launched at the IPY Oslo Science Conference on 8 June. PIC aims to ensure that the IPY data legacy and polar science data more generally are openly accessible and safely preserved for future generations for the benefit of science and society as a whole. Building on the precedent set by the Antarctic Treaty, the PIC is an open access information resource about the Earth's polar regions managed by the polar science and data community and accessible to all.



*Mark Parsons (left) welcomes HRH Crown Prince Haakon of Norway / PIC birthday cake / HSH Prince Albert II of Monaco with David Carlson (left) and Mark Parsons (right)*

Members of the PIC Committee and relevant stakeholders to date: ICSU Committee on Data for Science and Technology (CODATA); International Union of Geodesy and Geophysics (IUGG); World Meteorological Organization (WMO); International Arctic Science Council (IASC);

Scientific Committee on Antarctic Research (SCAR); IPY International Program Office (IPY IPO); ICSU World Data System Scientific Committee (WDS-SC), Science Commons, the Association of Polar Early Career Scientists (APECS) and the Royal Netherlands Academy of Sciences (KNAW).

Steven Chown, the recipient of the 2010 Martha T. Muse Award, officially launched the event. Approximately 100 people attended the launch event, and many dignitaries visited the PIC booth throughout the week, including HRH Crown Prince Haakon of Norway and HSH Prince Albert II of Monaco (see photos). The occasion was marked by the cutting of the PIC birthday cake (see photo) by Kim Jochum, who represented the Association of Polar Early Career Scientists - the next generation of researchers who will take responsibility for continuing the momentum of IPY and polar research.

Two IUGG representatives, Ian Allison (IACS President) and Mark Parsons (Member of the IUGG Union Commission on Data and Information), attended the PIC launch. For general information on PIC: <http://www.polarcommons.org>.

Received from Kathleen Cass, CODATA Secretariat

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## 5. International Geoscience Program (IGCP) Call for Project Proposals

The International Geoscience Programme (IGCP), a joint programme of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Union of Geological Sciences (IUGS), announced a call for project proposals. Scientific topics for IGCP project proposals include (a) Geoscience of the water cycle; (b) Geohazards: Mitigating the risks; (c) Earth resources: Sustaining our society; (d) Global change and evolution of life: Evidence from the geological record; (e) The deep Earth: How it controls our environment. The deadline for proposal submission is 15 October 2010. More information is available at the website: [http://portal.unesco.org/science/en/ev.php-URL\\_ID=6304&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/science/en/ev.php-URL_ID=6304&URL_DO=DO_TOPIC&URL_SECTION=201.html)

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## 6. Awards and Honours



The President of Egypt H. Mubarak awarded *Ali Abd-El-Aziz Tealeb* (IUGG Bureau Member) the most prestigious national scientific award “State Appreciation Prize in Basic Sciences” for his outstanding contribution to Earth sciences.

*Congratulations to Ali!*

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## 7. Obituaries

### *Valery Troitskaya* (1917–2010)



Valery Troitskaya, an eminent Russian geoscientist, passed away in Melbourne, Victoria, Australia, on 22 January 2010, age 92. She was known internationally for her pioneering work in characterizing the natural oscillations of the Earth's magnetic field and their origin in the magnetospheric plasma surrounding the Earth. She accepted major roles in international science as a member of the IUGG Bureau from 1963 to 1967 and as the first woman president of IAGA from 1971 to 1975. In 1985 she was elected an Honorary Member of IAGA. She also made significant contributions to COSPAR and SCOSTEP. Within the International Council for Science (ICSU), she served as a member of the first Steering Committee of the International Geosphere-Biosphere Program (1986-1990).

Born in Petrograd (now St. Petersburg) on 15 November 1917, she was widely talented, excelling in music, sport and languages. As well as her native Russian she was fluent in French, German and English, giving her easy access to the scientific literature and dialogue with international colleagues. At age 23, Valery graduated from the Leningrad State University with a master's degree in geophysics. In 1950 she enrolled as a graduate student at the Schmitt Institute of Physics of the Earth of the U.S.S.R Academy of Sciences in Moscow, where she studied naturally occurring ultralow-frequency (ULF) sinusoidal variations of the geomagnetic field with periods of about 1 second to 10 minutes recorded on special magnetograms. In 1953 she obtained her PhD for her studies of these magnetic pulsations, then called geomagnetic micropulsations. She pursued her career at the Schmitt Institute of Physics of the Earth until 1989 and for the last 27 years served as Chair of the Electromagnetics Department.

