

# **Annual Report for 2005 of the INTERNATIONAL UNION OF GEODESY AND GEOPHYSICS (IUGG)**

## **INTRODUCTION**

Established in 1919, the International Union of Geodesy and Geophysics (IUGG) is the international organization dedicated to advancing, promoting, and communicating knowledge of the Earth system, its space environment, and the dynamical processes causing change.

Through its constituent Associations, Commissions, and services, IUGG convenes international assemblies and workshops, undertakes research, assembles observations, gains insights, coordinates activities, liaises with other scientific bodies, plays an advocacy role, contributes to education, and works to expand capabilities and participation worldwide.

Data, information, and knowledge gained are made openly available for the benefit of society – to provide the information necessary for the discovery and responsible use of natural resources, sustainable management of the environment, reducing the impact of natural hazards, and to satisfy our need to understand the Earth's natural environment and the consequences of human activities.

IUGG Associations and Union Commissions encourage scientific investigation of Earth science and especially interdisciplinary aspects. Each Association establishes working groups and commissions that can be accessed by using the links on our website.

The web site, available in English and French, can be found at <http://www.IUGG.org>.

## **MEMBERSHIP**

By their very nature, geodetic and geophysical studies require a high degree of international co-operation. IUGG is critically dependent on the scientific and financial support of its member Adhering Bodies. The list of present and past IUGG Adhering Bodies is published annually in the IUGG Yearbook, which is posted on the web site and is available from the Secretariat. Each Adhering Body establishes a National Committee for IUGG, and names Correspondents to each Association (as appropriate). During 2005, the Union had 65 Member Adhering Bodies. Several members were in observer status because they were in arrears of dues payment. Nine Adhering Bodies were in Associate Member status. Associate Members do not pay dues and may not participate in Council meetings, vote, or hold office. However, beginning with the General Assembly in 2007, Associate Members may attend the Council meetings as listeners. New member country applications are being actively encouraged.

## **STRUCTURE**

Responsibility for directing the Union's affairs is vested in the IUGG Council by the Statutes and Bylaws. The IUGG Council consists of the Council Delegates, who are designated by the Adhering Body of their respective countries as their representatives for each Council meeting. The Council is convened at each quadrennial General Assembly. A Bureau, an Executive Committee and a Finance Committee administer IUGG affairs between Council meetings. The Executive Committee has the particular responsibility of overseeing the scientific programs of

the Union. There is no permanent Secretariat; the National Committee of the Secretary General is expected to provide administrative support for Union affairs. The officers of IUGG are listed on the IUGG web site.

The Union brings together seven semi-autonomous Associations, each responsible for a specific range of topics or themes within the overall scope of the Union's activities and each with a sub-structure. The Associations convene their own assemblies and sponsor scientific symposia, often in partnership with one another. Within its own discipline each Association is responsible for determining its own program of investigations and for supporting the activities of its own component parts. All Earth scientists, worldwide, are eligible to participate in IUGG and Association assemblies, workshops, and symposia, although only scientists from member countries with dues paid may serve as officers.

### **Associations**

The seven International Associations are listed below, and short reports on their 2005 activities are included here. Additional information about each Association is given on their web sites, which can be accessed from the IUGG web site.

- International Association of Geodesy (IAG)
- International Association of Geomagnetism and Aeronomy (IAGA)
- International Association of Hydrological Sciences (IAHS)
- International Association of Meteorology and Atmospheric Sciences (IAMAS)
- International Association for the Physical Sciences of the Oceans (IAPSO)
- International Association of Seismology and Physics of the Earth's Interior (IASPEI)
- International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)

### **Union Commissions, Committees, and Working Groups**

Owing to the interactive nature of the subject fields addressed by the Union's Associations, a number of Union Commissions have been established that promote the study of particular interdisciplinary problems. In 2005, the following bodies were active:

- Commission on Geophysical Risk and Sustainability (GeoRisk)
- Commission on Mathematical Geophysics (CMG)
- Committee on the Study of Earth's Deep Interior (SEDI)
- Commission on Cryospheric Sciences (UCCS)

### **GENERAL ASSEMBLIES OF THE UNION**

General Assemblies have been held since 1922 and, since 1963, at 4-year intervals. These assemblies provide an extraordinary opportunity for Earth scientists from around the world to gather and share expertise, research data, and results. Past IUGG General Assemblies are listed in the IUGG Yearbook and on the web site. The next General Assembly will be held in Perugia, Italy, 2-13 July 2007.

Invitations to host the 2011 General Assembly are now being accepted and must be received by January 2007. The guidelines for proposals are posted on the recently updated IUGG website. The IUGG Council, at their 2007 meeting in Perugia, will make the final selection among the invitations that may be received.

## **OTHER SCIENTIFIC MEETINGS**

Each Association organizes its own scientific assembly in the 4-year interval between Union General Assemblies in order to report scientific progress and conduct Association business. Associations sometimes meet jointly with the purpose of promoting interdisciplinary science. Topical and regional symposia and workshops are organized on other occasions by the Associations to provide opportunity for geodesists and geophysicists worldwide to discuss their respective methodologies, results and hypotheses and to plan collaborative research projects. The symposia, often held in less-visited, geophysically interesting locales, are intended to be attractive to the younger scientists from the developing countries of the world.

## **PUBLICATIONS**

The IUGG publishes an annual Yearbook that lists the organizational structure and officers of each body within the Union. The Yearbook is printed and mailed to all Member Adhering Bodies and relevant persons and organizations, and is posted on the IUGG web site. The Union also distributes a short electronic newsletter (the IUGG E-Journal) monthly to Adhering Bodies and National Committees. Each Association manages their own publications.

## **IUGG ACTIVITIES IN 2005**

### **ADMINISTRATION**

#### **MEMBERSHIP**

In 2005, Albania became a regular member of IUGG. The Academy of Sciences, the IUGG Adhering Body for Albania, became a member in 1997 but had remained in Associate Status until now. We are pleased to welcome Albania as a new voting member of IUGG. Scientists from Albania are now eligible to hold office in IUGG and all of our Associations.

#### **RESOLUTIONS**

On the 22nd of December the UN General Assembly adopted by consensus a Resolution by the United Republic of Tanzania and co-signed by 82 nations, to proclaim 2008 as the UN Year of Planet Earth. This UN Year is the core year of the 2007-2009 triennium during which the International Year of Planet Earth (Earth Science for Society) will operate. This will be the first ever UN Year for the Earth Sciences. The Press Release issued by the UN, is reproduced below.

"By a draft on the International Year of Planet Earth, 2008, which the Committee approved without a vote on 11 November, the Assembly would declare 2008 the International Year of Planet Earth. It would also designate the United Nations Educational, Scientific and Cultural Organization (UNESCO) to organize activities to be undertaken during the Year, in collaboration with UNEP and other relevant United Nations bodies, the International Union of Geological Sciences and other Earth sciences societies and groups throughout the world. Also by that draft, the Assembly would encourage Member States, the United Nations system and other actors to use the Year to increase awareness of the importance of Earth sciences in achieving sustainable development and promoting local, national, regional and international action."

