

MINUTES OF THE COUNCIL MEETINGS

MINUTES OF THE SECOND IUGG COUNCIL MEETING

23RD GENERAL ASSEMBLY, SAPPORO JAPAN, JUNE 30 – JULY 11, 2003

Date : Friday July 4, 2003 (130-5pm)

Place : Highness Hall C, Royton Hotel

Participants :

- National Delegates at Council

<i>Argentina</i>	<i>Dr. Juan Vilas</i>
Australia	Dr. Charles Barton
Austria	Dr. Michael Kuhn
Belgium	Prof. Andre L. Berger
Brazil	Dr. Luiz Palo Souto Fortes
Canada	Dr. Ronald E. Stewart
Chile	Dr. Pablo Gran
China	Prof. Chuanzhen Zhu
Colombia	Eng. Laura Sanchez Rodriguez
Croatia	Prof. Dr. Mirko Orlic
Czech Republic	Dr. Petr Holota
Denmark	Dr. Soren Gregersen
Egypt	Prof. Attia A. Ashour
Finland	Prof. Dr. Pentti Malkki
France	Dr. Roland Schlich
Germany	Prof. Dr. Gerd Tetzlaff
Hungary	Prof. Dr. Jozsef Adam
Iceland	Mr. Pall Jonsson
India	Dr. Vilai P. Dimri
Indonesia	Mr. R.W. Matindas
Iran	Dr. M.R. Gheitanchi
Ireland	Dr. Peter Lynch
Israel	Prof. Zev Levin
Italy	Prof. Lucio Ubertini
Japan	Prof. Shuzo Takemoto
Korea	Dr. Wooil W. Moon
Mexico	Prof. Jaime Urrutia-Fucugauchi
New Zealand	Dr. David A. Rhoads
Norway	Dr. Bjorn Geirr Harsson
Poland	Prof. Dr. Jan Krynski
Portugal	Prof. Dr. Luis A. Mendes-Victor
Romania	Dr. Constantin S. Sava
<i>Russia</i>	<i>Dr. Yuri S. Tyupkin</i>
Slovenia	Mrs. L. Globevnik
South Africa	Prof. Charles L. Merry
Spain	Dr. Lluís Pujades Beneit
Sweden	Dr. Birna Olafsdottir
Switzerland	Prof. Dr. Huw C. Davies
Thailand	Major General T. Thambumroong
Turkey	Dr. Lt. Col. Eng Onur Lenk
United Kingdom	Prof. David N. Collins
United States	Prof. David N. Jackson

Italics for Countries with Observer Status only

- Members of the Bureau

President	Prof. Masaru Kono
Vice President	Prof. Uri Shamir
Treasurer	Dr. Aksel Hansen
Secretary General	Dr. JoAnn Joselyn
Asst. Sec. Gen.	Mr. Ryan Aucone
Member	Dr. Tom Beer
Member	Dr. J.Y. Chen
Member	Dr. Harsh Gupta

- Members of the Finance Committee

President	Dr. A. Fred Spilhaus
Secretary	Dr. Patrick Pinet
Member	Prof. Michael J. Hamlin
Member	Prof. Vinod K. Gaur
Member	Prof. Dr. Erwin Groten

- The Executive Committee and Secretaries-General of the Associations:

Past President	Prof. Peter Wyllie
President IAG	Prof. Fernando Sanso
Secretary IAG	Prof. Christian Tscherning
President IAGA	Dr. David Kerridge
President IAHS	Dr. Kuniyoshi Takeuchi
President IAMAS	Prof. Dr. Huw Davies
Secretary IAMAS	Prof. Roland List
President IAPSO	Dr. Paola Rizzoli
Secretary IAPSO	Dr. Fred Camfield
President IASPEI	Prof. Brian Kennett
President IAVCEI	Prof. Steve Sparks

- The following alternate Council Delegates attended the Second Council Meeting :

France	Dr. Michel Menvielle
	Dr. Jean-Pierre Barriot
India	Prof. Gurbax Lakhina

- The President invited the following guests for the Second Council Meeting :

ICSU Rep.	Dr. P. Tyson
American Rep.	Ms. E. Lawson
L.O.C.	Dr. K. Suyehiro

**1. Greetings, Presentation of the Credentials :
Salutations: Présentation des lettres d'accréditation**

The Meeting was called to order at 4 PM in the Highness AB room by President Kono.

41 national delegates were present at the opening, 39 eligible to vote. The total number of member countries eligible to vote is 50 (64 minus 8 in Observer Status, minus 6 in Associate Status). The quorum (=17) is reached. Other national delegates arrive in the course of the meeting amounting to 42 with 40 eligible to vote.

President Kono asked the Secretary General to announce the results of the voting on Membership issues. She reported that all votes were favorable. Dr. Malkki (Finland) asked to hear the numbers, which were then read. (The results are listed in the minutes of the first Council meeting). Dr. Kono also announced that the discussion on Agenda Item 7: Statutes and By-Laws, deferred from the First Council meeting, would resume following Agenda item 12 and that if necessary, Agenda Item 13: IUGG Goals and Vision, would be taken up at the third Council meeting in order to close today's meeting according to the schedule. Delegates were reminded that a reception sponsored by the Italian delegation would take place following the close of the Council meeting.

9. Reports by Association Presidents :

Rapports des présidents des associations

During the past two years, President Kono visited all of the Association assemblies and was quite impressed with the wide range and importance of their activities. He apologized for the limited amount of time (approximately 3 minutes) each Association president was given to talk, and pointed out that summary reports for each Association are included in the Council Agenda Book. He noted the change in room arrangement so that the Association officers are seated near each other to better encourage the Associations to speak with a single voice.

