The IUGG Electronic Journal

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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 website (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. Science-driven approach to Disaster Risk Reduction (Editorial)

Periodic scientific assessments of disaster risks should provide the world with a clear view of the current state of knowledge, potential socio-economic impacts of natural hazards, and the ways to reduce (if not prevent) significant human and economic losses.

Activities of several major intergovernmental and international organizations in the area of disaster risk reduction (DRR) are briefly reviewed here, and the importance of scientific assessments of disaster risks is highlighted.

Since at least 1989, when the UN General Assembly launched the International Decade for Natural Disaster Reduction (IDNDR, 1990-1999), which was succeeded by the UN International Strategy for Disaster Reduction (UNISDR), governments started to realize the importance of DRR. Sálvano Briceño, who led the UNISDR office for ten years, remembers: "Following the ten-year review of the 1994 Yokohama Strategy (adopted at the first World Conference on Natural Disaster Reduction in Yokohama, 23–27 May 1994), and in conclusion of two years of negotiations, governments adopted the *Hyogo Framework for Action (HFA, 2005-2015): Building the Resilience of Nations and Communities to Disasters* at the second World Conference on Disaster Reduction (WCDR) in Kobe, Hyogo, 18-22 January 2005. This agreement represents a historic engagement of governments and the international community to respond forcefully to the increasing vulnerability to natural events or phenomena around the world. In doing so, governments agreed on a series of

specific policies and measures to be taken to substantially reduce disaster losses by 2015 (in terms of loss of life and social, economic and environmental assets of communities and countries)".

Despite the great concern of society and governments of many countries, the number of disasters due to natural events and associated losses keeps growing. "Economic losses amount to hundreds of billions of dollars annually and are projected to double by 2030. Driven by investment decisions that do not take disaster risks into account, disaster losses are out of control, threatening the lives and livelihoods of billions of people and making sustainable growth and development an uncertain aspiration in many countries, now and in the future". Natural hazards become imminent threats to civilization because of the rapid increase of physical and social vulnerability to hazards at local, regional and global levels. The economic impact of disasters exceeds the cost of mitigation and preparedness by orders of magnitude. "If about 5–10% of the funds, necessary for recovery and rehabilitation after a disaster, would be spent to mitigate an anticipated event, it could in effect save lives, constructions, and other resources." DRR, including disaster mitigation and preparedness, needs long-term planning. To undertake the planning, a *science-driven approach* is required to assess disaster risks at all levels. This should provide the world with a clear scientific view of the current state of knowledge in disaster risks, potential socio-economic impacts of natural hazards, and the ways to reduce (if not prevent) significant human and economic losses.

In March 2015, national governments will assemble for the 3rd World Conference on Disaster Reduction (WCDR2015) in Sendai, Japan, to review the HFA and to provide guidance for the decades ahead. The International Council for Science (ICSU) has been invited to partner with UNISDR in the process of preparation for the WCDR2015, as science plays a crucial role in DRR now and should do so in the future. Existing scientific knowledge and technology for disaster risk assessment and mitigation could provide the impetus for more effective preventive measures.

ICSU and its Scientific Unions and National Members supported the UN-IDNDR program and contributed significantly to understanding the causes of natural hazards and disasters. Recognizing the importance of integrated research on disaster risk for DRR (a holistic view on disaster risk as a convolution of natural hazard, vulnerability and exposure components), ICSU, together with the International Social Sciences Council (ISSC) and UNISDR, created in 2008 the Scientific Program on Integrated Research on Disaster Risk (IRDR)⁴ to address the challenge of natural and human-induced environmental hazards as a ten-year major research program. Presently IRDR runs several international disaster risk projects (i) to uncover the root causes of disasters; (ii) to analyze how people make decisions in the face of risks; (iii) to study issues related to the collection, storage, and dissemination of disaster loss data; and (iv) to assess integrated research on disaster risk.

