

# 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 Web site (http://www.iugg.org/publications/ejournals/). Please forward this message to those who will benefit from the information. Your comments are welcome.

#### **Contents**

- 1. Editorial: 50<sup>th</sup> Anniversary of the First Human Flight in the Space
- 2. IUGG Statement on Great East Japan Earthquake and Tsunami
- 3. News from the Melbourne General Assembly
- 4. Final Slate of IUGG Officers
- 5. Report on the International Symposium "Advances in Earthquake Science-2011"
- 6. Awards and Honors
- 7. IUGG-related meetings occurring during May July 2011

# 1. Editorial: 50<sup>th</sup> Anniversary of the First Human Flight in the Space



Fifty years ago, on 12 April 1961 the Russian, Major Yuri Gagarin, made the first flight into space with Vostok 1 spacecraft. Gagarin became the first human in space and the first person to orbit the Earth. Gagarin's flight lasted 108 minutes including 89 minutes in space. At the highest point, he was 327 km above mean sea level. Within one day, a person previously known only to a few people became famous throughout the world. Children in the Soviet Union dreamed to become a cosmonaut like Gagarin.

The spirit to fly the first human to space came from Sergei Korolev, designer of Vostok 1. His spirits flared after launching the first manmade satellite Sputnik on 4 October 1957 as a part of the International Geophysical Year. Gagarin was the first to open a new way to study the Earth's environment. Today satellite missions allow observing and monitoring our planet, the Moon and other planets of the Solar system. "Circling the Earth in my orbital spaceship I marveled at the beauty of our planet. People of the world, let us safeguard and enhance this beauty – not destroy it!" – Yuri Gagarin (Source: http://yurigagarin50.org/).

# 2. IUGG Statement on Great East Japan Earthquake and Tsunami

(Proposed by the IUGG Commission on Geophysical Risk and Sustainability and adopted by the IUGG Bureau on 18 April 2011)

At 14:46 on 11 March 2011 a magnitude 9.0 earthquake occurred off the Pacific Coast of Tohoku, Japan. It induced the catastrophic tsunami that hit the coasts of Tohoku and Kanto killing a huge number of people and destroying countless houses and infrastructure. The toll of dead and missing people is 27,621 (as at 7:00 pm 10 April). The tsunami also hit some of the Japanese nuclear power plants and damaged some reactors, which are still out of full control thus threatening people in a wide area around the site. The International Union of Geodesy and Geophysics expresses deep heartfelt condolence and sympathy for the victims and sufferers of the Great East Japan Earthquake and Tsunami.

Because of the concatenation of risks – from earthquake to tsunami and nuclear power station failure – the disaster was unexpected and more severe than one event on its own. The disaster impact is not only nation-wide but also international-wide affecting industry, market economy, the nations' energy policy, and disaster management policy. It thus poses the basic question of how to live with nature and manage societal sustainability. It is a disaster that occurred in the country with the world's densest network of geophysical observations, a state-of-the-art earthquake early-warning system and the biggest tsunami barriers where people are most experienced and trained, sciences are highly advanced and knowledge based disaster management is well implemented. Yet we face tragic consequences that were unexpected and turned out to be unprecedentedly serious.

IUGG takes this difficulty as a new challenge. A challenge for us to contribute scientifically for society to become more resilient, prepared and less damage-prone so as to result in less suffering should another hazard of this magnitude hit anywhere in the world in the future. The challenge is for us to measure our achievement by the reduction in disaster risk and actual damages rather than the amount of knowledge accumulated. Our challenge is to make geosciences truly integrated with the end users in the societal system. To this end IUGG fully supports "Integrated Research on Disaster Risk (IRDR)" - the major research program of the International Council for Science (ICSU) co-sponsored by the International Social Sciences Council (ISSC) and U.N. International Strategy on Disaster Reduction (UNISDR).

Geoscience information is a key to preparation for, and management of, disasters. More advanced knowledge needs to be acquired and used in a way that is integrated with all other disciplines and players especially with social sciences and public administration. In addition, geoscientists should revise their existing knowledge so as to avoid "false comfort" in dealing with infrequent extremes that, though hardly possible, keep occurring regularly.

## On this direction IUGG resolves to:

- 1. contribute scientifically for society to become more resilient, prepared and less damage-prone so as to better manage concatenated risks.
- 2. strengthen its collaboration with the ICSU, ISSC, UNISDR and any other relevant national/regional/international/intergovernmental organizations on the program of Integrated Research on Disaster Risk (IRDR).
- 3. measure the achievement of science by the reduction in disaster risk and actual damages rather than just the amount of knowledge accumulated.
- 4. promote more actively geoscience knowledge use among policy makers and end-users in operational disaster management bodies to ensure effective risk and vulnerability reduction.

