

IUGS EC57 MINUTES



IUGS

INTERNATIONAL UNION OF GEOLOGICAL SCIENCES

57TH EXECUTIVE COMMITTEE MEETING

JANUARY 16-20, 2007 NARA, JAPAN

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Meeting Participants

IUGS Executive Members:

Zhang Hongren, President
Peter Bobrowsky, Secretary General
Antonio Brambati, Treasurer
Sylvi Haldorsen, Vice President
Eldridge Moores, Vice President
Mikhail Fedonkin, Councillor
Marta Mantovani, Councillor
Ryo Matsumoto, Councillor
Gabi Schneider, Councillor

Observers:

Eduardo de Mulder, Executive Director of the Secretariat of the IYPE Corporation
Arne Bjørlykke (President, 33rd IGC)
Attilio Boriani (President, 32nd IGC)
Neil Williams (President, 34th IGC)
David Huntley (Recording)
Alik Ismail-Zadeh (IUGG Secretary General elect)
Valeria Kuzivanova (Rep. NC Russia)
Anne Liinamaa-Dehls (IUGS Permanent Secretariat)
Robert Missotten (UNESCO Ecology and Earth Sciences Division)
Godfrey Nowlan (Chair, IUGS Publications Ctte.)
Gerel Ochir (Rep. NC Mongolia)
Zhenyu Yang (Editor, Episodes)
Yushkin Nikolai (Rep. NC Russia)
Zhao Xun (Chair, NC China)

Japanese Observers:

Niichi Nishiwaki
Hisatake Okada
Kazue Tazaki
Shigeki Hada
Hiroshi Kitazato
Kazuo Amano
Yasuhito Osanai
Masaaki Owada
Fujio Kumon

INTERNATIONAL UNION OF GEOLOGICAL SCIENCES

57TH EXECUTIVE COMMITTEE MEETING JANUARY 16-20, 2007 NARA, JAPAN

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INTERNATIONAL UNION OF GEOLOGICAL SCIENCES

57TH EXECUTIVE COMMITTEE MEETING JANUARY 16-20, 2007 NARA, JAPAN

1) WELCOMING ADDRESS

IUGS President Zhang Hongren suffered the loss of his wife, Wang Meixian on January 12th 2007, and was unable to travel to Nara. In his absence, Vice President Eldridge Moores chaired the meeting and opened with a moment of silence. IUGS Webmaster John Aaron also sent his regrets: his wife, Barbara Aaron passed away December 12th 2006, after a long illness. Missed also was Mr. Satoru Ohya (Chair of the IYPE National Committee for Japan) who died November 13th 2006. Also commemorated was Professor Vilen Zharikov, former IUGS Vice-President who passed away on July 29th 2006.

The 57th Executive Committee Meeting of the International Union of Geological Sciences (IUGS) was held between January 16th and 20th in the Nara Public Hall, Nara, Japan. Eldridge Moores thanked Professor Niichi Nishiwaki and his colleagues for setting up the conference and two-day field trip to the Kobe area. Before proceeding with the EC Agenda, EC Committee members and observers gave short introductions.

2) APPROVAL OF AGENDA

Eldridge Moores and Peter Bobrowsky briefly outlined the rules of engagement under the IUGS Byelaws and Statutes. There would be four days of public meetings and a day in camera. Topical discussion would be first by EC members then the floor could be opened to the observers at the discretion of the Chair. Voting of motions, rules of order, etc., would be clearly expressed in the Official Minutes of the meeting. Peter Bobrowsky asked if everyone had a copy to the Agenda and Meeting Documents, then thanked the organizers and 11 sponsors, some of who were present as observers.

Motion: Peter Bobrowsky moved to accept the Meeting Agenda; Gabi Schneider seconded; **unanimously approved.**

3) 56TH EXECUTIVE COMMITTEE MEETING JANUARY 16-10, 2006 PUNTA ARENAS, CHILE

3. a. Approval of the Punta Arenas Minutes

There were no objections or comments regarding the 56th EC Minutes from Punta Arenas and they were passed unanimously. Peter Bobrowsky noted that the Minutes from EC meetings are available on the IUGS Website.

3. b. Actions arising from these Minutes

Peter Bobrowsky explained that he and the Committee would go through the Action Items arising from the 56th EC Meeting.

ACTION 1: IUGS Bureau should meet with Brazilian Ambassador in UNESCO during February meeting in Paris to encourage membership in IUGS and IGCP; Robert Missotten to help facilitate the meeting. **Completed** - meeting took place in November

ACTION 2: Bobrowsky to contact Florence IGC organizers and obtain copies of the final report on the Florence congress to distribute to the full EC. **Completed**

ACTION 3: Bobrowsky to contact the Geological Society of India regarding membership in IUGS and inform them that pending changes in the Statutes will eventually accommodate their inclusion into the Union as Affiliates. **Completed**

ACTION 4: Alberto Riccardi to provide the contact details for several organizations he has had interaction with that are interested in becoming IUGS Affiliated Bodies to Bobrowsky. **Completed**

ACTION 5: Bobrowsky to contact all organizations interested in becoming affiliated with IUGS and encourage them that changes to the Statutes will get them into the Union. **Completed**

ACTION 6: Secretariat to include the nomination of Sospeter Muhongo as an appointment to the IUGS Nominating Committee along with other issues required for voting by Council in the next electronic balloting. **Completed**

ACTION 7: Bobrowsky to contact ProGEO and inform them that their organization has been unanimously approved for Affiliated Membership within IUGS. **Completed**

ACTION 8: Zhang Hongren to contact all members of the CRD, thank them for their years of contribution and inform them that the CRD is now officially dissolved. **Completed** – CRD is now dissolved and Zhang Hongren has thanked its members.

ACTION 9: Bobrowsky to coordinate official replies by individual EC members to all those National Bodies that voiced specific concerns or requests in their annual reports. **Completed** – concerns of Affiliated Organizations and National Bodies will be addressed in the meeting.

ACTION 10: Secretariat to send a letter of acknowledgement and thanks from the SG to each National Body that submitted a report. **Completed** – Anne Liinamaa-Dehls also added that as each report is submitted a letter of thanks goes out.