The International Association of Geodesy (IAG)

Dr. Fernando Sanso, IAG President, noted that summarizing the past 4 years of activity in IAG in 3 minutes was extremely difficult. He decided to highlight two facts that have had a major influence in changing the direction of the traditional scopes of the Association. The first fact is the wide spread and qualitative improvements of the GPS technique, now used in almost all geodetic and geophysical enterprises. Second, there has been an impressive increase in knowledge of the gravity field of the Earth on a global scale based on the space missions directed to this aim (e.g., CHAMP, GRACE, and soon – GOCE). But besides those facts, IAG itself has undergone revolutionary changes in the past 4 years beginning with a complete rewrite of the Statutes and By-laws. Three main principles were used to reset IAG structure.

- 1) IAG was made to be more flexible and viable by eliminating one bureaucratic layer and simplifying the rules. The resulting structure is now based on 4 Commissions: 1) for the Reference Frames; 2) for the Gravity field; 3) for Earth Rotation and Geodynamics; 4) for Positioning and Applications.
- 2) The role of IAG services has been greatly enhanced and they now have representation on the IAG Executive Committee at the same level as the Commissions. These services are related to GPS positioning (IGS); Earth rotation (IERS), Gravity Field (IGFS – a new federation of all existing gravity field services), and the many services devoted to specific special techniques, such as laser imaging. In addition we share services with other bodies such as the Permanent Service for Mean Sea Level and Bureau International des Poids et Mesures. (BIPM) – Time Section.
- 3) A new Communications and Outreach Branch was created to help promote IAG Science and Products to the public.

Finally, also based on the great importance we are giving to the services and other actions to make IAG work visible and appropriately used by the other geosciences, we have initiated an IAG project IGGOS (Integrated Geodetic Global Observing System) that we think will help us in strengthening the scientific relationships with our sister Associations and better serve the general purposes of IUGG.

No questions or comments were asked from the Council.

Changes in IAG Statutes and By-Laws

The revised IAG Statutes and By-laws were included in the Council Agenda Book. Dr. Sanso noted that they have received extensive internal discussion including review by the IUGG Secretary General. The President proposed a vote for approval by show of hands. Those for – 36; those opposed – 0; those abstaining – 1. The revised IAG Statutes and By-laws were thus approved.

International Association of Geomagnetism and Aeronomy (IAGA)

Dr. David Kerridge, IAGA President, noted that IAGA seeks to encourage inclusiveness in the scientific community, making excellent science accessible to scientists worldwide. This has been best achieved during the past four years first through a well organized and successful joint Scientific Assembly with IASPEI in Hanoi in 2001, and then through the symposia planned and held at this General Assembly. Funding to support young scientists and scientists from developing countries was greater for the Hanoi Assembly than at any previous Assembly, but has been surpassed for the Sapporo Assembly. Smaller scale meetings and workshops are also important and IAGA has approved sponsorship for 25 meetings and workshops over the 1999-2003 term. IAGA also published a new flyer setting out the purpose and activities of the Association, and the IAGA web site has been improved and re-launched.

IAGA is well known because of its widely used practical products such as the International Geomagnetic Reference Field and the IAGA-sanctioned magnetic activity indices issued by the International Service for Geomagnetic Indices. A major factor influencing IAGA science has been and continues to be the wealth of spacecraft data feeding research and leading to new discoveries. Examples include the 3-D heliosphere data from Ulysses over a full solar cycle, multi-point observations of the magnetosphere using the four Cluster spacecraft, and the prospect of achieving the goal of having uninterrupted measurements from magnetic survey satellites for a decade. Advances have been made in theoretical aspects of possible mechanisms linking solar variability and climate change, and in understanding the effects on the atmosphere of greenhouse gases of anthropogenic origin. In the area of geohazards, the science underpinning understanding of solar-terrestrial interactions helps to determine how “space weather” conditions affect the risk to human activities in space, and to space- and ground-based technological systems. IAGA supports the recently-formed Inter-Association Working Group on Electric and Magnetic Studies of Earthquakes and Volcanoes (EMSEV) that is charged with establishing firm scientific understanding of the generation mechanisms of signals which may ultimately help to mitigate the effects of natural disasters. IAGA science has also benefited from successful ICSU grants to support the modernisation of magnetic observatories around the world through INTERMAGNET, and for a project to rescue and preserve, in digital form, old analogue magnetograms from worldwide observatories.

Looking forward over the next few years, IAGA will play an active role in marking the 50th anniversary of the International Geophysical Year (IGY) and has suggested the concept of an Electronic Geophysical Year (eGY) as a possible component of the IGY+50 celebrations. The eGY will demonstrate that distributed computing resources efficiently linking multiple remote sources of data and modelling codes could assist the participation of scientists in developing countries in research by reducing the need for major local capital investment. The next IAGA Scientific Assembly will be together with the IAMAS International Commission on the Middle Atmosphere in Toulouse, France in 2005. The current rapid pace of development in IAGA science guarantees a fascinating scientific programme.

No questions were asked from the Council.

International Association of Hydrological Sciences (IAHS)

Dr. Kuniyoshi Takeuchi, IAHS President, noted that the 21st century is a Water Century because of the many serious threats to water supplies and quality. Governments and international agencies (for example, at the recent World Water Forum in Kyoto) have noted the issues and are working towards managing and sustaining fresh water supplies. IAHS is taking responsibility to provide the scientific evidence needed to support these programmes. Specifically, two years ago they initiated a Working Group on the Prediction of Ungauged Basins (PUB) to promote the development of science and technology to provide hydrological data where ground-based observations are needed but missing. PUB connects existing programmes inside and outside IAHS and provides a forum, network, and the framework for integration. IAHS is a scientific association proactively dealing with the societal needs.

