

EC56 MINUTES



**INTERNATIONAL UNION OF
GEOLOGICAL SCIENCES**

56TH EXECUTIVE COMMITTEE MEETING

**JANUARY 6-10, 2006
PUNTA ARENAS, CHILE**



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1. WELCOMING ADDRESS

Zhang Hongren opened the 56th EC meeting in Punta Arenas, Chile. The meeting hosts, Instituto Antartico Chileno (INACH) were applauded for their efforts in sponsoring this event with special thanks extended to the INACH Director, Jose Remtales who could not attend but forwarded his welcome and best wishes for the meeting. The 16 participants in attendance were asked to provide a brief introduction, providing some background and their involvement with the IUGS.

Executive	Observers
Hongren, Zhang (ZH)	Aaron, John (JA)
Bobrowsky, Peter (PB)	Liinamaa-Dehls, Anne (AD)
Brambati, Antonio (AB)	Huntley, David (DH)
Cadet, Jean Paul (J-PC)	Missotten, Robert (RM)
de Mulder, Eduardo (ED)	Nowlan, Godfrey (GN)
Haldorsen, Sylvi (SH)	Yang, Zhenyu (YZ)
Moore, Eldridge (EM)	Wang Wei (WW)
Riccardi, Alberto (AR)	Zhao Xun (ZX)

Councillors Gabi Schneider and Ryo Matsumoto could not attend and sent their regrets.

2. APPROVAL OF AGENDA

Zhang Hongren asked for comments and approval of the 56th EC meeting agenda. Peter Bobrowsky noted that Anne Liinamaa-Dehls compiled the agenda in digital format and asked that participants read the various reports contained therein and table questions at the appropriate time.

3. 55th EXECUTIVE COMMITTEE MEETING, MARCH 2005

3.a Approval of the Vilnius Minutes

Agenda Item 3.b

Peter Bobrowsky reported that the 55th EC Minutes were compiled by David Huntley and circulated for review following the Vilnius meeting. There were no comments and the minutes were approved as tabled.

3.b Actions arising from Vilnius Minutes

Bobrowsky noted that the Bureau tried to stay on top of all the action items arising from the 2005 Vilnius EC meeting and was pleased to report that of the 31 action items in the minutes only three remain outstanding:

ACTION 9: An ARC review on Fossil Fuels was not completed. Bobrowsky said the EC would discuss what to do later in the meeting.

ACTION 18: Bobrowsky commented that a web-based downloadable version of the IUGS flyer that can be easily printed by the public was pending from the PC. Godfrey Nowlan and John Aaron replied that this action was completed and available on the IUGS Website.

ACTION 19: Zhang Hongren was to update the current IUGS PowerPoint file and distribute to all EC, Commissions and provide a downloadable version on the web. Hongren commented that the revised presentation would be completed shortly after the 56th EC meeting. Items discussed in the meeting would be incorporated into the new presentation.

ACTION 25: Eduardo de Mulder reported that this action item was now obsolete and closed off.

ACTION 28: Jean-Paul Cadet asked for clarification from Peter Bobrowsky. Bobrowsky replied that he and Hongren tried to contact the AGA, but that they received conflicting emails. The situation is complicated because the UAE does not recognize SECE. No IUGS money has been given.

4. ANNUAL ADMINISTRATIVE AFFAIRS

4.a President's Report

Agenda Item: 4a

Zhang Hongren presented the President's Report, noting that last year was unusual in the history of IUGS. Because of serious financial difficulty, UNESCO had to take restructuring measures and the Earth Science Division was terminated. As a result, IGCP, the joint program of UNESCO and IUGS, with continuous remarkable success for more than 30 years, is facing a substantial budget cut. The impact for IUGS is unprecedented. The actual consequence may be even greater, considering the indirect impact through ICSU.

Hongren noted that great effort has been made to consolidate membership and make the optimal use of our available resources to achieve the aims of IUGS. According to the Statutes and Strategic Plans, the aims are to unite the global geological community in (a) promoting development of the earth sciences, (b) applying the results of earth science studies, and (c) strengthening public awareness of geology. In order to promote the development of the earth sciences, Hongren suggested concentrating the fund of IUGS toward IGCP.

Historically for IGCP, UNESCO provided financial resources and IUGS provided scientific guidance. To help IGCP over its financial difficulty, Hongren felt it was necessary to reduce some other projects. Hongren suggested that IUGS could also merge the grant projects of IUGS into IGCP. Sylvi Haldorsen suggested the outstanding problem of the Committee of Research Directions could be solved by making the Scientific Board of IGCP the CRD of IUGS. Hongren suggested that reducing the number of minor activities would not damage the basic aims of IUGS. He differentiated the activities of IUGS according to the aims in the following way.

	Promoting development of the earth sciences	Applying the results of earth science studies	Strengthening public awareness of geology.
Activity	IGCP	Geology For Africa	IYPE
Forum	IGC	Thematic forum for popularization	IYPE
Standard	Geological Time Table	Selection of items to be disseminated	Geo-park standard
Information	Database	Case history	Publication Network

Hongren then asked for clarification on the position of IYPE. He noted that from beginning, the International Year of Planet Earth was aimed mainly to raise the public awareness of geology. The draft resolution of UN recognized the crucial role the Year could play in raising public awareness of the importance for sustainable development of the Earth's processes and resources, disaster prevention, reduction and mitigation, and capacity building for the sustainable management of resources, and its important contribution to the United Nations Decade of Education for Sustainable Development. Eduardo de Mulder reminded the EC that there was a clear division in the aims of IYPE: 1) advance science, 2) applied research, and 3) to increase awareness of science. Hongren said that the proclamation of IYPE is a great achievement and IUGS will try its best to continue support after the proclamation.

Zhang Hongren then had a few words about IGC, noting that a decisive step forward toward the complete association of IUGS and IGC was taken in November 2005 when the IUGS Task Group on IGC/IUGS Statutes met in Paris. Eventually, the IGC will become the real forum of IUGS. The relationship between IUGS and IGC will be very much like the relationship between International Olympic Committee and Olympics. The IUGS will maintain the standard, decide the venue, review the preparatory work and give guidance. However, the local organizing committees still have great degree of autonomy in finance and other aspects.

Hongren remarked that applying the results of earth science studies is still a weakness of IUGS, but that it is very important in maintaining good relationship with developing countries. He asked colleagues to consider a work group for this purpose, citing the GeoUnions initiative, Geology for Africa, as a good example. IUGS can jointly make efforts with sister organisations. Hongren concluded his report with some comments about Standards. According to the Rules for Commissions, the duration of a Commission is normally be eight years, but may be extended on request for another 8-year period. Since the ICS has exceeded the time limit, the question is what to do next? Hongren thought that maintaining standards is a very important long-term continuing service that IUGS could offer for the world geological community. In the future, IUGS has to find a new solution and enhance our effort along this line and to organize it more systematically.

4.b Past President's Report

Agenda Item: 4.b

Eduardo de Mulder was strongly involved in the preparations for the International Year of Planet Earth in his capacity as Chair of the Management Team, and acknowledged his

employer TNO (one of the Founding Partners of the International Year) who made it possible for him to do so. As Chair of the UNESCO – IUGS Task Group on the Reform of the IGCP, de Mulder attended a meeting of the Task group in Paris, and coordinated the input of its members and reported its recommendations to the IUGS EC in October 2005. He also participated in the ICSU General Assembly and the meeting of the GeoUnions in China.

Eduardo de Mulder noted that 2005 has been extremely important for various reasons. The International Year of Planet Earth was proclaimed by the 191 member countries of the UN on December 22nd 2008, based on Draft Resolution by the Tanzanian delegation with 82 countries so-signing. In 2005, the number of Founding Partners increased to 12, mainly through major USA-based geoscience bodies, production of six science and outreach brochures, a business plan and pamphlets in 6 languages, geographical expansion of the Management Team and the development of one national committee (Japan). Moreover, together with the chair of eGY he took the lead in bringing the four Year initiatives together to formalize cooperation, in the Home of Geography, resulting in the Celimontana Declaration. To promote the International Year and to represent IUGS, the Past President gave presentations in numerous meetings in many countries in 2005.

Sylvi Haldorsen and Eldridge Moores were impressed and congratulated the de Mulder on his work and efforts. The Past President replied that it was team effort. Robert Missotten said he was happy with UNESCO's role during the October meeting and that there were no objections from the Member States; all approved. He commented that UNESCO's Director General wants IUGS cooperation in IYPE.

4.c Vice Presidents' and Councillors' Reports

Agenda Item: 4.c

Zhang Hongren and Peter Bobrowsky expressed appreciation for the work of vice presidents Sylvi Haldorsen and Eldridge Moores, and councillors Jean-Paul Cadet, Alberto Riccardi, Gabi Schneider and Ryo Matsumoto. Bobrowsky said that both Haldorsen and Moores were valuable members of IUGS. Hongren hoped the contributions of the councillors could continue, emphasizing the representation of IUGS by Cadet in Europe and Riccardi in South America. Riccardi, noted Hongren, was the only South American representative of IUGS in a continent where more representation was needed.

Vice President: Sylvi Haldorsen

1. IUGS Bulletin

Sylvi Haldorsen reported on the IUGS E-Bulletin. During 2005, five Bulletins (Numbers 9–13) were distributed. The issues have been partly thematic, partly a collection of different small news, with the most popular one being Bulletin #12 focusing on IYPE (written in collaboration with Edward Derbyshire).

John Aaron and Sylvi Haldorsen discussed the relation between the E-Bulletin and the IUGS Web, concluding that it is difficult to find a profile for the E-Bulletin that prevents unnecessary overlap with news on the Website. For instance, Bulletin #10, listing IGCP meetings, and Bulletin #13, focused on the IUGS Commissions, strongly overlap with the IGCP and IUGS own web sites. If the Bulletin only includes news, which is not published on the web, it will easily draw the attention away from the web-news, because the readers may believe that they are fully updated through the E-Bulletin. On the other hand, one can ask why information that is already found on the Website should be repeated in an E-Bulletin. It will then only be a service for people who do not bother to look up the Website. The time it

takes to write the Bulletins, and not least, to distribute them electronically, could have been better spent on other activities. It is a question how much time should be applied on repeating news that is easily accessed on the Internet.

Haldorsen also noted that in some instances, *ad hoc* news from the IUGS Secretariat was a substitute for news that would have been suitable for the Bulletin. She cited as an example, the November circular from the Secretariat about the progress towards a Year of the Planet Earth. Haldorsen found it to be very useful and efficient that the Secretariat sometimes takes care of *ad hoc* distribution of news, after it has been agreed with the Secretary General or President. It gives a short response time, and it is not necessary to wait for the next and less informal E-Bulletin to be written. Haldorsen mentioned that the first response from the national committees to the IUGS outreach questionnaire did not indicate that the E-Bulletin was much read or distributed. After much consideration, she was rather doubtful to the importance of the short, partly formal (numbered) Bulletins and aims to ask for a discussion about this task at the Executive Committee meeting in January 2006.

Peter Bobrowsky thanked Haldorsen for her work on the E-Bulletins and expressed concern that they were not widely read. He suggested that the points of contact (i.e., National Bodies and Affiliates) were not passing them on, although individuals were finding them useful. Jean-Paul Cadet said that the impact of the E-Bulletins is significant. Cadet suggested that after the EC meeting, a message should be sent to the National Committees reminding them to circulate the bulletins and promote the IUGS Website. Bobrowsky suggested the IUGS send memoranda to Commissions and other bodies as separate releases to the E-Bulletins.

2. Ad Hoc Group to reorganise IGCP

Haldorsen commented that the most time-consuming activity this year was working as a member of the IGCP *ad hoc* group, which was appointed at the EC meeting in Vilnius in March. The mission of the committee is to present plans for a new IGCP adjusted to the revised UNESCO Science and societal needs. Another mission was to propose ways to increase the funding to IGCP. In a meeting in Paris in June 2005, the group agreed on the schedule of its work and division of labour. This was reported in the minutes of the meeting, which was discussed in the IUGS Bureau meeting in Trondheim in July. The final report of the group was formally distributed in October.

Haldorsen noted that over the same period, the IGCP Scientific Board appointed a similar *ad hoc* group. The two groups worked without knowing about each others' activities until September 2005. This resulted in confusion and misunderstandings, many of which could have been avoided if the two groups had collaborated and exchanged documents at an early stage. The final reports from the two groups point at some very different ways for the future of IUGS.

A considerable amount of work, particularly concerning exploration of new funding sources for IGCP, has yet to be completed. Haldorsen expressed particular concern regarding discussions with UNESCO Water Science, involving Jean-Paul Cadet and herself from IUGS and Robert Missotten and the leaders of the UNESCO Water Science from UNESCO. The work of the *ad hoc* committee will be a separate item on the agenda of the Executive Committee meeting in January 2006.

3. IUGS awareness in the Member Countries

Haldorsen noted that at the July Bureau meeting in Trondheim it was decided to distribute a questionnaire to all national IUGS committees, with questions about the outreach of information from and about IUGS. She took on the duty to author the questionnaire and analyse the replies. The questionnaire concerned the use and distribution of Episodes, the Bulletin and the IUGS brochure, and the use of the IUGS web. When this report is written, only 18 countries have submitted their replies: Botswana, Bulgaria, Germany, Iceland, Kenya, Malaysia, Namibia, The Netherlands, Norway, Russia, Saudi Arabia, Sweden, Tanzania, Thailand, Turkey, UK, USA, Yemen (Africa: 4, America: 1, Asia: 5, Europe: 8).

4. Ad hoc group – how to increase participation by underrepresented groups in IUGS

It was also decided at the Bureau meeting in Trondheim, Haldorsen noted, to establish an *ad hoc* group dealing with underrepresented groups in IUGS. It was recognised as a problem that not all regions, all age groups and both gender are represented equally well in the IUGS bodies. Haldorsen agreed to chair this group and asked a few others to participate in the work. Anne Liinamaa-Dehls served in the group and edited a database that was very useful in the first part of the work. Haldorsen also asked Sospeter Muhongo, Gabi Schneider and Yaoling Niu to assist in the work. The progress, preliminary results and further plans were presented in the form of a PowerPoint presentation.

5. Participation in Meetings and Projects

Haldorsen participated in three meetings funded by IUGS in 2005:

- March: Executive Committee in Vilnius, Lithuania
- June: IGCP ad hoc group in Paris, France (one day meeting)
- July: Bureau meeting in Trondheim, Norway

She represented IUGS in the final meeting of the IUGS-INQUA-IGCP-ICSU – funded project ‘Dark Nature – rapid natural change and human responses’ in Como, Italy September 6 – 10. Haldorsen is one of the co-leaders of this project during its two years of duration. Norwegian funding covered her participation. This project has organised five successful meetings:

- 2004: Mauritania (desertification) and Mozambique (catastrophic floods)
- 2005: Argentina (environmental catastrophes from the coast to the Andes); Iran (rapid sea-level changes); Canada (rapid change of the Arctic landscape); and Italy (summary of the project, and special focus on earthquakes)

Haldorsen reported that in Italy, the group discussed plans for publishing papers from each individual meeting; and that she has made the plans for the publication of papers from the flood meeting in Mozambique. Together with a number of invited papers, studies of flood records in the Nile Delta, Bramaputra, Mekong and Mississippi will be published in a special issue of Environmental Geology. The IUGS contribution to the project will be made clearly visible in the introduction of this issue.

Vice President: Eldridge Moores

In 2005, as Vice President, Eldridge Moores reported that he had a busy year, attending all meetings of the Bureau and the Executive Committee meetings. He feels that he is still on a steep learning curve with respect to IUGS and all its various components. Moores served as liaison to the Affiliated organizations. In February, Moores met with the Science Officer of the US delegation to UNESCO, particularly concerning the annual US\$75,000 contribution to IGCP, and had extensive telephone and personal conversations with IUGS’s liaison in the US

National Academy of Sciences concerning this issue. Moores reported that contribution is continuing, at least for the time being. Moores also noted that he was a member of the IUGS/IGC Statutes Committee, working to combine the IUGS and IGC statutes. He attended the GeoUnion meeting in Shanghai, serving as the Rapporteur, and the ICSU meeting in Suzhou. During the latter, Moores made a statement urging ICSU to use Earth and Space Sciences as one of their subdivisions—it was officially announced as such the next day. Moores also mentioned collaborative work on behalf of IUGS with the International Alliance of Earth Science and Earthquake Engineering Professional Associations, including attending a meeting in Beijing in 2005.

Councillor: Jean-Paul Cadet

In 2005, Cadet was involved in IUGS Commissions, initiatives and affiliated organizations, including CGI, ILP/SCL, CIFEG, AAPG and TecTask. These relationships are very useful and positive, and complete the Bureau's action. He also noted that problems concerned with AGA. In particular, Cadet highlighted the following activities:

- IGCP: Participation to the working group on IGCP reform
- IYPE: participation to the MT meeting when held in Paris; promotion of the Year in different countries
- IPY: liaison with the IPY Management Team, participation to the February 2005 Open Meeting; proposition of several initiatives (global maps of Polar regions, Symposia, etc.) for the 2008 IPY in conjunction with the Oslo IGC meeting
- GEOPARKS: passed on information about this initiative (in France and talks in Iran and Lebanon)
- Liaison with the French National Committee (CNFG), passing on information on IUGS activities, and actions to promote the involvement of the CNFG in IYPE
- CGMW: precedence and animation of the Commission; including efforts to develop a standardized stratigraphic colour chart, in relation with ICS

Councillor: Ryo Matsumoto

Zhang Hongren reported that Ryo Matsumoto was busy and could not attend the 56th EC meeting, but submitted a digital copy of his report. Through the meeting at Vilnius, Matsumoto gained some idea of the activities, achievements and important role of IUGS in the international earth science community. However, because 2005 was his first year as an IUGS Councillor, Matsumoto felt he could not fully contribute to the Union because of limited experience and knowledge about the history and implementation of IUGS. Matsumoto's report focused on activities in two areas.

1. National Committee of IYPE

National committee of IYPE in Japan was established in early 2004 responding to the positive discussion at IUGS and proposal to UNESCO. Dr. Oya (President of the Oyo Geology Consultant Co.) and Dr. Miyazaki of APST (Senior geologist of the Geological Survey of Japan) were assigned as the Chairman and the Secretary General of the Committee, respectively. Matsumoto first joined the committee as a member representing the Sedimentological Society of Japan; then as a council member, serving as the Councillor of IUGS following Dr. Sato. Upon request from Eduardo de Mulder, Matsumoto provided a Japanese translation of the flyer of IYPE in August. Matsumoto attended a meeting of the National Committee at the annual meeting of the Geological Society of Japan in September 2005. After the meeting, the Secretary General visited the responsible personnel in the Ministry of the Foreign Affairs in October to explain the importance of the IYPE in encouraging the geoscience education, and to urge the Ministry to take effective measure at

UNESCO and UN. Matsumoto expressed an interest in taking on a more effective and influential advertising IYPE, perhaps through the Union (next).

2. Restructuring of Science Council of Japan and the establishment of Japan Earth and Planetary Science Union

Matsumoto also reported that for the first time in its 50 year history, the Science Council of Japan, the top and most influential governmental organization in the policy of science and technology, has been totally reorganized. The total number of subcommittees was greatly reduced, and some of the earth science related subcommittees were not organized within the new Council. To maintain some influence, the entire earth science community was reorganised and a Union covering from the Astronomy to the Social Geography was established with the help of Prof. Hamano of Tokyo University. The Union comprises at least 32 earth science-related societies, and include about 32,000 members. This is comparable in size to the Physical Society (~40,000) and Chemical Society (~55,000). It is hoped that the establishment of the Union will help to keep our influence on the academic policy of Japan. Throughout this process, Matsumoto has been working partly as a Chairman of the Sedimentological Society, and as the Councillor of IUGS. In the near future, Matsumoto will be assigned as the cooperative member of the new Science Council of Japan.

Councillor: Gabi Schneider

Zhang Hongren reported that Gabi Schneider was very busy and was not able to secure a visa in time for the EC meeting. During 2005, Schneider continued to chair the IUGS subcommittee of the Geological Society of Namibia. The EC of this society is also the Namibian National Committee for IUGS. Schneider also served as a member and treasurer. An electronic bulletin has been distributed to members of the executive committee, and IUGS-relevant information issues were communicated to all members of the society.

Schneider serves as the Director of the Geological Survey of Namibia (GSN), the IUGS adhering body. She and GSN have promoted geoscience issues at various levels, including the ministries of Mines and Energy; Education, Science and Technology; Culture, and at the Office of the President. A number of IGCP projects are also supported by the GSN.

Gabi Schneider also focussed activities on IYPE. Through a number of visits to, and discussions with the Founding President of Namibia, Dr. S. Nujoma, Schneider was able to solicit his support and engage him as a patron for IYPE. Schneider considers this an important step because of the international reputation of Dr. Nujoma; and that he has started to study geology after completing his last term in office in March 2005. The Chairman of the DeBeers Group, Mr. Nicky Oppenheimer, was also contacted by Schneider to solicit financial support for IYPE from this important international mining house. Their recent campaign “Diamonds for Development in Africa” fits well with the IYPE motto, “Earth Sciences for Societies.” A number of posters dealing with IYPE were designed and displayed in the GSN foyer, where they have already attracted considerable interest. The logo has been translated into all nine Namibian languages. Schneider also contributed a position paper on Earth Sciences.

Councillor: Alberto Riccardi

Alberto Riccardi reported on a number of activities related to IUGS have been carried out since the last Executive Meeting. Following the decision of IUGS EC (Vilnius, March 2005) Riccardi contacted IUPACs leadership in order to organize a new body on Isotopic Geochronology under the joint sponsorship of IUGS and IUPAC. Its appointed initial

members made a proposal and TOR for a new Task Group on Isotopes and Geochronology (TGIG).

Riccardi participated in the XII Latin-American Geological Congress (Quito, Ecuador, May 4-6, 2005, 500 participants), and the Argentinean Geological Congress (La Plata, Argentina, September 19th-21st, 2005, 1000 participants), where he made public presentations on the IUGS and the International Year of the Planet Earth. Riccardi also participated in the activities and meeting (Paris, November 2005) of the Task Group on IGC/IUGS Statutes. After this meeting, Riccardi organized an ARC to review the activities of the International Commission on Stratigraphy in Paris and prepared a report with recommendations to be considered by the IUGS EC. Contacts were made in order to organize the 2006 IUGS EC in Argentina.

Also in 2005 Riccardi chaired the Argentinean Commission on Stratigraphy. This group is currently completing the National Stratigraphic Lexicon. Riccardi also participated as an adviser to the Argentinean Government in mapping activities of the Argentinean Geological Survey.

Agenda Item: 4.d

4.d Secretary General's Report

Peter Bobrowsky reported that the activities related to IUGS during 2005 in the office of the Secretary General proved challenging. Three high profile events dominated much of the year, in particular elements surrounding the IGCP (and termination of the Earth Science Division in UNESCO), the International Year of Planet Earth and the Permanent Secretariat. Regarding the first item, the SG participated in the annual meeting of the IGCP Scientific Board in Paris in February where discussions were held with the IGCP Secretariat and senior UNESCO officials including Deputy Director Erdelen and Director General Koichiro Matsuura. The focus of all IGCP related efforts has been to preserve the program, assist in the transition to a new identity and enhance IUGS presence and contribution towards the new IGCP. Since the Paris meeting, IGCP has nominated communiqués, Bureau meetings, etc. The second most challenging issue has been the liaison and maintenance of the International Year of Planet Earth via the Management Team. Progress in the Year has been exceptional, and the SG participated in one MT meeting in London this past July. The Year passed a critical stage in 2005 obtaining all levels of political approval and recognition. The third most pressing concern for the SG was the issue of the Permanent Secretariat in Trondheim, Norway. The SG travelled to Trondheim in May to meet with the Norwegian National Committee for IUGS to discuss the future of the Permanent Secretariat.

The New Year of 2005 began with the Indian Ocean tragedy. This natural disaster occupied much of the SG time from a number of perspectives. In late January the SG participated in the World Congress on Disaster Reduction in Japan where he represented IUGS at a session sponsored by the ICL (International Consortium on Landslides) in Kyoto and he met with IUGG VP Tom Beer and others in Kobe to pursue shared GeoUnion responsibilities in Hazards. In July in Paris, he represented the IUGS as an observer for the ICSU Scoping Group on Natural Hazards; a report subsequently tabled and adopted by all Unions at the ICSU General Assembly in China. A new initiative on Hazards will be launched by ICSU.

Day to day activities of the Union was managed collectively by the IUGS Bureau who met on several occasions (Paris in February, Vilnius in March, Vancouver in June, Trondheim in July, and Beijing in October). The SG also met separately with the IUGS Treasurer and a

previous IUGS SG (Boriani) in Italy in September where the two represented the Union at the 14th AEGS meeting (Association of European Geoscience Societies).

Miscellaneous efforts included: IUGS liaison with the IUGS Grant leaders (CGI and IPA); collaboration with the other GeoUnions within ICSU (including participation to the ICSU GA in China where IUGS President Uri Shamir was elected to the ICSU EB); promoting membership and membership upgrades to country representatives and increasing our presence in Africa (via upcoming Bureau meeting in Morocco; potential integration of the African Association of Women Geoscientists and participation in the Maputo regional conference on geology); and dealing with Publication related concerns via the PC and Episodes.

Bobrowsky said he was indebted to colleagues for their active support. In particular, he commended fellow Bureau members Zhang Hongren and Antonio Brambati for working as a team to further the cause of IUGS, Vice President Eldridge Moores for taking on extraordinary duties and Anne Liinamaa-Dehls at the Permanent Secretariat for timely replies to the many nuisances associated with working with the Secretary General. The full team of IUGS, concluded Bobrowsky, is now working smoothly and efficiently as it moves into its second year of cooperation.

4.e Treasurer's Report

Agenda Item: 4.e

Antonio Brambati gave a presentation highlighting Income and Expense flows and the general financial situation. He emphasized and noted his attempts to decrease administrative expenses and increase income. An income of US\$ 573,737.51 covered expenses of US\$ 528,957.16 to a positive balance of US\$ 44,780.35, partly due to the contribution from the 32nd IGC.

Brambati was concerned about the number of inactive members in Category 1 and problems with South American contributions. Robert Missotten commented that if there are uncertainties regarding Brazil, they could be resolved with discussions with the ambassador from Brazil when in UNESCO. Jean-Paul Cadet was confused about the Active and Inactive status and asked whether pending countries become inactive after two years. Brambati answered that a country becomes pending if it does not pay for two years; after three years without payment it becomes inactive. Brambati showed a world map highlighting active, inactive and pending organisations and discussed changes in their status between 2005 and 2006.

Brambati continued with a comparative financial analysis with previous years, and noted that there will be no income from IGC this year, and over the next 2 years support is expected to fall, but will be subsidized by an increased income from interest. He hoped that Norway would increase its contribution to IUGS through IGC registration fees and stressed the need for a control on spending. The Saudi government, noted Brambati, will also be upgrading its Membership Category from 4 to 8; Lebanon cannot pay; there will be no Associate Members in 2006; and Ukraine and Bulgaria want to become Active Members.

Zhang Hongren concluded this agenda item by remarking there were no extensive comments required at this time. Eduardo de Mulder and Alberto Riccardi appreciated the good reporting and congratulated Brambati.

4.f. Permanent Secretariat's Report

Agenda Item: 4.f.

Zhang Hongren introduced this agenda item. In 2005, after the departure of Hanne Refsnes, Terje Thorne took over leadership of the Secretariat, with Anne Liinamaa-Dehls as the Assistant. Liinamaa-Dehls commented that Ron Boyd would be taking over the leadership role in January 2006. Sylvi Haldorsen remarked that Ron Boyd would serve IUGS well.

About the office

The Secretariat of the Union is hosted by the Geological Survey of Norway (NGU) in Trondheim. Currently it operates almost entirely from the funds from Norwegian Ministry of Trade and Industry, but also receives US\$2,000 annually from IUGS. Currently there are no active agreements between IUGS and the Norwegian National Committee of Geology existing for the tasks of this office; however it is expected that such a document will be drafted and signed by both parties in 2006.

The IUGS Secretariat supports the IUGS Bureau in their fulfilment duties as defined by the IUGS Statutes. When feasible, and approved by the Secretary General, the Secretariat responds to requests made by the IUGS Executive, IUGS bodies and affiliated organizations. Along with the IUGS Website hosted by John Aaron, the Secretariat is an important point of inquiry for individuals with IUGS interests. This office also assists the organizing committees of the International Geological Congresses and currently serves as the Secretariat for the International Year of the Planet Earth. The Ministry of Trade and Industry has requested an evaluation report of the office. This report will be drafted and submitted by Sylvi Haldorsen and Richard Sinding-Larsen. The IUGS Secretariat provided information as requested.

International Year of Planet Earth

Questions related to IUGS IYPE activities were amongst the most common received during this period: these have been forwarded to Eduardo de Mulder and Ted Nield. The Secretariat received some 28 boxes of IYPE brochures: 200 kg of IYPE brochures were packed and distributed, including 1200 copies (total) to the EGU meeting in Austria and 1000 copies to the GSA in Salt Lake City. The IUGS Secretariat also coordinated the joint IUGS-IGC-IYPE exhibition booth for the Geological Society of America.

International Geoscience Programme

The Secretariat is primarily responsible for collecting financial information on all projects receiving UNESCO, IUGS or US State Department funding; distributing the Call for Nominations to the IGCP Scientific Board and collecting the resulting nominations and CV; over 100 nominations were evaluated. Late March 2005, the IUGS Secretariat drafted the report on the use of US State Department funding 2004 (US\$ 75,000) and the 2005 Work Plan for the use of US State Department funds was drafted by the Secretariat and forwarded by the IUGS Treasurer, Antonio Brambati. Under consideration is the possibility the IUGS Treasurer taking the responsibility of assembling the IGCP financial reports; recently, the IGCP coordinator has reported that their cooperation with the Office of the Treasurer is excellent.

Addresses

The IUGS Secretariat continuously updates its address database with information provided by its contacts. Information of general interest to the geological community (IUGS Bulletins and

IYPE news) is sent out to 7614 e-mail addresses (on average 4% are bounced back). The database lists officers of IUGS bodies, national committees, and adhering organizations. In 2004, the Secretariat included the names and addresses of individuals who submitted abstracts to 32nd International Geological Congress. Several groups have approached the Secretariat to compile contact lists, including the 34th IGC Steering Committee, German and French national committees and the ICSU regional office in Africa.

Nominating Committee

On behalf of the Nominations Committee chair, Eduardo de Mulder, a request for approval of S. Muhongo to replace A. Kampunzu was sent out to all Council members. Quorum was not achieved.

IUGS Booth

The IUGS Secretariat arranged for the update of the IUGS Poster wall (2m x 3.5 m) and arranged for its transport to the Geological Society of America annual meeting in Salt Lake City October 16-19, 2005. The booth was to give visibility to IUGS, the 33rd IGC and the International Planet Earth Year. Gabi Schneider's photo of the deadpan dunes attracted a lot of attention. Many organizations and individuals visited the booth expressed their thanks for the presence of the IYPE Initiative - IUGS - IGC 33 at the Geological Society of America's annual meeting. Visiting the booth were representatives from many key geological institutions and organizations from the US and abroad including officials of the GSA, the Smithsonian Institution, National Science Foundation and the USGS.

Archiving

One of the Secretariat's major ongoing tasks is to ensure IUGS documentation of historical significance is properly archived. Large volumes of material related to non-IUGS bodies have been disposed of, and an archive system has been developed. The IGCP Coordinator has been approached regarding its archival holdings and material related to IGCP Board Meetings (eight archive boxes) has been sent to Paris. Space does not allow the offices to be a repository for material for IUGS affiliated organizations: Hence, six archive boxes of material for the European Association of Scientific Editing (EASE) were sent Finland.

Surveys

Upon request of the IUGS Secretary General, the IUGS Secretariat distributed a survey on behalf of the International Geoscience Education organization (IGEO), to all adhering countries. The Outreach Survey was distributed to the same groups and responses collected and forwarded to Sylvi Haldorsen.

Scientific Database: Geosites

The geological site (Geosites) database includes contributions from Global Indicative List of Geological Site (GILGES), UNESCO World Heritage and proposals from IUGS national committees. In 2005, the IUGS Bureau and Norwegian National Committee concluded that the development of the database could be transferred back to a new IUGS body with its own Secretariat. In May 2005, the IUGS Secretariat transferred the database to Werner Janoschek, a member of the Task Force of the IUGS-IGU UNESCO-Initiative: GEOSEE (GeoParks Approach: science, heritage, communication, socio-economy and education). Their permanent Secretariat is in Beijing China (<http://www.geosee.net/>)

Scientific Database: Deep Drill holes

This database comprises 101 records of drill holes with depths < 5000m (PLEASE CHECK THE DEPTHS VALUE) from as many countries as possible. It has been noted that several of the current 101 records lack crucial information. In April 2005, the IUGS Secretary General, Peter Bobrowsky, during his visit in Trondheim discussed the matter with the Chair of the Norwegian National Committee. Both parties agreed that the Secretariat should no longer be responsible for this activity. The information gathered between 1993 and 1998 could be transferred to another organization. Dr. Ulrich Harms of International Continental Scientific Drilling Programme (ICDP) will be offered the data. See <http://www.icdp-online.de/>

Meetings

The IUGS Secretariat attended the Bureau meeting hosted by the Norwegian Geological Survey in late July 2005 in Trondheim. This was good opportunity for the Secretariat to introduce the Bureau to the facilities of this office and the services available at the Survey. Pursuant to agreement made between IUGS and the IUGS Secretariat in early March, this office reimbursed the travel expenses of David Huntley to attend the Executive Committee Meeting in Vilnius. This was intended to compensate for the unexpected absence of a representative from the IUGS Secretariat.

Preparations for IUGS meetings

The IUGS Secretariat aided the chair of the *ad hoc* Review Committee to prepare for the review of ICS in Paris in early November 2005. In addition, the IUGS Secretariat sent out the Secretary General's request for 2005 annual reports by IUGS bodies.

IUGS Domicile

Under last Council, the move of IUGS Domicile's move from Reston to Trondheim was approved.

4.g Application for Affiliation

4.g.1 CCOP, AWG and GSI changes of IUGS statutes

Agenda Item: 4.g.1

For this agenda item, Eldridge Moores discussed the revision of the statutes and remarked that written replies from CCOP, AWG and GSI are expected soon.

Revised Definitions

(h) Affiliated organizations are non-governmental, scientific, autonomous, non-profit-making organizations, which have obtained affiliation with the Union (by vote of the Executive Committee and ratification by the Council) for the representation of geo-scientific interests and, through the Union membership in the International Council for Science, for collaboration in arranging international scientific meetings, and/or for planning and undertaking activities of mutual interest. Representatives of the affiliated organizations may be invited by the Executive Committee to take part in deliberations of mutual interest, and the affiliated organizations may take the initiative in proposing such deliberations. Affiliated organizations may designate one of their registrants as a nonvoting delegate to the Council. (See Statutes 11, 62; Bylaw 29)

Revised Aims and Objectives

3. The aims of the Union are to unite the global geological community in:
- (a) Promoting development of the earth sciences through the support of broad-based scientific studies relevant to the entire earth-system.
 - (b) Applying the results of these and other studies to preserving Earth's natural environment, using all natural resources wisely, and improving the prosperity of nations and the quality of human life.
 - (c) Strengthening public awareness of geology and promoting geological education in the widest sense.
 - (d) Facilitating interaction among geoscientists from all parts of the world.
 - (e) Promoting participation of geoscientists – regardless of race, citizenship, language, political stance or gender – in international scientific endeavours.
 - (f) Encouraging international cooperation in meeting the geoscientific needs of developing world geoscientists and their countries.

4.g.2 Association of African Women Geoscientists; Geological Society of France; ProGEO

Agenda Item: 4.g.2

Peter Bobrowsky and Antonio Brambati began by noting ProGEO has applied to become an affiliated body. A letter to Zhang Hongren from the Secretary General of ProGEO, Dr. W. Wimbledon, was circulated amongst EC members and observers. Bobrowsky remarked that the ProGEO has an important mandate and urged Council to approve and accept their application.

- **Vote:** EC unanimously **approved** PROGEO as an affiliated organization.
- **Action 1:** Peter Bobrowsky to write Dr. Wimbledon to inform him of this decision to accept ProGEO into IUGS family.

Bobrowsky then noted discussion is still pending with AWG (America Women Geologists), but that IUGS will meet with AfrWG (Association of African Women Geologists) in Morocco in conjunction with Bureau meeting in May. Their membership fits IUGS criteria.

On the topics of GSI and GSF, Bobrowsky noted that Geological Society of India has 15% international membership and keen to get 2000 members. He also cautioned that what an organisation stands for and mutual benefits are more important than the numbers of members. Jean-Paul Cadet then commented that the Geological Society of France has not made a formal request, but is interested in becoming an Affiliated Organisation. Eldridge Moores then read from the Statutes and Bylaws and remarked that IUGS should accept as many affiliates as possible: the more, the better; then IUGS will be a stronger, more unified organisation, following the ICSU model. Bobrowsky agreed and was keen to improve relationships with these organizations. Robert Missotten concluded by saying that UNESCO was very happy with the efforts of IUGS to involve the AfrWG, and that it looks forward to IUGS meeting with this group.

