

**EC55 MINUTES**



**55th EXECUTIVE COMMITTEE  
MEETING  
INTERNATIONAL UNION OF  
GEOLOGICAL SCIENCES**

**March 19 – 22, 2005**

Senate Hall, Vilnius University  
Universiteto str. 3

**VILNIUS, LITHUANIA**

**55th EXECUTIVE COMMITTEE MEETING  
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**55th EXECUTIVE COMMITTEE MEETING  
INTERNATIONAL UNION OF GEOLOGICAL SCIENCES**

**March 19<sup>th</sup> to 22<sup>nd</sup> 2005  
VILNIUS, LITHUANIA**

**Minutes of the Meeting**

**1) WELCOMING ADDRESS**

Peter Bobrowsky opened the 55th EC meeting. He noted that there were a record number of participants, with about 45 attendees. The Lithuanian Geological Survey hosts were thanked for their outstanding efforts in sponsoring this event. Bobrowsky clarified that observer input is to be restricted to agenda matters. Most relevant issues for *all* observers were covered on the first day.

The order of business was tabled and approved, with Zhang Hongren serving as chair, and Ed de Mulder and Werner Janoschek contributing in their roles as Past President and former Secretary General. Zhang then welcomed the IUGS to Vilnius and thanked the Lithuanian Geological Survey for hosting the event, helping out with the organization, and for running the pre-meeting field trip to the Baltic coast and Curonian Spit. Zhang also thanked the University of Vilnius for the use of their facilities. He noted that UNESCO was represented by Robert Missotten and also that IUGG was represented by Uri Shamir at our meeting.

Each participant was then asked to briefly introduce themselves, providing some background and their involvement with the IUGS.

**2) APPROVAL OF AGENDA**

Bobrowsky chaired this section, and asked for the final approval of the agenda.

**3) 52nd EXECUTIVE COMMITTEE MEETING HELD IN OSLO, NORWAY  
MARCH 2004.**

**3.a. Approval of the Oslo Minutes (copies available)**

Zhang began by noting that the Oslo Minutes have yet to be finalized. The EC agreed that the minutes for the Oslo Meeting should be approved as soon as possible after this meeting.

**3.b. Actions arising from the Oslo Minutes**

Actions:

- ACTION 1: Still pending**
- ACTION 2: Postponed**
- ACTION 3: Done**
- ACTION 4: Done**
- ACTION 5: Done**
- ACTION 6: Done**

**ACTION 7: Done**  
**ACTION 8 and 9: Pending:** Riccardi and Moores  
**ACTION 10: Pending**  
**ACTION 11 to 18: Done**  
**ACTION 19: Done**  
**ACTION 20: Done**  
**ACTION 21: Done**

**4) 53rd AND 54th EXECUTIVE COMMITTEE MEETINGS HELD IN BOLOGNA AND FIRENZE, ITALY, AUGUST 2004.**

**4.a. Approval of the Bologna Minutes**

Zhang noted that Hanne Refsdal was to finalize the Bologna Minutes, and these still required EC approval. The Action Items were distributed to the EC.

**4.b. Actions arising from these Minutes**

**4.b.1. Old Actions or Decisions**

The target was to leave the new EC with no actions. However, a few actions resulting from the Oslo EC meeting in March 2004 remain to be dealt with by the new EC.

**ACTION 1:** (old no. 4) EC to work on giving more attention to under-represented groups in the IUGS (e.g., women and youth). **CANCELLED**

**ACTION 2:** (old no. 6) Jean-Paul Cadet had been asked to find the report on nuclear waste by Bill Fyfe, sent to the French Academy and find out if this could be used as the basis for a Position Paper. Cadet found that the field had evolved since its writing and that the report was now obsolete. Riccardi reminded the EC that there were political issues and it was an industrial problem. Because of the complexities, IUGS should be cautious about becoming involved. Moores suggested delegating responsibility to the engineers, although a Task Group could prepare a position paper on nuclear waste stressing the geological component. **COMPLETED**

**ACTION 3:** (old no. 53) Janoschek was asked to contact Wolfgang Eder to inform his successor about the possibility of UNESCO joining in support with IUGS of IGEO (using the platform of joint activities) **COMPLETED**

**ACTION 4:** (old no. 59) Kathleen Johnson (MRSP) has been chair of the IUGS/UNESCO Mineral Resource Sustainability Programme for two 4-year terms and there is time for a change. Robin Brett said it was difficult to make changes. The group had a major activity late in 2004 and the IUGS supported a change in leadership. Robert Missotten (Division of Earth Sciences, UNESCO) was to be contacted on this matter. **COMPLETED**

**ACTION 5:** (old nos. 66-67) Peter Bobrowsky to thank Vernon Singhroy for his work for IUGS in COSPAR (ICSU Committee on Space Research), and to ask Stuart Marsh (GARS/IGOS) if he would be willing to be the IUGS representative

on COSPAR. If he agrees, he will be asked to send a short report about COSPAR's activities each year. **COMPLETED**

**ACTION 6:** Before the next Geological Congress, the EC should inform the new IUGS Vice Presidents and Councillors about date and time of the EC meetings during the Congress. **COMPLETED**

**ACTION 7:** IGCP – the money to IGCP from the US through ICSU is secured for 2004. No immediate action by IUGS is necessary, but the EC has to work hard to obtain US funding. **COMPLETED**

#### **4.b.2. IUGS and IGC Statutes**

EC agreed to set up a Task Group on the IUGS and IGC Statutes consisting of five people: 2 from the IGC Steering Committee; 2 from the IUGS EC; and one neutral Chair. The Statutes of the IGC and IUGS are complicated and the people to serve on this group must know the IUGS very well. Werner Janoschek and Eldridge Moores were suggested as IUGS representatives.

**ACTION 8:** EC members to send names for Chair to Bobrowsky. **DONE**

**ACTION 9:** Bobrowsky to inform the IGS Steering Committee that following a request by the Council to streamline the Statutes, the IUGS EC has suggested to set up a Task Group of five members. **DONE**

**ACTION 10:** A minor amendment to the IUGS Statutes to be drafted allowing inter-governmental organizations to become affiliates (this concerns CCOP). Bobrowsky was to follow up. **PENDING**

#### **4.b.3. IUGS and ICSU Grants**

**ACTION 11:** IUGS Grants – the deadline for submitting Expressions of Interest (EoI) is October 31<sup>st</sup>, 2004. Information on the IUGS Project Grants Programme is available on the IUGS Website: [www.iugs.org](http://www.iugs.org) EoIs to be evaluated by a Review Team. Bobrowsky to inform the IUGS bodies about the ICSU Grant Program. **DONE**

#### **4.b.4. Affiliated Organizations**

**ACTION 13:** AGA – Bobrowsky to confer with Janoschek and find out if the IUGS allocation (USD 2000) sent to the Arab Geologist Association in 1995 from Germany and confiscated by USA because of the UN sanctions on Iraq can be released. AGA seems to be dissolved and the 2004 allocation and other funds should not be forwarded to them. **DONE**

#### **4.b.5. Meetings to be attended by IUGS**

**ACTION 14:** SCOPE will hold its XIIth General Assembly and related meetings in New Delhi, India on Feb 7<sup>th</sup> to 11<sup>th</sup>, 2005 in the Indian National Science Academy Building. Bobrowsky to ask Harsh Gupta to confirm that he will be able to attend the meeting on behalf of IUGS. **DONE**

**DECISION:** ICSU First Regional Meeting for Africa was held October 9<sup>th</sup> to 11<sup>th</sup>, 2004 in Harare, Zimbabwe. The meeting discussed how the ICSU Regional Office for Africa can contribute to the strengthening of African science. **DONE**

**ACTION 15:** ICSU 28<sup>th</sup> General Assembly will be held October 17<sup>th</sup> to 21<sup>st</sup>, 2005 in Shanghai and Suzhou. The host is the China Association for Science and Technology (CAST). First circular was distributed in July 2004. October 30<sup>th</sup>, 2004 was the deadline for comments on the agenda. A 64-page document of scientific data and information was given to Kristine Asch to make comments. She should send comments to IUGS Bureau before submitting them to ICSU. Bobrowsky to follow up **DONE**

**ACTION 16:** World Conference on Disaster Reduction, 18<sup>th</sup> to 22<sup>nd</sup> January 2005 in Kobe, Japan. Deadline to register for Prep Com II was September 30<sup>th</sup>, 2004. Bobrowsky to find out whom would represent IUGS. **DONE**

**ACTION 17.** Janoschek to report on the results of the Geo-union meeting in Boulder, especially the decision on the International Commission for Acoustics becoming an ICSU Union. **DONE**

#### **4.b.6. International Years and IGC**

**ACTION 18:** Jean-Paul Cadet to see that the relationship with IGC 2008 and Polar Year is secured, also including SCAR. The Polar Year and International Year of Planet Earth link is already established. **DONE**

#### **4.b.7. Others**

**ACTION 19:** Bobrowsky to ask Hugh Rice to find the proper wording for the James Harrison Award. **OBSOLETE**

**ACTION 20:** Bobrowsky to ask the organizers of the 2008 IGC if they would like to share the IUGS exhibit panel with IUGS to promote the Oslo IGC at geological meetings and conferences. **DONE**

**ACTION 21:** Bobrowsky to thank Gian Battista and Vai for hosting the IUGS EC Meeting in Bologna. **DONE**

#### **4.c. Approval of the Firenze Minutes**

Janoschek commented that the Minutes for the Firenze Meeting were shorter. Ed de Mulder identified a number of small errors in the text. It was recommended to approve the Minutes pending a review by the EC, with corrections notified by de Mulder. The approved Minutes would then be passed on to Zhang.

#### **4.d. Actions arising from these Minutes**

Janoschek remarked that the streamlining and modifications of the Statutes were to be coordinated.

### **5) ANNUAL ADMINISTRATIVE AFFAIRS**



### **5.a. President's Report**

Zhang began by commenting the work of the present EC will build on the work of earlier executive committees. The past EC did a lot to change IUGS, including: statutes and by-laws, IUGS-IGC, strategic plan and the IYPE. Zhang sees the merger of IUGS and IGC, and work on their statutes as an important goal of the new EC. Strategic plans and International Year of Planet Earth will also be important tasks.

Since becoming the President, Zhang has concentrated his efforts on learning the history of IUGS and what it will do in the near future. For example, collaborating on UNESCO strategies. He reminded EC and observers that the recent Indian Ocean disaster has shown that awareness of geoscience knowledge is essential, but we should also be aware of the limitations of existing data.

Zhang has also been actively networking in the EC and Bureau, and is considering new ways to conduct business. Options he is considering are: E-networking, teleconferencing and other electronic methods for communications.

### **5.b. Past President's Report**

Ed de Mulder had written and circulated the Past President's report before the meeting. During his presentation he noted that he had continued to work for the IUGS, concentrating on the IYPE, the current major outreach vehicle of IUGS. Hazards and Outreach brochures and presentations ensured exposure of IUGS.

Since August 2004, de Mulder met with representatives of 30 adhering organizations and affiliated bodies (GSAf, CPC, CIFEG, IMA), and the presidents of IAEG and INQUA (at no cost to the IUGS). As Past President and Chairman of the Management Team for IYPE, de Mulder was invited to Berlin to present in front of 30 heads of European Geological Surveys. In October 2004, he was in Peru at the invitation of the Organizing Committee of the XII Congreso Peruano de Geologia. He was active with the Committee for Coastal and Offshore Geoscience Programs (CCOP) in East and Southeast Asia. In 2004, this organization applied to join IUGS as an Affiliated Organization. The IUGS Statutes have yet to be changed to accept CCOP. In January 2005, de Mulder presented at the International Seminar on Tsunami Preparedness in South and Southeast Asia, participating in an excursion in the tsunami-hit coastal areas.

He also responded to many e-mail messages on IUGS, IGCP, UNESCO and ICSU matters. As a regular visitor to UNESCO de Mulder was provided with first-hand information on recent developments concerning the position of the Earth Science Division and the IGCP budget. In February 2005, he participated in the IUGS Bureau meeting in Paris.

### **5.c. Vice Presidents' and Councillors' Reports**

Eldridge Moores mentioned that he attended a number of meetings on behalf of the Union, including the Geological Society of America. He submitted a report to the Secretariat. Sylvi Haldorsen's main activities have been in preparing Bulletin 8 (October 2004) & Bulletin 9 (January 2005). Haldorsen noted that the plan is to distribute four bulletins per year and to make them thematic. The remaining E-

Bulletins for 2005 will deal with the following items: a) Next will be a brief summary of the 55<sup>th</sup> EC meeting; b) Progress of the planning of IGC in Norway; c) Affiliate unions; and d) Special issues, for instance the IYPE. Haldorsen also plans to attend and co-organise the ICSU funded IUGS-INQUA Dark Nature: Mega-flood meeting in Mozambique. De Mulder commented that the minutes will be published on the web and that there is no need to circulate them in the form of a Bulletin.

IUGS councillors were also productive. Alberto Riccardi chaired the IUGS ARC on Geochronology (Oslo, March, 2004), and handled the organisation of its recommendations. Organization of a new body, under the joint sponsorship of IUGS and IUPAC, is underway. He requested actions from the Argentinean National Committee on several issues: payment of IUGS annual fees; UNESCO reorganisation of the Earth Sciences Division, and cut of IGCP funds; potential organization of an IUGS EC meeting in Argentina. National Committees from Latin American countries were directly or indirectly approached in order to request actions for payment of IUGS annual fees, and support for the IYPE. Actions were taken favouring activities of IUGS supported initiatives, such as organisation in Argentina of a Workshop on Medical Geology; organization of an ICSU-IGCP meeting on "Holocene Environmental Catastrophes in South America" (2005), and the continuity of Geoinicators in Argentina. Riccardi participated as co-convenor in an ISSC workshop on "Post-Hedberg Developments in Stratigraphic Classification", during the last IGC in Florence. During the year, he chaired the Argentinean Commission on Stratigraphy, that is currently completing the National Stratigraphic Lexicon, and participated as an adviser to the Argentinean Government in mapping activities of the Argentinean Geological Survey. Jean-Paul Cadet represented IUGS at a number of European committees and was involved in planning the International Polar Year and IYPE. Gabi Schneider was similarly active in IYPE work and with the UN and Namibian government popularizing IUGS work. Ryo Matsumoto was active promoting IUGS in Japan.

#### **5.d. Secretary General's Report**

Peter Bobrowsky presented the report of the Secretary General's Office. He has relied on the previous Bureau for updating and advice. Since the last IGC, Bobrowsky has worked with the Past President, Treasurer and Permanent Secretariat on administrative matters. He mentioned that Hanne Refsdal is retiring and that Anne Liinamaa-Dehls is taking on some of those duties.

In 2004, he attended Bureau meetings in Paris, Bologna and Rome, getting together with IGCP members while in Paris. UNESCO restructuring was the source of concern at these meetings. Work with ICSU and other sister groups have been restricted because of the transition at UNESCO. Bobrowsky was active with tsunami-related work early in 2005. Next point on his agenda is to plan the work of the permanent secretariat in cooperation with the Norwegian national IUGS committee and the Congress organising committee.

Bobrowsky also commented that the National Committees of Latvia, Estonia and Pakistan have joined or are joining the IUGS family as adhering members.

### **5.e. Treasurer's Report**

Antonio Brambati tabled his report and reviewed active, inactive and pending members. He also mentioned the reports from the national members, are very diverse. Brambati noted that in some of the reports there are suggestions for what can be done by IUGS in the future. From developing countries there is a need for training. Russia has complained that not enough news is circulated about commissions and other IUGS matters. Norway has suggested that regional committees could be established in order to promote cooperation between developed and developing countries. A more detailed report of IUGS finances is provided in Section 12.

### **5.f. Past Secretary General's Report**

The Past Secretary General's Report was submitted by Werner Janoschek and circulated during the meeting. Summarizing, Janoschek has represented IUGS in all Geoparks tasks. He is also an active member of the IYPE organising group. In addition to his GEOSSE work, Janoschek completed the review of the Council minutes for the meeting at Bologna, Florence and IUGG meeting in Boulder, Colorado.

### **5.g. Permanent Secretariat**

#### **Trondheim Secretariat**

Arne Bjørlykke showed a PowerPoint present summarizing the role of the Secretariat and outlining its potential future. He reviewed the role of the Norwegian Geological Survey in the Permanent Secretariat. Money to run the Secretariat comes from the Norwegian Government. Hopefully, this funding will increase toward 2008. With the retirement of Hanne Refsdal, who managed it since 1987, the Permanent Secretariat in Trondheim, Norway, is undergoing major organizational changes. Dr. Terje Thorsnes ([terje.thorsnes@ngu.no](mailto:terje.thorsnes@ngu.no)) has assumed the temporary senior leadership responsibility.

Bjørlykke mentioned that the IUGS Permanent Secretariat is to help organize the 2008 IGC meeting. It is likely that the Secretariat will also undertake some new duties related to both the IUGS and the 33rd International Geological Congress (Oslo, 2008). Until the new needs and responsibilities are defined, however, it remains unclear what additional staff and other resources may be required for the Secretariat to function effectively to serve both the IUGS and the IGC. Important work tasks include: the preparation of minutes; maintaining the main mailbox; the database of IUGS members; IGC/IUGS congress reports; sales; publicity; IUGS secretariat website.

For the future, the Secretariat plans to combine more IUGS and IGC activities, develop a member database, look into out-sourcing work, and revising the Terms of Reference.

After Bjørlykke's presentation, Zhang invited comments and questions from the EC. De Mulder asked what concrete measures are being taken to ensure the running of the Permanent Secretariat. He also asked about how the PS allots time to IUGS matters.

Bjørlykke replied that the PS comprises full-time and part-time staff at the Norwegian Geological Survey. It is working toward combining IUGS and IGC activities. The IUGS EC must define a list of activities, defining the role of the Secretariat. Continuity between the last IGC meeting and the 2008 gathering must also be worked on. Bjørlykke also noted that the PS should meet more often with the IUGS EC, and that there is a need to formalize the terms of reference and role of the Norwegian Geological Survey. This should be a priority.

Bjørlykke noted that the Secretariat should really be a full-time activity. Hanne Refsdal and Anne Dehls were over-worked and more human resources are needed, especially as the 2008 IGC approaches. Other tasks, for example the International Year of Planet Earth also involve the time of the PS.

Concrete actions will be discussed at a later time, perhaps at a meeting in Norway.

**ACTION ITEM (#1):** IUGS EC must work with the Norwegian National Committee to resolve the future role of the Permanent Secretariat. Bobrowsky will send a list of roles and duties to the PS, IGC Secretariat and Norway National Committee.

**ACTION ITEM (#2):** Bobrowsky to send a list of outstanding work and issues (e.g., minutes of meetings, etc.) from the Permanent Secretariat to Bjørlykke.

**ACTION ITEM (#29):** Bobrowsky to write a letter to the Chinese Ministry of Land and Resources responding to their potential interest to host the IUGS Permanent Secretariat.

## **5.h. Applications for Affiliation**

### **5.h.1. CCOP, change of IUGS statutes**

Ed de Mulder was active with the Committee for Coastal and Offshore Geoscience Programs (CCOP) in East and Southeast Asia. In 2004, this organization applied to join IUGS as an Affiliated Organization. The IUGS Statutes still need to be changed to accept CCOP.

## **6) ANNUAL REPORTS AND FUTURE PLANS OF IUGS BODIES**

### **6.a. Adhering Organizations**

Brambati commented that there were 117 members as of this EC meeting. Lebanon, although inactive in the past aims to be more active. Brambati noted that not all organizations are active members: *Active Members = 71; Inactive Members = 37; pending = 9; Total = 117.*

Brambati recognized that the IUGS needs a policy to ensure that inactive members continue to pay their dues. He considered that a number of pending members will become inactive, and also wondered about introducing a discount for actively contributing members.

Only 25 adhering members (20%) had reported by the time of the EC meeting. Brambati also noted that there is some confusion arising from non-standard reports that range in the details submitted. This non-standardization makes it difficult to summarize some reports. Reports should be submitted using the templates, although this is often not done.

Bjørlykke suggested that it would be beneficial to promote regional cooperation between developing and developed countries. Representatives of the Baltic countries supported this suggestion.

Brambati said that the relationship between IUGS and adhering organizations is most important. He and Bobrowsky suggested the Secretary General could send reports of adhering organization to help promote contributions.

#### **6.a.1. Applications for Membership**

Brambati mentioned that Latvia is applying for membership and that the Pakistan Academy of Geological Sciences (PAGS) is to replace the Pakistan Geological Survey as the IUGS Adhering Body.

Bobrowsky commented that the Geological Survey of Pakistan has been in arrears since before 2000. Pakistan has been INACTIVE for several years. Numerous attempts had been made to contact Ishaq Ghazanavi requesting prompt attention to this matter. IUGS was approached by the Pakistan Academy of Geological Sciences to be the official representatives of Pakistan within the IUGS. The Executive Committee has approved this application. **Approved**

De Mulder proposed that Latvia become an Adhering Member of IUGS. The EC was asked to vote: the motion was passed unanimously, and Latvia was approved to join the IUGS family.

#### **6.a.2. Reports of Adhering Organizations**

Oral reports from country observers present.

**France:** Denis Vaslet noted that France is a proactive member in the IUGS. He summarized the work of the French National Committee and noted that it has reviewed and approved funding for IUGS. Work has started on the IGCP, with support beginning in February 2005. A better working relationship between IGCP and IUGS is a priority, involving the Academy of Science, geological societies and the national committee of the IGCP. Vaslet also commented about the impact of reduced IGCP funding, noting that the French Research Council and Foreign Ministry don't want to fund the National Committee of the IGCP. There are some hopes that this problem will be solved. French UNESCO representatives have reacted on the termination of the Earth Science Division. Vaslet also stated that better contact with other relevant scientific bodies and meetings for young scientists are planned for this year. Finally he commented that IYPE is supported by the French and that there should be a close relationship to the Geophysical and Polar Years.

**Estonia:** Dimitri Kaljo summarized the work of the staff of the Estonian National Committee for Geology. In 2004, the main activities were connected with the

continued preparations to the 32<sup>nd</sup> IGC and the IYPE. There were discussions around UNESCO restructuring. Kaljo commented on the Estonian national plan of activities. After receiving the de Mulder's message in last December, the Estonian NCG contacted the Estonian Academy of Sciences and agreed to make a concerted effort to secure the Estonia's support to the IYPE at the UN level. Estonia NCG has decided to support the IYPE and started to prepare a corresponding national programme. The political support has been favourable, but there has been no official government statement to date. UNESCO and the Academy of Sciences have been contacted. Political instability in their country is providing some difficulties. Geosciences are suffering from poor government support and money is short. Too much politicking is disturbing activities. Fortunately, university-level science is better funded, with grants regularly approved. Applied geoscience needs to be better supported. In the next two years, the political situation should change bringing with it more stability and better funding for the Earth Sciences.

**Lithuania:** Petras Sinkunas reported for Lithuania and presented a PowerPoint report. Highlights included the legal work associated with the Lithuanian National Congress of Geology. Lithuania has applied to join INQUA and has been active in IUGS and IGC programs, including in both Cogeoenvironment and now GEMS. This collaboration has helped introduce Lithuania to the international geoscience scene. Quaternary geology and applied environmental geoscience are critical areas of interest for Lithuania. Sinkunas also commented on problems for reporting and noted that annual reports could be formalized and other electronic methods for submission should be considered. Simplifying templates to include YES/NO answers could be considered. Brambati replied that a new questionnaire should be prepared.

**Saudi Arabia:** Saudi Arabia reported that the National Committee sent a letter to UNESCO in support of IYPE. The annual report will be ready sometime in April 2005. Saudi Arabia wants to play a more active role and work with IUGS more closely in the near future. The committee is planning to expand as there is only one member at present. The Ministry of Foreign Affairs has been approached in regard to helping with IYPE.