A question was asked regarding the implications of the dissolution of the ICSU Scientific Committee on Water Quality (SCOWAR). Dr. Kono answered the question because this matter was decided at the September 2002 ICSU General Assembly, which he attended. He said that IUGG had not been consulted in the matter but that the ICSU Executive Committee took the action and the matter was closed. However, he was confident that ICSU understands that water issues are critical and they are considering the best way to contribute this international need.

No further questions were asked at this time.

International Association of Meteorology and Atmospheric Sciences (IAMAS)

Dr. Huw Davies, President, noted that in recent years there have been enormous advances in Meteorology and the Atmospheric Sciences. These advances have been spurred on by the recognition that many of the major scientific challenges and societal concerns confronting humankind are related to the composition and state of the atmosphere. In turn these advances, challenges and concerns are reflected in the nature, scale and scope of IAMAS's activities during the period 2001-2003.

The overall nature of IAMAS's activities is influenced by its role as one of the constituent Associations of the International Union of Geodesy and Geophysics (IUGG) and by the establishment of several IAMAS-related programmes by the International Council for Science (ICS) - the parent organization of the IUGG. Thus IAMAS operates within the IUGG and concurrently recognises that its natural constituents - meteorologists and atmospheric scientists - are also strongly linked to, for example, the CLIVAR, SPARC and GEWEX sub-programmes of the World Climate Research Programme (WCRP) and the Inter-governmental Panel on Climate Change (IPCC). Likewise the overall changes in the scale and scope of IAMAS activities is a response to the new vistas of its constituents in relation to the societal and economic significance of air quality, weather forecasts, and climate change projections. From the standpoint of basic science the scale and scope has been broadened by the rapid advances in our observational capabilities, enhanced by the availability of powerful high-speed computers, and inspired by new theoretical perspectives and challenges.

These aspects were exemplified by the IAMAS Assembly held in Innsbruck, Austria between the 10-18 July, 2001. For example the themes of the President's Lectures ranged from "Anthropogenic Climate Change: the IPCC's 2001 Assessment" (given by Sir John Houghton, co-chair of Working Group I of the IPCC), "A Vision of

Global Weather Services in 2025- An Update (by Rick Anthes, President of UCAR), Atmosphere-Ocean Biogeochemical Coupling (by Robert A. Duce, immediate Past President of IAMAS), and "Numerical Weather Prediction at the Meso-gamma Scale: Soon a Reality" (by Phillippe Bougeault of Meteo France & Head of Research Designate of ECMWF).

Again the series of innovative Lunchtime Lectures that provided young scientists with an opportunity to address the Assembly in plenary sessions featured contributions on the dynamics of orographic flow (by S. Mobbs), the socio-economic aspects of global warming (by R.A. Pielke Jr.) and atmospheric flow predictability (by M. Ehrendorfer). In addition the Assembly Programme included an overview of the IPCC Third Assessment Report, and a palette of 33 symposia organized by the Commissions. The latter encompassed consideration of processes and phenomena spanning the aerosol space-scale and lightning time-scale to global-scale climate and paleoclimatological-time scales.

The Assembly was a notable success in terms of the breadth, depth and number of the scientific contributions, and in terms of the scale of financial support made available for young participants. The convivial setting of the Conference Centre (- that had just been awarded the coveted title of World's Best Conference Centre for 2000) was conducive to fostering informal scientific contacts and added significantly to the sense of occasion. The overall success was attributable in no small part to the tremendous effort and careful planning of our Innsbruck hosts - Prof. Michael Kuhn and his team. Also central to the success was the diligence of the Commission Officers and Symposia Convenors that ensured the timeliness of the Assembly's themes and the scientific quality of the individual contributions. Organizational oversight for the entire proceedings was in the competent and capable hands of Prof. Roland List (IAMAS Secretary General), and his Herculean efforts deserve special mention and acknowledgement.

During the Assembly both the IAMAS Bureau and the IAMAS Executive met twice. First significant steps were laid for the scientific component of IAMAS's contribution to the IUGG General Assembly in Sapporo, Japan in 2003, and after formal consideration of the invitation extended by China it was agreed that preparations commence for holding the IAMAS Assembly in Beijing in 2005.

IAMAS links with other international Committees and Commissions continue to be strong. The immediate past President of IAMAS (Prof. R.A. Duce) in recent years served as Chairman of the Executive Committee of SCOR. This linkage of the atmospheric and ocean sciences illustrates neatly the inter-disciplinarity that is one feature of today's research agenda and of IAMAS activities. Indeed Prof. Duce was also instrumental in setting-up the new international research programme on Surface Ocean-Lower Atmosphere Study (SOLAS). One current IAMAS Vice-President (Prof. R. Vincent) plays a lead role in the middle atmosphere STEP programme, and another current IAMAS Vice-President (Dr. R. Carbonne) chairs the influential WMO initiative entitled the World Weather Research Programme (WWRP). Again the IAMAS Secretary-General (Prof. Roland List) continues in his liaison role with the WMO and the WCRP. These contacts are central to the IAMAS mission.

A major effort after the Innsbruck Assembly has been devoted to preparing for the IUGG General Assembly to be held in Sapporo, Japan in summer 2003. The Assembly's overall theme will be "State of Planet Earth" entailing a series of Flagship Union Symposia with complementary contributions from the Union Lectures. Prof. T. Matsuno, a

former member of the IAMAS Executive, will deliver one of these prestigious Lectures, and IAMAS will also play a role in two of the Flagship Symposia. In addition to participation in inter-Association and IAMAS symposia and workshops, IAMAS will also pioneer a series of plenary lunchtime lectures and contribute to presentations to the general public. The Secretary-General has invested a major effort to the organization of these varied activities.