The IUGG Bureau adopted a Resolution in response to the December 2004 South East Asia Tsunami. This resolution, posted on the IUGG website, was based on a detailed document provided by the Union GeoRisk Commission. It was sent to the UN Inter-Agency Secretariat of the International Strategy for Disaster Reduction (ISDR), host of the January 2005 World Conference on Disaster Reduction.

## **MEETINGS**

The Finance Committee met in Vienna, Austria on 30 April 2005. The Committee received a report from the IUGG Treasurer, reviewed membership categories and status, and considered possibilities for fund-raising.

From 9-11 September 2005, the IUGG Executive Committee (EC) met in Perugia, Italy, the site of the 2007 IUGG General Assembly. The Local Organizing Committee, chaired by Prof. Lucio Ubertini, excelled in their efforts to host a most successful meeting of the EC and also a follow-on meeting of the 2007 General Assembly Scientific Programme Committee (SPC), chaired by Prof. Paola Rizzoli. The EC meeting was preceded by a meeting of the IUGG Bureau. Prof. Michael Hamlin, Chair of the IUGG Finance Committee, attended the Bureau and EC meetings during discussions of financial matters. A few of the decisions from the Bureau, EC, and SPC meetings are reported below.

- The EC agreed unanimously to support the petition of the Union Commission on Cryospheric Sciences to become an Association. The matter will be proposed to the 2007 IUGG Council in Perugia for a final vote.
- The EC reaffirmed their decision made at the 2004 meeting in Boulder to establish a committee to impartially review and evaluate all bids that may be received to host the 2011 General Assembly. That decision was modified to clarify that all proposals received will be presented to the Council for their selection.
- The EC reaffirmed their support of the concept of an IUGG project on GeoSciences in Africa, and decided to suspend the call for interdisciplinary initiatives in developing countries (IUGG Budget line 18.1) for the next two years in order to accumulate a fund of \$50K to be used to enable initial activity and especially to leverage fund-raising from external sources.
- The Scientific Programme Committee assembled a timeline of deadlines, as well as a schedule of IUGG Administrative meetings for the 2007 General Assembly.

## **PUBLICATIONS**

- In January, the 2005 Yearbook and the Comptes Rendus from the 2003 General Assembly were published.
- The IUGG website, in English and French, was fully redone.
- A new IUGG Mission and Vision statement was composed by a working group chaired by Harsh Gupta; it is currently available on the IUGG website.
- In December, the 2006 Yearbook was published and distributed.

## **IUGG GRANTS**

Each year, IUGG co-sponsors symposia and meetings appropriate to our disciplines of study. \$20,000 (USD) is allocated annually to assist meetings, and especially to support the attendance of young scientists and scientists from developing countries. In 2005, IUGG supported the following meetings:

- HeadWater 2005: 6th International Conference on Hydrology, Ecology, and Water Resources in Headwaters, 2- 23 June, Bergen, Norway
- 22<sup>nd</sup> International Tsunami Symposium, 27-29 June, Chania, Crete, Greece
- Recent Geodynamics, Georisk and Sustainable Development of the Black Sea to Caspian Sea Region, 3-6 July, Baku, Azerbaijan
- 4<sup>th</sup> Balkan Geophysics Society Congress, 9 – 12 October, Bucharest, Romania
- 4<sup>th</sup> International Symposium on Geophysics, 22-24 November, Tanta, Egypt

Similarly, an “Opportunity Fund” designated in 1999 allows the IUGG to support proposals for inter-Association initiatives that particularly benefit developing countries. In 2005, a total of \$25,000 was awarded to support four new projects and their sponsors:

- Formulation Activities of the Electronic Geophysical Year (eGY) (IAGA);
- Distribution of the proceedings of the 2003 IUGG Tsunami Symposium to tsunami warning centers in countries around the Pacific (Tsunami Commission: IASPEI/IAPSO/IAVCEI);
- Development of a comprehensive historical earthquake and tsunami database for the South-West Pacific (GeoRisk Commission);
- WMO/GEWEX (Global Energy and Water Cycle Experiment) Working Group support (IAHS/IAMAS).

## **ICSU**

The International Council of Science held their triennial General Assembly in Suzhou, China, 19-21 October 2005. Uri Shamir and Jo Ann Joselyn attended for IUGG. While a number of substantive issues were addressed, of special interest to IUGG was a successful proposal to extend ICSU’s sponsorship of the Federation of Astronomical and Geophysical Data Analysis Services (FAGS) until 2008 “during which time FAGS will continue to fulfill its role of coordination among the Services while ICSU examines integration of this function within its activities in data and information.”

The nomination of Uri Shamir to become a member of the ICSU Executive Board was successful. He was the unanimous choice of the Earth and Space Sciences Unions cluster; he follows Robin Brett (IUGS) who has served for the previous two terms.

Other decisions included:

- Officially sponsored the International Polar Year (2007-2008) to be co-sponsored with the World Meteorological Organization (WMO);
- Disbanded the Committee on Disaster Reduction and established a new programme on Natural and Human-induced Hazards;
- Withdrew ICSU sponsorship of SCL/ILP and recommended that responsibility should shift to IUGG and IUGS;
- Established an ad hoc committee that will convene an international Scientific Data and Information Forum (SciDEF) in order to develop a framework for the production, management and dissemination/access of scientific data and information;
- Established an ad hoc group to define ICSU’s future role in science education;
- Approved a Strategic Plan (2006-11);
- Announced suspension of the ICSU Grants Programme for 2007.

IUGG submitted two ICSU project proposals, and supported 3 others for the 2006 programme year. Two of the 5 proposals were successful, as noted below. Those submitted were:

- ARGO-ed: a “window” on the global ocean
- Geohazards: Extreme Natural Events and Societal Implications – GENESIS

Those supported were:

- Science for Health and Well-being (successful)
- Dynamics of semi-enclosed marine ecosystems: the integrated effects of changes in sediment and nutrient inputs from land (successful)
- The Role of Science and Data in Disaster Risk Management

### **GeoUnions**

Preceding the ICSU General Assembly, a meeting of the 5 ICSU GeoUnions (IGU, ISPRS, IUGG, IUGS, IUSS) was held in Shanghai, China. Progress to date on each of the GeoUnions scientific themes was reported; it was noted that most of them will be able to develop further in association with the corresponding themes proposed under the International Year of Planet Earth. The GeoUnions agreed on a Mission statement and welcomed expressions of interest from INQUA and IAU to affiliate with the consortium. Much discussion was spent on the impact that the GeoUnions could make in Africa. One outcome of this discussion was that the next GeoUnions meeting will be held in Maputo, Mozambique, in July 2006 in conjunction with a regional meeting of the Geological Society of Africa.

## **ACTIVITIES OF THE UNION COMMISSIONS**

The following reports illustrate the impressive range of activities within each Union Commission as well as their dedication to supporting science within developing countries. Each Union Commission has a web site where much more information can be found.