In 2000, International Union of Geodesy and Geophysics (IUGG) set up the Union Commission to promote research on geophysical risks and its reduction. The Budapest Manifesto on Risk Science and Sustainability 2002⁵ has been guiding the IUGG community in research on disaster risk and DRR. IUGG endorsed enthusiastically the creation of the IRDR program and launched in 2009 the project "Extreme Natural Hazards and Societal Implications" (ENHANS)⁶ with a support from ICSU Scientific Unions, IRDR, and several international and intergovernmental bodies. One of the

¹ Briceño, S. (2014) The International Strategy for Disaster Reduction and the Hyogo Framework for Action (2005-2015): essential tools for meeting the challenges of extreme events. In: *Extreme Natural Hazards, Disaster Risks and Societal Implications*, eds. A. Ismail-Zadeh, J. Urrutia Fucugauchi, A. Kijko, K. Takeuchi, and I. Zaliapin, pp. 333-347. Cambridge: Cambridge University Press.

² Report by the U.N. Secretary General on Implementation of the International Strategy for Disaster Reduction (http://www.unisdr.org/files/resolutions/SGReportEnglish2013.pdf)

³ Ismail-Zadeh, A. and Takeuchi, K. (2007) Preventive disaster management of extreme natural events. *Natural Hazards*, 42, 459-467.

⁴ http://www.irdrinternational.org/

⁵ http://www.iugg-georisk.org/Documents/Commission%20reports/Budapest Manifesto 2002.pdf

⁶ http://www.enhans.org

principal goals of the ENHANS project was to disseminate scientific knowledge and data on natural hazards and disaster risks for the advancement of research and education in general and especially in developing countries; and to establish links and networks with the organizations involved in research on all aspects of disaster risks. The ENHANS Declaration called for a reduction of disaster risks based on comprehensive holistic inter- and trans-disciplinary approaches to disaster risk research and on periodic risk assessments.

<u>Periodic disaster risk assessments.</u> IUGG together with IRDR and ICSU GeoUnions informed the scientific community at the ICSU General Assembly (Rome, Italy, 2011) about the importance of and urgency in periodic scientific assessments of disaster risks undertaken by an intergovernmental body, similar to the Intergovernmental Panel on Climate Change (IPCC) and Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). The ICSU General Assembly decided that the substance of the initiative merited consideration by the ICSU Executive Board. The Executive Board, in its turn, decided to invite the IRDR Scientific Committee, working together with the ICSU GeoUnions, to discuss with concerned ICSU Members and relevant U.N. bodies the need for an intergovernmental body for the assessment of disaster risk.

In 2013, the ICSU Executive Board considered the report from IRDR related to the initiative. The Executive Board recognized that the creation of an intergovernmental structure of the type originally proposed would require political and material support at the highest level and considered that an integrated, interdisciplinary scientific synthesis across all hazards of the state of knowledge and response, occurrences and impacts of hazards, and priorities for research in the decades to come would be important post-HFA to ICSU Members, U.N. bodies, and all governments. The preparation of such a synthesis should be carried out through scientific processes involving IRDR, ICSU GeoUnions, the ICSU Regional Offices, and other like-minded bodies of scientists. Early this year, an ad-hoc group, including experts from the mentioned ICSU bodies, was established in order to render this scoping process effectively.

The first meeting of the expert group was held at the ICSU Secretariat in Paris, France, on 2 May 2014, co-sponsored by ICSU and IUGG. The international experts looked at the history and present state of scientific assessment of disaster risks and discussed various scientific approaches to DRR. They decided to prepare a scoping paper, which will highlight the urgent needs for science-driven disaster risk reduction based on integrated research and assessment of the risks, with the aim of presenting the paper at the WCDR2015. The assessment and synthesis of the policy-relevant results of peer-reviewed published research should cover (i) understanding natural hazards and the vulnerability associated with disasters; (ii) the capability of predictive systems to disseminate timely and accurate information needed for policy and decision making; (iii) methodologies and approaches for reducing vulnerability and increasing resilience of societies; and (iv) the overall ability of societies to reduce disaster risk (prevent, mitigate and prepare for the increasing impact of natural events). The scientific assessment would contribute to the enhancement of the knowledge of disaster risks at local and regional levels, to the awareness of national governments and the people living with risk, and, ultimately, to the increased resilience of society and to reduction of disaster risks.