ACTION 11: Alberto Riccardi to await reply from ICS to ARC report and then submit an explicit list of future actions to the EC for approval. **Incomplete** – ICS will be discussed later in the meeting

ACTION 12: Episodes Editor to request the Quaternary Task Group to submit a scientific paper on the Quaternary and include all the observations provided by Riccardi. Current paper for Episodes is not approved. **Completed**

ACTION 13: Zhang Hongren to write letters as soon as possible to CGMW and ICS to encourage them to resolve colour scheme for stratigraphic legends. **Completed** – a letter has been written

ACTION 14: Alberto Riccardi to implement a new ARC on Fossil Fuels to coincide with the Commission meeting in Bolivia in 2006 before next EC. **Completed** – ARC met in Paris in 2006

ACTION 15: Bobrowsky to inform GEM about the joint opinion of the GeoUnions regarding Megacities cooperation and request that GEM participate in this cooperation by contacting various partners. **Completed**

ACTION 16: Sylvi Haldorsen to request a more detailed report from SECE and ask for them to reply to our recommendations given last year. **Unresolved** – Haldorsen noted that there is still no report from SECE and recommended that they receive no funding.

ACTION 17: Eduardo de Mulder to chair and implement an ARC on Systematics in Petrology before the next EC (include Matsumoto in the ARC). **Completed**

ACTION 18: Eldridge Moores to contact PAGS regarding the IUGS EC decision on the proposed Commission on Short Lived Phenomena and offer them alternate linkages to other groups and activities. **Completed**

ACTION 19: Haldorsen to chair Task Group with de Mulder, Aaron and Secretariat to compile a list of meetings that are planned over the next 2 years. **Incomplete** - but will be address later in the meeting

ACTION 20: Riccardi to contact Task Group on Isotopes and Geochronology and ask them for an action plan for 2006. **Incomplete** – Bobrowsky said he would contact Riccardi to see if this is completed

ACTION 21: Haldorsen to write a strong letter of thank you to Medical Geology group thanking them for their final report. **Completed**

ACTION 22: Zhang Hongren to write a strong letter of thank you to the GeoIndicators group thanking them for their final report. **Completed**

ACTION 23: Antonio Brambati to close the outstanding economic obligations for GEOSEE and send all necessary funds to Werner Janoschek. **Completed** – GEOSEE is now extinct and all accounts have been closed and funds returned noted Brambati

ACTION 24: Eduardo de Mulder to send the FOREGS “state of the art” summaries to Bobrowsky. **Completed** – Following comments by Eduardo de Mulder and Arne Bjørlykke, Bobrowsky proposed a follow-up action:

Action Item: Permanent Secretariat to obtain copies of “earth science reports” from CCOP (and EuroGeoSurveys) and forward to the Secretary General. **Incomplete**

ACTION 25: Bobrowsky to reissue a letter with clearer and more specific requests on the “State of the Art of Geosciences”; include IUGS and UNESCO logos. **Completed** – Bobrowsky noted that he was working with UNESCO on a global state-of-the-art review of Earth sciences. This long term effort should be complete by the 2008 IGC meeting.

ACTION 26: Haldorsen to send her report on the survey regarding Affiliate to all the National Bodies. **Completed** – results have been sent to the National Committees

ACTION 27: Zhang Hongren to send congratulations to SEG about their new pending publication as described by Riccardi. **Completed**

ACTION 28: Hongren to immediately contact the IGC33 Committee and explicitly explain our concerns and requirements. IUGS has not contributed to Circular and or approved science program, registration, not signed contract of fees to IUGS, etc., or obtained in writing the IUGS fees in registration. **Completed**

ACTION 29: Zhang to contact the IGC34 Committee and clarify the role IUGS plays in the planning of the IGC and obtain confirmation from Australia they understand this formal association. **Obsolete**

ACTION 30: Secretariat to send all three Council minutes related IGC32 to the EC. **Completed**

ACTION 31: Secretariat to ensure all EC and Council minutes for the past 3 years are distributed to the full EC and loaded on the web site (via John Aaron). **Completed**

ACTION 32: Bobrowsky to contact GEMS and obtain a nomination (person must be outside of their EC) from them to represent IUGS in SCOPE. **Completed**

ACTION 33: Bobrowsky to contact GeoUnions and share our list of ICSU nomination positions; asking them to complete the list. **Completed**

ACTION 34: Bobrowsky to contact appropriate ICSU Committees and inform them of the new IUGS representatives; and inform the representatives that we will provide financial support for one meeting per year to the ICSU committee. **Completed**

ACTION 35: Bobrowsky to approach Jerry Brown to represent IUGS on the GeoUnions Polar Theme. **Completed**

ACTION 36: Zhang Hongren to contact Harsh Gupta immediately and request that he spearhead an IUGS approach of appropriate intergovernmental agencies in UNESCO for hazard related funds for IGCP. Follow up discussion should be arranged for Paris meeting. **Completed**

ACTION 37: Eldridge Moores as Chair to create new IGCP Task Group (Riccardi, Bobrowsky, Brambati, Zhang, Missotten, Haldorsen) to write a final Union position report on future of IGCP by 7 February, but distribute to EC before hand. **Completed**

ACTION 38: Moores (IGCP Task Group) to complete first draft of the IGCP guidelines by April 1 and final version by June 1. **Completed**

ACTION 39: Missotten to provide the EC with a digital copy of the current IGCP guidelines and a contact list of IGCP National Committees based in Paris as soon as possible. **Completed**

ACTION 40: Moores (IGCP Task Group) to generate a new 2 page guideline for the IGCP National Committees before February 15 meeting. **Completed**

ACTION 41: Bobrowsky to coordinate decision by EC to appoint an official contact person to write a new IGCP brochure for UNESCO. **Completed**

ACTION 42: Jean Paul Cadet to arrange meeting in Paris for the Bureau with incoming ICSU president in February. **Completed**

ACTION 43: Cadet to meet with Jose Achache regarding GEO/GEOSS and the potential role of IUGS; Cadet should keep ISPRS informed. **Completed**

ACTION 44: Robert Missotten to contact Stuart Marsh and connect him with the IUGS Commission GEMS and their Cross-Border Project. **Completed**

ACTION 45: Bobrowsky to write a 2-page letter to UNESCO regarding IUGS cooperation in GeoParks. **Completed**

ACTION 46: Antonio Brambati to represent IUGS and attend future European GeoParks Network meetings. **Completed**

ACTION 47: David Huntley to complete 2004 Annual Report by end of January. **Completed**

ACTION 48: Huntley to provide first draft of 2005 Annual Report by 1st of June. **Completed**

ACTION 49: Secretariat to forward copies of IUGS and YEAR brochure and flyers to Riccardi, Cadet and Bobrowsky (latter to indicate how many they need). **Completed** – Bobrowsky suggested the following item action:

Action Item: EC members to contact Permanent Secretariat directly to obtain copies of IUGS and IYPE brochures. **Completed**

ACTION 50: Secretariat to quickly forward copies of IUGS brochure and flyers to Murray Duke at the GSC (Attention De Mulder) for immediate distribution at the PDAC in early March. **Completed** – Eduardo de Mulder noted that IYPE will be present at the next PDAC.