### **IUGG Committee on Mathematical Geophysics (CMG)**

The principal activity of the CMG is to sponsor a biennial conference on theoretical geophysics. The 26th International Conference on Mathematical Geophysics will be held in June 4–8, 2006 near Tiberias, Israel on the Sea of Galilee. The conference theme is “Coupling in Earth Systems: Solids, Fluids, Life” and the website is <http://www.weizmann.ac.il/conferences/CMG2006/>. All CMG activities in 2005 were devoted to preparations for the 2006 Conference.

Daniel H. Rothman, CMG Chair  
Marc Spiegelman, CMG Secretary

### **IUGG Union Commission on the Study of the Earth’s Deep Interior (SEDI; <http://www.sedigroup.org> )**

The primary activity of the SEDI Union Commission in 2005 was planning the next biennial scientific meeting. Our most recent meeting in Garmisch-Partenkirchen, Germany, 4-9 July 2004 was a great success, and the proceedings of this meeting

were published in a special issue of Physics of Earth and Planetary Interiors (Volume 153, November 30, 2005). The next meeting is scheduled for 9-14 July 2006 in Prague, Czech Republic. Dr. Pavel Hejda is Chair of the Local Organizing Committee and the scientific programme will include eight sessions on a wide range of topics (see website <http://rebel.ig.cas.cz/SEDI2006>). Partial support for the biennial meeting is typically provided by IUGG and by national funding agencies in the host country. In the past these funds have been used to support the travel of graduate students and the invited speakers. Additional support has been obtained from the National Science Foundation to cover the cost of US graduate student participants. Registration fees cover the bulk of the meeting expenses.

SEDI is committed to promoting the interests and activities of young researchers. In addition to supporting student travel, the SEDI Union Commission also supports two awards for young researchers. The Doornbos Memorial Award is given to two or three young researchers at each meeting. SEDI has also initiated the Zatman Lecture to honour the memory of Dr. Stephen Zatman, a dynamic and innovative young researcher who was tragically killed in an automobile accident in 2002. The inaugural Zatman Lecture was given by Dr. Richard Holme (Univ. of Liverpool, UK) at the meeting in Garmisch-Partenkirchen, Germany, 2004. A call for nominations for the next Zatman Lecture has been distributed to members of the SEDI community.

SEDI will participate in the IUGG General Assembly in 2007. Dave Loper and Phillippe Cardin are co-convenors of special session JS11, entitled Planetary Dynamos: theory, models, observations and experiments. SEDI also serves the scientific community by distributing information about upcoming meetings, funding opportunities and openings for academic positions.

Bruce Buffett  
Chair of SEDI

## **IUGG Commission on Geophysical Risk and Sustainability** (GeoRisk; <http://www.iugg-georisk.org/> )

The IUGG Commission on Geophysical Risk and Sustainability (IUGG GeoRisk Commission), established by the IUGG Bureau in August 2000, is dedicated (i) to promoting scientific studies applied to the reduction of risk from natural hazards in an increasingly urbanized world and sustainability and (ii) to reducing death and destruction from natural and technological hazards by providing hazards data and information to emergency managers, policy-makers, scientists and the general public in the most timely and effective manner as possible.

In response to the magnitude 9 earthquake that occurred on December 26, 2004 off the west coast of northern Sumatra, South Asia, the GeoRisk Commission adopted the Statement on the Greatest Earthquake and Tsunami of the Early XXI Century and the Need for Urgent Action to Reduce Natural Disasters in the Indian Ocean Region and Elsewhere. Among major recommendations of the Commission are the following:

1. The countries around the Indian Ocean to set up a Disaster Management Center in order to monitor land, ocean and atmosphere in relation to all kinds of natural hazards, especially those related to coastal regions. Such Centers should be established in any disaster-prone coastal regions where they do not already exist (e.g., Mediterranean Sea and Atlantic Ocean).

2. A Tsunami Warning System to be set up in the region. Before such systems are in operation in the region, the Pacific Tsunami Warning Center in Hawaii should extend its warnings to cover all vulnerable areas in the Indian Ocean.

3. Multidisciplinary and multinational research programs and research networks on geophysical hazards and risks to be developed in the Indian Ocean countries in order to integrate diverse data streams, to improve understanding of the natural phenomena associated with the disasters, to develop predictive modeling capability, and to generate and to disseminate timely and accurate information needed by decision makers and the public.

Based on the Statement of the IUGG GeoRisk Commission, on 10th January 2005 the International Union of Geodesy and Geophysics issued a Resolution on the Sumatra earthquake and tsunami (<http://www.iugg.org/tsunamiresolution05.pdf>). In the light of these tragic events in the Indian Ocean, on 17th January 2005 International Council for Science (ICSU) produced a Position Statement based also on the materials of the IUGG GeoRisk Commission's Statement: [http://www.icsu.org/3\\_mediacentre/INSIGHT\\_SI\\_01\\_2005.html](http://www.icsu.org/3_mediacentre/INSIGHT_SI_01_2005.html)

The GeoRisk Commission organized and endorsed a number of scientific meetings in 2005, including the following.

- International Workshop "Recent Geodynamics, Georisk and Sustainable Development of the Black Sea to Caspian Sea Region" Baku, Azerbaijan, 3 to 6 July 2005
- Marine Risk and Sustainability Session at the 2005 IAPSO Scientific Assembly "Dynamic Planet 2005," Cairns, Australia, 22 - 26 August 2005
- 8th Workshop on Nonlinear Dynamics and Earthquake Prediction, Miramare-Trieste, Italy, 3 - 15 October 2005
- The 2nd International Conference of the Nigerian Union of Planetary and Radio Sciences (NUPRS) Port Harcourt, Nigeria, 24 – 26 August 2005.

GeoRisk Commissioners gave invited lectures at the following Scientific Meetings.

- Press Conference on Sumatra mega-earthquake and tsunami at the European Geoscience Union General Assembly, Vienna, Austria, on April 26, Dr. V. Kossobokov, represented the Commission and took part in discussions on earthquake prediction.
- IGOS Geohazards Workshop, 27th to 29th June 2005 held at the BRGM (French Geological Survey) in Orléans, France. Dr. A. Ismail-Zadeh, President of the Commission delivered a lecture entitled: "Computational Geodynamics and Earthquake Prediction as Research Tools for Seismic Hazard and Risk Analysis".
- LOICZ II Inaugural Open Science Meeting at the Egmond aan Zee, The Netherlands, June 28, 2005. Dr. E. Kontar delivered a key-note lecture entitled: "Development of New Approaches to Coastal Zone Hazard Observation and Warning Systems" during the Geohazards, Groundwater and Risk Session.
- Asia-Oceania Geoscience Society (AOGS) Annual Meeting from 20 - 24 June 2005 in Singapore. Z. Wu, GeoRisk delivered a public lecture entitled: "Facing Earthquake-Generated Tsunami: Roles of Scientific Knowledge in the Reduction of Natural Disasters".
- University of Yamanashi, Kofu, Japan, 21st Century COE Invited Lecture on November 24, 2005. Dr. A. Ismail-Zadeh delivered a lecture "Extreme



Natural Events: from Modeling and Prediction to Preventive Disaster Management.”