**Latvia:** Latvia is a newcomer and has applied for membership during this meeting. They are working now at getting an IUGS committee together. Ervins Luksevics began by noting that their government has merged the small Geological Survey of Latvia, Meteorology and Environmental Sciences, and that training and research activities in the geological sciences are now focused in the university. Regardless of the restructuring, Latvian geoscientists are involved with INQUA and IGCP. The Latvian Society of Geologists, the National Museum and Latvian Council of Sciences are supporting organizations. Luksevics added that a national committee is to be organized that will attempt to address key geoscience issues. Latvia is also involved in cooperative projects with other nations comprising Baltica, and Russia. For example, the Stratigraphic Commission has been active since 1991. For the future, Latvia will build upon previous years' cooperation with Lithuania and Estonia in matters of stratigraphy, Quaternary science and mapping. Cooperation has always been a strong point,

and after last year's meeting in Vilnius, Russia has joined. This year, Baltic geoscientists will meet in St. Petersburg.

**Action Item (#3):** Bobrowsky to check on where the Estonian annual report has disappeared for the last two years.

Written reports were submitted by the following adhering organizations:

### 2004 Reports of Adhering Organizations

Member	Contact	E-mail
Albanian Geological Survey	Mr. Hamdi Beshku, General Director	hbeshku@gsa.gov.al
NC for Solid Earth Sciences (Australia)	Ms. Judy Richmond	ns@science.org.au, pmcfadde@pcug.org.au
Austrian National Committee for Geosciences	Dr. Hans P. Schönlaub, Secretary General	schhp@cc.geolba.ac.at
Azerbaijan NC of Geologists for IGCP and IUGS	Ismail-Zadeh Arif Jafar	gia@azdata.net, arifismail@excite.com
Geological Survey of Bangladesh	Director General, Mr. Mizanur Rahman	gsb@agni.com, gsb@dhaka.agni.com
Geological Society of Bosnia and Herzegovina	Prof. Mirza Basagic, Secretary General	mbasagic@lsinter.net
Bulgarian National Committee for Geology	Todar G. Nikolov, Secretary	tnikolov@geology.bas.bg, tgnikolov@bitex.com
Canadian National Committee for IUGS	Bryan T. Schreiner, Chairman	pbobrows@nrcan.gc.ca, bt.schreiner@usask.ca
Danish National Committee for Geology	Cand. Scient. Lise Holm, Chair	hh@savik.geomus.ku.dk, lho@sns.dk
Finnish National Committee for Geology	Tuija Elminen, Secretary	tuija.elminen@gsf.fi
Comité National Français de Géologie (France)	Dr. Denis Vaslet, President	d.vaslet@brgm.fr, Alain.Blieck@univ-lille1.fr
Deutsches Nationalkomitee IUGS (Germany)	Prof. Dr. Friedrich-Wilhelm Wellmer, Secretary	f.wellmer@bgr.de, b.reichenbacher@lrz.uni-muenchen.de
Institute of Geology and Mineral Exploration (Greece)	Mr N. Drouvas	igmedape@ath.forthnet.gr, ren@igme.gr, dmgalanos@igme.gr
Irish National Committee for Geology	Dr. P. McArdle, Chair	r.gageby@ria.ie

Lithuanian National Committee of Geologists	Assoc. Prof. Dr. Petras Sinkunas, Chair	Sinkunas@geo.lt
Geological Survey Department, Malawi	Leonard S.N. Kalindekafe, Director	kalindekafe@sdpn.org.mw
Commission for Geological Sciences (Netherlands)	Ms. Alice M. de Gier, Secretary	alice.de.gier@bureau.knaw.nl
Norwegian National Committee for IUGS	Dr. Anders Elverhøi, Chairman	anders.elverhoi@geologi.uio.no
Russian National Committee of Geologists	Saima M. Makhmutova, Acting Executive Secretary	ncgrus@ginras.ru
Union of Geological Societies of Yugoslavia (Serbia and Montenegro)	Prof. Dr. Mileva Sladic-Trifunovic, President	sladic@beotel.yu
National Geological Committee of Slovakia	Jozef Michalik, President	geolmich@savba.sk
Comisión Nacional de Geología (Spain)	Dr. Jorge Fernandez-Gianotti, Secretary	cng@igme.es
Comité National Suisse de Geologie (Switzerland)	Holger Stünitz, President	Holger.Stuenitz@unibas.ch
National Representative Ctte for IUGS of Turkey	Prof. Dr. M. Cemal Göncüoğlu, Chair	jed@mta.gov.tr, mcgoncu@metu.edu.tr

## 6.b Committees

Zhang introduced Item 6b, commenting that the future of committees was to be discussed. EC members were told to strictly follow IUGS Statutes. Amendments must follow strict legal procedures. Five committees, in addition to the EC are the NC, CRD, PC, FC and ARC. These function as advisory boards to the EC. Zhang would like to see a decrease in the size and number of committee meetings and wondered if they could meet but once a year, perhaps at the EC meeting. He then mentioned that teleconferencing seems to be a feasible option and has considered contracts with ASAT, and Denver and Chinese telecommunications companies to undertake a voice-communications experiment.

### 6.b.1 Nominating Committee (NC)

De Mulder was elected the Chair of the Nominating Committee in Florence. He commented that the NC will be active if there are changes in the EC, and will certainly be active before the next IGC Congress. He informed Council that one of its members, Prof. Henri Kampuzu from Botswana, passed away. He requested Council to e-mail an approval or disapproval of the IUGS Executive Committee proposal of Prof. Sospeter Muhongo (Tanzania) to replace Henri Kampuzu. Sospeter Muhongo is the current Chairman of IGCP and has a long-standing reputation in the IUGS family. Results of this e-ballot will be made known to the



Council by the end of April 2005. Moores mentioned that he has met Muhongo and was impressed by him.

### **6.b.2 Committee for Research Direction (CRD)**

Bobrowsky commented that CRD was established in the latter part of 2001 on the recommendation of the IUGS Strategic Planning Committee, with the specific brief to identify new scientific directions and research topics, in part to serve as an input into the IUGS Commissions, but also to serve as an instrument for new jointly developing fields in conjunction with IUGS affiliates. Ed Derbyshire has submitted a report.

Cadet found the CRD useful for brainstorming, but was not personally involved in research funding decisions. Moores noted that research directions are mostly coming from younger scientists, so the CRD should be actively approaching them for ideas. De Mulder commented that it is vital that CRD directives are covered by IGCP working groups. Bobrowsky replied that younger scientists' opinions should be taken into consideration. Zhang ended by stressing the importance of the committee. He suggested future discussions could take place via teleconferencing.

The CRD was extremely active as the International Year of Planet Earth began to evolve. During the past year, however, the IUGS EC has not required the CRD to be active, but anticipates increased effort in the upcoming years.

### **6.b.3. Publication Committee (PC)**

Zhang began by reporting that the current Publications Committee requested that two additional members be appointed by the EC: Godfrey Nowlan (Canada), Victor Mocanu (Romania), Fred Spilhaus (USA), and Kaigala Subbarao (India). Ex-officio members: John Aaron (USA) IUGS Webmaster and Zhenyu Yang (China) Editor of Episodes.

Zhang also commented that Tony Berger was the chairman of the Publications Committee for most part of 2004. The PC had its annual meeting in April 2004 in Beijing. Berger resigned in August 2004 and our deepest appreciation goes to him for his commitment to the PC. The chairmanship has now been passed to Nowlan of the Geological Survey of Canada.

Nowlan began by telling the EC that this report will include items that have occurred since August 2004, as well as a proposal for the future workings of the Publications Committee. Continuing activities include: review of publications; mentor status and quality; review of IUGS publications; monitoring progress and content of Episodes; IUGS website (John Aaron); and copyright issues.

Regarding the non-serial publications, Nowlan noted that under the agreement between IUGS and the Geological Society of London (GSL) effort was made at the IGC to capture publications arising from sessions at the congress. A total of 17 potential books were identified, of which 11 are currently accepted and further three are still under consideration. At present, GSL has the freedom to choose which publications it will accept. It is important that IUGS should determine worthy publications that are not published by GSL. Nowlan wondered if IUGS

should develop an internal electronic venue for non-GSL publications, following the model strategy of electronic publication used by Episodes. He also mentioned applying an electronic publication strategy to non-AESE and EASE publications. Advertising links should be developed with IUGS affiliates, for instance publishing Episodes tables of contents in other publications.

On the topic of Episodes, a formal review of the progress during the period 2001-2004 was conducted in April 2004. This review was mandated by the MOU between MLR of China and IUGS. The report was favourable, indicating the excellent job that Episodes editor and staff had done over the four-year period. A number of recommendations were made for the future new formal MOU between IUGS and the China Ministry of Land and Resources covering the period of 2005-2008 was signed in Beijing. Professor Yang Zhenyu has been appointed as the new editor. The PC continues to have close communication with the staff working on Episodes.

As for proposal for the future, with the resolution of many of the outstanding problems of IUGS book publication and the continuing production of Episodes, the PC is looking to revise its mandate. A proposal has been made and was discussed at the PC meeting in Vilnius. In view of the completion of some of the major tasks assigned to the PC, Godfrey Nowlan sees a wider and more proactive role for the PC, even to the extent of taking on the responsibility of promoting not only Episodes, but also the whole of the IUGS scientific enterprise.

Nowlan commented that the effect of an expansion would be to transform the PC into a “Committee on Publications and Communications,” which could operate under the same acronym “PC”. The Publications Committee looks to the new Executive Committee for a response to these suggested changes in mandate.

John Clague commented that IUGS and PC should capitalize on publications that will compliment IYPE, working toward translating and distributing material. De Mulder applauded the contributions of the PC, especially its affiliated organizations work, internal brochures and annual report. He expressed some concern in connection with non-GSL publications. Other avenues for publishing should be pursued, for example, out-sourcing. He noted PC actions on behalf of IYPE include reading, editing and layout of publications. With regards to translation issues, the committee should be represented by writers other than Anglo Saxons. Riccardi also shared de Mulder’s concerns about translation issues.

Schneider wanted to bring to attention the problems of putting out publications from developing countries. Internet publication may be of a benefit for these nations. Haldorsen strongly supported the idea of on-line publications from developing countries. She said it was important to give these nations an outlet for their literature. From her correspondence with Elsevier, it is apparent that big publishing houses are more interested in works from developed countries. Clague commented that the major impediment is language. Resources should be made available to developing nations to cut out a lot of the filtering that takes place.

Zhang then asked whether there was consensus to accept the new directions and spirit of the PC. De Mulder said he agreed with the spirit and that in private meetings has discussed minor changes. Riccardi and Moores both approved, but with minor suggestions for changes. Bobrowsky then asked the EC to formally accept that the PC continue with its new direction and spirit. The vote was **passed unanimously**.

**ACTION ITEM (#6):** arising were that the PC (Nowlan) should resolve the specifics of their Terms of Reference with the IUGS EC as quickly as possible. The composition of the PC should be adjusted as soon as possible.

**ACTION ITEM (#18):** The PC should create a web-based downloadable version of the IUGS flyer that can be easily printed by the public. Nowlan to coordinate this task.

#### **6.b.4. Finance Committee (FC)**

Brambati noted that the Finance Committee is currently dormant. He questioned what the FC should do and said the EC should define its role more precisely. Zhang wondered whether the FC was really necessary and that the EC should make a decision to amend the Statutes or restructure. Riccardi and Janoschek then read from the Statutes to show that the FC has a broad role that is not restricted to finances. The role of the FC has changed through history to accommodate for increases in external and public funding. Janoschek then wondered if IUGS should have an FC, asking the EC to think about it.

Moores considered alternative options, like development or fund-raising committees with access to funds from industry and governments. Bobrowsky referring to the Strategic Plans noted that it is an important outstanding issue that the EC will have to deliver. De Mulder commented that the EC should not have too many expectations for the FC since there have been no new directions over the last decade. He said the IUGS has to produce interesting products for its sponsors in order to justify the FC. There is no need for an active FC if there are not sufficient products.

Bobrowsky asked that a motion be proposed to see if reform of the FC was needed, addressing issues of external and internal sources of funding. Riccardi seconded the proposal to continue to research the possibility of continuing the FC or change the Statutes.

**ACTION ITEM (#7):** Moores agreed to examine the feasibility of the FC and whether it should pursue external funding and report back to the EC as early as possible.

#### **6.b.5. Ad Hoc Review Committees (ARC)**

Bobrowsky, de Mulder and Janoschek briefly reported on the ARC. One ARC held a review of the Task Group on Geochronology. Fossil Fuels may be reviewed in 2005. The Commission on Stratigraphy should have EC members on it, de Mulder commented. He suggested a reviewer is needed. Riccardi volunteered. Matsumoto also agreed. Schneider thought that Riccardi was better

qualified, since her technical background was not in economic geology and mineralogy.

On Fossil Fuels, Bobrowsky and Janoschek wondered who from the EC could serve in this small group. Riccardi suggested Schneider and she volunteered because of the importance for Africa.

#### **6.b.6. IGC Committee**

Zhang reported on IUGS Statutes and Byelaws, giving the following definition (k): "IGC Committee is the permanent committee in IUGS dealing with IGC matters. It consists of the President and the Secretary General of the ongoing Organizing Committee; the President of the immediate past IGC session; the President, the Secretary General and the Treasurer of IUGS; and the Secretary Generals of the three immediate past IGC sessions. The President and the Secretary General of the Preparatory Committee may be invited as observers. Up to three Congress organizing experts may be invited as non-voting experts. The Committee prepares the agenda for the Council meetings regarding IGC matters. It is co-chaired by the President of IUGS and by the President of the immediate past session of IGC or the President's representative."

Bjørlykke commented on the IGC Steering Committee problems. Janoschek commented on the need to invite experts to participate in and contribute to meetings of IGC and statutes committees, congress presidential joint chairs and steering committees.

De Mulder sought approval for the continuation of special committees and a new special statute committee on the merger of IUGS and IGC. He suggested the President of IGC be approached. Bjørlykke noted that these points are to be addressed at the IGC meeting in Norway this coming August. Bobrowsky ended by saying that sub-actions will be resolved by the EC.

**ACTION ITEM (#8):** The Bureau, as well as the potential members of both IGC and the Statutes Committees, should try to meet in Trondheim in August. Bobrowsky is to coordinate.

#### **6.c. Commissions**

##### **6.c.1. Geoscience in Environmental Management (GEM)**

Joy Pereira reported that the GEM executive comprises 11 individuals presenting 11 countries that aims to provide guidance to geoscientists on how best to integrate geoscience into environmental policy and to communicate the concepts to potential interest groups such as policy makers, politicians, environmental organisations, scientists from other disciplines, and the general public.

Pereira noted that GEM builds on the excellent work of the former Commission on Geological Sciences for Environmental Planning (COGEOENVIRONMENT) that has completed its full term. In 2004, GEM cooperated with various organizations to hold several meetings such as "International Dialogue on Engineering Geology for Sustainable Development" (in Hong Kong); the International Workshop on "International Borders – Geoenvironmental

Concerns” (Poland) and Geo-Environment 2004 (Spain). She also noted an active presence during the Florence IGC and a fruitful GEM Inaugural Meeting. She also expressed concerns about the involvement of developing countries and the effort to get extra IUGS funding.

Its working groups continued preparation of information to help geoscientists communicate with policy and decision makers in the appropriate language. Articles announcing the formation and website of GEM and its Working Groups have been prepared and submitted to the editors of Episodes, IAEG Bulletin and IAH Newsletter. Published in 2004 were the proceedings of a workshop held in Vilnius "Geosciences for urban development and environmental planning", a report on the Urban Geology Workshop for City Planning in Southern Africa, and an article for an AGU publication "Earth sciences in the cities."

GEM, building on the former COGEOENVIRONMENT, has developed its Terms of Reference, and in this attempt has attained precise objectives reached through Working Groups. Of special interest is the working group on International Borders-Geoenvironmental Concerns. Trans-boundary problems being a field in which international organisations are highly necessary.

For the coming years, outreach and communication will broaden and identify new target groups. Brochures and a website have been prepared, with a mock-up focusing on African and Asian regions. GEM also plans to expand its networking and is developing strong affiliations with IAEC and IAE. Technical workshops for capacity building have been successful and others are planned.

Cadet commented on the promising output of working groups and expressed concern about future developments. He had a feeling that the commission was starting out well and should secure IUGS funding. De Mulder remarked that he would like to invite GEM to explore linkages with IYPE, in particular how they could contribute to the Megacities and Climate programs. Pereira answered that IYPE was an agenda matter for GEM.

**ACTION ITEM (#22):** Bobrowsky to send his previous letter to Colin Simpson again noting that IUGS will not be able to archive the old COGEO website.

### **6.c.2. History of Geological Sciences (INHIGEO)**

INHIGEO is a commission of both IUGS and the International Union on the History and Philosophy of Science (IUHPS), has 166 members in 40 countries, and 9 Honorary Senior Members, who receive the Commission's newsletter and may, if they wish, participate in INHIGEO activities, but have no formal obligations to the Commission.

Brambati began by noting that their scientific and financial report was very detailed. After eight years, David Oldroyd transferred the position of Secretary General to Kennard Baker Bork. The overall objectives (studies in the history of geological sciences and publication of works on this subject) fit within the stated objectives of IUGS. The Commission attempts to be involved with other international projects such as the IUHPS.

INHIGEO hosted technical sessions at the 32nd IGC in Florence, Italy, and conducted a field conference in Italy, following the IGC meetings: Session T-20.01 ("Origin of modern geology in Italy"). INHIGEO organized a technical session in the 32nd IGC of Florence and field conferences in Italy, publishing the book: Geological Travellers containing papers presented at the INHIGEO meeting (Dublin). Chief products in 2004 included a fieldtrip guidebook "Italian Institutions and Geological Sites in the History of Geosciences" and Newsletter #36. Other articles will appear in 2005 and in particular a field trip guide book on Italian Institutions and Geological sites in the History of Geosciences. A five-volume Encyclopaedia of Geology, published by Elsevier and scheduled to appear in December 2004, incorporated a number of articles on the history of geology, authored by INHIGEO members and solicited and edited by David Oldroyd.

INHIGEO now has a dedicated website, thanks to the support of John Aaron. It underwent significant updating in November 2004, with input from Ken Bork and site management by John Aaron. Lastly, 2004 saw implementation of the concept of allowing members over the age of 70 years to serve on the Commission without being "counted" toward a country's limit of eleven active members. Janoschek noted that INHIGEO continues to develop a history of IUGS in Episodes.

Apart from some financial problems, the activity was very significant. For 2005 INHIGEO planned a meeting in Praga on the History of Geophysics that includes field trips to sites of geological and historical importance. This is an introduction to the History of Geomorphology in 2006 and Historical Relationship of Religion and Geology in 2007. Brambati concluded that because of its very intensive past and planned activity in 2005, financial support is recommended.

### **6.c.3. Management & Application of Geoscience Information (CGI)**

Jean-Paul Cadet reported on CGI. He began by pointing out that the aims of this Commission are to provide a means for exchanging knowledge on geoscience information and systems, to support the dissemination of best practices in geoscience information applications, to encourage the development of geoscience standards, to keep IUGS informed on geoscience information matters and to help bring interested bodies and persons together.

The Commission is lead by Kristine Asch and Ian Jackson with links to a number of other bodies, including the CGMW, IAMG, FOREGS and CCOP. The IUGS Council formally ratified the new Commission in 2004. For its first meeting, new Statutes were produced and agreed upon, elections were prepared, and the web site was completely overhauled and refreshed, flyers were distributed, and invitations to the Open Meeting were mailed to over 1500 people worldwide. Its working groups continue to make progress on developing a geoscience data model and overhauling the Multi-lingual Thesaurus.

Cadet noted that CGI 2004 report was on time and remarkably clear and well presented. CGI had a fruitful year in 2004 and as a commission started in 2002 after the demise of COGEOINFO, is now well established. A formal ratification

took place at Florence and a full Open Meeting during the IGC with more than 70 attendees.

Cadet reported that CGI objectives and action plan are well defined, the leadership and council are dynamic and representative, outreach is excellent (flyers, website, etc.), and working groups are active. The visibility for IUGS is obvious. After the kick-off period, CGI must now strengthen its action, and in particular working groups must complete the Multi-lingual Thesaurus and Geoscience Data Model Standards projects. Care must be taken not to make the structures too heavy (e.g., the Council should not be unduly increased even if they are not completely representative). Their budget request is justified.

#### **6.c.4. International Commission on Stratigraphy (ICS)**

Schneider reported on the ICS, noting that it is a body of expert stratigraphers founded for the purpose of promoting and coordinating long-term international cooperation and establishing standards in stratigraphy. Their annual report was the longest submitted to IUGS. ICS and its subcommittees have ambitious plans for the period 2005 to 2008, such as web-based service and online information down to GSSP stage, even better than the already existing information on their website.

ICS has established an active link to the NSF (Washington) scientific database initiative called “CHRONOS”, and to INQUA regarding the stratigraphy of the Quaternary. ICS sub-commissions are traditionally affiliated with a considerable number of IUGS and IGCP activities. ICS members maintains active links with international research groups, including The (British) Micropaleontology Society, the North American Micropaleontology Society, and the Association of American Stratigraphic Palynologists, and international paleontological research groups on Graptolites, Conodonts, Ammonites, Radiolarians (Interrad), Nannofossils, Foraminifers, etc. In addition, there are many ICS stratigraphers are involved with the Ocean Drilling Project (ODP). Schneider cautioned that duplication of efforts between ICS Subcommittee on Quaternary Stratigraphy and INQUA should be identified and avoided.

Cadet remarked that in 2004, there was ongoing standardization of the International Chronostratigraphic Scale (GSSP approvals). The new International Geologic Time Scale to completion (GTS2004, published by Cambridge University Press). The entire time scale is illustrated by superior (colour) graphics at various scales, formats, and audiences. During the summer of 2004, ICS published the new International Stratigraphic Chart (in Episodes), and an overview of established GSSPs (in Lethaia). Summary charts of the International Geologic Time Scale were distributed to all participants (~5000) at the IGC in Florence (August 2004). Approximately 2000 copies of the GTS2004 time scale poster (printed by Geological Survey of Canada) were distributed at-cost by the Commission on the Geologic Map of the World (CGMW) at their Florence IGC booth. In addition, approximately 1000 plastic cards of the time scale were distributed free at the IUGS/ICS booth, and several hundred “mouse pads” of the International Stratigraphic Chart were sold at-cost through the CGMW booth. The major drive for promoting the International Stratigraphic Chart and the

compilations within GTS2004 was partially supported by donations from ExxonMobil, Chevron, Shell, BP and Statoil petroleum companies.

Schneider noted that in addition to the main ICS website: [www.stratigraphy.org](http://www.stratigraphy.org), most of the sub-commissions have established websites that have placed an impressive amount of virtual information on geological time into the public domain. Nearly all sub-commissions of ICS publish regular newsletters or circulars of a high scientific calibre.

She commented that ICS receives very little financial support from sources other than IUGS. ICS is internationally well linked and also very active concerning PR (e.g., launch of the Ediacaran and website). The 2004 International Geological Timescale was published with sponsorship from outside ICS and IUGS. Strategic planning is also in place.

Schneider also highlighted a number of problems. ICS has the mandate to have all GSSPs in place by the end of 2008, but the progress is not sufficient to date to meet this deadline. There is also the potential pitfall of doing things in haste, as for example was done with the Ediacaran, where some researchers, particularly from Russia, are not in agreement.

Africa, the Middle East, Asia and South America are under-represented in the working groups, and some proposals are therefore rather “Euro-centric”. It is noteworthy, that the funding received from IUGS for the 32nd IGC was spent to subsidise members from Canada, Australia, etc., and not from the developing nations.

Funding is another problem. Many members are retired, and therefore no longer have access to funding from their employers. There are not enough funds to produce newsletters and properly compile GSSP-proposals. Because of the topic, opportunities for public outreach and the associated fund-raising are limited. Paying members is currently contemplated as a possible solution. Unfortunately, there seems to be no innovative thinking to solicit funding other than this proposed paying membership. ICS has requested \$47,000 from IUGS for 2005 to 2006, an increase from \$36,000 last year and justified because of the falling value of the US Dollar.

Moore said he had problems with the work of the Commission, especially the high-handedness of abolishing the Quaternary without consulting INQUA. Science by committee doesn't work in Moore's mind. Cadet completely disagreed with Moore, pointing out that the results of their work are very important for the geological community. The new geological timescales represent big progress in standardization.

Riccardi remarked that there were two different matters: administration and scientific results. Research undertaken is valid, with definitions coming from the top down so changes are always reviewed. With no standards there is no absolute timetable. The problem is the European stratigraphy is best known and most GSSP cluster there, which is really not really the case. The ICS seems Euro-



centric. Haldorsen commented that national groups control the direction of ICS projects: the Pliocene/Pleistocene boundary for example.