ACTION 51: Jean Paul Cadet to arrange booth rental for next EGU as soon as possible and arrange cost sharing between IUGS and CGMW. **Completed**

ACTION 52: Sylvi Haldorsen to quickly arrange IUGS booth rental for Maputo meeting. **Completed**

ACTION 53: Secretariat to immediately check booth costs for all other remaining 2006 meetings such as GeoParks, IAEG, PDAC 2007, Palaeontology meeting in China and IGEO in Germany, etc and inform EC before booking space. **Completed**

ACTION 54: Secretariat to send digital versions of the large IUGS booth poster and smaller wall poster to all EC members as soon as possible; China will print and distribute hard copies. **Completed**

ACTION 55: EC members should send specific comments on Statutes and Bye-laws to Moores before March 1. **Completed**

ACTION 56: Bobrowsky to check with Eder regarding his continuation as Statutes Task Group Chair. **Completed**

ACTION 57: Brambati to contact IGC to obtain copies of the IGC Council minutes from Florence. **Completed** – and distributed

ACTION 58: Hongren to send letter of explanation to the current IGC Committee (Borioni et al.) explaining the relationship of the Task Group, IUGS and IGC. **Completed**

ACTION 59: Cadet to draft letter on stratigraphic colour standardization for ICS and CGMW and send to Bobrowsky who will forward to both organizations on behalf of the EC. **Completed**

ACTION 60: Brambati to Chair Membership Task Group (Nowlan, Secretariat, 2 new councillors) to assess IUGS membership types, benefits and impact to Union; TOR, etc. TOR required by 1 May, final report by 1 September. **Completed**

ACTION 61: Haldorsen to highlight the web on the e-bulletin. **Completed**

ACTION 62: John Aaron to modify and highlight the link in the IUGS website to IYPE. **Completed**

ACTION 63: Godfrey Nowlan to promote Episodes in various journals. **Completed**

ACTION 64: Haldorsen to organize brainstorming session at Maputo meeting (should include publication issues). **Completed**

ACTION 65: EC to send nomination names for PC members directly to Nowlan by 15 April; Nowlan to assess and make final recommendations back to EC. **Completed**

ACTION 66: Nowlan to provide detailed action list for the PC to complete during the next year to the EC as soon as the committee is complete. **Completed**

ACTION 67: EC to send suggestions for host organizations of IYPE. **Completed**

ACTION 68: Eduardo de Mulder to send text for IYPE outsourcing to everybody. **Completed**

ACTION 69: EC to support creation of National Committees for IYPE. **Completed** – de Mulder suggested each EC member has a responsibility to promote IYPE in their own countries

ACTION 70: Secretariat to resolve timing of events for the IUGS booth. **Completed** – this item will be discussed later

ACTION 71: IYPE to deliver the development of the UNESCO brochure on IGCP. **Completed**

ACTION 72: Secretariat to keep track of all outgoing Task Group, Committee members, etc., and send out thank-you notes. **Completed** – Bobrowsky suggested a follow-up action:

Action item: Permanent Secretariat to cc: Secretary General on all letters of thanks sent to outgoing members of Task Groups, ARCs, Commissions, etc.

ACTION 73: Bobrowsky to send out specific information to the National Committees. **Completed** – Bobrowsky noted this took several months to prepare and suggested the following action item:

Action item: Permanent Secretariat to prepare a one page summary of key decisions completed at the 57th EC meeting in Nara, Japan by the end of January; Secretary General to review the summary before distribution to all Adhering Organizations/National Committees.

4) ANNUAL ADMINISTRATIVE AFFAIRS

4. a. President's Report

Eldridge Moores read through the President's Report in the absence of Zhang Hongren. In the last two years, Zhang Hongren presented several documents to the Executive Committee to describe his views about the work of IUGS. The most important were "The priority of IUGS", "How to better unite geological community" and the "President's Report" at the Chile EC meeting.

To achieve the aims of IUGS, the resources of our Union must be focused on selected items that fall within our capabilities. Consequently, we must work out our priorities carefully. A matrix of priority for IUGS envisaged by Hongren is outlined in the table below:

Priority Matrix for IUGS

	Promoting development of 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 Scale	Selection of items to be disseminated	Geo-park standard
Information	Database	Case history	Publication Network

Last year, under difficult conditions, a substantial progress has been made in restructuring the IGCP in close cooperation with UNESCO. A consensus has been achieved on the integration of IUGS and IGC and has been put into the new draft version of both IUGS and IGC Statutes. Effort has also been made to streamline the relationship between IUGS and the local host of IGC. The preparation for IYPE is in progress and gained great popularity in the world. To the end of last year a Joint Agreement concerning IYPE has been signed between UNESCO and IUGS. IUGS also actively participated in the world Geo-Park activities. Last year, IUGS supported and attended two important events in Africa, which greatly increased the visibility of our Union in that continent.

It is obvious from the matrix above that the Union must put work harder to achieve the aim of "applying the results of Earth science studies". This aim is not less important than other two aims of our Union. A frequently asked question from the member countries, especially from developing countries, is "what benefit we can get from IUGS?" The popularization of already available results of the world geological community has the great potential to let large number of geologists from different countries to get the real benefit.

Another field where IUGS can better serve the world geological community is database development and management. The CGI has been doing wonderful job in management of geological information. Hongren suggested IUGS should also seek ways to make the service

available not only at the high end of the technology, but also services easily acceptable for wide range of geologists, without replicating those services already available.

The standardization is one of the major services that IUGS can and should provide. Unfortunately the long lasting problem with ICS has yet to be resolved. However, after lengthy “negotiations”, now more people have begun to understand the position of IUGS. For future development of standardization, IUGS should seriously consider the reorganization of the relevant sub-organization.