5. ANNUAL REPORTS AND FUTURE PLANS OF IUGS BODIES

5.a Adhering Organizations

5.a.1 Adhering Bodies: Applications for Membership

Agenda Item: 5.a.1

Peter Bobrowsky opened this agenda item, saying that he had read all the annual reports of adhering bodies. Some 31 countries submitted reports. He noted no significant complaints about IUGS and varying degrees of contribution of information from the members.

Bobrowsky encouraged other EC members to read the reports. Specific questions by organisations will be addressed over the coming year. Bobrowsky also reminded the EC of the meeting with ICSU in Maputo, Africa, where IUGS will have a large presence.

Sylvi Haldorsen said she had a meeting with the National Director of Mines of Mozambique who approved the covering of membership fees. IUGS also received an email from Lopo Vascocelos, President of the Geological-Mining Association of Mozambique (AGMM) also expressed interest, and points out that it is not clear from the Bylaws (Membership and Fiscal Policy) what categories are available and would like clarification. Alberto Riccardi mentioned that the National Committee for Argentina was now under new leadership and that Roberto Page promises to reactivate this group, so IUGS should see more activity in the future. Bobrowsky also noted that the Norwegian report was in the hands of Sylvi Haldorsen and Anne Liinamaa-Dehls.

5.a.2 Adhering Bodies: Reports of Adhering Organizations

Agenda Item: 5.a.2.

Peter Bobrowsky and Anne Liinamaa-Dehls then brought to everyone's attention a list and table showing the reports of Adhering Organisations. The table lists countries, contact addresses and comments. Robert Missotten said he wanted to see what Adhering Organisations had to say about UNESCO. Zhao Xun remarked that China wanted to see enhanced communications with National Bodies. Bobrowsky suggested better communiqués are needed. Xun also suggested that IGCP member countries need more support. Bobrowsky replied that IGCP-IUGS activities will be ramping up. Xun and Bobrowsky both saw GEOPARKS as a high profile IUGS initiative. Alberto Riccardi also commented that the National Committee of Argentina was active, noting workshops held in Medical Geology and Geoindicators. Riccardi also presented at a number of conferences.

Member	Contact: Name and E-mail	Comments
Albania Geological Survey	Mr. Hamdi Beshku, General Director hbeshku@gsa.gov.al	The Albanian Geological Survey was extremely active nationally and in cooperation with international colleagues. Numerous relevant topics are being addressed. Not clear if there is an actual NC for IUGS in the country.
Azerbaijan National Committee Of Geologist (Uncg)	Prof. Arif Ismail-Zadeh arifismail@excite.com	The Azerbaijan National Committee of Geologists has 9 diverse members and appears to be truly broad. Observations: actively preparing for a session at the 33rd IGC and recently held a conference for young geoscientists entitled: "New trends In Earth Sciences development"

Bulgarian National Committee for Geology	Todar G. Nikolov, Secretary tnikolov@geology.bas.bg, tgnikolov@bitex.com	Very positive reply clearly indicating a high level of support. They actively promoted IYPE, survival of UNESCO Earth Sciences, IGCP, etc. They anxiously await integration into the EU to improve the position of geosciences in the country. NOTE: they highlight 3 points for IUGS.
Canadian National Committee for IUGS	Bryan T. Schreiner, Chairman bt.schreiner@usask.ca	The National Committee for IGCP was quite active, less so for IUGS. Strongly supported IYPE and survival of IGCP campaigns. Plan to increase membership level to IUGS next year.
The Geological Society of China	Ms. Milly Wang Dr. Zhao Xun, Chairperson dic@cags.net.cn	The GSC has been extremely active with many scientific events and an excellent outreach program. Good efforts to promote geoscience amongst young people. World leaders in GeoParks. NOTE: they have 3 key recommendations for IUGS
Czech National Committee for Geology	V. Babuska, Chair, V. Stedra v.babuska@ig.cgu.cz, stedra@cgu.cz	Quite active group in a number of topics including entering European GeoParks. Extremely active in IGCP. NOTE: not pleased that IYPE has not fully acknowledged their support in tables.
Danish National Committee for Geology	Dr-Henning Haack, Secretary hh@savik.geomus.ku.dk, lho@sns.dk	Group is very active for the 33rd IGC and is embarking on Geosites work. See also a new website.
Estonian National Committee for Geology	Prof. Dimitri Kaljo kaljo@gi.ee	Working towards improving some basic geoscience efforts and collaboration; strong diversity on the committee; working hard towards assimilation in IYPE
Finnish National Committee for Geology	Dr. Sinikka Roos sinikka.roos@gtk.fi	Held 4 National Committee meetings, significant role in IGC33, promoting “Day of Geology” last September.
Comité National Français de Géologie (France)	Dr. Denis Vaslet, President d.vaslet@brgm.fr, Alain.Blieck@univ-lille1.fr	Represents the most largest and active IUGS National Committee; several meetings during the year; successfully lobbied government to continue geoscience support. NOTE: want more input regarding IYPE
Deutsches Nationalkomitee IUGS (Germany)	Prof. Dr. Alan B. Woodland woodland@em.uni-frankfurt.de	Fairly large committee. Primary concerns are reduced funding and support for geology in the country and loss of collections which require archives. NOTE: strong role in “life” theme for IYPE

Geoscience Committee for Ireland	Dr. Julian Menuge	Under new leadership, meeting frequently. Fairly large and diverse group. Geosciences on the rise in schools, group is emphasizing outreach and education. Focus internally on health, resources, energy and infrastructure. No comments for IUGS.
The Geological Society of Israel	Dr. Bob Lapidot, Chair of the IUGS NC for Israel Dr. Naomi Porat: President, IGS boblap@academy.ac.il	New President, with 205 members in the society. Several national scientific endeavours in geosciences including a few Earth Science Days each year.
Italian National Committee for IUGS	Dr. Gian Battista Vai	Arrived 15 December
Jordanian Geologists Association	Dr. Khaled al-shawabkeh, President shawabkeh29@hotmail.com	JGA is a very formal legislated body. They are nationally active, planning a large international meeting for April 2007 and require IUGS financial support.
Lithuanian National Committee of Geologists	Assoc. Prof. Dr. Petras Sinkunas, Chair Sinkunas@geo.lt	Extremely active geoscience group. Hosted the 2005 IUGS EC. Strongly supporting IYPE. Very active in numerous Commissions, IGCP projects, etc.
Malaysia	Dr. Saim Surutam saim@jmg.gov.my	No formal report. NOTE: very concerned about lack of IGCP opportunities even though they are interested, expect more coordination from IUGS.
Commission for Geological Sciences (Netherlands)	Ms. Alice M. de Gier, Secretary alice.de.gier@bureau.knaw.nl	Very nationally focussed group of 15 members. Held a few scientific symposia.
Norwegian National Committee for IUGS	Dr. Anders Elverhøi, Chairman anders.elverhoi@geologi.uio.no	NO REPORT
Pakistan Academy of Geological Sciences	Dr. F.A. Shams hajarpk@hotmail.com	New member to IUGS. Extremely proactive. Numerous conferences, new Medical Geology group, new Group on Short Lived Phenomena, and Geosites. Very responsive to all IUGS requests.
National Committee of Geology, Poland	Prof. Dr Andrzej Zelazniewicz, President pansudet@sun1000.pwr.wroc.pl	Fairly large (34 members) and active group, elected to 4 year terms. Hosted a great many national and international events in Poland.

Russian National Committee of Geologists	Saima M. Makhmutova, Acting Executive Secretary ncgrus@ginras.ru	Fairly large (34 members) national group. Faced with significant financial challenges, cannot maintain all international geoscience related memberships. NOTE: very pleased with Episodes distribution
National Geological Committee of Slovakia	Dusan Plasienka, President plasienka@fns.uniba.sk	New members elected to the National Committee. Very active in geosciences, especially in a few IGCP activities support IYPE. Launching new website. Hope to clarify relationship with IUGS.
Comisión Nacional de Geología (Spain)	Dr. José Pedro Calvo Sorando, Director General of IGME jose.calvo@igme.es	Fairly focussed national geoscience body. Interested in IGCP, IYPE (paid for brochure #9), and international collaboration. Building new website and compilation of geoscience activities.
Geological Survey of Tanzania	Chief Executive, Dr. Pascal Semkiwa psemkiwa@yahoo.co.uk	It is not clear what the status of the National Committee actually is, but the geoscience community at the national level is very active, especially in exploration.
Department of Geological Survey and Mines (Uganda)	Dr. Edwards Katto kagimba@hotmail.com	Not clear if there is an active National Committee, but geosciences in general are trying to address exploration, water and hazards. Outreach is a concern.
US National Committee for IUGS	Elaine Lawson e.lawson@nas.ed	Submitted 12/20/05
National Committee of Geologists of Uzbekistan	Dr. Bakhitar Nurtaev nurtaev@ingeo.uz	Not clear if there actual is a National Committee, but the geosciences are very active in exploration, environmental issues, etc. Significant collaboration with neighbouring countries.
Vietnam National Committee for IGCP	Dr. Nguyen Thanh Van nguyenthanhvan@dgmv.gov.vn	No IUGS committee but very active in IGCP projects. NOTE: specific requests from IUGS including better communication, GeoParks training and IGCP updates.
GSMBR	Dr. Abdul Sattar Othman Nani asnani@y.net.ye	Not clear how active the National Committee for IUGS and IGCP actually is but they do support IYPE. NOTE: they need experts to collaborate with in the country.

5.b Committees

5.b.1 Nominating Committee

Agenda Item: 5.b.1

Zhang Hongren read the Nominating Committee report. He noted there were no changes in the Executive Committee over the past 12 months apart from the retreat of Werner Janoschek

(conform the Statutes) in August 2005 as a Past Secretary General, there is nothing to report by the Nominating Committee over 2005.

Zhang Hongren and Eduardo de Mulder remarked that after Dr. Henri Kampunzu passed away, his replacement by Sospeter Muhongo was put to Council for voting, but no quorum was reached (only 27 voters). As all received votes were in favour for Muhongo, de Mulder assumed the Nominating Committee was complete again, pending the results of a second voting exercise (maybe jointly with other issues?) by the Council.

Peter Bobrowsky cautioned that decisions not be made without quorum and that the matter needs to have adequate numbers of voters (*ca.* 1/3rd of the active members). He also said it was fortunate the NC was inactive at present. Zhang Hongren commented on the protocol for contacting members and deadlines noting that there is time to establish contact with countries. Eldridge Moores confirmed that in the revised Statutes, there must be at least 1/3rd of the full members voting. The EC agreed that this would be included as a voting item along with other issues sent out by the IUGS Secretariat. Anne Liinamaa-Dehls said that she would be contacting people shortly.

Jean-Paul Cadet wondered about improving the voting mechanism. De Mulder noted that nomination calls go out less than a year ahead of the IGC, exposing proposed candidates to scrutiny. Also, at least two candidates must compete for bureau positions and they should be made to make public speeches following the ICSU model.

Agenda Item: 5.b.2

5.b.2 Committee for Research Direction

Sylvi Haldorsen began by remarking that the CRD has been dormant for more than two years and that ideas for the future were needed. She was not convinced that a specific committee is required for this activity; rather, the EC itself should be responsible for research directions.

Eduardo de Mulder reviewed the history of the CRD. It was created to focus attention on developing scientific programs based on the Strategic Action Plan, with the aims of looking at trends and managing activities of IUGS Commissions. Initially, the idea was to involve the chairs of the IGCP Board working groups whom were appointed based on their expertise.

Eduardo de Mulder suggested postponing the activities of CRD and that a special meeting of EC was required on scientific directions. Haldorsen agreed and described her experience on CRD as unfruitful. She noted the EC must first meet to create their own vision of future science for IUGS. Bobrowsky agreed that the CRD was redundant and should be eliminated. He remarked that it served no purpose, because the EC calls upon scientific expertise and picks experts to advice on issues.

Eduardo de Mulder then cautioned the EC to consider what IUGS should do in the matter of science over the next 2.5 years. Bobrowsky added that the EC should look for an opportunity to meet to discuss scientific matters and that special meetings were needed. He cautioned that the EC is not necessarily up-to-date with active science, and that it needs to see what is going on at international geoscience meetings (e.g., GSA, AGU), looking at papers and posters given at these meetings. Eldridge Moores suggested IUGS look at the hot topics at AGI, AGU, EGU meetings, ignoring the "fashionable" topics, but examining the active, cutting trends. Jean-Paul Cadet asked what IUGS could do, once it identifies these trends? Haldorsen replied that IUGS must undertake self-examination to determine what fields it

covers and the entire spectrum of activities. Moores reminded people that IUGS has two roles: initiating and facilitating science.

John Aaron noted that the reason for creation of CRD was due to the existence ABRD, a group that met during each EC meeting. He saw no reason that the same task cannot be fulfilled *ad hoc*. Zhang Hongren summarized that this problem has a long history and the CRD has been dormant for some time. He noted that ICSU would soon establish a new committee on Scientific Planning and Review, so ICSU believes strategic planning is important. However, experience has shown that the Committee did not work for IUGS. Hongren supported Haldorsen's idea of additional meetings. He recommended the whole EC should consider the Strategic Plan. If the CRD is dissolved as it is now, he wondered who in the EC would take charge of scientific planning and review. Eduardo de Mulder replied that the full EC has the ultimate responsibility on science development in the Union and a defunct CRD should be dissolved.

- **Unanimous decision:** The EC decided to dissolve the CRD

Agenda Item: 5.b.3

5.b.3 Publication Committee

After a brief review of his Summary for the Publication Committee, Zhang Hongren introduced Godfrey Nowlan. Nowlan opened with a couple of briefings on the IUGS Website and routine matters of Episodes. This was followed with a discussion of Episodes Online. First, he reported vital statistics provided by John Aaron regarding the Website. Some 30 new pages and 2 new sections have been added, old pages were revised and links checked. There are more than a 100 countries visiting the Website per month, so information posted there has global outreach. There were over 7000 client visits per month, and hits to 50,000 pages monthly. The pages most visited are: Publications, Annual Reports, the Geoscience Calendar and Links.

Peter Bobrowsky expressed surprise at the results and noted this indicates people visiting the Website are most interested in IUGS outputs. Interest in IUGS scientific activities is low, and this is a surprise. Eldridge Moores stressed that focus be kept on the most visible outputs (e.g., IUGS Publications, Annual Report, etc.). Sylvi Haldorsen suggested that the statistics could reflect organization of the website. If scientific activities had a more prominent place on the Website, then there may be more hits. Eduardo de Mulder proposed a page or link to the International Year of Planet Earth Website.

Haldorsen considered reducing the number and length of E-Bulletins, an E-bulletin on IUGS Web Services, the potential of outreach activities, links to the IUGS Permanent Secretariat Website. Haldorsen also suggested that the EC could be more active in posting information on the Website. Alberto Riccardi expressed congratulations to John Aaron on his work on the IUGS Website.

Zhenyu Yang briefly reported on Episodes, running through the statistics reported. Yang commented on the need for a new Associate Editor. The Publication is still lacking major scientific publications by important researchers. He also raised the issue of On-line publication of Episodes. Nowlan thought it would help to solicit for good scientific papers, and that this was something the EC should look at.

On the topic of Associate Editors, Nowlan stressed the need to identify 6 new editors to replace those out-going; for recommendations to be up-front; and wondered whether nominations should be reviewed by the full Council. Moores remembered his experiencing as an editor sending out 1000 letters soliciting papers. He noted that it was worth going through Abstract Volumes to search for potential contributors. Haldorsen stressed the importance of getting Episodes recognized as a high-standard international journal. Eldridge Moores offered names of three candidates for the Episodes Editorial Board, both global visionaries: Ellene Centeno Garcia (UNAM, Mexico), Yildirim Dilik (GSA Bulletin Co-Editor, Department of Geology, Miami University, and Oxford, Ohio) and Maria Antonieta Lorenta (University of Caracas, Venezuela).

Nowlan then opened discussion on Episodes On-line. He noted a few informal offers by Springer, Elsevier and Geoscience World. The PC contacted High Wire Press (run out of Stanford University) and Geoscience World has expressed interest in taking Episodes On-line in 2007. Unlike Springer and Elsevier, High Wire Press is a Not-for-Profit Organisation. The basic costs from High Wire Press for a functional Website is US \$23,000; with on-going costs determined by number of articles, pages, source files, hosting changes, content conversion, up-dating and subscriber databases. Nowlan suggested at least US \$30,000 to get Episodes On-line.

The steps involved to go On-line include:

- Construction of Home Page
- Scanning files for viewing
- PDF normal files with all hyperlinks
- PDF with hyperlinked titles and references
- HTML files allowing hyper linking and better image viewing
- Money for on-going maintenance costs
- Old content conversion, including 10 years of PDF files

Nowlan then suggested the EC consider Copyright, Ownership, Editorial Authority, Intellectual Property, File preparation, Costs absorbed by Publishers and Subscription issues. If IUGS opts for a private publisher, then there will be subscription fees over which IUGS will have no control. The private publisher has many rights. On the positive side, back issues are digitized, and a percentage of the revenue goes to IUGS, with a maximum of 20% of the net proceeds returned. Nowlan questioned whether IUGS is serving its clients through out-sourcing.

To an extent, Episodes is already “on-line” and appears in GEOREF. In its present state, Episodes is serving its clients not badly, which argues that the *status quo* be maintained. The People’s Republic of China already heavily subsidises the journal, and provisions are in place to continue digitizing back issues. Zhang Hongren remarked that new PDF Writers rapidly convert old issues. He commented that the basis for being On-line is that everything is digital and this has been the case with Episodes since 1999, although some effort is required with the searching capabilities. With existing software, Episodes can be On-line to the extent of Nature and Science.

Moores and de Mulder commented that the Journal Impact of Episodes has risen from 0.2 to 1.1; an exceptional rating, although below the GSA Bulletin. This emphasizes the need to go after cutting-edge articles that people want to read. This is done through solicitation of

articles, making sure journal costs remain low, and selection of articles appealing to scientists globally.

Bobrowsky expressed concern about the vision of the journal, subscription, scientific quality and numbers served. He suggested the PC look at strategies of other journals (e.g., INQUA's Quaternary International run through Elsevier). Bobrowsky remarked that the EC has to agree on a Vision for Episodes, and that keeping a citation index of 1 is going to be difficult.

Nowlan stressed that articles should not be too specialized, and that Episodes also has a responsibility to report conference news. Haldorsen agreed that the News content was a major difference between Episodes and other journals. She brought to the EC's attention the Open Access Journal movement (www.doaj.org) in Sweden. This portal links to 35 geological journals and is currently used by the EGU.

Moore reiterated that Episodes is doing well and urged Yang and Nowlan to stay the course, but continue to improve ways of offering Episodes. Bobrowsky and Haldorsen then reminded the EC that it still had to examine the distribution of the journal. They wanted to know number of copies per issue produced; Nowlan and Yang replied about 500 subscribers and 1000 free copies circulated. Bobrowsky suggested a goal of doubling these numbers. Moore commented that the path to becoming a high volume/high income/high visibility journal is though soliciting high profile scientists, research projects and articles.

Alberto Riccardi said he would be very happy to see one or two main articles and general news, following a structure similar to GSA Today. He also stressed the need to approach Associate Members and cautioned that the hosting organization should be Not-for-Profit. Moore also expressed that he was against a For-Profit host. He suggested the PC advertise in newsletters of associations and societies in developing countries. Riccardi then wondered whether Associate Members should pay a fixed fee according to the GDP of their country. Bobrowsky and Nowlan summarized the PC missions:

- Increase the visibility of the journal
- Improve On-line access
- Double subscription
- Increase circulation in Developing Countries
- Improve circulation
- Improve content
- Seek Not-for-Profit publication
- Expand Outreach

Eduardo de Mulder acknowledged the questions raised and suggested the EC continue discussion at the Maputo meeting. Hongren then brought to discussion the Terms of Reference, asking where the PC goes from here. Nowlan reminded the EC of changes affecting the PC Committee since the 55th EC Meeting in Vilnius (e.g., loss of two members). As part of the MOU with GSL, some of the activities of the PC have been taken over, freeing up time to continue other essential tasks. Nowlan then raised the issue of proposed future roles for the PC, stressing the need to ensure publication worthy of IUGS material not selected by GSL (e.g., IGCP or IUGS projects).

Bobrowsky and Riccardi proposed accepting the current directions of the PC, and that there was a need to nominate and populate the new PC over the coming several months. Nowlan cautioned that he has not seen any of the candidates, and stressed the need to include

members from developing countries with good editorial skills and command of the English language. Haldorsen also indicated the nominees have a relevant resume. Eduardo de Mulder was reluctant to expand the PC as the costs may be a limit, but if it were to increase in size, then emphasis must be on the editorial role. Nowlan and Riccardi noted that *ex officio* editor members would be helpful, but more than one is needed.

Eldridge Moores then moved to replace the two absent members. Sylvi Haldorsen seconded the motion.

Action Item: Bobrowsky suggested EC to submit candidate names by an e-mail ballot by February 15 2006; and Godfrey Nowlan to review the list of nominees suggested by the EC.

Hongren and Nowlan stressed that three new members would address journals and articles rejected by GSL. Candidates must be good in English and have a global perspective, remarked Moores. A European committee member would be essential, but candidates from developing countries should also be considered. Haldorsen highlighted the need for candidates with regional knowledge of developing countries. Bobrowsky and Moores reminded the EC that as things stand, Nowlan is overworked, but if other members are brought in, then their roles must be clearly outlined by the EC.

To summarize, Nowlan asked for decisions on the following three Agenda Items:

- 1) Should current activities and roles PC continue?
Approved: All EC members approve Continuing Tasks
- 2) Proposed future roles and new activities for the PC.
Approved with one abstention: EC approves proposed future roles, new activities and better representation in developing countries. (EDM abstained)
- 3) Replacing the Committee members who were removed.
Approved with one against: EC approves three new members for the PC. (EDM against) Alberto Riccardi nominates Eldridge Moores to serve as an *ex officio* EC representative on the PC.

Nowlan ended discussion by stressing the need to establish better links with IUGS publications (e.g., advertising, access to expertise, new publishing venues). The PC will continue to provide advice on IUGS brochures, PowerPoint presentations, advertising and displays. It will also cooperate with publications related to outreach of IYPE and IPY, especially for content, style and translation. He noted that since November 2005, three IUGS books have been published.

Title	Status	Type	MS Due	Comment
Geology of the Mediterranean Area	Accepted	IGC	Nov 05	Might slip
Cool-Water Carbonates: Depositional Systems and Palaeoenvironmental Controls	In house	IGC	Rec'd	Publication due Feb 2006
Geomaterials in Cultural Heritage	In house	IGC	Rec'd	Publication due April 2006

Most of the IUGS commissioning activity so far has related to the IGC32. We commissioned 11 successful proposals. If these translate into published books, IUGS will make £8250 in finder's fees. In addition, there are four titles accepted by the normal agreement. There are no other IUGS proposals in hand. However, in November last year, Nowlan contacted leaders of

IGCP projects, which led to some positive enquiries. He intends to repeat this exercise this November, and invite people to visit our stand at the AGU Fall Meeting.

At their last meeting, the Society's Books Editorial Committee considered the IUGS request to include international members. They agreed to restructure the BEC to include two tiers: Society Books Editors, who would normally be Fellows of the Society; and Society Books Advisors, who would normally reside outside of the UK and who did not need to be Fellows, but should be familiar with the Society's publications

As a result, five Books Advisors have been recruited (together with an existing member). This has been a successful move and has led to livelier discussion of the issues that face the Committee. Current members of the BEC are given overleaf. It is likely that further members will be recruited after the next BEC Meeting. The following is the composition of the Geological Society of London Books Editorial Committee September 2005.

Name	Institution/Country
Chief Editor/Chair	
Bob Pankhurst	British Geological Survey/UK
Society Books Editors	
John Gregory	Kronos Associates/UK
Jim Griffiths	University of Plymouth/UK
John Howe	Scottish Assoc for Marine Science & University of the Highlands and Islands Millennium Institute/UK
Phil Leat	British Antarctic Survey/UK
Nick Robins	British Geological Survey/UK
Jonathan Turner	University of Birmingham/UK
Society Books Advisors	
Mike Brown	University of Maryland/USA
Reto Gieré	Albert-Ludwigs-Universität Freiburg/ Germany
Jon Gluyas	Acorn Oil & Gas/UK
Doug Stead	Simon Fraser University/ Canada
Randell Stephenson	Vrije Universiteit Amsterdam/Netherlands
Simon Turner	Macquarie University/Australia
Other members	
Publications Secretary: Nick Rogers	Open University/UK
Web Publications Editor: Alan Roberts	Badley Earth Sciences/ UK
Staff/Committee Secretary	
Commissioning Editor: Angharad Hills	Geological Society Publishing House/UK

5.b.4 *Ad hoc* Review Committees

Agenda Item: 5.b.4

Review of International Commission on Stratigraphy

Alberto Riccardi told the EC of a meeting in Paris to review the activities of ICS. A number of recommendations were made, most of which were applicable to ICS, but some were to IUGS. On scientific matters, all GSSPs will be approved for 2008, and there is work on the new Stratigraphic Guide. Riccardi cautioned that ICS should make this guide compatible with National Guides. The ARC's concern was that the ICS has not consulted the national committees of stratigraphy for their view. His personal opinion, as mentioned in the report, is that we must distinguish scientific matters and procedural matters, and that IUGS should not be involved in scientific matters.

Riccardi reviewed the history of ICS: it predates IUGS. The purpose of the group was towards a global consensus on nomenclature on stratigraphy. By the 1970's sixteen sub-commissions were created, whose most important task has become to define GSSP. Nomenclature has been left to the side. The task of defining GSSP is endless; most GSSP defined so far are in Europe; which does not reflect worldwide geology, only knowledge of geology. GSSP is defined and approved by IUGS but then the sub-commissions and working groups find better sections. Definitions of new sections depend on who is involved, and is often extremely controversial. This is not a crucial matter for IUGS.

The Committee also agreed that the establishment of the Stratigraphic Chart was an important task for this group. Riccardi recommended that the IUGS however, should only be concerned with the procedure with which changes are made to the chart.

Following a discussion of the items summarized above, the ARC arrived at several conclusions and recommendations. These were grouped under two main categories, scientific and procedural. A number of action items were also generated.

1. Conclusions and recommendations on scientific matters

There is a lasting need for an international committee of stratigraphers to stabilize stratigraphic procedure and terminology as the science of stratigraphy continues to develop new concepts and techniques. New Guides will be needed and will need to be amended; existing GSSPs will be challenged; subdivisions below Stage are desirable; new techniques and new terminologies will emerge.

1. ICS is to be congratulated for the important work it has done in promoting stratigraphic research. The establishment of GSSPs has produced an important by-product: a large improvement in stratigraphy as a science, worldwide.
2. New editions of the International Stratigraphic Guide (ISG) should build on previous editions, but begin with clear definitions of stratigraphic principles and go on to include concise explanations of new concepts, techniques and improvements in practical applications.
3. The ISG should be what the title implies, a Guide, and not be regarded as a mandatory edict of ICS under its parent body, IUGS.
4. ICS should try to make the ISG compatible as far as possible with existing National or Regional Codes (e.g. the North American Code, NACSN).
5. Classifications should be standardised at and above a certain stated level.
6. Typological definitions of standard chronostratigraphical units by means of boundary stratotypes, such as Stage GSSPs, should be extended downwards, below the Stage level in the hierarchy.

7. The ways in which standard boundary stratotypes are defined are practical matters that may vary from System to System and involve different criteria and techniques. They should therefore not be closely defined or regulated by ICS.
8. The validity of parallel standard chronostratigraphic classifications, based on different practical geochronometric techniques, should be recognized. All standard classifications should be individually defined typologically in terms of boundary stratotypes, as is at present the practice in Stage GSSPs.
9. If and when several parallel standard chronostratigraphic classifications have been produced, they should be compared and inter-calibrated. One of them should then be selected to be the Primary Standard, others to be designated Secondary or Auxiliary Standards.
10. Descriptions of GSSPs should include clear specifications of all the elements used in their definitions and their applicability.
11. Definitions of GSSPs should not be constrained by a deadline for completion, as such a deadline can be unrealistic, in view of the essentially voluntary nature of the contributions by those doing the work - at least, as far as ICS is concerned - and potentially dangerous in trying to arrive at sound, unforced and stable proposals. At present, noted Riccardi, the deadline is 2008 for approving all outstanding GSSPs. This is unrealistic and many will be challenged in the following years.
12. The function of ICS in this respect, as in others, should be reactive - guiding, unifying, codifying what has been achieved and encouraging what has been suggested, certainly - rather than proactive, trying to generate new initiatives that it is unable to resource directly itself.
13. All definitions on the International Stratigraphic Chart not formally approved by IUGS should be considered as having no official status.

2. Conclusions and recommendations on procedural matters

1. A new edition of the International Stratigraphic Guide should be produced by the IS on Stratigraphic Classification (ISSC), in consultation with National and/or Regional Committees/Commissions on Stratigraphy. This could proceed in three steps: a) ISSC produces a draft of the Guide; b) ISSC consults National and/or Regional Committees; c) ISSC decides on the final version.
2. The International Stratigraphic Guide should include procedural provisions for future amendments.
3. All ICS official publications, i.e., those exhibiting the ICS logo, should be published according to the Statutes of IUGS and ICS, and in conformity with the provisions of the International Stratigraphic Guide.
4. All ICS official publications must be formally approved by the IUGS EC as far as compliance with constitutional requirements is concerned, although not as endorsement of their scientific or technical content. Guidelines should be in agreement added Riccardi.
5. In this connection, IUGS EC should establish a standing Advisory Committee on Stratigraphy or Stratigraphic Standards, consisting of three experts, to advise it on all matters submitted to it by ICS for consideration, but exclusively with regard to the fulfilment of all legal requirements of rules and procedures governing the establishment of international standards in stratigraphic matters. Riccardi emphasised that the division should be resolved and the EC play an advisory role. This does not happen at present.
6. The Nominating Committee for election of Officers of ICS should consist of a maximum of five members, which shall not include any of the Executive Committee of ICS nor Chairs of the Sub-commissions of ICS.

7. Members of the Nominating Committee should however be proposed and elected by the Chairs of the ICS Sub-commissions.
8. The Nominating Committee for election of ICS Officers should propose not more than three candidates for each position.
9. The ICS Officers are then elected by the Chairs of the ICS Sub-commissions. Riccardi suggested the election procedures be overhauled to prevent the inbreeding of chairs. The ICS Commission must create a less-biased committee.
10. The whole process of electing the Nominating Committee and the ICS Officers should be conducted by the Chair of one of the ICS Sub-commissions, e.g. the Chair of the IS on Stratigraphic Classification.
11. ICS Statutes should be modified within the next 6 months in accord with the recommendations given above.

Riccardi said if the Minutes were approved, then they should be sent to the ICS. The EC could then go over the ICS comments. He recommended creating a group to look into this matter and asked how to implement these recommendations. Pending the comments of the ICS, these recommendations should be put into effect for 2008: If all the goals were not carried through, then Felix Gradstein's idea of an International Association of Stratigraphy could be followed. If this group were created, only products that served the global interest would receive stamp of approval from IUGS.

Eduardo de Mulder complimented Riccardi on this report, saying that the recommendations were excellent and that the EC should agree with them all. Eldridge Moores remarked that the ICS was out of control and acted in an outrageous manner. He would like to see this commission closed. Sylvi Haldorsen commented that some of the problems are related to the fact that there are many of the same people and the same kind disagreements. Open minded and new approaches are required. Godfrey Nowlan tempered Moore's remarks by noting that many sub-commissions are inactive, but that there has been pressure to move forward. Jean-Paul Cadet added that it was a complicated field and that the EC must organize reformation of this group.

Peter Bobrowsky felt that the ARC activities were incomplete and that there was still work to do. The establishment of an independent association was a good idea. He also noted that the ICS has been around longer than IUGS, and that it seems to be exempt from the rules of most commissions. The relationship with IUGS is symbiotic. Cadet remarked that IUGS deals with problems of standardization, so perhaps these groups on standardization must be under IUGS. Nowlan said that this has worked so far, adding that the recommendations will help dealing with the kinds of problems the group has encountered for far.

John Aaron asked for a clarification of the problem, especially on reorganization of people and structure of the group. He cited a recent Episodes paper on the definition of the Quaternary as an example where decisions by the Task Group were selectively reported. Aaron remarked that Gradstein is active, but "dictatorial." A consensus must be reached, but Gradstein ignores the recommendations of others. Gradstein is not a "people" person concluded Aaron. Riccardi personally thought that the people are the problem. The chairman currently believes that national committees on stratigraphy should not be involved in decision-making.

- **Motion:** to accept report by Alberto Riccardi.

- **Accepted:** EC accepts the recommendations and conclusions tabled by Alberto Riccardi, Chair of the *Ad hoc* Review Committee on Stratigraphy.
- **Action:** To wait for reply from ICS on report and then ARC to write specific actions, clear for the ICS.

Eduardo de Mulder believed that there must be a response from ICS before approval. Moores added that IUGS should be consistent on rules of sun-setting commissions. Actions must be unequivocal.

Zhang Hongren said that he would like to take up the matter of the Quaternary paper submitted to Episodes by Gradstein. Although publication has been postponed, he suggested that it be published but with a disclaimer. Bobrowsky commented that the issue was still open in INQUA and that John Clague did not have problem seeing the paper published, despite INQUA recommendations being ignored by ICS. Eduardo de Mulder was surprised that a Quaternarist apparently approved the report without noticing the voting. Riccardi agreed, adding that an INQUA statement in late October 2005 was not considered.

Moores interjected that this was another example that ICS out of control! Bobrowsky suggested that IUGS should not act as if it were big brother, but Gradstein's paper would cause confusion as the paper has too many omissions and it should be rejected. Antonio Brambati and Sylvi Haldorsen agreed that there has been a lot of confusion. A change in the structure/people was needed. Both felt that by publishing the Gradstein article, IUGS would contribute to problem.

Eduardo de Mulder remarked that manipulation of information was involved and that the document pretends to represent INQUA task group. He cautioned that if IUGS rejected this document, it would be published elsewhere. It would be better if Episodes takes it with a footnote. Moores added that Episodes could publish subject to a letter from all the sub-commissions indicating that they all agree or just reject it. Bobrowsky suggested Episodes should ask for revision, like every other journal! Brambati also commented on the main results of the commission.

Godfrey Nowlan and Zhenyu Yang suggested sending it for review and request a paper from the ICS-INQUA Task Group that worked on it. Yang noted that Gradstein is ICS chairman, and that it was usual to accept news about a Commission from its chairman.

Moores said that this matter should not occupy costly time of EC. Cadet remarked that this is an extraordinary issue and required some consideration. Bobrowsky suggested that Riccardi could help Yang in drafting letter indicating that the article requires revisions. He emphasised NO note. Nowlan repeated that this kind of paper should come from the working group: this is normal. However, this was news report, not article. He sympathised with the editor: this is not so clear.

- **Decision:** Episodes Editor, Zhenyu Yang will write to the Task Group to submit the scientific paper from the Working Group to be published together with the paper submitted by Gradstein.

Review of Fossil Fuels Commission

Peter Bobrowsky opened the review of the ARC on Fossil Fuels. He reported that Gabi Schneider was not comfortable with the task, so it was necessary to reassign the task to another member of the EC to spearhead this review. Alberto Riccardi first suggested someone in Europe, but then assuming CFF will be meeting in Bolivia, he said he could arrange for the Review.

- **Action item:** EC agrees that Alberto Riccardi would head the ARC on Fossil Fuels

Agenda Item: 5.b.5.

5.b.5 IGC Committee (IGCC)

Zhang Hongren began talking about the merging of the IGC and IUGS, pointing out that the two bodies have not yet come to a solution on merging. However, a meeting is planned in the near future, and Hongren suggested the EC form an IGCC to substitute the steering committee that existed under the previous Statutes. He recommended IUGS contact the former steering IGC.

Eduardo de Mulder asked whether the IGC steering committee been dissolved and said that a clear picture of the Statutes of the merged committee will only be gained once the IUGS Statutes have been finalized. Hongren likened the new IGCC to the Olympic Steering Committee. He cautioned that if the separate groups were kept separate it would be too chaotic and it is not in the interests of IUGS, IGC or the geological community to have these continue as separate items. Eduardo de Mulder then commented on the constitution of the meeting in Paris, noting recommendations were unanimously agreed with exception to one item.

Hongren commented that the IGCC is the same as the steering committee except for the addition of the IUGS Treasurer. He said the IUGS should take a stance, asked what the correct procedure for this was, and wondered whether IUGS alone resolve this problem. Eduardo de Mulder said it the responsibility of IUGS to take a stance. He also noted that the Past IGC Chair would serve as the Chair of the IGC Committee.

Hongren and de Mulder agreed this topic could be further discussed under Statutes, and asked the EC members to approve or dissolve. The recommendations would then transfer to A. Boriani for his response (they will be negative warned de Mulder). Nonetheless, IUGS must take a stance before it is taken to Council. Alberto Riccardi said that IGC should be working on the merger. A new IUGS draft will soon be ready and this could be taken to joint council for final decision. The group should work together until they reach a compromise. Some changes are may be necessary.

Hongren concluded this agenda item saying that the remaining items will be discussed under Statutes.