- 5. revise existing knowledge to avoid "false comfort" in dealing with infrequent extremes.
- 6. develop an international and trans-disciplinary project on modern global time-dependent earthquake and tsunami hazard/risk assessment that would take into account a variety of multidisciplinary data and methods related to long-term risk mapping.

# 3. News from the Melbourne General Assembly

The Scientific Programme Committee had a successful meeting in Vienna on 2 and 3 April. The Program of the General Assembly including scientific sessions and business meetings were finalized. The schedule of the assembly's symposia is now published electronically:

http://www.iugg2011.com/pdf/program-updates/april12/IUGG2011\_PrelimProgramV2\_12April.pdf

Following are a list of special events that will take place during the General Assembly, in chronological order. These include IUGG scientific and business meetings. Once the rooms are assigned for each event, they will be posted on the IUGG website. The sessions of the IUGG Council meeting are open only to accredited delegates and invited guests.

Monday, 27 June	14:00 – 18:00	First session of the IUGG Council Meeting
Tuesday, 28 June	08:30 - 10:00	Union Symposium U12 "Geoscience and the Future of
3 /	10:30 – 12:00	the Planet Earth"
	13:30 – 15:00	
Tuesday, 28 June	16:30 – 18:00	Opening Ceremony
Tuesday, 28 June	18:00 - 20:00	Welcome Reception
Wednesday, 29 June	08:30 - 10:00	Union Symposium U02 "Grand Challenges in Natural
	10:30 - 12:00	Hazards Research and Risk Analysis"
	13:30 – 15:00	·
Wednesday, 29 June	16:30 – 18:00	Open Forum on Natural Hazards (as a part of U02)
Thursday, 30 June	08:30 - 10:00	Hearing of the IUGG Site Evaluation Committee (open to
	13:30 – 15:00	Council Members)
Thursday, 30 June	10:30 - 12:00	Union Plenary. Speakers: Greg Ayers (Australia), Anny
		Cazenave (France), David Vaughan (UK)
Thursday, 30 June	13:30 – 15:00	Union Symposium U08 "Global and Regional Sea Level
	16:30 – 18:00	Change"
Friday, 1 July	08:30 - 10:00	Union Symposium U04 "Progress and Perspectives in
	10:30 – 12:00	Studies of the Continental Lithosphere"
Friday, 1 July	13:30 – 15:00	Union Symposium U06 "Geoengineering"
	16:30 – 18:00	
Saturday, 2 July	08:30 - 10:00	Union Symposium U10 "Climate Change"
	10:30 - 12:00	
Saturday, 2 July	10:00 - 13:00	Second Session of the IUGG Council Meeting
Saturday, 2 July	13:30 – 15:00	Union Symposium U02e "Earth on the Edge - Recent
	16:30 – 18:00	Pacific Rim Disasters"
Saturday, 2 July	19:00 – 21:00	Presidential Reception (by invitations only)
Sunday, 3 July	10:30 - 12:00	Union Plenary. Speakers: Brian Kennett (Australia),
		Thomas Jordan (USA), Markus Rothacher (Switzerland)
Sunday, 3 July	13:30 – 15:00	Union Symposium U01 "Science & Nuclear Test Ban
-	16:30 – 18:00	Monitoring"

Monday, 4 July	08:30 - 10:00	Union Symposium U07 "Mathematical Tools in
Wonday, Fully	10:30 – 12:00	Geophysical Modeling"
Monday, 4 July	13:30 – 15:00	Union Symposium U09 "Do We Really Know the
	16:30 – 18:00	Hydrological Cycle?"
Tuesday, 5 July	08:30 - 10:00	Union Symposium U07 "Mathematical Tools in
		Geophysical Modeling"
Tuesday, 5 July	10:30 - 12:00	Union Plenary. Speakers: Daniel Baker (USA), Demetris
		Koutsoyiannis (Greece), Stephen Self (USA)
Tuesday, 5 July	13:30 - 15:00	Union Symposium U03 "Recent Progress in the Studies
	16:30 – 18:00	of the Earth's Deep Interior"
Wednesday, 6 July	08:30 - 10:00	Union Symposium U11 "Earth and Space Science in
	10:30 - 12:00	Africa"
	13:30 - 15:00	
Wednesday, 6 July	15:00 – 18:00	Third Session of the IUGG Council Meeting
Thursday, 7 July	08:30 - 10:00	Union Symposium U05 "Data Science / Informatics and
	10:30 – 12:00	Data Assimilation in Geophysical Models"
	13:30 - 15:00	
Thursday, 7 July	16:30 – 18:00	Closing Ceremony

## 4. Final Slate of IUGG Officers

Given below is the list of nominations for the IUGG Bureau and the Finance Committee as submitted by the Nominating Committee on 27 April. The Committee received the nomination of David Jackson for the position of IUGG President, and a request to withdraw him from the position of IUGG Vice President. The nomination was submitted by the President of the U.S. National Committee for Geodesy and Geophysics and supported by the Presidents of five National Committees for Geodesy and Geophysics.