The Commission is maintained at the new site: <http://www.iugg-georisk.org> (webmaster is Mr. D. Krupsky). The text of most lectures, presentation, and statements can be found at this website. Additionally, the webcyclopedia at <http://www.iugg-georisk.org/webcyclopedia/index.html> continues to collate information. The presentations, given at several meetings organised by the Commission during 2005 or at meetings where Commissioners delivered invited talks, have been incorporated into the webcyclopedia. The Commission continues to search for an editor for the project.

In 2006, the GeoRisk Commission will organize a special session "Mathematical Aspects of Geohazards" at the 26th IUGG Conference on Mathematical Geophysics, Sea of Galilee, Israel, June 4- 8, as well as a symposium on “Riding the Storm: Can Science Keep us in the Saddle?” during the EuroScience Open Forum in Munich, Germany, 15-19 July 2006.

Alik Ismail-Zadeh  
Chair of GeoRisk

### **Union Commission of Cryospheric Sciences (UCCS)**

UCCS was formed at the IUGG Executive Committee meeting in September 2004. In 2005, in preparation for a proposal to form a new IUGG Association, the International Association of Cryospheric Sciences (IACS) from the UCCS, IACS Statutes and By-laws were formulated. They were then accepted by the IUGG Executive Committee at its meeting in Perugia in September 2005. The IUGG EC will recommend to the IUGG Council to accept IACS as an 8<sup>th</sup> Association at the 2007 General Assembly. UCCS has prepared a flyer in order to inform about and to promote the new Union Commission for the Cryospheric Sciences on its way to becoming an IUGG Association. The folder can be downloaded from the following website:

[http://www.glaciology.su.se/ICSI/docs/general/IUGG\\_CCS\\_Folder.pdf](http://www.glaciology.su.se/ICSI/docs/general/IUGG_CCS_Folder.pdf).

On November 3 and 4, 2005, the UCCS Bureau held its second Bureau Meeting at UNESCO-IHP in Paris. A long list of activities filled an agenda and two days of intensive work. It was agreed that special issues concerning the new and changing role of the body demands for a retreat meeting to be held separately from bureau meetings in June 2006. The minutes of the Paris Bureau Meeting are available at the following website:

<http://www.glaciology.su.se/ICSI/docs/documents.html>.

The UCCS President Georg Kaser attended the two IAHS Bureau Meetings and supported, among others, the formation of an IAHS International Commission on Snow and Ice Hydrology, ICSIH. It was agreed that ICSIH will cooperate closely with UCCS.

UCCS officers and members participated in the IAHS Scientific Assembly in Foz do Iguazu in April 2005, and contributed to sessions S 5: Contribution from Glaciers and Snow Cover to Runoff from Mountains in Different Climates and WS 4: Andean Glaciology. UCCS officers and members participated in the IAMAS Scientific Assembly in Beijing, China, and contributed to a Symposium on “Snow and ice covers feedback to interactions with forest, atmosphere and environment.”

Other meetings and activities of the UCCS (or its predecessor, the IAHS International Commission on Snow and Ice) included the following.

- The 3rd Workshop on Andean Glacier Mass Balance Network (A-GMN). The ICSI initiated WG on Andean Glaciology has now officially become the UNESCO-IHP Andean Glaciology Group. A Glacier Mass Balance Training Course was coordinated and later successfully held on Zongo Glacier and in La Paz in Bolivia.
- International Conference on Glacial Sedimentary Processes and Products, Aberystwyth, UK, in August 2005. For further information see: <http://www.aber.ac.uk/aberonline/uwa12405.shtml>

In 2006, UCCS, together with the International Glaciological Society, IGS, and WCRP Climate and Cryosphere (CliC) will participate in the IGS/CliC/UCCS symposium, "Cryospheric Indicators of Global Climate Change" at Cambridge, U.K., 21–25 August (see website <http://www.igsoc.org/symposia/2006/cambridge/>). Apart from the scientific and organisational contribution, UCCS plans to award best students' presentations. UCCS has also submitted a proposal to contribute to the International Polar Year (IPY) with an "Ice and Snow Classification and Glossary."

Georg Kaser  
President of UCCS

## ACTIVITIES OF THE ASSOCIATIONS

The following reports, edited from more lengthy reports prepared by the Secretaries General of the Associations, illustrate the impressive range of activities within each Association as well as their dedication to supporting science within developing countries.

### International Association of Geodesy

#### Central Bureau activities.

The central bureau prepared the EC meetings and participated in the IUGG EC meeting. The central bureau also keeps the database with individual member payments and the accounts related to the IUGG allocation.

#### The Executive Committee (EC).

The EC had a meeting (<http://www.gfy.ku.dk/~iag/ecmin05final.pdf>) in Cairns, Australia in connection with the IAG Scientific Assembly.

#### Communication and Outreach.

- The Branch publishes a monthly newsletter and maintains the IAG home-page.
- IAG-IASPEI Joint Capacity Building Workshop, 17-23 January 2005, Miramare-Trieste, Italy.
- The traditional "School on the determination and use of the geoid" took place in Budapest, Hungary in February 2005.
- A School for French speaking on the geoid took place 27 June -July 1 in France.
- A "Summer School on Microgravimetric methods: static and dynamic aspects" took place 23-28 October 2005 in Lanzarote, Canarie Islands, Spain.

### **Coordination with scientific organisations**

- The IAG president participated in a meeting of the Joint Board of the Mapping Societies in Cairo.
- IAG participated actively in the establishment of the Group on Earth Observations (GEO) objectives and the 10-Year Implementation Plan. The chief delegate was Prof. M.Rothacher, Germany.

### **Meetings.**

- Int. Workshop on "Deformation and Gravity Change: Indicators of isostasy, tectonics, volcanism and climate change", Lanzarote, Canarie Islands, Spain.
- International Symposium on Geodetic Deformation Monitoring, From geophysical to engineering roles, 17-19 March 2005 in Jaen, Spain.
- 15th EUREF Symposium, 1-4 June 2005 in Vienna, Austria.
- IAG/IAPSO Scientific Assembly "Dynamic Planet 2005" 22-26 August 2005 in Cairns, Australia.
- 7th Conference on optical 3-D measurements, 3-5 October in Vienna, Austria.

### **Services.**

The services function as usual in an excellent way.

C.C.Tscherning  
Secretary General of IAG

## **International Association of Geomagnetism and Aeronomy**

**The Xth Scientific Assembly of IAGA** was held in Toulouse, France on July 18-28 2005. The International Commission on the Middle Atmosphere (ICMA) of the International Association on Meteorology and Atmospheric Physics (IAMAS) held its biennial Assembly in conjunction with the IAGA Scientific Assembly. The joint scientific programme of IAGA and ICMA contained 61 symposia covering all scientific fields of the two organisations. In addition, there were four Association Lectures on subjects of general interest to the IAGA community and to the general public. The number of papers accepted for those 61 symposia was 1390, of which 867 were presented orally and 523 were posters.

### **Important decisions taken by the IAGA Conference of Delegates:**

- The duration of future IAGA Assemblies will be 6 full working days for the scientific programme (generally Monday to Saturday) and one preceding day (Sunday) for administrative meetings.
- The next Scientific Assembly, in 2009, will take place in Sopron, Hungary, in late August.