The IUGG initiative on disaster risk assessment, which is supported by several ICSU Scientific Unions and IRDR, fits well with the recent statement, issued by ICSU, the United Kingdom Collaborative on Development Sciences, Wellcome Trust, UNISDR, and UNESCO, on the need for a science advisory mechanism for disaster risk reduction (see item 5 "News from ICSU"). We hope very much that this initiative on disaster risk assessment will be recognized by the General Assembly of the International Council for Science (meeting in Auckland, New Zealand, 30 August – 3 September 2014) and be endorsed by scientific community. Also we hope that a science-driven approach to DRR will be supported by the WCDR2015.

Science can and should help by implementing the best knowledge and rigorous assessments of disaster risks into all actions related to DRR.

Alik Ismail-Zadeh

2. Nicaragua becomes a Regular Member of IUGG

On 21 March 2014 an application for admission of Nicaragua to IUGG as a Regular Member (Category 1) was received from the National Water Authority of Nicaragua. The IUGG Executive Committee welcomed this application, and it was placed before the IUGG Adhering Bodies in Regular status for a vote by correspondence. The vote is now complete: the IUGG Secretariat received ballots from 34 Member countries (of 47 Member countries eligible to vote). The results of the vote on the admission of Nicaragua as a Regular Member: 33 affirmative and 1 abstained.

According to paragraph 14 of the IUGG By-Laws: "Any admission accepted by a simple majority is provisional until approved by the Council. Simple majority is here determined by the proportion of affirmative votes to the sum of votes (affirmative, negative) provided that this sum is not less than one third of the total membership of the Union eligible to vote." Therefore, Nicaragua becomes a Regular Member of IUGG (provisionally). The IUGG Council should make the final decision at the XXVI IUGG General Assembly in Prague, Czech Republic, 22 June – 2 July 2015.

The Adhering Body is the National Water Authority of Nicaragua (Minister-Director *Luis Angel Montenegro Padilla*). The Adhering Body established the Nicaraguan National Committee for IUGG with *Heyddy Calderon* as President and *Yelba Flores* as Secretary General. Correspondents to the Associations are *Marvin Corriols* (IAG), *Heyddy Calderon* (IAHS), *Edwin Obando* (IASPEI), and *Angelica Muñoz* (IAVCEI). Welcome Nicaragua to IUGG!

3. Report the LOC and the SPC for the IUGG General Assembly 2015

The Czech invitation to host the 26th IUGG General Assembly in Prague (22 June – 2 July 2015) was accepted by the IUGG Council in 2011 and subsequently the Local Organizing Committee (LOC) was established to guarantee a successful accomplishment of this commitment. The LOC consists of Vladimir Cermak (Chairman & IUGG Liaison), Petr Holota (Deputy Chairman & News), Eduard Petrovsky (Secretary & Scientific Program), Marta Tuckova (Treasurer), Iva Pelanova (Exhibition & Sponsoring), Vladislav Babuska and Vladislav Rapprich (Scientific field trips), Marcela Svanberkova and Jaroslava Plomerova (Media & Community). The C-IN company, a professional conference organizer, will ensure practical activities required for the successful planning and management of the whole event.

The Agreement between the Geophysical Institute of the Czech Academy of Sciences, the Czech National Committee of Geodesy and Geophysics and the C-IN company to prepare and organize the IUGG2015 Assembly was signed in February 2013. The Memorandum of Understanding between the IUGG and the LOC to hold the 26th General Assembly of the International Union of Geodesy and Geophysics was signed in September 2013.

The IUGG2015 website was launched early 2013 (http://www.iugg2015prague.com). The theme of the IUGG2015 is "Earth and Environmental Sciences for Future Generations". Numerous promotion and information materials were prepared, such as postcards, leaflets, posters and video presentation, distributed by e-mail as well as personally to participants of all five IUGG

Associations Scientific Assemblies held in 2013; namely, at the joint IACS-IAMAS assembly in Davos (Switzerland); the IAVCEI assembly in Kagosima (Japan); the joint IAHS-IAPSO-IASPEI assembly in Gothenburg (Sweden), the IAGA assembly in Mérida (Mexico), and the IAG assembly in Potsdam (Germany). We expect to welcome more than 5,000 participants of the assembly.