The determination of priorities can be changed slightly with time. However, we must keep in mind the “Zero Sum Game” principle; always concentrate our effort on selected tasks. Secondly, we should recognize that the strength of IUGS resides in its broad coverage of geological disciplines and nations, in the support received from the world geological community. Last year, IUGS experienced encouraging progress in maintaining and developing membership.

The cooperation between UNESCO and IUGS is a good example of the cooperation between an important intergovernmental organization and an NGO. Both sides as well as the whole world geological community can gain great benefit from such cooperation.

It is not strange that different people have different points of view. As the leading NGO of the world geological community, IUGS should try its best to unite geologists from different countries and different branches of geology. Among the NGOs, the only way to achieve unanimity is through consultation. We must further improve our communication with other geo-scientific organizations.

The relationship of IUGS with ICSU is also important. The basis for the international geo-scientific organizations to be affiliated to IUGS is that IUGS can represent them in ICSU. The fundamental principle of such an affiliation should not be weakened for minor reasons.

Thirdly, it is a common rule that without unity of ideas, there cannot be unity of actions. Without unity of actions, the major aims of IUGS cannot be achieved. Transparency and democracy are the important preconditions to achieve consensus. The experience of more than two years gave me the impression that except for extremely few cases, the time was sufficient for discussions before decision. Hongren recently attained a free copy of the “Robert’s Rules of Order” and found it very useful for the Union. As someone from a non-English speaking country, he found it not so easy to digest the rules. However, if some of us have good understanding of the rules, the efficiency of our Union can be greatly improved. ICSU also takes the Robert Rules of Order as their basis of decision-making.

Fourthly, the democracy should be combined with the division of responsibilities. At the Brain-Storm Meeting in Maputo, a number of valuable suggestions were raised. It was a pity that we did not make clear who should implement the tasks. It is crucial to clearly define the division of responsibilities among members of Executive Committee. Of course, the basic division of responsibilities has already been defined in the Statutes and Bye-Laws of IUGS. However, every major task must be delegated to one or some of us to constantly take care of. In the past, at every Executive Committee meeting or Bureau meeting, a list of Actions was generated from the discussion. Such practice has its advantage and can continue in the future. However, Hongren feels it also has some problems. For example, the action list may be a mixture of important items together with less significant items. And, if there is a division of

responsibilities, the action must be systematically delegated to the appropriate person rather than to be prompted by a sudden impulse.

The remaining time for this term of Executive Committee is rather limited. IUGS is meeting the great events of the International Year of Planet Earth and the 33rd IGC, as well as a number of important tasks. Let us unite and make every effort to better serve the world geological community and society.

4. b. Past President's Report

Eduardo de Mulder began by announcing his resignation in December 2006 from the position of IUGS Past President to devote his time and efforts more fully to the International Year of Planet Earth, serving as the Executive Director of the Secretariat of the IYPE Corporation. Before resigning, de Mulder attended many meetings in 2006 and helped draft the new structure of the IGCP. He also worked on IYPE and the ARC of Systematics in Petrology, and reported that the Nominating Committee was not active in 2006. Other specific activities of the IUGS Past President in 2006 are discussed under the IYPE agenda items.

4. c. Vice Presidents' and Councillors' Reports

Report for Vice President: Eldridge Moores

In the past year as Vice President, Eldridge Moores attended all Bureau Meetings; served as official liaison to the Executive Committee for the Affiliate Societies; chaired an Ad hoc Committee to revise the scientific focus of the IGCP; served on the IUGS-IGC Statutes and Byelaws Revision Task Group, doing much work on separation of the previously combined Statutes and Byelaws. Moores also attended the GeoUnion meeting in Maputo and delivered a scientific talk to the Association of African Women Geoscientists in El Jadida, Morocco. To summarize, Moores had a full year and gained more familiarity with IUGS and its activities, and he hoped that his effectiveness has increased as a result.

Report for Vice President: Sylvi Haldorsen

In 2006, Sylvi Haldorsen participated in the following IUGS meetings: 1) Executive Committee meeting in Punta Arenas January 6-10; 2) IGCP-Bureau- meeting in Paris 16- 20 February. The Bureau meeting also included a discussion with Deputy Director Alice Aureli (Water Science) regarding Haldorsen's earlier drafted paper about joint science themes in hydrogeology. The aim was to identify topics that may get funding from Water Science. This paper was later successfully used by the IGC Secretary General to discuss funding to water-related themes during IGC as well as travel grant to scientists in hydrogeology. 3) IUGS Brain Storming meeting in Maputo July 1-2, before the CAG21; Haldorsen prepared this meeting and chaired it. Some results of the discussions in Maputo are presented later in these minutes.

Regarding the Electronic Bulletin, five issues were produced in 2006. These mainly contained news about IYPE and the 33rd IGC. In 2007, the Bulletin should be published on a more regular monthly basis, not least because we are now approaching the Congress and the main IYPE. Haldorsen also identified some pending tasks. *Underrepresented groups*: the final report should be presented in the Council at IGC in 2008. A brief discussion took place later in the meeting. *New IUGS Scientific fields* (from Maputo meeting): Haldorsen stressed it was important to identify important parts of geoscience that should be given priority in IUGS.

Councillor Report: Mikhail A. Fedonkin

During the first months of his official service as a councillor of the EC IUGS, Mikhail Fedonkin had the privilege to become acquainted with the IUGS and its activity, gained knowledge on the methods and style of its actions. Fedonkin hopes this experience will make him more useful and effective in our joint work over the wide range of the problems the IUGS deals with; as well as in other kinds of his professional activity at home and internationally.

In addition to the discussion of the IUGS documents and commenting the annual reports of the affiliated organizations, Fedonkin was actively involved in the IGCP as a Chairman of the Russian Committee on the IGCP, co-leader of the Project 494 (in Namibia and Australia) and delivered a few scientific presentations on the international meetings including the 2nd Palaeontological Congress in Beijing, China. This is his first IUGS meeting as a member of the EC, but he hopes to attend the Bureau meeting in Paris next month.