Schneider then asked for EC approval of two Global Stratigraphic Section Point (GSSP) requests:

- 1) Request for IUGS Ratification of the GSSP defining the base of the Ladinian Stage of the TRIASSIC System. This is defined on the basis magnetostratigraphy and on the first appearance of the ammonoid *Eoprotrachyceras curionii* (base of the *E. curionii* zone; onset of the Trachyceratidae ammonoid family). There was no isotope work.

Vote: **Approved** by nine EC members; with Moores and Riccardi abstaining.

- 2) Request for IUGS Ratification of the GSSP defining the base of the Pliensbachian Stage of the JURASSIC System in the Redcar Mudstone in North Yorkshire. The base has been defined on the basis of ammonites, paleomagnetic and Strontium isotope stratigraphy. The outcrop is already an SSSI and so is protected by UK legislation. The working Group on the Jurassic has already voted in favour. Ed de Mulder and Alberto Riccardi noted that ICS abstainers are usually from the working groups.

Vote: **Approved** by nine EC members; with Moores and Riccardi abstaining.

The request for IUGS ratification of the GSSP defining the base of the Changhsingian Stage of the Permian System did not arrive in time to be discussed at the EC meeting. These actions bring to 53 the total number of GSSPs proposed and ratified, leaving 38 more to be completed. It is hoped that many of these will be ratified by 2008.

**ACTION ITEM (#10):** A new *Ad Hoc* Review Committee on ICS should be created with IUGS representation by Riccardi, Brambati and Matsumoto, plus two external members. Their review should be completed before the next EC meeting. Riccardi is to pursue this Action Item as soon as possible.

#### **6.c.5. Systematics in Petrology (CSP)**

Ryo Matsumoto reported on this Commission, noting that it seeks to provide a unified and standardised system of nomenclature for igneous, metamorphic and sedimentary rocks, in order to ease communication between geoscientists. A Sub-commission has been established for each of these three main branches of petrology. Close links are kept with other, related bodies, such as the Commission on the Management and Application of Geoscience Information (CGI).

#### **6.c.6. Solid Earth Chemistry and Evolution (SECE)**

Haldorsen began by reviewing the history of SECE. The IUGS Council officially approved the reformulation of the SECE in August 2004, from the previous commission, COPSCE (Physics and Chemistry of the Earth) or even earlier CIMP (Igneous and Metamorphic Petrogenesis).

Haldorsen commented that SECE is a new commission comprising mostly younger researchers. The commission aims to promote petrologic and geochemical investigation of the Earth's crust and mantle through organizing symposia, publishing proceedings of sponsored conferences; and supporting participation of young geologists in international conferences, symposia and workshops.

The lack of activities during the past five years gave the new leaders a very limited possibility to build on earlier work. Since August 2004 work has focused on organizing the commission. At present, membership is too limited and there is a need to include more European members (particularly from the Mediterranean region), South America, Asian (e.g., India, west Asia and the Middle East) and African members should be included.

Haldorsen felt that their plans are weak. Important tasks are too broad in scope and should be more focused. Member training should be worked upon. She also noted that their grants are not reflected in the budget. It is important to see how the present leaders plan to invite others for a broader membership. SECE is still trying to define activities and what activities will take place in the coming years.

An official website will be established this year, and other outreach and communication initiatives are in the works. Also planned for 2005 are two meetings in Beijing and Scotland. Future symposia are also being considered. They also aim to publish conference proceedings.

Haldorsen feels that the commission should be encouraged to define the most important international tasks associated with the commission objectives. As it is now, their objectives seem to cover the whole spectrum of tasks. SECE should set up more specific plans for how to communicate important information to the society (e.g., hazards and developing countries, and teaching at high school level).

Haldorsen ended by saying that IUGS should support SECE, and that weaknesses in the report reflect the newness of the commission. Zhang asked EC members for any further comments or questions. There were none.

#### **6.c.7. Education, Training, Technology Transfer (COGEOETT)**

The EC reviewed the membership and goals of this new Commission and recognized too much overlap with the Affiliated body, the International Geoscience Education Organization (IGEO). A recommendation to modify the membership and address IUGS objectives instead of IGEO objectives was forwarded to the Commission.

Zhang began by stating that COGEOETT had a complicated history. In its session in Rio de Janeiro (2000) the IUGS Council decided to create a new Commission on Geoscience Education. The International Geoscience Education Organization (IGEO) approached IUGS to become an Affiliated Member, an application approved during the 48th IUGS Executive Committee Meeting in Hyderabad. The IUGS Executive Committee considered IGEO as a potential vehicle to partly fulfil the earlier Council decision on this issue. A Task Force was charged to

develop an IUGS body addressing the Geo-science Education issue. In its 49th session in China, September 2001, the IUGS Executive Council decided to produce Terms of Reference for such a body. However, the Bureau decided that IGEO, which is experienced in this field, should be asked if they would work in a Task Group. They refused, but said that IUGS should leave the business to them, and support them. The Bureau agreed. Gary Lewis, Education and Outreach Director of the Geological Society of America agreed to chair the COGEOETT. In November 2004, the first meeting of COGEOETT was held in Boulder Colorado.

Zhang noted that the commission had a list of requests for IUGS:

- 1) Ratify the Commission Membership -  
Gary Lewis (Chair), GSA – USA; Wesley Massey (Secretary General/Treasurer), GSA – USA; Chris King, Earth Science Education Unit, Keele University – UK; Greg McNamara, Geological Society of Australia – Australia; Chang-Jong Kim, Department of Earth Science Education, Seoul National University – Korea; Alan Morgan, Waterloo University – Canada; Hans-Albert Dahlheim, GEO ZENTRUM – Germany
- 2). Approval of name change to the Commission on Earth Science Education (COESE).
- 3) Approve their report and four-year action plan
- 4) Approve the 2005 Work plan and its associated budget
- 5) Approve the final budget for the initial meeting and reimburse the Geological Society of America for this amount.

Janoschek commented that bodies should not duplicate activities: COGEOETT repeats the education and technology transfer work of IGEO. De Mulder noted that COGEOETT does not have all the appropriate expertise needed for IUGS goals and may need help in developing directions. A letter should be written to the commission, expressing IUGS concerns on duplication and cautioning them on double dipping. Moores brought up UNESCO and asked should Education and Technology Transfer be brought under one umbrella. Pereira noted the relationship with the Decade of Education.

**ACTION ITEM (#11):** Bobrowsky to contact COESE/COGEOETT and inform them that IUGS did not approve their current requests as presented. Present composition of group and work plan for 2005 does not address the IUGS expectations and needs for technology transfer and training. Currently the Commission is a duplication of IGEO that IUGS does not need. Bobrowsky to also recommend to COESE/COGEOETT that the Commission should try to integrate more closely with the Decade on Education agenda.

#### **6.d. Task Groups**

##### **6.d.1. Decay Constants in Geochronology (Proposed IUPAC and IUGS joint project on Geochronology)**

With respect to assessing time in the geological record, the IUGS has been using standard values of decay constants that are about 30 years old. These values are at variance with those published (more recently) by the International Union of Pure and Applied Chemistry (IUPAC), which, like the IUGS, is a member of ICSU. Moreover, the decay constants promulgated by IUPAC differ from those

published by the International Union of Physics. Clearly consistent international standards for these physical parameters are not only desirable, but are absolutely necessary. The recent IUGS Task Group looking into decay constants used in the geological sciences completed its work and was terminated in 2004. It is clear, however, that more work is needed to resolve the conflicting data. In this regard, the IUGS and IUPAC have been seeking to establish an Inter-union Working Group. The EC felt that the matter was of sufficient importance that the work should be continued at a Commission level. Accordingly, the EC approved *in principle* the establishment of an Inter-Union Commission on Decay Constants in Geochronology, pending agreement by the IUPAC.

Riccardi discussed progress on Decay Constants in Geochronology by IUPAC and IUGS. Riccardi noted that IUGS used to have two bodies addressing this issue. This new task group is independent and outside the scope of the International Commission on Stratigraphy. Riccardi commented that following the conclusions of IUGS an ARC on Geochronology (Oslo, March 2004) was formed dealing with isotopic geochronology. A review of decay constants used in geochronology by IUGS and IUPAC aims to promote standardization and recommend conventions in methodology. This joint committee also aims to promote a database of radiometric standards, especially since the decay constants values used by IUPAC differ to those used by geoscientists.

Moore was surprised to learn that physicists and geoscientists use different values for decay constants. Haldorsen commented that the work by this Task Group is very important. De Mulder was very encouraged by the inter-union cooperation in this area. Cadet asked why this group wasn't classified as a Commission. Riccardi agreed that considering its scientific and political importance, this body should have the status of "Commission". Initial officers (IUGS representatives) of the new Commission, could be I. Villa (Switzerland), P. Renne (USA), and Liu Dunyi (China).

**ACTION ITEM (#12):** IUGS has approved "in principle" to have a Commission on Isotopes and Geochronology pending the final response from IUPAC. The new Commission will require Terms of Reference and Statutes. Riccardi will pursue this issue.

#### **6.d.2. Global Geochemical Baselines (TGGB)**

Haldorsen reported on TGGB, noting the principal aim of this Task Group is to prepare a global geochemical database, and its representation in map form, to document the concentration and distribution of chemical elements and species in the Earth's near-surface environment. The database and accompanying maps can then be used to create a geochemical baseline against which future human-induced or natural changes to the chemistry of the land surface may be recognised and measured.

In 2004, sampling in East Africa (Kenya, Tanzania and Uganda) and a field course in Tanzania took place. In Europe, FOREGS has continued to work on the project; all analyses and quality checks have been made and the data compilation and management processes are under way, with the first set of maps ready were finalized ready for publication. Within Europe, significant progress was made on

the FOREGS Geochemical Atlas of Europe. In particular, the final introductory and background texts and all distribution maps were finalised ready for publication. Haldorsen remarked that good progress was also made on the interpretation of the geochemical data and a number of interpretation meetings were held throughout the course of the year. Numerous publications resulted from IUGS/IAGC/FOREGS Workshop and the 32nd IGC. The first volume of the 'Geochemical Atlas of Europe', which includes all introductory and background texts as well as a complete set of maps of European geochemical data, is due for publication by the end December 2004.

Haldorsen also commented that it would have been good if the group leader had a broader global participation. The group is active and ambitious, with clear goals for 2005. There is a large international interest for the work and the group has created important products. The need for funding is outside the budget of IUGS, but IUGS can contribute with seed money.

Moore agreed with Haldorsen, saying that TGGB was developing good global, regional and local projects. Cadet asked why the leaders are not participating more, noting the need for more global representation in the organization. Jacques Charvet wondered how the Geological Map of the World is related. Cadet and Haldorsen replied that it is compiled from the work of national geological surveys.

#### **6.d.3. Fossil Fuels (TGFF) Commission of Fossil Fuels (CFF).**

Riccardi also reviewed the work by the Task Group on Fossil Fuels, and began by noting that in fact it is now a Commission of Fossil Fuels (CFF). As a Task Group, it has helped developing countries see how the region's fossil fuel deposits and the potential future supply are of vital importance for good resource management and sustainable economic growth. Natural resources can contribute to a region's economic growth and development but sadly can also lead to political strife, conflict and war. In the past years, the Task Group has concentrated on the Central African area, where conflict concerning existing and potential deposits is breaking out. Regional cooperation on the geology of the Central African Rift System has been initiated and is contributing to the fragile peace developing in the Sudan.

CFF is building on the work of TGFF, continuing its efforts for growth, completing a website and expanding its membership. It is promoting regional strategic planning based on the use of fossil fuels and working on sharing resources across national borders. Although the current focus of activities is in Central Africa, \$5000 has been requested to open up interest and work in other regions.

**ACTION ITEM (#9):** A new *Ad Hoc* Review Committee on Fossil Fuels should be created with IUGS representation by Gabi Schneider, plus two external members. The review should be completed before the next EC meeting. Schneider is to pursue this action item as soon as possible.

#### **6.d.4. Public Affairs (TGPA)**

Moore gave a brief synopsis of TGPA. He noted that 15 countries are involved. There is a critical need to be effective in relaying information to the press and US Congress regarding geoscience issues (e.g., aggregate resources). Moore also recognized a need for a “how to” manual for liaison with the UN.

Bobrowsky added that an ad hoc review showed that TGPA met all their goals. In early 2004, TGPA leader, David Applegate, took on a new position as chief of the Earthquake division of the USGS. At present, Applegate does all the work: the other 17 members are not really contributing. As result he is overwhelmed with tasks. Because the rest of the group are not working, Bobrowsky recommended dissolving the group. Moore was concerned that this would be too aggressive and that Applegate should be given the choice to end the group. De Mulder suggested presenting Applegate with a merit plaque to demonstrate IUGS appreciation for his work. Janoschek remarked that expert outreach is still needed. Aaron commented that Applegate is overwhelmed by his various responsibilities. He is a good resource at an advisory level, but is not in a position to run the whole Task Group. Moore suggested getting Applegate’s advice on sun-setting TGPA.

**ACTION ITEM (#13):** Bobrowsky to contact David Applegate and request his opinion on whether to continue or terminate TGPA.

#### **6.d.5. Tectonics and Structural Geology (TecTask)**

Cadet reported that the group encourages innovative research and continued education in Tectonics and Structural Geology, the growth of intellectual capital and hence the impact of our science on the wealth of the global society. The group was only just accepted in October 2004, but has already established a network of contacts through the USA (various NSF funded programmes) and Europe. Its Vice President is a member of the European advisory council for Africa Array, a new African based initiative to promote geophysics research and training in Africa. TecTask was formed as successor of the dissolved COMTEC committee in October 2004. The group first identified initial topics and goals for short-term developments and implemented a web portal ([www.tectask.org](http://www.tectask.org)) as the major platform for the group’s activities. Cees Passchier (TecTask chair) hosted a meeting of TecTask officers at the Department of Earth Sciences at University of Mainz to discuss prospective and future activities of the task group. Cadet noted that for 2005, it hopes to complete a comprehensive directory of professionals and postgraduate students in Structural Geology; improve of the Internet portal ([www.tectask.org](http://www.tectask.org)) as the communication platform and information resource for Structural Geology and Tectonics and initiate workshops and field courses focusing on topics in Structural Geology and Tectonics.

Cadet commented that the work of the Task Group seems promising. Globally, the Task Group, chaired by Cees Passhier, fits the conclusions of the COMTEC review (April 2002, Nice). Its objectives and work plan are precise and reasonably ambitious, with already some realisations as the launching of the web site. They correspond to interesting needs in the field of Tectonics and Structural Geology. The list of officers is well balanced and may be completed with one officer from a developing country. Strong links with SCL/ILP will be effectively maintained through C. Passhier who participates to both groups. IUGS should

encourage -standardization efforts must be encouraged (i.e., glossary of structural terminology). Budget request is not detailed enough and seems too high for a starting initiative.

## **6.e. Initiatives**

### **6.3.1. Geoindicators (GEOIN)**

Jonas Satkunas (Lithuania), Co-leader, summarized the recent activities and accomplishments of this Initiative. Having reached most of its goals, the Initiative will in 2005 focus its work on finalizing its activities as a funded IUGS body. The geoindicator concept has now entered the geological “lexicon”, and applications have been developed in state-of-the-environment reporting, the management of parks and protected areas, assessing the environmental impacts of mining and quarrying, and in linking geology and human health issues. Work by others along many of these fronts will likely continue as new opportunities and needs arise. The EC thanked Satkunas for his hard work and congratulated him and others associated with the Geoindicators Initiative for their outstanding success.

Satkunas began by noting that the former COGEOENVIRONMENT working group introduced and developed the term “geoindicator”. GEOIN works internationally to develop ways to apply geoscience knowledge to sustainability of natural and social systems.

Satkunas remarked that in 2004, GEOIN’s leadership developed Dark Nature’s successful ICSU grant proposal and is currently a major partner in the project. GEOIN is also cooperating with IPA, LESTARI (Malaysia), INGEOMINAS (Colombia), National park systems (US and Canada), the Millennium Ecosystem Assessment, and a US NRC Committee.

Meetings and sessions in 2004 include: “Geoindicators: methods and techniques for monitoring rapid geological change” (session, 32nd IGC); “The effects of climate change in the western Sahara” (workshop, Dark Nature); a training course on megafloods (Dark Nature) and a workshop on landscape change (LESTARI, UKM). Its leaders held lectures on geoindicators throughout the globe and updated the Geoindicator Checklist (on-line).

A number of articles on geoindicators were published in 2004. The group contributed an article to “Quaternary International” and material to the abstracts and field guides in 2004. An article is in press for Geoinformatics entitled: “Geoindicators: An earth science tool for decision-makers, managers and planners in Geoinformatics.” Satkunas wondered if it is time to re-think where IUGS is going with this activity and noted that a strategy for concluding current activities in 2005/6 is presented in the GEOIN annual report.

Zhang commented that the Initiative’s overall objective is to track and assess rapid geological change using the geoindicator approach. The GEOIN website continues to be maintained by the Geological Survey of Lithuania. GEOIN is cooperating with the USNRC Committee on Research Directions in Geology and Health, through a workshop held in Irvine, CA, in October.

Satkunas also mentioned that geoindicators are now a routine part of the annual State-of-the-Environmental Report for Lithuania. A course on geoindicators is being included into the magisterial studies programme in environmental sciences at Vilnius University. A small-scale field project to monitor stream sediment load and storage continued in 2004 in Gros Morne National Park, Newfoundland. Efforts continue to incorporate geological monitoring into the management of parks and protected areas and into state-of-the-environment reporting.

Haldorsen said that she contributed two successful geoindicator training course in Mozambique last year. Cadet, commenting generally, noted that Initiatives have a short lifespan and questioned whether GEOIN will become a Commission in the future. Peter Bobrowsky remarked that it is one of the longest running Initiatives, with its roots as part of COGEO in 1993. It was the brainchild of Tony Berger. Bobrowsky suggested Berger and Satkunas be applauded for their efforts and suggested IUGS give the Initiative full financial support for their final year.

#### **6.e.2. Medical Geology (MGI)**

Olle Selinus (Sweden) briefed the EC on the Initiative's myriad recent activities and accomplishments, including presentations at numerous scientific and medical meetings, and the publication of a new book, *Essentials of Medical Geology*. This successful IUGS initiative will terminate in 2005. Later this year, the Initiative will become the International Medical Geology Association, giving it the formal structure and access to additional funding necessary to expand and extend its work into the future. The EC congratulated Selinus on the success of the initiative and thanked him for his work that resulted in the creation a new geologic discipline.

Haldorsen reported that this is another successful IUGS activity, with much of the Initiative headed by Olle Selinus (Geochemist, Sweden), Bob Finkelman (Geologist, USA). IUGS recognizes that the Initiative involves many developed and developing nations, and has been extremely successful at bringing together medical and earth sciences.

The first Centre for Medical Geology will be built in China, and a second is possible for South Africa. The Geounions Initiatives recognize Medical Geology as one theme. The leaders hope that IMGGA will be functioning independently by January 2006. Continued support from IUGS is needed during the phase of establishment of the association and the first period of activities.

Haldorsen then commented that MGI has been very active over a series of years. Its work has resulted in a greater understanding of the relation between geology and health. The Initiative has a very clear capacity building profile. It makes IUGS visible outside the geological community. It would have been interesting if the leader team could be made a bit broader.

Selinus remarked that the website was update weekly. A biannual newsletter is also produced, with the next issue out in spring. There are now 74 member countries. Courses in Medical Geology have been successful at bringing together medical and earth scientists. The next course will take place in Romania. Selinus



also reminded the EC that the book "Essentials of Medical Geology" (820 pp) was published earlier in the year and that a copy was circulating at the meeting.

Because interest in Medical Geology is continuing to expand worldwide, MGI had determined that a formal structure was necessary for it to function efficiently. A new association was founded in 2004: The International Medical Geology Association, IMGGA. The Directors of the association are Olle Selinus (Geochemist, Sweden), Bob Finkelman (Geologist USA) and Jose Centeno (Pathologist, USA). At present there are 200 active members. The new future organisation (association) has appointed six Councillors who will be active in medical geology within their disciplines, networks and geographical regions.

Selinus, Haldorsen and de Mulder both noted that topic of Medical Geology is also planned as one of the eight themes of the International Year of Planet Earth. A brochure has been produced.

Bobrowsky said that Selinus should be thanked for all the work he has done for MGI. This is the last year for funding and it should be supported fully. Initially, MGI was under the umbrella of COGEOENVIRONMENT, with ICSU and IGCP projects providing seed money. Bobrowsky noted that the book represents several years of work and some 60 contributors. The book, he said, will be used for years to come. Selinus thanked the EC and reminded them the IUGS log was shown prominent on the front cover of the book.

## **6.f Affiliated Organizations**

### **6.f.1. INQUA**

Moore reported that INQUA seeks to improve understanding of environmental change during the glacial ages through interdisciplinary research. The main focus of INQUA is interdisciplinary studies of the Quaternary Period with geology as one item. Moore met with John Clague, President of INQUA to discuss their concerns. Moore also remarked on the exhaustive the summary of expenditures in their annual report.

Clague was then invited to give a presentation. Clague began by thanking the EC for the opportunity to talk on behalf of INQUA. He noted that INQUA has been around since 1928 and its main focus is interdisciplinary studies of the Quaternary, encompassing anthropogenic landscapes and processes, earth sciences and ecology. INQUA is concerned with environmental changes, the causes and scope of climate change, and rapid changes resulting from human impacts on natural landscapes. It is therefore a diverse union with 44 National and geographic members, mostly in Europe, which conduct its scientific activities through five scientific Commissions: Coastal and marine processes (CMP); Paleoclimate (PALCOM); Paleoecology and Human Evolution (PAHE); Stratigraphy and Chronology (SACCOM) and Terrestrial Processes, Deposits and History (TERPRO).

Two issues of Quaternary Perspectives have been published. Ten issues of Quaternary International (the official journal of INQUA) were distributed in 2004, as have a number of special issues and other publications of the

Commissions. INQUA interfaces with many IGCP projects, as well as with the IGBP initiatives on Global Change. INQUA has during many years interfaced with IUGS through CLIP and PAGES. Several of the INQUA meetings have been joint meetings with IUGS, and INQUA and IUGS have also cooperated on a project proposal to ICSU that was successfully approved (Dark Nature). The work plan for future years is rich in initiatives and funded multidisciplinary projects.

Clague sees opportunities for stronger links between geoscience and other multidisciplinary unions. However, he pointed out that it is difficult to keep its members so long as the union is not a full member of ICSU. The International Council to INQUA, in Reno, recommended reapplication. INQUA was a mature and distinct international union. Also it is well represented by IUGS, INQUA does not feel like it is achieving its full potential because they are not part of ICSU. INQUA wants the support of IUGS in its application to ICSU. Without their help, it could be fatal for INQUA. Clague was also concerned that ICS debates the 2 Ma Boundary and have completely removed the Quaternary from its most recent published Timescales. INQUA is therefore at odds with ICS. Clague and Haldorsen noted that ICS invited INQUA to become involved in a sub-commission on defining the Quaternary. A Joint INQUA/ICS task force is working to address this issue and will present its recommendations later this year in Belgium.

De Mulder shared the concerns of past executive committees and cannot understand why the INQUA application was rejected. He remembered that in 1998, the association was perceived as non-ICSU, but is now in favour because it will improve the relationship between INQUA and IUGS and avoid fragmentation issues. IUGS cannot afford to not to support the INQUA application, said de Mulder. He then asked Clague whether INQUA has considered joining with other GeoUnions? Clague replied that equal membership would allow INQUA to function as an equal member with status. Clague also noted INQUA has a vested interest in, and financial obligation to support IYPE.