The Scientific Program Committee for the IUGG 2015 (SPC) was set up in 2012 and comprises of Eduard Petrovsky (Chair, Czech Republic), Alik Ismail-Zadeh (IUGG Secretary General, Germany), Andrew Mackintosh (IACS Secretary General, New Zealand), Hermann Drewes (IAG Secretary General, Germany), Mioara Mandea (IAGA Secretary General, France), Christophe Cudennec (IAHS Secretary General, France), Hans Volkert (IAMAS Secretary General, Germany), Johan Rodhe (IAPSO Secretary General, Sweden), Peter Suhadolc (IASPEI Secretary General, Italy), Joan Marti (IAVCEI Secretary General, Spain), and Harsh Gupta (IUGG President, India). In addition, Franz Kuglitsch (IUGG Executive Secretary, Germany) and eight Czech national members acting as liaison persons of the individual associations, take part in the SPC activities (without the right to vote).

The first SPC meeting was held on 24 September 2013 in Prague. During this meeting, the SPC members visited the venue of the Assembly and discussed the basic philosophy of the scientific program. SPC decided to develop the scientific program to take place on nine days. A road map towards the scientific program and its basic features were determined. Besides e-mail communication, SPC held two teleconferences in March and April 2014. The second face-to-face meeting of SPC was held in Vienna (Austria) on 27 April 2014. During this period, all the activities focused on the organization of scientific symposia at all (Union, Inter-Association and Association) levels. At present, Union symposia are well defined in terms of conveners and co-conveners, in most cases descriptions are available and published on the Assembly's website. Lists of solicited speakers of individual symposia are in advanced phase of preparation. The preparation of Inter-Association and Association symposia is progressing well. In most cases conveners and co-conveners are defined and the symposia are being intensively prepared. Our aim is to publish the scientific program at the beginning of July 2014, when also the registration and abstract submission tools should be available. Two more face-to-face meetings of SPC are foreseen (October 2014 and February 2015) to finalize the timing and space allocation of the symposia.

Received from Vladimir Cermak (LOC Chair) and Eduard Petrovsky (SPC Chair)

4. Nominations to the IUGG Early Career Scientist Award (Deadline: 22 June 2014)

The Early Career Scientist Award (ECSA) of the International Union of Geodesy and Geophysics honors early career scientists for their outstanding research in Earth and space sciences and international research cooperation. Submission of nominations for ECSA closes on 22 June 2014. The awardees are bestowed an IUGG plague and certificate, which will be presented at the Opening Ceremony of the XXVI IUGG General Assembly in Prague, Czech Republic, June 2015, following the announcement of the awards on 5 November 2014. IUGG covers travel expenses of the awardees to attend the General Assembly. The awardees will be invited to give a talk at the General Assembly. The ECSA Committee appointed by IUGG President Harsh Gupta consists of six members:

ChairJenny Baeseman (IACS)NORWAYMembers:Salvatore Grimaldi (IAHS)ITALYThorne Lay (IASPEI)USASatheesh Shenoi (IAPSO)INDIA

Laszlo Szarka (IAGA) HUNGARY

John Turner (IAMAS) UK

Details on the ECSA, including the procedure for nomination, eligibility criteria, and technical requirements, can be found at: http://www.iugg.org/honors/ECSAward.pdf

Please nominate an outstanding young scientist for the IUGG award.

5. News from the International Council for Science (ICSU)

ICSU issues joint statement on need for an international science advisory mechanism for disaster risk reduction

ICSU, in collaboration with a group of 14 U.K. government departments and research funders (UKCDS), the Wellcome Trust, the U.N. Office for Disaster Risk Reduction (UNISDR), the U.N. Educational, Scientific and Cultural Organization (UNESCO), has issued a statement on the need for a science advisory mechanism for disaster risk reduction. This joint statement was the result of a two-day meeting in London, U.K., in March where senior representatives of international, regional and national institutions discussed a new and strengthened mechanism to ensure science, engineering and technology are more effectively used in disaster risk reduction and the successor to the Hyogo Framework for Action (HFA2).