Councillor Report: Gabi Schneider

Gabi Schneider circulated copies of her 2006 report. During the year, Schneider continued to be chairperson on the Sub-Committee on IUGS of the Executive Committee of the Geological Society of Namibia. This organization also served as the National Committee on IYPE. Schneider was instrumental in planning activities for IYPE, in the production of “Namibianized” posters dealing with the core themes of IYPE, and in the production of a calendar to support fund-raising for IYPE national activities. She also continued efforts to raise funds and get a major Mining House to become a key sponsor of IYPE. In March, Schneider attended to the IUGS/IYPE booth at the PDAC in Toronto, Canada and in July the EC meeting of IUGS in Maputo, Mozambique. She has also tried to establish contacts with the inactive members of IUGS in Africa; a very difficult exercise. Schneider will continue efforts, in particular after the founding meeting of the Forum of African Geological Surveys to be held in Cape Town, February 2007. Major efforts were made to establish the first Namibian Geopark, the inauguration of which should coincide with IYPE.

Arne Bjørlykke and Eldridge Moores congratulated Gabi Schneider on her work with African organizations and women geoscientists.

Councillor Report: Ryo Masumoto

Ryo Matsumoto submitted his report before at this meeting. Major activities included: 1) participation in the ARC on Systematics in Petrology; 2) preparation for a presentation on IUGS and IYPE at the International Sedimentological Congress in August-September; 3) establishing the National Committee of IUGS and IYPE within the new structure of Earth and Planetary Science in Japan. He was also involved with IYPE through the Japanese National Committee and helped organize and IYPE opening ceremony at Tokyo University in January 2007. Matsumoto suggested IUGS send the report on funding agencies to the Science Council of Japan, and asked Anne Liinamaa-Dehls to send the Annual Report of the Science Council. Peter Bobrowsky suggested making this an action item.

Action item: Secretary General will send a copy of the Annual Reports and Minutes of Annual EC meetings directly to certain granting agencies in certain countries (e.g., Science Council of Japan).

Councillor Report: Marta Mantovani

Marta Mantovani was late in sending her report: there were many changes in her government and much time was spent redefining her responsibilities. As her chief activity, Mantovani

helped promote and organize meetings on IYPE in South America. This EC meeting represents her first official participation as an EC member.

Councillor Reports: Jean-Paul Cadet and Alberto Riccardi

Peter Bobrowsky reported on the work of councillors Jean-Paul Cadet and Alberto Riccardi, whose terms ended in the middle of 2006. Cadet was actively involved in CMGW and was instrumental in bureau meetings and in maintaining links with EGU and ICSU President. Cadet also contributed to the Maputo brainstorming session. Riccardi had to deal with the considerable problems of ICS, helping to draft letters to their executive. He will help bring Mikhail Fedonkin up to speed with ICS matters. Riccardi headed two ARCs on ICS and Fossil Fuels and was instrumental in contributing to their reviews. Eldridge Moores noted he was also still actively contributing to the Statutes and Byelaws Task Force.

Action item: IUGS EC to provide IUGS plaques of appreciation to both outgoing Councillors (Cadet and Riccardi) in person when the opportunity next presents itself.

4. d. Secretary General's Report

Peter Bobrowsky tabled his annual report at this meeting.

As Secretary General I participated in several IUGS related events including: Annual Executive Committee meeting in January (Punta Arenas, Chile); IGCP and Bureau meeting in February (Paris, France); Association of African Women Geoscientists Conference (gave a presentation) and Bureau meeting in April (El Jadida, Morocco); 21st Colloquium on Africa Geology (gave a presentation) and IUGS brainstorming session in July (Maputo, Mozambique); 2nd International Conference on GeoParks (gave introductory remarks) and Bureau meeting in September (Belfast/Dublin, Ireland); Bureau meeting in November (Paris, France). IUGS/IYPE/IGCP/IGC was promoted at other events by the Secretary General including the 13th Peruvian Geological Congress in October (Lima, Peru), 5th BOR of the International Consortium on Landslides in November (Paris, France). At most of the meetings I met with regional and national geoscientists including representatives from the IUGS and/or IGCP national committees. During visits to Paris I met with the Canadian Ambassador to UNESCO to promote IYPE and IGCP. In this regard, the Secretary General has created a 1 m x 2 m poster on IUGS/IYPE/IGC which is used informally at such meetings. I also met with Koichira Matsuura (DG of UNESCO) and Thomas Rosswall (Executive Director of ICSU) and GeoUnion representatives (IUGG and INQUA). Excluding the day to day delivery of obligations to the Union (communication, coordination, chasing delivery of actions, editing, etc.) the primary focus has been on supporting the transition of the IGCP programme with UNESCO, acting as primary liaison to the IYPE Corporation, lobbying member states to raise membership levels (e.g. Ireland, Canada and Saudi Arabia), encourage new Affiliate membership (e.g. AAWG) and increasing the participation of IUGS in GeoHeritage issues. At the Canadian level, the Secretary General has contributed to the development of a National Committee for IYPE and helped secure resources (funding and people) for a GSC project contribution to IYPE. I have also managed to raise the category of membership of Canada by one level. As Secretary General I greatly appreciated the support and camaraderie of IUGS President Zhang and Treasurer Brambati in managing the Union, and also that of the Vice Presidents Moores and Haldorsen who have added considerably to the success of the Bureau. I also thank the IUGS councilors (Cadet, Riccardi, Schneider and Matsumoto), Dehls at the Permanent Secretariat, webmaster Aaron and PC Chair Nowlan and many volunteers (e.g. Huntley and various ARC members) who have collectively helped the Secretary General in

delivering obligations to the Union (I include in this thanks to Missotten and Patzak). I am indebted to the Geological Survey of Canada which has provided financial support to attend meetings and approved several months of salaried time dedicated towards IUGS activities during the past year. Finally I want to thank Japan, the National Committee for IUGS in Japan and their supporting organizations for their long standing support of geology through membership in IUGS. Japan (like Russia, USA and recently Saudi Arabia) is a Category 8 member (the highest available).

Neil Williams wondered whether it was worth while for each country to lobby ambassadors to UNESCO to support IGCP and IUGS. Arne Bjørlykke agreed with Williams and recommended looking at who is sitting on the UNESCO Board. Eldridge Moores briefly reviewed the on-and-off relationship of the USA with UNESCO.

4. e. Treasurer's Report

Antonio Brambati distributed a 19-page report to EC members only. In 2006, IUGS had two current accounts and a short term guaranteed deposit account open in Trieste, Italy. Brambati briefly reviewed the reserve accounts, bank interests and charges, movement of funds (received and paid). With an income of US\$ 462, 486.96; and expenses amounting to US\$ 509,004.21; the balance after December 15th, 2006 was –US\$ 46,517.26. However, if UNESCO's signed contracts, outstanding fees from China, France, Saudi Arabia, Belgium and Bulgaria and the 2005 ICSU contributions are considered as income then the adjusted 2006 budget is +US\$ 39,096.31. Brambati showed a graph depicting peak income and expenditures in June-July. Other major expenses fall in March, April, September-October and December.