**The IAGA Long Service Medal**, recognising valued services to the IAGA community over many years, was awarded to Raghav Chandra Deka, India.

**The IAGA Executive Committee** met three times during the Toulouse Assembly. Among decisions taken the following may be mentioned.

*Geographical distribution of IAGA Officers:* Divisions and Commissions will be asked to nominate at their business meetings during General Assemblies two

candidates for both Chair and Vice-Chair. The Executive Committee will appoint the Chairs and Vice-Chairs taking into account the geographical distribution of the entire group.

*Leadership of the Inter-Divisional Commission on History:* The EC appointed Ed Cliver (USA) as Chair and Nicole Meyer-Vernet (France) as Vice-Chair for the period up to the next General Assembly in 2007.

*IAGA Awards:* IAGA will establish two new awards aimed at young scientists:

- An award to an ‘Outstanding young scientist’, to be decided by a working group within the EC.
- Awards for ‘Best contribution by a young scientist to IAGA-led topical meetings between Assemblies’. The award will consist of support to attend the next Assembly.

**IAGA News 42**, containing information about the Toulouse Assembly and the preparations for the Perugia Assembly 2007, among other things, was distributed widely in December.

IAGA continued to support the IUGG Inter-Association Initiative “Electromagnetic Study of Earthquakes and Volcanoes” (EMSEV) in 2005.

#### **Electromagnetic Studies of Earthquakes and Volcanoes (EMSEV) Activities**

The 4<sup>th</sup> meeting of the Inter-Association (IAGA/IASPEI/IAVCEI) Commission met 22 July 2005 in Toulouse, France. The EMSEV email list now totals 200 members. Joint Field Observation work on Volcano Taal, Philippines, began in 2003 but a major field survey was initiated on Jan 6-16, 2005. There is a plan to return in late 2005 to enlarge the surveys. An International Workshop on Early Warning Systems for Earthquake Monitoring By Using Space Technology was held in Kandilli Observatory at Istanbul, Turkey on 1-2 February 2005. This workshop was organized with active participation of the EMSEV group members to consider the possibility of creation of a Space based system for the early warning of strong earthquakes in Turkey, and especially for the Istanbul area. Other meetings of interest included the International Workshop for Seismo-Electromagnetics (IWSE) Meeting in Chofu, Japan on March 15-17, 2005; the 1st DEMETER Guest Investigator Workshop, Paris, France, May 2-4, 2005; the International workshop on earthquakes and tsunami in Padang, Sumatra, Indonesia. August 23-25, 2005; and an EMSEV Workshop “Recent Progress in Understanding the Problems of Seismoelectromagnetics and Lithosphere-Atmosphere-Ionosphere Physical Coupling Mechanisms” in Puerto Vallarta, Mexico, 3 – 4 November 2005 (the major annual activity of EMSEV 2005) held as a part of the Annual Meeting of UGM (Mexican Geophysical Union). The 2006 annual EMSEV meeting will be in Agra, India. EMSEV has also proposed several sessions for the 2007 IUGG General Assembly in Perugia.

Bengt Hultqvist  
Secretary General of IAGA

## International Association of Hydrological Sciences

The main IAHS activity of the year 2005 was its **VIIth Scientific Assembly** held in Foz do Iguaçu (Brazil) from 3 to 9 April 2005, the first IAHS Assembly in South America. This Assembly attracted 459 participants from 56 countries. The venue offered by our Brazilian colleagues was perfect from all points of view. Seven Symposia and seven workshops have been held under the overall theme of “Freshwater: Sustainability within Uncertainty”. At the beginning of the Assembly, the Presidency transferred from Kuni Takeuchi to Arthur Askew, elected two years before in Sapporo.

The Prediction of Ungauged Basins (**PUB**) IAHS initiative continued to develop especially through the constitution of national groups. Jeff McDonald replaced Murugesu Sivapalan as head of the initiative. An important point has been the creation of a permanent PUB secretariat managed by S.B. Weerakoon, located at the International Water Management Institute in Colombo, Sri Lanka.

In 2005, many scientific events have been organized, sponsored or supported by IAHS and its Commissions and Working Groups. Among them are the following : **Integrated Assessment and Management of Water Resources: A North-South Analysis** (Bonn, Germany, 23-25 February 2005), **Third International Symposium on Flood Defence** (Nijmegen, The Netherlands, 25-27 May 2005), **Problems of Water Resources, Geothermic and Geocology** (Minsk, Belarus, 1-3 June 2005), **ModelCARE2005 5th Int. Conf. on Calibration and Reliability in Groundwater Modelling** (Scheveningen, The Netherlands, 6-9 June 2005), **HeadWater'2005 6th International Conference on Hydrology, Ecology and Water Resources in Headwaters** (Bergen, Norway, 20-23 June 2005), **4th Inter-Celtic Colloquium On Hydrology and management of Water Resources** (Guimarães Minho, Portugal, 11-13 July 2005), **Extreme hydrological events : New concepts for security** (Novosibirsk, Russia, 11-15 July 2005), **6th EWRA International Conference "Sharing a common vision for our water resources"** (Menton, France, 7-10 September 2005), **International Conference on Reservoir Operation & River Management (ICROM)** (Guangzhou and Three Gorges, China, 17-23 September 2005), **Fundamental Problems of Investigation and Use of water resources** (Irkutsk, Russia, 19-25 September 2005), **SISOLS 2005: Seventh International Symposium on Land Subsidence** (Shanghai, China, 23-28 October 2005), **International Symposium on Methodology in Hydrology** (Nanjing, China, October 30 - November 1, 2005), **Climatic and Anthropogenic Impacts on the Variability of Water Resources** (Montpellier, France, 22-24 Novembre 2005), **Groundwater Protection In Africa** (Cape Town, South Africa, 28-30 November 2005)

In 2005 *IAHS Press* published six issues of the *Hydrological Science Journal*. Three issues of the *IAHS Newsletter* have also been published and widely disseminated free of charge, both as hardcopies and on the Web. A new version of the *IAHS Press Catalogue* has been prepared and published. IAHS Press also published 11 “*Red Books*”.

- **Northern Research Basins Water Balance**, Edited by Douglas L. Kane & Daqing Yang, IAHS Publ. 290.
- **Sediment Budgets 1**, Proceedings of an IAHS symposium held at Foz do Iguaçu, Edited by Des E. Walling & Arthur J. Horowitz, IAHS Publ. 291.
- **Sediment Budgets 2**, Proceedings of an IAHS symposium held at Foz do Iguaçu, Edited by Arthur J. Horowitz & Des E. Walling, IAHS Publ. 292.