5.c Commissions

Peter Bobrowsky opened this agenda topic, bringing to everyone's' attention the published summaries in the Agenda and Related Documents. He then asked Jean-Paul Cadet to discuss GEM and CGI; Antonio Brambati to talk about INHIGEO; Sylvi Haldorsen about SECE; Riccardi about ICFF; Zhang Hongren was called upon to review COGE. Reports by absentees Gabi Schnieder and Ryo Matsumoto were also tabled. A general discussion followed.

5.c.1 Geoscience in Environmental Management (GEM)

Jean-Paul Cadet reported that starting from its Inaugural Meeting in Florence in 2004; GEM has now reached full speed, providing guidance to geoscientists on how best to integrate geoscience into environmental policy. The 2005 GEM report, concise and precise, well outlines the commission's activities. Besides routine actions such as one Business Meeting, an active Website, and GEM news (with a good broadcast of 300 recipients the world over), two main results are noticeable:

1) Efficiency of the Working Groups who publish or disseminate the results of their activities: i.e. books, for "Urban Geology" and "Geology and Ecosystems" and a workshop on Cross-Border Geoenvironmental Problems (in Nicaragua, December 2005) for the International Borders-Geoenvironmental Concerns Working Group. 2) The organisation or active participation to 7 Technical Meetings, mainly for capacity building purpose: GEM is now an unavoidable partner in this domain.

Cadet noted that a budget request of US\$ 10,000 (total projected 2006 budget: US\$ 52,500). The 2005 IUGS support (US\$ 5000) is less than 12% of the total budget (US\$ 43,000), but more than 50% of this total budget is devoted to travel and accommodation for officers. He also noted that the promises of GEM 2004 program have been held and three new Technical Meetings are planned for 2006. Two new Working Groups on Communicating Environmental Geosciences and Sources Apportionment will reinforce GEM efficiency.

Bobrowsky said that he had talked to Joy Pereira about the excessive spending by officers for travel and accommodation. As a result, he noted, no Commissions were invited to the EC meeting. Cadet then pointed out that someone needed to be appointed to follow up on the activities of this group as his term was ending. Eduardo de Mulder mentioned the GeoUnions Meeting in Shanghai and the cooperation on Megacities as an example of the good work of GEM, noting that it has a Working Group on Urban Geology. GEM is also working toward merging with IUGG. The GeoUnion has agreed that their projects cooperate. Bobrowsky cautioned that the EC should strongly urge GEM to contact leaders from other programmes of GeoUnions related to urban geology.

5.c.2 History of Geological Sciences (INHIGEO)

Agenda Item: 5.c.2

Antonio Brambati began by stating that the report was detailed in both scientific and financial parts. He reminded the EC and observers that the primary objective of the Commission involves promoting studies in the history of geological disciplines. To do that INHIGEO meets usually once each year to conduct a major symposium on the history of geology, produce an annual Newsletter and work with various publishing houses and journals, including EPISODES.

Brambati pointed out that all objectives and strategies during 2005 were met. The Annual meeting, held in Prague, was a major success and led to plans for publication of selected papers in refereed journals having international distribution (Earth Sciences History and Centaurus). Several field trips were organised through Western Bohemia, into Moravia; and to the historic mining town of Kutna Hora. Production of the guidebook was supported in part with funds from INHIGEO and IUGS. Editing of INHIGEO Newsletter No. 37 was distributed to approximately 200 members, representing 41 countries. With support from IUGS, and the constructive work of John Aaron, INHIGEO are able to communicate with a

wide audience about their activities. In spite of the positive news coming out of 2005, because of the cutbacks, INHIGEO did not have any financial room to manoeuvre.

Brambati noted that for the future are planned annual meetings in Vilnius, Lithuania; Eichstätt, Germany; and Oslo, Norway. Topics for those meetings are: “The History of Quaternary Geology and Geomorphology” (2006); “The Historical Relationship of Geology and Religion” (2007); and “The History of Geological Exploration of the Polar Regions” (2008). Brambati also praised their promotional activity, diffusion of the information and above all the organization of field trips in famous historically areas under the geological point of view. He reported a financial request of US\$ 6,050 (for the guidebook and travelling).

John Aaron added that the success of INHIGEO was that it was composed of older people with a long history of working in the geosciences.

5.c.3 Management & Application of Geoscience Information (CGI)

Jean-Paul Cadet noted that the CGI report was clear and precise as usual, giving a positive vision of their activity. Collaboration with the Commission is going well. He commented that CGI made notable progress in 2005. Cadet remarked that the functioning of the Commission is efficient with two new council members from Russia and Africa (Namibia) and membership extended to 49 countries. A 2005 Council Meeting in Toronto focused on geoinformation, and was a good opportunity to set up closer relationships with IAMG (International Association Mathematical Geology). Cadet also noted an updated and dynamic website. Working Groups are going well too said Cadet. These include:

- a) The test-bed for the geoinformation data model and exchange format, prepared by the Geoscience Data Model International Collaboration Working Group, will be functional in spring 2006.
- b) Multi-lingual Thesaurus for the Geosciences Working Group has to face the problem of the considerable resources that this initiative will require and is preparing a bid for the European Commission funding.
- c) Regional Working Group for East and Southeast Asia, linked with CCOP, to develop geoinformation and geological standards in the region has been created.

Cadet then commented briefly on advances in outreach, including the organization of a workshop for the development of geoinformation across the world in Namibia with UNESCO support; and providing input to INSPIRE, an upcoming directive to build a new Spatial Data Infrastructure to improve the sharing and access to information across Europe.

Cadet concluded that this young Commission is going well, but their big problem was that they needed financial help with the workshop in Namibia. UNESCO money is still forthcoming. Robert Missotten said the UNESCO had severe constraints on the budget in 2006. Missotten wondered whether CGI could mobilise on the US\$ 5000 from UNESCO alone. Cadet added that flyers had to be produced from this budget and that they had no funds for 2006. CGI agreed to do the leaflet on IUGS/UNESCO data handling and link it with interests of IUGS and UNESCO. Cadet reported a budget request from this dynamic group for US\$ 5000 for various activities. There was also complementary request to send representative to a CODATA meeting. Bobrowsky added that they had done a great job in cooperating with IUGS and have a big upcoming presence in Africa.

5.c.4 International Commission on Stratigraphy (ICS)

Agenda Item: 5.c.4

Gabi Schneider, rapporteur for this Annual Report, was unable to attend the EC meeting. Committee members and observers were directed to read the summary printed in the Agenda and Related Documents.

The consolidated Annual Report of 2005 ICS summarized the current goals and scientific activities of the Commission and its component Sub-commissions; as well as detailing the plans for 2006 and associated budget, and a multi-year overview of achievements and future goals. The report also provided an updated list of officers of all ICS sub-commissions. The annual report also included the latest version of the International Stratigraphic Chart and the agenda of the Strategic Planning meeting of ICS in Leuven, Belgium September 2005.

Eldridge Moores noted deficiencies in ICS activities, especially communication with National Bodies. For example, the ICS is ignoring a great deal of Russian research into the Quaternary. Moores noted a request for US\$ 40,000: amounting to 50% less of a request than last year. Antonio Brambati brought up the topic of global standards, pointing out that the new International Stratigraphic Chart was lacking the Quaternary. He cautioned against supporting their financial request to the full amount. This agenda item was not ratified because key statements were still not updated and was left open pending Schneider's report.

Jean-Paul Cadet briefly reintroduced the problem of establishing colour standards for stratigraphic chart, noting this issue was causing big problems. Cadet wanted the EC to approve his work towards the standardization of colours.

- **Mandate accepted:** IUGS Executive Committee charges the ICS and CGMW to pursue their efforts in view of the standardization of the stratigraphic chart.

Remaining GSSPs Timeline for ICS voting

Pledged by Sub-commission at ICS meeting; Leuven, Sept 2005

Sub-commission	2005 (Dec)	2006	2007	2008
Pleistocene	Holocene	Late Pleistocene	Middle Pleistocene	
Neogene		Serravalian		"Langian, Burdigalian"
Paleogene		"Chatian, Priabonian"	"Lutetian, Selandian, Thanetian"	Bartonian
Cretaceous		"Coniacian, Aptian?, Barremian, Hauterivian"	"Santonian, Valanginian"	"Campanian, Albian, Aptian, Berriasian (base Cretaceous)"
Jurassic		"Kimmeridgian, Callovian, Toarcian"	"Tithonian, Bathonian, Hettangian (base	

			Jurassic)"	
Triassic		Olenekian	"Carnian, Anisian"	"Rhaetian, Norian"
Permian		Sakmarian (?)	"Kungurian, Artinskian"	
Carboniferous		Visean	"Gzhelian, Serpukhovian"	"Kasimovian, Moscovian"
Devonian	COMPLETED			
Silurian	COMPLETED			
Ordovician	"Sixth, Hirnantian"	Middle Ordovician		
Cambrian		Sixth	"Fifth, Seventh, Ninth"	Tenth
Neoproterozoic			Cryogenian; Ediacaran series	
Precambrian			"Proterozoic, Archean, Hadean"	

5.c.5 Systematics in Petrology (CSP)

Agenda Item: 5.c.5

Rapporteur Ryo Matsumoto was unable to attend the EC meeting, so this report was missing as of December 12, 2005. Eldridge Moores commented that of its three sub-commissions, two were active (igneous and metamorphic) and a Website is being worked on. Moores noted US\$ 2050 requested, mostly for sub-commission activities. In particular, he noted US\$ 250 for travel related to library work. Moores suggested an *Ad hoc* Review Committee might be required to provide clarification. Eduardo de Mulder asked when the last time CSP was reviewed, suggesting it was about time to look at what they are doing. It was suggested Sylvi Haldorsen could run the ARC, but she said she was not comfortable with the role. It was agreed that Ryo Matsumoto and Eduardo de Mulder would work on it.

Decision: Eduardo de Mulder and Ryo Matsumoto to conduct a CSP ARC in 2006.

5.c.6 Solid Earth Chemistry and Evolution (SECE)

Sylvi Haldorsen said there was not really much to report and no moneys were requested from SECE.

Highlighted was the great success of the IUGS-SECE Conference “The Origin, Evolution and Present State of Sub-continental Lithosphere” held at Peking University, Beijing, China, in late June 2005. A Special scientific volume resulting from the meeting was been organized for “Lithos.” The volume is expected to include ~ 20 papers on the topic, to be published in 2006. Another success was “The Great Plume Debate: The Origin and Impact of LIPs and Hot Spots” held in Fort William, Scotland, UK, August 28th to early September 2005, co-sponsored by AGU and SECE. A special volume out of this conference has been organized for “Chemical Geology,” although a date of publication is yet to be finalized. The IUGS-SECE website is soon to be completed (<http://www.dur.ac.uk/sece/>), and will be frequently updated in the future.

Zhang Hongren said that he attended the Beijing conference, and it was a great success. This was reported in an E-bulletin. Eldridge Moores noted that the conference proceedings were submitted to Elsevier: this is very expensive and many people don't buy their publications as a result. Haldorsen hoped a more complete report could be submitted, and was going to ask them to reply to recommendations from last year's report.

5.c.7 Education, Training, and Technology Transfer (COGE)

Zhang Hongren reported on COGE, noting that the Commission has completed the launch of its Website and will be promoting the site through COGE member's national organizations. There was a US\$ 4000 financial request.

Hongren commented that the Commission is currently assisting the International Geoscience Education Organization (IGEO) in undertaking a world wide survey of the state of earth science education in schools and outreach education and will provide an avenue of dissemination of survey results.

Jean-Paul Cadet asked how COGE was doing. Hongren replied that there was no means of determining this from the report. The Commission is currently gathering ideas from members on how it will contribute to geoscience educational events, activities and materials leading up to the International Year of Planet Earth 2008. The COGE Website will be one avenue to host IYPE information. Eduardo de Mulder expected COGE would play an active role.

Eldridge Moores wondered whether COGE activities were duplicating IGEO services and mandates. Peter Bobrowsky replied that they would not be involved in technology transfer. The problem, he saw, was that the Commission was populated with excellent people but with interests differing from that needed in the Commission, and that "top-down" commissions do not work. Eduardo de Mulder remarked that their outreach proposals for IYPE show what COGE can do. Moores suggested they find members with specialties in technology transfer and asked if there was any evidence that COGE had done this. Godfrey Nowlan noted that professional scientific groups, as a rule, could not run meetings. Also: in the context of international training, the group is not qualified to provide information.

Moores also wondered which organisations were involved with technology transfer. Bobrowsky noted the GSC and USGS were running related short courses in TT. The IUGS could link to these short courses.

Zhang Hongren and Alberto Riccardi both agreed that if funding were to be provided, COGE would use it effectively. Bobrowsky felt that IUGS should support this Commission because its resources were stretched. He recommended that IUGS give them some funding. Antonio Brambati reminded all that COGE had asked for US\$ 4000, but that it was not clear how they were going to use the money. Bobrowsky replied that the Commission should be clearer on what was being requested and how the money would be spent, cautioning the EC that the IUGS could be forced into doing things it did not want to do. However, financial aid is needed said Bobrowsky. Moores ended with a comment that IUGS should ask how much funding is needed to do the job.

5.c.8 International Commission on Fossil Fuels (ICFF)

Agenda Item: 5.c.8

Rapporteur Alberto Riccardi and Anne Liinamaa-Dehls passed around a summary of the ICFF 2005 Annual Report. Riccardi reported that in 2005 the ICFF continued its efforts to

promote geoscientific research in support of an effective exploitation of fossil fuels from environmental and resource management perspectives. ICFF offers easy access to information on related geoscience issues and provides a forum for communication between countries and organisations within the fossil fuels field. Information on geointelligence methodology has been disseminated through the Web Portal (www.geointelligence.org). Current ICFF membership represented 30 countries from the Americas, Europe, Asia and Africa said Riccardi.

Riccardi noted that preparation for the Second General African Petroleum Resources and Regional Governance Seminar was ongoing through the year and would have the participation of representatives from Chad, Niger and Sudan. The Central African Hydrocarbon Resource Management Initiative – a follow-up of the first Seminar – will be discussed at the EAEG meeting in Vienna in June 2006. In addition, the Santa Cruz-Tarija geological province of Bolivia, an area where the interests of Argentina, Brazil, Bolivia and Paraguay converge, has emerged as a new area of activity for the ICFF. In this regard said Riccardi, an inception phase mission to Bolivia was planned for 2006. This includes a preparatory phase in Cochabamba, Bolivia. The ICFF was also active in the preparatory phase of International Year of Planet Earth, as reflected in a provisional brochure on Resources.

Riccardi noted that the IUGS allocation for 2005 was used for administrative and travel expenses. Other funds and support were obtained from the World Bank section of the Norwegian Ministry of Foreign Affairs, and the Norwegian Academy of Science and Letters. The French Embassies in Norway, Niger and Chad have supported the Central African Initiative, in cooperation with the Centre for the Study of Civil Wars (CSCW) at the International Peace Research Institute in Oslo (PRIO).

Riccardi reported that for 2006, the ICFF requested US\$ 5000 from IUGS as seed money to facilitate the participation of scientists from less developed countries in the activities of the group. He emphasised that the goals, activities and results of this Commission were very important and that it should receive full support.

Jean-Paul Cadet asked whether the Commission was involved in training. Riccardi replied not, but that they were developing policies between different countries and a forum of communication. He reiterated that full support was recommended.

5.c.9 Short Lived Phenomena (CSLP)

Peter Bobrowsky began by referring everyone to look at the request from the Geological Society of Pakistan for a Commission on Short-Lived Phenomena, adding that Pakistan Academy of Geological Sciences had appointed money for research. Bobrowsky and Zhang Hongren reported that IUGS received a letter from Dr. F. Shams, President of PAGS just after the Pakistan earthquake. Hongren and Jean-Paul Cadet were concerned that earthquakes and other short-lived processes are difficult to predict and understand. Eduardo de Mulder noted that this group is really a Geohazards Commission and that the Short-Lived Phenomena title was misleading. Eldridge Moores said that there was already a global clearing-house for geohazard information like earthquakes and volcanic eruptions. Moores suggested CSLP form a partnership with Geohazards (International). Eduardo de Mulder suggested CSLP and Dr. Shams could develop a project proposal for IYPE and asked to be put in contact with this

group. Robert Missotten noted that ICSU was active in the management of geohazards, mentioning AGROS and GEOS linkages with geological outreach and organisations.

- **Action item:** Eldridge Moores will contact Dr. Shams telling him that the Commission on Short Lived Phenomena submission was considered by the EC; and that CSLP should consider submitting IYPE proposal. Also: to note that their name is too constrictive. CSLP should contact the Earthquake program, Geohazards (International) and work cooperatively with this Hazards group, placing emphasis on geological education and mitigation.

5.c.10 General Discussion

Regarding terminology, instead of Commission could not this be another type of body wondered Missotten, and whether it was really a task group or initiative? He suggested further discussion in Maputo. Eduardo answered that for IUGS, commissions must have had operating programs for 8 to 10 years (i.e., at least two terms of office). Bobrowsky added that commissions are scientifically oriented and they work bottom-up with seed money from IUGS. Task Groups are teams funded for 4-year periods. *Ad hoc* Review Committees are short-term response groups. Initiatives are high profile, informal, thematically oriented working groups (e.g., Medical Geology and Geoindicators) and members have specialization. John Aaron also read descriptions from the IUGS Website. Jean-Paul Cadet agreed with Missotten's point about Maputo, adding there were only three commissions dealing with geology and that the rest have moved off-track. The commissions should be more focused stressed Cadet. Sylvi Haldorsen agreed that this was especially important.

Sylvi Haldorsen remarked that many leaders felt distanced from the EC. Bobrowsky agreed, noting affiliates share this feeling and said that IUGS needs to enhance its relationships. Haldorsen suggested each commission should have an EC presence such as a rapporteur. Jean-Paul Cadet added that one person could be in charge with another in support. This way, IUGS would be able to follow what it going. Haldorsen said it was necessary to note which meetings were announced then decide who could go to where and when. Haldorsen and Bobrowsky both noted that the Bureau has attended as many meetings as possible to see what is going on. When commissions submit report of activities, they should also remind the EC of what meetings are taking place. They both agreed that it was better to have EC members at meetings than having Commission members attend the EC. Cadet suggested Bobrowsky could send a letter to the Commissions asking for this information. John Aaron noted that he pulls this information out and posts it on the IUGS Website. Haldorsen and Bobrowsky cautioned against devoting too many IUGS resources attending meetings, rather improving relationships with existing meetings (e.g., GSA and AGU).

- **Action Item:** The EC agreed that Liinamaa-Dehls, Haldorsen, Aaron and de Mulder compile a list of meetings of IUGS geo-organizations, and to select meetings where IUGS EC could possibly be represented.

Eduardo de Mulder added that he would provide a listing for IYPE, and concluded the general discussion by saying this was a good step toward improving relationships with its Commissions.

5.d Task Groups

Agenda Item: 5.d.1

5.d.1 Task Group on Isotopes and Geochronology (TGIG)

Alberto Riccardi discussed the activities of this Task Group. Following the decision at the IUGS EC (Vilnius, March 2005) to work with IUPAC on Isotope Geochronology, IUPACs leadership expressed interest in a joint project, for which two representatives were designated, Ales Fajgelj (contact person) and Mauro Bonardi. Riccardi noted that IUPAC and IUGS representatives (Igor Villa, Paul Renne, and Liu Dunyi) proposed a new ToR for a Task Group on Isotopes and Geochronology (TGIG). The objectives and strategies are well within the original recommendations of IUGS ARC on Geochronology (Oslo, March 2004) that were approved by the IUGS EC at Vilnius. Riccardi concluded noting that there was not financial request, but because the activities of this Task Group are of utmost importance and should receive some support. It is decided to request an action plan and budget for 2006.

5.d.2 Global Geochemical Baselines (TGGGB)

Agenda Item: 5.d.2

Sylvi Haldorsen reported that the main objectives of the Working Group on Global Geochemical Baselines were to:

- Prepare a global geochemical database
- Produce maps based on these data
- Document the concentration and distribution of chemical elements and species in the Earth's near surface

Haldorsen pointed out that the working group is organised with a Steering Committee and an Analytical Committee. The nine people involved represent five countries; all of them are from North America or Western Europe. TGGGB has been active, producing publications and running activities in Canada, USA, Europe, Russia, China, and South and Central America. They have an excellent Website developed by the Finnish Geological Survey and housed at the British Geological Survey Website (<http://www.bgs.ac.uk/iugs/home.html>). TGGGB is also designing an Internet section dedicated to the project within the IUGS Website in collaboration with the IUGS Web Master. It is proposed that all project material will be stored and all Geological Surveys will have hot links to this page.

The Task Group achieved much in 2005 with African countries and a training course was arranged in Tanzania, with participation by scientists from Kenya, Seychelles, Nigeria and Tanzania. The working group has an excellent interface with other relevant international projects. However, except for IAEA, all these are European bodies. A pilot study was completed in Australia that will bring Australia more into the work.

Haldorsen noted that the most important work has been done in North America and Europe, including a comprehensive pilot study of soils in Canada and United States, and geochemical baseline mapping in Cyprus. Significant progress was made on the Geochemical Atlas of Europe, with the publication of Part 1: Background Information, Methodology and Maps, in both printed and electronic versions (<http://www.gsf.fi/publ/foregsatlas>). Eldridge Moores said that he talked with David Smith who told him that Asian countries have a database, but that it is not incorporated into the TGGGB database. He also added that the second volume of the Geochemical Atlas of Europe is to be released in 2006.

Haldorsen noted that the IUGS provides nominal seed money and that for the work in Europe National Geological Surveys have provided staff time and support to complete the European GRN (Global Reference Network). Other countries have provided money for pilot studies to

establish GRNs, including China, Russia, Colombia, India, Brazil, Canada, Mexico and USA. Haldorsen expressed concern with the shift from a European focus, stressing that African countries lack the required funding (*ca.* US\$ 100,000)

Haldorsen said that the main problem for the work in 2005 was the lack of funding. The mission of the working group is very large and requires funding that is completely out of scale with normal IUGS funding. A comprehensive fund raising effort was needed in order to complete the tasks. The Public Relation and Finance Committee are requesting US\$ 20,000 seed money and assistance from IUGS for its outreach work and travel for its leaders to developing countries in 2006. Any support from IUGS towards the advancement of this project in developing countries is welcome.

Haldorsen suggested that if IUGS were to give greater support in 2006 than in 2005 the money should go to bring people from developing countries to Europe, and not for people from the Public Relation and Finance Committee to travel the developing countries. Haldorsen recommended support of up to US\$ 5000, of which US\$ 1500 can be used to cover outreach and the rest to fund travelling for people from developing countries. Peter Bobrowsky concluded this agenda item by noting that traditionally, TGGGB never received more than US\$ 2000, and agreeing that if IUGS gives them more money – up to US\$ 5000, then developing countries must be involved.

Agenda Item: 5.d.3

5.d.3 Tectonics and Structural Geology (TecTask)

Jean-Paul Cadet reported that this Task Group is working well and that the team is well balanced with representatives from both genders and hemispheres. It has an active Website with some 400 registrants. In particular, he noted the Cees Pascher Special Session in Europe, and the US\$ 1000 post-doctoral research scholarship for developing countries. Like its predecessor COMTEC, the group is involved with specified training in structural geology in Africa. Traditionally, IUGS has contributed US\$ 1000 that is used for scholarships. Cadet suggested this Task Group could possibly function as a Commission in a few years: it has had very good output. Cadet likened the Working Group to TGI. Cadet recommended that IUGS continue to support it to the sum of US\$ 5000. Eldridge Moores added that the Task Group had different outcomes than he expected.

5.d.4 Task Group on IGCP

Agenda Item: 5.d.4

Eduardo de Mulder, as Chair of the Joint UNESCO-IUGS Task Group on IGCP, reported on the recommendations for the reform of the IGCP by the joint IUGS-UNESCO Task Group. He began by noting the joint Task Group was created in March 2005 at a meeting of the Executive Committee of International Union of Geological Sciences (IUGS) in Vilnius, Lithuania. It was asked to report to the IUGS and UNESCO recommendations for a reformed and revitalised International Geoscience Programme (IGCP) in anticipation of the budget reductions announced by UNESCO for the biennium 2006-2007. Task Group members are Sylvi Haldorsen, Margarete Patzak, Robert Missotten, Sospeter Muhongo, Jean-Paul Cadet, and Eduardo de Mulder. The first meeting with all members of the Task Group was held in UNESCO, Paris in early June, where de Mulder was elected chair of the Task Group. The present Report builds on earlier iterations and aims to inform the IGCP parent organisations (IUGS and UNESCO) about progress and results of and recommendations by the Task Group to date.

Programme contents

The Task Group discussed changes in programme orientation for a reformed IGCP and believes that the impact of the geosciences in general and IGCP in particular to society would be significantly larger if the programme would have a sharper focus on specific themes that are seen as relevant to society today. The Task Group continues to see value in (seed money) funding of projects primarily addressing other, more basic geoscientific issues. Therefore, the Task Group recommends devoting a major part (up to 75% of the project budget) of the IGCP programme to specific, societal relevant themes and a minor part of the programme (to a maximum of 25% of the project budget) to issues not covered by these themes. The Task Group recommends selecting five themes from a larger list including: Hazards; Groundwater; Sustainable Resources; Health; Climate Change; and, Ecosystems and Biodiversity. The Task Group recommends the parent organisations reviewing the selected topics each year and to review themes every four years.

Decision making

The Task Group recommended that IUGS and UNESCO continue to be the leading bodies in IGCP. It is further recommended that incoming bodies will be given the opportunity to suggest organisational, procedural and conceptual changes during the IGCP annual meetings in Paris, thus contributing to IGCP's policy and planning. If more than two external parties (with significant financial benefits to IGCP) would be accepted as new IGCP partners, the Task Group suggests structuring such interaction by creating an Advisory Board to be consulted on any major development in IGCP.

Scientific Board

The present Scientific Board consists of five Working Groups dealing with different fields in the geosciences, and composed of four members including one chairperson per Working Group, bringing the Board up to 20 members. All twenty members meet once a year for one week in Paris. The Task Group recommends expanding the Scientific Board by including theme oriented societal disciplines, to a maximum of 100 experts. It further recommends selecting chair and co-chairpersons for each of the current themes. These chair and co-chairpersons are invited to participate in the annual IGCP meetings in Paris. Performance of all members of the Scientific Board should be evaluated every four years with no fixed tenure for members required. Non-theme oriented proposals should be dealt with by the total Scientific Board.

To avoid duplication and to increase visibility for IGCP the Task Group recommends the International Year of Planet Earth and the Geo-Unions initiative to draw on the experts of the IGCP Scientific Board for their science programmes. This would increase the status of the Scientific Board and its members on the one hand and greatly assist the other science programmes in their operations often concerning the same themes. The Task Group recommends freezing the composition of the Scientific Board in 2006. No project proposals are solicited for the period July 2005 - March 2006.

Application criteria

The Task Group recommends developing selection criteria for theme-oriented projects. Apart from 'Geoscience for Society' such criteria may include: geoscientific quality, innovative, truly international, holistic, multidisciplinary, human dimension, involvement of experts from developing countries, and potential for outreach.

Project evaluation process

After the reform period, the Task Group recommends inviting new project proposals in the appropriate media by 1 March 2006. All EoI's should be sent to the IGCP Secretariat who will check the EoI's for compliance on administrative criteria. Those who proposed positively evaluated EoI's would be invited to produce full-fledged project proposals. These will be evaluated by the theme Chair and Co-chair and selected Corresponding Members and will finally be approved by all Chairs and co-chairs at their annual meeting in Paris.

National Committees

The Task group also reviewed the current National Committees for IGCP; some representing a wide range of fields, while others, a limited number. The Task Group believes that the reformed IGCP should all be broadly composed National Committees for IGCP and that they should be better linked to UNESCO and IUGS National Committees. The Task Group recommends IGCP National Committees to include representatives of geological surveys, geological societies and science foundations. Ideally, IGCP National Committees would also include members of the IUGS and the UNESCO National Committees and representatives of the National Committee for the Year of Planet Earth.

Relation with other international geoscience research programmes

The international geoscience programmes in which IUGS and UNESCO are involved were reviewed, including the International Year of Planet Earth and the science programme by the Geo-Union initiative. As IGCP will run partly simultaneously with the International Year of Planet Earth for the period 2007-2009/2010, the Task Group explored strategies towards maximal benefit to IGCP. The Task Group focused on a position somewhere between separation and integration but ensuring that IGCP profits maximally from IYPE while fully maintaining its (new) identity. To avoid duplication and add significantly to IGCP's visibility and status, the Task Group recommends that compliant themes be treated similarly for both programmes by drawing on the same pool of expertise in the Scientific Board.

Structure and Statutes of IGCP

Structural changes in IGCP should be reflected in the IGCP Statutes. The Task Group recommends not rewriting the IGCP Statutes but rather to modify some of the existing articles and to insert some new articles according to these changes. The Task Group recommends making an inventory of articles to be modified or inserted.

Finances: reduction of costs and expansion of income

The Task Group explored options to both reduce costs and to increase income for IGCP. It recommends terminating printing of 'Geological Correlation' (IGCP's yellow annual reports) as the contents are already on the IGCP website. Also: meeting costs should be cut by at least 50%. The Task Group anticipates that these actions will generate cost reduction of some US\$ 30,000 on an annual basis. Currently, IGCP has three sources of income: UNESCO, IUGS and the USA. With regard to IUGS: the Task Group recommends IUGS triple its annual contribution to IGCP, as this is relatively low at present (US\$ 20,000).

Task Group members approached the International Association of Hydrogeologists (IAH). INQUA expressed its keen interest to participate in IGCP and agreed in principle to support IGCP projects to 5,000 US \$ annually. The Engineering geologists (IAEG, ISRM and

ISSMG) are working towards a Consortium (FIGS). That Consortium (in progress) recently decided to partner with IYPE. If the new IGCP programme were to include a Resource theme, it may interest SGA, SEG and IAGOD, who are all Associate Partners in IYPE. The Task group recommends exploring concrete options for participation of these organisations on short notice.

The Task Group recommends exploring involvement of UNESCO's Division of Water as soon as possible. An agreement with the Director and the ADG/SC was negotiated to explore possibilities of raising its current contribution from 20,000 to 50,000 US \$ per year. This is only feasible if Groundwater would be selected as one of the themes in IGCP and if an appropriate niche for topics in that theme would be identified. UNESCO's Basic and Engineering Science Division could become involved if Hazards were selected as one of the themes in the IGCP. The Task Group also approached the UNESCO Intergovernmental Oceanic Committee (IOC) for potential involvement in IGCP. This was positively considered, particularly if IGCP identified Tsunamis as a topic in its Hazards theme. The International Hydrological Programme (IHP) would like to see a Groundwater theme. The Task Group recommends exploring this option further on short notice. As to the Man and Biosphere Programme (MAB), Task Group members started discussions with the International Council of Mining and Metals (ICMM) and the Mining Alliance regarding cooperation in landscape studies and on mining and protected areas. Their involvement is only foreseen if (sustainable) resources were selected as an IGCP theme.

As for other UN Bodies, the Task Group notes that cooperation with UNEP on groundwater is increasing; and a meeting with UNEP officials took place late September 2005. The UN International Strategy on Disaster Reduction is an Associate Partner in the International Year of Planet Earth. Task Group members also have excellent contacts with ISDR, in particular concerning remote sensing in the framework of GEOSS and IGOS. The Task Group recommends pursuing these links aiming to arrive at concrete results.

As to WMO, two possible inroads were explored: CLIPS (Climate Information and Prediction Services) and the WMO based GEO/GEOSS programme on Earth observation. The Task Group recommends exploring both options for WMO involvement further. Other UN-Agencies as FAO and IAEA might provide interesting options for cooperation as well, but these are considered less feasible than those mentioned earlier.

For National governments, the Task Group was pleased to note the increase of the US contribution to IGCP by US\$ 10,000 to US\$ 85,000 in 2005. Contacts are being established with Canadian and UK governments to solicit support for IGCP. The Task Group recommends IUGS strengthen its contacts with GEOSS facilitating national funding.

The Task Group is convinced that the ICSU Hazard Programme could be linked with IGCP and recommends observing the development of this programme closely. As to other ICSU Unions involvement in the IGCP programme, Task Group members met with the IUGG President in early September and concluded that IUGG is interested in participating in IGCP, particularly when UNESCO's Water Division expands its contribution to IGCP. The Task Group anticipates that IGU and IUSS would be interested because they are Founding Partners of IYPE and may wish to share responsibility for this programme. Also: these unions are partners in the GeoUnions initiative addressing several of the themes to be selected by IGCP. The Task Group foresees ILP's interest to participate in specific topics. The Task Group recommends further exploring concrete participation with these bodies.

The Task Group concludes that there is significant perspective for expanding financial contributions by existing partners and for participation by other parties in the new IGCP. As a minimum, additional annual income today is estimated at US\$ 75,000.

Suggestions for IGCP Reorganization and Restructuring of Scientific Board

The IGCP was originally initiated through a bottom up process of geologists initiating joint research and exchanges and its success has been due to that approach – it has been open to all. The committee recommends to drastically raise the bar on the scientific quality of proposals, and to apply much more stringent conditions on continuing projects. If appropriate, certain relevant topics will be given priority, but the overriding criterion should be scientific excellence, the breadth and quality of the international collaborations, and the relevance of the topics. Guidelines for applications should be modified, in addition to the instructions on what needs to be achieved in a project (in terms of, for example, production of peer-reviewed publications). Innovative ideas and topics are encouraged over incremental increases of knowledge of classical themes.

The committee recommends to cut the number of proposals accepted roughly in half, and to increase the funding available for the accepted proposals by about a factor of two or more if available. Higher funding levels may be an important incentive towards better proposals and projects. A unified Board could evaluate the proposals more efficiently, with continuity and a greater uniformity of judgment, and allocate the financial resources more efficiently across disciplines. Reducing the number of board members to about 15, which would constitute an undivided Board of top-notch geoscientists with a broad background, is also recommended. A majority of committee members also suggested that, in addition to the Board, a Scientific Panel of about 40 to 60 people should be formed to provide expertise on a broad range of topics and international coverage. Panel Members should serve four-year terms, during which they can be elected to the Board, where they would also serve four-year terms. The committee also noted that the annual Board meeting in Paris should be maintained, because discussions in a face-to-face meeting of the Scientific Board are essential. To reduce costs, Scientific Board meetings (involving smaller numbers of scientists) would be reduced to about three days.

Proposals would be submitted in electronic form at a firm deadline about 3 months before the Board meeting. The proposals are circulated to the Board members, and each proposal is assigned to a primary and a secondary rapporteur, and about three external reviews to be completed by members of the Scientific Panel. At the board meeting, the primary rapporteur presents the proposal to the full Board, which then discusses each proposal, and votes on them. The committee members suggested proposals mainly in two broad scientific areas of the geosciences:

- A) Earth environments and processes through time, including, but not restricted to: geohazards and other natural hazards, basin analysis, climate change studies – including paleoclimatology and paleoenvironmental studies, sedimentology, geodynamics, deep earth processes to crustal studies, comparative planetology
- B) Earth resources and their sustainable usage (including, but not restricted to: groundwater, minerals, hydrocarbon, and alternative energy)

Submissions that are directly relevant to the goals of UNESCO and IUGS and that demonstrate the value and significance of the proposed research for benefit to society are

particularly encouraged and will receive special attention. As another cost-saving measure, it is also recommended that proposals and reports conform to a standard format and submitted in electronic format so that all review steps to take place electronically.

IGCP and UNESCO Water Division: Themes of Major Common Interest

Sylvi Haldorsen and Jean-Paul Cadet were asked to explore the possibility for a closer link between IGCP and UNESCO Water Science Division. They defined topics related to surface water, groundwater and paleohydrology, which are seen as important for society and to be potential central themes for future IGCP projects. Since the creation two years ago of the working group of IGCP on hydrogeology, the answers to the calls for proposals have been both few in numbers and not of the general international standard normally required. It is important to improve the situation, and this is partly the reason why IUGS wishes to pursue collaboration between IGCP Groundwater and the UNESCO Water Division.

A decision about the profile of the new IGCP will be taken in 2006. The Task Group believes it is of great importance that a dialogue about water science starts early in 2006, and that plans for cooperation is in place well before the deadline for new project proposals for 2006. The cooperation is of particular relevance during 2006-2007 when UNESCO focuses so much on water science. The Task Group believes that IGCP should be active in announcing Groundwater as a theme to attract more project proposals. A considerable increase in the number of proposals is needed before Water Science becomes an important part of the whole IGCP programme. Groundwater is also an important task under IYPE, and an active announcement in 2006 is needed to ensure that groundwater in IGCP has reached the desired level before the start of the International Year of the Planet Earth.

Groundwater

Most studies of groundwater have been related to groundwater as a drinking water resource, with well monitoring, water quantities and qualities the focus. Less attention has been paid to the long-term dynamics of groundwater systems. One very important task is to define specific scientific niches where IGCP funding could generate good scientific results of great practical importance. This requires:

- The scientific themes are so broad so that a larger part of the earth science community can feel associated with the problems to be studied.
- Definition of central fields for collaboration between groundwater specialists and geologists should be defined, in order to bridge the gap between the two communities.
- Information about IGCP should be announced in various newsletters (UNESCO Water Science Bulletin, IAH Groundwater e-News, etc.) and international journals (EOS, Episodes, etc.).