At the Commission level it is hoped that the revision of the IAMAS Statutes that accomplished during the IUGG Birmingham Assembly in 1999 will be mirrored by an overhaul of the Statutes of the Commissions in Sapporo.

The newly-revised IAMAS Statutes state that it is tasked to: promote the study of the science of the atmosphere; initiate, facilitate, and coordinate international cooperation; stimulate discussion, presentation and publication of scientific results; and promote education and public awareness. These are far-reaching goals that merit the effort of the community, and our plenary meetings in Sapporo will provide an opportunity to fashion our activities to match these objectives. The need for a global, independent and non-governmental voice that encompasses the entire spectrum of activities in Meteorology and the Atmospheric Sciences is strong, and in this context IAMAS can play a unique role.

No further questions or comments were raised.

International Association of the Physical Sciences of the Oceans (IAPSO)

Dr. Paola Rizzoli, IAPSO President, reported that IAPSO has been very active since the 1999 General Assembly in Birmingham. Particularly good news was that IAPSO was able to raise money especially from the US National Science Foundation to assist young scientists to come both to the Assembly in 2001, Mar del Plata, and to Japan. 25 young scientists were supported in Sapporo. More than 400 scientists attended the IAPSO symposia in Sapporo. The second IAPSO Prince Albert I Medal was presented to Prof. Klaus Wyrtki and Prof. Walter Munk, the recipient of the 1st Medal. delivered the first Albert I Memorial Lecture. The most important event is the restructuring of the Association which started in 2001 with the establishment in Mar del Plata of a IAPSO Strategic Planning Task Group chaired by Vere Shannon and Paola Rizzoli. The group had a Think Tank meeting in Cape Town, South Africa, in October 2002 and the report "International Physical Sciences of the Oceans in the 21st Century: Science and Enabling Strategies" is almost completed. The Report will need vote and approval from the IAPSO national correspondents as a change in the by-laws is envisioned. A new Action Team was established in Sapporo, chaired by Paola Rizzoli, to prepare an implementation plan with the priority actions defined. Actions were already taken to increase IAPSO visibility. IAPSO will co-sponsor the AGU meeting in the US in January 2003 and the COSPAR meeting in Paris in 2004. A IAPSO Membership Form was distributed at the IAPSO symposia and a number of 300 members registered. The IAPSO Past President, Paola Rizzoli, will start a monthly electronic newsletter in September 2003 using this list as the basis for distribution. The IAPSO/SCOR WG 121 on Ocean Mixing had a successful meeting during the Assembly in Sapporo and will have a workshop at the University of Victoria, B.C., Canada, in 2004. A further IAPSO/SCOR WG is in the planning, WG 122 on Estuarine Sediments Dynamics. Finally, IAPSO will pursue a collaborative project with

SCOPE (Scientific Committee on problems of the Environment in ICSU). The project preliminary title is "Physics and Chemistry as the Key to Marine Ecosystems Dynamics and Structure (PACKMEDS). SCOR is invited to join the project.

No questions were asked at this time.

International Association for Seismology and Physics of the Earth's Interior (IASPEI)

Dr. Brian Kennett, President of IASPEI, reported that there have been major advancements in seismic work in recent years, in particular in the capacity to model both seismic wave propagation in 3-D and the nature of source processes. The combination of such advances enables better simulation for seismic ground motions for events (both real and potential) and thus provides a basis for better disaster prevention and forecasting.

The past four years has seen a realignment of the Commission structure within IASPEI to provide a closer tie to the major themes which are used for constructing meeting programs.

IASPEI is very conscious of the need to develop programs in developing countries, and to draw in new scientists. A substantial part of the Association's budget has been devoted to support for travel grants and projects in and with developing countries. The 2001 Assembly was held jointly with IAGA in Hanoi, Vietnam and drew a good regional attendance. This meeting also provided an excellent opportunity for synergistic studies on the nature of the Earth's Deep Interior with the help of IAGA and SEDI. The 2005 IASPEI assembly will be held in Santiago, Chile, in October 2005, and it is planned to have added schools and workshops during this time in order to expand IASPEI science into Latin America.

No questions were asked at this time.

International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)

Dr. Steve Sparks, President of IAVCEI, reported that today, over 500 million people live close enough to volcanoes to be affected if they were to erupt. IAVCEI contributes to a very detailed database on geological explosions, and is compiling a database of all the activities leading up to the eruptions. IAVCEI has initiated a volcanic hazard atlas for worldwide distribution. Disaster prevention through an informed public is a significant effort within IAVCEI and they are updating for re-distribution, an information video regarding volcanic hazard. The next IAVCEI scientific assembly will be held in Pucon, Chile, and the new president will be Oded Navon (Israel).

No questions were asked at this time.

10a. Review of IUGG Inter-Association bodies Examen des Comités inter-Association de l'IUGG

President Kono announced that for bodies listed in Agenda item 10, a report was provided in the Council Agenda book. Due to time constraints, only brief comments would be made. Specific questions or comments would then be entertained.

- Commission on Geophysical Risk and Sustainability (GeoRisk)
Activities have been commendable during their first term, and support will be increased for the next term from \$5000 to \$6000 per year.