Haldorsen noted INQUA was given Affiliated Membership with ICSU. After Full Membership was rejected, many INQUA members wanted to remove the IUGS association. She was not in favour of fragmentation, and thought IUGS support will improve relations with INQUA. Riccardi was in complete agreement that IUGS should give support. He reminded everyone that INQUA is much older than IUGS and far more interdisciplinary, and so is different to IUGS. Janoschek commented that despite the recent clashes, there have still been strong linkages between INQUA and IUGS. He was also in favour of IUGS becoming part of ICSU. Cadet remarked that nothing positive is going to happen if INQUA leaves IUGS. Bobrowsky remarked that a number of Quaternarists on the EC committee. In the past, INQUA has been given mixed signals. IUGS promised support, which was then removed. INQUA is not a threat to IUGS or ICSU. Bobrowsky also noted that UNESCO is also in favour of INQUA joining ICSU, and will contribute and share responsibility. IUGS must now formalize support for INQUA. Uri Shamir commented that other IUCS members (e.g., social sciences) might have something to say and should be approached. ICSU

management has a tendency to consolidate or cluster. Shamir said IUGG would advise and coordinate with ICSU on the issue.

Bobrowsky then summarized saying that INQUA was applying for Full Membership status in ICSU. He hoped that the EC would vote positively as support for INQUA would benefit IUGS.

Moore then proposed a motion to vote. Bobrowsky motioned that the EC vote on full support for INQUA's application for Full Membership in ICSU; de Mulder seconded the motion.

Vote: **Approved** by 10 EC members; Cadet abstained

**ACTION ITEM (#14):** Bobrowsky to provide INQUA President with a letter of support from IUGS regarding the application for Union status within ICSU.

#### **6.f.2. Others**

Moore discussed other Affiliated Organizations. He noted there were 38 organizations, some very large, others, much smaller organizations. Letters were sent out to all affiliated members to solicit comments on IUGS sponsorship and requests for funding. Cadet noted that the financing of these organizations would be addressed in closed session.

##### 1. **American Association of Petroleum Geologists AAPG**

No report submitted as of 1 February 2005.

##### 2. **American Geological Institute (AGI)**

The American Geological Institute is a non-profit federation of 42 geoscientific and professional associations representing over 100,000 members. It aims to voice the shared interests of the geological profession. In addition, it plays a major role in strengthening geoscience education and societal awareness. AGI's 7th annual Earth Science Week was held from October 10-16, 2004, celebrating the theme "Living on a Restless Earth: Natural Hazards and Mitigation." For 2004, AGI distributed almost 15,000 packets to teachers and geoscientists across USA (up from 11,500 in 2003). The GeoRef database, established by AGI added approximately 87,500 new references and now contains over 2.4 million references and remains the largest and most comprehensive geoscience database available. The AusGeoRef database, launched in October 2004, is a bibliographic database produced with selected GeoRef references supplemented with references provided by Geoscience Australia. Web-based access to GeoRef now includes EBSCO, Cambridge Scientific Abstracts, the Community of Science, OCLC, DIALOG and Ovid (Silverplatter): [www.agiweb.org](http://www.agiweb.org)

Moore commented that this is a large non-profit federation of 43 scientific and professional organizations. In the past year, they have continued to make efforts to increase services to geoscientists and to enhance awareness of geoscience in the public and halls of government. Noteworthy is their new Earth Science World ImageBank.

### 3. **American Geophysical Union (AGU)**

AGU helps to promote the development of Earth science worldwide and seeks to assure that the increasing understanding of the Earth is taken into account in formulating public policy. AGU is self-supporting although some grants, primarily from U.S. government agencies, to support special limited-term projects. AGU is formally related with ICSU activities through the START Secretariat, an ICSU/IGBP activity that operates under AGU's umbrella in Washington, DC. AGU also interacts with IUGG. Attendance to its Fall Meeting in San Francisco grew 17% in 2004 to 11,500 registrants, which may make it the largest geological meeting held to date. All AGU journals are now fully electronic and their publication is faster than at any time in the past 15 years even as more pages are being published. A portion of a new AGU publication, Space Weather, is available on the web free. <http://www.agu.org>

Moore noted that this is a 43,000 member international society, with all journals now electronic, with a very large annual meeting, this society has great ambitions, but faces a slight budget deficit.

### 4. **Arab Geologists Association (AGA)**

In 2004, AGA had been invited to the Symposium on the Environmental Effect of Chemical Wastes held in Tripoli and the Jordanian Geological Conference held in Amman. AGA had planned a Council meeting to be held parallel with the Jordanian Conference, but due to bad communication between the host and AGA member organizations, the meeting had to be postponed. AGA was also involved in the IGC Scientific Programme and a member of the IGC Mediterranean Consortium. The AGA Secretary General visited various groups to discuss cooperation including ICSU (Carthage Smith) and the Jordanian Environmental Society. Despite security conditions in Iraq, AGA will try to renew efforts for the organization of the International Symposium on Gypsum Soil. In addition, AGA is cooperating with the University of the United Arab Emirates for the organization of the Sixth Conference on the Geology of the Middle East, which will be early next year in Abu Dhabi. The first circular of the meeting and the web site are under preparation.

Cadet reported that AGA has a significant role in the organisation of geology in Arabian countries, which helps promoting IUGS visibility in this area. AGA's activity relies on the dynamism of AGA Secretary General, Wissam Al-Hashimi from Iraq, and the 2004 report is mainly about the Saudi government's activities. Main projects for 2005 are the organisation of two meetings: it is recommended to focus IUGS contribution (\$3000 requested, \$2000 proposed) on the Sixth Conference on the Geology of the Middle East, an important event for the Arabian geoscientists' community, and on resuming the production of AGA Geoscience Magazine.

### 5. **Association of European Geologists (AEGS)**

The association currently has 30 members from 29 countries. Membership to AEGS is open to all non-governmental societies, institutions and organisations in Europe active on a country wide scale in the geological or earth sciences. Since 1975, AEGS has helped in the organization of the biannual meetings: MAEGS (Meeting of the Association of European Geological Societies). In this way the association serves as a “clamp” for European geological sciences, especially on the level of the national geological societies ([www.aegs.de](http://www.aegs.de) or [www.aegs.org](http://www.aegs.org)). AEGS’ main task in 2004 had been the organization of MAEGS-14 that will be held in Turin in September 2005. The meeting will reflect AEGS’s strategy of treating geoscience subjects relevant to trans-European cooperation and societal needs. Under the chair of Prof. Carlo Bartolini, Prof. Francesco Carraro (AEGS president) and Dr. Marco Giardino, the oncoming MAEGS-14 “Natural hazards related to recent geological processes and regional evolution” will concentrate on geohazards that arise as a consequence of longer-term geological processes.

Moore reported that this is an international geosociety of 30 members that seems to face no real problems. Its next in Turin will focus on various hazards; its following meeting will be in Tallin in 2007, focusing on mineral resources and their environmental and remediation problems.

#### **6. Association of Applied Geochemists (AAG)**

The Association of Applied Geochemists (AAG) (formerly the Association of Exploration Geochemists) specializes in advancing the science of exploration and environmental geochemistry and furthering the interests of both geochemists and geochemistry by encouraging research and development and the distribution of scientific information. The new name better reflects its scope and its membership. In 2004, AAG co-sponsored a training course on Exploration Geochemistry held in Langfang, Hebei that was organized and led by China’s Institute of Geophysical and Geochemical Exploration. The AAG’s Distinguished Lecturer, Dr. Cliff Stanley, delivered a series of lectures at this training course. For 2005, the AAG is continuing preparations to host its biennial International Geochemical Exploration Symposium (IGES). In partnership with GSL, AAG sponsors the publication of the journal “Geochemistry: Exploration, Environment, Analysis in partnership”. AAG’s monthly newsletter, EXPLORE, is distributed throughout the world and contains timely articles on a variety of applied geochemistry topics. The Association also produces special publications and conducts short courses on topics of concern in the fields of applied geochemistry.

Zhang notes the name change mentioned above and its co-sponsorship of a training course on Exploration Geochemistry held in China. The AAG is continuing preparations to host its biennial International Applied Geochemistry Symposium. The Symposium will be held September 19<sup>th</sup> to 23<sup>rd</sup>, 2005 in Perth, Western Australia.

#### **7. Association of Geoscientists for International Development (AGID)**

At the last AGID General Assembly it was decided that reform and continuation was preferred to closure. The Head Quarters were relocated to Bangladesh under new President, Afia Akhtar. In recent years, there has been a fall in membership

in the 'developed' world; however, the activities of AGID in the Indian sub-continent demonstrate that a decentralised AGID can continue to function successfully as a regional network. The volunteer services of AGID officers keep the expenditures of the organizations low. UNESCO provides modest support to a regularly published regional geoscience Newsletter. AGID continued to distribute its journal Geoscience and Development in 2004. 700 copies of the S and W Asia edition of the Geoscience Newsletter were distributed worldwide. Plans are to make available these publications available on-line. A donation of \$30,000 from BHP Billiton of Australia paid for shipments of over 1600 individual titles and extensive holdings journals to Ghana, Uganda, Botswana and Cuba. AGID interfaces with several international projects bringing to them their experience with developing countries; for example, IYPE, the Geological Society of London, IAH and IGCP.

Cadet reported that AGID resolved its existential problems at its general assembly in Florence and decided that reform and continuation were better than closure. Decentralisation of activities is positive, mainly in the Indian Subcontinent (Bangladesh). The AGID network is serviced through a regularly published Geoscience Newsletter (over 700 copies) and the re-launching of a restructured website is planned for 2005. Though relatively modest due to the scarcity of available means, the activities of AGID, one of the few geoscientific organisation devoted to working in developing countries, should be encouraged and the total amount of the modest financial request should be granted (\$750).

#### 8. **Association Internationale pour l'étude des argiles (AIPEA)**

Cadet noted that no report was presented this year but from last year's report we understand that the main projects include setting up a website for all communications with membership, and preparation of the International Clay Conference in Tokyo in 2005.

#### 9. **Carpathian Balkan Geological Association (CBGA)**

The objective of this group is to promote and encourage joint fundamental and applied geological research, as well as training and specialization, in the Carpathian- Balkan realm. This concerns virtually all branches of the geological sciences (including geophysics), their environmental implications, and related disciplines. CBGA Interfaces internationally with IGCP, and partly with Central European Initiative (CEI), Section Geology. In 2004, the CBGA continued with the organisation of the XVIII Congress that will be held in September 2006 in Belgrade (Serbia and Montenegro). The First circular (call for the papers) for the XVIII Congress CBGA was distributed to 900 participants of the last two Congresses CBGA and 200 between National Committees. The last session (The XVII Congress of CBGA) took place from September 1st to 4<sup>th</sup>, 2002 in Bratislava - with over 400 participants from member-countries and guests. A session of the Board of CBGA took place May 24th 2004 in Belgrade with discussion and proposals for changes in the actual Statutes of CBGA.

De Mulder noted that from their report, CBGA seems to be in a dormant state to the reviewer. CBGA has no website yet. They will organize their next (18<sup>th</sup>)

Congress in September 2006 in Belgrade. CBGA requested financial assistance (unspecified amount) from the IUGS Grants Programme for this Congress. He recommended the Bureau to inform them that the IUGS Grant Programme is not meant for such purposes.

10. **Centre Internationale pour la Formation et les Echanges Géologiques (CIFEG)**

Its main goal is to facilitate multilateral exchange geoscientific knowledge between the North and South. CIFEG played a large part in the organisation of the 20th Colloquium of African Geology held in June 2004 in Orleans (France) and co-organised by BRGM and the Geological Society of Africa. The group participated in the 41st CCOP annual session on November 2004 in Tsukuba. In December 8-9, 2004, a restitution meeting was organised in Bangkok under the umbrella and participation of UNESCO and IUGS (the chairperson of CGI attended this meeting), which gathered representatives from SANGIS member countries. This meeting organised by CCOP and CIFEG, was co-funded by UNESCO and French Ministry of foreign affairs (including the CGI participation). The agenda dealt with the presentation of the Thesaurus first version (with 7 Asian languages only) in computerized format, the outcome, the dissemination policy, and its possible extension. In particular, there is a strong expectation for an upgrading of the AMT content. The final first version of AMT is expected in March 2005. It will comprise 9 Asian languages.

Cadet remarked that CIFEG is still having a very positive activity in its multilateral geoscientific knowledge-sharing role: in Africa with the new SIGAfrique project involving 11 African countries; through several workshops; and dealing with the integration of various data and geological information in an interactive Internet-based Geographic Information System. The PANGIS network is now partly integrated to SIGAfrique; in Southeast Asia with the programme SANGIS (SE Asian Network for a Geological Information System) and the Asian Multilingual Thesaurus realized in close cooperation with IUGS CGI. The first version is available and includes 7 Asian languages. Like AGID, CIFEG is one of the few organisations dealing with non-developed countries: it has a useful role, a good international insertion, and strong links with IUGS (via CGI).

11. **Commission for the Geological Map of the World (CGMW)**

CGMW aims to promote, coordinate, publish and disseminate of Earth Science maps at small scale of continental and/or oceanic areas of the World. Geological Surveys (or organizations responsible for national geological mapping) of all countries and territories of the World are statutory members, while others interested groups are allowed to join as Associated Members. CGMW produced various new maps in 2004 including of “The Map of the Indian Ocean”, the “Mediterranean Climex the Geodynamic Map of the Mediterranean,” the WHYMAP, the “Hydrogeological Map of the World,” and The Metamorphic Map of the Alps. In addition, the book "Mediterranean Basin Water Atlas" was published in cooperation with UNESCO Water Science Division. More than 5000 maps were distributed at GeoExpo in Florence, August 2004. The sales of maps increased significantly in 2004 due mainly to the diffusion of the CGMW

publications to the university and colleges. The sales income is essential to compensate the decrease in the revenues from membership fees and UNESCO support.

Moore commented that this Commission is launching or has in progress about 20 mapping programs. It has had difficulty maintaining membership revenues, and faces decreased UNESCO support, which it hopes to make up through sales of products.

## **12. Circum-Pacific Council for Energy and Mineral Resources (CPC)**

The Council develops and promotes research and cooperation among industry, government and academia for the sustainable utilization of earth resources in the Pacific Region. Its “Crowding the Rim Project” has created tools to promote cross-sector international discussion to mitigate regional catastrophes. These tools included: 1) HazPac, short for hazards of the Pacific is a compilation of digital data on natural hazards, population and infrastructure. See <http://www.hazpac.org>; 2) RimSim, short for PacificRim Simulation is a conflict negotiation simulation that provides an opportunity to address risk in an increasingly interconnected global community; 3) The CTR Educational Module, a set of secondary-level classroom curricula, was developed to educate young people and others about risk in the context of the Pacific Rim. A new initiative has recently established: “Powering The Rim” addresses the future of energy security in the Circum-Pacific region and an international conference is scheduled for 2006. The Initiative’s first completed product is now available through the AAPG and AGI, a 2-DVD set entitled, “Perspectives on Energy: today and tomorrow. Concerns, complaints and praise to the international geoscience community”.

Moore said that in the past year they have broadened their Mission to foster dissemination of geoscientific information for the public. Notable are HazPac; a data compilation on hazards, population and infrastructure, RimSim, a conflict negotiation simulation available in four languages, and a new initiative on energy security in the Circum-Pacific region.

## **13. European Association of Science Editors (EASE)**

Zhang reported that EASE is a non-governmental and not-for-profit organization operated exclusively for the advancement of science editing and educational purposes. (Since 2000, it has been a Company Limited by Guarantee in the UK). Membership at the end of the year was just under 900, with the number countries represented being 55; the breakdown of membership remains virtually unchanged at about 14% of members from countries outside Europe. EASE is an international non-governmental organization in category C relationship with UNESCO and category A liaison with Technical Committee 46 (Information and documentation/ Subcommittee 9 (Presentation, identification and description of documents) of ISO. In 2004 the Association held an Annual General Meeting in Barcelona, Spain. EASE continues to provide sponsored membership, from funds received from WERK (The Netherlands). The journal of EASE, European Science Editing, Volume 30, was distributed to members and subscribers.



Revision of the Science Editors' Handbook has proved to be a success, and at least nine new chapters are in the process of being written.

#### 14. **European Mineralogical Union (EMU)**

EMU members are national scientific societies from European countries, including Russia, with only one member per country allowed. It is dedicated to furthering European cooperation in the mineralogical sciences (mineralogy, petrology and geochemistry) and supports conferences within Europe of a high scientific standing and of an international character. In particular, it supports the Experimental Mineralogy, Petrology and Geochemistry (EMPG) and the European Union of Geosciences (EUG) meetings. In 2004 EMU gave sponsorship to the 'Tenth International Symposium on Experimental Mineralogy, Petrology and Geochemistry - EMPG' (Frankfurt/Main) and to the symposium 'Micro- and mesoporous mineral phases - mineralogical, crystallographic and technological aspects' (Rome). It also co-sponsored the '5th European Conference on Mineralogy and Spectroscopy' organized by the Austrian Mineralogical Society. EMU helped 56 institutional libraries facing serious financial difficulties (mainly in Eastern Europe and Latin America) by donating them free subscription of European Journal of Mineralogy. EMU published the sixth volume of the EMU Notes in Mineralogy: 'Mineralogy and Spectroscopy'

De Mulder reported that EMU is an active organization, just 18 years old, with an excellent track record in organising Schools, co-sponsoring International Conferences, widely spread over Europe and annually awarding medals for Research Excellence in Mineralogy, Petrology and Geochemistry. They do not request any financial support from IUGS.

#### 15. **Geochemical Society (GS)**

The Geochemical Society encourages the application of chemistry to the solution of geological and cosmological problems. Its membership is international and diverse in background, encompassing such fields as biogeochemistry, organic geochemistry, high and low-temperature geochemistry, petrology, meteoritics, fluid-rock interaction, and isotope geochemistry. The Geochemical Society sponsors (jointly with the European Association of Geochemistry) the V. M. Goldschmidt Conference, a broad-scope conference covering all aspects of geochemistry and cosmochemistry. The Geochemical Society sponsors (jointly with the Meteoritical Society) the professional research journal "Geochimica et Cosmochimica Acta," as well as a quarterly newsletter "The Geochemical News," a quarterly newsletter which distributed to all members. In addition, the society publishes two book series, the Special Publications Series and, jointly with the Mineralogical Society of America, the Reviews in Mineralogy and Geochemistry Series. The Geochemical Society sponsors (jointly with the European Association of Geochemistry) the V. M. Goldschmidt Conference, a broad-scope conference covering all aspects of geochemistry and cosmochemistry.

Riccardi said their report was limited to expose the overall objectives and broad description of organization. The importance of this society is clearly shown in the number of members, publications, and sponsored conferences.

16. **Geological Society of Africa (GSAf)**

This Society aims to promote the advancement of the geological sciences throughout the African continent by encouraging and supporting education, training, research, the establishment of national societies and local groups and the organisation of conferences and other meetings. In 2004, over 30 countries from Africa and elsewhere were represented at the Society's 20th Colloquium of African Geology (CAG20) organized at BRGM (France) The Society additionally supported, directly and indirectly five meetings in Africa and one in Florence during the 32nd IGC. Society members continue to be active in the IGCP programme, but largely under-represented. The Society will aim for the solid African representative in the IUGS IYPE initiative. The Society continued to maintain its homepage with the valued assistance of Elsevier Science and the production and dissemination of its newsletter AfricaGeonews. The work programme for 2005 will include the realisation of the Society's international conference, to be held in Cairo. In addition, it plans to give required support to the local organising committee of the 21st Colloquium of African Geology (CAG21), which will take place in Maputo, Mozambique in 2006.

Riccardi commented that GSAf submitted an informative, balanced, and well prepared Report. They have done important work in organizing conferences and in promoting national geological societies, in spite of enormous difficulties. IUGS financial moral and professional support is vital to maintain the GSAf activities.

17. **Geological Society of America (GSA)**

GSA is a broad, unifying scientific society, which hopes to foster the human quest for understanding the Earth, planets, and life, catalyzing new scientific ways of thinking about natural systems and applying geoscience knowledge and insight to human needs and aspirations and stewardship of the Earth. In 2004, a dramatic change in the area of publications took place as GSA participated as a founding member in GeoScienceWorld (GSW), which is a fully integrated electronic collection of 31 journals. February 25, 2005 is the launch date for GSW that will eventually include journals from around the world. The Society continues to expand its efforts to support student member activities. This past year, Council approved participation in the "Virtual Student Expo," a web-based system that will bring students together with industry, academic and governmental recruiters. Its' annual meetings, which attract over 6500 participants have been instrumental improving the Society's financial performance Future annual meetings are now planned through 2011 (2005 – Salt Lake City; 2006 – Philadelphia; 2007 – Denver; 2008 – Chicago; 2009 –Portland, Oregon, 2010 – Denver, and 2011 – Minneapolis).

Moore remarked that this is an international geosociety of about 17,500 members it seems to have made good progress in the past year. Notable is the

development of an all-electronic journal, Geosphere, and partnering in the founding of GeoScienceWorld (GSW), a fully integrated collection of 31 journals, including AGI's Georef.

18. **Geologische Vereinigung (GV)**

Janoschek reported that GV promotes the Earth sciences within the framework of modern society; fostering understanding between individuals, organisations and institutions is regarded as being an important part of its role, which it undertakes through promoting Annual Meetings, short courses and excursions. 500 scientists attended its annual meeting held jointly with Societe Geologique de France in September 2004 in Strasbourg. Represented at the meeting was EUCOR-URGENT, an international project of the universities of Strasbourg, Freiburg, Karlsruhe and Basel on the Upper Rhine Graben. The symposium was well attended, and there are plans for a book that will be part of a series published together with Societe Geologique de France. In 2004 year, the ranking of the International Journal of Earth Sciences (Geologische Rundschau) improved as reflected by journals citation index, now at 1.878. Since 1996, all articles have been available on-line. In 2004, subscriptions declined; however, this appears to be compensated by the distribution in on-line packages to libraries. The society communicates with its members by GMit (Geowissenschaftliche Mitteilungen), a quarterly jointly edited with the other earth-science societies of Germany, and its website. Janoschek also noted that is worth noting for that GV spends about 12 % of its budget for public relations.

19. **International Association for Engineering Geology and the Environment (IAEG)**

Bobrowsky reported that the Association is devoted to the investigation, study and solution of the engineering and environmental problems, which may arise as the result of the interaction between geology and the works and activities of man as well as to the prediction and the development of measures for prevention or remediation of geological hazards. IAEG is a worldwide scientific society with more than 5500 members in 66 National Groups and in individual memberships. The Association cooperates with a number of other international bodies (IAH, ISRM, ISSMGE and COGEOENVIRONMENT) and for sees to cooperate with these groups on several topics including education and training, professional practice, sustainable use of underground space, ancient monuments, soft rocks and indurated soils. The Association publishes The Bulletin of Engineering Geology and the Environment, distributes a newsletter and runs nine Commissions. An IAEG international congress is held every four years, and its 10th in Nottingham in 2006 and will be entitled "Engineering for tomorrow's cities." Every two years a medal and a prize are awarded: The Hans Cloos Medal (senior award) and the Richard Wolters Prize specially recognises meritorious achievement by a younger member of the engineering geology profession.

20. **International Association of Geomorphologists (IAG)**

IAG was founded to promote and develop collaboration in geomorphology between nations and affiliation is via National Scientific Members. IAG runs a

number of working groups and task forces, such as those on Arid Regions, Geoarchaeology, Large Rivers and Volcanoes. The Association also sponsors conferences and publishes scientific material. IAG's income is derived from annual fees paid by affiliated National Scientific Members. Changes in the IAG constitutions now give member organizations from severely low income countries exemption from fees provided they submit annual report of their activities. In 2004, several students in Geomorphology from Eastern Europe were provided grants order to allow them to participate in various international training courses. The IAG Executive Committee believes that it is important to broaden the scope of such grants. The next International Conference on Geomorphology will be held in Zaragoza, Spain, between 7<sup>th</sup> to 11th September 2005 and its second circular has been issued. An International Conference on Natural Hazards sponsored by UNESCO, IUGS and IAG was planned to take place in Oum el Bouaghi, Algeria, 26th February to 4th March 2005.

Bobrowsky reported that IAG is very active in publishing, and they have a very positive approach to cooperation with other bodies. They achieve a lot with just \$20 membership fee however, the report does not seem to disclose all the financial sources.