Proposition of some themes corresponding to these criteria were discussed during WHYMAP Meetings, including:

- *Water and basins*: monitoring groundwater circulation and plumbing systems in sedimentary basins with collaboration between hydrogeologists and petroleum geologists using expertise of the latter.
- *Water and space techniques*: use of remote sensing (space gravity, cf. GRACE time-variable gravity observations) to evaluate hydrologic variables and changes in groundwater and produce basin-scale estimates of terrestrial water storage with a strengthening of the collaboration between hydrogeologists/climate modellers and space-observation scientists.

- *Water and tectonics*: understanding the role of fluids circulation in fault behaviour, earthquake nucleation and, more globally, the hydrogeologic responses to earthquake.
- *Water and geochemistry*: use of geochemical indicators to understand gradual or catastrophic changes in groundwater resources.
- *Water and climate change*: develop predictive models of the modification of ground-water recharge and discharge in relation with different global warming scenario.

Projects targeting dynamic management of groundwater systems represent crosscutting issues (water, land, wetlands habitats, etc.) could facilitate integration between ecology and earth science.

Surface Hydrology

There should also be a communication between IGCP and UNESCO Water Science for projects related to surface waters. Studies of floods are important because they are the most frequent of all natural catastrophes; affect almost every part of the World and a great part of its population because so many people live along rivers and on floodplains; and have catastrophic effects that are closely linked to the anthropogenic manipulation of natural systems

Throughout geological history, mega-floods have occurred all over the world. The floods have had major impact on geomorphology, and during the Quaternary on human societies. The cause of floods varies, from drainage of ice-dammed lakes to the huge rainfalls associated with tropical cyclones. There is a great lack of long flood records and no documentation about the link between climate events and the magnitude and frequencies of the big floods. To understand this question, it is important to look at paleorecords to see whether mega-floods were more frequent during warm than cool climate episodes; and if so, in which part of the world is an increase to be expected during a possible future global warming.

To understand the frequency and size of ancient floods it is important to know where to look for the flood sequences and how to identify them. This expertise is in particular needed in many developing countries. Direct measurements of flood magnitudes do normally not date back more than a couple of hundred years so flood statistics and flood frequency curves cannot account for the high magnitude events. To understand what can be expected for future climate changes, it is of great importance to gain knowledge about very large floods that can be identified by studies of sediment records and landforms.

Co-operation between UNESCO Water Science Division and IGCP is strongly recommended on the following themes:

- *Flood sediment records*: for the last few thousands of years, with particular reference to rivers in Africa. This should be organised as collaboration between African scientists and international experts.
- *Paleo-climate and paleo-flood linkages*: with particular reference to areas in the world where such data are lacking.
- *Flood magnitudes/frequencies*: examining the relation between paleo-flood magnitudes/frequencies and modern flood frequency statistics at the same scales.

Peter Bobrowsky thanked the Task Group (Haldorsen, Patzak, Missotten, Muhongo, Cadet and de Mulder) and noted there was full EC support to the recommendations of the TG. He

said he could table this report and now be ready for the meeting with the Director General of UNESCO, so that by our February meeting in Paris we could be closer to coming to conclusion. Further debate was shelved for the agenda item of Joint Programmes so more time would be given to discussions of UNESCO.

- **Task Group terminated:** EC received the report and agreed to terminate the Task Group.

5.d.5 Task Group on IUGS-IGC Statutes

Agenda Item: 5.d.5

Before starting this agenda item Zhang Hongren introduced his Chinese colleagues as observers, Zhao Xun and Wang Wei. Xun introduced himself as a sedimentologist. He was transferred to Beijing for the IGC 33, and is involved with IGCP activities, GeoParks and the Geological Society of China. With regard to GeoParks, Xun noted that he has collaborated with the government in the development of the GeoParks programme and promoting this concept. Wang Wei briefly summarized his role in International Cooperation Affairs, CAGS, GSC (member of IUGS) and NC IGCP. Hongren then called upon Eldridge Moores to discuss the Task Group on IUGS-IGC Statutes.

Moores began by noting there were two important items to be discussed at this EC Meeting: agenda items 5.d.5 and 9a and both are concerned with the merger of the IGC and IUGS councils: two members from IGC and IUGS and an outsider. The following persons agreed to serve on the Task Group:

- Dr. Wolfgang Eder (Chairman) (w.eder-geo@hotmail.de)
- Dr. Arne Bjorlykke (arne.bjorlykke@ngu.no)
- Dr. Jacques Charvet (jacques.charvet@univ-orleans.fr)
- Dr. Eldridge Moores (Moores@geology.ucdavis.edu)
- Dr. Alberto Riccardi (riccardi@fcnym.unlp.edu.ar)

The aim of the Task Group is to streamline, update and combine the Statutes and Bylaws, and develop a Terms of Reference. Moores stressed the importance of the definition of the Task Group, noting that a draft document had been prepared by him and Judy Moores, as she has some background in writing legal documents. The draft document was sent to Wolfgang Eder for comment and the revised document was then sent to committee. Comments were returned to Eder. At a meeting in Paris, the document was gone through line-by-line and it was unanimously decided that the draft document was acceptable. Everyone agreed that this should be the basis for the 2 days of intense work. Moores also noted that confusion with the ToR had been worked out.

He then went through the major results and comments of the Task Group, point-by-point. Moores said that by capitalizing on the traditional practices and experiences of IGC and IUGS, and while respecting democracy and transparency as guiding principles in merging the statutes of IGC and IUGS, the Task Group unanimously agreed to propose the following items or issues:

- To rename the three “categories” of IUGS membership in order to avoid confusion between “Adhering”, “Affiliated” and “Associated Organizations”
- It is proposed to use: “Full Member Organization”, “Allied Organizations” and “Associates”

- To define the “Appropriate Authority” that designates a “Full Member” as an authority “that is recognized within the country or group of countries as one empowered to make this decision”.
- To invite also “Allied Organizations”, as well as “Associates” to provide a voluntary annual contribution to IUGS
- To consider whether the “Associate” status should only be provided, if a subscription to “Episodes” has been made
- To recall that following the merger of IGC and IUGS, the General Assembly of IGC, the Council of IGC, a “Membership of IGC” and “Sessions of IGCs” disappeared
- To highlight the important role of the IGC as the main scientific forum of IUGS
- To compare the relationship between IUGS and IGC with that of the “International Olympic Committee” (IOC) and the “Olympic Games” with their local Organizing Committee (as proposed by IUGS President Zhang Hongren)
- To establish a new IUGS Committee dealing with IGC matters (the “IGCC”) that reports to the Executive Committee of IUGS and cooperates intensely with the Organizing Committee of the next IGC and the Preparatory Committee of the next but one IGC; the IUGS Secretariat should serve also the IGCC in storing the common memory of IGCs. The Past President of the IGC is to be the Chair of the IGCC
- To nominate the President of the past IGC as the neutral chairperson of the IGCC
- To recommend a softer, more flexible geographical “Rotational System” as regards the organization of IGCs
- To continue with the tradition that the number of representatives of a Full Member Organization (Country Delegation) shall correspond to the financial category of its membership of IUGS.

Moore noted that the IGC is the principal forum of the IUGS and this has been included in the new Statutes. In this respect, IUGS differs from other geo-unions with such four-year assemblies. The new IGC Committee will report IGC activities to IUGS, and the IUGS Secretariat will be the repository of IGC material and history.

Moore reported that the mail ballot went out at the last IGC in Florence and the results were favourable, but added that the Task Group did *not* reach full agreement concerning the “Voting System” of the Council. On everything but finances, voting will be one-for-one. Antonio Brambati expressed his uneasiness on the proposal of the majority of the Task Group to continue with the differentiated rules as regards IUGS and IGC or financial matters. He suggested the discussion on a new “One country – One vote” principle (including financial matters and IGC) might be taken up again by the Executive Committee. Brambati also suggested IGC should rotate around the World. The following statistics were discussed.

Continent	Land area (10 ⁶ km ²)	Population	Congresses	IUGS members
Asia	50	3.9 billion	3	3
Africa	30	900 million	?	25
Oceania	8	32 million	2	3-4
Europe	10	730 million	19	35
Americas	42	701 million	8	20

Peter Bobrowsky thought it was a good idea to have globally rotating IGCs and that all continents should have the opportunity to host. The important matter, he suggested, was to

work on the priorities and how to prorate based on level of membership. He noted that some countries pay more because they wish to influence voting issues, including where the IGC is hosted. Bobrowsky cautioned that this matter would not be easily resolved by voting. Eduardo de Mulder was confused on why the rotating system of Congresses was being addressed, as it was not part of the streamlining process. However, he recommended that the Congresses should rotate. Alberto Riccardi replied to de Mulder, saying that the Task Group thought it was important to look at the issue. Anne Liinamaa-Dehls then briefly read from the IUGS Statutes regarding IGC.

Bobrowsky then asked about individuals and institutions wanting to join as Associate Members. Riccardi responded that if they subscribe to Episodes, then they become Associate Members. Eduardo de Mulder was concerned that if countries wanted to pay, then individuals and institutions might stand to profit. Liinamaa-Dehls commented that it was never fully defined what the entitlements of membership levels were and what should be added. Riccardi added that at the Rio de Janeiro IGC was minimally fixed, but never clearly stated in the Statutes.

On the matter of terminology, de Mulder said that he was happy with the term “Inactive Member,” but was not satisfied with the term “Full Member;” Moores suggested “Adhering Member.” Bobrowsky was tired of the division, suggesting members should be either “Paid” or “Not Paid” up: if members are Paid, then they would be allowed to vote. It was false representation by keeping Inactive Members listed. Sylvi Haldorsen commented that the process of applying had practical implications. Bobrowsky then used the analogy of APEGBC and its membership dues. John Aaron noted that the founding fathers wanted inclusive membership, so IUGS should go out of its way to be inclusive. Haldorsen suggested this was a separate task. Eduardo de Mulder asked why the Past President of IGC was to be neutral. Riccardi, first responding to de Mulder, suggested s/he has time, as the Current President is involved in organising the coming IGC. Then addressing Bobrowsky suggested a term like Preliminary and Complete Member could be used.

Zhang Hongren suggested first concentrating efforts of IGC-IUGS relations; the voting system could be addressed later. Moores again raised the issue of integrating IGC and IUGS, asking if this was effectively done. Eduardo de Mulder answered that it was with the exception of the voting matter, asking why there was special voting for IGC and where was the rationale for differential voting on IUGS versus IGC matters. Riccardi noted that some countries would not pay more if they cannot get more votes. Moores added another argument: high-level countries send more delegates, so they have higher costs to attend congress. Bobrowsky noted that Canada was moving up one category, and therefore disagreed with de Mulder that keeping things simple by having one unit-one vote on all matters. Hongren noted that in the past, there were no fees for people to attend the congress. He also emphasised that council meetings and voting were very important for members. Brambati repeated that one unit-one vote was the best solution.

Bobrowsky said that the Task Group did a good job, but that consensus had to be reached before sending things on to the IGC. Hongren agreed that consensus was needed to begin preparations of the coming IGCs and suggested to maintain the old tradition of steering committees, and asked rhetorically whether the IGCC was well defined. Moores said it was important to list the issues then think about the problems. He added a comment on the domicile of the Statutes and the need to think about some of the legislative language. With

the new Statutes residing in Norway, it will be important to have a Norwegian lawyer look at the Statutes and change to Norwegian legalese.

Riccardi then asked who is going to be President, wondering if the President would be from the hosting country and adding that the President of IUGS should head the Council. Moores recommended the ICSU operations system should be adopted and council be transparent. Hongren mentioned the old tradition of the Steering Committee where the Past President was head. Eduardo de Mulder was inclined to disagree, emphasizing that the only task was to organize the next IGC.

Zhang Hongren proposed a break in proceedings and suggested everyone read the revised Statutes and said that the problem of IGCC must be resolved, but that Eduardo de Mulder's problem will be resolved later. He emphasised the only problem not resolved was who will be the next President of IGCC. The IGCC, said Hongren, would have the responsibility of the leader of the Congress and the day-to-day business between Congresses. It was his personal opinion that that the new President of the next IGC would be very busy. He stressed that if the President were changed then there would be much dissention. Eduardo de Mulder noted that really, only the fourth year is busy.

Alberto Riccardi commented that, for the IGCC, the problems of time and function were issues. The President of IGC must have a central role in the Congress activities. Godfrey Nowlan remarked that in most relationships between Societies, some person on the EC looked after the Meetings Agenda. Perhaps appoint a group of people to write a Book of Protocols for setting up IGC. Academy societies govern congresses carefully due to finances. Perhaps an IGC advisor should be appointed suggested Nowlan. IUGS would take then moral control over the IGC. Eldridge Moores recalled that the IGCC already included Bureau of IUGS and agreed that the Past President would be a better choice as Chair of the IGCC than the current because he would have fewer conflicts of interest. John Aaron added that the Past President would also be less prone to have an agenda.

Zhang Hongren then asked whether there was consensus on the matter of who would be chair, adding that the next President would head the local committee and the Past President would head the international organisation, and agreeing that the Bureau can take a decision on this. Peter Bobrowsky said that Wolfgang Eder felt that his work was done. Jean-Paul Cadet asked about IUGS and IGC direction, noting that the Task Group is not dissolved. Bobrowsky and Moores agreed that if the EC wants to look at the Statutes in more detail, then it might need another meeting. Zhang Hongren closed this agenda item. The report of the Task Group was accepted in general and it was decided that the Task Group would continue working on this issue and that the opinion of the IGC Committee would be sought.

5.e Initiatives

5.e.1 GEOSSEE

Agenda Item: 5.e.1

Eduardo de Mulder reported that the main reason for creating GEOSSEE in 2003 was that there was a myriad of poorly coordinated, concurrent activities demonstrating the value of geological heritage and the beauty of landscapes to the public and that these lacked any direct linkage to international geoscientific bodies such as IUGS and IGU. This was felt as a serious omission in IUGS, in particular as these were fine examples of geoscientific outreach which was high on the IUGS agenda. GEOSSEE was created as a joint IUGS, UNESCO and IGU

Initiative in 2004. It was seen as an umbrella organisation to coordinate and to insert geoscientific knowledge into such activities. Moreover, it claimed a role in geoscience education, culture, communication and sustainable development. Through GEOSEE, IUGS would (finally) have a strategic position in these activities.

The report on the GEOSEE Initiative by its chairman Werner Janoschek describes its evolution over the past two years. In conclusion, the GEOSEE concept was over-ambitious and GEOSEE could not operate effectively as an umbrella organisation. Janoschek's recommendations are clear: abandon the GEOSEE concept and replace it by a far less ambitious position of Communication Officer. That Officer would operate as a kind of ambassador, facilitating mutual communication between current activities, linking them with those in the scientific unions and contributing to their exposure to politicians. Due to understaffing, these tasks are currently not sufficiently well addressed by the Global GeoParks Network, based in UNESCO Paris.

Eduardo de Mulder recommended the EC to accept this report and to agree with the appointment of a Communication Officer, and that this position should be formally based in the Global Geoscience Network in Paris. As such, it supports the good work of the Global Network and should link-up closer with the Secretariat in Beijing. Finally, de Mulder recommends IUGS express its interest in this position by providing some financial support.

Eduardo also talked about the European GeoParks Network. The EGN is not affiliated to IUGS, but IUGS has a representative in its Advisory Group and Coordinating Committee (Janoschek). EGN is very active and often used as an example of how to organise GeoParks in other parts of the world. Janoschek's position in EGN was covered from external resources while Treasurer/Secretary General of IUGS and by GEOSEE. He recommended IUGS continue its representation and requested US\$ 4350. Eduardo de Mulder recommended considering this request in perspective of possible IUGS involvement in GeoParks activities as a potential follow-up of GEOSEE, and would strengthen the International GeoParks Secretariat in Paris and perceived as an IUGS contribution.

Eldridge Moores asked what was meant by strengthened and wondered what UNESCO's view was. Robert Missotten responded that all of UNESCO's specific discussion would be later in the meeting under Agenda Item 6d (IUGS-UNESCO-IGC GeoParks). Antonio Brambati said he talked to Janoschek, noting that there was much lobbying but little effect. Brambati agreed with Zhang Hongren that the best approach was to freeze progress and stop payments then see what the effects are. However, Brambati recommended that Janoschek be recompensed for his personal expenditure for travel and expenses. The question was what to do with the US\$ 4000 remaining in the Bank of China frozen by the Bureau. Zhang Hongren reminded everyone to concentrate efforts on the future of GEOSEE. Jean-Paul Cadet was not comfortable with the discussion about its leader and structure, suggesting discussion be postponed until Agenda 6d.

Both Moores and de Mulder agreed to accept the recommendations on settlement and the severance of relationship with Janoschek and postpone discussion until the UNESCO discussion. Bobrowsky reminded all that Janoschek still had to be paid and the report has to be accepted or rejected. Janoschek recommended that GEOSEE be closed. The consensus, he noted, was that it should be kept alive in some form. Robert Missotten recommended IUGS accept the Report and pay Janoschek. Hongren saw confusion over whether IUGS should

accept or reject the tabled Report's recommendations. Bobrowsky suggested accepting the Report, and then going through the recommendations later.

Zhao Xun cautioned that the Janoschek Report was based on the minutes of last meeting in October 2005 and that not everyone agreed with these. Xun remarked that after the task force was created, IGU set up its own organization (a GeoParks task force) after forceful discussions took place in Paris. He noted that are three very active secretariats involved in lobbying for GEOSEE. The Chinese Secretariat was developing a Website, and that the administration was setting up networks with European partners, providing guidance for duties, and promoting research and dissemination of knowledge. He had also tried to establish meeting to deal with administering finances and regulations.

Xun remarked that in Europe, UNESCO has done much work for GEOSEE. All in the group are working toward the same aims, but further work was necessary to improve GEOSEE. He recommended IUGS continue support, concentrating efforts and financial support on establishing GeoParks in developing countries. Xun noted that the GeoPark Congresses, organized annually in China received support from other sources. The GeoParks initiative is going well in Europe and China, but needs to be promoted abroad. Other nations want to develop similar programmes but lack the organisation. Xun recommended international cooperation between developed and developing countries. IUGS, he suggested, could help by providing short courses and Web pages. Xun said he would like to IUGS to continue its support of GEOSEE and that the GEOSEE Secretariat could provide the human resources.

Antonio Brambati saw two problems: one economic, the other the future of GEOSEE. Eldridge Moores moved to close the account but not GEOSEE. Further discussion was postponed until later in the Meeting.

5.e.2 Medical Geology

Agenda Item: 5.e.2

Sylvi Haldorsen began by noting that this was the last report from this very successful IUGS interdisciplinary initiative, and was impressed with its level of activities. The initiative brought together scientists from developing countries with their colleagues in other parts of the world and stressed the importance of geoscience factors for the health of humans and animals, and was largely focused on capacity building. The Initiative also fulfils on of the goals of IUGS in that it has a very clear capacity building profile. Haldorsen noted that Medical Geology has been included in curricula at universities, received several prestigious rewards, and has been highlighted all over the world. Ten courses have been held along with numerous presentations at meetings and conferences. She also reported that final planning and organisation is completed for the new International Medical Geology Association, IMGA; this will be launched in 2006. Olle Selinus has been appointed the "Geologist of year 2005" in Sweden and received the "Prix D'Excellence Pour Les Sciences de La Terre." The prestigious British Medical Association was awarded to "Essentials of Medical Geology" as one of the best international books for 2005 in the category Public Health. MG makes IUGS visible outside the geological community and the overall evaluation is *excellent*. Haldorsen noted that it asked for US \$10,000 for 2006, and she recommended that this request be approved.

Eduardo de Mulder noted that last year MG asked for US\$ 10,000 to bridge the transition to IMGA and asked if IUGS wanted things to drag on. Haldorsen responded saying that the \$10,000 would be used mainly to support and present Medical Geology in the Developing

World. Alberto Riccardi commented that the IMGAs Statutes were circulated late in 2005 and said that the money should go to the Association. Peter Bobrowsky recommended the EC accept the report and said he would write a letter thanking the Medical Geology Initiative. He added that the financial issue could be discussed later.

- **Action Item:** Peter Bobrowsky to write a letter thanking the Medical Geology Initiative.

Robert Missotten noted that UNESCO has shown interest in Medical Geology. He suggested the Body get in touch with the UNESCO representative in Nairobi to further IMGAs impact in Africa. In particular, Missotten said that UNESCO was interested in how the geography of AIDS is related to mineral exploitation. Godfrey Nowlan added that “Essentials of Medical Geology” was a very good book and the IUGS logo is prominent. Zhang Hongren concluded the discussion remarking that the main problem was financial request, given that IUGS has to support IGCP next year.

5.e.3 GEOIN

Agenda Item: 5.e.3

Zhang Hongren reported that 2005 was the final year for the Geoindicator Initiative (GEOIN). A successor group was formed in September as a new working group of GEM entitled “Communicating Environmental Geoscience” (CEG), with David Liverman as Chairman. GEOIN represented IUGS in the final year of the ICSU-funded Dark Nature (DN) project, in which it has been a major component. Hongren said that Dr. Berger was an invited keynote speaker at the third DN meeting entitled “Holocene environmental catastrophes in South America: from lowlands to the Andes” in March 2005. Berger and Liverman co-chaired the fourth DN meeting, “Rapid Landscape Change and Human Response in the Arctic and Sub-Arctic,” held in Whitehorse, Yukon Territory. Progress was made in revising and adding to the GEOIN website more entries to the Geoindicators Checklist, together with selected key images to illustrate Geoindicators-related issues. Hongren also noted that Geoindicators are now a routine part of the annual State-of-the-Environmental Report for Lithuania. The website, which is Groin’s prime means of communication, will continue to be hosted by the Geological Survey of Lithuania. There was no financial request.

5.e.4 New Initiatives (Member Survey and State of the Art)

Agenda Item: 5.e.4

OUTREACH

Sylvi Haldorsen discussed the network between IUGS and the national geological institutions. At the Bureau meeting in Trondheim, it was decided to distribute a questionnaire to all national IUGS committees with questions about the outreach of information from and about IUGS. Haldorsen authored the questionnaire and analysed the replies. Copies were circulated amongst the EC and observers.

The questionnaire concerned the use and distribution of Episodes, the Bulletin, IUGS Brochure, and use of the IUGS Website. She noted that less than 50% of the countries submitted their replies; those that had included Botswana, Bulgaria, Germany, Iceland, Kenya, Malaysia, Namibia, The Netherlands, Norway, Russia, Saudi Arabia, Sweden, Tanzania, Thailand, Turkey, UK, USA and Yemen (Africa: 4, America: 1, Asia: 5, Europe: 8). This perhaps indicates that questions were not well formulated. Haldorsen indicated that

Bulletins were not effectively distributed to the national bodies; Committee Members do not often visit Website, but all Organisations have; Brochures are variably viewed.

Peter Bobrowsky suggested guidelines for spreading news were required; that people do not pay attention to IUGS; and IUGS is not well represented at international meetings. Eldridge Moores remarked that the response rate was actually good, being over 20 %. He suggested the Bulletins were not effective and that people know more about IGC. Moores saw a disconnection at scientific conventions where IUGS was poorly represented, especially in the USA. Haldorsen thought that structure was needed in the Bulletins, highlighting news with Web links to more detailed information.

John Aaron commented that many institutions play roles IUGS cannot fill, for example GSA and AGU. He also added that the Brochures could all be downloaded from the Website, although there was no direct link. This could be added on the Home Page. Moores recommended that Affiliates should also link to the IUGS Website. Haldorsen noted the NGU and Norwegian Geological Society have links at their Websites. (She also suggested that *ex officio* membership in the Academy of Science was needed.) Aaron noted that most Affiliates do link.

Robert Missotten wanted to know if there was study of National Committees of IUGS and asked how National Committees compare with other GeoUnion NCs. Missotten wanted to see special communications between the National Committees. Zhang Hongren agreed that it was important to communicate. Moores concluded that geologists have holistic way of thinking, but that people who go into earth sciences have trouble communicate. He recommended action on the communication problem. Eduardo de Mulder ended by suggesting this Initiative could be an Activity.

STATE OF THE SCIENCE

Robert Missotten and Peter Bobrowsky discussed a global survey of geoscience started because of a request by UNESCO, USGS and the GSC, beginning with the question: What is out there? Bobrowsky noted this was an independent effort and that he had a student compiling the most recently available literature related to the "State of the Art" established by various countries; but that there was not much information out there on the global profile of geoscience, its representation and demographics. The next stage was to put all the information together. This long-term project would allow countries to compare of the state-of-art of geoscience in other nations. The document will take about three years to finalise and should be ready during the International Year of Planet Earth. Also: Terms of Reference were needed.

Jean-Paul Cadet had read the letter and survey sent by the student, but reported confusion in France as to the point of the letter, adding that it was a lot of work to compile the requested information. Anne Liinamaa-Dehls asked for clarification and asked for real documentation / web links and examples of the kind of studies found. Eldridge Moores thought the task could be effectively approached by going through the abstracts of major journals to determine topics and methods (people) at the forefront of geology. There was general uncertainty as the scope and purpose of the Initiative.

Cadet cautioned that in preparing ToR and guidelines, there was much work. He was unclear at to what was needed: was he just supposed to summarise past reports? Cadet asked for input from the IUGS President. Zhang Hongren said that action was needed to make this a reality.

Eduardo de Mulder noted the contribution of FOREGS: 30 European Countries have started compiling information. He also mentioned that CCOP in SE Asia also has a database. Peter Bobrowsky said that he had tried to contact FOREGS. Antonio Brambati asked how long it takes to prepare a SoA Report, and suggest IUGS push to have mandatory reporting. Moores said that Bobrowsky should take another look at the letter and redraft it. The IUGS logo should also be on the letter. Godfrey Nowlan suggested that in rewrite there should be ten or so questions in the redrafted letter.

Robert Missotten also mentioned the Ministerial Summit in February 2005, noting that increasing the visibility of Earth Sciences was not addressed by the Ministers, or how to view Earth Sciences related to economic development. It is necessary to convince politicians of the relevance of geosciences to society. Missotten said that a document outlining the state-of-art was needed before Earth Sciences would be on the Ministers' radar. He suggested the SoA Report be ready for the next Ministerial Meeting and the Earth Observation Summit. Missotten also requested that due recognition of UNESCO for starting the initiative and to Pat Leahy (USGS) who suggested an analysis of what (documentation) is available.

Eldridge Moores moved to approve the State-of-the-Art of Geology Initiative because it fitted with the role of IUGS.

- **Approved:** EC approves of the Initiatives on State of the Art of Geology

Agenda Item: 5.f

5.f Affiliated Organizations

Before beginning this agenda item, Eduardo de Mulder wanted to acknowledge which Affiliated Organisations were Founding Members? Zhang Hongren and Eldridge Moores suggested clustering affiliated organizations and committees by branches of geology to see if they cover the spectrum. Peter Bobrowsky recommended that finances should be considered at this point.

5.f.1 Association of Applied Geochemists

Agenda Item 5.f.1 AAG

Zhang Hongren reported that in September of 2005, AAG hosted its biennial International Geochemical Exploration Symposium (IGES) in Perth, Western Australia. Because of the change in name of the Association in 2004, this symposium was also called the First International Applied Geochemistry Symposium. Also in 2005: the Association was a co-sponsor for the Geological Society of Nevada's Symposium 2005 – Window to the World held May 11-21, 2005 in Sparks, Nevada (USA) and for the 15th Annual Goldschmidt Conference held May 20-25, 2005 in Moscow, Idaho (USA).

5.f.2 American Association of Petroleum Geologists

Agenda Item 5.f.2 AAPG

Rapporteur Jean-Paul Cadet noted that AAPG is a very professional association, a leader in the Petroleum world with a specific role in the organisation of large international meetings (the last one, in September 2005, in Paris was very successful) and of training courses. Cadet noted the AAPG has a very democratic process of election for the officers, with multiple candidatures and a well-organized ballot system. Their Annual Report was missing as of early December 2005.

5.f.3 Association of European Geological Societies

Agenda Item 5.f.3 AEGS

Jean-Paul Cadet reported that Association, the self-described “clamp” on national European geological societies, held its biennial meeting, this one devoted to the subject of “Natural hazards related to recent geological processes and regional evolution.” No funds are requested.

5.f.4 Arab Geologist Association

Cadet noted that until the murder (September 2005) of Wissam Al-Hashimi, most of AGA activity was concentrated around him. Since then, according to information received by Peter Bobrowsky, a new General Secretary has been nominated by the Iraqi Government, but a complete Bureau, with more representatives of Arabian countries is also mentioned, with a President from Jordan and members from Lebanon, Libya, Syria and Yemen. The main prospective activity of AGA, and a test for its real role, will be the Sixth Conference on the geology of Middle East, (Abu Dhabi, March 2006) traditionally organized by AGA. There was no budget request. Cadet asked if Zhang Hongren was still planning to attend this meeting. Hongren replied that he was and that IYPE brochures would be distributed there.

Agenda Item 5.f.5 AGI

5.f.5 American Geological Institute

Rapporteur Eldridge Moores said that this multi-organization consortium continues its work in education, public advocacy for earth science issues, and in publications, particularly in “GEOREF” and in work with many countries on data repositories. A fifth edition of the “Glossary of Geology” was released in October 2005. No funds were requested noted Moores.

5.f.6 Association of Geoscientists for International Development

Jean-Paul Cadet noted that although the AGID report came late, IUGS should consider continuing funding this group. The group asked for \$500.

5.f.7 American Geophysical Union (missing as of 12/6/2005)

Rapporteur Eldridge Moores commented that the American Geophysical Union Report was missing because Fred Spilhaus was not well. It was an active Union with over 30,000 members ranging from geologists to astrophysicists. In 2005, they had two management meetings (in Japan and China), a meeting with EGU, and meetings in Southeast Asia and released many publications.

5.f.8 Association Internationale Pour l'Etude des Argiles

Agenda Item 5.f.8 AIPEA

Sylvi Haldorsen reported that the aim of AIPEA is the worldwide promotion of clay research and technology and of international cooperation in clay research and technology. AIPEA is a truly international association that acts as an umbrella for all of the national clay societies in the world. AIPEA is supported by dues from these national clay societies. Like IUGS, not all its national societies have sufficient resources and organization to pay dues. Additional income is from its quadrennial meetings. AIPEA is an old, well-established association, which has a well-defined scientific focus. The association has played an important role in promoting clay mineral research worldwide. It serves a small scientific field, which today is of considerable practical importance (with for instance increased application in environmental science). Their Annual Report was well written and complete. No funding was requested for 2006.

5.f.9 Carpathian Balkan Geological Association

Rapporteur Eduardo de Mulder commented that 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. In 2005, the CBGA distributed a First Circular to the XVIII Congress that will be held in September 2006 in Belgrade (Serbia and Montenegro). The last Congress took place in September 2002 in Bratislava. Two sessions of the Board of CBGA were held in 2005, again in Belgrade and again mainly on the Statutes of CBGA. Their main concern was finances, and CGGA asked for financial support for their Congress in 2006. CBGA still seems to be in a dormant state and still has no website. They will organize their next (18th) Congress in September 2006 in Belgrade. CBGA again requested financial assistance (unspecified amount) from the IUGS Grants Programme for this Congress. Eduardo de Mulder recommended the Bureau inform them (again) that the IUGS Grant Programme is not meant for such purposes.

5.f.10 Commission for the Geological Map of the World

Agenda Item 5.f.10 CGMW

Eldridge Moores reported that this organization continues its efforts, specifically in “maintaining the highest possible selling level” of its products and launching a new mapping program in liaison with IGC and IPY focusing specifically on Africa (Tectonic Map of Africa, launching seismotectonic and lithological maps, etc.). CGMW is widening mapping activities to include geophysics, and search for new scientific sponsors, including EU 55,000 from membership fees, support from UNESCO (decreased dramatically from early 90’s), BRGM’s subsidy of EU 15,000 plus staff support, and EU 62,000 in sales. Moores noted a financial request of US\$ 3000 for the following year and thought it would be money well invested.

5.f.11 International Centre for Training and Exchange in Geosciences

Jean-Paul Cadet said that CIFEG is developing a positive activity in its multilateral geoscientific knowledge-sharing role - *Pangis* (supported by UNESCO). This was progressively integrated to the SIGAfrigue programme and is efficiently developed as a project of geoscientific data collection and sharing between 11 African countries. *Sangis* (Asia) runs routinely with the organization of several training sessions. The Asian Multilanguage Thesaurus (first version), a derived product developed in cooperation with CCOP and CGI, is now finished and available. CIFEG is also in charge of a cooperative project of management of water resources in the Rift system (Mawari Project), which seems promising. Cadet reported their total budget amounts to US\$ 580,000 (70% from the French government, 10% from UNESCO, and 20% from other partners). There was no funding request.

Agenda Item 5.f.12 CPC

5.f.12 Circum-Pacific Council for Energy and Mineral Resources

Eldridge Moores reported that this organization continues its work on maps, is working on a conference in the 2007 period on energy needs of the Circum-Pacific region, and a series of educational and simulation modules. No funds were requested for 2006. Moores thought it might be worth encouraging this organization to collaborate with the IYPE and *vice versa*.

5.f.13 European Association of Science Editors (missing as of 12/6/2005)

Agenda Item 5.f.13 EASE

Rapporteur Ryo Matsumoto was unable to attend the EC meeting. There was no further discussion of EASE.

5.f.14 European Mineralogical Union

Agenda Item 5.f.14 EMU

Rapporteur Eduardo de Mulder remarked that EMU members are national scientific societies from European countries. It aims 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. EMU supports the Experimental Mineralogy, Petrology and Geochemistry (EMPG) and the European Geosciences Union (EGU) meetings. In 2005, EMU sponsored the General Assembly of the EGU. EMU organised the seventh School in Heidelberg and it prepared for the eighth and the ninth School. In 2005, EMU donated the Silver Research Excellence medal to David Dobson (UK). Moreover, EMU assisted 56 institutional libraries in Eastern Europe and Latin America and it published the seventh volume of the EMU Notes in Mineralogy: 'Mineral behaviour at extreme conditions'. The rapporteur noted that EMU is an active organization 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 did not request any financial support from IUGS.

5.f.15 Geochemical Society

Agenda Item 5.f.15 GS

Alberto Riccardi said their Report was limited to the overall objectives and broad description of organization. The importance of this society is clearly shown in the number of members (2000), publications (*Geochimica et Cosmochimica Acta*, The Geochemical News, Elements: An International Magazine of Mineralogy, Petrology and Geochemistry), and sponsored conferences (Goldschmidt Conference, annual meetings of the GSA, and AGU).

5.f.16 Geological Society of America

Agenda Item 5.f.16 GSA

Eldridge Moores reported that this 16,500-member society continues its work in publications, education and meetings. It has launched a new electronic journal, "Geosphere", and it is participating in the launching of "Geoscience World" (including 30 journals), and it has revised its strategic plan.

Agenda Item 5.f.17 GSAf

5.f.17 Geological Society of Africa

Rapporteur Sylvi Haldorsen said that GSA asked for US\$ 5000 dollars to fund the network in Africa. This is the same level of funding as received last year. Haldorsen also commended their Website.

5.f.18 Geologische Vereinigung

Agenda Item 5.f.18 GV

Eduardo de Mulder reported that the Geologische Vereinigung has 2200 members in 64 countries; but its Executive Committee is almost entirely Germanic. Werner Janoschek is a member of the Executive Council. The GV report to IUGS over 2004 was only 10 lines. Anne Liinamaa-Dehls noted that the early deadline for reporting was not acceptable to some groups. When this was the case, the Secretariat requested a brief summary.

5.f.19 International Association of Engineering Geology and Environment

Rapporteur Peter Bobrowsky noted this report was missing as of early December 2005.

5.f.20 International Association of Geomorphologists

Agenda Item 5.f.20 IAG

Peter Bobrowsky remarked that this was an extremely active scientific association with 58 national members. IAG held its major congress (6th International Conference on Geomorphology) in September 2005 in Zaragoza, Spain with about 900 abstracts, and where new officers were elected. There are now 15 Working Groups, many with no financial support from IAG. There is some income from membership fees, but considerable income from book royalties (e.g. Encyclopedia of Geomorphology) and their website (www.geomorph.org) is extremely popular. IAG are actively seeking new members and will continue to promote geomorphology to young students. Publication with Wiley will continue. Bobrowsky concluded noting no request for funding. IAG are quite self sufficient and could be a major force on behalf of IYPE. They have a long history of being very successful. IUGS is fortunate to have IAG as an Affiliated Organization commented Bobrowsky.

5.f.21 International Association of Geochemistry and Cosmochemistry

At the meeting, a short summary by Gabi Schneider was circulated by Anne Liinamaa-Dehls in which it was noted that a document entitled “Report to IUGS from IAGC for 2004.” Despite the title, the report deals with activities in 2005. Schneider also noted that no financial requests, or requests for approval from IUGS were contained in the report.

Agenda Item 5.f.22 IAGOD

5.f.22 International Association on the Genesis of Ore Deposits

Also circulated at the meeting was a summary of IAGOD Annual Report by Gabi Schneider. She reported that they had submitted a request for financial support. Funds amounting to EU 900 are needed to cover membership for 2005-2006 of national groups in Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Mongolia, Ukraine and Georgia. IAGOD also asked for assistance in covering part of the secretarial expenses. Gabi Schneider reported an additional financial request of US\$ 2000 in recognition of IAGOD’s efforts to coordinate IYPE within the ore geology community.