Realising that a key to understanding ULF waves was to determine their spatial and temporal properties, Valery established a network of magnetic observatories across Russia and in the Arctic and Antarctica. She developed joint programs with Germany, Finland, England, United States, Japan, Hungary, India, Cuba, Czechoslovakia and Australia. She also had collaborations with French scientists, which notably included the study of conjugate points in the northern and southern hemispheres and an expedition in which she was the first woman to venture in the French bathyscaphe, 'Archimed' and in which she measured geomagnetic fluctuations at the bottom of the Mediterranean Sea, at a depth of 2,600 metres. From her global studies of pulsations she developed a nomenclature for different types of ULF waves that was formally established in the paper by J. A. Jacobs et al., Classification of geomagnetic micropulsations, *J. Geophys. Res.*, 69(1), 180, 1964.

In her roles with IUGG and IAGA she was very active in facilitating communication between Soviet scientists and their international colleagues. Valery's career was distinguished not only by her original scientific discoveries but also by her outgoing personality and her mentoring of younger scientists worldwide. She had a particular skill in encouraging and challenging younger scientists, both experimentalists and theorists, to investigate the important unsolved mysteries of magnetic field fluctuations. Through these associations she developed many lifelong friendships with scientists in many countries. The significance of Valery's contribution to magnetospheric physics was highlighted in 1996 when a special symposium, entitled "ULF Waves: A Tribute to Valeria Troitskaya" was held at the AGU Spring Meeting to honour her in anticipation of her eightieth birthday.

In 1945 Valery married Alexander Waisenberg, a well-known nuclear physicist and twins Katia and Peter were born in 1946. Alexander died in 1985. In 1989 she married the well-known scientist Keith Cole. Keith also had been IAGA President and was a professor at La Trobe University in Melbourne, Australia. Keith and Valery travelled and worked together in many parts of the world, including extensive stays at NASA Goddard Space Flight Center. Eventually they settled in Melbourne. Valery is buried in Washington, D.C., in Rock Creek Cemetery. Messages of condolence may be directed to Keith Cole (Kew Gardens Aged Care Facility, 22-24 Gellibrand Street, Kew, VIC 3101, Australia, or by e-mail in care of his son David (david.cole@ aon.com.au) and to Valery's daughter Katia Nazarova (katianh@gmail.com)

Received from Peter Dyson, La Trobe University, and Katia Nazarova, retired from the Raytheon ITSS/NASA Goddard Space Flight Center Planetary Geodynamics Laboratory

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### ***Irene Fischer*** (1907-2009)



Irene Kaminka Fischer, a prominent geodesist whose career spanned the years 1952–1977, died on 22 October 2009 at the age of 102. She was born in Vienna, Austria, in 1907 and grew up there; graduating with a degree in mathematics from the Vienna Institute of Technology. In 1939, the Fischers fled Nazi Austria, first to Palestine, and by 1941 had relocated to the United States. Her entire career (1952-1977) in geodesy was spent with U.S. Army Map Service and its successors (currently the National Geospatial-Intelligence Agency). Hired as a mathematician, she eventually was promoted to chief of the Geoid Branch in the Geodesy Division and retained that position until her retirement.

Irene's first notable achievement was her participation in the revision of the 1924 International Ellipsoid, the reference model for the figure of the Earth officially sanctioned by the International Association of Geodesy (IAG). Her subsequent contributions improved the 1959 world datum by factoring in the satellite-derived value for the Earth's flattening and refined the North American geoid. Irene's area of expertise was the derivation of geoidal profiles from astrogeodetic and gravimetric data, enabling a three-dimensional approach to the determination of the geoid. This led to one of her best-known results: the calculation of a reference ellipsoid selected by NASA for satellite tracking and subsequently referred to as the "Fischer 1960 spheroid." A detailed summary of her work can be found in her autobiographical memoir "*Geodesy? What's That? My Personal Involvement in the Age-Old Quest for the Size and Shape of the Earth*".