21. **International Association on Geochemistry and Cosmogeochimistry (IAGC)**

The IAGC is a pre-eminent international geochemical organisation whose prime objective is to foster co-operation in, and advancement of, geochemistry in its broadest sense. They sponsor meetings and publications organised by to Working Groups to study problems that benefit from international co-operation. In 2004, IAGC changed its name to International Association of GeoChemistry to better reflect its objectives, member interests and journal "Applied Geochemistry". They joined with 6 other geochemical societies to provide a new international magazine: "Elements". Sessions were held at the 32nd IGC (Florence) and at the Annual GSA Meeting (Denver). The International Ingerson Lecture was delivered at the 32nd IGC by Prof. Stephen Moorbath. Future plans include sponsoring and assisting in organising the 15th Annual Goldschmidt Conference (Idaho), Geochemistry of the Earth's Surface (Aix-en-Provence) and Applied Isotope Geology (Prague).

22. **International Association on the Genesis of Ore Deposits (IAGOD)**

Schneider reported that the Association's principal objective is to foster cooperation in, and advancement of, geochemistry and cosmochemistry in their broadest sense by working with any interested group in planning symposia and other types of meetings related to geochemistry, by sponsoring publications on topics not normally covered by existing organizations; and by the appointment of Working Groups to study problems that require, or would profit from, international cooperation. In September 2004, 164 people attended the Interim IAGOD Conference that was held in Vladivostok, Russia and carried the title 'Metallogeny of the Pacific Northwest'. During the IGC, IAGOD convened four symposia and one workshop. In addition IAGOD continued to support IGCP-486 activities. Ore Geology Reviews is the official journal of the association. Various

following books were published by IAGOD in 2004. The three societies continue to find ways to contribute towards the Year.

IAGOD plays a vital role in ore deposit research, together with other bodies (SGA, SEG, IGCP), with whom they cooperate. There is, however, a bias towards eastern countries, and it would seem appropriate, if their efforts could be extended to include other parts of the World. It is noteworthy, how much is achieved by IAGOD with small financial contributions by its membership. IAGOD did not receive a subsidy from IUGS in 2004.

### 23. **International Association of Hydrogeologists (IAH)**

IAH aims to contribute to the advance public education and promote research in hydrogeological sciences. IAH is an organisation of more than 3700 individual members from over 140 countries. In parallel with the preparation for the World Water Forum IAH continues in international partnership projects with UNESCO. The most significant are WHYMAP (Hydrogeological Map of the World) that reached a significant benchmark in its development with the publication and presentation of a special edition of the world map at the IGC in Florence. The 2004 Annual Meeting of IAH was held in Zacatecas, Mexico during the XXXIII Congress of IAH. The main theme of the congress was “Understanding Groundwater Flow from Local to Regional scale”. The Hydrogeology Journal, published 12 times a year by Springer, received approximately 200 manuscripts for review. IAH also continue to publish an annual Spanish/Portuguese journal in cooperation with IGME (Spain) and UNESCO. During 2004 the ownership of their book-publishing partner, Balkema, transferred to Taylor and Francis Publishers. Because of delays induced by this change no new publications appeared in 2004.

Zhang mentioned the names of the new Council: elected with Prof. Stephen Foster, United Kingdom, as the President, Dr. Miram Veselic, Slovenia, as the Secretary-General and Prof. John M (Jack) Sharp, USA as the Treasurer.

### 24. **International Association for Mathematical Geology (IAMG)**

Matsumoto commented that this specialist Association ([www.iamg.org/](http://www.iamg.org/)), with 453 members from 49 countries members, aims to promote international cooperation in the application and use of mathematics in geological research and technology. This is done through the organization of meetings, field excursions and visits to centres of research and technology, through publications and through cooperation with other professional organisations. Already in 2000, the Association began to run a Student Grants Programme that supports graduate student research in broad areas of mathematical geology for the purposes of advancing the development and application of quantitative methods in the geosciences. The Association publishes Computers & Geosciences (now on-line), Mathematical Geology and Natural Resources Research. During the 32nd IGC, this group held its 9th General Assembly and five symposia and four short courses. IAMG’s Lecture Series was highly successful last year: Frits Agterberg toured the Southern Hemisphere and gave fourteen lectures. This series serves to

increase the visibility of mathematical geology and the organization. Toronto was selected as the site of the IAMG'05 (21-25 August 2005).

25. **International Association of Sedimentologists (IAS)**

IAS promotes the study of sedimentology by publications, discussion and comparison of research results, by encouraging the interchange of research through international collaboration and by favouring integration with other disciplines. Membership has gently decreased because of the process of online registration, with 1700 members from 97 countries in the year 2004. In September 2004, IAS held the 23rd Meeting of Sedimentology in Coimbra, Portugal attended by 340 participants representing 36 countries. In addition the group sponsored conferences and workshops in Argentina, Hungary, Slovakia and Germany. The IAS friendship scheme for scientists and libraries in developing countries continues. In 2004, 165 individuals and 36 libraries benefit. The new IAS Postgraduate Grant Scheme offered 28 grants, ranging from 850 to 1000 Euros, to young researchers from 15 different countries.

Brambati commented that the IAS during 2004 continues to promote the study of Sedimentology by publications (Journal of Sedimentology), discussion and by interchange of research through international collaboration. Appreciable were the lectures tour. This policy will continue during 2005. It has to be highlighted the organisation for the first time of an International Summer School of Sedimentology. It is appreciable the policy to encourage young sedimentologists from countries where funding is lacking.

26. **International Consortium on Landslides (ICL)**

Bobrowsky reported that ICL is involved with international co-ordination, exchange of information and dissemination of research activities and capacity building through various meetings, dispatching experts, developing a landslide database, and publishing its journal "Landslides". Four issues of the journal were published and distributed in 2004. ICL's central activity is the International Programme on Landslides (IPL). The construction of the headquarter building of UNITWIN (university twinning and networking) was jointly conducted by ICL, UNESCO and Kyoto University. IPL also interfaces with IGCP 425 and IGOS. The 4th International Symposium on landslide risk mitigation and protection of cultural and natural heritage was held Kyoto University on 15-16 January 2005. At session 3.8 of the World Conference on Disaster Reduction held in Kobe on 19 January 2005, K. Sassa, P. Lyttle and W. Eder represented ICL and presented the IPL activities. A 'Letter of Intent' for a holistic approach in research and learning on 'Integrated Earth system risk analysis and sustainable disaster management' was agreed and signed by organizational leaders. Brochures for both the ICL and IPL were published and distributed at WCDR-Kobe.

27. **International Federation of Palynological Societies (IFPS)**

Currently, 22 societies are members of IFPS and the number of affiliated palynological societies and members increased in the beginning of 2005. The main events were the XIth International Palynological Congress, Granada, Spain,

a new third edition of the World Directory of palynologists and election of a new President and some councillors. The XIth International Palynological Congress was held in Granada, Spain (July 4- 9) and was attended by 671 registered palynologists. The participants included palynologists from 52 nations. A total of 315 talks were presented in 37 symposia in four concurrent sessions; and there were 367 poster presentations. The abstracts were published as Volume 14 of the journal "Pollen". Ten proceedings volumes are planned for publication in various international journals. The IFPS Council selected Bonn, Germany as the site of the next, IPC-XII the in August 2008. The third edition of the World Directory of Palynologists was edited due to enormous effort and work of Past-President, Owen Davis. The Directory contents the list and contacts for about 3000 palynologists in all parts of the world.

Riccardi said that from the brief submitted report it is clear that all activities planned for 2004 were successfully accomplished, and number of membership has increased. IFPS appears as the most important international forum in its field.

#### 28. **International Geological Education Organisation (IGEO)**

The Organisation promotes education in the geosciences at all levels, works for the enhancement of quality in the international provision of geoscience education and encourages all developments that raise public awareness of the geosciences, in particular amongst younger people. At the 32nd IGC, IGEO convened three well-attended sessions all which included oral and poster presentations and more than 50 abstracts were submitted indicating the high level of interest. Chan-Jong Kim, IGEO Vice-President of IGEO hosted the first meeting of the International Earth Science Olympiad (IESO) at the Seoul in November 2004. During IESO international leaders of Earth science education and Earth science presented their nation's status and curriculum of earth science education. At the August 2003 IGEO Council meeting in Calgary it was agreed that IGEO would help develop the IUGS Commission on Geoscience Education (see: COGEOETT). The Commission met in November to establish an action plan, its budget as well as discrete tasks for the next twelve.

Zhang added that the next four-yearly international conference of IGEO is to be held in Bayreuth, Bavaria, Germany, in September 2006.

#### 29. **International Mineralogical Association (IMA)**

IMA comprises 38 mineralogical societies or groups (one per country) with a limited number of individual memberships. The Association promotes intercourse among mineralogists of all nations by organising events or publishing relevant literature. In 2004, the IMA was sponsored three large meetings: the IGC (Italy), the 8th International Congress on Applied Mineralogy, ICAM 2004 (Brazil) and the 5th International Conference on Mineralogy and Museums (France). Beginning in 2005, news on IMA activities will become a regular feature of "Elements", a journal devoted to Mineralogy, Geochemistry and Petrology a magazine and created by several national (Canada, Great Britain and Ireland, USA) and international societies (GS, Clay Mineral Society).

Riccardi noted that IMA's Annual Report was very detailed, and informative. Important items are: 1) participation of IMA and its membership in 29 scientific sessions of the last IGC, where it was decided to be better integrated within the organization of the next IGC; 2) activities of the Commission on New Minerals and Mineral Names (CNMMN), which in 2004 received 68 new mineral proposals; 3) activities of the Commission of Gem Materials (CGM), which is preparing an illustrated glossary of minerals; 4) the new Working Group on Environmental Mineralogy (WGEM), which is under constitution, and among other items it will include "mineralogy and health"; 5) working of the Committee on Internet and Computer Applications (CICA) in the development of an interchange file format for the various mineralogical databases, in order to set up a world-wide standard. IMA is a very important organization, and IUGS should promote the more intensive use of its expertise by other IUGS bodies and projects.

30. **International Palaeontological Association (IPA)**

IPA's 1200 members and nineteen corporate member organisations aim to promote and coordinate international cooperation in paleontology and to encourage the integration and synthesis of all paleontological knowledge. In 2004 IPA sponsorship was granted to the several meetings: The IV International symposium on Extant and Fossil Charophytes, (New South Wales, Australia); The 15th International Symposium on Ostracoda (Berlin) and The Evolution of life on the Earth, ELE-2005, Tomsk, Russia. The new homepage contains a link to fossil collections of the world, to a very popular directory of paleontologists and to a PalaeoLink database. A brief article (Aldridge et al., 2004) describing the IPA was published in its journal *Lethaia* 37(1). A similar article about the IPA and its activities was posted to the electronic mailing list PaleoNet. Corporate members of IPA and organizers of paleontological meetings are encouraged to refer to these articles.

Brambati remarked that the IPA annual report was very detailed and accurate. The intensive activity can be summarised in a high policy of diffusion of the activities. Beijing will host in 2006 the Second International Congress.

31. **International Permafrost Association (IPA)**

The objectives of IPA include the dissemination of knowledge concerning permafrost and the promotion of cooperation between persons and organisations engaged in scientific investigations and engineering work on permafrost. Twenty-three national/multinational organisations form the basis of the membership, although individual membership is possible if no national body exists. Ten working and three task groups covering a range of topics undertake scientific work for the Association; many of these are involved in collaborative work with a very wide range of international bodies, including IUSS, IPA, IGU, the International Commission on Snow and Ice and with bodies within IGOS (GCOS/GTOS). The Association publishes *Frozen Ground* and contributed special issues to several other journals. In commemoration the 125th anniversary of the International Polar Year the group has continued developing "Thermal State of Permafrost" (TSP) which proposes to obtain a "snapshot" of permafrost



temperatures throughout Planet Earth during the period 2007–2008. The post-IPY and Planet Earth “Legacy” goal for the TSP project is to establish a permanent International Network of Permafrost Observatories (INPO). Several relevant working groups are considering ways to input to the themes of the International Year of Planet Earth (including soils, hazards, and climate).

Riccardi said that the IPA Annual Report includes a long list of activities, including participation in scientific meetings, and in various programmes sponsored by important International organizations. Regrettably there is not detailed information on the actual situation of each programme or project. A major project is: “Thermal State of Permafrost” (TSP), which together with WMO Global Terrestrial Network for Permafrost (GTN-P) will support IUGS Geoindicators Initiative, and will result in the establishment of a permanent International Network of Permafrost Observatories (INPO). IPA is also an affiliated member of the IGU. Co-operation in different programmes sponsored by ICSU (IGBP, SCAR, SCOPE), WMO, IGU, IUGG, INQUA, ICO, IASC, IUSS, IUBS, IUMS, places IPA at the crossroads of important scientific research projects on climate related subjects.

Riccardi also noted in their report it mentioned that IUGS provided \$2000 for initial development of the Project “Thermal State of Permafrost” –TSP, and that a planning and implementation proposal was submitted to IUGS for 2005 consideration.

### 32. **International Society for Rock Mechanics (ISRM)**

The ISRM operates in the field of physical and mechanical behaviour of rocks and rock masses and the applications of this knowledge for the better understanding of geological processes and in the fields of Engineering. In 2004, ISRM held its International Symposium (Kyoto); various regional symposia (Austria and China) and annual meeting in Kyoto (Board, Council and Commissions). In addition the Rocha Medal was awarded, two issues of the ISRM News Journal were published and six new Commissions were appointed. Its website, which they plan to expand, provides information about the association, its national groups, commissions and meetings. The group continues close co-operation with the Sister Societies IAEG and ISSMGE. Its chief products include publishing of the proceedings of the 10th ISRM International Congress and its regional symposium. The Society envisages planning and undertaking certain scientific activities with IUGS, such as the study of geological problems.

Zhang noted that in addition to what has been mentioned in the above summary, ISRM maintained its busy activity in 2004.

### 33. **International Society of Soil Mechanics & Geotechnical Engineering (ISSMGE)**

The aim of the Society is to promote international co-operation amongst engineers and scientists for the advancement and dissemination of knowledge in the field of geotechnics, and its engineering and environmental applications. The

ISSMGE is composed of 75 national societies and over 17,000 individual members. In 2004, it held one board meeting in Auckland, New Zealand (February) and another in San José, Costa Rica (July). With its sister societies ISRM and IAEG, ISSMG has established a Joint Task Force that has proposed the establishment a Federation of International Geo-engineering Societies (FIGS), which would function as an umbrella for the three groups. The Board decided to re-launch the ISSMGE newsletter in electronic format and which was circulated in October 2004. The content would be primarily reports on touring lectures, recent publications, and important events in the various regions and a calendar. The ISSMGE Board has considered the possibility of publishing (and/or making available via the website) lecture material, Technical Committee reports, State-of-the-Art reports, keynote lectures and workshop material as part of the educational responsibility of the ISSMGE.

Moore reported that this society has launched an electronic newsletter, considered making available lectures, technical reports. It has several Task Forces, notably on Information Technology, Professional Practice, Industrial Liaison, Education, and is looking at a possible Federation of International Geoen지니어ing Societies.

34. **International Union for Quaternary Research (INQUA)**

The Union seeks to improve understanding of environmental change during the glacial ages through interdisciplinary research. INQUA's main focus is interdisciplinary studies of the Quaternary era with geology as one item. The Union, which has 44 National and geographic members, mostly in Europe, conducts its scientific activities through five scientific Commissions: Coastal and marine processes (CMP); Palaeoclimate (PALCOM); Paleoecology and Human Evolution (PAHE); Stratigraphy and Chronology (SACCOM) and Terrestrial Processes, Deposits and History (TERPRO). Two issues of Quaternary Perspectives have been published. Ten issues of Quaternary International (the official journal of INQUA) have been distributed in 2004, as have a number of special issues and other publications of the Commissions. INQUA interfaces with many IGCP projects, as well as with the IGBP initiatives on Global Change. INQUA has during many years interfaced with IUGS through CLIP and PAGES. Several of the INQUA meetings have been joint meetings with IUGS, and INQUA and IUGS have also cooperated on a project proposal to ICSU that was successfully approved (Dark Nature).

Brambati noted that INQUA points out that it is difficult to keep its members as long as the union is not a full member of ICSU. It was recommended by the International Council in Reno to reapply. Brambati remarked that the work plan for future years rich of initiatives and of funded projects in several fields. The Annual Report also contains an exhaustive the summary of expenditures.

35. **The Meteoritical Society (MS)**

Matsumoto said that this group had not submitted a report. From its website and previous reports we see that the Society, founded 1933, promotes research and education in planetary sciences, with an emphasis on studies of meteorites and

other extraterrestrial materials that further the understanding of the origin of the solar system. The society has c. 950 members in 37 countries. The Society publishes its own journal, *Meteorites and Planetary Sciences* and also the *Meteoritical Bulletin*. Ten subscriptions of the former journal were donated by members to libraries in countries where the journal is not available. Some 1899 new meteorites, mostly from Antarctica were described. The Society also publishes *Geochimica et Cosmochimica Acta*, together with the Geochemical Society.

36. **Society of Economic Geologists (SEG)**

This Society is an international body that is committed to excellence in science, discovery, documentation, interpretation, evaluation and responsible development of mineral resources and the professional development of its members. In 2004, SEG membership in all categories totalled 3,569, about 1% higher than the total of 3,527 at the end of 2003. Members are currently distributed through 82 countries worldwide. SEG cosponsored or sponsored several events throughout the year including: International Symposium on Eastern Mediterranean in Geology (Greece); a workshop on VMS deposits in Asmara (Eritrea); CODES 24 carat Gold Workshop (Tasmania) and Geoscience Africa meeting (South Africa) and the UNESCO-SEG Course on Metallogeny (Argentina). They also organized a major conference entitled the “Predictive Mineral Discovery under Cover” (Australia). The Society supports its members by publishing several journals, including *Reviews in Economic Geology*, and a Special Publications series (including N° 10 Volcanic, Geothermal and Ore-Forming Fluids: Rulers and Witnesses of Processes within the Earth) and videotape (N°13) was produced. Finally, SEG awarded US \$ \$82,600 in grants to student research, mostly to assist in laboratory and field expenses.

Riccardi commented that during the last year the SEG has increased its membership, and activities throughout the World. It has organized all kind of meetings, and lectures, awarded student research grants, and edited leading publications in the field of mineral resources. SEG is a leading international society in its field, and its relevance for important societal issues is indicated by having cosponsored meetings with many national and international organizations, including UNESCO and CSIRO.

37. **Society for Geology Applied to Mineral Deposits (SGA)**

The Society aims to advance the application of scientific knowledge to the study and development of mineral resources and their environment, to promote the profession and to improve and maintain professional standards. The Society has been growing quickly, especially since 1995 from about 450 members to about 730 members in more than 70 countries in 2004. At the 32nd IGC, the SGA Executive Secretary took part a meeting of IYPE, an IUGS initiative that the Society fully supports. Hence, the SGA Executive Committee decided to announce the 8th SGA Biennial Meeting (August 18-21, 2005 Beijing, China) as a contribution to IYPE (a logo of IYPE was placed at prominent site of Conference materials). The SGA Young Scientist Award is granted biannually to a scientist 37 under who has contributed significantly to understanding of mineral

deposits. The Society publishes the journal *Mineralium Deposita* and SGA news. The SCI factor of their journal has increased from 0.630 in 1997 through 1.390 in 2001 to 1.969 in 2003 and the journal is confirmed to be number one amongst Mineral Deposits Journals worldwide.

Riccardi reported that during the last year, the SGA has been active, mainly in co-sponsoring six scientific meetings, and editing the journal *Mineralium Deposita*. It has a joint project with other societies (SEG, IAGOD) to produce an educational DVD movie entitled “Promoting Responsible Mineral Resource Management for the Planet Earth. It would be useful to promote joint SGA - SEG adventures.

### 38. **Society for Sedimentary Geology (SEPM)**

SEPM is an international not-for-profit Society dedicated to the dissemination of scientific information on sedimentology, stratigraphy, palaeontology, environmental sciences, marine geology, hydrogeology, and many additional related specialties. The Society supports two major scientific journals, the *Journal of Sedimentary Research (JSR)* and *PALAIOS*, in addition to producing technical conferences, short courses, and Special Publications. In 2004, SEPM held a five-day research conference titled, “Recent Advances in Shoreline-Shelf Stratigraphy” in Colorado USA where over fifty academic, government and industry professionals and students participated. The organizing group is planning a special publication based on many of the presentations. The SEPM Foundation, Inc. continues to award student grants to those pursuing research in sedimentary geology. To date over \$230,000 has been dispensed from the foundation. In 2004, the foundation supported 15 student presenters with travel grants to the Annual Meeting as well as several graduate student research grants. The foundation is also playing a key role in supporting the digitization of the past issues of *PALAIOS*.

Brambati remarked that there was intense activity within SEPM. Several field trips have been organized and as many short courses. Excellent papers have been published in the *Journal of Sedimentary Research*, not to mention a special publication (4 special issues) and several research conferences.

## 7) **REPORTS ON CO-OPERATIVE ENTERPRISES**

### 7.a. **Situation of Earth Sciences in UNESCO**

Robert Missotten began by commenting that Earth Sciences in UNESCO is following a trend of shrinking resources and funding. It is not longer a task to fund all disciplines of geology. There has been the strong recommendation to reduce the number of activities. Funding increased a little during the period 2004 to 2005. However, for the 2006 to 2007 budget, funding levels will decrease, ostensibly because of terrorist issues. Staffing levels at UNESCO are being reduced but member countries are still contributing. A working group will be formed to discuss how working groups can be revised and reduced in numbers.

Missotten then outlined the restructuring of UNESCO. Their Director General has suggested a focus on key science priorities for new divisions be based around

Water sciences. The new divisions are: a) Ecology and Earth Science, and b) Basic and Engineering Science. These divisions will fulfil the roles of past sections. The DG will be tackling a new budget at the meeting in April 2005 to ensure that funding will remain at the same level for 2004 to 2005.

Serious problems still remain. The lack of resources in UNESCO Science is a problem. Courses at post-graduate level have now less possibility to be funded. Member states want sustainable development and natural hazards to be a focus for UNESCO in coming years. Project activities should be couched in the framework of Earth Observation. Geoscience is the only science that has no such observation system. IUGS should work together with UNESCO and go beyond this.

Missotten commented that the ICSU GeoHazards programme will be discussed in the near future and IUGS should be associated to the program. The other GeoUnions are in favour of this, and it may be possible for UNESCO to help to get IUGS involved. If the GeoUnions form a stronger group together, Missotten would like have stronger associations with this initiative. IUGS should also seek cooperation with between Earth Science, Ecology, IAH and IOC.

Bobrowsky noted that many scientists have expressed their concern about the termination of Earth Science in UNESCO. The first reaction from the partners was to preserve the status quo. Now it is about how to strengthen and how to progress. The climate has changed and there is now the possibility to take more positive actions. There is a clear understanding for an interdisciplinary approach and a need support to the IGCP Scientific Board.

Missotten responded that there should be an exchange of views with the IUGS Executive Board. More IGCP project proposals are received than before. Some 48 projects were approved at the meeting in January, which is quite the opposite of what the UNESCO and Missotten wanted. He also questioned how projects could be evaluated. The evaluation has an impact on the number of projects that are approved. Even if the evaluation is good some get a low funding, and some only seed money. UNESCO is dependent on the payment by the member states, and therefore requires that the output is relevant for the societies.

Bobrowsky asked about IGCP funding, expressing concerns the budget will be less and wondering about decreasing funding for board members. Bobrowsky also commented that thematic groups should be re-structured to meet priorities. Missotten replied that the US government funding for IGCP is going to continue, although Walter Erdelen (the DG) has informed him about the worry about the lowering of the support to IGCP. Missotten also briefly commented on co-funding of groundwater in IAH. Extra budgetary seed money from industry is needed and will be an important source of funding in the future. He ended by mentioning that different budgeting models are being proposed.

Haldorsen asked why UNESCO grouped Earth Sciences together with Ecological Sciences. Missotten responded that it was an economic decision. Administration and budgetary commonalities between ecology and earth science divisions is seen as the reason for their merger.

### **7.b. IUGS/UNESCO International Geoscience Programme (IGCP)**

Bobrowsky reported on the IGCP. IUGS and UNESCO jointly initiated the International Geological Correlation Programme in 1972 with the aim of providing funding for promoting research in the Earth sciences. The current objectives of IGCP are to increase understanding of the environment, to assist in the improvement of human welfare, to establish better methods for finding and assessing the natural resources of the world, to further our understanding of geological processes and to improve research methods and techniques in the geosciences.