Agenda Item 5.f. 23 IAH

5.f.23 International Association of Hydrogeologists

Zhang Hongren and Anne Liinamaa-Dehls noted that this report was missing as of early December 2005.

5.f.24 International Association for Mathematical Geology

Rapporteur Ryo Matsumoto was unable to attend the EC meeting, so the IAMG Annual Report was not discussed.

5.f.25 International Association of Sedimentology

Agenda Item 5.f.25 IAS

Antonio Brambati reported that the IAS held the 24th IAS Meeting of Sedimentology in Muscat, Oman. Some 260 participants represented 34 countries, and fifteen fieldtrips were run. Furthermore, the IAS co-sponsored conferences and workshops in Argentina, United Kingdom, the Netherlands, China and USA. A lecture tour developed by Prof. Maurice E.

Tucker, from United Kingdom has started running in Greece and Turkey. The IAS published six issues of its journal “Sedimentology” that were accompanied by a Newsletter. The IAS Homepage (<http://www.iasnet.org>) is regularly updated. The 17th (2006) International Sedimentological Congress will be held in Fukuoka, Japan (17th August –1st September). During 2006 the Association will also co-sponsor meetings and workshops in United Kingdom and France and a lecture tour will be run in India, Egypt and several countries of Central Europe and South America. IAS will continue to publish high-quality science, and to organize and sponsor top-level research conferences and meetings and encourage young sedimentologists from countries where research possibilities are less well established, and where funding is lacking by paying travel expenses to international congresses and field workshops. Due to the very intensive past and planned activity for 2006, Brambati stressed the high and qualified undertaking of this Association to promote and diffuse the sedimentological sciences.

Agenda Item 5.f.26 ICL

5.f. 26 International Consortium on Landslides

Peter Bobrowsky said that this was a relatively new organization, launched officially in 2002. ICL has strong links to UNESCO and WMO: and is well supported by these UN organizations. With only about 40 members, it is in a fair financial position. Bobrowsky noted ICL has a broad international membership, with a strong bias in favour of Japan. ICL successfully launched a new journal “Landslides” which is quickly growing in Citation Index evaluation. It is a good journal with colour pictures. Bobrowsky reported considerable scientific focus but very little attention to the public or education of young scientists.

Concluding, Bobrowsky brought to the EC’s attention a financial request of US\$ 5000; and commended a very active group that actively promotes IUGS affiliation. Bobrowsky recommended funding be given with restrictions that money be clearly used for promotion of IUGS and geosciences (e.g., support of other non-ICL meetings, etc.).

5.f.27 International Federation of Palynological Societies

Agenda Item 5.f.27 IFPS

Anne Liinamaa-Dehls noted that this report was missing as of early December 2005. Rapporteur Gabi Schneider was unable to attend the EC meeting, so the IFPS Annual Report was not discussed.

5.f.28 International Geoscience Education Organisation

Agenda Item 5.f.28 IGEO

Rapporteur Zhang Hongren said that in 2005, IGEO had been involved in three major projects that began in 2004, as well continuing its role in promoting and supporting geoscience education worldwide. The Organizing Committee for the 2006 Conference (GeoSciEd V) to be held in Germany is well on the way to completing their preparations. A Syllabus Commission Chaired by Professor Nir Orion from Israel was elected. The IESO Syllabus Commission will decide the scope/content of the written and practical tests for the Olympiad scheduled for mid 2007. The First IESO Organizing Committee (Chairperson: Moo Young Song, Chungnam National University) was formed in September; and began to prepare for the First IESO in Korea. IGEO worked closely with COGE. IGEO successfully hosted three education sessions at IGC in Florence. Hongren noted a financial request of US \$ 5,000.

Zhang Hongren wondered about the relation between IGEO and COGE and whether IUGS should support the Commission. Godfrey Nowlan noted that in 2003, US\$ 3000 was spent by

GeoSciEd to developing countries. New money would be well spent supporting the 2006 meeting in Germany. Eduardo de Mulder commented that IGEO spent a limited number of dollars and felt that the money should go to the Organisation. Peter Bobrowsky reminded the EC that the last conference was a big credit to IUGS, where the booth was set up. He said IGEO was functioning strongly, and that IUGS should support the 2006 meeting.

Agenda Item 5.f.29 IMA

5.f.29 International Mineralogical Association

At the meeting, a short summary of the IMA Annual Report by Gabi Schneider was circulated by Anne Liinamaa-Dehls. The rapporteur commented that during 2005, IMA's activities were devoted to developing participation of the IMA Commissions and Working Groups at international meetings, and improving the visibility of IMA in the earth science community. Important items highlighted were: a) IMA Commissions participated in six international meetings, of the them being the 15th Goldschmidt Conference (Moscow, Idaho, USA); b) Preparing two special publications as an outcome of the IMA sessions during the last IGC in Florence; c) dissemination of information through the new revue "Elements," and the IMA Website, which is regularly revised and where a listing of mineralogical institutions around the world is being developed; and d) preparation for the next General Meeting of the IMA (Kobe, Japan July 2006), where the presence of a member of the IUGS EC is expected, and where a project for a strategic vision of IMA will be discussed. Schneider emphasised that IMA is a *very* important organisation and IUGS should promote the more intensive use of its expertise by other IUGS bodies and projects.

5.f.30 International Union for Quaternary Research

Antonio Brambati reported that INQUA became a Full Scientific Union Member of ICSU in 2005; it has 40 national and geographic member groups, most of them European countries. INQUA continues to develop well-organized field-based research, for example a project on Coastal and Marine Processes dedicated to the profound environmental changes that have occurred during the Quaternary. An issue of Quaternary International was published in May 2005 on the theme "Late Quaternary coastal and marine deposits of northwest Europe." Several meetings were organized, including: "Relative sea-level changes" - Poland; "Marine – terrestrial linkages during past global climatic changes" - Spain; 5th International Conference on Asian Marine Geology (Deltas in the monsoon Asia-Pacific region) - Bangkok; Continental shelves during the last glacial cycle - Italy; a meeting on "Late Quaternary coastal changes: Sea level, sedimentary forcing and anthropogenic impacts" - Dunkerque. In 2005 a new project was initiated partly under the auspices of the Commission on Paleocology and Human Evolution on the theme "Black Sea-Mediterranean Corridor during the last 30 ka. The Palaeoclimate Commission was formed to better comprehend the links between climatic changes and environmental and human responses (paleoecology and human evolution).

INQUA was dismayed to learn that the Quaternary was no longer to be a formal chronostratigraphic unit of the Geological Time Scale. A joint ICS-INQUA Task Force is currently fully engaged in the debate over the definition of the term 'Quaternary' and its geological meaning. Three options are under discussion:

- *Option 1:* The Quaternary is a Sub-Erathem/Sub-Era with a lower boundary coincident with the base of the Gelasian Stage (2.6 Ma). The base of the Quaternary and that of the Pleistocene Epoch are not the same (the base of the Pleistocene remains at 1.8 Ma).

- *Option 2:* The Quaternary is a Period/System above the Neogene, comprising the Pleistocene and Holocene epochs with a base at the base of the Gelasian Stage (2.6 Ma).
- *Option 3:* Same as Option 2 except that the lower boundary of the Quaternary coincides with the base of the Pleistocene (1.8 Ma).

In the field of the Terrestrial Processes, INQUA encouraged the development of projects that link continental environments together and that link them to oceans and climate. In total INQUA funded about 40 projects. If approved, INQUA will participate at a global level in IYPE activities.

5.f.31 International Palaeontological Association

Agenda Item 5.f.31 IPA

Antonio Brambati reported that the IPA aims to promote and coordinate international cooperation in palaeontology and to encourage the integration and synthesis of all paleontological knowledge. The IPA General Assembly is scheduled for the Second International Palaeontological Congress that is host in Beijing, 2006. During this meeting, elections will be held for a new slate of IPA officers for the term 2006-2010. Three electronic databases are now part of the IPA site: the Directory of Paleontologists of the World, The Directory of Fossil Collections of the World and The PaleoLink Database. Two more electronic databases are under development: the Directory of Globally Important Palaeontological Sites and the Directory of Paleontological Societies and Associations.

The IPA intends to seek Associate Partner status in sponsorship of the International Year of Planet Earth (2007-2009). The reduction in funding for the International Geoscience Programme (IGCP) for 2006 and the decision to dissolve the Division of Earth Sciences was viewed with distress. IPA is involved in protecting the endangered paleontological sites project that was published in September 1998, Lethaia. It included two catalogues of endangered fossil sites. Finally, IPA will convene a workshop at the Second IPC in Beijing, titled "Paleontological Parks" and present a proposed revision of the Constitution, sponsoring a workshop concerning "Paleontological Parks". The Worldwide Conservation of Outstanding Fossil Sites, cooperate in planning and sponsorship of paleontology-related activities for the International Year of Planet Earth. Brambati appreciated the organizational activity, the diffusion of the information and the planning activities for the future.

5.f.32 International Permafrost Association

Agenda Item 5.f.32 IPA

Eldridge Moores noted the Association and its working group participated in numerous meetings are working on a long-term planning document, and planning for the International Polar Year. Work on the Thermal State of Permafrost is proceeding with the grant from IUGS that was also used to support a day long conference on the subject. This is the only mention of the use of the money granted from IUGS last year. No request for further funds is indicated in the IPA report.

Agenda Item 5.f.33 ISRM

5.f.33 International Society for Rock Mechanics

Antonio Brambati commented that Rapporteur Ryo Matsumoto was very busy and unable to attend the EC meeting. There was no further discussion of ISRM.

5.f.34 International Society of Soil Mechanics and Geotechnical Engineering

Eldridge Moores remarked that this Society aims at “the promotion of 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.” It had a busy year in 2005, with many meetings and activities. No funds were requested.

5.f.35 Meteoritical Society

Ryo Matsumoto was unable to attend the EC meeting. There was no further discussion of the Meteoritical Society.

5.f.36 Society of Economic Geologists, Inc.

Agenda Item 5.f.36 SEG

Rapporteur Alberto Riccardi noted that during the last year, the SEG has increased its membership (3,754 as of August 31, 2005) and activities throughout the World. It has organized a wide range of meetings, and lectures, awarded student research grants, and edited leading publications in the field of mineral resources. The centenary of the journal “Economic Geology” was celebrated in 2005 with the publication of the landmark 100th Anniversary Volume, the production of a digital archive of the journal back to 1905, and the presentation of technical sessions and field trips in the Salt Lake City area as part of the GSA annual meeting. SEG is a leading international society in its field, and its relevance for important society issues is indicated by having cosponsored meetings with many national and international organizations, including UNESCO. Riccardi suggested congratulating SEG for these achievements. Zhang Hongren added that SEG is closely associated with IAGOD.

5.f.37 Society for Sedimentary Geology

Agenda Item 5.f.37 SEPM

Antonio Brambati reported that SEPM held its Annual Meeting in Calgary, Canada, jointly with A.A.P.G. Rick Sarg turned the gavel over to the new President, Bill Morgan and honoured the Society’s 2005 Medalists and the best journal papers and student awardees. Twelve short courses and field trips were sponsored. The “Journal of Sedimentary Research” continues publishing top-quality papers. PALAIOS continued to prosper. SEPM continued to play an important role in 2005, along with AAPG, GSA, MSA, GSL and AGI, as a founder and current board member of the geoscience online journal aggregate, “GeoScienceWorld” (GSW), which launched in February 2005. In 2005, four new publications were planned and three are already out. SEPM sponsored three research conferences: SEISMIC GEOMORPHOLOGY, in Houston, USA; GEOLOGIC PROBLEM SOLVING WITH MICROFOSSILS, at Rice University, Houston, USA; THE SEDIMENTARY RECORD OF METEORITE IMPACTS, in Springfield, USA. SEPM Foundation, Inc. continues to award student grants to those pursuing research in sedimentary geology. To date over \$250,000 has been dispensed from the foundation. In 2005, the foundation supported 16 student presenters with travel grants to the Annual Meeting as well as several graduate student research grants. In 2005, the SEPM held an Annual Meeting in conjunction with AAPG and the cosponsored two field trips with AAPG and CSPG. Brambati appreciated the organisational activity and all the undertakings to support young scientists and students. He recommended sending the organisation a congratulatory letter.

5.f.38 Society for Geology Applied to Mineral Deposits

Agenda Item 5.f.38 SGA

Alberto Riccardi noted the SGA was active in 2005, mainly in co-sponsoring five scientific meetings (including the 8th SGA Biennial Meeting – SGA 40th Anniversary Meeting where IUGS President, Prof. Zhang Hongren, was one of distinguished speakers), and editing the journal “*Mineralium Deposita*” and SGA News. 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”, in recognition of the International Year of the Planet Earth. A grant application to ICSU (through IUGS) was rejected and re-submitted in late 2004 to IUGS, but no official reply was received. There was no financial request.

6. REPORTS ON CO-OPERATIVE ENTERPRISES

6.a Situation of Earth Sciences in UNESCO

Agenda Item: 6.a

Robert Missotten reported that much had happened in 2005, with Member states voting for a reduced budget of US\$ 820 million. With a more streamlined budget (travel budget halved, budget cuts around 40%), UNESCO is more in line with UN millennium goals. The change to a results-based management structure has imposed guidelines to ensure transparency, control budgets and improve information flow. Member States are happy with the Director General, who is looking toward working in harmony with the UN and IGCP. Water, the priority for 2006-2007, will receive most of the funding. Remaining funds are to be focused on strengthening the office and building renovations. There was a loss of personnel (now only 14 staff) and further decentralisation is envisaged, with a move to small regional offices but more field officers in Africa, Asian and South America. In 2004, UNESCO only had two geologists in the field (Nairobi, Jakarta), but now there two more in Cairo and Montevideo. Unfortunately, decentralizing is occurring at the cost of funding of international programmes; and a number of Scandinavian countries want further restructuring of Earth and Social Sciences divisions because Member States have difficulties in understanding the mandate of UNESCO. Missotten indicated it was not a good idea to restrict change and to try to work and come to solutions for transformation.

Water will be the principal focus for medium-term planning over other programs, and UNESCO has established the Institute of Education in Water Science in Holland and with the Government of Japan is focusing on hazards related to water. For the first time, Earth Sciences received more attention from Ambassadors and the Governing Board of UNESCO as result of scientists writing to their Ambassadors. The DG asked Member States to approve US\$ 320 million in additional funding for Natural Hazards work. The Engineering Division will also collaborate with Earth Sciences. Missotten suggested that more money is likely if activities coincide with those prioritized by Member States. IYPE, IGCP, GARS, ICSU, the **Commission of the Geological Map of the World** and Earth Observation Systems are all successful examples of effective collaboration. UNESCO was working on the problem of attracting more young scientists. UNESCO was also strongly committed to improving its Website. Missotten thought that the return of the USA would strengthen the Organisation, but that further effort was needed. Actions to improve relationships with the USA included MoUs signed with USGS (one) and NASA (two).

Zhang Hongren thanked Robert Missotten for his comprehensive introduction.

6.b IUGS/UNESCO International Geoscience Programme (IGCP)

Agenda Item: 6.b

Please see also Task Group on IGCP Agenda Item 5 d 4

Sylvi Haldorsen gave a PowerPoint presentation on the main issues of the agenda items, highlighting the activities of the two groups working on the IGCP revision, pointing out that the IUGS/UNESCO Task Group and IGCP Scientific Board and UNESCO Task Group had no contact with one another.

To make IGCP more relevant a number of common funding themes were agreed upon: Hazards, Groundwater, Sustainable Development, Health, Climate Change, Ecosystem and Biodiversity; 25 % of the funding could go to groups outside these categories (i.e., fundamental research). Haldorsen stressed that the restructuring should keep the current mix of basic and applied research. Although Water will be a continuing priority for the next Medium-term Plan in 2008, other possibilities mentioned included:

- Earth sciences and environmental processes through time
- Geohazards, climate change and basin analysis
- Earth resources and sustainable use

This implies that IGCP should be more active and work with National Committees to form an agglomeration of representation in the field of Environmental Sciences. Haldorsen noted that IGCP would like to keep basic and applied research, but the question of focusing and prioritizing proposals was still undecided. The two task groups had different views on the structure and future of the Scientific Board. The IUGS-UNESCO Task Group recommended expansion of SB (up to 100) with a chair and co-chairpersons selected for current themes. The SB-IGCP recommended the Scientific Board be reduced to 14, with a scientific panel of 40 to 60 people. The SB-IGCP Task Group also placed greater focus on administrative routines day to day, whereas the IUGS UNESCO TG focused on finances.

Eldridge Moores commented that the SB-IGCP TG and UNESCO-IUGS TG have similarities: e.g., common themes hazards, sustainable development and water; and that with a little creative thinking, the new Scientific Board could unite the various elements, so that if designed correctly, Earth Sciences could contribute to all three areas. Robert Missotten thought that Sustainable Development was most likely field. Eduardo de Mulder pointed out that there was no contact between the two task groups because of an IUGS mandate that the two groups have no contact and start dates at different times: the IUGS-UNESCO group starting earlier. Jean-Paul Cadet reminded the EC that there were three topics to address: 1) scientific terms, 2) organization, and 3) funding. Alberto Riccardi added that he had read the reports, but that the SB-IGCP TG Task Group proposed more changes; and suggested to meld both reports.

Peter Bobrowsky reported that the Bureau had met on the subject and it is important that IUGS EC make a final decision. From the Bureau's point-of-view, IUGS could play a greater role, and together with UNESCO should become more involved in decision-making and operational processes. The Bureau felt that the Scientific Board was overstepping its mandate by accepting too many projects and that this was way beyond the sustainable limit. The process should involve proposals being ranked by outside organisations, and should be mixture of fundamental and applied science. The Bureau stressed that they were opposed to

artificial division of themes and recommended, no themes be established: rather there could be an annual call for specific proposals.

The Bureau envisioned a “virtual pool” of experts giving scientific evaluations to the Scientific Board. All qualified and IGCP groups should be able to nominate good candidates for the pool of experts. Prospective projects would be sent to this pool for evaluation: Round 1 of the ranking would be done off-site; key representatives would go to Paris for Round 2 of the ranking at a 3-day meeting; in Round 3, a short list would go to UNESCO and IUGS for a decision on the final number of projects to be accepted. In this way, IUGS and UNESCO would maintain greater financial control. The Bureau stressed the following:

- Guarantee of continued funding should be performance-based.
- Hope for an increase in funding level which at present is at the low end of IGCP funding; US\$ 5000 is too low
- With fewer projects, the base amount of funding could be higher. The current 47 projects cannot be sustained: 20 projects are too few; 30 to 40 projects would be better
- IUGS and UNESCO will not let the Scientific Board decide how many projects should be funded, rather they will provide a ranking of projects
- Confusion over the decision-making process: e.g., the Water Division should provide funding because it has a say in the agenda
- More control on where funding should go. This should be integrated with the technical evaluation of IGCP Scientific Board.
- Better communications between Scientific Board and IUGS is needed
- The Scientific Board should not interfere with the *modus operandum* and stick to their scientific mandate

Bobrowsky indicated that INQUA had given US\$ 5000 a year to pick a project and that other GeoUnions and sponsors need to be brought onboard. He reminded the EC that they needed to get things to UNESCO soon and the recommendations should not just come from IUGS. Bobrowsky then asked how UNESCO felt about the proposals.

Sylvi Haldorsen said that there was no problem accepting a flexible approach. IUGS should agree to more focus on obvious applied projects and on strengthening the relevance of IGCP in Society. Haldorsen repeated the need to half the number projects and for these to fit into the new structure. The Task Group and Scientific Board agree that too many projects were accepted. The Scientific Board agreed to a mechanism for termination of projects, but UNESCO has preserved applied science projects, although a few groundwater proposals are of poor quality. Haldorsen urged that the Scientific Board should only rank proposals and not accept such large numbers of projects.

Haldorsen then noted that three-day meetings are a good idea, but do not necessarily decrease costs (flights cost the most) and IUGS should look into securing more funding from UNESCO. Also the grant from IUGS itself needs to be addressed and more money should be given.

Zhang Hongren recognised different levels of the problem. The EC should decide to increase support to the IGCP, otherwise funding from UNESCO will decrease. If IUGS decides to increase support, then how can the Union use this funding? Hongren added that most

questions were for general guidance and procedural matters on how things are done. Hongren recommended that IUGS should increase its funding to IGCP.

Eldridge Moores noted the mechanics of how to manage the grants were summarized by Peter, and liked the idea of developing an overall philosophy that appeals to all across the board. He reminisced of the decision last year to increase support, and added that this has not yet been forthcoming. A Mission Statement was needed covering the three themes and that if done right, would lead to more funding and not leave IGCP and IUGS dealing with a decrease in resources.

Jean-Paul Cadet noted that as a first step, the EC was in agreement to increase the level of funding; and that a large budget can be mobilized, for example, cancelling the Grants Programme or by shifting IYPE moneys to IGCP. He emphasised that the EC had to move quick on this issue. Antonio Brambati said that from a political point-of-view, IUGS should mobilize moneys. Alberto Riccardi recommended the IUGS move fast on the issues of: a) the amount of money allocated and b) how to restructure and save money. Zhang Hongren suggested concentrating on increasing funding; and that restructuring could be dealt with later. Bobrowsky suggested that to show that IUGS was serious; funding should be increased substantially to US\$ 60,000. Eduardo de Mulder added that they had looked at ways to save money and the Task Group found potential cuts up to US\$ 35,000.

- **Increase support to IGCP:** EC agreed to increase support to IGCP

Hongren then asked what IGCP should do in future. Moores said IGCP has to decide whether it should be more focused on themes and emphasised that when judging the practicality of projects, key discussions and reviews need to be rigorous. Bobrowsky and Riccardi repeated that 75% of the available funds should go to projects in the three theme areas, with the remainder for fundamental research; and that IUGS and UNESCO give guidance.

Robert Missotten thanked the EC for its positive attitude and noted a consensus on networking and a bottom-up approach to management. He stressed the need for balance between fundamental and applied research, and rhetorically wondered what the IUGS and UNESCO priorities were. These should be made clear to guide researchers and policy makers. Also: other divisions, sections and sponsors need to convey their aims. The Scientific Board can solicit proposals to help and compliment IHP, and Water Sciences will continue to support IGCP. Missotten was pleased that IUGS agreed that other UNESCO divisions would be approached. He suggested that this mechanism of review be applied to other fields within UNESCO. Missotten thanked Haldorsen and Cadet for their discussion paper.

Riccardi remarked that most proposals from developed countries dealt with basic geology, where the best geoscientists are devoted to fundamental geological problems; and expected applied geology proposals to be poor. Missotten also found that proposals related to fundamental water science were generally of poor quality.

Haldorsen was glad Riccardi and Missotten raised this problem and noted that unfortunately, the external evaluators focus on the applied side. Moores cautioned that reviewers should be reminded that developing countries require focus on the basic sciences. Eduardo de Mulder noted that the power of IGCP was its global cooperation; Haldorsen added that this is how it has always functioned. They stressed the EC should address the opportunities to encourage scientists from developing countries to submit proposals and work abroad with colleagues

from developed countries. Bobrowsky noted that this would be a reversal of a typical IGCP recommendation, as funding travel of scientists from developed countries has traditionally been discouraged. Bobrowsky and de Mulder agreed that if IUGS and UNESCO were too strict, a division between pure and applied science could occur. Moores suggested that the guidelines be more flexible.

After a short break, Jean-Paul Cadet reopened discussion on Agenda Item 6b, concerning the contribution of other UNESCO Divisions (e.g., Ocean and Basic Sciences, and Disaster Reduction). Cadet wondered what niche IUGS could fill. He stressed that to be concrete IUGS needed to have a small group (2 or 3 people) explore the connections with other Divisions and discuss which proposed scientific activities could be funded, but cautioned not to start from scratch.

Alberto Riccardi said that now that the EC had agreed to increase the budget, it had to focus on other topics: e.g., on how to change the structure of IGCP to save money. Bobrowsky agreed, adding that the EC had to prioritize the drafting of an agreement and new position to present to UNESCO. Cadet also suggested pursuing Hazards with UNESCO, and that someone in the EC should make contact with them.

Robert Missotten emphasised the priority for the day was establishing cooperation with other Divisions, e.g., the Ecology Division. The Director General, Koichiro Matsuura has a background in Ecology and was keen on developing work in Earth Sciences and applying it to bio-remediation in mined areas; conflict resolution; and bridging between geology and ecology. Missotten was able to convey that UNESCO was lacking in Earth Science-Ecology issues: the UNESCO Earth Sciences Division hardly touches mining or rehabilitation of mines. He asked whether IUGS had the scientific and technical experience in this area. A good proposal is required, and if there was an EC member who could work with Missotten to come up with Guidelines for Proposals and to work with the IGCP.

Zhang Hongren commented that China is largest consumer of mineral resources and every year a meeting entitled “China Mining” is held (last one was China Mining 2005). Eldridge Moores gave an example of the rehabilitation of a large opencast gold mine near his home (owned by MacGaulplin). This mine site was environmentally well designed: water quality was continually monitored to minimize contamination. In the end, the mine site was given University of California (Davis) and is now used a natural reserve for ecological experiments. Eduardo de Mulder asked to talk about the relationship between IYPE and IGCP, noting that the Year has themes on Hazards and Resources. He also noted that the International Council on Mining and Metals ICMM and IYPE are to participate in the Prospectors and Developers Association of Canada (PDAC) Meeting in Toronto, April 2006, stressing the potential links for profit.

Zhang Hongren emphasised that the EC must solve the problem directly connected to UNESCO. Jean-Paul Cadet brought the discussion back to Hazards, noting that he had contacted Harsh Gupta in Paris for ideas, stressing he was in a key position to help as leader of the group dealing with Hazards. Alberto Riccardi recommended the main topics be proposed during this meeting, adding that the Task Groups proposed six topics. Hongren and Bobrowsky replied that the problem could not be solved right now, only jointly after listening to the experts, and that the new Structure for IGCP must be established first. They suggested eliminating the working groups and sticking to the motherhood statement that IGCP would address the General Mission Statement. Bobrowsky added that IUGS was saving money,

pursuing sources of funding, and hoped to create a virtual board of experts, with IUGS and UNESCO maintaining control over the decisions and directions. Hongren suggested clarification on the issue of applied over basic/fundamental research; reiterating there should be 75/25 divisions for funding, or perhaps two-thirds.

Robert Missotten said the guideline of funding for applied research was not a fixed percentage and that there should be agreement that there is more applied than basic research. He saw the virtual pool of experts reporting to a small Scientific Board (8 to 10 people). This Expert Review Group should also be given a name, and the panel might grow over time; at present there are 20 Members. Missotten then wondered how to go forward, suggesting a new Task Group to develop and assign the new guidelines. Human resources are needed for this Task.

Peter Bobrowsky asked if Eldridge Moores was interested to be Chair. Moores, Bobrowsky, Alberto Riccardi, Sylvi Haldorsen and Robert Missotten all expressed interest to form a Task Group with the following aim of writing guidelines after the February Meeting of the present IGCP National Committees. Moores noted that what ever information could be provided by others would be welcome. Hongren remarked that he was willing to serve on the group.

Cadet asked for clarification on the role of the Task Group and wondered about how to write the statement. Bobrowsky reiterated the key points from earlier in the discussion would be incorporated into a short report. Hongren reminded Cadet that there were two existing reports to build on. These reports have been accepted and will be incorporated.

Eduardo de Mulder asked about the deadline and to whom should the TG send its report? Hongren and Bobrowsky agreed that it should be “immediately” and sent to the EC. Haldorsen further clarified saying the TG should write the guidelines. Moores and Bobrowsky saw two tasks: 1) Write what the IUGS has done to address the concerns of the DG of UNESCO and 2) Write the Guidelines.

Action item: Moores, Bobrowsky, Riccardi, Haldorsen and Missotten to form a Task Group with the aims of: 1) Writing to the Director General, informing him of what IUGS has done to address the concerns of the UNESCO; 2) Writing Guidelines for the Expert Review Board and Scientific Board.

Robert Missotten saw two deadlines, but noted the Guidelines might take several months; they could be completed before April and definitely, by the summer. Bobrowsky and Moores though the document would be 6 to 7 pages long and achievable by spring; the Guidelines may be difficult to decide upon so a March deadline is not realistic if the TG has to go through the reports line-by-line. They suggested an interim quick response to the DG. Missotten suggested that to be effective, the report must be out by early June 2006. Moores noted that many drafts would have been gone through by this virtual task group before this date. He suggested late March or early April for the first.

Missotten said there must be room to improve the IGCP National Committees because they will be playing a more significant role. Countries with contact points must be renovated and reinvigorated: e.g., the USGS informed UNESCO that it is forming a National Committee. However, it is not up to UNESCO to make suggestions. These were best formulated by IGCP NCs. Missotten then asked the Task Group to write a two-page outline on the reform of the National Committees. Peter Bobrowsky proposed the following action item:

Action item: Robert Missotten to send the current guidelines for IGCP and National Committees.

Robert Missotten remarked that the budget of the IGCP was restricted and that funds were reserved until the end of March. He also noted that UNESCO is proposing a new brochure on the IGCP, although compilation was needed before the end of March. Although there is no budget for the brochure in 2006-2007, US\$ 10,000 was moved from the 2005 budget. Missotten added that it would be possible to do this, and it required short articles from leaders, and joint articles from IUGS and UNESCO. Zhang Hongren said that China could help with the publication, but asked who would write it. Missotten suggested the existing Brochure would function as a guideline for the new publication, so the main content was already available.

Bobrowsky and Riccardi thought that specific actions were needed, but that currently, there was little agreement on many of the issues. Moores and Bobrowsky recommended that IUGS assign someone: either externally or from the EC. Missotten thought an IUGS contact was needed; and he recommended contacting UNESCO soon after this Meeting to inform them of progress. And to let them know what IYPE has done, added Moores. He suggested that over the next few days the EC should come up with something for the DG and National Committees, but that specifics should be avoided. It should also be stressed that National Committees need to move fast on this.

Jean-Paul Cadet asked whether who decided on the number of people and themes were topics for future discussion: Hongren replied that they were; Bobrowsky recommended (postponement of a field excursion to a penguin colony and) that the discussion continue. Hongren continued saying that the basic guidelines must be written first and the details could come later. Bobrowsky emphasised the need to be flexible on the applied and basis themes, noting that IUGS does not know from year to year what the priorities of UNESCO will be and that they may change from year to year. For example, the Hazards Division may one year announce contribution on any projects year to year. As a result, said Bobrowsky, it is only possible to agree on the principals. He and Riccardi suggested the broad themes match those of IYPE.

Haldorsen suggested a joint discussion was needed in Paris where the number of people on the Scientific Board could be decided and when they had to be contacted. Eduardo de Mulder stressed the need for relevant topics. Bobrowsky reminded the EC that the DG and National Committees needed to know what comes out of the February meeting in Paris. From this meeting, the themes could be developed. The call for proposals would be based on guidance from other Divisions. Bobrowsky recommended that at this Meeting, all the EC should do is agreeing on the principles.

Missotten said that UNESCO wanted some stability in the beginning and correspondence to the UNESCO themes in the Mid-Term Plan for the next six years. He saw change as an evolution and not noticeable year to year and reminded the EC of his opening remark that the DG was pleased with openness with the geological community. Other Divisions face restructuring in the near future and are looking to the Earth Sciences Division to see how it transforms: e.g., Cultural and Educational groups are faced with the same cuts and are reacting negatively. IUGS-UNESCO relationship is a model of sciences.

Eldridge Moores suggested that if IUGS and UNESCO act together, then there could be a priority shift from Water to Earth Sciences, and asked if it is possible from this that UNESCO's prime focus could become Earth Science. Missotten said perhaps after this 6-year Medium-Term Plan, reminding all that positive attention will benefit IUGS and UNESCO and that cooperation was good.

6.c IUGS/UNESCO Programme on Geological Application on Remote Sensing (GARS)

Agenda Item: 6.c

Zhang Hongren then introduced the next agenda item, GARS. Antonio Brambati said the Annual Report by Stuart Marsh was well done and presented a lot of work. GARS had contacted National Bodies and received extra funding from the ESA and BGS. The restructuring at UNESCO had affected the activities of GARS. Brambati noted a financial request of US\$ 7000 for attending meetings. GARS will develop three themes:

Reducing vulnerability of communities at risk to natural hazards;
Managing Resources;
Contributing to understanding of global environmental change (both programme elements).

Robert Missotten congratulated Brambati for a concise report and proposed to look together at the future achievements. He added that GARS had steering meeting once a year and they want to introduce and develop Remote Sensing in the Earth Sciences (e.g., geohazards). GARS, reported Missotten, feels that the Earth Sciences are fragmented. As an example: Earth Scientists, Ecologists, Meteorologists and Oceanographers do not want to have downtime for satellites. Space agencies did not really listen to Earth Scientists. After a gap of 10 years, there will be service to the geological of ELBAN radar. Missotten briefly mentioned the Earth Observation System for Geophysics and Geology (IGOS) and the move to Solid Earth Science with GEOSS. Their 10-year plan focuses on agriculture, meteorology and oceans but little reference to geology. Missotten asked whether enlarging the scope of GARS to include Geohazards and Earth observation was favourable exercise for GARS.

Eldridge Moores asked at what cost; Missotten answered US\$ 7000. Eduardo de Mulder noted that Geohazards have been considered by IGOS. Robert Missotten reported that recommendations from the 2004 Report were now being implemented and space agencies (e.g., ESA) provided additional funding. This was the best way for Earth Sciences to influence IGOS and GEOSS was through Geohazards. There was a slow transformation in IGOS and GEOSS toward a more favourable attitude toward Earth Sciences and the Solid Earth Community. Priorities were needed and Missotten emphasised one area of future cooperation was IYPE.

Jean-Paul Cadet said that the EC needed to discuss what could be done in a practical way: how two good platforms could link activities. Cadet wanted IUGS to be included in IGOS and GEOSS, and suggested IUGS see what IYPE can do by contacting Jose Achaceh; ILP and IUGG could be consulted so that there is opportunity for collaboration.

- **Action item:** Peter Bobrowsky to contact IYPE
- **Action item:** Jean-Paul Cadet to contact ILP

Eldridge Moores mentioned that ISPRS should be more involved and included here: e.g., remote sensing techniques are widely used in structural geology and mineral resources. He added it would be a waste of money if Earth Sciences were not integrated. Eduardo de Mulder said that GARS should be informed of GEM activities.

Missotten ended the Agenda Item by highlighting ESA activities with groundwater in Africa, stressing that typology and geological inputs were still needed. The TIGER Project, lead by Stuart Marsh, was an initiative of the Hydrological Community and ESA that reached out to the geological community. Funding from IUGS was fundamental to the continuing function of GARS; and GARS will be essential to increasing the visibility of Earth Sciences in UNESCO. GARS acknowledged IUGS for their support.

6.d IUGS-UNESCO-IGU GeoParks Initiative (GEOPARK)

Agenda Item: 6.d

Eduardo de Mulder opened saying financial matters were discussed earlier: the aim here would be to consider the future, and the proposal to fold GEOSEE and replace Werner Janoschek with a new Communications Officer. Janoschek had asked GEOSEE be dissolved for two reasons:

The ambitions of GEOSEE were too large, incorporating landscapes, education, and sustainable development. These were too broad as issues and difficult to harmonise.

It was a three-party operation. IGU has withdrawn and is not willing to contribute further; this leaves UNESCO and IUGS.

Eduardo de Mulder reminded the EC that GEOSEE has tremendous outreach potential for IUGS; and mentioned the Global GeoParks Network is now supported by a Communications Officer and financial support.

Zhang Hongren thanked de Mulder for the introduction while Anne Liinamaa-Dehls passed around copies of the “Report of the IUGS Representative in the European GeoParks Network for 2005” and a short summary about the GEOSEE Initiative written by Janoschek.

Antonio Brambati agreed that GEOSEE was ambitious, cost IUGS much, and that the goals of the EGN must be narrower. Brambati urged IUGS to follow global activities in relation to Geological Heritage, Geosites and Paleosites. Brambati noted that the IPA had organised a new database on Paleosites, and was concerned about conservation. IUGS must promote the sensibility of undeveloped countries. Brambati remarked the name GEOSEE does not fit the aims and suggested the EC come up with a new name to reflect changes in scope.

Eldridge Moores agreed that the name must change and suggested joining with IPA to protect sites of special scientific interest. (Moores briefly mentioned that IGC was concerned that a Paleosite in Morocco was being quarried for its fossils.) Eduardo de Mulder reiterated that the initial aims were too broad and did not work. A niche where IUGS could collaborate was needed. Moores noted that the reaction of UNESCO was important. Brambati recommended that over the coming months, a Task Force should draft a 2-page document and forward it to UNESCO.

The GeoParks Initiative was a new involvement for Robert Missotten. He was impressed by the importance of GeoParks when at the Florence IGC. He assured the EC that UNESCO

would increase cooperation and continue to support this initiative. Missotten thought that a full-fledged GeoParks Programme could become as prestigious as the IGCP. However, Japan and Germany are against expanding the programme and they would rather support *ad hoc* efforts to promote GeoParks within various countries. Missotten recognised the Chinese efforts as a model, and noted mechanisms and links in Europe. Also: the IGCP evaluated a global network of sites, but with the restructuring finances did not allow for meetings.