Irene participated fully in the global geodetic community. She became familiar figures on the international scene, starting with the 1957 IUGG General Assembly in Toronto. She soon joined and eventually led several IAG Commissions. Over the years, Irene received considerable recognition: she was awarded a Department of Defense Distinguished Civilian Service Award as well as the U.S. Army Meritorious Civilian Service Medal twice. Honours coming from the scientific community included selection as an AGU Fellow, election to the U.S. National Academy of Engineering, and an honorary doctorate from the University of Karlsruhe in Germany. She also received the first Federal Retiree of the Year Award. The new NGA facility at Fort Belvoir, Va., scheduled for completion in 2011, has named its learning center after her.

Source: Morrison et al., Irene K. Fischer (1907-2009), EOS, 91(19), 11 May 2010.

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## 8. IUGG-related meetings occurring during August – October 2010

A calendar of meetings of interest to IUGG disciplines (especially those organized by IUGG Associations) is posted on the IUGG web site (<http://www.IUGG.org/calendar>). Specific information about these meetings can be found there. Individual Associations also list more meetings on their web sites according to their disciplines.

### *August*

- 8-13, AGU, IASPEI, Iguassu Falls, Brazil, Meeting of the Americas.
- 9-10, IUGG, AGU, and ROLAC, Iguassu Falls, Brazil, Symposium “Natural Hazards and Disaster Risk in Latin America and Caribbean”.
- 12-14, IACS, IUGG, Lijiang, China, Cryospheric Changes and Influences – Cryospheric Issues in Regional Sustainable Development.
- 13-19, IASPEI, IUGG, Foz do Iguacu, Brazil, Managing Waveform Data and Related Metadata for Seismic Networks.

### *September*

- 5-9, IASPEI, Montpellier, France, ESC2010 (European Seismological Commission 2010).
- 6-9, IAHS, Stellenbosch, South Africa, 11th International Symposium on River Sedimentation (ISRS).
- 7-11, IAHS, Tianjin, China, 9th International Conference on Hydroinformatics HIC2010.
- 12-16, IAHS, Krakow, Poland, XXXVIIIth IAH Congress.
- 13-22, IAGA, Changchun, China, XIVth IAGA Workshop on Geomagnetic Observatory Instruments, Data Acquisition and Processing.
- 14-17, IAG, Istanbul, Turkey, 15th General Assembly of WEGENER 2010.
- 15-16, IAVCEI, Keflavik Airport, Iceland, Conference on Eyjafjallajökull and Aviation.
- 18-24, IAGA, IUGG, Porto Sokhna, Egypt, 20th Electromagnetic Induction Workshop.
- 20-22, IAG, Fairbanks, Alaska, USA, 2nd General Assembly of the International Gravity Field Service.
- 20-23, IAHS, Prague, Czech Republic, HydroPredict' 2010: 2nd International Interdisciplinary Conference on Predictions for Hydrology, Ecology, and Water Resources Management: Changes and Hazards caused by Direct Human Interventions and Climate Change.
- 27-30, IAHS, Jackson Hole, Wyoming, USA. Remote Sensing in Hydrology 2010 Symposium.

### *October*

- 3-6, EMSEV, IUGG, Orange, CA, USA, Workshop on Electromagnetic Signals Associated with Earthquakes and Volcanoes.
- 3-9, IAVCEI, IUGG, Reunion Island, 3rd workshop on Collapse Calderas “Dynamics of Calderas: Collapse and Unrest”.
- 4-8, IAG, France, IAG Commission 1 Symposium 2010: Reference Frames for Applications in Geosciences (REFAG2010).
- 21-22, IAG, Lisbon, Portugal, International DORIS Service Workshop.
- 25-28, IAG, Shanghai, China, Observing and Understanding Earth Rotation.
- 25-29, IHP-UNESCO, IAHS, IUGG, Fez, Morocco, 6th World FRIEND Conference. Global Change: Facing Risks and Threats to Water Resources

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End of IUGG Electronic Journal Volume 10 Number 8 (1 August 2010)

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**Note: Contributions to IUGG E-Journal are welcome from members of the IUGG family. Please send your contributions to Alik Ismail-Zadeh by e-mail (insert in Subject line: *contribution to E-Journal*). The contributions will be reviewed and may be shortened by the Editor.**