Proposals submitted to IGCP are reviewed by a Scientific Board, consisting of four working groups, each covering different aspects of geology: Working Group 1 - Stratigraphy, Palaeontology, Sedimentology and Fossil Fuels; Working Group 2 - Quaternary, Environmental and Engineering Geosciences; Working Group 3 - Mineral Deposits, Petrology, Volcanology and Geochemistry; Working Group 4 - Geophysics, Tectonics and Structural Geology; Working Group 5 - Hydrogeology.

Bobrowsky noted that IGCP has been more successful than any other programme. UNESCO will not change the decision about re-organisation of the Earth Sciences. However, some countries will bring the matter up in the April meeting. He said that the IGCP was overwhelmed by the support from societies, individuals and organizations. There is a groundswell to protect the IGCP. IUGS has drafted template letters of action for concerned parties to circulate around news media and politicians.

Key actions to preserve IGCP included meeting with UNESCO representatives and contacting ambassadors. IGCP is not happy with the structure of the new divisions: the linkages are unclear and the decision seems to have been politically motivated rather than science-based. Bobrowsky also outlined the current division of funding: a) \$75,000 from the US Government; b) \$20,000 from IUGS; c) \$300,000 from UNESCO. Of the UNESCO contribution, \$180,000 goes to project funding and \$140,000 is spent on management. Starting in 2006, funding is to be reduced for both science and management of some 40 projects. The popular belief that funding should continue. Bobrowsky listed the options open to IUGS:

- 1) Accept budget cuts
- 2) Accept less funding
- 3) A combination of 1) and 2)
- 4) Change the evaluation process
- 5) More money from IUGS at the expense of funding other projects
- 6) Funding from other sources (e.g., industry)

Missotten commented that the structure of the IGCP working groups and project management is outdated and needs to be modernized. IUGS and UNESCO have to approve when the structure is changed. The UNESCO Director General's two years term was now focused on water, but that it can be changed after two years. GeoUnion activities are very impressive. He wondered if it might be possible to get

more funding to IGCP from IUGS. Due to the fixed costs, there it will be a deficit of \$150k to \$160k for the coming year. US funding of \$75, 000 will go through ICSU and UNESCO to IGCP. De Mulder asked what Missotten meant by more modern project management? Missotten replied that a working group aims to report on this question. The IGCP re-evaluation is creating a large pool of expertise and focusing proposals on water and geo-hazards.

Haldorsen added a few comments, first addressing the maintaining of funding to projects covering the geological spectrum and noting that if funding levels lower, the number of projects will fall. It is essential that projects become more thematic and interdisciplinary. There is a need to focus on special and relevant projects. IUGS needs to make sure that interest does not sink because funding levels are dropping. IGCP and IUGS must focus on important topics. Haldorsen also wondered whether more funding could come from national committees. IUGS has to use funding avenues more effectively.

Janoschek said that administration costs were too high and asked if it was necessary to meet physically each year. He wondered what the national committees will say if UNESCO changes the IGCP completely. Cadet asked whether IUGS could contribute more and about interdisciplinary research. He also wondered about how the top-down process could change focus to one that is more appealing to UNESCO. Schneider commented briefly that constructive work should be looked at.

Uri Shamir commented that there might be redundancy in projects if IUGS and IGCP moved into IHP territory. He suggested that it would become a matter of competition versus cooperation with other divisions. Following the ICSU model, various divisions should combine efforts when there are mutual benefits. IHP has been very successful. Projects on water or hazards should be joint initiatives with IHP.

Missotten ended the discussion by reiterating that UNESCO is very happy with IUGS directions. The he was nervous, but positive, and looking forward to sustained cooperation and work with IUGS.

### **7.c IUGS/UNESCO Progress on Geological Application on Remote Sensing (GARS)**

The critical accomplishment during 2004 was the formal publication in April 2004 and, subsequently, the widespread promotion of the Integrated Global Observing Strategy for Geohazards. The final glossy publication was unveiled at the 11<sup>th</sup> Plenary of the IGOS Partnership in Rome in June 2004. Promotion of the strategy included the major, four yearly Congresses of the IUGS, covering the geosciences, and the International Society for Photogrammetry and Remote Sensing, for the Earth Observation community, as well as the International Astronautical Congress, capturing the space agency community. Also important was the restructuring of the GARS Programme to include active participation of the space agencies with the geological surveys. Buy-in to the GARS Programme was achieved at Director level in both the Japanese Space Agency (JAXA) and the United States Geologic Survey, USGS. A GARS-IGOS Geohazards Joint

Committee was established successfully. Also of note was the establishment of the IGOS Geohazards Executive Bureau within the BRGM in November 2004. This full-time office will be the vehicle for coordinating the implementation of the strategy. Importantly, it will allow the GARS Programme to place less emphasis on IGOS in 2005 than in recent years and so to develop the next GARS theme, groundwater and transboundary aquifers.

#### **7.d. IUGS/UNESCO Mineral Resources Sustainability Programme (MRSP)**

De Mulder began by noting that the Mineral Resource and Sustainability Project was a long-term project. It was asked to change directions and to make it more environmental. This was not done, and so it was to be terminated. If IYPE is approved, UNESCO will take on the board responsibility, but has no money to cover the costs for the Secretariat. Therefore, this has to be looked into.

Brambati summarized the activities and developments of MRSP during 2004. He commented that the aim of programme is to advance and facilitate the transfer of geoscientific knowledge and expertise in mineral deposit modelling for use in exploration, resource and environmental assessment. In 2004, MRSP co-sponsored a session at the 32nd IGC in Florence on Global and Continental-Scale Mineral Resources Assessments (including 17 oral presentations and 18 posters).

Brambati emphasized that the main objectives of MRSP fit perfectly within IUGS science policy. Of the six new directions for the development of sciences, the fifth is “managing resources and sustaining the environment”. During 2004, MRSP developed activities concerning expertise in mineral deposit modelling for use in exploration, resource assessment and transfer of knowledge to developing countries. It co-sponsored a session at 32<sup>nd</sup> IGC in Florence, with presenters from 13 countries. The USGS, which led the committee since early 1990s, is now unable to continue; moreover the Geological Survey of Finland who provided the Secretariat for the last 5 years now wishes to relinquish that role. Fortunately BGR has agreed to provide the steering committee chairman while BRGM provided the Secretariat.

There are some problems. Following the recommendation of IUGS and UNESCO, MRSP planned to convene a meeting of experts in Paris but neither IUGS nor UNESCO was able to make the funds available, so the meeting was cancelled.

IUGS and UNESCO recommended a field workshop in 2004, but it too was cancelled due to lack of funding. For 2005, MRSP needs to convene the meeting of experts that was cancelled in 2004 and begin the leadership transition. It plans to undertake fieldwork in 2006. To enable the work of MRSP, due to the very intensive past and planned activity for 2005, it is necessary that IUGS considers to support financially the activities, taking into account that home institutions of steering committee members will support the cost of travel to routing meetings.

#### **7.e. IUGS-UNESCO-IGU Geoparks Initiative (GEOSEE)**



Janoschek gave a short presentation on progress with the Geoparks/GEOSEE initiative. Janoschek reported that GEOSEE is a joint initiative of IUGS, UNESCO and IGU which serves as an international entity between UNESCO Global Geoparks, the European Geoparks Network and the Chinese Geoparks and many existing activities in the field of geological parks, geoconservation, geotourism and sustainable development. The name GEOSEE was arrived at after the name GEOFUN was rejected because it was not too business-like.

IUGS had organized a multinational/multi-agency meeting in Utrecht at the end of November 2003, which led to a small meeting of experts in February 2004 in Paris and finally to the creation of GEOSEE during the 1st UNESCO International Conference on GeoParks in China in June 2004. A Secretariat was established at CAGS (Beijing) where Zhao Xun serves as the Secretary General and the Treasurer of GEOSEE. The Chinese donated an Italian-style villa at the GEOSEE head offices, the official opening of which was attended by local dignitaries.

Terms of Reference were established in December 2004. In the near future, the Task Force intends to examine the possibility of becoming an international (scientific) body, formulating statutes and byelaws, and the development of a four-year work plan.

Janoschek noted that the group intends to expand its address database include addresses from UNESCO Global Geoparks, National Geoparks and National Parks. The group plans soon to establish a home page and produce a preliminary electronic newsletter. During the year 2006 the main work will be completed to transform GEOSEE from an IUGS Initiative to an official international Association or society. From now until 2006, financial support from mother organizations will be necessary. However, starting from 2007, GEOSEE should be able to gain financial autonomy.

To date, achievements include: 1) a Task Force comprising a group of interested parties; 2) a Mandate of Operations; 3) Terms of Reference; and 4) a List of Objectives and Partners. Janoschek submitted a status report to the EC. For the future, GEOSEE aims to define the organization, establish statutes and bylaws, and set up regional chapters. New members will be attracted in Mexico. Janoschek hopes this new organization will compliment the planned IYPE.

Bobrowsky reminded the EC and observers that this new activity parallels ProGeo and the European Association for the Conservation of Geological Heritage but does not duplicate the work of this other initiative.

#### **7.f. IUGG and Geounions Initiative: Geo-Sciences in Africa (GIA)**

Uri Shamir, President of International Union of Geodesy and Geophysics, discussed joint initiatives with Geounions of ICSU on the African continent. The IUGG and ICSU Geounions aim to support work by African nations for Africans in Africa. Shamir noted that, at present, geoscience work in sub-Saharan Africa is in poor shape in contrast to North Africa where there is significant European involvement. GIA is especially relevant given that the World Bank, major

industrial organizations and Tony Blair, the UK Prime Minister, have all expressed that Africa is high on their agendas for the coming years.

Shamir cautioned that geoscience communities, globally, must be mobilized to help African colleagues. After Africa, the IUGG will focus its efforts on South America. Shamir submitted a written report on Geo-Sciences in Africa to the EC, outlining: Background and Motivation; Objective and Means; Lead Theme: Geo-Hazards in Africa; Support and Funding; Progress of the Initiative to Date; and Next Steps. Types of Activities and a List of Topics were presented in the Appendix.

Bobrowsky then opened the floor to comments. Schneider underlined that it was essential to make sure that the diverse nature of African nations and natural geohazards is represented. Riccardi asked what role the Geological Society of Africa was playing and worried that too many activities make things too difficult to manage. He stressed that contact points were needed. If a pilot project works, then the working model can be expanded. Active contact with projects is essential. All African geological surveys should be approached.

### **7.i. Special Report on UNESCO and IUGS Enterprises**

Bobrowsky announced that discussion with Robert Missotten on IUGS and UNESCO relations would take place in closed session.

Robert Missotten thanked the EC for the opportunity to exchange information and establish communication. Between IUGS and UNESCO. He said he was looking forward to working together to reinforce cooperation in the earth sciences, meteorologists and climate change community. Missotten had two points for an introduction. He first touched on how Earth Observation is gaining importance in geoscience communities and remarked that IUGS should align itself with Earth Observation and Global Climate Change. His second point was that he was happy with GeoUnion developments and cooperation within UNESCO, especially the initiatives (e.g., Special Initiative for Africa). He then rhetorically asked whether it was possible to make the initiatives more visible.

He remarked that the Director General of UNESCO responded positively to the merger of geoscience with the ecologists. Missotten continued, commenting on the social implications of ICSU involvement in geohazards and disasters; and on the need for environmental, IUGS and GeoUnions associated with UNESCO to streamline their operations so that there is no overlap. The IOC is working with IGCP on a global tsunami tracking system. In these times of dwindling resources, UNESCO is keen to welcome IUGS in wider cooperation, given their strong involvement in geohazards.

As a general observation, Missotten remarked that due to the lack of resources, the amount of post-graduate work in solid earth sciences is diminishing. If there are institutions that are lacking financial support interested in supporting courses to the UN Decade on Sustainable Development, then UNESCO is willing to support some 15 post-graduate training courses in geology and geophysics.

Moving onto other matters, Missotten reported that he had received letters from a number of scientists and UNESCO delegates expressing concern over the reorganization of earth and life sciences at UNESCO. UNESCO has the opportunity to move for positive action and its management is evolving with the clear understanding that interdisciplinary work is the way of the future. Missotten stated that there was a need for IGCP to ramp-up its involvement and discuss the possibility of exchanging views on restructuring the number of IGCP projects that would be approved. However, with more projects online, UNESCO and IUGS would have to decide on funding. More projects have been approved than ever before. Currently, there are 48 active projects, but UNESCO wants fewer. Missotten also wants a smaller number of meetings, but would like better exchange as this would lead to a better understanding on the number of projects that are sustainable. There are questions about how projects are evaluated. The link between funding and evaluation is not guaranteed in the future: there will be reduced funding for some and more acceptable levels of seed money for others. A general complaint in board meetings was that, although the number of proposals accepted had increased, the quality of proposals is generally poor.

Missotten questioned the future of IGCP. He is convinced that the working structure the scientific board is out-dated and needs to be restructured. UNESCO may have to re-evaluate projects and needs to come to some agreement on reducing funding for meetings. He also wondered about cost sharing between GeoUnions. Missotten expressed the hope that action items to come out of the dialogue with the IUGS EC, for example: who writes to whom; what can be done in negotiating with other unions to ensure that IGCP grows. Because of the fixed UNESCO contribution (\$650,000), there must be agreement to reduce the number of projects. The Science Board thinks external funding can be found to make up the funding shortfall. He has also held discussions with the US Ambassador and US State Department on continuing the \$75,000 contribution to UNESCO and IGCP funds. It is important to build linkages according to the Academy of Sciences and National Academy of Science Foundation in order to reinforce the need to continue funding of IGCP.

Moore's remarked that he also had talked with the US Science Officer and National Academy of Sciences. He was told that the US is to fund the 2004 to 2005 amount. The \$75,000 comes from the State Department, and is then passed through the National Academy of Sciences. The 2004 allotment is to be used in 2005.

Haldorsen raised two questions. First, regarding terminating the Earth Sciences Division and recommendation to make projects more applied, visible and applicable to society: was this one of the reasons for the merger of earth sciences with environmental/ecological sciences? Secondly, she wondered whether the length of the Paris meeting was more generous than reasonable, and questioned if it would have been effective and cost-efficient to develop the proposals using email and teleconferencing, then making final decisions face-to-face at the meeting.

Cadet was happy with what Missotten said about IUGS and IGCP. He remarked that IGCP failed to define its objectives in the UNESCO group. He was also sorry

to hear that there was problem with scientific proposals. Cadet then returned to comments about the CRD and the specific role of UNESCO for IUGS, commenting that there is a need to define which niches are to be funded by UNESCO (e.g., Marine Science projects).

Bobrowsky said we need clarification from UNESCO on directions: for example, will bringing in of the Water Group be at UNESCO's expense and will this take away from IGCP funding. IUGS is not absorbing the costs and losses of the reduced budget. Bobrowsky remarked that IUGS is getting a mixed message from UNESCO. IUGS is keen to expand, but needs clarification on the role of the Water Group and what the extra costs will be. He wanted a clear indication of when the Water Group will be absorbed by IGCP? What is UNESCO's contribution to the Water Group? How does this affect IUGS with respect to IGCP projects? What was UNESCO giving before the Water Group entered and what proportion will be added?

Janoschek also commented on the Water Division, noting that financial requests for UNESCO and US funding should be evaluated before adoption. The Scientific Board, until now, functioned independently with no influence from UNESCO or IUGS. The Executive Board made decisions based on scientific content. It *never* influenced funding. This is a sensitive topic and the Board must be careful about having official influence.

De Mulder asked if it was correct that 40% of the total budget went to non-scientific activities. Missotten responded that it was and that the funding went to the administrative costs of running the Board. With this in mind, de Mulder and Bobrowsky wondered if budget cuts can focus on administration rather than on science activities. They asked whether the budgets for science and administration were separate. If this were the case, then if the administration budget were to be cut there would be more money available for science projects. Missotten responded that there was one budget and programs cannot operate without the Board. Board costs are fixed and it is not possible to reduce costs over a one-year period. There is an obligation to fund the Executive Board. Bobrowsky and Haldorsen wondered whether the number of EC Board meetings or their length could be decreased, as this would surely reduce costs.

Riccardi remarked that the structure should be changed to adjust for budgetary changes. A new form of committee needs and scheme for working with UNESCO must be developed (e.g., type and number of projects, and composition of the Board). Antonio Brambati said if the approach was changed, then the philosophy of UNESCO would have to be changed too. It is easy to write new laws and statutes, but the system must be changed to be effective. Janoschek commented that it important to consider the role and involvement of National Committees. This takes time, but it is urgent. Ministers of Foreign Affairs should be approached and involved.

In support of Brambati, de Mulder thought it would a good idea to create a small working group to address actions by IUGS and UNESCO that will ensure future relevance. Cadet added that IUGS needs a concrete decision about how they are going to be more efficient in IGCP. Bobrowsky asked, when the report is due?

Missotten replied that in a couple of weeks (in April) and upon receipt of the IGCP report that a Task Force should be formed to deal with the IGCP issue. All options should be considered.

Missotten then commented again that he was very happy with IUGS. He is faced with the situation where the DG has to act, but IGCP has to provide relevant work and good services to ensure continued funding from government agencies. IGCP, IUGS and UNESCO have to be relevant. The DG has a medium term strategy and has decided to stick to the priorities requested by the Member States. Water is the principal focus. However, after three years, priorities could change. A strong earth science component could be the theme for future funding requests. He has had discussions with the Water Group, but he was not happy with the results. Missotten insisted on changing actions. Project funding and partial funding for board members is established. He reassured the EC that UNESCO is working hard at getting somewhere.

**ACTION ITEM (#15):** An IUGS-UNESCO (virtual) Task Group consisting of de Mulder, Haldorsen, Cadet, Missotten, Patzak and Muhongo should table a series of various options to the EC for a newly defined IGCP sustainable structure. Cadet is to coordinate this group as soon as possible.

Missotten then moved on to other topics, beginning by remarking that UNESCO was happy with the IGCP meeting in Paris and will continue GEOPARK funding, although only partial funding will be supplied for the second GEOPARK initiative. Janoschek made a short remark about promoting the initiative.

UNESCO is also very happy with IYPE and want to see a clear decision on the YEAR. Solid Earth is a major component of outreach, and will ensure visibility for geoscience. However, due to a reduction in staffing at UNESCO, it can only provide *ex officio* support. There will be no direct management support. Given that expertise is available, Missotten was concerned that no indication is given of regional project activities outside Europe and the US. This issue must be pursued. He is encouraged by the support from the UN for the International Year of Physics, which could be a working model for IYPE. In reply, de Mulder commented that if IYPE is proclaimed, then sources of funding, other than UNESCO, are needed.

Missotten also thanked IUGS for their role in supporting GARS and MRSP. UNESCO welcomed the support because it facilitates action. He also complimented IUGS for the work, report and recommendations on GEOS. Earth sciences are enhanced by the work of IUGS. De Mulder commented on IUGS work with MRSP, remarking that at the Oslo meeting, MRSP was asked to change direction, becoming more international in scope. They promised workshops but there were none. IUGS communicated the need for workshops, so funding was stopped in consultation with UNESCO. Cadet then asked Missotten about how he sees IUGS improving Earth Observation. He replied that both IUGS and ICSU are small bodies so visibility will increase. All other scientific groups have observing systems in place. Geoscience groups have no observing structure. The GARS programme can become an Observation System provided IUGS and UNESCO develop a methodology for observation.

Missotten then mentioned a new initiative started at the GEO/GEOS meeting in Brussels. In general, geological surveys have expressed the feeling that visibility in governments is not increasing. Surveys and academic institutions need to organize a study to look at models for improving visibility of earth sciences at the national and international level. Bobrowsky commented that governments have no frame of reference for a state-of-the-art review for earth sciences, although national reviews of societies and affiliates have been completed. IUGS should compile and provide state-of-the-art reports on what is going on in earth sciences for governments. One of the tasks of IUGS should be to review and ask affiliated organizations to provide reports.

**ACTION ITEM (#16):** Ed de Mulder proposed an action that Bobrowsky should contact ICSU regarding provision for the involvement of IUGS in the GEOS initiative. Bobrowsky said he would write a letter to ICSU to say that IUGS will be more active and wants to become more involved. He will also ask ICSU for any ideas.

Missotten ended by saying that he hoped IUGS will cooperate more closely with Geounions and that the increased interest in geohazards continues. Moores and Bobrowsky thanked Missotten, and asked if he could set time aside to attend future EC meetings and be there at IGCP meetings to help out in other IUGS matters.

## **8) INTERNATIONAL GEOLOGICAL CONGRESS (IGC)**

### **8.a. 32<sup>nd</sup> IGC in 2004**

Zhang noted that the 32<sup>nd</sup> IGC was successful and well organized, including help from the City of Florence. The 32<sup>nd</sup> IGC was attended by over 7000 participants, and presented a wide variety of excellent papers and symposia. Antonio Brambati commented that the report should be finished a few weeks after the EC meeting in Vilnius. The financial results will not be resolved until a large contribution is received from the European Union.

**ACTION ITEM (#4):** Antonio Brambati to check on the outstanding final report of the 32<sup>nd</sup> IGC and report to the EC as soon as possible.

### **8.b. 33<sup>rd</sup> IGC in 2008**

The Organizing Committee will be headed by Arne Bjørlykke (Norway), President; Anders Solheim (Norway), Secretary General; and a Vice President from each of five Nordic countries. Richard Sinding-Larsen (Norway) will serve as Vice President for International Outreach, and David Gee (Sweden) will head the Scientific Programme Committee.

The science programme will cover all geoscience disciplines, but will highlight the specialties and challenges of the Nordic countries. Particular emphasis will be directed to polar geology, the Arctic regions, the offshore, resources and environmental issues, geohazards and new technologies, to name but a few. The first circular will be distributed in the fall of 2005.

Arne Bjørlykke commented on the 2008 IGC meeting in Norway, noting that they are still waiting for EU moneys, but that some private funding is in place. Some EU 400, 000 has yet to be recovered from the European Union, represent 9% of the total funding. It is particularly well sponsored by oil companies and other stakeholders.

The Norwegian National Committee will find it hard to follow up the successful Congress in Florence. The Norwegian organizers will visit Italy to learn from their experiences. The Prime Minister will welcome all foreigners to Oslo.

A Nordic Foundation is established, comprising Norway, Denmark, Finland and Iceland. The organizing committee includes: Arne Bjørlykke (President), Sinding-Larsen (International), Gee (Vice President) Aamodt, Solheim (SG). The Baltic Countries and Russia could also be brought in.

Dominant themes will be Fossil Fuels and Environmental Conflict in addition to classical geo-scientific issues in the Arctic. Novel developments, technological achievements, virtual reality applications, Geohazards and Medical Geology will also be featured.

Excursions, workshops and short courses are also to be organized and will run prior to the actual meeting (between July 26<sup>th</sup> and August 4<sup>th</sup>, 2008). The meeting itself will be held in the new International Conference Centre. The first circular is to be distributed in the fall of 2005.

#### **8.c. 34th IGC in 2012**

Zhang noted that the 34<sup>th</sup> IGC is to be held in Australia, Brisbane. The Council for the International Geological Congress and the International Union of Geological Sciences formally and unanimously agreed to host the 2012 meeting of the 34<sup>th</sup> IGC in Australia. The Australians are making arrangements and a report is pending. The EC and observers questioned whether IGC meetings could rotate between hosting countries.

#### **8d. IUGS and IGC cooperation**

Zhang then opened the floor to comments and questions on matters of IUGS and IGC cooperation.

Cadet commented about the link to International Polar Year and IYPE. Must be a good cooperation with the former IGC. He noted that it is important to build upon the successes of earlier IGCs.

Haldorsen mentioned that the representatives are worried about how expensive Norway will be for developing countries. She wondered whether there was to be sponsorships to subsidize visitors. There must not be too many field trips to exotic and very expensive areas. Bjørlykke replied that the Congress in Norway is no more expensive to a poor member than the Congress in Italy was last year. Cheap food and accommodation solutions are being worked upon. Approaching NORAD was also considered.

Schneider asked why Norway was taking charge and which other Baltic or Scandinavian countries are to be involved in special symposia and field trips. For future meetings, it might be nice to have developing countries more involved. Bjørlykke replied that fieldtrips to exotic localities like Greenland, Spitzbergen, Russia and Iceland are being considered.