- **Sustainable Water Management Solutions for Large Cities**, Proceedings of an IAHS symposium at Foz do Iguaçu, Edited by Dragan A. Savic, Miguel A. Mariño, Hubert H. G. Savenije & Juan Carlos Bertoni, IAHS Publ. 293.
- **Dynamics and Biogeochemistry of River Corridors and Wetlands**, Proceedings of an IAHS symposium at Foz do Iguaçu, Edited by Louise Heathwaite, Bruce Webb, Don Rosenberry, David Weaver & Masaki Hayashi, IAHS Publ. 294.
- **Regional Hydrological Impacts of Climatic Change : Impact Assessment and Decision Making**, Proceedings of an IAHS symposium at Foz do Iguaçu, Edited by Thorsten Wagener, Stewart Franks, Hoshin V. Gupta, Eva Bøgh, Luis Bastidas, Carlos Nobre & Carlos de Oliveira Galvão, IAHS Publ. 295.
- **Regional Hydrological Impacts of Climatic Change : Hydroclimatic Variability**, Proceedings of an IAHS symposium at Foz do Iguaçu, Edited by Stewart Franks, Thorsten Wagener, Eva Bøgh, Hoshin V. Gupta, Luis Bastidas, Carlos Nobre & Carlos de Oliveira Galvão, IAHS Publ. 296.
- **Bringing Groundwater Quality Research to the Watershed Scale**, Proceedings of GQ2004 (Waterloo, Canada), Edited by Neil R. Thomson, IAHS Publ. 297.
- **Permeable Reactive Barriers**, Edited by Genevieve A. Boshoff & Brian D. Bone, IAHS Publ. 298.
- **Geomorphological Processes and Human Impacts in River Basins**, Proceedings of the International Conference held in Solsona, Edited by Ramon J. Batalla & Celso Garcia, IAHS Publ. 299.
- **Predictions in Ungauged Basins:International Perspectives on the State of the Art and Pathways Forward**, Proceedings of the PUB Workshop held at Perth, Edited by Stewart Franks, Murugesu Sivapalan, Kuniyoshi Takeuchi & Yasuto Tachikawa, IAHS Publ. 301.

A New Series “Benchmark Papers in Hydrology” has been launched by IAHS Press, the first title of this series being “Streamflow Generation Processes” edited by K.J. Beven.

The *IAHS TFDC* (Task Force for Developing Countries) continued its action and distributed free of charge all IAHS publications (Hydrological Science Journal and the Red Books) to more than 60 selected Universities and Research Institutions of Africa, Asia, South-America and Eastern Europe.

Since 1924 IAHS have published more than 300 “*Red Books*”. Many of them are now out of print and it appears that these books are often difficult to find in the libraries. To make available for free on the IAHS Web Site this literature gathered under the IAHS umbrella, a digitization program has been undertaken. At the present time 88 books, representing more than 33000 pages are freely available on line.

The close cooperation of *IAHS* with *UNESCO*, *WMO* and the *World Water Council* has continued. IAHS attended the CHy AWG meeting and the WMO Executive Council in Geneva. We also participated to the launching meeting of the UNESCO-WMO International Flood Initiative. We began with UNESCO the preparation of the 8<sup>th</sup> Kovacs Colloquium “Frontiers in Flood Research” (Paris, 30 June-1<sup>st</sup> July 2006). IAHS has also been active in the preparation of special events to take place during the forthcoming 4<sup>th</sup> World Water Forum (Mexico, March 2006).

Pierre Hubert  
Secretary General of IAHS

## **International Association of Meteorology & Atmospheric Sciences**

Two key activities characterized 2005: The IAMAS General Assembly, held in Beijing, 2-11 July; and the formulation of the Scientific Program for the IUGG (IAMAS). Assembly in Perugia, 2-13 July, 2007.

### **The IAMAS General Assembly, Beijing, 2-11 August**

This main IAMAS conference was organized by the Chinese Academy of Sciences and the China Meteorological Organization, with strong support from the political authorities and the leading scientific organizations. It consisted of 43 regular symposia (3 with the Union Commission of Cryosphere Sciences, UCCS) and 2 special events: the honoring of Senior Academician Prof Ye Duzheng and the review of the status of the IPCC report. It was attended by 841 scientists from 54 countries, who submitted ~1377 abstracts and presented papers. The Assembly was a full success owing to the efforts of the LOC under the outstanding leadership of Academician Prof, Wu Guoxiong [IAMAS VP], assisted by Prof. Jianping Li, the legendary Jenny Lin, and many others.

### **The Scientific Program for the IUGG (IAMAS) Assembly in Perugia, 2007**

The IAMAS EC had a special meeting in Beijing, drafting the general scientific program forming the basis for the final IAMAS list of symposia for the IUGG program in 2007. The following components comprise the events for which IAMAS is responsible: (i) Two Union Symposia, (ii) two special IUGG events (the newest IPCC Report and the Joint IUGG/WMO Assessment Report on the Effects of Pollution on Precipitation, (iii) 30 Joint Symposia [5 of which are organized by the UCCS] and (iv) 21 IAMAS Symposia. The extended IAMAS EC and the selected Conveners are to be thanked for providing the substantive parts of the program.

### **Assessment of Effect of Pollution on Precipitation**

The Joint IUGG/WMO International Aerosol-Precipitation Science Assessment Group, IAPSAG, suffered from the death of its Chair, Prof. Peter Hobbs, who sacrificed so much of his remaining precious time for the scientific cause. The slowdown of the progress, however, was kept to a minimum since the VP of IAPSAG, Prof. Zev Levin, Israel, has taken over, together with Prof. William R. Cotton, USA, as the new VP. A review of the status of the Report and a WMO-sponsored meeting was held in November/December in Toronto. Once the report is in a more final stage, then an independent review committee will be formed by Dr. George Isaac, Canada. A meeting of this Committee will be sponsored by IAMAS.

### **EC Meetings**

The IAMAS EC meeting in July in Beijing decided that a revision of part of the Statutes would be advisable, particularly in view of financial issues. IAMAS will explore the possibility of membership in GEOSS.

IAMAS learned with regret that EC at-Large Member, Dr. Vladimir Ivanovici of Romania, had passed away,

The President and SG attended the EC meeting of the IUGG in September in Perugia, where the Assembly venues for 2007 were visited.

### **Commission Meetings**

The Middle Atmosphere Commission, ICMA, organized a series of workshops and co-sponsored several symposia at the tenth IAGA Scientific Assembly 18-29 July 2005 in Toulouse, France

### **IAMAS Representation**

The IAMAS President, Michael MacCracken, served as IUGG representative to the Scientific Committee for Oceanic Research (SCOR) and was a member of the planning committee for the ICSU workshop on the Significance to Society of Potential Impacts by Comets and Asteroids. He was also the liaison to the Joint Scientific Committee (JSC) of the World Climate Research Programme (WCRP). On behalf of both SCOR and IAMAS, he participated in the March 2005 WCRP/JSC meeting in Guayaquil, Ecuador. He served as the major IAMAS link with the IPCC to present IAMAS interests for the 4th Assessment Report by WG I. He took the lead in planning IPCC member participation in the 2005 Beijing Assembly as well as in the IUGG Assembly in Perugia 2007. He also met with the US IUGG National Committee and discussed IAMAS election and other issues.