Participants pledged to work together to ensure science, engineering and technology are embedded into disaster risk management. The statement contains an action agenda which urges stakeholders to champion and reinforce existing and future programmes and initiatives for integrated research and the scientific assessment of disaster risk and calls for the establishment of an international science advisory mechanism for disaster risk reduction. The full statement can be found at: http://www.icsu.org/news-

centre/news/pdf/Statement_on_an_enhanced_DRR_international_science_advisory_mechanism.pdf

Call for proposals: Transformation for Sustainability

The International Social Science Council (ISSC) has launched a new global research funding programme as a contribution to the work of Future Earth. Climate change, biodiversity loss, water

and food security, energy production and consumption, poverty, growing inequalities – these are just some of the global problems the world is facing today. But how can we find solutions that will work, that will last, and that are equitable? Transformations to Sustainability is a new ISSC programme that will promote research on the fundamental and innovative processes of social transformations needed to secure effective, equitable and durable solutions to some of today's most urgent problems of global change and sustainability. The programme will support researchers from the social, behavioural and economic sciences to take the lead in developing international Transformative Knowledge Networks that will:

- focus on the needs and opportunities for social transformation in concrete contexts of application
- bring together researchers from different disciplines and fields of science, as well as different regions of the world
- engage stakeholders in the co-design and co-production of solutions-oriented knowledge and the development of networks of knowledge exchange and mutual learning, and
- build capacity for international research collaboration and support early career social scientists.

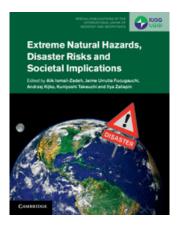
More information can be found at: http://www.worldsocialscience.org/documents/transformations-sustainability-programme.pdf

Source: ICSU webpage

6. Awards and Honors

Thorne Lay (University of California, Santa Cruz, USA), the Second Vice President of the International Association of Seismology and Physics of the Earth's Interior (IASPEI), was elected a member of the U.S. National Academy of Sciences. Congratulations to Thorne!

7. New Books



Extreme Natural Hazards, Disaster Risks and Societal Implications

Edited by Alik Ismail-Zadeh, Jaime Urrutia Fucugauchi, Andrzej Kijko, Kuniyoshi Takeuchi and Ilya Zaliapin

Hardback / ISBN: 978 1 107 033 863 / pp. 413 / £90

This book is the first in the series of the *IUGG Special Publications*. The book presents a unique, interdisciplinary approach to disaster risk research, combining cutting-edge natural science and social science methodologies. Bringing together leading scientists, policy makers, and practitioners from around the world, the book presents the risks of global hazards and provides real world hazard

case studies from Latin America, the Caribbean, Africa, the Middle East, Asia and the Pacific region. The authors provide insight into topics such as extreme natural hazards, the vulnerability of society, disaster risk reduction policy, relations between disaster policy and climate change, adaptation to hazards, and (re)insurance approaches to extreme events. This is a key resource for academic researchers and graduate students in a wide range of disciplines linked to hazard and risk studies. It is also an important reference for professionals and policy makers working in disaster prevention and mitigation.

http://www.cambridge.org/us/academic/subjects/earth-and-environmental-science/earth-science-general-interest/extreme-natural-hazards-disaster-risks-and-societal-implications



Planning & Managing Scientific Research

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Brian Kennett

"Planning and Managing Scientific Research: A guide for the beginning researcher" is published by ANU Press and is available for free download in PDF, EPub or Mobi formats from http://press.anu.edu.au/titles/planning-and-managing-scientific-research/.

Hard copies (A\$24 + postage) are obtainable by print-on-demand through the same web address.

A component of research training that is rarely emphasized is preparation for developing and running independent research projects. A new Open Access book by Brian Kennett (the Australian National University, Canberra Australia), a prominent Earth scientist, is designed to fill this gap drawing on extensive experience in research, management and editorial matters. The short book describes how to establish projects, to manage them and develop communication, with illustrations from case studies. The work is addressed to research students and early career researchers, but has broader relevance.