- **Committee on Geophysics: The Future (GTF)**
Dr. Uri Shamir introduced Laura Sanchez, the Council Delegate from Colombia, who is a member of the Committee. Delegates were invited to the Union symposium U8 on Friday July 11. A question was raised about availability of the document prepared by the Committee. It will be available on CD-Rom and will be posted on the IUGG Web site.
 - **Committee on Mathematical Geophysics (CMG)**
On behalf of the IUGG Executive Committee (EC), President Kono reported that CMG has become detached from IUGG and is not very well known among the Associations. The EC has decided to reduce their budget and request that they improve their relationship with the Associations.
 - **Committee on Studies of Earth's Deep Interior (SEDI)**
The activities of SEDI have been quite good and the EC decided to maintain their level of support.
 - **Committee on IGY+50**
IUGG appointed a committee in September 2002, to plan and coordinate events that would mark the 50th anniversary of the International Geophysical Year (IGY). Unfortunately, the Committee, chaired by Michael Kuhn (Council Delegate from Austria) has only recently begun activities. But the International Union of Geological Sciences (IUGS) has been pursuing an aggressive initiative entitled "planet earth" that includes a proposal to ask the United Nations to declare an International Year of Planet Earth. The IUGG EC decided to work with IUGS as full partner in this initiative, and asked the two committees to coordinate their activities closely. IGY+50 meetings will be held at this General Assembly.
- Dr. Malkki (Finland) asked about the IUGG position on the International Polar Year (IPY), another initiative being planned to commemorate the IGY, and suggested that the Council decide in principle to participate in the IPY and support them to the greatest extent possible. Dr. Kuhn replied that this would be discussed at the IGY+50 planning meetings at the General Assembly.
- Dr. Malkki asked further if IGY+50 was a celebration or research program. Dr. Kono replied that in 1999, the suggestion was simply to celebrate the event. However, since then the mood had changed and the Associations were now enthusiastic to incorporate scientific initiatives in these activities. Dr. Davies (Switzerland, and President of IAMAS) noted that the World Climate Research Programme might be interested in combining the IGY+50 and IPY into one program with a global emphasis on gathering atmospheric data. Dr. Tyson (representative from ICSU) reported their wish to prevent duplication of efforts and to join forces to plan coordinated events. No further questions were asked of Dr. Kono or Dr. Kuhn.

10b. Relations with special ICSU Committees **Relations avec les Comités Inter-Union particuliers du CIUS**

- **Federation of Astronomical and Geophysical Data Analysis Services (FAGS)**
Dr. Joselyn referred to the report in the Agenda book. The new Chair of FAGS, Dr. David Pugh, has arranged a meeting on Tuesday afternoon and Council members were invited to attend. Assuming Council concurrence, Ruth Neilan has agreed to replace Martine Feissel-Vernier as the IUGG liaison to FAGS. The IUGG Executive Committee voted to continue an annual subvention of \$12,000 to FAGS, but renewable each year (a change for the former circumstance of an automatic subvention each year).
- **Initiative on Science for Health and Well-Being**
Dr. Joselyn explained that this ad hoc initiative arose from inter-Union discussions at the recent ICSU General Assembly in Rio de Janeiro, Brazil. It may or may not continue based on Union response. An IUGG liaison is needed for this initiative although Dr. P. Hubert and Dr. J.A. Joselyn have been serving in that capacity and could continue.

10c. Relations with ICSU Commissions and Committees (renewal of liaison officers) **Relations avec les Commissions et Comités scientifiques du CIUS (renouvellement des responsables de liaison)**

Dr. Joselyn noted that the reports from each liaison of the past term were included in the Agenda book. A list of proposed liaisons to each of the ICSU commissions and committees for the next term was distributed, and discussion was as follows.

- **on Antarctic Research (SCAR)**
Dr. R. Schlich (France) pointed out that a diagram that he sent with his report had not been included in the Agenda book. The Secretariat apologized for the omission. Dr. Schlich agreed to continue as the SCAR liaison for the coming term.
- **on the International Geosphere - Biosphere Programme (IGBP)**
Dr. C.J.E. Schurrmans provided the report in the Agenda book. At this time, a new liaison was being sought.
- **on the Lithosphere (SCL/ILP)**
Dr. S. Gregersen provided the report in the Agenda book. Dr. E.R. Engdahl agreed to serve as the IUGG liaison for the next term.
- **on Oceanic Research (SCOR)**
Drs. P. Rizzoli, R. Duce and H. Davies provided the report in the Agenda book. The new IAPSO and IAMAS presidents (Dr. S. Imawaki and Dr. M. MacCracken, respectively) will serve jointly as IUGG liaisons to SCOR for the next term.
- **on the Problems of the Environment (SCOPE)**
Dr. N.J. Peters provided the report in the Agenda book; he agreed to continue as the SCOPE liaison for the coming term.

- on Science and Technology in Developing Countries (COSTED)
Dr. V Gaur provided the report in the Agenda book. COSTED, as such, has been concluded by action of the ICSU Executive Board, as pointed out by Dr. Ashour (Egypt). Dr. H. Gupta informed that ICSU is placing a new structure of regional offices in Asia, Africa, the Middle East and Latin America / Caribbean for developing countries. Dr. H. Gupta agreed to be IUGG liaison for ICSU on developing countries.
- on Solar-Terrestrial Research (SCOSTEP)
Prof. W. Baumjohann provided the report in the Agenda book and agreed to continue as the SCOSTEP liaison for the coming term.
- on Space Research (COSPAR)
Dr. E. Friis-Cristensen provided the report in the Agenda book, and agreed to continue as the COSPAR liaison for the coming term.
- on Water Research (SCOWAR)
Dr. J. Rodda provided the report in the Agenda book. ICSU terminated the activities of SCOWAR at their Brazil General Assembly, thereby eliminating the need for a liaison.