Janoschek mentioned the need for more advertising of IGC meetings. Geohost program, Programme for Young Geologists should be continued. He also noted that it will be difficult to get sponsorship from other countries, and that it will be easiest to approach the oil companies. He sees the 2008 meeting as an opportunity for further collaborating and merging of IUGS and IGC. The Nordic countries can become a good example of how this can be achieved. It will be helpful if the EC gave some input on the topic of mergers and on the agenda steering committee. Some modifications in the Statutes are necessary. The IGC committee is part of this merger and it will replace the present steering committee. Past and present EC members will be actively involved. A time for the meeting is to be arranged in the near future. A new Statutes Committee will also involve the IGC, with committee members asked for their inputs. In respect to this issue, new statutes are urgently needed for the permanent representatives and special groups in order to make things less disparate.

**ACTION ITEM (#23):** Bobrowsky to write Lio Boriani (President) to inform the IGC that Moores and Riccardi will be the two IUGS representatives, and that Eder is the proposed nomination for external Chair of the Committee. IUGS seeks approval for the Chair nomination. IUGS also requests that IGC provide names of two IGC individuals to participate in the Task Group for IGC/IUGS Statutes. Bjørlykke will be provided with copies of communications.

## 9) INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)

### 9.a. Relations with ICSU

Zhang reported, commenting that the last meeting with ICSU was in Paris. The ICSU General Assembly will convene later this year. A number of concerns and issues have been raised following the December 26<sup>th</sup> 2004 earthquake and tsunamis. The IUGG meeting will also address ICSU issues. Hazards are now a current priority for ICSU. Geo-Union cooperation is vital. Fortunately, there are mechanisms in place for hazard work.

Zhang then noted that the next General Assembly is to take place in Shanghai October 17<sup>th</sup> to 21<sup>st</sup>. A scoping committee is to be established to address hazards issues. An IUGS representative should collaborate with ICSU. Both have a responsibility to focus on global hazards and not just the Indian Ocean. The next meeting provides an opportunity to highlight geo-hazards generally. However, Zhang noted that, as a rule, geoscientists are poor at communicating.

Uri Shamir said he would represent IUGG and IUGS at the General Assembly. He also mentioned that there is a clustering issue that an ad hoc committee will evaluate. Controversial issues regarding membership clustering will be addressed. Issues of membership in engineering, social sciences and biological sciences



were also raised. He also commented on the matter of power of voting within ICSU general committee meetings.

Zhang said Geo-Unions should be prepared for China and the General Assembly meeting. Pressing matters should be raised well before the Shanghai meeting. Formalized topics for the IUGG meeting should be discussed. The EC scoping committee will meet to suggest a person who can contribute to this meeting.

#### **9.b. Scientific Committee on the Lithosphere (SCL-ILP)**

Cadet and Janoschek discussed SCL-IP, noting that this programme seeks to elucidate the nature, dynamics, origin and evolution of the lithosphere, through international, interdisciplinary collaboration. The Program, which involves several hundred scientists from over 60 countries is now under new leadership. The main activity has been reorganizing the Bureau, which is too European (10/13 members, with none from the U.S.), and unevenly balanced (4 Germans, 2 Swiss, no British, etc).

The following new projects are operational and under consideration and will be decided for approval during the EGU-Meeting in Vienna, April 27, 2005: ERAS: "Earth Accretionary Systems (in space and time);" "New tectonic causes of volcano failure and possible premonitory signals;" "Lithosphere-Astenosphere Interactions;" "UDCCS: "Ultra-Deep Continental Crust Subduction;" and "Global and regional parameters of paleoseismology; implications for fault scaling and future earthquake hazard." ICSU-project "Preservation of Data from WWSSN Film chips" has been finished and the report will be ready March 25, 2005.

Cadet noted that SCL/ILP is recovering, but that the short report does not allow for distinguishing what is actually working from what is merely planned. The Vienna meeting decisions will be capital to assure the future of the programme. In the future, a close link with IUGS and IUGG should be secured. The participation of both Unions' representative to the Vienna Meeting seems important in that respect.

There is no funding request for this year. The IUGS EC should encourage better reporting. Since the relationship is quasi-formal between IUGS, IUGG and SCL-ILP, the issue of winding down funding as a penalty was discussed.

De Mulder suggested the problem is partly because the SCL-ILP committee has been reorganized and wondered whether the new team will be more active in the future. Janoschek commented that IUGS should not pay out more than \$17, 000 and both IUGG and IUGS should request better reporting of activities. A general concern of EC members is that SCL-ILP reports have been consistently poor (reports are always submitted at the last moment), and that IUGS should be sterner.

SCL-ILP projects are in the pipeline. Cadet and Janoschek suggested they represent IUGS at their next meeting in Vienna to help them be better organized and explain why funding will be postponed or reduced.

In regard to this matter, de Mulder suggested IUGG and IUGS work convergently given that funding to SCL-ILP is important. Shamir acknowledged that IUGG supports the suspension of funding if SCL-ILP does not act according to IUGS and IUGG requests.

The general consensus amongst EC members was to suspend funding.

**9.c. ICSU Committees and IUGS representation**

Zhang discussed IUGS representation in ICSU committees. Zhang said that he had been appointed to sit on the ICSU Nominating Committee and that Uri Shamir will take over Robin Brett’s position. A scoping committee will be addressing issues at a later date. At present it is working to remove data and information obstacles and capacity building. He also noted the Geo-Unions Consortium had been appreciated by ICSU. Unfortunately, there are still few resources available for data and information.

<i>Full Name</i>	<i>Acronym</i>	<i>Representative</i>
<i>Priority Area Assessment on Capacity Building</i>	<i>PAA Capacity Building</i>	<i>Harsh Gupta</i>
<i>Committee on Data for Science and Technology</i>	<i>CODATA</i>	<i>John Broome</i>
<i>Committee on Space Research</i>	<i>COSPAR</i>	<i>Stuart Marsh</i>
<i>Scientific Ctte. for the International Geosphere-Biosphere Prog.</i>	<i>SC-IGBP</i>	<i>Peter Bobrowsky</i>
<i>Scientific Committee on Antarctic Research</i>	<i>SCAR</i>	<i>Carlo Alberto Ricci</i>
<i>Scientific Committee on Oceanic Research</i>	<i>SCOR</i>	<i>Enrico Bonatti</i>
<i>Scientific Committee on Problems of the Environment</i>	<i>SCOPE</i>	<i>Someone in GEM to be approached?</i>
<i>Standing Committee on Freedom in the Conduct of Science</i>	<i>SCFCS</i>	<i>MAURIZIO Gaetani</i>

**ACTION ITEM (#5):** Bobrowsky to forward the most recent ICSU memo to the EC and obtain a nomination for their new Hazards Scoping Committee.

**ACTION ITEM (#21):** Bobrowsky to write ICSU and inform them that Joy Pereira will attend the Kuala Lumpur meeting as an observer.

#### **9.d. ICSU Grant Program**

Zhang noted that the International Council for Science (ICSU) forwarded procedures to apply for grants for 2006. Unfortunately the total amount of money available during this grant phase is only \$350,000 (USD), as compared with USD \$800,000 last year. Proposals for 2006 were due in Paris by 1 March 2005. Proposals must address one of five current priority areas as specified by ICSU:

- Science and Technology for Sustainable Development
- Capacity Building and Science Education
- Science/Policy Interface
- Dissemination of Data and/or Information from Science and Technology
- Emerging Science -- Creation of New Knowledge

Bobrowsky commented that with regards to ICSU grants, the IUGS has been doing well. For example, he pointed out, the Medical Geology initiative and INQUA both received considerable grants. IUGS was the successful lead applicant on behalf of INQUA last year for a \$100,000 grant. The project leader is currently compiling their report. Bobrowsky commented that IUGS and IAU received \$100,000 for collaboration on a joint symposium and publication on meteorite impacts, geo-hazards and society.

Zhang and Bobrowsky noted that in coming years, ICSU will be suspending Category 2 funding (at \$100, 000), but will maintain Category 1 funding (at \$50, 000). Grant supporting and co-sponsoring issues need to be addressed. No IUGS proposals have been submitted for this year. The IUGS EC will look at proposals next year.

Brambati, Janoschek, and Bobrowsky expressed concern that IUGS membership dues to ICSU now have to be paid in Euros, rather than in US Dollars. In the past, dues were \$9,000. Now ICSU is demanding EU 9,000, in effect increasing our membership fee significantly.

#### **9.e. Relations with other ICSU Unions**

##### **9.e.1. GeoUnions Meeting, Boulder, Sept 2004**

Janoschek reported on the GeoUnions Meeting in Boulder. There was some discussion whether the EC should accept the International Society of Photogrammetry and Remote Sensing (ISPRS) into ICSU. This group provides professional expertise and has become part of ICSU. Janoschek also noted the Acoustics Group should also be part of ICSU.

##### **9.e.2. GeoUnions Meeting, Shanghai, Oct 2005**

Zhang briefly commented that the next GeoUnions meeting is in Shanghai, in October 2005. Thematic issues will be discussed at this meeting.

### **10) IUGS POLICY AND STRATEGY MATTERS**

#### **10.a. IUGS Statutes**

Janoschek began by saying that although it is important for IUGS to have a good set of statutes, they are not permanent. The writing and maintenance of the Statutes is complicated and a full-time occupation.

He reviewed the membership of adhering organizations (member countries). At present, members may have Active and Inactive status. At present there is no way to exclude a member that has been inactive for a long period of time. The applicant only selects the membership category; there is no way IUGS can intervene. At present, the membership categories (1 to 8) are not really balanced: some very developed countries still are in Category 1, along with many “Tiger countries” in SE Asia are placing themselves in too low a category and can easily afford to contribute more in membership dues. Bobrowsky remarked that IUGS must be more aggressive in approaching countries for their membership fees.

Janoschek and Bobrowsky noted that members are classified as inactive if they have not paid for 3 years, after which time, they may remain inactive for decades with no possibility of being removed. To re-activate full membership, members would pay back-fees for the last two years and the present year. Nowlan and de Mulder suggested that voting privileges should require three years payment of membership dues. The term “provisional members” could apply to those members who have not paid for more than one year. Bobrowsky also considered other possible voting systems, namely: one country, one vote; and countries can have as many votes as it has members. Janoschek remarked that most inactive members are in Category 1 and 2, and that countries in these categories should pay for two missing years and made to upgrade if their economic situation changes.

Domicile of the Union was briefly commented upon with respect to the merger of IGC and IUGS. The domicile should be stated in the Statutes. At present, the domicile of IUGS is in Reston, West Virginia with the USGS. There needs to be a clear definition that the Secretariat currently resides in Norway. Bobrowsky remarked that actions arising from the meeting are to be discussed further at Trondheim. EC members to serve on the *ad hoc* Statutes Committee are needed. As chair of the normal Statutes Committee, Janoschek said he could not participate, but Moores and Riccardi volunteered. The normal committee will remain inactive until the *ad hoc* Statutes Committee has fulfilled their role.

Suggestions for the chair of the *ad hoc* Statutes Committee were: Suzanne Malhburg Key (USA) and Wolfgang Eder (Germany). Eder was elected the Chair of the *ad hoc* Statutes Committee (voting 7 to 4 in favour). Moores suggested that Nowlan and Aaron also serve as non-voting members.

Riccardi, de Mulder, Janoschek and Moores all expressed confusion with the details of the roles of committees and task groups. Riccardi suggested the permanent Statutes Committee should look at the merger and all other statutes. Moores suggested the Task Group could look at every article in the Statutes, and that the other committee remain inactive while the group is working. Brambati thought that one committee would suffice for all tasks.

**ACTION ITEM (#24):** Bobrowsky should contact the members of the standing Statutes Committee who should be thanked and terminated. The IUGS Statutes Committee, as defined by the Byelaws and Statutes, will be temporarily inactive.

#### **10.b. Priorities of IUGS**

Zhang began with some brief thoughts on the priorities of IUGS. The responsibility of the President, Zhang began, was to help implement the general policies determined by Council. To help formulate his role as the new President, Zhang read about the history of IUGS and reviewed the statutes regarding the aims of IUGS.

Zhang sees Communications and Networking as an important priority. The strength of IUGS is its broad coverage of geoscience fields under one umbrella. This strength should be maximized. A weakness, however, is a small budget that limits the true effectiveness of IUGS. Most funding goes to national level organizations. IUGS should not be a general research-funding agency. Rather, it should be a forum for geoscientists acting to exchange ideas, and for the communication of geoscience information. In this respect, UNESCO is on the wrong track focusing on one area (i.e., water). The challenge is to prompt and organize the global geoscience community and find socially and scientifically relevant and challenging projects. The relationship between its members should be collaborative. IUGS has great potential for uniting the global geoscience community: the GeoUnions is an example.

De Mulder remarked new EC does not need to start from scratch and is free to deviate from the path of the old EC [Zhang reassured de Mulder that it would not]. He offered his help as the new EC builds on past strategies. It is essential to pay attention to the merger with IGC cautioned de Mulder. The merger will be a significant achievement. Brambati agreed with on all points, but wanted to know what was lacking in the IGC. Zhang replied that IGC is the forum of the IUGS and used the Olympic games as an analogy. Although the IGC is a good venue for everything, it must attract more. Zhang also remarked that IUGS is closer to ICSU than UNESCO, and that the Strategic Plan for ICSU was very interesting.

Moore commented that IUGS is doing the best it can with the budget given. Haldorsen noted that most of the funds requested are used to pay for travel, in particular from countries with little money; little goes towards research. Most money is committed to pre-approved activities, although there are many approaches to spending funding by different organizations under the IUGS umbrella. Future activities should be discussed at the coming IGC. Brambati suggested circulating a questionnaire to the Affiliate Organizations to ask what they think should be new directions. IUGS needs to poll its constituents about new directions. Janoschek remarked that IUGS money received by affiliates is often not fully appreciated.

Matsumoto supported the clear statement on the contributions and priorities of IUGS, and on the relationships between the GeoUnions. Riccardi also liked the document, adding that IUGS should be focussing on communications within and outside. IUGS is an umbrella organization and all members need to be aware of what they are doing. Riccardi suggested that the review process be looked at, and

how IUGS can work to bring together the member societies. If IUGS is to promote activities that bring together members on common ground, it is necessary to study in depth what they are doing. Moores noted that a problem is the lack of visibility, especially in smaller countries. Haldorsen said that committees are not linked, which limits visibility. She noted that IUGG activities are visible. IUGS involvement in global activities is not properly expressed, and the Union needs to work on increasing its own visibility.

Janoschek commented that it is necessary for the incoming President to develop new ideas building on the achievements of the past EC. He strongly supported the fusion of the IGC and IUGS, and recommended that the EC should focus its efforts on the merger. Janoschek was not happy with the evolution of the merger, however. He noted that IUGS should communicate any changes to major and smaller organizations alike. Riccardi added that societies play an important role in IUGS and that communication and sharing of resources with sister organizations was a foundation of the Union. This does not happen at the national level, where each country has a different approach to administration and involvement. This means that committees do not all function in the same way. As a result, a personalized approach must be adopted when addressing each national committee. Bobrowsky remarked national committees are the lifeblood of IUGS and that generic letters cannot be sent to them.

Zhang ended by saying that as a team, the EC will search for a way to make IUGS visible and more fully appreciated.

**ACTION ITEM (#31):** Zhang to explore ways to improve the visibility and focus of IUGS.

#### **10.c. Financial support for access to Bureau positions**

Bobrowsky opened discussion on this topic. Zhang began by remarking that it is not necessary to only have members from industrialized countries serving the Bureau. President, Treasurer and Secretary General are all paid from their respective countries (each position costs around US \$20,000). This pre-condition can prevent developing nations from serving. However, there is a risk that new solutions will break the system, so perhaps it is best not to interfere with the *status quo*. Riccardi, Brambati and Janoschek agreed that things should be left the way they are. If a country can support a Bureau member then it should be there; if it cannot support then it should not be involved with the Bureau of IUGS. Haldorsen remarked that even poor countries are able to afford cover the costs of highly positioned individuals. Brambati noted that it should be written into the Statutes that countries must be able to afford financial support to the Bureau.

#### **10.d. IUGS Resolution**

Moores began by saying that after the December 2004 tsunami, Bobrowsky asked him to compose an IUGS Resolution to compliment the statements issued by ICSU and IUGG. It is now on the IUGS website. Bobrowsky commented that this resolution was picked up by the IOC and circulated on their website. The Resolution has had significant impact, with both the IUGG and ICSU statements appearing after the IUGS resolution. Bobrowsky noted that the Indian Ocean

tsunami is now a top ICSU priority with commitments for money and resources. Moores wondered how IUGS could capitalize on the responses, suggesting that this was an opportunity to act, perhaps by creating a Hazards Working Group.

Cadet and Riccardi both congratulated Moores on the Resolution. Aaron noted that this was a very popular page on the website.

#### **10.e. IUGS Associated Members**

#### **10.f. IUGS Grants Programme – Expressions of Interest**

Zhang and Bobrowsky briefly remarked that there were several expressions of interest received by the IUGS Secretariat.

**ACTION ITEM (#30):** Bobrowsky to create an IUGS Grant Evaluation Committee to assess the current EOI as soon as possible. The group will consist of Bobrowsky, Moores, Brambati, Zhang and Haldorsen (along with two outsiders). EoIs should be ranked and distributed to full EC for funding approval.

### **11) INTERNATIONAL YEAR OF PLANET EARTH**

Three major agenda items addressed by the EC were: 1) adopting the business plan; 2) the financial statement; and 3) the 2005 budget proposal.

#### **11.a. Progress on UN Proclamation**

Zhang invited de Mulder to talk about the IYPE: de Mulder presented a brief introduction to IYPE, starting the question of why we need it. The aim is to encourage world governments and society to apply earth science knowledge more effectively, but also encourage geoscientists to be more effective at disseminating geoscience information.

Riccardi wondered what the probability was that UNESCO would approve IYPE in April 2005, as it is a very important initiative. To ensure political support, three steps are necessary, de Mulder pointed out. These are to: 1) collect support from national geoscience communities; 2) secure political support at the ministry level (e.g., education, mining, economy and foreign affairs); and 3) support from UNESCO. Riccardi and Moores then asked what happens if UNESCO does not approve the Year. De Mulder replied that the management team would discuss with IUGS and UNESCO and analyse why the Year was not approved. He pointed out that if there is no success in April then there could be a crisis. However, the vote could be postponed until October if other agenda items become priorities.

There was an information meeting where 56 members heard a presentation and countries were invited to show their support. Some countries declared on the spot (e.g., China). Others, like Russia and Brazil, joined later in the year before the Florence IGC meeting. Currently, 16 countries support the initiative. Political information began passing to UNESCO in 2004. At Florence, it was suggested that other smaller nations should propose the IYPE, rather than Russia or China. Tanzania was approached to propose the Year at the UNESCO meeting in April.

Brambati said he was not clear on why China or other large countries did not want to propose IYPE. Janoschek replied that although large countries support IYPE, there is a gentleman's agreement that they never bring up International Years because of administrative reasons. If it is a good year, then major nations will follow the lead of smaller countries and provide support. Cadet said he was supportive of IYPE and commented that the visibility is assured by the support of large and small nations. Brambati also noted that UNESCO contacts only ask what it takes to support International Years in terms of national strategies.

Bobrowsky remarked that even if the UN does not support the initiative, IUGS could still run a Year for Geoscientists. The Year presents an outreach opportunity that the Canadian Government (and GSC) will support it.

### **11.b. Management Team**

IYPE began in 2001 at Hyderabad by IUGS and UNESCO as a joint initiative. It is also in partnership with a number of ICSU unions (e.g., IUGG, IUSS and IGU). Uri Shamir, de Mulder noted, was central in establishing the ICSU partnership. Support is growing. The International Lithosphere Program, Geological Society of London and Geological Survey of the Netherlands, along with 17 other professional bodies and programs have expressed support for IYPE. The management partners share responsibilities for the programme and funding. Associate partners provide technical, scientific and moral support.

Arne Bjørlykke said he was impressed by the holistic approach, which is essential for success: We are not fragmented into separate subjects and it is too early to split up. He sees there is a need to increase the exposure of the role of global models in geosciences. Geological societies, in addition to national committees, are important in outreach (e.g., Sweden). The national committees are not always the most active groups in a country. Geological Societies should be brought very actively into the process.

Cadet asked for clarification on the structure and role of the management team. De Mulder replied the management team was an informal body at present, but by 2005 will be established at a professional level and operated at arms length to the IUGS EC. He and Janoschek would continue to brief IUGS and UNESCO. Bobrowsky remarked that it was important for the MT to operate above board and that no EC members be involved in the management. Zhang asked de Mulder who would be responsible if the management team encountered problems? He replied that the management team would report to IUGS and UNESCO, and if neither were confident in its work, then the team could be fired.

Haldorsen wondered what it would mean for IUGS if IYPE takes off. Riccardi agreed that an MOU is very important because sooner or later, IYPE will be outside the control of IUGS. Once IYPE is independent, products generated must retain the IUGS identity. Zhang suggested that a MOU between the management team, IUGS and UNESCO be prepared. The UNESCO offices agree with the need for a MOU. If it is approved it becomes an UN matter and it will delegate UNESCO. IUGS has to ensure that it retains its involvement. Moores also agreed that an MOU is extremely important and needs to be addressed as soon as possible. De Mulder said that a MOU is to be prepared, containing the full



structure and statutes for all partners. UNESCO and IUGS have joint influence assured de Mulder.

**ACTION ITEM (#25):** The management team to write a MOU by May 8<sup>th</sup> 2005 regarding IYPE. This is to be co-signed by IUGS and UNESCO. De Mulder will coordinate this action.

Voting for support of assigned responsibilities of the Management Team

**Passed** by 9 votes. Janoschek and de Mulder abstained

**11.c. Business Plan (Science Topics, Outreach Activities)**

The two principal themes of IYPE will be science and outreach, and both are to be funded similarly.

De Mulder said that the UN proclamation for 2007 is a political decision, so UN diplomats have been approached to get the message of IYPE across to the governments and political elements of various member countries. However, national and international political decisions could lead to delays. He noted that it is essential that IYPE be: based in the geosciences; global in scope; holistic and multi-disciplinary in approach; human-impact-based; that there is potential for developing countries to become involved; and outreach focused. Ultimately, de Mulder reminded the EC, we cannot be sure about the year 2008, because that is a political decision.

Matsumoto asked what kind of activities would take place. Japan has seen the brochures, but there is nothing that shows what will be the actions during the year. In reply, de Mulder pointed out that science topics to be covered include: groundwater, hazards, climate research, health, mega-cities, deep earth, ocean, soils and life. Special groups, individuals and scientists from the developing world are to be invited to submit proposals for activities within the different topics. For each topic, a brochure has been prepared. The aims of the outreach component are to generate geoscience awareness in political circles, national education systems and decision makers. Sponsors will be invited to make suggestions. Involvement of the public, media, artist, storywriters and television producers is also envisaged. There is a three-year time-line to establish outreach objectives.

A website (EFSS.org) has been prepared under the title of Earth Science for Society. Of the 10 brochures to be prepared, 7 are ready and available. The text for the Life on Earth brochure has yet to be completed. Moores also mentioned that a brochure on outreach is in production. The brochures are prepared with the support of the European Geological Surveys, who have set aside \$40,000 to cover costs, and printed by Chinese partners.

De Mulder thanked everyone for their input, in particular liking the suggestion for updates and patterning after IGCP goals and good ideas about outreach by TERE and NASA directed toward schools.

Voting for approval of the Business Plan

**Passed** by 9 votes, Janoschek and de Mulder abstained

#### **11.d. Financial statement over 2004 and Budget for 2005**

Riccardi commented that the success of the project requires \$20 million, and that there should be a deadline, perhaps by the end of 2005. Bobrowsky reminded the EC that IYPE is an IUGS brainchild that has been supported for the last four years, and that they should not pull their support now. Fund raising, de Mulder noted, will not begin until there is political support. It is hoped there will be a formal body ready to fund-raise by 2006. An exit strategy exists in case the UN does not proclaim the Year, if \$20 million dollars in funding cannot be raised, or if the IUGS and UNESCO cease their support. The IUGS EC, de Mulder said, must adopt a business plan and approve financing for 2004. He also noted that the 2005 budget is pending.