Robert Missotten pointed out that because of its special status in UNESCO, GeoParks could not get programme funding. In addition, human resource limits prevent effective operation. Missotten noted that the scientific basis in IUGS is strong and that the new guidelines were in draft form. He wondered if it was possible for IUGS to send a proposal. The first thing to do would be to finalize this document, then distribute it to the partners. Missotten said that the comments would be appreciated before the proposal is presented in Belfast, September 2006. He was looking forward to this analysis by IUGS.

Hongren responded that the Bureau could develop some document, and if special funds were not available from UNESCO, IUGS could invest a small sum of money to prepare, circulate, travel and promote GeoParks and IUGS. Hongren suggested a letter of proposal to DG and asked to have time to develop guidelines. He also asked for more details from IUGS as to direction of the activity. Missotten thought that for the next two years there should be an exchange of information and ideas to come up with an IUGS-UNESCO document with guidelines.

Peter Bobrowsky recognised that UNESCO-IUGS-IGU were originally co-sponsors. Now, IUGS is the primary sponsor and it is over-stretched; IGU stopped paying; and UNESCO no longer contributes, although it gets credit for GEOSEE. The new organisation must have a new name. Bobrowsky also noted that IUGS has influence as an Observer in the European GeoParks Network, independently of UNESCO, and that IUGS support of the EGN should continue as they meet a few times a year and represent the interests of IUGS. Bobrowsky proposed that V. Mocanu represent IUGS in EGN.

Bobrowsky then discussed a meeting in Belfast to discuss cutting the links of GEOSEE and GeoParks. Guidelines must be brought in line with the UNESCO position; and this requires strong IUGS cooperation in this field (e.g., European GeoParks Network). UNESCO would like to go forward and with IUGS, and needs to look at how the situation can be improved. In particular, the aims and goals of GeoParks must be evaluated. UNESCO recommends strong relations with IUGS and other networks be maintained. He indicated that an IUGS response was needed before the Belfast Meeting, stressing the need for a limited number of actions on the future of the GeoParks Programme. In the short term, IUGS could contribute by looking at guidelines and adding a few concrete suggestions. Bobrowsky emphasised that IUGS would like to influence the future of GeoParks network and that there must be a concrete contribution even if it is not a programme. Bobrowsky proposed that EC have a GeoParks Initiative, and the Bureau would interact with UNESCO and maintain EGN representation.

Alberto Riccardi asked why Japan was against GeoParks. Missotten answered that the Earth Sciences Division came up with the proposal to expand GeoParks at the same time that the proposal came to condense activities of UNESCO. Jean-Paul Cadet said that he could represent IUGS in meeting in Paris, but the guidelines were urgently needed for the Belfast Meeting in September 2006. He recommended that someone from the IUGS attend this meeting too. Cadet asked how IUGS would solve the problem.

Hongren thought that involvement with GEOSEE/GeoParks should be restricted to lobbying at this time; adding that lobbying costs money in travel. He said that UNESCO has an important intangible asset and urged a proper evaluation and approval of GeoParks. GeoParks also needs scientific and administrative support because it lacks human resources. IUGS-UNESCO collaboration is needed: examples highlighted included work with ProGEO and Geosites; also IUGS helped in the delivery of a strong GeoParks Meeting in Beijing. Hongren recommended an IUGS presence at the Belfast Meeting. Even if GeoParks was not recognised as a Programme, IUGS still had to liaise with UNESCO through the Bureau. By working together, Hongren foresaw excellent results. Zhang Hongren recommended a short-term document summarising the guidelines and contributing to the administration and human resources of the GeoParks Initiative with UNESCO. GeoParks represents a possibility for the Bureau to interact with UNESCO.

Zhao Xun and Peter Bobrowsky noted that South Korea, Taiwan, Vietnam and Iran were using the Chinese GeoParks model as a template and that IUGS contributes to scientific capability in these relationships. Formalising the relationship with UNESCO was needed and the benefits would be great. Godfrey Nowlan suggested that National Committees be involved following the models of China and Europe. Other countries have no structure to develop GeoParks. The next logical step, thought Nowlan, was to increase awareness at the National level and disseminate information through National Committees. Eduardo de Mulder wanted to split the GEOSEE umbrella into smaller groups tied to specific IUGS initiatives. Zhao Xun thought the GeoParks name was clear and straightforward, and stressed the educational interconnections with IUGS: and looping together of many groups' current activities added Nowlan.

Alberto Riccardi asked about the relationship between National Parks and GeoParks, and whether there has been clarification on the distinction. In reply, Zhao Xun talked about his involvement in feasibility study during the 1990s. Although the Chinese Science Division decided to support National Parks, financing of GeoParks remains difficult. Xun also emphasised the different definitions of Parks in China: 387 National Parks; 57 parks are Geoheritage Sites and most others are cultural sites. This is why the geologists want to set up a new framework to protect geological sites of interest.

Zhao Xun noted that after a GeoParks is established in China, its geo-heritage is protected. For every site, a museum is established where the geological history can be displayed to the public. Ministers and top Civil Servants must visit these museums. UK officials have visited a number of GeoParks, and the Geological Survey of Japan has been provided with an introduction. Japan now realises the importance of GeoParks and has 27 National Parks, including a number of volcanic areas, although very little is written about the geology at these sites. Although the National Government provides money, at the local level there are no perceived benefits. GeoParks support themselves by entrance fees. Xun pointed out a change the idea/conception of tourism: GeoParks have a strong attraction for tourists, using geology to educate. Visitors in turn support local economies and communities. Services for tourists and producing souvenirs employ some 4000 people. GeoParks bridge between geosciences and sciences and are good for geologists, the public and politicians.

Robert Missotten was pleased with Peter Bobrowsky's response, and commented that it would be very easy for IUGS to put aims into a short paper. UNESCO considers itself a developer of the concept (a special logo was designed): and it would like to remain active in

the selection process. Missotten was impressed by China's response in making regional initiatives, as well as in the GeoParks Initiative and reaching out to Africa. He wanted to find more information on the economic benefits of GeoParks and asked if China could provide this. He noted that the World Heritage Convention, where UNESCO is the Secretariat, does not look at the legal aspects of geo-heritage protection, conservation and development. Also: the sustainable development concept is new. On the topic of US Parks, the USGS Director visited UNESCO last month and promised that both the USGS and Parks Service would introduce the GeoParks concept in the USA. This is a significant political change, remarked Missotten, and a Letter of Agreement would be a good way to proceed. Missotten said that the forgoing discussion had been a rich exchange of information and he looked forward to future relationships.

Eldridge Moores asked what kind of action does IUGS needed to take. Missotten replied that IUGS should write two pages outlining what is being done; stating how IUGS-UNESCO can strengthen the GeoParks Network; addressing resource and funding limitations; and defining the capacity to lobby for GeoParks. Missotten saw this as beginning with an informal exchange of information, leading to a formal agreement. Bobrowsky replied that consensus was needed. Godfrey Nowlan stressed the need for involvement of the National Committees and that other GEOSEE activities should not be forgotten.

Zhang Hongren recommended first concentrating efforts on a few points. Robert Missotten noted that only UNESCO and IUGS were founders in the IGCP programme; difficulties arise when there other partners involved. The question was how to classify GeoParks; it was really a joint initiative: *GeoParks Initiative* and *GeoParks Collaboration* were suggested by Missotten.

Hongren then asked if there were any other questions or comments. Jean-Paul Cadet mentioned that he could attend the EGN Meeting in Limoges. Bobrowsky and de Mulder stressed the need for a permanent Bureau member to represent IUGS with the EGN. Antonio Brambati agreed to be the representative. Zhao Xun said the Secretariat in China would be kept alive. Robert Missotten wanted to see in writing how the Secretariats will adjust to their new roles, how they cooperate, and how they can be streamlined. IUGS could help develop a Website and explore formal collaborations. UNESCO, reiterated Missotten, needed products geared to appear on both IUGS and UNESCO Websites. A GeoParks Website was also required.

- **Decision:** EC agrees to close GEOSEE
- **Decision:** EC agrees in principle to continue pursuing GeoParks as a joint activity with UNESCO, and as a line item for next year's budget
- **Decision:** EC agrees to support EGN and to appoint a representative; Antonio Brambati was selected
- **Action item:** Peter Bobrowsky to write the 2-page letter to Robert Missotten, UNESCO about the GeoParks Initiative
- **Action item:** IUGS to create a Task Group to address the GeoParks issue

7. INTERNATIONAL GEOLOGICAL CONGRESS (IGC)

7.a 32nd IGC in 2004

Agenda Item: 7.a

Zhang Hongren asked if there was any new information on the 32nd IGC in Florence. Antonio Brambati noted an action item that Peter Bobrowsky and Anne Liinamaa-Dehls were to send a report of the proceedings to all IUGS EC on the Florence meeting; and that he would see to it that EC members received copies of the CD. Eldridge Moores noted that Bobrowsky sent the Council Minutes, along with the Minutes from two Council Meeting minutes in Italy.

7.b 33rd IGC in 2008

Agenda Item: 7.b

Zhang Hongren reported that the draft Circular was now out to key people for comments, and was expected to be published in January 2006. Hongren noted that a Nordic Foundation for IGC-33 was established, with a board consisting of five members representing each of the Nordic Countries (Norway, Sweden, Denmark, Finland, and Iceland). The foundation was currently being registered as a legal entity in Norway. The executive part of the committee, ExCom is complete. The Science Committee (SciCom) is now established and consists of 16 members representing a wide range of geoscientific themes. The International Panel currently consists of 20 delegates. The Panel has not had any meetings, but will start their work in 2006. The Advisory Board is under construction. The Arctic Consortium is currently being re-established, with the same objectives. The total Congress budget is roughly NOK 45 million (56 million EUROS). The Norwegian Oil Company Statoil has agreed to be the main sponsor for the Congress, and contribute with NOK 6 million, in addition to personnel in key committees. The IGC Organising committee is currently working after a sponsor plan. An agreement is signed with a professional design company, which will produce the circulars, flyers, posters, final programme, and other printed matter for the Congress. The First Circular is ready in draft version and is sent out for comments to the local organizing committee (LOC) and SciCom. The 2nd and 3rd circulars, as well as the programme are preliminarily scheduled.

Eduardo de Mulder and Eldridge Moores regretted that the IGC Organising Committee could not be here for the EC Meeting. He also noted that the printing and distribution costs for the Brochure were enormous. Anne Liinamaa-Dehls pointed out that his group was not officially invited to the meeting in Punta Arenas to attend the Executive Committee meeting. Regarding funding, Sylvi Haldorsen reported that the OC was finding it difficult to raise money, but that Norway and Sweden will contribute economically. It was struggling to keep the money from leaving the Secretariat. Haldorsen was critical of the poorly developed Website, and suggested this should be done well in advance of the meeting in 2008.

Antonio Brambati remarked that the fees were expensive: EUR 600 for early registration and EUR 750 for late registrants; field trips will also be expensive. Fortunately, Oil Companies would provide some support. Haldorsen noted that the NOK 6 million for the Norwegian Research Council has not yet been materialised. Brambati wondered if it was possible for the fees to go down; Haldorsen responded that she was far from interacting with Congress organizers. Jean-Paul Cadet asked what scientific content of the meeting was to be. Zhang Hongren said that the IGCC would guide the decisions.

Peter Bobrowsky worried about the level of interaction and involvement for IUGS; indicating that although the rules were in place from the past IGC, there had been no invitation sent to IUGS to participate on the committees. To Zhang Hongren, this demonstrated that the IGCC

must be put into place, as soon as possible. John Aaron recognised that IUGS has been the scientific sponsor of the Congress in the past and asked about the problem with the character of the website. Bobrowsky suggested IUGS help with formulation of the Brochure, and circulation added Anne Liinamaa-Dehls.

Eduardo de Mulder requested IUGS withhold publication until properly discussed, and then asked what amount would IUGS receive of the registration fees and whether a contract had been signed. Zhang Hongren said there was no official announcement and nothing had been signed, but a letter has requesting this contract has been sent. Brambati asked who will write the contract and decide on the dollars. It was generally agreed that registration fees should not be raised: Hongren thought IUGS should ask for EUR 35, de Mulder US\$ 25. Haldorsen felt that the copy of the first circular was needed before writing the letter, adding that it should be sharp in emphasising IUGS demands, and sent to the entire IGC Organizing Committee. She also suggested all Ministers be sent to the IGC. No invitations had been sent, reported Liinamaa-Dehls.

Moore thought the letter should be written and sent immediately. Hongren and Brambati reported that Leo Boriani felt the immediate need to meet with the Steering Committee. Brambati said that Hongren would serve as a co-Chair with Boriani. The Secretary General did not want to send all the organisers copies of the letter, adding that when there is a question about money, the committee should respond. Bobrowsky noted that he sent the guidelines early in the fall, but it seems that IUGS is being ignored. Hongren and Riccardi stressed the need to take action immediately, recommended that an Email be sent immediately to stop printing of the IGC Brochure.

Bobrowsky mentioned that a Table of Fees was compiled as an action item and this was used as a guideline to establish rates. Riccardi felt that high Congress Fees should be compensated for by reduced costs for transportation, lodging, meals, etc. Hongren felt that this could be communicated to the IGC and asked for input. Robert Missotten recommended that the GEOHOST Programme (a joint IUGS-UNESCO exercise) be launched. GEOHOST is the place to help developing countries attend major gatherings. Hongren said he would organise a small group.

7.c 34th IGC in 2012

Agenda Item: 7.c

Zhang Hongren reported that under an agreement with the Australian Academy of Science, the AGC will be responsible for the financial and legal aspects of the Congress and member professional societies will invest financially in the IGC. The AGC has signed an agreement with Queensland Events, which confirms the Congress for Brisbane and secures initial financial support; website has been developed and over 30 field trips are being scoped. The President of the Congress will be Dr Neil Williams, Chief Executive Officer of Geoscience Australia (GA); the national geological and spatial information agency. A small Preparatory Committee, led by Ian Lambert of GA and Mike Smith of the Australian Geoscience Council Incorporated (AGC, the peak body representing Australia's professional geoscience associations), has been undertaking preliminary organisation. A professional conference organiser will be appointed in 2008. Progress to date includes:

- Under an agreement with the Australian Academy of Science, the AGC will be responsible for the financial and legal aspects of the Congress and member professional societies will invest financially in the IGC;
- The AGC has signed an agreement with Queensland Events, which confirms the Congress for Brisbane and secures initial financial support;

- A website has been developed (<http://www.ga.gov.au/igc2012/>);
- Over 30 field trips are being scoped, to every state of Australia, both islands of New Zealand, and selected parts of the larger region. Initial feedback and suggestions on these will be presented at the 33rd IGC in Oslo.
- A wide-ranging scientific program is envisaged, under the theme *Unearthing our Present and Future*.

Eldridge Moores commented that he knew Mike Smith and was happy he will be participating. Jean-Paul Cadet said that as soon as possible, the EC should discuss the role of IUGS and the linkages with the 34th IGC.

7.d. IUGS and IGC cooperation

John Aaron commented that he had not received the Council Minutes from Florence.

Agenda Item: 7.d

- **Action item:** the Secretariat to resend Council Minutes from Florence.

8. INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)

8.a ICSU General Assembly, Shanghai, China Oct 17-21

Agenda Item: 8.a

Zhang Hongren asked if all had copies of the Decision and Appendixes distributed 20 December 2005 and referred to the Minutes File.

Peter Bobrowsky reported that many unions try to attend the ICSU General Assembly; and that he, Zhang Hongren, Eldridge Moores and Eduardo de Mulder all attended the Shanghai Meeting. Everything at the meeting was pre-arranged and pre-scripted, and sessions were not amenable to comments (although it did not always work). Meetings of ICSU unions and Member Countries were held separately. It was good to meet other unions and the smart people running them.

His personal impression was that ICSU has its own agenda. Other people felt that the longer T. Rosswall (Executive Director) stayed there, the longer he would dominate ICSU. The scientific unions felt they were not consulted enough or not given enough time to comment on drafts. Moores also noted that Assistants of Rosswall reprimanded a participant for questioning a tabled decision.

Bobrowsky then briefly mentioned the GeoUnions' Hazards portfolio and said this ongoing collaboration with seven other GeoUnions was encouraging. A letter had been sent to Rosswall regarding the demands of this group, but there has been no return contact. Bobrowsky also noted that the Mathematics Union had pulled out and many other Unions were not happy with ICSU.

The next issue raised by Bobrowsky concerned the change in currency of trading from US \$ to EURO\$, and that fees were now to be paid in EURO\$. All Unions have suffered due to lost value of currency. For this year, Unions were given an option of currency with the choice to pay to the level of availability. IUGS have not been fluctuating their due payments according to the incoming Finances.

Bobrowsky then noted that Uri Shamir had been appointed to serve on the Executive Board of ICSU. Some concern was expressed to IUGS from the other GeoUnions who felt that this

was unjust and that Shamir was not really transparent. Harsh Gupta was also appointed to serve ICSU. Shamir will let IUGS know when nominations have been received. Bobrowsky recommended that it would be strategic to place as many IUGS-friendly candidates on ICSU Committees. Because ICSU reaches high political levels, representation on any of these committees is useful.

Jean-Paul Cadet wondered how to plan to improve relations of ICSU, suggesting Catherine Breshiliak could be contacted. Zhang Hongren recommended that Uri Shamir meet with the Incoming ICSU President. He suggested this as an Action Item.

- **Action item:** Uri Shamir will meet with the Incoming ICSU President.

Eduardo de Mulder was at the Rio Meeting and did not see a negative trend; rather, the change is that the GeoUnions have banded. He supported the idea that Shamir visit the Incoming President.

8.b ICSU Scientific Committee on the Lithosphere (SCL-ILP)

Jean-Paul Cadet reported that together with IGCP and ICS, ILP is one of the largest programmes and partners of IUGS. After a period of slow activity and poor communication, a new team animated by S. Cloetingh has improved the working relationship with IUGS. The 2005 Report, received in due time and very complete (5 MB!), gives a good view of the dynamic activity of ILP, highlighting:

- Creation of regional committees (cf. European Committee for the Lithosphere) more efficient than the former national committees.
- Reactivation of older projects (cf. Global Strain Rate Map, Exhumation of UHP Terrain, etc).
- Promotion of first-rate direct research projects.
- Creation of 8 new Task Forces (i.e., newly established projects from 2005) with a support of US\$ 5000/ year for 5 years.

Projects and Task Forces are distributed in four major themes (with reports for each of them): 1) Geoscience and Global Change (2 projects and 1 task force); 2) Contemporary Dynamics and Deep Processes (7 projects, 4 task forces); 3) Continental Lithosphere (5 projects and 3 Task forces); and 4) Oceanic Lithosphere. Coordinating committees are in charge of ICDP, ILP's flagship, and of new regional programmes involving top specialists in the field (e.g., Andes and Topo-Europe are very promising initiatives).

On the topic of the Budget, Cadet identified two equal contributions from IUGS and IUGG (US\$ 17,000 x 2) + US\$ 18,000 from various contributing countries. Expenses were mainly devoted to the funding of scientific activities and workshops, a contribution to IYPE (US\$ 5000) and, for a limited part, to the travel costs of officers (less than US \$ 10,000). However, a heavy deficit is foreseen for 2006.

From the information included in the huge documentation transmitted by ILP, it appears that the Programme is back on track and moving globally in the right direction, with a strong impact in the geology-geophysics community. As far as IUGS is concerned, the Cadet suggested improving the relations with ILP with a permanent representative to the ILP Bureau, as IUGG did, and the participation of Cloetingh to IUGS EC. Cadet also recommended developing the collaborations between ILP and IYPE as has already started

(ILP is leading the theme “Deep Earth”), and with IGCP, which shares some themes with ILP (East African Rift, etc) and, often, involve the same scientists.

The EC discussed the need to identify the permanent representative(s) from IUGS to the ILP meeting: Jean-Paul Cadet was nominated for the Europe (Paris) meeting and Eldridge Moores for the US. It was the general opinion that ILP was doing “top science” (e.g., EOS “World Stress Map”).

- **Recommendation:** strengthen relationship between IUGS and ILP

Eduardo de Mulder noted that this was no longer an ICSU Committee. Alberto Riccardi asked when the 2004 Report was sent. Before the Vienna Meeting (May 19th 2005), Anne Liinamaa-Dehls and Eduardo de Mulder replied. Although the first draft was poorly organized, the revised version was much better. The 2005 Report is detailed and well organised. Moores suggested representatives should have copies of the report. Cadet remarked that although he would no longer be on Council, he could still represent IUGS for their benefit. In this way, a link would be maintained.

Peter Bobrowsky recommended that Jean-Paul Cadet and Eldridge Moores represent IUGS and that money should be set-aside for these candidates to attend meetings; and that the 2005 Annual Report is approved.

- **Permanent Representatives:** EC approved Jean-Paul Cadet (Europe) and Eldridge Moores (USA) to be permanent representatives from IUGS to the ILP meetings

8.c ICSU Committees and IUGS Representatives Representation

Agenda Item: 8.c

Committee Members next looked at ICSU Committees and IUGS Representatives Representation. Eduardo de Mulder, Sylvi Haldorsen, Eldridge Moores and Zhang Hongren discussed those committees with IUGS representation (highlighted, see next table).

Eduardo de Mulder suggested involving GEM and appointing someone to represent the seven GeoUnions. After some time, candidates would be re-evaluated and sent an email covering the most important points. Peter Bobrowsky reported that IUGS approached Robin Brett about which committees to participate in, and urged that money should not be committed to human resources (except for CODATA). John Broome said he was overlooked; so IUGS did not get appropriate representation or acknowledgement. Eldridge Moores thought IUGS was irrelevant in the context of ICSU because representatives do not often attend meetings, and have to select those events that are important to IUGS. He emphasised the need to become part of the ICSU culture and get “in their face” as much as possible. Eduardo de Mulder suggested saving this discussion for the Maputo meeting. Bobrowsky reminded the EC that it had to decide on sending an email to the other GeoUnions, and who represents IUGS on what ICSU Committees. He noted that he never received information from IGBP.

Full Name	Acronym	Representative
Priority Area Assessment on Capacity Building	PAA Capacity Building	Harsh Gupta
Committee on Data for Science and Technology	CODATA	John Broome Nominated by CGI

Committee on Space Research	COSPAR	Stuart Marsh Nominated by GARS
Scientific Committee for the International Geosphere-Biosphere Programme	SC-IGBP	Sylvi Haldorsen
Scientific Committee on Antarctic Research	SCAR	Carlo Alberto Ricci
Scientific Committee on Oceanic Research	SCOR	Enrico Bonatti
Scientific Committee on Problems of the Environment	SCOPE	Someone in GEM to be approached
Standing Committee on Freedom in the Conduct of Science	SCFCS	Maurizio Gaetani

The EC then discussed the following List of ICSU Committees, Terms of Reference and Membership: Interdisciplinary Bodies and Joint Initiatives. Bobrowsky suggested making a list of priority groups, of where we want representation. IUGS also has to put an amount of money aside from the budget. Robert Missotten recommended no participation in GTOS and suggested Stuart Marsh (GARS) represent on IGOS. Alberto Riccardi cautioned against overlapping representation with other GeoUnions. Hongren and de Mulder suggested this could be a preliminary idea, sorted according to low and high priority. Highlighted (light green) Committees have IUGS representation.

Bobrowsky was willing to participate in all seven, but SCOPE and IGBP still needed representatives. Haldorsen offered to serve on IGBP. Missotten suggested the Secretary General write to the GeoUnions and GEM, and wanted Bobrowsky to approach Marsh to inform him that IUGS would like him to represent them in GARS. The following action items are proposed:

- **Action item:** GEMS to nominate someone to serve as representative on SCOPE
- **Action item:** Approach GEM to find representation. Money for this comes from the GEM network.
- **Action item:** Peter Bobrowsky to write GeoUnions, GEM and GARS.

ICSU Body or Initiative	IUGS Representative
Scientific Committee on Antarctic Research (SCAR)	Yes <i>IUGS funding NOT required</i> Carlo Alberto Ricci
Federation of Astronomical and Geophysical Data Analysis Services (FAGS)	No IUGG interested
Committee on DATA for Science and Technology (CODATA)	Yes <i>IUGS funding required</i> John Broome
Scientific Committee On Problems of the Environment (SCOPE)	Yes <i>Funding by GEM Network</i> Representation from GEM needed
Scientific Committee on Frequency	No

Allocations for Radio Astronomy and Space Science (IUCAF)	
International Geosphere-Biosphere Programme (IGBP)	Yes <i>IUGS funding required</i> Sylvi Haldorsen
Scientific Committee on Oceanic Research (SCOR)	No IUGG has representative
Scientific Committee On Solar-Terrestrial Physics (SCOSTEP)	No
Committee On Space and Research (COSPAR)	Yes <i>IUGS funding NOT required</i> GARS will represent (Stuart Marsh)
Panel on World Data Centres (Geophysical, Solar and Environmental) (WDC)	No
World Climate Research Programme (WCRP)	No
An Integrated Programme of Biodiversity Science (DIVERSITAS)	No
International Human Dimensions Programme on Global Environmental Change (IHDP)	No
Global Climate Observing System (GCOS)	No
Global Ocean Observing System (GOOS)	No
Global Terrestrial Observing System (GTOS)	No
ICSU/TWAS/UNESCO Visiting Scientist Programme	No
International Network for the Availability of Scientific Publications (INASP)	No AGID will participate
Standing Committee on Freedom in the Conduct of Science (SCFCS)	No
Committee on Hazards	Yes <i>IUGS funding NOT required</i> Peter Bobrowsky nominated
Integrated Global Observing Strategy (IGOS)	Yes <i>IUGS funding NOT required</i> Stuart Marsh (GARS)

Agenda Item: 8.d

8.d ICSU Grant Programme

As a result of the change in the funding policy of UNESCO and the loss of ICSU income due to the exchange rate, the programme had to be significantly reduced in 2005. In addition, financial support from the US was not yet secured for 2006. It was hoped that the programme could be continued, but this was dependent on attracting funding from external resources. Eduardo de Mulder and Peter Bobrowsky reported the announcement was not well received and that there was opposition from ICSU Unions. Despite a US\$ 10 million budget, there was no funding for grants. Hence, the Executive Board recommended that the programme be suspended during 2007 and that a review of its past impact and potential future structure be carried out in 2006-2007. The Grants Programme is suspended for 2007 pending its review, as agreed at the General Assembly. Hence, there will be no call for proposals in 2006. Eldridge Moores asked if it was too late to write a letter; the answer was *yes*.

8.e GeoUnions Meetings

Peter Bobrowsky said there was not much to report. Zhang Hongren noted that at the last GeoUnion Meeting it was agreed to form a Clearing House for publishing and a Website. Eldridge Moores wanted to be on the GeoUnion mailing list so he could have access to Minutes. He suggested that at the Maputo Meeting, UNESCO be formally included. Bobrowsky indicated that there was not much impact on UNESCO and this would need the approval of all GeoUnions.

8.e.1 GeoUnions Meeting, Shanghai, Oct 2005

Agenda Item: 8.e.1

The EC reviewed the Action Items from the last GeoUnions Meeting in Shanghai. On the topic of a shared Secretariat, Members at the Meeting were supportive of this potential option. There was also discussion of how to proceed with science themes in the IYPE. Combinations of other Years with Unions were also discussed. A need to work more closely together was recognised.

- **Action 1:** IUGS to investigate the possibility of a GeoUnions Clearing House.
- **Action 2:** GeoUnion Secretary Generals to generate a Mission Statement / TOR for the GeoUnions.
- **Action 3:** IUGS have written a statement on Hazards to be tabled to ICSU on behalf of the GeoUnions (**completed**).
- **Action 4:** IUGG to contact Mary Hill to request an addendum regarding clarification of the administrative/functional problems and solutions rather than scientific problems for their Theme (**not an IUGS action**).
- **Action 5:** ISPRS to launch collective new Polar GeoUnion Theme targeted specifically on participation in IPY.
- **Action 6:** Each GeoUnion to appoint a representative to the new Polar theme and inform ISPRS. Peter Bobrowsky recommended that a candidate be nominated to be a representative to the new Geo-Polar Theme. Eduardo de Mulder suggested Jerry Brown (IPA chair); Bobrowsky said he would approach him.
- **Action 7:** Concerned UNESCO/Union relations and partnership in IGCP. It was noted that that INQUA was giving US\$ 5000.
- **Action 8:** This item was still outstanding: each GeoUnion to evaluate their current connections with UNESCO and distribute to the rest of the GeoUnions for future discussion. Robert Missotten requested that he receive copies of the minutes; Bobrowsky briefly explained Action 8 to Missotten, and indicated he would receive the minutes.

8.e.2 GeoUnions Meeting, Maputo, Mozambique, July 2006

Agenda Item: 8.e.2

The 21st Colloquium on African Geology – CAG21 – will be held in Maputo, capital of Mozambique, in July 2006, and will be organised by the Mozambican Geological Mining

Association (AGMM), in conjunction with the Department of Geology of Eduardo Mondlane University (UEM) and the National Directorate for Geology (DNG), with the support of the Geological Society of South Africa (GSSA), and under the auspices of the Geological Society of Africa (GSAf).

With ISPRSS cancelling its involvement, Zhang Hongren and Peter Bobrowsky stressed the opportunities for IUGS as the hosts. IUGS will organize the next GeoUnion meeting in close cooperation with the ICSU African Regional Office. Bobrowsky reported that Uri Shamir proposed a major initiative "Geoscience for Africa" and that IUGG has already approved support of US\$ 25,000. I. Nyambe and T. Davis will serve as representatives. IUGS will have a Bureau meeting in Maputo, but will also contribute to the Booth. The grant to CGI will be used in Maputo, with I. Jackson and K. Asch running a workshop. Bobrowsky asked who would be attending: with the exception of Alberto Riccardi, most of the EC expected attend the meeting (using non-IUGS funds).

Robert Missotten said it would be beneficial to have UNESCO representative at the GeoUnion Meeting, and suggested a UNESCO geologist should be invited, as it would be good to have local input. Bobrowsky recommended that GSAf be given more money to support activities of their choice (e.g., CGMU). The EC presence is part of that commitment, in addition to the US\$ 10,000 for CGI. Antonio Brambati asked how many days for the meeting: 2- or 3-days with pre- and post-meeting field trips. Bobrowsky mentioned that July 1-2, 2006 were the possible meeting dates; there was also a GeoUnion meeting July 6. He suggested Sylvi Haldorsen draft the agenda for this meeting. Haldorsen thought it important to plan as soon as possible and decide what needs to be discussed. She asked that suggestions to be forward to her would send a draft agenda for this scientific, non-administrative extraordinary EC meeting.

Jean-Paul Cadet noted that the booth would be coordinated with CGI, and wondered if IUGS should directly involve itself with Shamir's proposal "Geoscience Africa." Peter Bobrowsky mentioned that he had received a number of panic emails sent by Sospeter Muhongo asking why none of the EC has registered yet. Bobrowsky said that IUGS members would not be pre-registering.

9. IUGS POLICY AND STRATEGY MATTERS

Please see also IUGS-IGC Statutes Task Group

Agenda Item: 9.a

9.a IUGS Statutes

Eldridge Moores opened discussion on Agenda Item 9.a reporting that steps had been taken to remove conflicting passages from the Statutes. The new Definitions, Statutes, and Bylaws are for the combined International Geological Congress (IGC) and the International Union of Geological Sciences (IUGS), which were merged by vote of their Councils at the 32nd Session of the International Geological Congress in Florence, Italy, in August 2004. This combination was an outgrowth of the approval of the IUGS Strategic Plan. The combined body is the IUGS Council. The advantages of this merger are a clear and simple representation of the global geological community by a unified body and effective management of both IUGS and IGC. A special Task Group, comprising Dr. Wolfgang Eder (Chairman), Dr. Arne Bjorlykke, Dr. Jacques Charvet, Dr. Eldridge Moores, and Dr. Alberto Riccardi prepared the draft of combined Statutes and Bylaws. The main changes, noted

Moore's were in the following sections of the document in the Agenda. For the Statutes Definitions, Aims and Objectives, Fiscal Policy, Working Structure of the Union, Council, Nominating Committee and Affiliated Organisations. In the Bylaws section, slight changes were made sections on the Executive Council, The Officers, The Nominating Committee and Commissions of the Union.

9.a.1 Definitions

The EC read through the 16 Definitions; Moore's reported that Definition (k) was new:

The IGC Committee (IGCC) is a standing (permanent) committee of IUGS dealing with IGC matters. It consists of the IUGS Bureau, the Presidents and the Secretary Generals of the Organizing Committees of the past IGC, the next IGC and of the Preparatory Committee of the next but one IGC, if already decided. Up to three Congress organizing experts may be invited as non-voting observers to IGC Committee meetings. Additional past Presidents and Secretary Generals may be consulted as non-voting organizing experts. The IGC Committee prepares the agenda for the Council meetings regarding IGC matters. The President of the past IGC chairs the IGC committee; and IUGS Permanent Secretariat provides secretarial services. (See Statutes 72-76.)

9.a.2 Statutes

This section included changes to the Aims and Objectives, and Membership. Traditionally, this has been introduced under Agenda Item 5.c. The Bylaws and Statutes were taken from the original document; all items related to IGC were taken from June 2005 version of IGC Statutes.

Aims and objectives

Moore's reported that Point 3 - Parts d) to f) was new and Point 4 was adapted from the IGC:

3. The aims of the Union are to...
 - d) Facilitating interaction among geoscientists from all parts of the world.
 - e) Promoting participation of geoscientists – regardless of race, citizenship, language, political stance or gender – in international scientific endeavours.
 - f) Encouraging international cooperation in meeting the geoscientific needs of any country or region.
4. The International Geological Congress of the Union shall in addition to the above, (a) contribute to the advancement of fundamental and applied research in the geological sciences, (b) provide a venue for geoscientists to exchange ideas and information, and (c) provide the opportunity, by way of geological excursions to examine geological problems and features in the field.

Membership

Changes were made to Points 11 and 12 (*italics* added for emphasis, Ed):

11. *Allied organizations* are entitled to receive all Union activity information normally circulated to Full Member organizations. Allied Organizations shall not have voting rights at Council meetings, but may participate in Union activities and meetings if invited. They are further invited to provide a voluntary annual contribution not less than the one-half the fixed minimum for Full Member Organizations to the IUGS. Allied Organizations receive access to ICSU through the IUGS.

12. *Associate status*, renewable each year, may be granted to individual persons, or private or public institutions upon subscription to “Episodes” and an *uncommitted annual payment of a subscription not less than the one-half the fixed minimum for Full Members*. Associates are entitled to receive all Union activity information normally circulated to adhering organizations. Associates shall not have voting rights at Council meetings, but may participate in Union activities and meetings if invited. Associates are welcome to register for Congresses and attend Council meetings as non-voting observers.

Fiscal Policy

Changes Fiscal Policy included:

13. The fiscal year of the Union is the calendar year. Antonio Brambati and Peter Bobrowsky said this Point was adapted from the old Statutes, noting that the “normal” fiscal year starts at the end of April but that IUGS works on a cylindrical year.

15. The Union shall acquire revenue through subscriptions/dues from adhering organizations according to their financial category of membership as shown in the following table:

Category	1	2	3	4	5	6	7	8
Unit of Contribution	1	2	4	7	12	20	35	70

The unit of contribution follows the inflation rate based on the US Consumer Price Index (CPI).

Eldridge Moores and Sylvi Haldorsen thought it would be better if dues paid by Adhering Organisations were related to GDP because many developed countries are not paying much. Haldorsen reminded the EC that Eduardo de Mulder did this for INQUA and it worked. Peter Bobrowsky tried to get the Netherlands and Austria to increase their dues, but said he expected no results. He suggested a Task Group might be needed.

17. The Union may also acquire revenue from grants, contracts, royalties, donations, investments or recovery of costs for publications or meetings. The Union shall not assume debts exceeding the sum of its assets, promised grants or contributions, and expected membership subscriptions. Only the assets of the Union, *not those of its Elected Committees, Designated Appointees or Councillors* may be held liable for the Union's fiscal obligations.

Since the Union is a Not-for-Profit Organisation, Eldridge Moores wondered whether the wording should be changed.

18. All income of the Union shall be deposited in accounts authorized by the Bureau and ratified by the Executive Committee. Only officers of the Union and other persons so authorized by the Executive Committee may be signatories to contracts and disbursements. Any banking resolution in the name of the Union shall be worded to ensure that in case of death of the authorized signatory, the funds revert automatically to the Union and do not become part of the estate of said authorized signatory.

Antonio Brambati asked whether IUGS was allowed to invest because it was a Not-for-Profit Organisation. Haldorsen and Moores suggested checking with the laws of Virginia and Norway.

19. Full Member Organizations, which have not paid their subscription/dues for more than two years may be placed on inactive status, if requested, to avoid further accumulation of unpaid dues. While on inactive status, Full Member Organizations would not have voting rights on the Council. Active status may be restored upon payment of dues for two past years.

Sylvi Haldorsen thought for practical reasons the Inactive Status should be maintained. Anne Liinamaa-Dehls suggested categories of Active Member, and Membership in Arrears rather than Inactive, citing Pakistan as working model for this classification.