10.d Relations with inter-governmental and other organizations (renewal of liaison officers)

Relations avec les organisations inter-gouvernementales autres organismes (renouvellement des responsables liaison)

- Cartographic Office of the United Nations
Dr. J. Kakkuri provided the report in the Agenda book. Dr. H. Drewes, nominated by the International Association of Geodesy (IAG), has agreed to serve as the IUGG liaison for the coming term.
- International Civil Aviation Organization (ICAO)
Dr. G. Heiken provided the report in the Agenda book. Dr. W. Rose, nominated by the International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI) agreed to serve as the IUGG liaison for the coming term.
- Panamerican Institute of Geography and History (PAIGH)
Dr. W. Torge provided the report in the Agenda book. Dr. H. Drewes, nominated by the International Association of Geodesy (IAG), agreed to serve as the IUGG liaison for the coming term.
- UNESCO/Solid Earth and Geodesy
Dr. R.D. Adams provided the report in the Agenda book. Because IUGG has excellent relations with the Solid Earth and Geodesy component of UNESCO, he recommended that a new liaison was not needed and none was appointed.
- UNESCO / International Oceanographic Commission (IOC)
Dr. P. Rizzoli combined her report on the IOC with the report on SCOR. She agreed to serve as the IOC liaison for the coming term. It was pointed out that David Pugh is the incoming President of the IOC and will also be able to advise IUGG on IOC decisions and actions.
- World Meteorological Organization (WMO)
Prof. R. List provided the report in the Agenda book on both WMO and the World Climate Research Programme (WCRP), and has agreed to continue for the next term. In addition, Dr.

P. Hubert, Secretary General of the International Association of Hydrological Sciences (IAHS), also agreed to serve as a liaison to WMO for the coming term.

IAHS suggested that IUGG appoint a new liaison to UNESCO's International Hydrological Programme; Dr. P. Hubert agreed to serve in this capacity.

Dr. Kono asked if the Council could approve appointment of the named liaisons. Dr. Berger (Belgium) asked for additional information about the source of the nominations for these positions. Dr. Joselyn replied that the Associations were the source of the nominations. Dr. Lenk (Turkey) asked if further nominations could be suggested. Dr. Joselyn replied that suggestions of additional nominees were welcome for the several posts not yet filled, if they were received before the final Executive Committee meeting on 8 July. Dr. Barton (Australia) asked why IUGG does not have a liaison with UNESCO itself. Dr. Kono replied that IUGG preferred to maintain ties with several groups within UNESCO and also with IUGS, who has a strong relationship with UNESCO. This has seemed to serve us better especially since ICSU and UNESCO work closely together. Dr. Urrutia-Fucugauchi (Mexico) asked if the Associations could also assign liaisons to these bodies. Dr. Kono replied that yes, some Associations did have strong and beneficial ties with specific organizations in addition to the IUGG liaison. Dr. Stewart (Canada) asked how IUGG keeps in contact with the liaisons. Dr. Joselyn replied that contact occurred when quadrennial reports are required and if the liaison applied for financial support to attend a meeting. It was agreed that communications could and should be improved, both between the liaisons and the IUGG Executive committee and between IUGG and the National Committees.

Finally, Dr. Kono asked the Council to approve the IUGG liaisons as presented for the coming term, and there was no dissent.

11. Report of the IUGG Finance Committee Rapport du Comité des finances de l'IUGG

- Review of the 1999-2003 Quadrennium, and
- Review of Categories of Member Adhering Bodies (By-Law 11.g)

Dr. F. Spilhaus, Chair of the Finance Committee, referred to the report in the Council Agenda book, but based his remarks on a supplementary report "The Quadrennium, Membership, and the Budget" that was distributed to the Council members at the meeting, as well as the "Proposed IUGG Budget 2004-07." He noted, with concern, the shrinkage in IUGG income owing to loss of dues. A few countries, notably the Czech Republic and Sweden, have raised their category but many more have either decreased their category or ceased membership entirely. In the period that ended in 1990, there were 314 units paid on average each year. That number dropped to 290 over the next two periods and is now estimated to be 250 units for the current period. He stated that new paying members are needed in order to sustain the Union, and that an action plan should be formulated. Referring the Union's funds-in-reserve (approximately \$500,000 USD), the Finance Committee advises that the reserve should not shrink below \$420,000, approximately our annual income, in order to accommodate changes in the economy and assure protection of operating costs. Discussion was invited.

Dr. Stewart (Canada) asked when the Council would discuss the action plan. Dr. Spilhaus replied that the Finance Committee was only suggesting that the Union should formulate such a plan. Dr. Sava (Romania) affirmed that it was important to address the issue of recruiting new members. Dr. Kono commented that he and the Secretary General had sent quite a number of letters, and had directly approached several countries in pursuit of new members but with only very limited success. At this General Assembly, two countries attended a "non-members meeting," organized following the suggestion of Dr. M. Hamlin. Two additional countries, now in observer or Associate status, also attended. President Kono emphasized that it was important for these countries to become full paying members. Dr. Kono invited suggestions from the Council Members to promote membership. Dr. Stewart (Canada) approved of the informal meeting of non-members, but asked why there was not an informal meeting of members. Dr. Kono agreed that such a meeting could be valuable. Dr. Ashour (Egypt) asked what had been done to ask current members to increase their category of membership? Dr. Spilhaus said that the Finance Committee had approached several countries, asking them to increase their category. Dr. Jackson (USA) said that the USA had been asked and that the National Committee had voted to do so (pending approval by their Adhering Body, the National Academies of Science). Dr. Ashour further asked about the formula that the Finance Committee used to determine an appropriate category for a member country. Dr. Spilhaus agreed to write a document that could be posted on the IUGG web site. Dr. Shamir pointed out that dues was not the only factor in recruiting membership, but that scientific issues and building a network to encourage science especially in developing countries was also important. Dr. Camfield, Secretary General of IAPSO, reported his success to recruit the Republic of Mauritius for Associate Membership; they had been asked to join in Category 1 but this was not approved by their Adhering Body. Nevertheless, they are now IUGG members and new partnerships can be forged. Dr. Stewart returned to the possibility of an informal meeting of the Council Members. It was later determined that such a meeting would be possible during the hour preceding the final formal Council meeting on 9 July. Dr. Stewart agreed to formulate an agenda and facilitate the meeting.