The positions and the nominated candidates are:

# **President**

Harsh Gupta (India, IASPEI) David Jackson (USA, IASPEI)

### Vice-President

Michael Sideris (Canada, IAG) Guoxiong Wu (China, IAMAS)

# Treasurer

Aksel W. Hansen (Denmark, IAMAS)

## Bureau Members (*Positions* #1, #2, and #3)

Isabelle Jane Ansorge (South Africa, IAPSO) Jaime Urrutia Fucugauchi (Mexico, IAGA) Pierre Hubert (France, IAHS) Kenji Satake (Japan, IAPSO/IASPEI)

# Finance Committee

Position #1:

Zoltan Hajnal (Canada, IASPEI)

Position #2:

David Rhoades (New Zealand, IASPEI)

Positions #3 and #4:
David Collins (United Kingdom, IACS/IAHS)
Jan Krynski (Poland, IAG)
Juan Vilas (Argentina, IAGA)

The Curriculum Vitae of the candidates are posted on the IUGG Web site: <a href="http://www.iugg.org/nominations/NominCommRep\_CVs.pdf">http://www.iugg.org/nominations/NominCommRep\_CVs.pdf</a>

# 5. Report on the International Symposium "Advances in Earthquake Science-2011"

The International Symposium "Advances in Earthquake Science-2011" was held at the Institute of Seismological Research, Raisan, India, on 21-24 January 2011. It was dedicated to the 10th anniversary of the Bhuj Earthquake. A number of technical sessions attracted about hundred geoscientists, namely, the sessions on the Bhuj Earthquake and Aftershock Studies; Intraplate Seismicity; Seismicity and Earthquake Source Processes; Paleoseismology and Historical Seismology; Earthquake Precursors and Prediction Studies; Seismic Wave Propagation; Real Time Seismology, Loss Reduction and Early Warning; Earthquake Ground Motion and Damaging Earthquakes; Seismic Hazard Assessment / Microzonation; Tectonics and Crustal Movements; Earth's Interior, Structure & Dynamics; Remote Sensing, GPS & InSAR; Exploration for Oil and Crustal Structure; Ground Response Studies for Nuclear Power Plants; Tsunami Modeling; and IGCP Session on Archeoseismology. Scientists from Bangladesh, China, France, Germany, Hungary, India, Italy, Japan, Korea, Russia, and USA attended the symposium, which was cosponsored by IUGG.

Received from B. K. Rastogi, Chair of the Symposium's Local Organizing Committee

## 6. Awards and Honors

In 2011, the American Geophysical Union (AGU) elected new Fellows. Among this year's elected Fellows are the following IUGG experts: *Yehuda Ben-Zion* (University of Southern California, Los Angeles, USA), a member of the IUGG Commission on Mathematical Geophysics; *Michael Kendall* (University of Bristol, U.K.), a member of the U.K. National Committee for IUGG; *Alan Robock* (Rutgers University, USA), IAVCEI life member and a current or past member of several commissions of IAVCEI and IAMAS including the Commission on Volcanism and the Earth's Atmosphere, the International Climate Commission, and the International Commission on the Middle Atmosphere.

## 7. IUGG-related meetings occurring during May – July 2011

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

## May

- 2-5, IAHS, Vienna, Austria, HydroEco 2011: 3rd International Multidisciplinary Conference on Hydrology and Ecology: Ecosystems, Groundwater and Surface Water Pressures and Options
- 3-8, ISPRS, Antalya, Turkey, Conference on GeoInformation for Disaster Management (Gi4DM) and the ENHANS special session on "Extreme Natural Hazards and Disaster Risk in the Middle East Region"
- 8-13, UNISDR, Geneva, Switzerland, Third Session of the Global Platform for Disaster Risk Reduction
- 9-12, AGU, Charleston, USA, Chapman Conference: Modeling the Ionosphere/Thermosphere System
- 16-20, IAG, Bad Kötzting, Germany, 17th International Workshop Laser Ranging

#### June

- 5-8, IAHS, Golden, CO, USA, MODFLOW and More 2011: Integrated Hydrologic Modeling
- 8-10, CTBTO, Vienna, Austria, Science & Technology Conference

# 27 June - July 8, IUGG, Melbourne, Australia, XXVth IUGG General Assembly

## July

- 10-15, SCAR, Edinburgh, Scotland, UK, 11th International Symposium on Antarctic Earth Sciences
- 17-22, AGU, St. John's, NL, Canada, Chapman Conference: Dynamics of the Earth's Radiation Belts and Inner Magnetosphere
- 20-27, INQUA, Bern, Switzerland, XXVIII INQUA Congress

End of IUGG Electronic Journal Volume 11 Number 5 (1 May 2011)

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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.