Working structure of the Union

The following changes were made to the working structure of the IUGS:

21. The Executive Committee, with the assistance of the Committees and under the general direction of the Council, administers the Union. The Bureau is responsible for carrying out the day-to-day operations. *Between actual meetings of the Bureau and Executive Committee, the work of the Union may be accomplished in part by conference call meetings, electronic mail, and other modes of communication.*

22. In accordance with Definitions (j), (k), (l), and (m), the IGC is managed by the Organizing Committee in close cooperation with the IGC Committee concerning the general rules and requirements for the Congress. *The Organizing Committee may call upon the IGC Committee for advice, or to resolve any problem needing timely resolution.* (See also Statutes 54-81)

23. The scientific activities within the Union are carried out by the International Geological Congress and the Executive Committee through Commissions and their Subcommissions, Task Groups and Initiatives through projects or meetings arranged in collaboration with all member organizations, such as Allied and Associate Organizations other non-governmental bodies, and inter-governmental bodies. Scientific tasks may also be entrusted to the Committees and Working Groups.

The Council

The following change was made:

27. Voting in the Council will be on the basis of one vote per Full Member Organization except in the case of financial matters and issues related to IGC where voting will be by blocs according to the IUGS membership categories (Statute 36).

- a) The Secretary General, with the assistance of independent tellers elected by the Council, will be responsible for an accurate counting, recording, and *timely* reporting of all printed or written ballots cast.
- b) *Council meetings shall be conducted in open and transparent manner using basic, standard parliamentary (e.g. Roberts Rules of Order, ICSU procedures, etc.) procedures.* (Added)

- c) In the event of an equal division of votes, the chairperson shall cast the deciding vote.

Powers and functions of the Council

Moore noted that this section is essentially unchanged.

The Executive Committee

This section was not significantly changed.

43. The Executive Committee may act on behalf of the Council on matters of policy or financial commitment that are too urgent to await a decision by the Council through postal ballot or consultation but such actions must be notified to the Full Member Organizations in a timely manner and are subject to ratification by the Council *by postal mail, Fax or electronic mail*.

Other Committees

This section remained unchanged.

Commissions of the Union

This section remained unchanged except for Point 52. Jean-Paul Cadet and Sylvi Haldorsen suggested a slight re-wording (*italicized*):

52. The Executive Committee shall appoint a temporary Chairperson and Vice-Chairperson of each newly formed Commission or Sub-Commission and its initial members unit it can elect its own officers and members. *Commissions shall elect their own officers, who are confirmed by approval by the Executive Committee and ratification of the Council.* They shall remain in office until the end of the next IGC and be immediately re-eligible for a re-appointment once only. *The Chairperson should only have one term of office.* In the case of a vacancy in the Chair position, a Vice- Chairperson shall automatically become the Chairperson and will hold that position until a new Chairperson is elected.

The International Geological Congress

Wording was modified in Points 54 and 55.

54. The International Geological Congress is the main regular scientific forum *of the International Union of Geological Sciences*.

55. The IGC Committee is the permanent committee in IUGS dealing with IGC matters, The Organizing Committee may call upon the IGCC for advice, or to resolve any problem which would normally be referred to the Council but whose resolution could not be deferred without risk to the well-being of the Congress. The IGCC may act on behalf of the Council on matters of policy or financial commitment relevant to the Congress that are too urgent to await a decision by the Council. However, the IGCC must notify in a timely manner the Executive Committee and the IUGS Full Member Organizations. Such decisions must be subject to ratification by the Council.

Registration for IGC

No changes to this section were noted.

Programme

This section remained unchanged.

Excursions

This section remained unchanged.

Administration

Eldridge Moores noted that this section was modified:

67. The responsibility for administration of successive Congresses passes from one Organizing Committee to another. The Secretary General of the past Congress provides the Secretary General of the incoming Organizing Committee with all pertinent information and documentation. The IGC Committee in close collaboration with the incoming Organizing Committee shall monitor the permanent interests of the Congress.

68. Any country or group of countries wishing to host a Congress informs the IUGS Executive Committee and IGCC of its proposal preferably at least 8 years in advance. Invitations to hold the next Congress are decided by the Council.

69. If a given invitation is considered adequate and desirable, Council should decide the venue eight years in advance of the Congress date.

70. As soon as practicable after the termination of a specific Session, the Organizing Committee of the next Congress shall make its address known to the geological community.

Responsibilities of the Organizing Committee

The following was adapted from the original IGC Statutes.

71. The Organizing Committee is also responsible for:

- a) Preparing a program for the forthcoming Congress in collaboration with the IUGS and its related organizations, publishing and distributing it to members in advance of the scientific and business meetings.
- b) Organizing excursions as defined in Statutes 64-66 inviting each Full Member Organization to nominate its Delegate(s) to the Council.
- c) Inviting appropriate institutions, such as Academies, Geological Surveys, International and National Geological Societies, and Universities to send representatives to the Congress.
- d) Preparing and distributing widely the circulars concerning plans for the forthcoming Congress and information for prospective registrants.
- e) Publishing, in advance of the Congress, summaries of papers, which have been accepted by the Organizing Committee.

- f) Promoting publication of presented contributions that are of appropriate scientific quality.
- g) Preparing and distributing to registrants a volume of General Proceedings of the Congress as soon as practicable.
- h) Providing meeting rooms and other facilities for the scientific and business meetings, which it has accepted, for inclusion in the program.
- i) Introducing its nominees for President and Secretary General for the Congress at the regular meeting in question of the Council four years in advance of the Congress.
- j) Negotiating with the IUGS the amount to be included in the registration fee as an income for the IUGS.
- k) Collaborating with related organizations on the development of symposia, workshops, and other program venues for the next Congress. Related organizations may hold international meetings at a Congress at the discretion of the Organizing Committee relative to space and scheduling considerations.
- l) Reporting yearly to the Executive Committee of the Union.

The IGC Committee (IGCC)

This section remained unchanged.

General Provisions

This section remained unchanged.

The Nominating Committee

Changes to this section were made to Points 79 and 80:

79. When soliciting applicants for the Executive Committee, the Nominating Committee shall provide the Full Member Organizations with a realistic travel budget needed to support each office and what level of support may be available from IUGS.

80. In nominating individuals for the positions of President, Secretary General and the Treasurer, Vice-Presidents, Councillors and any other Executive Committee position, the Full Member Organizations shall indicate the extent to which support is available for travel and space requirements of the positions. If a Full Member Organization cannot support the position then either the IUGS Council must find alternate funds or select another applicant.

Allied Organizations

Point 82 was modified:

82. Active international or multinational scientific organizations, or organizations with international aspirations, may apply for Allied status, if they are willing to support the aims and objectives of the Union. The Executive Committee review all applications and may reject the application or grant tentative approval subject to ratification by the Council.

Entry into force of, and amendments for Statutes and Bylaws

This section remained unchanged.

9.a.3 Bylaws of the International Union of Geological Sciences

Eldridge Moores and Peter Bobrowsky reported that the Task Group was on track and were expecting comments from Wolfgang Eder and Leo Boriani soon. Moores stressed that voting was a way to exert influence and that a higher Category of Membership equals more votes. Sylvi Haldorsen expressed concern over this voting structure. Eduardo de Mulder suggested 1 Unit = 1 Vote. Jean-Paul Cadet cautioned that if this happened then most countries would drop to a lower level of contribution. Eldridge Moores and Jean-Paul Cadet then proposed two motions:

- **Motion 1:** IUGS adopt a 1 Unit = 1 Vote system
- **Motion 2:** Antonio Brambati to explore the financial effect in IUGS of changing assigning units of contribution based on GDP
- **Motions passed:** both motions passed, with Haldorsen opposed to Motion 1

Eldridge Moores then noted that Minutes from the first two Council meetings and records of the mail ballots were not available. Alberto Riccardi remarked that if Councils merge, then the Statutes should be merged. Bobrowsky suggested an order of business was needed. Sylvi Haldorsen wondered if a paragraph was needed dealing with documentation between Congresses. All information could be deposited with the Permanent Secretariat.

Changes to the Bylaws were made in following sections: Executive Committee, The Officers, The Nominating Committee and Commissions of the Union.

Membership

This section remained unchanged.

The Council

This section remained unchanged.

Powers and functions of the Council

This section remained unchanged.

The Executive Committee

A slight change was made to Point 11. Eduardo de Mulder, Peter Bobrowsky, Sylvi Haldorsen and Eldridge Moores suggested a slight rewording of Point 14: *shall* was too strong, *should*, *might* or *could* were better choices.

11. The Executive Committee comprises the officers of the Union (President, Secretary General, Treasurer, two Vice-Presidents, four Councillors, and the immediate Past President of the Union). It shall meet at least once a year with a minimum of three months' notice. Five members shall constitute a quorum. Urgent business between the meetings shall be transacted by consultation among members *by telephone, post, fax or email*.

14. At its mid-term meeting, normally two years after the preceding regular Council meeting, the Executive Committee *should* meet with representatives of the Commissions of the Union to review their activities and receive their

recommendations concerning changes that may be needed in their terms of reference or in the scientific directions being pursued by the Union.

The Officers

Point 19 was modified, and Alberto Riccardi noted the addition on Point 21 (**DAVE WHAT ADDITION?**):

19. The Vice-Presidents shall be responsible for a particular activity of IUGS (i.e., the *IGC of the IUGS*, joint programs with UNESCO, proposal policy, Allied organizations, etc.) as decided by the Executive Committee. It would be desirable that they attend, in addition to the Executive Committee meeting, at least one Bureau meeting each year. *The Union shall reimburse the Vice-Presidents for expenses incurred for attendance at the Executive Committee and one Bureau meeting per year.*

21. If a member of the Executive Committee is unable to attend meetings or does not participate for two consecutive years the Executive Committee, by two-thirds vote, may declare the position vacant. Also, Executive Committee, by two-thirds vote, may remove a member of the Executive Committee for just cause. If more than a year remains in the term of office, the Executive Committee shall ask the Nominating Committee to nominate a person for the position to serve until the next regular Council meeting. If less than a year remains, the Executive Committee may appoint someone to complete the term of office.

The Nominating Committee

Changes to Bylaws 23 and 24 were discussed:

23. The Committee shall evaluate the merits of all persons proposed as candidates for each office within the Executive Committee, and select one or more nominee for each office, bearing in mind geographical and disciplinary balance, personal proficiency in the geological sciences, and experience in the administration of scientific organizations. The Committee shall then submit its list to the President of the Union who shall forward it to the members of the Council three months before elections take place. Additional nominations for any office may be made to the President if supported in writing by the representatives of five or more Full Member Organizations to the Council and accompanied by curriculum vitae and assurance of the candidate's willingness to hold office and if submitted at least one month in advance of the election. The Secretary General shall circulate such nominations immediately to the Council. Nominations may not be made from the floor.

Haldorsen noted there were no deadlines for submitting reports and recommended adding a time limit.

24. In proposing candidates for the offices of President, Treasurer and, especially, Secretary General, the Nominating Committee shall also ascertain the possible infrastructure support, forthcoming from international or national sources (in accordance with Statute 80).

Again the need for a time limit was stressed. Eduardo de Mulder said he would provide information on this bylaw.

Commissions of the Union

Changes to Points 25, 26 and 28 were discussed.

25. A Commission or a Sub-Commission is composed of a convenient number of geographically representative members, kept to the minimum consistent with the tasks with which it is charged. A Commission is subject to review every four years.

Jean-Paul Cadet and Sylvi Haldorsen thought the maximum time should be three years, and that a sunset clause be added.

26. Commissions may adopt regulations of their own, subject to approval by the Executive Committee *and ratified by Council. This should be done between Congresses.*

Italicised text suggested by Haldorsen, Cadet and Moores.

28. A Commission or Sub-Commission should issue the publications necessary for implementing its programmes and reporting on its results. Papers should be published in reputable journals, local or international, as appropriate. Publications of monographs, books and major reports should be undertaken in Consultation with the IUGS Committee for Publications, so that IUGS may gain maximum benefit, publicly and financially.

Allied Organizations

This section remained unchanged.

Dissolution of the Union and future of the IGC

This section remained unchanged.

Entry into force of Bylaws

This section remained unchanged.

Agenda Item: 9.b

9.b Priorities of IUGS

EC members were directed to review the President's vision on how to better unite the geological community. Zhang Hongren felt that the energy of IUGS resides in its unity. Only through a united effort can the Union implement its aims in the advancement of geological sciences, applying the results to improving the prosperity of nations and the quality of human life, and strengthening public awareness of geology. In order to get support from its members, IUGS must let them feel regarded and see tangible benefits of membership. When geologists of a member country go to their superiors to request for money for their national annual subscriptions, they are often asked this simple question, "what do we get from IUGS?" Obvious benefits for the members of IUGS include:

- Better access to international geo-scientific activities, such as the International Geological Congress, the International Year of Planet Earth, IGCP and other activities organized by UNESCO and ICSU.

- Access to the service of international geological standards, such as provided by the International Commission of Stratigraphy, Commission of the Geological Maps of the World.
- Access to important databases, such as Geochemical Baseline
- Other services, like the History of Geological Sciences
- IUGS publications: Episodes, IUGS Website, non-serial publications, etc.

However, Hongren still sees room for improvement if IUGS can make better use of its strengths and avoid weakness. The unique strengths of IUGS are its broad coverage of geological scientific disciplines and nations. IUGS is unique among the great many earth science-related institutions in the world; it has been commonly and widely accepted as representing the interests of the global geological community. The weaknesses of IUGS are its small budget in comparison with many of the earth science-related institutions around the world and its lack of awareness among some of the global geological community.

In order to unite members of IUGS, first of all it should establish better communication with its membership. International conferences are of course one of the best forms of communication. However, it is also the most expensive form of communication. It is obvious that one year member fee of a country of category 1 is insufficient for an average international trip. With the financial capability of IUGS, only a small percentage of member countries can get the chance once a year for one person to travel. Even for that fortunate country, the vast majority of geologists still cannot share the benefit. From year to year, many member countries and most of the geologists will feel there is not much benefit for them and gradually lose their interest to IUGS.

However, conferences are not the only way to unite world geo-scientific community. If IUGS can more fully develop the potential of its unique position in the world geological community and put its main effort on the organisation and coordination of the world geo-scientific activities rather than to support particular projects, much more can be done with the limited budget.

The rapid development of information and communication technologies has provided great opportunity for geological sciences since the major product of geological research is knowledge in the form of information. The pressing matter is to establish regular networking via the Internet with all the members. Another alternative is to use teleconferencing system with PowerPoint presentation capability, white board and other functions. Of course, IUGS should support valuable conferences in the future; but must restrict to a few cases. For most international conferences, the participants should be encouraged to seek the support from other sources rather than IUGS.

As a first step, it is essential to revitalize the Committee of Research Direction (Hongren agreed with Robin Brett that the name should be Committee of Strategic Planning, because IUGS does not do research itself). Then the CRD can organize experts of different branches of geosciences to figure out the state-of-the-art of the given branch in the world, the main international, interdisciplinary topics of joint activities to be organized by IUGS and plan for future cooperation. In order to minimize the risk associated with the transition, IUGS can move ahead in a “trial and error” way, starting with small-scale activities. The existing practice can be continued as before without abrupt changes, since at the beginning stage the IT does not require large expenditures. Substantial change can be made only after most people feel comfortable with the new manner of work.

For historical reasons, the relationship between IGC and IUGS has been problematic. The past EC had made a great effort to merge IGC with IUGS. The next IGC will be held in Norway and Nordic countries played important role in the founding of IUGS in early sixties of the last century. The aim of the founding of IUGS at that time was to fill the gap between Congresses. Now it is the good chance to better integrate IGC into the whole set of activities of IUGS. In Zhang Hongren's opinion, the relationship between IUGS and IGC should be very much like the relationship between International Olympic Committee and Olympic Games. To apply the results to improving the prosperity of nations and the quality of human life, IUGS should investigate, recommend and disseminate successful case histories of application for different branches, organize bilateral or multi-lateral cooperation under different conditions.

To strengthen public awareness of geology, IUGS has the International Year of Planet Earth for next few years. Hongren cautioned, however, that with the limited financial resources, IUGS cannot afford too many projects simultaneously and it should concentrate its effort of publicity mainly in IYPE. Unfortunately, geology has not gained enough attention of society. In the immediate future, IUGS should initiate the process to become associated with the UN Department of Public Information (DPI) and attain the consultative status of UN ECOSOC.

The IUGS headquarter has been elected by member countries and the financial resources come mainly from member fees. Transparency and democracy are important preconditions to get the trust and support of the member countries. To unite world geological community, it is essential to minimize "black box" operations and develop democracy to a higher level. Again, IT can provide convenient means. Zhang Hongren ended by noting that he had written three articles and had already received comments from colleagues on how to act for the future. He stressed that the Bureau must work together as a group and unite. The Secretary General would be the spokesperson for IUGS in most cases.

9.c Financial support for access to Bureau positions

Agenda Item: 9.c

Eldridge Moores noted that in the new draft of the Statutes, this had been addressed. Antonio Brambati saw the following possibilities: 1) IUGS pay all expenses; 2) IUGS provides the *per diem* and hosting organisations cover the transport costs; 3) Members get a fixed sum; 4) No funding. Brambati also cautioned that IYPE, IGCP and the Russia Reserve issue will tie up a lot of money and suggested to postpone discussion until there is a clearer idea on these matters.

Jean-Paul Cadet saw as a problem that few countries could provide US\$ 20,000 and warned that IUGS was losing scientific representation. Cadet suggested funding be limited to one bureau member or to partially cover costs. Eldridge Moores noted that IUGG covers the expenses of all officers and suggested that this was a system that could be adopted by IUGS. This would be only fair, since officers are serving without salary.

Brambati talked about the beginning of a reserve to cover officer expenses, starting with US\$ 3000. Cadet saw this as a favourable sign. Peter Bobrowsky said that Zhang Hongren would confirm the contract and motioned to start a reserve fund for officers from developing countries. Brambati suggest further talk on this topic be postponed until the Free Discussion.

- **Motion:** Start a Reserve Fund to fully support officers from developing countries.

9.d IUGS Associate Members

Agenda Item: 9.d

Eldridge Moores noted that Individual associate membership was defined in IUGS Statutes 9, but that there have been only weak attempts to put this into effect. Currently there are NO Associate Members: IUGS lost KACST (Saudi Arabia) in the summer of 2005, its last Associate Member. Back issues of Episodes, Directories, annual reports and minutes are available free on-line. Moores stressed that it was important someone evaluate the benefits (and cost of providing benefits?) of the various classifications of bodies/individuals with IUGS ties that exist to date. Anne Liinamaa-Dehls clarified the categories and financial contributions, noting the change from *Associate Member* to *Supporting Member*. Supporting members receive “Episodes.”

Peter Bobrowsky wondered how far IUGS was going to go with the perks for membership. Moores raised the issue of advertising noting that other societies do it, suggesting IUGS could have corporate sponsors with links to their Websites. If done well, it would resemble the AGU. Bobrowsky thought that sponsorship of IYPE could lead into longer-term partnerships with IUGS. Bobrowsky recommended a Task Group on Promoting IUGS comprising Anne Liinamaa-Dehls, Antonio Brambati, Godfrey Nowlan and the new councillors.

- **Action item:** Establish task group on examining the implications of associate/supporting members.

Agenda Item: 9.e

9.e IUGS Grants Programme

Zhang Hongren reported that the IUGS had recently established an internal grants program setting aside a maximum of US\$ 50,000 per year to support this and to be shared amongst several in progress grants. IUGS is currently supporting the GeoCrossBorder project from Poland (focusing on environmental geology) for US \$19,000 in 2005; this project will receive one more year of funding in 2006. For 2005, IUGS put out a call for Expressions of Interest (EoI) and received 14 requests. The IUGS Grant Evaluation Committee (comprising Bobrowsky, Moores, Brambati, Hongren, Haldorsen, and de Mulder, along with two outsiders) ranked proposals. In the next stage, the Executive Committee decides which EOIs to fund and successful candidates are invited to submit a full proposal. The proposals were submitted from IUGS Commissions, Task Groups and Committees (1 - 5), from Affiliated Organizations (6-12) and from Adhering Organizations (13, 14). Below is the table of the 14 requests. Hongren also reported that allocation of funding for 3 IUGS Grant Proposals was approved: 1) IPA (US\$ 10,000, 2) IAGOD (US\$ 10,000), and 3) CGI (US\$ 10,000). Eduardo de Mulder and Zhang Hongren motioned to freezing the Grants Program until 2007 when the situation in Earth Sciences might be better.

- **Motion accepted:** Freeze the IUGS Grants Programme with possible re-start in 2007-2008

No.	Proposal submitter	Title of Proposal	Request from IUGS (US \$)
1	SECE	Formal Establishment of Commission on Solid Earth Composition and Evolution (SECE) and two International Conferences on Fundamental/Topical issues in	\$15,000

		2005	
2	GEM	International Working Group on Geoscience for Land Use and Sustainable Development	\$50,000
3	GEOIN, GEM	Multilateral Environmental Agreements: Promoting the Role of Geoscience in Their Implementation	\$30,000
4	CGI	International Geoscience Data Model/Conceptual Model and Interchange	\$15,000
5	TecTask	Development of an Internet Portal and Implementation of Digital Archives for Structural Geology and Tectonics	\$45 000
6	IPA (Permafrost)	Thermal State of Permafrost: An IPA Contribution to the International Polar Year and Planet Earth	2005 \$10,000 2006: \$15,000 2007: \$15,000 2008: \$10.000
7	AIPEA, Groupe Français des Argiles, Clay Minerals Society, European Clay Group Association, Japanese Clay Society	Structure/Composition – Properties Relationships of Clay Minerals	\$5,000
8	IAGOD, SGA, SEG	Promoting responsible mineral resource management on planet Earth	\$50,000
9	IAGC	Defoliation and reutilization of Fly ash to produce value added products	\$35,000
10	IAGC	Designing of science-illuminated decision-making systems in water resources management in the developing countries	\$30,000
11	IPA (Paleontological)	A directory of globally important palaeontological sites	\$10,000
12	CBGA	XVI 11th Congress of Carpathian-Balkan Geological Association	\$9,000
13	Indonesia Association of Geologist (IAGI)	Earth Resources Utilization and environmental conservation in Developing Countries: A Socialization through documentary film.	\$15,000
14	The Institute of Geology and Mineral Exploration, Greece	Project Title: Establishment of International Task Force for Guidance of the Emerging GeoParks Movement for Vourinos as a Geological Monument and within the Pindos National Park System in Greece	\$16,000

9.f Reports, New Proposals and Revised Work Plan

Members were told to find the Report for GeoCrossBorders, the International Permafrost Society (IPA) and CGI as separate files.

9.f.1 Under-Represented Groups in IUGS

Sylvi Haldorsen then discussed Under-represented Groups in IUGS, showing a PowerPoint presentation prepared with the help of Sospeter Muhongo, Yaoling Niu and Anne Liinamaa-Dehls. Specifically, this target group included women, young people and geologists from low-income countries (i.e. developing countries). The goal is that Africa, Latin America and Asia should play a more important role in IUGS. Haldorsen rhetorically wondered why there are under-represented groups in IUGS. It would seem that most decision makers are older, whereas younger people are too involved in research and career development. She stressed that young people do not really know about IUGS. This indicates the need to analyse the problem, goals and strategies to target actions. It would then be up to IUGS to identify who is responsible for the actions And to decide when action shall be carried out (not always only once). Haldorsen reported that the Task Group should be finished with its work before the next regular Executive Committee meeting. Two strategies were discussed:

Strategy 1

Increase number of IUGS meetings in these regions, for example this was successfully carried out at Maputo.

- *Action 1:* Allocate extra money to arrange meetings in these regions
- *Action 2:* Announce meetings in these regions properly and well in advance on the IUGS web, in Episodes and in the Bulletin
- *Action 3:* Representation by IUGS leadership at the meeting
- *Action 4:* Each second or third of the Bureau and Executive committee should be arranged in these countries, especially just before or after a scientific meeting is arranged there.

Strategy 2

Increase the number of national low-economy members in IUGS

- *Action 1:* Identify contact persons in countries that are not yet members
- *Action 2:* Establish a personal contact with these people
- *Action 3:* Invite these people to an IUGS meeting
- *Action 4:* Distribute IUGS information material in the potential member countries
- *Action 5:* Analyse the situation in low-economy countries that are not paying up their fees, and how to make them active again
- *Action 6:* More active use of regional membership
- *Action 7:* Arrange Bureau meetings in potential member countries

Peter Bobrowsky thanked the Task Group for their work, and asked that Anne Liinamaa-Dehls send him a copy of the EXCEL spreadsheet used to generate the statistics. Eldridge Moores remarked that even in developed countries, there were under-represented groups and suggested that National Committees could develop their own databases. Moores recognised Sospeter Muhongo and Gabi Schneider as valuable human resources in Africa. Bobrowsky cited the USA and France as examples of countries that want to be involved and will pay. He

thought that numbers generated by the Task Group could be used to argue the IUGS case at the national level.

10. INTERNATIONAL YEAR OF PLANET EARTH

10.a International Year of Planet Earth Progress

Agenda Item: 10.a

Eduardo de Mulder opened discussion, noting that in early 2001, IUGS launched an initiative for an International Year of Planet Earth, subtitled 'Earth Sciences for Society'. IUGS was identified as the principal Initiator of the IYPE. UNESCO's Earth Science Division thereafter granted its full support to the Initiative, thereby identifying UNESCO as the co-initiator of the International Year. Eduardo de Mulder gave a PowerPoint presentation highlighting the Background and Preparations, Incorporation, Implementation, Closing Stages and Final Clause. For the Statutes, a Preamble, Objectives and Composition, Board, Secretariat, Advisory Bodies, National Committees, General, Bylaws, Financial Responsibilities, Dissolution and Arbitrage were also reviewed.

The Corporation of the International Year of Planet Earth, hereinafter referred to as "Corporation", is the formal organisational unit to manage and run the respective activities of the IYPE, described in its business plan as of December 2005. It is proposed to be incorporated by IUGS, in consultation with all partners engaged as a "not-for-profit 501 © (3) corporation" in the State of Delaware, USA. The structure of the Corporation reflects the different responsibilities of the various partners, stakeholders and players in the YEAR. The stakeholders comprise the two Initiating organisations IUGS and UNESCO, the Founding Partners, the Associate Partners, the sponsors and donors, the Science Programme Committee, the Outreach Programme Committee and Development Committees and Regional Representatives. Senior Advisers, Goodwill Ambassadors and Patrons constitute the YEAR's Advisory Bodies.

The Action Plan for 2006 included incorporation, fund-raising and formation of the National Committees. It was hoped that by the end of the year, funds of US\$ 1.5 million will be raised from companies, foundations, ministries, banks, heads of states and patrons. At least 10 Development Committees and/or National Committees will be active by July 2006, modelled along the lines of the German National Committee. The EC was then directed to review the 2005 Progress Report.

10.a.1 Agreement between the IUGS and Corporation of IYPE draft

Background and Preparation

Flyers have been produced in six languages for UN Diplomats (including English, French, Spanish, German, Arabic and Chinese). These brochures highlight why the YEAR is necessary: i.e., to increase interest in the Earth sciences within society at large and promote a much wider application of the knowledge and skills of the Earth sciences for the benefit of society. Eduardo de Mulder stressed that focus of IYPE was on science and outreach, and that proposals would be global geoscience-oriented, holistic and multidisciplinary. Ten themes were identified: Groundwater, Hazards, Health, Climate, Resources, Megacities, Deep Earth, Oceans, Soils, and Earth and Life. Outreach projects should aim to appeal to the general public, educational institutions, policy makers and scientists. Two addresses are given for the Website, noted de Mulder. Practically all brochures were published, and the first proof of the Earth and Life brochure was ready.

IYPE will be a triennium, starting in 2007 and continuing until the end of 2009, with 2008 proclaimed by the United Nations as the International Year of Planet Earth. Eduardo de Mulder noted that preparations for this event consist of three phases: a) the Feasibility Phase, b) Preparatory Phase, and c) the Transition Phase. Initiators, the Founding Partners and sponsors provide the financial resources needed for these phases. There are 12 Founding Partners and 23 Associate Partners, many of them IUGS associates (e.g., ICSU, IGCP).

Eduardo de Mulder briefly commented on the political process; noting that first, geoscientists were made aware of IYPE and once it was recognised politically then it was granted general approval of UNESCO. IUGS/IGC Council approved the declaration on August 26, 2004 and by November 2005; nearly 97 nations were on board, representing 87% of the World's population. The UN General Assembly proclaimed IYPE for 2008 (Resolution A/RES/60/192) on December 22, 2005, with no vote against.

Incorporation

The International Year of Planet Earth will be incorporated and registered as a not-for-profit 501 (c) (3) organisation (Corporation) under the law of the State of Delaware (USA) in early 2006. After Incorporation, the Initiators appoint a Chair of the Board, empowered to sign for the Corporation; upon incorporation, the MT will be dissolved. Pending appointment of a Chair of the Board, the Initiators are invited to request the Management Team to represent the Board of Officers on a provisional basis.

The organisation structure of IYPE was reviewed, with de Mulder recommending a global reach, but with implementation on a national level. The Board of Officers will be responsible for the day-to-day decision-making and makes provisions to outsource the Corporation's Secretariat. Until the Secretariat is operational, the Chair of the Board would make provisional secretarial arrangements. The Initiators of the Board of Officers would evaluate proposals by organisations to host the Secretariat and decide on the successful bid. A Service Level Agreement (SLA) must be negotiated with the potential hosting organisation by the Officers of the Board and signed on behalf of the Corporation by the Chair of the Board. The Board of Officers would submit Bylaws to the fiscal authorities for tax arrangements. The Initiators should make provisions to guarantee a budget for 6 months' operation of the Corporation if not covered by external resources.

Implementation

The Implementation Phase may start only when the Chair of the Board has been appointed, the Secretariat has been outsourced and 6-months' budget has been made available by the Initiators. The Chair of the Board appoints the members of the Board according to the guidelines given in the Statutes and Bylaws; Initiators have one seat each on the Board. The Board reports to the Initiators and other relevant entities described in the Statutes and Bylaws, on a bi-monthly basis. The Board steers and supervises all operations of the Secretariat as described in the SLA. Financial resources provided by the Initiators after Incorporation to be reimbursed as soon as sufficient external funding becomes available to the Corporation. The Implementation Phase continues until the end of the International Year of Planet Earth (i.e., 31 December 2009) and the Corporation ceases its activities 6 months after the end of the Implementation Phase (i.e., 30 June 2010).

Closing Stages and Final Clause

If the Corporation cannot collect a minimum level of funding for its operations, the Corporation will be terminated prematurely. The Initiators would make a decision on premature termination after consultation with the Board, the Director of the Secretariat hosting organisation, and the Founding Partners; no such decision will be made prior to December 31, 2007. Should the Corporation be terminated prematurely, all goods purchased will be returned to the Initiators for disposal. By the end of its operations, the Corporation submits a final report to the initiators and all stakeholders, including a financial statement based on an external financial audit. In case of disagreement between parties, an independent mediator will be appointed to the satisfaction of all parties: their conclusion will be binding.

10.a.2 Statutes of the Corporation of IYPE

Objectives and Composition

Eduardo de Mulder identified the objectives of the Corporation as: a) to promote international initiatives to increase awareness of the importance of Earth sciences for the achievement of sustainable development; and b) to encourage all organisations and groups interested in that endeavour to implement related actions and projects in consultation with the respective officers of the Corporation at the local, national, regional and international levels under the IYPE banner.

The Corporation operates in synergy with UN-bodies, notably UNESCO, UNEP and other relevant entities, as well with IUGS, the Founding and Associate Partners of the YEAR and other Earth science societies and groups throughout the world. The Corporation shall guide the activities of the Transition Phase of IYPE, as well as the Implementation Phase, broadly covering the triennium 2007-2009. The Corporation replaces the IYPE “Management Team” (MT), an informal body controlled by the two initiating bodies of the IYPE, IUGS and UNESCO. The Corporation is responsible for the governance and strategic decision-making, implemented in the day-to-day operational work and advisory activities related to the YEAR.

Organisational Structure and Administration

The Corporation consists of two organs, the Board and the Secretariat with an Executive Director, which will be assisted by three advisory bodies. The Board is responsible for the coordination of IYPE activities around the world and the related strategic decision-making. Tasks include: a) instructing the Secretariat; b) evaluating its performance; c) decision-making on strategic and legal matters; d) facilitating optimal cooperation between the various units and players in the Corporation; and e) generally implementing its responsibility for the financial performance of IYPE. All partners engaged in the launching process of IYPE are represented as Stakeholders / Members on the Board, but not necessarily on a one-to-one basis. Members are:

Both main initiators IUGS and UNESCO.

All Founding Partners; if Founding Partners are represented through a Consortium, the Consortium will have one seat.

All Associate Partners, who opted for a lower profile during the Preparation Phase of the Year, share one seat.

Each of the three Committees in IYPE (Science, Outreach and Fund-raising/Development) is represented in the Board. National Committees will be represented through six Regional

Representatives, one per continent. Donors and sponsors will be represented, depending on the level of their contribution to the IYPE budget.

The Board will consist of a minimum of 24 members, although Sponsors and Donors are not yet included. The Board shall have a Chairperson and one Vice-chairperson, with the Chairperson appointed jointly by the two Initiators, the Vice-Chairperson by the full Board. The Chairperson, Vice-Chairperson and the three Committee Chairs are the Board's Officers, responsible for the day-to-day decision-making. The Executive Director of the Secretariat will participate in all meetings of the Board and of the Board's Officers as a non-voting Secretary. Decision-making on strategic matters will be conducted by the full Board. The Board will meet once a year. Decision-making will take place during that meeting, and if deemed necessary, in between meetings by electronic means using a voting system. Board members should be mandated by their organisations to speak and act on their behalf. Appointment of Board members will be for the full lifetime of IYPE, anticipated about four years. Members of the Board shall normally not be paid for their services by the Corporation. If no external means would be made available, costs for the Board's Chairs should be covered from the Corporation's budget. Except for the Officers, Board members will be invited to cover expenses incurred in their attendance at the meetings.

The Secretariat will be outsourced. The composition and operational mode of the Secretariat is under the responsibility of the hosting organisation. The hosting organisation secures fit-to-purpose operation of the Secretariat, both quantitatively and qualitatively. The Secretariat has an Executive Director, full-time employed in the hosting organisation. The Executive Director is responsible for all operations and performance of the Secretariat, including reports to the Board. The Secretariat would be responsible for the implementation of all of the Corporation's operational international activities. Its tasks include:

- Implementation of instructions received from the Chair of the Board
- Preparing Board annual meetings
- Regular reporting to the Board
- Tabling strategic decision items for the Board
- Preparing electronic voting by the Board
- Maintaining regular contact with the Senior Advisers, Goodwill Ambassadors and Patrons
- Maintaining contact with the YEAR's National Committees and keeping a record of national activities, assisting National Committees where possible
- Promoting the IYPE in all relevant ways
- Representing the Corporation in events
- Producing promotional and documentation materials for IYPE
- Maintaining the website, production of e-Newsletters and filing correspondence
- Book-keeping and budget preparation
- Interaction with the hosting organisation
- Keeping records of granted science and outreach projects
- Actively contributing to and keeping records of fund-raising activities
- Public relations and press contacts
- Maintaining the IYPE calendar
- Maintaining contact with all stakeholders
- Responding to requests from stakeholders
- Maintaining contact with other science year initiatives, etc.

The Executive Director, together with the Chair of the Board, primarily represents the IYPE externally. The Executive Director reports to the Board's Chair. The relation between the Corporation and the Secretariat hosting organisation, including service performance, financial compensation and financial accountability of the Corporation, is described in a Service Level Agreement (SLA), signed by the Chair of the Board, representing the Corporation and by the Director of the hosting organisation.

Advisory bodies

The Corporation has three advisory bodies: the Senior Advisers, the Goodwill Ambassadors and the Patrons. They advise the Board and its Officers and the Secretariat on the science and outreach programmes, on relevant contacts and links, and on potential donors and sponsors. The advisory bodies may offer advice on each issue concerning the YEAR, either on request or unsolicited. If requested, they may advise IYPE National Committees. Communication will be by electronic means.

National Committees

The success of IYPE will depend very much and is based on the broad spectrum of 'grass-roots' activities. Therefore, the role of the IYPE National Committees is considered extremely important within the initiative as a whole. A soundly based balance between the responsibilities of the National Committees and those of the Corporation will have to be established.

Primary tasks of National Committees (NCs) include preparation and implementation of local and national activities during the triennium of IYPE. An additional task of NCs is fund raising for IYPE at local, national and sometimes regional levels. If this includes international component(s), then the respective National Committee(s) should become involved with the Corporation. Other tasks of National Committees include communication with the Corporation on permitted use of the IYPE logos, and on posting local and national activities on the Corporation's website, e-Newsletters, Calendars and other media. NCs should also advise on provision of international outreach for national activities, on financial aspects, on reporting, etc.

The establishment of National Committees for IYPE is primarily a joint responsibility of the IUGS Adhering Organization (Full Member) and the UNESCO National Committee. Participation of both bodies should preferably be reflected in the composition of National Committees. Ideally, National Committees should include members of the Geoscience Society, industry, the National Geological Survey, Partners and relevant sectors in society. Requests for formal recognition of a national group as a National Committee that complies with the overall mission and vision of the YEAR must be submitted in standardised form to the Chair of the Board. National Committees are represented in the Board in the first place by their Regional Representatives.

Financial responsibilities of National Committees in relation to the Corporation will be addressed through their requests for official acknowledgement. National Committees will be primarily responsible for fund raising for their national and local activities, while the Corporation will be responsible for fund raising at supra-national levels. If applicable and possible, National Committees may apply to the Corporation for (additional) funding. National Committees will not be financially accountable to the Corporation. However, they

will be encouraged to transfer a modest percentage (3%) of their generated cash income to the Corporation in return for the international publicity and facilitation services provided.