In May the IAMAS Secretary General, Roland List, represented IAMAS at the WMO meeting of the WG on the Physics and Chemistry of Clouds and Weather Modification. In June he participated in the WMO EC Meeting in Geneva and engaged in discussions with the newly formed Secretariat of GEOSS.

### **IAMAS Web site/Newsletter**

Deputy SG John Turner and Gareth Marshall, British Antarctic Survey, deserve the credit for the IAMAS Webpage and the creation and publication of the first two issues of what are to be semi-annual IAMAS newsletters.

### **Finances**

The 2005 funding of IAMAS consisted of two components: the “standard” annual contribution by IUGG of ~ \$ 29600 and the head tax of \$ 25080 collected from the registering participants of the Beijing Assembly 2005. This allowed distribution of grants for participants from needy countries as well as for young scientists of \$ 63 400. \$5000 of this amount was contributed by WMO. The year 2005 ended with a financial loss of ~ \$ 6600, leaving assets of ~ \$ 252000 for 2006.

IAMAS contributed \$3000 to the Union Commission of Cryosphere Science, UCCS, for start-up expenses.

Dr. MacCracken, President, and Dr. John Turner, Deputy Secretary General, were fully supported by their home institutions, the US National Science Foundation and the British Antarctic Survey, respectively, SG was partially supported by the Meteorological Service of Canada, the China Meteorological Administration, the WMO, and the Canadian National Science and Engineering Research Council through his personal grants. All these organizations deserve our thanks.

The cordial relations within the Bureau, with the Past President, the Members at Large, the Commission Presidents and Secretaries, and the Officers of IUGG and the Sister Associations were appreciated during 2005. The vigour of the “working scientists” bodes well for the future of the atmospheric sciences and its value for governments and societies.

Roland List  
Secretary General of IAMAS



## **International Association for the Physical Sciences of the Oceans**

During 2005, IAPSO's main activity was the Joint IAG/IAPSO/IABO Assembly in Cairns, Australia. IAPSO participated in 17 symposia. The Joint Assembly drew a total of 724 delegates from 62 Countries. IAPSO presented a best student poster award and the Eugene LaFond Medal for oceanography in a developing country, as well as the biannual Prince Albert I Medal for career achievements in oceanography.

In addition to two IAPSO Executive Committee meetings, IAPSO held a general business meeting of representatives from adhering bodies during the Joint Assembly in Cairns. That was a productive meeting providing input/discussion from the adhering bodies. While proposed changes to the IAPSO Statutes and By-Laws had been given tentative approval by a majority of members, two additional issues were raised for consideration. A decision was made to hold general business meetings at all IAPSO Assemblies or Joint Assemblies held during interim periods between IUGG General Assemblies.

Initial planning was carried out for the IAPSO Scientific Program at the IUGG2007 General Assembly, including input from IAG, IAMAS, and UCCS. IAPSO was represented by its President and Past-President at the IUGG Scientific Program Committee meeting in Perugia, Italy, in September. That planning continued into early 2007 via email, and input was added where appropriate to other IUGG Associations.

Work of the Permanent Service for Mean Sea Level (PSMSL) and the associated IAPSO Commission on Mean Sea Level and Tides continued during 2005. A report on the complete activities of PSMSL was received. One significant activity was the planning, in cooperation with other organizations, of the upcoming WCRP Workshop, "Understanding Sea Level Rise and Variability," scheduled to be held during the summer 2006 in Paris, France. IAPSO is serving as a co-sponsor of the workshop.

Interaction between IAPSO and ICSU's Scientific Committee on Oceanic Research (SCOR) continued. IAPSO had introduced a proposal for a new working group, and that was approved by SCOR as Working Group WG127 on Thermodynamics and Equation of State of Seawater. This work is expected to provide important input into modeling of the global ocean and, ultimately, climate change modeling. The IAPSO President, or his alternate, serves as an ex-officio member of the SCOR Executive Committee.

In other ICSU related actions, IAPSO participated with SCOPE on a proposal to ICSU for PACKMEDS which was funded.

In administrative actions, the IAPSO Executive Committee approved holding a Joint Assembly with IAMAS in 2009 in Montreal, Canada. The IAPSO Executive Committee also approved discontinuing the Commission on Groundwater-Seawater Interaction (CGSI) with a recommendation to CGSI that they continue activities in a different organizational format.

The IAPSO Secretary General continued maintenance of the Web page including posting the program book from the 2005 Joint Assembly on the Web page; and continued handling general correspondence received by the Association.

Fred Camfield  
Secretary General of IAPSO

## **International Association of Seismology & Physics of the Earth's Interior**

### **IASPEI General Assembly (2005), Santiago, Chile**

The IASPEI 2005 Local Organizing Committee hosted the 33rd General Assembly of the International Association of Seismology and Physics of the Earth's Interior in Santiago, Chile, from October 2 to 8, 2005. There were 15 scientific symposia covering all parts of the scientific fields of IASPEI, with 220 talks given and about 200 posters shown. In addition, a large number of planning and 'business' meetings were held. 360 persons from 42 countries attended. Two candidate venues for 2009 have been proposed: Cape Town and Copenhagen. However, the decision on where to hold the 37th General Assembly has been postponed to spring 2006.

The tentative IASPEI scientific program for the Perugia IUGG 2007 General Assembly was approved.

A number of Resolutions passed by the Assembly Delegates are available on the IASPEI website.

An IASPEI Training School was organized during the week following the General Assembly by the Commission on Education and Outreach. The School was held at the Departamento de Geofísica of the University of Chile, which proved to be an excellent venue. About 20 participants from all over Latin America attended the School.

### **Symposia and Scientific Meetings**

#### **Inter-Association activities**

“IAG-IASPEI Joint Capacity Building Workshop on Deformation Measurements and Understanding Natural Hazards in Developing Countries”, ICTP, Trieste.

#### **Support of international conferences and workshops related to IASPEI activities, principally to allow attendance of scientists from less-developed countries.**

- 2005 Deep Earth Conference: Lithosphere-Asthenosphere Interaction; Fréjus, France – May 28 to June 1st, 2005
- The 9th International Workshop on Numerical Modeling of Mantle Convection and Lithospheric Dynamics; XXV Course of the International School of Geophysics. Ettore Majorana Foundation and Centre for Scientific Culture, Erice, Sicily, September 8-14, 2005.
- The 2nd ESARSWG Workshop on Training of Seismogram Analysts, hosted by the Department of Applied Physics, National University of Science & Technology, in collaboration with Goetz Observatory, Department of Meteorological Services, Bulawayo, ZIMBABWE, February 7th – 11th 2005 [ESARSWG = Eastern and Southern Africa Seismological Working Group]
- The IRIS/ORFEUS workshop : ‘Understanding and Managing Information from Seismological Networks’ Palmanova, Italy, February 28 – March 6, 2005.
- NATO Advanced Research Workshop: Earthquake Monitoring and Seismic Hazard Mitigation in Balkan Countries, Rila mountain area near Sofia, Bulgaria.
- Fourth International Symposium on Geophysics (ISG-4), 22-24 November, Tanta University, Egypt
- Workshop on Numerical modeling of tsunami; Philippine Institute of Volcanology and Seismology in Quezon City, The Philippines, November 7-19, 2005

### **Asian Seismological Commission (ASC) Activities**

IASPEI helped support various activities of ASC, including the publication in Armenia of the 2004 ASC proceedings on CD-ROM, and support for the preparation of the 2006 Assembly.