Brambati then discussed membership fees and categories for 2006, showing a number of tables with active and inactive countries. There were a total of 118 adhering organizations, 83 active and 35 inactive. One new Category 1 Adhering Organization (National Directorate of Geology of Mozambique) joined in 2006. Cameroon, Congo, Jordan, Lebanon and Mongolia (all Category 1) became active members. Ireland upgraded from Category 2 to 4 and Canada upgraded from Category 5 to 6. Belgium, Bulgaria, China, France and Saudi Arabia have yet to pay their 2006 fees.

IUGS expenditures, cautioned Brambati, often do not reflect real costs (e.g., Episodes production costs are subsidized by the Chinese Ministry of Land and Resources). Meeting costs are also partly covered by hosting countries and parent organizations. The Norwegian Government also covers the expenditures of the Permanent Secretariat. Brambati noted that IUGS is extremely grateful to the Chinese, Norwegian, Canadian and Italian governments for this generous support that enables the Union to invest significantly more in global geoscience development than would otherwise be possible.

Peter Bobrowsky clarified several points for the observers. The main income is from country members; and the EC functions to serve the member countries. The bulk of the income goes to scientific endeavours (e.g., IYPE, IUGS Commissions) and strategic uses; not to administration. The President, Treasurer and Secretary General all have their travel expenses covered by their own countries; the expenses of the rest of the EC are covered by IUGS. Cash flow is a problem and money is lost waiting for members to pay fees to the extent that the Union functions with a net deficit over much of the year. Some 75 % of the budget goes toward scientific endeavours (e.g., IYPE, Episodes, GEOSEE) and 23 % to administration (e.g., Annual Report, promotion, etc.). Bobrowsky also acknowledged that Russian, Japan and

the USA were Category 8 members and thanked the representatives for this level of commitment.

Eduardo de Mulder complimented the Treasurer on his report. Eldridge Moores noted that the report emphasizes the fragility of the budget. Ryo Matsumoto asked about categories of membership, questioning why Japan remained at Category 8 level. Brambati replied that it was a matter of prestige, related to the GDP and other economic factors that influence the decision. Moores also pointed out that a higher level of membership gave a larger number of votes on financial matters and at the IGC. Bobrowsky commented that for most countries, GDP was related to membership level. He also noted that the Bureau feels that some countries are not paying a membership fee proportional to their GDP. Two action items arose from the Treasurer's Report:

Action item: Secretary General to send a formal note to UNESCO regarding the financial relationship between UNESCO and IUGS. UNESCO debt with IUGS cannot exceed US\$ 20,000 at any one time during the year.

Action item: Antonio Brambati should send an automatic update regarding membership status to the Editor of Episodes as soon as dues are paid by an Adhering Organization.

4. f. Permanent Secretariat's Report

Anne Liinamaa-Dehls ran through the major activities of Rognvald Boyd (Executive Director) and herself. Major activities in 2006 included archive management, assembly and redistribution of information, task management, IUGS promotion, and assisting IUGS Executive members, the IYPE Team and the IGCP Secretariat.

4. f. 1. Up-dating and maintenance of the IUGS archive

All IUGS related documentation has been transferred to NGU's main building: this represents approximate 6 m³ of paper. In 2006, the Secretariat drew upon NGU's experience on archival matters and identified the following historical documents as highest priority for restoration and digitizing:

- 1) Primary documentation related to membership and affiliation
- 2) Minutes and meeting related documentation from:
 - Constitutional Meeting, at UNESCO in Paris 1961
 - Council Meetings: From First (Ad hoc) Session in Rome in 1963 to current;
 - Executive Meetings: 1st Executive Committee Meeting in Antwerp 1962, to current
 - Bureau Meetings: Regular Bureau meetings which began in 1984
- 3) Constitutional and other legal documentation

4. f. 2. Central communication to, from and within IUGS

The Secretariat continued as the primary contact for all correspondence to, from and within IUGS. NGU's IT support staff began to examine the organizational structure and needs of IUGS so that IUGS material can be treated properly within the existing NGU digital archival system. The Programme P360 used at NGU is integrated with Outlook, Word and other MS products. In 2006, nearly all correspondence arrived via e-mail, or was scanned. P360 is the optimal for handling general IUGS correspondence because it is well integrated into Outlook. She found the Directory of Geoscience Organization of the World 2006 a useful source.

4. f. 3. Administrative and secretarial tasks for the Executive Committee and Bureau

The Secretariat is responsible for the preparation of needed background documents for all meetings arranged by the IUGS Executive Committee. To this end, on the behalf the Secretary General, the Secretariat distributed the Call for 2006 Annual Reports to all IUGS Commissions, Joint Programmes, Task Groups, and Affiliated Organizations. These documents have redistributed well in advance of the meeting to the Executive Committee members for their comments and suggestions for Action. The Annual Reports are available on the NGU ftp server in a temporary folder. Other background documents and commentaries to the annual reports are distributed to all meeting participants one week prior to the meeting. The Secretariat was present at the Strategy meeting in Maputo to take minutes: these were forwarded to the Bureau in September 2006. Also, the Secretariat was present at the Bureau meeting in Belfast and Dublin to take minutes and to coordinate the IUGS exhibit during the Geoparks meeting. The Secretariat will continue to attend meetings in 2007, and when not possible, via teleconferencing.

4. f. 4. Tasks for the individual Executive Committee members

Last year the Secretariat provided documentation and assistance as requested by the Executive Committee. Due to the delay in outsourcing of the IYPE Secretariat, the IUGS Secretariat has continued to serve as the point of contact for the Corporation, and has housed tracked and distributed IYPE material to meetings and other locations as requested. The Secretariat sent out four issues of the IUGS Bulletin (by Sylvi Haldorsen) to over 7200, including those addresses available in the "Directory of Geoscience Organizations of the World 2006" produced by AIST (Japan). The general feedback to our requests and news information in 2006 was positive and recipients offered their thanks for the information and our groups appreciated opportunities to contribute.