Haldorsen wondered whether money from sponsors for 2005 has been committed, and how is it to be distributed. Moores asked how is the money to be secured and whether there are there any benchmarks. The question of what the IUGS grant for 2005 will be used for was also raised. De Mulder replied that the \$90,000 for 2005 from the partners is not secured. Once the Year is tabled and approved by the UN, then sponsors can be approached.

The total IUGS funding from 2001 to 2004 was \$93,000. IYPE has asked for \$40,000 in 2005. He did not know how much will available after 2006 to 2009. It is estimated that each topic should have an expenditure of \$1 million. Brambati noted that some debts (\$15,000 to \$20,000) were outstanding from August 2004 for brochures. However, \$6000 will be coming from Greece and another \$3000 from other bodies. Janoschek cautioned not to use IUGS money to cover the outstanding debts.

Haldorsen had a feeling that the process will require a rapid ramping up, that there was not enough time for fund raising, and rhetorically wondered whether there were secret funding sources. De Mulder replied that there no secret funding sources and reminded the EC that the exit strategy is in place in case funding cannot be secured. Haldorsen noted that it is essential to identify the specific annual goals and objectives. Replying, de Mulder said that priorities could be shifted if better options present themselves in coming months. Haldorsen also questioned the budget plans for outreach. She suggested that the UN Year should be 2008: this way 2007 could be a preparatory, or take-off year. Other Years have not been effective because they lacked a ramping-up period.

#### Voting for approval of the 2004 Financial Statement

**Passed** by 9 votes, Janoschek and de Mulder abstained

#### Voting for approval of 2005 Funding (\$40,000)

**Passed** by 9 votes, Janoschek and de Mulder abstained

#### **11.e. Other Years (IGY+50, eGY & IPY)**

IYPE is linked with the International Polar Year (IPY) and Electronic Geophysical Year (eGY).

Mikhail Fedonkin mentioned that in 2006, Russia is to host an exhibition on Early Geology and the Origins of Life and the Biosphere. A book is being prepared with the help of a conceptual artist. National groups in Russia, Australia, India and Japan are collaborating on this initiative. Fedonkin proposed that the release of the book be postponed until 2007 to coincide with IYPE.

Missotten stated that UNESCO was very interested in seeing geoscience given visibility. Outreach is absolutely necessary and the political will is there. The more partners involved, the better the changes of success. He briefly talked about GEOSS and how it is benefiting from G8 funding for Science in Earth Observation. He also mentioned that the USA called for a summit on Earth Observation at a meeting in Tokyo and was accepted in Brussels in 2004. In principal, UNESCO feels that IYPE is politically on the right track. Outreach is very good for some of the UN years. IYPE comes at the right time. The Geophysical Year is very different from IYPE. IYPE is more of an outreach year. Missotten finally noted that there must be a lot of input in order for a Year to become successful.

Uri Shamir commented that the leadership theme inherent in IYPE is essential. If the political process does not work, eGY, IPY and other Years will be initiatives that compliment IYPE, so everything is not lost even if the year is not accepted. The work done can be brought further. IUGS should give a strong support to the Year. It covers everything from kindergarten and onwards.

## **12) REQUEST FOR FUNDING AND BUDGETS FOR 2005**

### **12.a. Treasurer's Report**

Antonio Brambati began by providing some general information by way of a financial statement:

Brambati noted that IUGS paid \$14, 156.68 in bank charges in 2004. A number of accounts were closed in Europe (Triest, Orleans), US (Reston) and Canada (Calgary). Money from old accounts was transferred to two new accounts in Trieste. The Hutchinson account in Vienna closed in March 2005, and \$47, 337.36 was transferred to the Trieste account. Another \$400000 was placed in a short-term guaranteed deposit account (also in Trieste). Brambati suggested that as an IUGS policy, current bank accounts keep only the amount necessary for IUGS working, and to consider another investment in a short-term deposit account. IUGS received \$12, 887.80 in bank interest.

Total Assets in the new accounts on December 31<sup>st</sup> 2004 = \$707, 485.99

Income 2004	= \$596, 411.05
Expenses 2004	= \$715, 021.06
Debts	= \$118, 610.01

Brambati attributed the expenses to the Florence IGC, new initiatives and secretariat support. Even with the virtual income, there is a shortfall of around \$25, 000 which needs to be balanced.

Virtual Income for 2005 is:

UNESCO	= \$596, 411.05 + \$12, 000
IGC	= \$80, 980
Total	= \$689,391.05

The 2005 income, in detail, breaks down as follows:

Membership dues	= \$306,603.25
IGCP Programs	= \$170,420
UNESCO	= \$6,500
ICSU Programs	= \$100,000
Interest	= \$19, 880.49
Total Income 2004	= \$596, 411.05

Brambati then made a few remarks on membership fees, noting there were: 71 active members; 37 inactive; and 9 members pending, giving a total number of 117 adhering organizations. In 2004, membership fee payments increased from 73 % to 78 % because of the 32nd IGC.

Bobrowsky remarked that IUGS must work to ensure that it does not lose the income from the dues of the nine pending members. With the shift in the host organization accepted, he also mentioned that before Pakistan becomes an active member again, it must pay outstanding dues. Unfortunately, it does not have the money. The University of Saudi Arabia also requested associate membership.

Brambati made a number of suggestions to improve the IUGS budget, the actions open include: a) attract inactive members with a special one-year membership waiver to get member status instead of requiring payment for all years membership was not renewed; b) members pay a lower category for two years and go back to a high category afterwards; c) encourage to upgrade membership categories; d) develop a policy focused on motivating the interest of other bodies to become associate members.

De Mulder complimented the Treasurer on a good report, noting that a deficit is not unusual in a Congress year. Moores then moved to give the Treasurer the freedom to move funds into the Trieste accounts at his discretion; Schneider seconded the motion; and it was **passed unanimously**.

IUGS budget was reviewed:

<u>Contributions</u>	
Operating Costs	= \$ 0
Secretariat	= \$ 0

<u>Other Expenses</u>	
Meetings	= \$40,000
Representation	= \$8,000

Bobrowsky commented that representation expenses were probably too low. Brambati said he would make more funding available as a contingency

Exhibitions	= \$3,000
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Janoschek remarked that IUGS should be making funds available for booth registration and exhibition fees. There should be enough money available to cover costs.

Annual Report	= \$3,000
Brochures	= \$ 0
Stratigraphic Charts	= \$ 0
Bank Charges	= \$6,000

Episodes

Reserves	= \$ 0
Contributions	= \$23,000
Distribution	= \$ 0

Outreach

Ties	= \$5,000
Scarves	= \$2,500 ( <b>Postponed</b> )
Other	= \$1,000 ( <b>Pending</b> )

De Mulder recommended postponing funding for both scarves and ties. Other outreach items discussed included mouse pads, chart cards and scale cards.

Contingency

2005 Total	= \$522,455
2004 Deficit	= \$25,630
Grand Total	= \$548,085

Pending the Treasurer's input, Brambati said that at the moment \$10,000 is not enough. Janoschek mentioned that the Hutchinson Fund should bring in a couple of thousand dollars.

Moore moved to approve the budget. Riccardi seconded the motion. **Passed unanimously**. Moore thanked the Secretary General and Treasurer for their hard work.

**12.b. Funding Requests for Organizations, Affiliates and Commissions**

Bobrowsky chaired the request for funding by organizations, affiliates and commissions. Janoschek clarified that funding situation is a matter of balancing support for funding from IUGS and UNESCO.

The following requests were submitted by Organizations:

- a) **IGCP** requested \$90,000 from UNESCO, \$75,000 from the US Government and \$20,000 from IUGS
- b) **GARS** requested \$7,000 with an actual amount granted at \$7,000. Moores suggested that Bobrowsky have the discretion to give UNESCO a reasoned account of the future funding cuts to GARS.
- c) **ILP/SCL** previously asked for \$17,000 although Brambati and Bobrowsky noted that there was no formal request. It was suggested that ILP receive \$10,000 if they produce something. Matsumoto, Haldorsen and Moores agreed. De Mulder said the IUGS and IUGG agreed to suspend, but not reduce their funding levels. It would be unfair to punish the new ILP team because of the lack activity of their old EC. Nevertheless, at the moment, the value gained for the dollar invested is low. Janoschek commented that funding can be pending, but not cut further. However, IUGS should contact IUGG to let them know that in the future, funding levels could decrease. IUGS should not act independently of IUGG and Bobrowsky should keep in contact with Uri Shamir. Riccardi suggested they reduce funding now and that \$10,000 be held pending what happens. Cadet and Janoschek agreed to let ILP know they have until June to provide IUGS with a report of activities and elaborate on their achievements. Cadet cautioned against losing core activities because of an administrative approach.

**ACTION ITEM (#26):** Bobrowsky to write ILP/SCL to inform them that IUGS requires a complete and proper annual report for 2004 and an adequate work plan for 2005 before it decides on funding. IUGG will receive a copy of the letter.

- d) **MRSP** requested \$8,000 with an actual amount proposed at \$0.
- e) **GEM** requested \$10,000. \$5,000 was proposed from the budget. Their report built on that of COGEOENVIRONMENT, but the organization must work up to the \$10,000 level. Budget shortfalls will limit the available funding. The cut in their request will be explained in a letter.
- f) **CGI** asked for \$10,438. IUGS will offer \$5,000 for this new commission.
- g) **CSP** requested \$3,650. IUGS proposed \$3,500.
- h) **ICS** asked for \$47,000. IUGS proposed \$30,000. Schneider and Moores recognized the innovative work.

**ACTION ITEM (#27):** Bobrowsky to write ICS and explain why funding was reduced for 2005, and reminding them that the level of funding last year was extraordinary because of the IGC. The letter should also note that an IUGS *Ad hoc* Review Committee has been formed to review the ICS later this year.

- i) **INHIGEO** requested \$5,500. IUGS proposed \$4,000.

- j) **SECE** asked for \$15,000. IUGS recommended \$3,000. Haldorsen suggested sending a letter explaining the funding cut and asking for clearer work plans.

**ACTION ITEM (#28):** Bobrowsky to contact SECE and request they adequately explain what they intend to do since the current work plan is not clear. Funding for 2005 is dependent on their response.

- k) **COGEOTT** asked for \$10,000. It was proposed to give them \$4,000 pending a new strategic plan and alignment of activities with IUGS priorities.
- l) **GSGP** asked for \$3,000. IUGS proposed \$0.
- m) **TGFF** requested \$5,000. IUGS proposed \$3,500. Riccardi noted that money might be available from Norway. Activities are focused in Africa, but plans to move into the Caspian are moving to slowly.

The following requests were submitted by Task Groups:

- a) **TGGB** requested \$20,000. Although this group is doing a good job, \$1,500 was proposed.
- b) **TECTASK** requested \$10,000. It was proposed that they receive \$5,000
- c) **GEOINDICATORS** asked for \$11,600. IUGS recommended \$11,600.
- d) **MGI** requested \$15,000. IUGS recommended \$15,000.

The following requests were submitted by Committees:

- a) **PC** was granted \$10,000. Moores commented on the problem of scheduling if PC meetings run at the same time as EC meetings. Fieldtrip costs should not be covered. Zhang and de Mulder remarked that it is important to know the PC schedule for expense budgeting. In the future it might be possible to combine the PC together with Bureau meetings to save costs. Electronic meetings should also be considered.
- b) **GEOSEE** requested \$12,000. \$12,000 was proposed, pending funding from IGU.

The following requests were submitted by Affiliates:

- a) **AGA** requested \$3,000. IUGS proposed \$2,000. Cadet and de Mulder commented that AGA has been productive and that some funding for meetings would be politically correct.

**ACTION ITEM (#28):** Bobrowsky to inform AGA the funding they will receive for 2005 is only to organize a meeting on the Geology of the Middle East.

- b) **AGID** requested \$7,500. IUGS recommended \$7,500
- c) **CGMW** requested \$3,000. IUGS recommended \$3,000
- d) **GSAf** requested \$7,500. IUGS recommended \$5,000
- e) **IAMG** requested \$5,000. IUGS recommended \$0. Because this is a large organization, the funding provided is not really noticed and IUGS has never had a positive response. IAMG do not acknowledge the contribution from IUGS. Matsumoto was concerned that their good work should be acknowledged. Moores suggested sending them a short letter explaining the IUGS position.
- f) **IAEG** requested \$5,000. IUGS recommended \$0
- g) **ICL** requested \$5,000. IUGS recommended \$2,000. Janoschek and de Mulder commented that since an admission fee is paid, IUGS should have some influence on which projects are carried out.
- h) **IFPS** requested \$0, IUGS recommended \$0
- i) **IGEO** requested \$0, IUGS recommended \$0
- j) **IPA** requested \$0, IUGS recommended \$0. Riccardi and Moores commented that although IPA did not request funding, IUGS should provide them with some support for grant and project funding. Haldorsen noted the support for the Dark Nature project. IUGS has already provided \$2000 for support of IPY. Riccardi proposed \$1000, but de Mulder said if there was no request for money, then no money should be given, especially it is going toward funding administration rather than field projects. Zhang then requested the EC vote on whether IUGS should give IPA funding:

Vote to give IPA funding: **Passed**, 6 for and 4 against

Vote to give IPA \$1000: **Passed**, but not unanimous

- k) **IRSM** asked for \$5,000. IUGS recommended \$ 0

New grants are to be reviewed by Bobrowsky and Moores, and then are subject to approval by the EC. The following IUGS Grants were discussed:

- a) **Cross Border** requested \$19,000. IUGS recommended \$19,000
- b) **IYPE** requested \$40,000. IUGS approved in principal \$40,000. Moores commented on sun-setting the commitment contingent upon what happens with the UN.

Other financial matters discussed included:

- a) **ICSU** dues are \$12,105. IUGS recommended paying \$12,105. Haldorsen asked why ICSU was asking for money and whether there were advantages



to paying these dues. Janoschek replied that although there is no payback, the dues are a membership fee. It is a very important umbrella organization. He recommended IUGS be more involved and that this involvement might generate more support from ICSU. If IUGS does pay its fees then it will be cut off from a very important source of funding. Bobrowsky commented that IUGG has an important role in the new ICSU Hazards Initiative and is willing to involve IUGS provided we find a representative. Janoschek said that Bobrowsky would be a good candidate. De Mulder said he felt unhappy about how IUGS operates in ICSU, being under-represented. He felt IUGS should play a stronger role.

### **13) UPDATE**

#### **13.a. Annual Report 2004**

Bobrowsky noted that the Annual Report was the brainchild of de Mulder, who thought it would give the IUGS a more professional appearance. Bobrowsky and Zhang commented that the 2003 Annual Report was a well-formulated, compiled and detailed document that has served as a model for subsequent Annual Reports. The reports alternate between hard copy and digital versions. The 2004 Annual Report, to be compiled by David Huntley, is to be a digital edition. Schneider will be sending photos for the front page. Moores said that he found the Annual Report was invaluable – it was a good resource. John Clague and Janoschek also found it useful and suggested that hard copies be printed only during Congress Years. Victor Mocano asked whether the annual reports could be sent to affiliates and better linked to members.

#### **13.b. IUGS Brochure and Flyer**

Bobrowsky and Janoschek remarked that, globally, IUGS activities are largely unknown. A folder and flyer was produced for the Florence Congress. IUGS decided to produce products for advertising and exposure at conferences and meetings. It was also recommended that a brochure be prepared for the web and printed in a format that makes it possible for people to bring it to meetings. Bobrowsky asked Zhang on the status of the brochure. He replied that because of the transition, there were teething problems.

#### **13.c. IUGS Exhibition Stand**

Bobrowsky reported that an IUGS Booth is now in use. A strategy needs to be developed to decide at which major events and conferences the IUGS Exhibition Stand be displayed, said de Mulder. Janoschek noted that the basic layout is completed, but photographs and details need to be cycled. Cadet commented that IUGS could share the booth with GEMS and UNESCO. Zhang suggested the Publication Committee could share some of the responsibility for preparing future booths. Clague suggested it would be best to focus on major conferences (e.g., GSA and AGU) to curb costs. Moores and Matsumoto noted that the conference lists in Episodes would be a useful resource.

Janoschek listed the following as possible sites for IUGS to be present at exhibition with a booth (jointly with IGC, CGMW, YEAR)

**2005:**

September 7<sup>th</sup> to 11<sup>th</sup>: International Conference on Geomorphology (6<sup>th</sup> Quadrennial Conference of the International Association of Geomorphologists) Zaragoza, Spain  
October 16<sup>th</sup> to 19<sup>th</sup>: GSA, Salt Lake City, UT, USA  
December 16<sup>th</sup> to 22<sup>nd</sup>: Geological Society of Africa, Cairo, Egypt

**2006:**

April: European Geosciences Union, Vienna  
July 2<sup>nd</sup> to 7<sup>th</sup>: Australian Earth Sciences Convention, Melbourne  
July 9<sup>th</sup> to 15<sup>th</sup>: 18<sup>th</sup> World Congress of Soil Science, Philadelphia, Penn., USA  
September 3<sup>rd</sup> to 6<sup>th</sup>: 18<sup>th</sup> Congress of the Carpathian-Balkan Geological Association, Belgrade, Serbia and Montenegro  
October 22<sup>nd</sup> to 25<sup>th</sup>: GSA, Philadelphia, Penn., USA  
December 11<sup>th</sup> to 15<sup>th</sup>: American Geophysical Union, San Francisco, CA, USA

**2007:**

July 29<sup>th</sup> to August 6<sup>th</sup>: 17<sup>th</sup> INQUA Congress, Cairns, Australia  
October 28<sup>th</sup> to 31<sup>st</sup>: GSA, Denver, CO, USA  
December: AGU, San Francisco, CA, USA

**ACTION ITEM (#17):** Bobrowsky to compile a list of conferences over the next four years where the IUGS Exhibition Stand could be potentially displayed. He will distribute the list to all EC members for final assessment so that the Bureau can commit to attending meetings.

**13.d. IUGS Exposure and Advertising Products**

Moore and Bobrowsky briefly discussed exposure and advertising, noting that brochures and flyers have been produced. IUGS compasses and ties have been popular, and 1000 more compasses and another 1000 ties are on order. Other possibilities considered include business card folders and headscarves. Moore noted that revised IUGS logo should appear on all products. The same goes for publications where IUGS has contributed with money. Joint IUGS-IGCP publications should also show the IGCP logo. Cadet suggested producing scale-bar cards with the IUGS logo. Schneider said that the Namibian Geological Survey could place the IUGS logo on the scale-bar cards they produce. Cadet also suggested placing the IUGS logo on the new ICS Stratigraphic Column. However, Riccardi pointed out that until they re-instate the Quaternary, IUGS should hold off. Moore wondered if a Task Force for Public Affairs could deal with exposure and advertising issues. Nowlan remarked that for maximum exposure, products should be available in an accessible, downloadable and printable format.

**13.e. IUGS PowerPoint presentations**

Bobrowsky and Janoschek reported that PowerPoint presentations are available as a kind of core presentation that can be modified to suite specific purposes. At the moment, there is a general presentation for IUGS and one for IYPE. The latest presentations need to be updated, however.

Haldorsen noted that she did not have copies of the presentations. Schneider remarked that she has several versions and wondered which is the more current. Zhang said he would provide updated versions and circulate a template. The IYPE presentation, commented de Mulder, was updated monthly. Nowlan also remarked that they could be posted on the IUGS website.

**ACTION ITEM (#19):** Zhang to update the current IUGS PowerPoint presentation and distribute it to all EC members and Commissions, and provide a downloadable version for the web.

### **13.f. IUGS E-Bulletins**

Haldorsen reported that she had discussed, with Bobrowsky and Zhang, the publication of Electronic Bulletins. The plan is to distribute four bulletins per year and to make them thematic. These will hopefully provide a useful link between IUGS members. The remaining newsletters for 2005 will deal with the following items: a) Next will be a brief summary of the 55<sup>th</sup> EC meeting; b) Progress of the planning of 2008 IGC in Norway; c) Affiliate unions; and d) Special issues, for instance the IYPE. Haldorsen also plans to attend and co-organise the ICSU funded IUGS-INQUA Dark Nature: Mega-flood meeting in Mozambique.

She then asked the EC about ideas for topics. Once a list of topics is compiled, bulletins are to be prepared and circulated to the President, Secretary General and EC for comments and revision. After a final review by Zhang and Bobrowsky, bulletins will be released on the IUGS website. De Mulder commented that the minutes will be published on the web and that there is not needed to circulate them in the form of a Bulletin.

The need for brevity was expressed by a number of EC members. Bobrowsky said that the Secretariat has compiled a directory of 4000 members that could be condensed to a page on the IUGS Website. Cadet remarked that each bulletin should be a page long with hotlinks. Ed de Mulder suggested the need for a more frequent Newsletter. He said there should be plan for newsletters to fill in the intervals between Bulletins. Moores added that there could be attention to headlines in order to arrest people's attentions. Bobrowsky and Haldorsen did not think a newsletter was necessary because there is already some overlap between the bulletins and geo-news messages are posted on the website. The frequency of web news items and messages could be increased, replacing the need for newsletters. Zhang ended by saying that IUGS is faced with limited funding, and that information is spread-out and unevenly distributed. He sees the need for a centralized information system as a means to keep IUGS members informed.

**ACTION ITEM (#20):** Haldorsen to include a list of all upcoming IGCP meetings and events in each of the E-Bulletins

## **14) FREE DISCUSSION**

Zhang sincerely thanked Dr. Jonas Satkunas for the host organizations' warm hospitality, excellent field excursion, and superb arrangements for the 2005 EC

meeting. As a token of appreciation, the IUGS presented Dr. Satkunas with a fossil fish from the Green River Formation (Eocene) of Wyoming, USA.

Zhang thanked everyone for attending and for the pleasant, collegiate atmosphere of the EC meeting. Haldorsen thanked Bobrowsky and Zhang for their work and correspondence, and for being democratic. She looked forward to working with the EC over the coming years. Dates for Bureau meetings were suggested:

- Vancouver - May 27<sup>th</sup> to 28<sup>th</sup>
- Trondheim - Geo-meeting, August 16th to 22<sup>nd</sup>  
- Statutes Committee Meeting, August 22<sup>nd</sup> to 23<sup>rd</sup>
- Shanghai - ICSU General Assembly, mid-October

## **15) VENUE AND DATE OF THE 56th and 57th EXECUTIVE COMMITTEE MEETINGS**

Bobrowsky invited suggestions for the venues of the 56th and 57th EC Committee Meetings. He noted that the Lithuanian experience has shown that running a meeting requires a strong commitment from the hosting group to organize and run. Subarau said Hyderabad would be happy to extend an invitation. Haldorsen suggested southern Africa, although Schneider pointed out that Namibia had already hosted a meeting. Riccardi suggested Argentina in January 2006 as a venue.

## **16) OTHER BUSINESS**

- 16.a. Bobrowsky raised the participation of IUGS at the upcoming Ecuador Meeting. Cadet and Riccardi said they would attend; Zhang would try to attend; Bobrowsky was not sure whether he would be there.
- 16.b. Pereira (and Colin Simpson) had a question about archiving the COGEOENVIRONMENT website. Bobrowsky answered that GEMS is the archive source and that IUGS website only provides a link.
- 16.c. Bobrowsky mentioned the ICSU Asian and Pacific Meeting and wondered whether GEMS was represented there as an observer. Subarau suggested IUGS presence at the next meeting of the Asia-Pacific Association in Singapore in June, perhaps by presenting the booth. This meeting will bring together 800 to 1000 participants from geoscience and industry. Victor Mocano expressed the opinion that it might not be good value for money to have the booth on display for such a small and specialized conference.
- 16.d. Moores noted that in his Vice-President's Report, he mentioned he was attending Earthquake and Tsunami Preparedness and Planning Meeting in Reno this April and another outside of the U.S.A. at a later date. As he will be the only geologist in the group, Moores asked for a list of names of people who could be invited.
- 16.e. Uri Shamir commented that the new version of Geosciences in Africa (GIA), Geology In Africa: has been reshaped. This was a bottom-up process: for Africa, by Africans, in Africa. The aim, said Shamir, was to try and keep it as

simple as possible, so that it becomes manageable. There has been strong support for Africa in different countries. Schneider agreed that it was a wonderful initiative, but must be directed to a broader group from the start. Riccardi and Schneider stressed the importance of keeping in contact with the Geological Society of Africa and Association of African Geological Surveys.