### **EMSEV**

IASPEI continued to support the IAGA/IASPEI/IAVCEI Inter-Association Initiative "Electromagnetic Study of Earthquakes and Volcanoes" (EMSEV) in 2005.

### **Publications**

Purchase and Distribution of the following IASPEI Publications free of charge to Institutional Libraries in Developing Countries:

- International Handbook of Earthquake and Engineering Seismology, Part B  
For information, please consult the website  
<http://www.academicpress.com/quake>.
- IASPEI Manual of Seismological Observatory Practice. For information, please consult [http://www.seismo.com/msop/msop\\_intro.html](http://www.seismo.com/msop/msop_intro.html) and [http://www.gfz-potsdam.de/pb2/pb21/index\\_e.html](http://www.gfz-potsdam.de/pb2/pb21/index_e.html).

Peter Suhadolc  
Secretary General of IASPEI

## **International Association of Volcanology and Chemistry of the Earth's Interior**

IAVCEI ended the year with over 730 paid individual members, the second highest number yet. Thirty-five members have chosen to become Life Members, including three members who were awarded Life Membership as Honorary Members in 2003-4. The IAVCEI web page is frequently revised and updated. The web site URL is [www.iavcei.org](http://www.iavcei.org). The volcano listserver administered by Arizona State University remains the official IAVCEI listserver. It has >2600 people listed, which far exceeds the IAVCEI membership. Thus we hope to further boost the membership in IAVCEI. Two issues of the newsletter "IAVCEI News" were mailed to members in 2005.

No major meetings were held in 2005, but IAVCEI sponsored or co-sponsored several workshops including the International Workshop on Ocean Island Volcanism in Cape Verde Islands in April, and the Workshop on Caldera Volcanism: Analysis, Modeling and Response in Tenerife in October.

No medals or awards were given in 2005.

The next IAVCEI General Assembly has been scheduled for August 2008 in Reykjavik, Iceland.

No meeting of the IAVCEI Executive Committee was held in 2005. Instead we operated under the curse known as email. Oded Navon and Steve McNutt attended the IUGG Executive Committee meeting in Perugia, Italy in September. Preparations are well under way for what is sure to be a successful IUGG meeting in July 2007 in Perugia. Navon also attended a planning meeting for the Electronic Geophysical Year, to be held 2007-2008.

IAVCEI sold several educational products in 2005. Two videos on 1) understanding volcanic hazards and 2) reducing volcanic risk were produced professionally under contract with IAVCEI. Over 60 videos were sold in 2005. Also, a volcano calendar for 2006 was produced by IAVCEI members and was printed and marketed by a professional calendar company. Over 8,000 calendars were sold and an additional 800 were distributed by IAVCEI to various scientific, educational, and governmental organizations. IAVCEI received a small royalty payment (1 percent) for the calendars. For the first time a second printing of calendars was necessary because of high demand from Sam's Club in Mexico.

IAVCEI now has tax exempt status with the IRS. This status is important so that contributions may be received with a tax benefit to contributors. 2005 was our most successful year yet with regards to fundraising; over \$7,000 was raised with the largest portion being proceeds from the sale of books previously owned by IAVCEI member George P.L. Walker.

2005 was a moderately active and productive year for IAVCEI. We hope to build on the success of the 2004 Pucon General Assembly to assure the scientific and financial health and vitality of IAVCEI in the future.

Steve McNutt  
Secretary General of IAVCEI

## **ADDITIONAL UNION MATTERS AND FUTURE PLANS**

2005 brought with it the unfortunate loss of several members of the IUGG community. Prof. Sergei Balassanian, Yerevan State University, died on November 23, 2004, as a result of an automobile accident. Prof. Balassanian was President of the IUGG National Committee for the Republic of Armenia and the Armenian Association of Seismology and Physics of the Earth, and also President of the IASPEI Asian Seismological Commission. He was a renowned authority in the field of natural hazards and risks. Additional information can be found on the IASPEI web site under Recent Changes.

Dr. Vladimir Ivanovici, At-Large member of the IAMAS Executive Committee, IAMAS Correspondent from Romania, and Director of the National Meteorological Administration in Bucharest, passed away. He was widely respected, published numerous papers and had received prestigious awards. We deeply regret the loss of a remarkable scientist and close collaborator.

Among the more positive news of 2005 is the wide variety of awards and honors that were bestowed upon members of the IUGG community. These included the following:

- The following scientists active within IUGG were among those elected as Fellows by the American Geophysical Union: Georges Balmino (France), past Secretary General of IUGG; Bruce Buffett (Canada/USA), Chair of the IUGG Union Commission on Studies of Earth's Deep Interior (SEDI); Gunter Bloschl (Austria), Vice-President, IAHS Commission on Water Resources Systems; Devendra Lal (USA), past President of IUGG (1983-87); Raymond Pierrehumbert (USA), Vice-Chair CMG; Paola Malanotte Rizzoli (Italy), past-President, IAPSO; Kathryn Whaler (Scotland, UK), IAGA Executive Committee; Vladimir Zharkov (Russia), SEDI Advisory Committee.

- The International Association for the Physical Sciences of the Oceans(IAPSO) awarded the 2005 Eugene LaFond Medal for Oceanography in a Developing Country to Maria del Carmen Grados of the Instituto del Mar del Peru (IMARPE), Callao, Peru.
- The 2005 Prince Albert I Medal was awarded to Prof. Dr. Friedrich Schott, Kiel University at the 2005 IAG/IAPSO/IABO Joint Assembly in Cairns, Australia.

The IUGG Bureau and Finance Committee Chair Michael Hamlin will meet 16-18 October 2006 in Melbourne, Australia. Agenda items will include IUGG membership actions, discussion on developing country access to geoscience (especially Africa), and administrative arrangements for the 2007 IUGG General Assembly, 2-13 July 2007.

Proposals for changes to the IUGG Statutes and By-laws are now being accepted by Dr. David Kerridge, Committee Chair. All Adhering Bodies of IUGG Member Countries may submit proposals for modifications, which should be received by 1 November 2006.

Nominations are now being accepted for IUGG Officer and the Finance Committee for 2007-2011. The deadline for nominations is 30 September 2006. Dr. Soren Gregersen chairs the Nominations Committee (detailed information is available on the IUGG website: <http://www.IUGG.org> ).

Planning for the 2007 XXIV IUGG General Assembly will intensify through the year. The Second Circular/Call for Papers is available on the General Assembly website <http://www.iugg2007Perugia.it> and the Third Circular, which will contain registration information, is scheduled for completion by 1 December. IUGG is grateful to the Perugia 2007 Local Organizing Committee (Prof. Lucio Ubertini, Chair) and the General Assembly Scientific Programme Committee (Prof. Paola Rizzoli, Chair) for their hard work and dedication.

Jo Ann Joselyn  
Secretary General of IUGG