Carl Friedrich Gauss – *General Theory of Terrestrial Magnetism* – a revised translation of the German text

by K.-H. Glassmeier and B. T. Tsurutani

The paper was published in February 2014 in the science-history journal HISTORY OF GEO- AND SPACE SCIENCE and can be read and downloaded free of charge from the Online Library: http://www.hist-geo-space-sci.net/5/11/2014/

In 1839 C. F. Gauss published his famous article: "Allgemeine Theorie des Erdmagnetismus" (General Theory of Terrestrial Magnetism), where he developed the expansion of the geomagnetic field in terms of spherical harmonics and derived coefficients of this series from worldwide geomagnetic observations. In 1841 this paper was translated into English by Elisabeth Juliana Sabine, wife of the well-known British scientist Edward Sabine. The Sabines and Gauss knew each

other personally: they had met several times. Karl-Heinz Glassmeier (Technical University of Braunschweig, Germany) and Bruce Tsurutani (California Institute of Technology, USA) now present a new translation, eliminating errors and deficiencies of Sabine's first translation. In addition, they have included numerous remarks on the work by Gauss, some observational material, and bibliographical details on contemporary scientists, cited by Gauss.

8. IUGG-related meetings occurring during June – August

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

June

- 1-2, IACS, Grenoble, France, International Workshop on Calving. Web: http://www-lgge.obs.ujf-grenoble.fr/calving2014/index.html
- 2-6, IUGG, Merida, Yucatan, Mexico, 30th Conference on Mathematical Geophysics. Web: http://eventos.iingen.unam.mx/IUGG2014/
- 3-6, CODATA, Toronto, Canada, IASSIST 40th Anniversary Conference: "Aligning Data and Research Infrastructure". Web: http://www.library.yorku.ca/cms/iassist/
- 4-6, IAG, Vilnius, Lithuania, IAG Sub-commission 1.3a "European Reference Frame" (EUREF) Symposium. Web: http://www.nzt.lt/euref2014/
- 4-6, IUGG, IAHS, EGU, Bologna, Italy, Evolving Water Resources Systems -Understanding, Predicting and Managing Water - Society Interactions.
 Web: http://distart119.ing.unibo.it/bo2014
- 4-7, IUGG, EGU, Bacau, Romania, 2nd International Conference on Natural and Anthropic Risks ICNAR2014. Web: http://icnar.ub.ro
- 7-9, IRDR, ICSU, Beijing, China. IRDR Conference 2014.
 Web: http://www.irdrinternational.org/2013/07/29/news-irdr-conference-2014--call-for-abstracts/
- 8-13, IUSS, Jeju, Korea, 20th World Congress of Soil Science. Web: http://www.20wcss.org/
- 9-12, IUGG, Baku Azerbaijan, IUGG Bureau Meeting.
- 16-17, IAHS, UNESCO-IHP, Paris, France, 11th Kovacs Colloquium Hydrological Sciences and Water Security: Past, Present and Future.

 Web: http://iahs.info/news.do?news_id=79#.UzAiPlKs98H
- 16-20, SCOR, Israel, SOLAS Scientific Steering Committee Meeting.
- 17-20, UNESCO-IOC, Oostende, Belgium, SG-GTSPP-2: 2014 (Second) Meeting of the Joint IODE-JCOMM Steering Group for the Global Temperature-Salinity Profile Programme. Web: http://ioc-
 - unesco.org/index.php?option=com_oe&task=viewEventRecord&eventID=1388
- 18-21, SCAR, Evora, Portugal, 4th European Conference on Permafrost (EUCOP4). Web: http://www.eucop4.org/
- 22-25, SCAR, Cologne, Germany, 28th International Forum for Research into Ice Shelf Processes (FRISP). Web: http://folk.uib.no/ngfso/FRISP/index.html
- 23-26, UNESCO-IOC, Oostende, Belgium. Ocean Teacher Global Academy: GTSPP Training Course. Web: http://iode.org/index.php?option=com_oe&task=viewEventRecord&eventID=1389