4. f. 5. Responsibilities related to the IUGS-IGC combined Council Meeting 2008

One of the first tasks related to this meeting preparation will be the "Call for Representatives to Council" which should be distributed end by Fall, 2007. Pending is the IUGS and IGC interpretation of the Statutes (under IGC statutes: no. of representative is equivalent the category of membership, under IUGS Statutes, one representative is sent).

4. f. 6. Promotion of the IUGS and the IGC at International Conferences

See Item 12. c.

4. f. 7. Evaluation and Feedback

Feedback and evaluation from national and international users, in general, is positive. The Secretariat will consider the feasibility of conducting user surveys on a quadrennial basis.

4. f. 8. Redistribution of Tasks

The IUGS Secretariat currently cooperates with UNESCO in the management of the International Geoscience Programme (IGCP). Now as the IGCP Programme undergoes restructuring it is time to critically examine the effectiveness of this arrangement. Liinamaa-

Dehls hoped that the EC would consider redistributing some of the tasks related to the IGCP; some are better undertaken by the Secretariat at UNESCO.

Firstly, the tasks related to IGCP project finances are today distributed now amongst three offices (Trieste, Paris and Trondheim). In 1980-1984 when the IUGS Secretariat was located in Paris close to the IGCP Secretariat office, this cooperation was likely very effective. This task-sharing was less effective when the Secretariat moved to Trondheim. In fact, the IGCP project leaders are quite confused by the splitting of IGCP Secretariat tasks, and they are uncertain as to where forms, requests and other reporting material should be sent. IGCP Finance related tasks would be performed more effectively by the IGCP Secretariat (UNESCO) or the IUGS Treasurer.

Second, under the revised proposed new organization, the IGCP Secretariat manages the programme and is therefore the central point of communication for IGCP. In 2006 the IUGS Secretariat sent out the Call for Nominations to the IGCP Scientific Board. This task could be more effectively preformed by IGCP Secretariat who could assemble and archive nominations as part of its preparation for the annual IGCP Scientific Board meetings. Therefore, the Secretariat requests that this and all other administrative tasks related to the IGCP Board and IGCP projects are transferred to IGCP Secretariat located at UNESCO's Ecological and Earth Sciences Division.

4. f. 9. Finances

In 2005 and in 2006, the Secretariat did not receive the US\$ 2000 allocation for office expenses. The Secretariat requests that this line item of US\$ 2000 /annually be reinstated to offset the costs of layout of annual reports.

4. f. 10. Acknowledgements

The office is Financed by the Norwegian Ministry of Trade and Industry and managed by the Geological Survey of Norway (NGU) in Trondheim. The IUGS Secretariat wishes to thank the Bureau for their patience during the restructuring of this office. As special thanks goes to the assistant to the IUGS Treasurer, Ioanna Protopsalti, for her good cooperation with this office and for the exceptional work done in 2006 re-activating the membership of many important IUGS Adhering Organizations. Professor Niichi Nishiwaki for his careful attention in organizing the 57th IUGS Executive Committee meeting, and for kindly arranging for the printing and binding of the EC57 Nara documentation for all participants.

Eldridge Moores and Peter Bobrowsky thanked the EC members and Anne Liinamaa-Dehls for their reports, and stressed that the relationship with NGU was essential.

4. g. Applications for Affiliation

Council unanimously ratified the Executive Decision to approve ProGEO and DOSECC as new affiliated organizations. Some 34 countries cast their ballots. In 2006, two new organizations submitted applications for affiliation: National Ground Water Association (NWGA) and Association of African Women Geoscientists (AAWG).

4. g. 1. National Ground Water Association (NWGA)

Eduardo de Mulder noted that NWGA applied for affiliation in 2002, but the conclusion then was not to accept the association because it was too “nationally” focused. Robin Brett thought that it was not really scientific; rather it was too applied. Eduardo de Mulder agrees with this assessment.

Eldridge Moores said that in the past it was dominantly a US organization, but now there are 12 other countries and is one the largest geo-scientific organizations. Groundwater is an important topic and the new IGCP reflects this. Moores thought it was appropriate to accept the NWGA. Antonio Brambati agreed with Moores, noting that since UNESCO supports groundwater, IUGS should accept the group. Peter Bobrowsky added that in contrast to the previous, the current EC is moving towards more inclusiveness. He agreed that IUGS should accept the NWGA. Anne Liinamaa-Dehls clarified that the group was applying for affiliation and not membership.

Motion: Sylvi Haldorsen moved to accept NWGA; Eldridge Moores seconded; **unanimously approved.**

4. g. 2. Association of African Women Geoscientists (AAWG)

Eldridge Moores said that AAWG was a very hard-working group and ambitious; and was very strongly in favour of accepting the group. Eduardo de Mulder noted that in the past, AAWG was perceived as a political pressure group. Peter Bobrowsky supported affiliation, pointing out that their joining increases the number of women geoscientists involved with the IUGS. He also suggested contacting the American Association of Women Geoscientists. Moores said that he would encourage this group to reapply. Gabi Schneider also noted the important role women play in education in Africa.

Motion: Gabi Schneider moved to accept AAWG; Peter Bobrowsky seconded; **unanimously approved.**

5) ANNUAL REPORTS AND FUTURE PLANS OF IUGS BODIES

5. a. Adhering Organizations

5. a. 1. Applications for Membership

The Executive Committee granted provisional membership to the "National Directorate of Geology" to represent the geologists of Mozambique in IUGS. Their full membership is pending ratification by IUGS Council. Peter Bobrowsky noted that **Lithuania** can be ratified at the same time.

5. a. 2. Reports of Adhering Organizations

Eldridge Moores noted Annual Reports arrived from Azerbaijan, Bosnia Herzegovina, Canada, DR Congo, Demark, Estonia, Finland, France, Germany, Hungary, Nambia, Norway, The Netherlands, Russia, Serbia, Spain, Sweden, Thailand and Yemen. There was a low level of reporting this year. The Secretariat suggests that reporting deadline may have conflicted with many other deadlines including: submission of Council Ballots, IGCP Nominations, IGCP Proposals and the IGCP Annual Report.

Annual Reports are received by the Secretary General who summarizes them. Peter Bobrowsky, Eduardo de Mulder, Eldridge Moores, Gerel Ochir, Ryo Matsumoto, Neil Williams, Mikhail Fedonkin and Antonio Brambati then commented on specific country reports.