General

Legal embedding was briefly mentioned: the Corporation is registered under the legal framework provided by the law of the State of Delaware (USA), where the Corporation has its domicile. The Corporation is a *Not-for-Profit 501 (c) (3) Corporation*.

Entry into force

The Corporation becomes operational upon incorporation.

Bylaws

The Bylaws describe the Rules of Procedure.

Financial responsibilities

Financial and legal responsibilities for all operations are with the Corporation. Without delay, the Corporation should start fund raising activities as its prime target. The Initiators to make provisions to guarantee a budget for six months operation time for the Corporation (i.e., until December 31, 2006) if not covered by external resources. Financial resources provided by the Initiators after Incorporation will be reimbursed as soon as sufficient external funding would have become available to the Corporation. Professional financial statements and reports will be produced by the Secretariat on an annual basis. A final Report of Activities, including financial statements, will be produced by the Secretariat in the 'winding-up' phase of IYPE in 2010. As IYPE National Committees are not accountable to the Corporation, they should make their own arrangements for financial accountability to their sponsors.

Dissolution and arbitrage

The Corporation will normally cease its work 6 months after the end of the triennium; i.e., by June 30, 2010. If by December 31, 2006 insufficient funding has been raised to at least cover the organisational costs of the Corporation, the Initiators concur to start negotiations with the Founding Partners and other organisations to jointly raise a budget for organisation costs (only) for 2007. If by the end of 2007, the Corporation is unable to collect a minimum level of funding for its operations, the Corporation may be terminated prematurely. The Initiators would make the decision on premature termination after consultation of the Board; the Director of the Secretariat hosting organisation, and the Founding Partners. No such decision will be made prior to December 31, 2007.

If the Corporation is terminated prematurely, all goods purchased will be returned to the Initiators for disposition. In case of disagreement between parties, an independent mediator will be appointed to the satisfaction of all parties; their conclusion will be binding.

10.b International Year of Planet Earth Management Team

Agenda Item: 10.b

At the onset of the Preparatory Phase an informal Management Team (MT) was formed to conduct and steer activities during the preparation period of the International Year of Planet Earth. Successively, a Science Programme Committee, an Outreach Programme Committee and a Development Committee developed a science programme, an outreach programme and

a fund-raising strategy. The MT consists of a chairperson, the respective chairs of the Science and the Outreach Programme Committees, the chair of the Development Committee, a UNESCO adviser and a Treasurer. Geographical coverage is augmented by the presence of representatives of the People's Republic of China, the Russian Federation, the African continent, as well as North and South America. The MT reports to the Initiators, via the Secretary General of IUGS and the designated staff member of UNESCO's Division of Ecological and Earth Sciences. Partner organisations are kept informed through the Minutes of the MT meetings and through regular information bulletins. Statutes and a Contract (this document), describing the relations between Initiators and the Corporation (in formation) are drafted by the MT and are subject to approval by the Initiators prior to Incorporation. Financial and legal responsibilities for all operations by the MT are with the Initiators until incorporation, reported de Mulder. Alberto Riccardi noted that "initiators" should be referred to as IUGS and UNESCO.

10.c International Year of Planet Earth Business Plan

Eldridge Moores expressed some confusion over the Business and Exit plans regarding the US\$ 5 million required to start up IYPE, wondering where this money was. Moores was concerned about a lack of funding to get the YEAR going. Eduardo de Mulder responded that IYPE could start with a minimum amount, but by the end of 2009 there would be between US\$ 5 million and \$ 20 million. Outreach was the first focus for the period 2006-2007, with the aim of raising money. This would be followed by research funding in 2008 and 2009. By 2010, it is expected that research results would be coming in. Alberto Riccardi, Antonio Brambati and Jean-Paul Cadet were not clear on the relationship between IUGS, UNESCO, the National Committees and IYPE, and asked how the US\$ 20 million would be used. Eduardo de Mulder replied that the anticipated budget for the Year's activities on an international level is US\$ 20 million, while the countries would be raising money for their IYPE National Committees. Furthermore, he mentioned that the relations between the Corporation and IUGS and UNESCO will be described in the Statutes and in the Bilateral Agreement between IUGS and the Corporation.

Robert Missotten briefly explained how UN Resolutions were proclaimed using the International Year of Physics as an example. Missotten noted that the UN does not implement International Years but asks for partnerships. UNESCO is the responsible agency within UN system: the clear leader who will be aided by UNEP. IUGS is a collaborator who together with UNESCO will work toward the YEAR. This system ensures that other agencies must contribute to IYPE.

Zhang Hongren was concerned about the legal implications of handling the large amounts of money (i.e., up to US\$ 20 million) expected by the Management Team. He cautioned that now that the UN Resolution has come through, there is a great responsibility to follow through on the Business Plan. Zhang Hongren stressed the need for a clear picture of what IUGS decided. Eldridge Moores remarked that the final text had not changed significantly. Jean-Paul Cadet pointed out that the role of IUGS and UNESCO was not clear. The Board was large (+24 Members), with one position for UNESCO and one for IUGS and questioned whether the EC would get input. Cadet wondered if IUGS has enough representation. Zhang Hongren then asked who was responsible for designing the structure of the Board, adding that proposals must also be submitted to UNESCO and IUGS. Eduardo de Mulder replied that the Management Team proposed the structure and that IUGS and UNESCO were

given the mandate to prepare this structure. This request was included in the documents presented as part of the Draft Statutes. Eduardo de Mulder asked the EC to approve this. He added that the Board is to meet once a year; and that UNESCO and IUGS will appoint the Chair leading the Board Meetings. The Initiators (IUGS and UNESCO) and the Founding Partners represented on the board together with the small group of officers are responsible for activities of the Secretariat. The Executive Director attends to the day-to-day activities. Alberto Riccardi wondered how best to proceed, recommending the UNESCO and IUGS decide on a structure. He stressed that the two leading bodies must decide which direction to go and reach an agreement.

Robert Missotten said that UNESCO was extremely positive, adding that he had consulted with colleagues who were previously involved in the International Year of Physics. Contracts for IYPE were based on the model of IPY, and UNESCO and IUGS must use this contract system to work with the non-governmental organization. IUGS and the UNESCO DG have signalled geological community that they agreed IYPE is important. Legal aspects have yet to be fully considered, and few modifications will be made after the final text of a Joint Declaration between the leaderships of IUGS and UNESCO is published.

Eldridge Moores recommended first voting to approve the Joint Declaration on IYPE by UNESCO and IUGS. If this was approved in principle, then the next steps could be taken. Robert Missotten noted that once the Declaration was made, the Management Team proposed a statement on legal affairs and suggested minor changes. However, once approved, the jointly signed statement is not a precondition for the contract. Actions generated by the MT should be transposed into Responsibilities that in turn go into the Contract. Only after this happens can IYPE move ahead. Missotten remarked that the contract is standard and highlights the specific and practical actions of UNESCO and IUGS (workshops, publications, conferences, etc.).

Eldridge Moores motioned to make a statement to the effect that the Executive Committee of the IUGS agrees to cooperate with UNESCO in relation to the International Year of Planet Earth. Such a jointly signed statement would indicate that the two founding partners are working together. Robert Missotten strongly recommended that IUGS sign joint statement subject to revisions. Alberto Riccardi suggested the contract be prepared by UNESCO.

Motion approved: the Executive Committee of the IUGS agrees to cooperate with UNESCO in relation to the International Year of Planet Earth.

Zhang Hongren suggested approving the structure and composition of the Board after the contract had been signed with UNESCO. Robert Missotten fully saw the urgency to deal with this matter. A Joint Declaration would be sufficient if no concrete plans for activities are included; the contract was required to ensure concrete action on activities. Peter Bobrowsky recommended approving, in principal, the board structure. Missotten supported this motion, stressing its urgency. Antonio Brambati and Alberto Riccardi noted that according to the contract, IUGS and UNESCO were co-responsible for approving the structure.

Eduardo de Mulder repeated that the MT proposes the structure and that IUGS and UNESCO have been given the mandate to prepare this structure. He again recommended that EC approve this structure. Missotten added that if the structure were approved by IUGS, then it would be approved by UNESCO. Alberto Riccardi though IUGS appeared to be responsible. Missotten noted that his responsibility was to the UNESCO (UN) system; IUGS is

responsible for approving the structure. Eduardo de Mulder said that it was already proposed to the Bureau in Shanghai, but that now was the time for the EC to approve. Eldridge Moores recommended the Bilateral Agreement between IUGS and the Corporation of IYPE be approved, subject to revision. Eduardo de Mulder reported that he, Wolfgang Eder, Eldridge and Judy Moores had reviewed the Bilateral Agreement between IUGS and International Year of the Planet Earth and Statutes. Zhang Hongren wanted to consult lawyers to avoid problems. Conceptually, de Mulder agreed, adding that the proper phrase is to accept the statutes pending modification.

Zhang Hongren asked whether the EC agreed conceptually with the structure. He urged acceptance subject to legal approval. Eldridge Moores and Sylvi Haldorsen motioned that IUGS in principal this agreement subject with legal refinement

This motion generated further discussion. Antonio Brambati was cautious, noting that IUGS has to be certain about how responsibilities are delegated. If something happened, then IUGS is responsible and the Corporation of IYPE is not. Alberto Riccardi agreed, saying IUGS are primarily responsible: if IUGS enters into a contract with the Corporation and UNESCO, we are responsible.

Moores and de Mulder pointed out that the Statutes and Bylaws were not wholly ready for approval, but were needed for incorporation of Not-for-Profit Organisations. Eduardo de Mulder was working hard to get the documents ready and proposed to run as soon as possible to gain legal independence. He said it was possible to incorporate if finances are not involved; statements about finances could be submitted later. Incorporating will reduce the risks to IUGS. Zhang Hongren stressed the need to get rid of any possibility of risk. In the final account, IUGS needs clear understanding otherwise it may be trapped. The economic risks were minimal, de Mulder assured Hongren.

Peter Bobrowsky was not clear what the concern was; and urged the EC focus on certain details, e.g., structure. Alberto Riccardi thought it important that the IUGS and UNESCO have the right to veto on the composition of the Board. Eldridge Moores was concerned that running costs of the YEAR could fall back on IUGS, and asked if it was responsible. Jean-Paul Cadet wondered whether one Board Meeting a year would be effective. Moores and Bobrowsky motioned to approve in principal the structure in general, but add a statement giving members from UNESCO and IUGS the power to veto decisions of the Board.

- **Motion approved:** the EC approves in principal the general structure; a statement in the Agreement item to be added giving the members from UNESCO and IUGS the right to veto decisions of the Board.

Further discussion of the structure followed with Jean-Paul Cadet suggesting something else was required. Bobrowsky agreed and asked about the division between the Board and Secretariat. The EC required clarification on the tasks of the Board and Secretariat for it seems that both the officers group and Secretariat do day-to-day activities. Eldridge Moores noted that the Secretariat runs the day-to-day activities, while the Executive makes decisions. Robert Missotten said that once a general picture of the Management Plan was formed, there could be agreement between the Corporation, IUGS and UNESCO. Missotten also wondered about limiting the veto to financial or non-financial decisions.

Eldridge Moores then motioned that Representatives of UNESCO/IUGS be *ex officio* members of the Officers Board. Peter Bobrowsky added they be privy to all information, with Robert Missotten suggesting the motion be amended.

- **Motion approved:** Representatives of UNESCO/IUGS be *ex officio* members of the Officers Board, and privy to all information.

Alberto Riccardi then directed the discussion back to the structure. Zhang Hongren noted that, in principal, the structure of IYPE had been approved. Antonio Brambati had concerns about the financial matters (Items 20, 25 and 30). He wondered about their guarantee and the implications for IUGS. Eduardo de Mulder hoped that IYPE would work financially independent. If the Corporation does not succeed in raising the money needed, then IUGS must provide a loan of maximally US\$ 125,000. Eldridge Moores asked how much money has been raised until now; de Mulder answered slightly less than US\$ 500,000.

Zhang Hongren and Eldridge Moores motioned to remove all issues related to financial matters from the contract, prompting much discussion. Bobrowsky commented that in the past years, IUGS has given money to IYPE; now that the YEAR has been launched, the IUGS should guarantee support. He used the analogy of an IUGS credit card with a credit limit of US\$ 125,000. Eduardo de Mulder felt that this was a necessary component of the contract. Alberto Riccardi asked whether UNESCO was willing to guarantee. Robert Missotten answered not and that it was an IUGS-IYPE agreement. Antonio Brambati suggested that no dollar amount be included in the contract.

Peter Bobrowsky and Jean-Paul Cadet thought that although IUGS does not have the money to give, it should still take the chance and considered it a matter of trust in IYPE. They suggested negotiating an upper amount as ceiling to the guarantee and asked for a limit. Zhang Hongren regarded the YEAR as a Private Corporation; so all financial guarantees should be removed. Eldridge Moores suggested that if necessary, IUGS would loan funds up to the maximum up to the US\$ 125,000. Sylvi Haldorsen remarked that this is the largest task IUGS will ever have, and it has to take the risk. Eduardo de Mulder reminded the EC that IUGS would have veto power and could take responsibility. Hongren recommended eliminating all commercial liability. Bobrowsky said that the Board was reliable and urged IUGS to take the gamble, saying that a guarantee was essential otherwise the effort would be crippled. Alberto Riccardi asked if the Corporation has liability. Antonio Brambati saw IUGS facing two difficult years, financially: it has to pay more to IGCP and it has to balance the Russian Reserve. Brambati anticipated a lot of money going to the commission, with little income in the first six months. Eduardo de Mulder pointed out that IYPE might generate direct income to IUGS.

Zhang Hongren and Eldridge Moores recognised two motions to be tabled: 1) delete all issues related to financial matters in this contract; and 2) approve the 2006 Action Plan. Both were withdrawn after much discussion! Eduardo de Mulder did not see the need to separate the two documents, emphasizing that both were essential to the agreement. Bobrowsky stressed the need to keep the motion simple and pointed out that IYPE needed money to function. Eldridge Moores replied that the first document has to do with the operation of IUGS, the second document keeps financial document clean. Antonio Brambati recommended that all financial matters be removed, but including the statement that IUGS is willing to approve a loan of US\$ 125,000. The Corporation would repay this loan in a timely manner. Zhang Hongren reminded the EC that the Corporation would be an independent legal entity. Heated

debate led to the formulation of the following motions tabled by Zhang Hongren, Eldridge Moores, Alberto Riccardi and Eduardo de Mulder:

- **Motion approved:** Delete all issues related to financial matters in the Agreement (Items 20, 21.3 and 25) between IUGS and the Corporation of IYPE.
- **Motion approved:** The EC approves a loan US\$ 125,000, subject to the request of the Corporation as needed, in the understanding the Corporation will reimburse the full amount.

Eduardo de Mulder then asked for decisions on the following:

Accepted: The EC accepted the Progress Report for 2005, and are pleased with the progress

Accepted: The 2006 Action Plan was accepted

Accepted: Financial Statement for 2005

Accepted: Budget for first 6 months

Accepted: The Bilateral Agreement between IUGS and Corporation, providing changes as outlined in motions above by Alberto Riccardi and Eldridge Moores

Accepted: The Statutes of the Corporation

Accepted: Management Team to act temporarily as a Board of Officers until incorporation

Robert Missotten and Eldridge Moores noted that Statute Point 36 on Financial Responsibilities and Point 40 in Dissolution and Arbitrage should be omitted. Alberto Riccardi urged IUGS to accept the Statutes and refine them later. The Statutes then have to be approved by the Board, where IUGS has a veto. The founding fathers must accept the Statutes.

Accepted: EC agrees to the Statutes providing they comply with the agreement between the corporation and IUGS, and subject to the approval of the board.

Eduardo de Mulder and Zhang Hongren described the Management Team as an interim legal entity operating until incorporation. The MT must define the Statutes. A list of names has been prepared for the Management Team; once IYPE incorporates, the MT becomes the Board of Officers. Robert Missotten said the MT must incorporate the changes in the agreement in accordance to the Statutes. Alberto Riccardi and Eldridge Moores wondered about the legal procedures for replacing the Board with an *ad hoc* MT. Eduardo de Mulder replied that Larry Woodford had control; Zhang Hongren did not think it was a problem, being business. Robert Missotten ended this lengthy Agenda Item by thanking the IUGS, noting the MT and its representative should be congratulated.

10.d International Year of Planet Earth Financial statement for 2005 and Budget for 2006

Eduardo de Mulder highlighted the key income and expenditures of the 2006 Budget. This would be the operating budget until the Corporation was effective. Also: the Secretariat is not yet outsourced.

Income	Amount US\$
Founding partners 2006	40,000
Outstanding founding partners 2005	20,000
Initiators	PM
National contributions	5,000
Contribution to brochures	26,800
Transfer from 2005	9,654
Total	101,454

Expenditures	Amount US\$
Publications	40,000
Meetings	31,000
Promotion	10,300
Fund raising	24,000
Website	2,000
Office	8,000
Total	115,300
Deficit	13,846

The fundraising target for 2006 is US\$ 500,000 by July 1 and US\$ 1.5 million by December 31. Sources of support would include Companies, Foundations, Ministries, Banks, Development Committees, National Committees, Heads of State and Patrons. Eduardo de Mulder noted that in Germany alone, the 2002 Planet Earth initiative generated US\$ 10 million; IYPE activities would return 3% of their income to the Corporation.

Eldridge Moores pointed out that in his original statement, de Mulder said IYPE would raise US\$ 20 million, and if US\$ 5 million were not raised then players could pull out. Eduardo de Mulder replied that IUGS and UNESCO could not pull out, as it was not realistic. Absolute minimum budget for the next 3 years is US\$ 5 million. However, to get things started it states US\$ 5 million is needed, stressed Moores. Eduardo de Mulder could not promise anything: there are no guarantees. Moores emphasised that the YEAR was a wonderful programme, but that he was concerned about lack of money in the bank. Eduardo de Mulder reminded the EC that the MT could not start raising funds before Planet Earth was proclaimed by the UN.

Moores suggested that there would not be much to award for research. This was all right by de Mulder because the priority in the first years was outreach. Money coming in from 2008 to 2009 will go more toward funding science so that major results can be released by 2010. Moores and de Mulder considered approaching Canada and the US following the experience of eGY, where Committee grants from NSF and NOAA amounted to US\$ 300 million.

Alberto Riccardi was not clear on the relationship between IUGS, National Committees and the YEAR. At the national level, NCs will be using own funds, so why does IYPE deserve 3% of income for the Corporation, and what will the money be used for asked Riccardi. Eduardo de Mulder noted that it would be used to cover general costs of the YEAR in return for providing international support to national activities, to keep record and expose national activities on international levels and to maintain a web portal where national committees can communicate. Riccardi cautioned that people would ask for clarification. Jean-Paul Cadet wondered about the relationship between IUGS National Committees and IYPE National Committees. Eduardo de Mulder thought about the composition of these committees and suggests all groups keep their IUGS national committees informed. This would be a new sign of agreement with international cooperation.

10.e Relation with other Years (IGY+50, eGY & IPY)

Eduardo de Mulder reported that three related non-UN Year initiatives would be ongoing with IYPE: IPY, eGY (IUGG) and IHY (International Heliophysical Year), noting that these Initiatives met at a joint meeting in early September 2005. Of these initiatives, IYPE has the strongest political backing through UN proclamation. Together with eGY, IYPE took the initiative to bring these four years physically together in the Home of Geography, in Villa Celimontana, Rome, early September 2005. That two-days meeting resulted in a joint declaration, the Celimontana Declaration on strong cooperation between the four initiatives.

Agenda Item: 11

11. REQUEST FOR FUNDING AND BUDGETS FOR 2006

Antonio Brambati and Peter Bobrowsky remarked that in the past, all budget discussions were off the record. This has been changed because it was too humiliating for both parties. The EC was directed to view the Income and Expenditure tables shown and modified by Anne Liinamaa-Dehls.

11.a Income

Antonio Brambati briefly talked about the balance and the amount of money owed to IGCP. He highlighted contributions of US\$ 300,000 from Membership dues, US\$ 89,000 from UNESCO and a total projected income for 2006 of US\$ 524,000. Eldridge Moores and Peter Bobrowsky suggested establishing a Task Group on Income to highlight the benefits of different ways to increase income.

Income Source	2006 Amount US\$
Dues	300,000
UNESCO	89,000
US State Department	85,000
UNESCO Water Div.	50,000
Total Income	524,000

11.b Expenditures

Antonio Brambati reminded the EC about the Russia Reserve deficit of US\$ 31,000 for this years which is half of the total equal to US\$ 63,000. He also reported that our annual contribution for access to the Bureau for new officers coming from Developing Countries amounted to US\$ 3000, and the amount contributed to the Hutchinson Award is US\$ 2000. Requests by organisations were then gone through line-by-line. Eldridge Moores was uncertain whether the US State Department allocation was US\$ 75,000 or US\$ 85,000; it was decided the latter.

For Joint Programmes, Peter Bobrowsky and Eduardo de Mulder noted there was no request from GeoParks, recommending that some money should be allocated for travel and booths. US\$ 5000 was committed to GeoParks. Bobrowsky noted that there was an agreement with IUGG that commits IUGS to contribute US\$ 17,000 to ILP/SCL.

On to IUGS Commissions: Eldridge Moores reported that ICS requested US\$ 20,000. With the exception of Moores, the EC wanted to increase the contribution to US\$ 30,000. Alberto Riccardi noted that Felix Gradstein was complaining that there was not enough money from IUGS to effectively run 16 sub-commissions and EC. Some outrage was expressed at the

management of ICS; Eduardo de Mulder suggested a letter be written to each sub-commission leader expressing this sentiment. Zhang Hongren recommended an action item on ICS at the next EC Meeting.

Jean-Paul Cadet requested an increase of US\$ 1000 for INHIGEO to help fund field trips and publications. The EC agreed to US\$ 4000 support. Although Moores thought COGE could receive US\$ 1000 less than their request; in the end US\$ 4000 was granted. Cadet could see the rationale for the CFF request for US\$ 5000, but US\$ 3000 was given. Sylvi Haldorsen noted a tentative request from SECE of US\$ 2000. She wanted to see a formal request and report, and asked Anne Liinamaa-Dehls to contact SECE.

Under Task Groups and Initiatives, Cadet reported that TECTASK was working and recommended keeping their funding at US\$ 5000. Bobrowsky noted a US\$ 5000 request from MGI/IMGA, most for work in Africa. Bobrowsky emphasised that their work will support the IUGS in Africa. Moores understood that the Initiative had ended. Eduardo de Mulder responded that MGI was formally terminated as an Initiative and the group was now an Association (IMGA). It was recommended that a stern letter be written as a reminder that the Initiative was over and specifying that the allotted US\$ 5000 was to be used specifically for short courses. Eduardo de Mulder and Jean-Paul Cadet were against supporting IMGA to this sum.

- **Action item:** A letter to be written to IMGA Management Team as a reminder that the Initiative is over and specifying that the allotted US\$ 5000 for 2006 is to be used specifically for short courses.

Eduardo de Mulder and Jean-Paul Cadet noted the PC requested US\$ 10,000 and proposed this be reduced to US\$ 8000. The EC was divided on the decision to approve: For 4, Against 3, and Abstain 1.

Affiliates were discussed next. Haldorsen said that GS Af requested US\$ 5000. All agreed with this level of support. Haldorsen and de Mulder were against the US\$ 5000 request from IGEO. They noted that good money was going to a travel grant, and that the Affiliate was not expanding its Mandate. Bobrowsky indicated that giving less money would give the wrong message. He added that there was no money available for maintenance and education was a high priority. It was unanimously agreed to support IGEO to the amount of US\$ 4000.

Peter Bobrowsky reported that IUGS proposed to provide IYPE US\$ 10,000 as a contingency. This would be independent of the MT loan for Promotion. Eduardo de Mulder reminded the EC that for all promotional issues to contact the Outreach Group of IYPE. The EC agreed to fund IYPE US\$ 2000.

Bobrowsky commented that the US\$ 7500 contribution to ICSU sends a strong message that with no Grants Programme, IUGS can provide less support.

Antonio Brambati noted that other expenses included Representation at Scientific Meetings and ARCs. Brambati preferred US\$ 15,000, but the EC agreed on providing US\$ 14,000.

Coming back to the debt of the Russia Reserve, Brambati, Bobrowsky and de Mulder talked about the remaining US\$ 31,000 deficit. Jean-Paul Cadet suggested saving and de Mulder recommended two years to address budget shortfalls.

Type	Organisation	2006 Request (US\$)	2006 Allocation (US\$)	Additional Notes
IGCP				
	UNESCO		89,000	All approved
	US State Dept.		85,000	All approved
	UNESCO		50,000	All approved
	Water Div.			
	IUGS		60,000	All approved
Joint Programmes				
	GARS	7000	6000	All approved
	ILP/SCL	17000	17000	IUGG-IUGS agreement
	GeoParks Networks (formerly GEOSEE)	0	5000	All approved
IUGS Commissions				
	GEM	10,000	5000	All approved
	CGI	8000	5000	All approved
	CSP	2050	2000	All approved
	ICS	40,000	30,000	All approved
	INHIGEO	6050	4000	All approved
	COGE		4000	Unspecified request
	CFF	5000	3000	All approved
	SECE		2000	All approved
				Pending formal request
IUGS Task Groups				
	TGGB	20,000	1500	All approved
	TECTASK	5000	5000	All approved
IUGS Initiatives				
	MGI / IMGA	10,000	4000	5 approved 2 rejected 1 abstained
Committees				
	PC (Publications Committee)	10,000	8000	4 approved 3 rejected 1 abstained
Affiliated Organizations				
	AGID	500	500	All approved
	CGMW	3000	2500	All approved
	GSAf (Africa)	5000	5000	All approved

	ICL	5000	2000	All approved
	ISRM	5000	0	All approved
	IAGOD	2000	0	All approved
	IGEO	5000	4000	For conference only
	ISRM	5000	0	All approved
IUGS Grants			Temporarily frozen	
International Year of Planet Earth			2000	Not for MT IUGS contingency
Reserve Fund for Officers from Developing Countries			3000	For promotion All approved
Hutchinson Award			2000	Check 2005
Contributions				
	ICSU		7500	Based on IUGS fluctuating income
Other expenses				
	Routine Meetings		40,000	All approved
	Representation at Scientific Meetings		14,000	Including ARC All approved
	Exhibitions		5000	All approved
	Annual report		3000	All approved
	Bank Charges		6000	All approved
	Bureau open access		3000	All approved
Episodes				
	Contribution China		23,000	All approved
Episodes:	UNESCO		3000	Dissemination to developing countries
				All approved
Contingency			7,000	All approved
Total US\$			517,000	
Deficit: Russian Reserves			31,000	
Grand Total Expenditure			548,000	
DEFICIT			24,000	

12. UPDATE

12.a IUGS Annual Report 2004

Agenda Item: 12.a

David Huntley distributed first draft before 19 December. Hard copies were circulated amongst the EC for review over the duration of the meeting and fieldtrip.

- **Action item:** Huntley to provide the Secretariat with text and graphic files for Web-publishing of the 2004 Annual Report. (**Completed**)

12.b IUGS Brochure and Flyer

Agenda Item: 12.b

The Secretariat recognised that the old brochure and flyer required updating: minor updates are planned to the text; and the "Norwegian Rock" cover will be replaced by the "Dead Pan" photo by Gabi Schneider, selected by the EC at its meeting in Vilnius. Anne Liinamaa-Dehls noted there were some 4000 to 5000 flyers remaining, and they were not too out-of-date. She wondered whether there was a need to re-do the flyers. Alberto Riccardi, Jean-Paul Cadet and Peter Bobrowsky all needed flyers immediately.

12.c IUGS Exhibition Stand

Agenda Item: 12.c

The IUGS Secretariat arranged for the update of the IUGS Poster wall (2 m x 3.5 m) and arranged for its transport to the Geological Society of America annual meeting in Salt Lake City, mid-October 2005. The booth gave visibility to IUGS, the 33rd IGC and the International Planet Earth Year. Gabi Schneider's photo of the Dead Pan photo attracted a lot of attention. Many organizations and individuals visited the booth expressed their thanks for the presence of the Planet Earth Year Initiative - IUGS - IGC 33 at the Geological Society of America's annual meeting. Visiting the booth were representatives from many key geological institutions and organizations from the US and a few from abroad. We received visits from officials of the GSA, the Smithsonian Institution, National Science Foundation and the USGS. A joint booth for next year's GSA exhibit (Philadelphia) should not be out of the question. The EC also recommend other meetings to the Secretariat. Amongst others, AGI, AGU and Chronos have already booked for the GSA Philadelphia show late October 2006. Chronos booked early to get 2 booths side-by-side at the non-profit rate. Space comes relatively cheap (US\$ 750 per booth); while expenditures on production, booth extras, and shipping will be around US\$ 5500.

Peter Bobrowsky asked for other suggestions for exhibition of the booth. He recommended sending Brochures and Flyers c/o Murray Duke (GSC) for de Mulder to pick up when he attends the PDAC in Toronto, April 2006. In addition, Cadet, de Mulder and Hongren agreed to look into the cost of presenting the booth at the EGU. Eduardo de Mulder suggested distributing plots of the IUGS poster at conferences. Haldorsen asked about the cost of booth rental at Maputo. Eduardo de Mulder offered to run the booth at the World Congress of Soil Science. Peter Bobrowsky would be able to present a poster at the Congress of the Geological Society of Peru. Moores and Bobrowsky suggested booths at AGU and GSA (shared with AGI). Bobrowsky and Liinamaa-Dehls also offered to look into the size of the GeoParks Meeting in Dublin. Other suggestions included the International Palaeontological Meeting, the IGEO Meeting, and AEG Meeting. Eduardo de Mulder said he would also look into presenting the booth at the IAEG Meeting; if not feasible, and then he could take the poster.

Possible Exhibits

2006

March 5th and 8th: Prospectors and Developers Association of Canada, PDAC

April 2nd to 7th: European Geosciences Union, Vienna

July 2nd to 7th: Australian Earth Sciences Convention, Melbourne

July 3rd to 5th: Geological Society of Africa Maputo Africa

July 9th to 15th: 18th World Congress of Soil Science, Philadelphia, Penn., USA

September 3rd to 6th: 18th Congress of the Carpathian-Balkan Geological Association, Belgrade, Serbia and Montenegro

October 17th to 20th: 8th Congress of the Geological Society of Peru, Lima Peru

October 22nd to 25th: GSA, Philadelphia, Penn., USA

December 11th to 15th: American Geophysical Union, San Francisco, CA, USA

2007:

July 29th to August 6th: 17th INQUA Congress, Cairns, Australia

October 28th to 31st: GSA, Denver, CO, USA

December: AGU, San Francisco, CA, USA

Agenda Item: 12.d

12.d IUGS Exposure and Advertising Products

Currently, IUGS exposure is primarily achieved through the IUGS Website and the products and activities of IUGS Bodies. Various advertising products are available from the IUGS Secretariat. Zhang Hongren and Peter Bobrowsky ran through the stock inventory. In July 2005, all EC members received varying quantities of IUGS Compasses (made in Japan), the "Stratigraphic Mouse Pads" (produced by ICS in cooperation with CGMW) and IUGS Ties (made in China). The "old school" tie has been popular gift item. However, the new IUGS ladies scarf, produced in China with from a motif presented by Eldridge Moores, was the most well received item of the last year. Sylvi Haldorsen said the note with explanatory text of what the scarf represents was much appreciated.

Bobrowsky remarked that there was no money budgeted for IUGS products. He discussed the new philosophy of getting the IUGS logo on sponsored events and publications. Bobrowsky also encouraged the EC members to promote IUGS by using the new logo. Negotiations with IGCP and UNESCO are underway to ensure the logo is displayed prominently at the next meeting. Bobrowsky suggested that if year-end reports do not include the IUGS logo, then no funding. Bobrowsky ended by requesting that if EC members were aware of an event that IUGS sponsored, send name to him and/or the Secretariat.

12.e. IUGS PowerPoint Presentations

Agenda Item: 12.e

Zhang Hongren reported that major changes had delayed the production of the IUGS PowerPoint Presentation. He noted that after this meeting, Eduardo de Mulder's original presentation will be modified and a new draft version circulated for review. This update will include an update on GeoParks, IGCP and the UN proclamation on IYPE. Alberto Riccardi noted that he has translated the presentation into Spanish. Peter Bobrowsky reminded Riccardi to ensure the dead tree picture was on the cover. Hongren also suggested making the file size smaller by reducing the number of pictures and adding more text.

13. FREE DISCUSSION

Agenda Item: 13.

Jean-Paul Cadet mentioned the draft resolution regarding the International Stratigraphic Chart, stressing the importance of a uniform decision on what colours to use. This choice was confounded by long-standing traditions in use of colours on different continents.

- **Action item:** Jean-Paul Cadet to draft a letter to ICS and CGMW.

14. VENUE AND DATE OF THE 57th and 58th EXECUTIVE COMMITTEE MEETINGS

Agenda Item: 14.

As a preamble, Peter Bobrowsky noted that in the past, EC meetings were held in countries where members were active and hosting organisations provided sponsorship. Traditionally, meetings were in early January or March so as not to conflict with the February IGCP meeting. Bobrowsky would appreciate that meetings be kept in January. Anne Liinamaa-Dehls thought that IYPE representations would be a good idea, for a start. Bobrowsky promised to keep the EC posted.

Zhang Hongren said that China would be available to host; Alberto Riccardi expressed interest in Cuba or Central America; and Bobrowsky also suggested Saudi Arabia.

- **Consensus:** Although flexibility was recommended, all EC (except Gabi Schneider and Ryo Matsumoto) agreed that January meetings were acceptable.
- **Activity:** EC Members to send Peter Bobrowsky suggestions if they have contacts with sponsors; these are important given current budget restraints.

15. OTHER BUSINESS

Agenda Item: 15.a.

15.a UNECE - UN Framework Classification for Energy and Mineral Resource

It was noted that Per Blystad called the IUGS Secretariat asking if IUGS would be interested in participating in the classification work of UNECE, regarding minerals in particular. Terje Thorsnes informed him that this was relevant for IUGS, and advised him to contact Secretary General Peter Bobrowsky or President Zhang Hongren to further discuss IUGS participation in the work. Zhang Hongren reported that UNFC originated for Coal and Mineral Commodities and was established in 1997. In 2001 UN decided that petroleum and uranium should be included and a revised UN Framework Classification for Energy and Mineral resources was adopted and recommended for worldwide use by UN ECOSOC in June 2004. They are now working to set up a governance structure based upon stakeholders and include professional organisations to maintain the code and develop guidelines. The UNFC classification can be downloaded from <http://www.unece.org/ie/se/reserves.html>

- **Agreement:** the EC agrees that Zhang Hongren will continue to pursue this issue.

15.b Other topics

Agenda Item: 15.b.

Eduardo de Mulder asked where he could post a call for outsourcing the IYPE Secretariat. It was suggested that Episodes, National Committees, IYPE and IUGS Websites would be

suitable sites. Sylvi Haldorsen suggested de Mulder propose the text and start urging the EC to form National Committees for IYPE. She also recommended writing a letter announcing the proclamation of IYPE to the National Committees. Jean-Paul Cadet felt that it was very important to give National Committees information before taking actions. Bobrowsky noted that he had sent the rules out to the NCs. He also liked Brambati and Hongren's Olympic analogy regarding the working relationship with IUGS.

Robert Missotten mentioned that IGCP wanted to produce a brochure with IUGS and suggested this be done through IYPE. All agreed to this proposal.

Sylvi Haldorsen asked the Secretariat whether mechanism for thanking contributors of outgoing Task Groups was in place. Anne Liinamaa-Dehls answered: yes.

- **Action item:** The Secretariat to endeavour to keep track of members that leave working groups.

Eldridge Moores gave personal thanks to Jean Paul Cadet and Alberto Riccardi for all their work as IUGS Councillors.

15.c Rules of Decision-Making (draft)

The last agenda item addressed at the 56th EC Meeting was the Rules of Decision-making; Anne Liinamaa-Dehls circulated a copy of the draft document for review. This short article noted that there are no guidelines for the large number of decisions made between Councils, and the Statutes and Bylaws lack a clear definition of the rules of decision-making for the IUGS EC and Bureau. For practical reasons, Zhang Hongren recommended decisions be collected by and sent for consideration by Council, perhaps every six months. Strategic issues were discussed first by the Bureau where a stance was taken or a limited number of options formulated; stances and options were then communicated with other EC members, with voting taking place electronically. The Bureau decides on all non-strategic, practical issues. Zhang Hongren noted that Peter Bobrowsky would be the spokesman in most cases. The Bureau continues to work together, but sometimes a benign dictatorship is the best approach remarked Hongren. Regardless, there was usually consensus in the EC and Bureau.

Zhang Hongren listed two groups of items of different levels of decision-making; adding that Statute items must be approved by the Council. Eduardo de Mulder and Eldridge Moores moved to accept the document; Alberto Riccardi noting that line Item 2 (Appointment and Removal of Sub-Commission Member) should be removed from the above list.

- **Draft accepted:** EC approved draft version of the document "Rules of Decision-Making" (with item 2 removed)

This action concluded the business agenda of the 56th EC Meeting. Participants applauded each others efforts and looked forward to up-coming meetings in 2006.