- 23-27, IAG, Pasadena, California, USA, IGS 20th Anniversary Workshop 2014. Web: http://www.igs.org/workshop
- 23-27, SCAR, SCOR, Bergen, Norway. Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) Open Science Conference.
 Web: http://www.imber.info/index.php/Meetings/IMBER-OSC-2014
- 23-29, EMSEV, Bishkek, Kyrgyzstan, 6th International Symposium on Problems of
- Geodynamics and Geo-Ecology of Intercontinental Orogens. Web: http://www.gdirc.ru/en/
 30 July 6, IAG, Shanghai, China, 3rd International Gravity Field Service (IGFS) General Assembly. Web: http://202.127.29.4/meetings/igfs2014/index.html
- 30 July 11, ICTP, IUGG, Kigali, Rwanda, African School on the Impact of the Sun on Ionosphere: Physics and Applications.
 - Web: http://cdsagenda5.ictp.trieste.it/full_display.php?smr=0&ida=a13251

July

- 1 3, UNESCO-IOC, Paris, France. IOC/EC-XLVII: 47th Session of IOC Executive Council. Web: http://ioc-unesco.org/index.php?option=com_oe&task=viewEventRecord&eventID=1393
- 7-11, IAVCEI, Madeira, Portugal, 1st International Workshop on Volcano Geology. Web:
 - $\underline{http://www.iavcei.org/IAVCEI_meetings/MADEIRA/Workshop_Volcano_Geology/Welco\underline{me.html}}$
- 21-23, GCOS, GOOS, WCRP, Barcelona, Spain, OOPC-17: Seventeenth Session of the GCOS/GOOS/WCRP Ocean Observations Panel For Climate.
 Web: http://ioc
 - unesco.org/index.php?option=com_oe&task=viewEventRecord&eventID=1402
- July 21 August 1, ICTP, IUGG, WCRP, Trieste, Italy. Summer School on Attribution and Prediction of Extreme Events.
 - Web: http://cdsagenda5.ictp.trieste.it/full_display.php?smr=0&ida=a13211
- 22-26, IAG, Matsushima, Miyagi, Japan, International Symposium on Geodesy for Earthquake and Natural Hazards (GENAH 2014). Web: http://genah2014.jpn.org/index.html
- 23-25, IUGG, IASPEI, Bogota, Colombia, Latin American and Caribbean Seismological Commission (LACSC) Regional Assembly 2014. Web: http://geoslac.org/english/
- July 28 August 1, AOGS, Sapporo, Japan, 11th Annual Meeting. Web: http://www.asiaoceania.org/aogs2014/public.asp?page=home.htm

August

- 2-10, COSPAR, Moscow, Russia, 40th Scientific Assembly. Web: https://www.cospar-assembly.org
- 3-8, IUGG-SEDI, Kanagawa, Japan, 14th Symposium of SEDI. Web: http://www.sedigroup.org/
- 5-12, IUCr, Montreal, Canada, 23rd International Congress and General Assembly of the International Union of Crystallography. Web: http://www.iucr2014.org/
- 11-14, the YES Network, GSAf, Dar es Salaam, Tanzania, 3rd Young Earth Scientists (YES) Congress and 25th Colloquium of African Geology (CAG25). Web: http://www.yescongress.org/2014-/ and http://www.cag25.or.tz/
- 11-15, SCAR, Singapore, 22nd IAHR International Symposium on Ice. Web: http://www.iahr-ice2014.org/
- 16-21 ICSU, WMO, Montreal, Canada, The World Weather Open Science Conference. Web: http://www.wwosc2014.org/

- 16-23, URSI, Beijing, China, URSI General Assembly and Scientific Symposium GASS 2014. Web: http://www.chinaursigass.com/
- 24-29, IASPEI, Istanbul, Turkey, General Assembly of the European Seismological Commission, ESC2014. Web: http://www.2eceesistanbul.org/
- 24-30, IUGG, IAGA, Weimar, Germany, 22nd International Workshop on Electromagnetic Induction in the Earth.Web: http://www.emiw2014.de/index.php?id=58
- 25 28, SCAR, Auckland, New Zealand, Open Science Conference. Web: http://www.scar2014.com/
- August 30 September 3, ICSU, Auckland, New Zealand, 31st ICSU General Assembly. Web: http://www.icsu.org/general-assembly

End of IUGG Electronic Journal Volume 14 Number 6 (1 June 2014)

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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.