12. Presentation and Adoption of the 2004-2007 Budget Présentation et adoption du budget 2004-2007

Dr. A. Hansen presented the proposed budget that is conservative and maintains a level of activity approximately as it has been in the last period. He noted that income is almost exclusively member dues because income from interest on reserve funds is essentially negligible in today's economic climate. Considering expenditures, half of the income is allocated to the Associations; they decide at Executive Committee meetings which inter-Associations activities to support.

Compared with the 2000-2003 budget, much expenditure is the same. There is a decrease in Line 11: Administration, reflecting the experience of the past four years. There is an increase in Line 14: Symposia, responding to increased demand. Line 17: Union, was added to better define expenditures previously included in line 15: Associations. Line 18: Countries in Need, continues support for inter-Associations initiatives that benefit Developing Countries, first introduced in 1999, but at a slightly reduced amount to compensate for the increased support for Symposia. Travel grants for next

General Assembly remain the same: \$70,000. Dr. Hansen noted that the Finance Committee had approved this budget and he put it forward for discussion and vote by the Council members.

Dr. Gregersen (Denmark) asked about an apparent reduction in line 16.2 regarding payments to the Federation of Astronomical and Geophysical Data Analysis Services (FAGS) and the International Lithospheric Programme (ILP). The reduction of \$5000/year from the budget for the previous term is due to the expiration of the ILP Earthquakes and Megacities Initiative (EMI) that previously had been included in that line. These funds are now allocated to the new Union budget line. Dr. Jackson (USA) asked about the ICSU dues (Line 16.1). Dr. Hansen replied that this is an estimate. IUGG paid dues to ICSU in 2003 of \$13,472 but the dues increase each year based on inflation. Dr. Stewart (Canada) asked if there were any other potential sources of income, perhaps the General Assemblies. Dr. Kono replied that a special arrangement was made for the 1999 (Birmingham) GA in which IUGG agreed to share the financial burden, profit or loss. While we were fortunate that the Birmingham Assembly returned a surplus, and therefore provided some income to IUGG, it could have been a loss. The 1999 Council therefore resolved that the host of the General Assembly should be asked to carry the entire financial burden for the Assembly. Dr. Menvielle (France) expressed annoyance that there is increase of IUGG dues every year. The French delegation has an obligation to vote against this kind of structure because their Adhering Body will not support these kind of budgetary changes. Dr. Hansen replied that this structure, an annual increase in dues based on inflation, was adopted in 1995 (Boulder). Dr. Hamlin (Finance Committee) pointed out that this issue had also been raised by the British National Committee because the increases seem to be random and non uniform. Dr. Spilhaus explained that these are not real increases, rather they are simply keeping up with the current purchasing power that is eroded by inflation. Dr. Kennett (President, IASPEI) suggested that the dues be adjusted only every four years, so that the National Committees do not need to alter their budgets annually. But Dr. Gregersen (Denmark) replied that a large jump in dues representing the accumulated increase due to inflation over 4 years is difficult for many countries to handle. The present system seems advisable especially because currency fluctuations sometimes have a greater influence on the local annual dues payment than the requested increase due to inflation.

Dr. Kono asked if the Council would vote. Because this was a financial issue, the votes were weighted by the Category of membership of each Adhering Body. Of the 137 units that were voted, 114 were in favor, 16 were opposed, and 7 abstained. The approved budget is attached below.

7. (Continued from the First Council Meeting)

Proposed Changes of Statutes and By-Laws (U. Shamir) Propositions de changements des statuts et du règlement intérieur

To aid in the discussions, copies of the current Statutes and By-laws were distributed to all Council Members. Dr. Shamir thanked the members of the ad hoc committee that redrafted the proposed changes in response to the discussions at the first Council Meeting.

The revised proposal from the United States of America was addressed first. The essential points were that one person from each Associate Member may attend any Council meeting as Listener, without the right to speak,

and that other individuals may, with concurrence of the President, attend council meetings as Listeners only, with the provision that a simple majority of the Council could declare any part of any meeting closed to Listeners. The Delegate from the USA, Dr. David Jackson, was asked to comment. He said that the purpose of this proposal was to provide openness, while at the same time maintaining order and effectiveness of the meetings. He asked that the Council approve the modified proposal.

Prof. Merry (South Africa) asked for clarification about additional persons from Associate Member countries. The response was that these individuals would be able to enter on the same level as any other guests, subject to the same rules. Dr. Ashour (Egypt) opposed the proposal, declaring that it detracted from the ability of the Council to conduct business efficiently and confidentially. Dr. Shamir instructed the delegates to use Ballot # 12 to record their vote: 'Yes' accepted the modified proposal to permit more open attendance at the Council meetings, 'no' rejected the proposal. Or, there was a place on the ballot to choose to abstain. The ballot results were 34 yes; 5 no; and 1 abstention. The modified proposal passed.

Dr. Shamir then presented the modified Danish proposal to restructure the Finance Committee. Major changes included the number of persons to be elected (four); those eligible for election (the slate of candidates would have two sections – Council members and former Finance Committee Members in order to preserve continuity); a provision that the Chair of the Finance committee should attend meetings of the Bureau and Executive Committee when financial matters were on the agenda; and modification of the duties and relative roles of Finance Committee and Treasurer. Dr. Shamir then asked Dr. Gregersen, the Danish Council Delegate, to make a statement. Dr. Gregersen announced that the objectives of the original Danish proposal addressing overlaps in the duties of the Finance Committee and Bureau in the existing Statutes and By-Laws had been removed and that the Treasurer and Executive Committee now had a greater role and responsibility to prepare an economically responsible budget. Dr. Ashour (Egypt) asked what would happen if there was a tie vote among the members of the Finance Committee, and he asked for clarification about which Council members (the old or new ones) were eligible as candidates for the Finance Committee. The replies were that the Finance Committee duties are advisory only and that decisions requiring a vote were not expected, and that nominations of Council Members to the Finance Committee would be made from the body of "old" Council members but that the rules permit nominations of "new" Council members prior to the elections. Dr. Shamir instructed the delegates to use Ballot # 13 to record their vote: 'Yes' accepted the modified proposal, 'no' rejected the proposal. Or, a delegate could choose to abstain.. The ballot results were 37 yes; 2 no; and 1 abstention. The modified proposal passed.

The full version of the revised Statutes and ByLaws will be posted on the IUGG Website and printed in the Comptes Rendus.

Dr. H. Gupta presented the report included in the Council Agenda book, and asked the delegates to familiarize themselves with this document, which summarizes the responses to questionnaires sent to all Adhering Bodies and the Associations. The responses were organized into groups, as presented. Some of the results were that IUGG should pay more attention to their dues paying members; and that neither the number of members on the Bureau nor the non-permanent location of the secretariat were issues. Support for young scientists was encouraged, and the Geophysics: the Future (GTF) group, organized by Dr. Shamir is one of the actions in this direction. Better communications were requested and continuing publication of the e- (Electronic)-Journal was encouraged. These are just a few of the outcomes of this effort conducted by the Bureau over the last 4 years.

At this point, Dr. Kono asked that discussion on the report of the Committee and the proposal from the US National Committee be held until the final Council meeting because the time to close the meeting had passed.

The Second Council meeting closed at 5:25 pm. Delegates were reminded that while the third Council meeting would begin at 4 pm on 9 July, all Council Delegates were invited to arrive an hour early (at 3 pm) for informal discussions.

13. IUGG Goals and Vision

Objectifs et perspectives de l'IUGG

- Report of the Questionnaire on IUGG Structure, Goals and Objectives for the Quadrennium and Long-Term
- Proposal from the USA National Committee

Approved IUGG Budget 2004 – 07

All figures, except the value and number of units, are in thousands of US dollars

Year	2003	2004	2005	2006	2007	2004 – 07 total
Estimated unit value	\$1,455	\$1,484	\$1,514	\$1,544	\$1,575	
Estimated number of units		250	248	246	244	
RECEIPTS						
1. MEMBERSHIP SUBSCRIPTION	341.6	371.0	375.4	379.8	384.3	1510.6
2. ICSU GRANTS						
3. ASSEMBLY SURCHARGE					0.0	
4. CONTRACTS, ICSU						
5. SALES OF PUBLICATIONS	1.1	0.2	0.2	0.2	0.2	0.8
6. MISCELLANEOUS	5.4	5.0	5.0	5.0	5.0	20.0
7. TOTAL RECEIPTS	348.1	376.2	380.6	385.0	389.5	1531.4
8. BALANCE 1/1		480.7	501.4	494.9	510.6	
EXPENDITURES						
11. ADMINISTRATION						
11.1 Personnel		10.0	10.0	10.0	10.0	40.0
11.2 Quarters		0.0	0.0	0.0	0.0	0.0
11.3 Supplies		2.5	2.5	2.5	2.5	10.0
11.4 Communication		8.0	8.0	8.0	8.0	32.0
11.5 Travel, organizational		40.0	60.0	40.0	80.0	220.0
11.6 Miscellaneous		1.0	1.0	1.0	5.0	8.0
11.7 Travel, representative						
12. PUBLICATION AND PRINTING						
12.1 Yearbook	0.0	5.0	5.0	5.0	5.0	20.0
13. ASSEMBLIES						
13.1 Organization		0.0	0.0	0.0	10.0	10.0
13.2 Travel Grants		0.0	0.0	0.0	30.0	30.0
14. SYMPOSIA						
14.1 Symposia		20.0	20.0	20.0	5.0	65.0
15. ASSOCIATIONS						
15.1 Allocations		174.1	185.6	187.8	190.0	737.5
15.1a Associations		163.4	174.9	177.1	179.3	694.7
15.1b SEDI, CMG,		10.7	10.7	10.7	10.7	42.8
16. DUES AND GRANTS						
16.1 ICSU		16.0	16.0	16.0	16.0	64.0
16.2 Inter-Union Science (FAGS)		29.0	29.0	29.0	29.0	116.0
17. UNION						
17.1 GeoRisk (6k), IGY+50,		20.0	20.0	20.0	20.0	80.0
18. COUNTRIES IN NEED						
18.1 Initiative Grants		25.0	25.0	25.0	25.0	100.0
18.2 Travel Grants		0.0	0.0	0.0	40.0	40.00
19. MISCELLANEOUS						
19.1 Miscellaneous		3.0	3.0	3.0	3.0	12.0
19.2 Professional Services		2.0	2.0	2.0	2.0	8.0
20. TOTAL EXPENDITURES		355.6	387.1	369.3	480.5	1592.5
21. BALANCE 12/31		501.4	494.9	510.6	419.6	-61.1

Friday, 4July, 2003