Bulgaria: IUGS should be more influential and lobby at the country level, emphasizing why it is important that Bulgaria belong to IUGS.

France: France feels there is the need for better communication. IUGS is not keeping geoscientists informed and there is too much redundancy; it is failing to communicate effectively.

Canada: a late report. Bobrowsky summarized that the membership level was raised back to Category 6 by Canada. The national committee has been very active in two IUGS activities namely IGCP and IYPE.

Iceland: submitted a late report.

Norway: proposed that there is at least one bureau meeting in Norway per year.

Russia: Bobrowsky noted that there was some confusion regarding Category 8 dues. Some clarification for Russia is needed.

Spain: de Mulder commented that he was there in 2006 to help start up IYPE.

Yemen: briefly reported that there were many activities in the fields of Geohazards and Geoscience Activity Mapping.

USA: Moores noted that the National Committee in the US underwent a big staffing change; this is probably why there was no report. There is considerable interest in IYPE, and the NC

want to work on sponsored meetings on, for example: energy conservation, welfare of science, and hazards.

Mongolia: Ochir briefly commented on the Mongolian Association, in particular: IYPE work, four IGCP projects and a regional meeting with Russian geoscientists.

Japan: Matsumoto noted that the NC had formed a sub-commission for IYPE and reminded the EC and observers that the Opening Ceremony was to be held on January 21 at Tokyo University.

Australia: Williams pointed out that the adhering body was the Australian Academy of Science; a mixture of geologists and geophysicists. Geoscience Australia is trying to get geoscientists to take IUGS seriously. The NC will try to influence politicians, and IGC 2012 will be part of the move to improve the visibility of geoscience and importance of IUGS. Williams also mentioned that a major activity in Perth in 2007 will be the meeting of the World Science Teachers, where staff will promote IYPE and geoscience generally.

China: no information on this with the absence of Zhang Hongren.

Russia: Fedonkin recognized growing interest in IGCP projects (over 40 projects involve Russians) and support of IYPE, jointly with UNESCO.

Italy: Brambati noted that Geoscience Societies merged in Italy, leading to competition between federations, societies and other organizations. IYPE activities will be prominent in the coming years.

General Discussion

Eduardo de Mulder expressed concern about the fragmentation of committees; some are moving to merge to form larger comprehensive committees dealing with broader topics. There was a need for re-grouping. Arne Bjørlykke suggested that IUGS should address the relationships of National Societies versus National Committees and National Academies. Sylvi Haldorsen said that depended on which body was applying for affiliation - Geological Surveys or Geological Societies – which resulted in unclear relationships.

Peter Bobrowsky then shared an anecdote about a recent visit to the Geological Survey of India. During discussions it became clear that GSI promoted IGCP and UNESCO, but not IUGS. GSI does not communicate with the Adhering Body. Neither is the National Committee for IYPE communicating with the Adhering Body and GSI. Bobrowsky moved to propose a Task Group to study committee structure. Eldridge Moores remarked that it was not easy to form a committee to look at committees, stressing that the world is changing and that there was a need to think strategically about the problem. A globally integrated geoscience unit was needed. Neil Williams was a little nervous about imposing guidelines when countries have unique problems and issues. Eduardo de Mulder agreed, suggesting modest requests and avoiding telling countries what to do. IUGS should be providing guidance, e.g., composition of committees and how they should be organized.

Motion: proposed by Peter Bobrowsky and seconded by Eldridge Moores to establish a task group to study the structure and functionality of international committees within particular

countries; and to establish a position statement on behalf of the IUGS on the function of multiple geoscience committees; **unanimously passed.**

The Task Group will be chaired by Secretary General, with members including the Secretariat, Mikhail Fedonkin, Ryo Matsumoto and Marta Mantovani. Bobrowsky also identified an action from this agenda item.

Action item: Secretary General to approach select Adhering Organizations to consider raising their level of membership in IUGS.

5. b. Committees

5. b. 1. Nominating Committee

Chair Eduardo de Mulder reported that there were no developments in 2006. He explained that the Nominating Committee reports directly to the IUGS Council. Henri Kampunzu, who sadly passed away in 2004, was replaced by Sospeter Muhongo. The Nominating Committee will invite Adhering Bodies and other organisations to propose candidates for the new IUGS Executive Committee in April or May 2007.

Anne Liinamaa-Dehls noted that individual ballots were sent to all IUGS Council on 31 August 2006, with a closing date 16 November. The Treasurer established quorum to be 27 votes (1/3 of active members); 34 were returned, hence quorum was achieved. Thirty three members were in favour of Dr. Sospeter Muhongo as the new NC member; there was one abstention. Eldridge Moores recognized the NC Report as received.

5. b. 2. Publication Committee

Chair Godfrey Nowlan first talked about committee recruitment and composition: 2006 was a year of renewal for the Publications Committee (PC). At its last meeting in Punta Arenas Chile in January 2006, the IUGS Executive Committee authorized the recruitment of two replacement members for those whose terms were ended following the Vilnius meeting in 2005. Recommendations were sought from IUGS-EC members and a number of CVs were reviewed. The two new recruits to the committee are Susana Damborenea from Argentina and Tim Partridge from South Africa. They joined the committee over the summer and attended the last meeting of the committee in Washington, D.C. in November. The committee now consists of the following members:

Susana Damborenea (Museo de La Plata in La Plata, Argentina)
Godfrey Nowlan (Chair, Geological Survey of Canada, Calgary, Alberta, Canada)
Tim Partridge (University of the Witwatersrand, Johannesburg, South Africa)
Fred Spilhaus (Executive Director AGU, Washington, D.C.)

Ex officio members:

Zhenyu Yang (Editor, Episodes, Nanjing, China)
John Aaron (IUGS Web Master, Washington, D.C.)

Publications under Agreement with Geological Society of London

A formal agreement between IUGS and the Geological Society of London (GSL) has been in effect since April 2003 for the publication of books arising from the work of IUGS bodies.

Under this agreement, proposals for new books and monographs have been submitted to GSL. A total of 20 books are currently accepted under the agreement. Nine of these result from IUGS programs directly and, when published, will provide royalties to IUGS. The first IUGS book is scheduled for publication in March 2007. The remaining eleven are the result of GSL actively seeking out leaders of sessions at the IGC in Florence in 2004; six of these are already published. When all eleven IGC books are published, IUGS will have received £8250 in finder's fees.

Episodes

The Union is currently operating under the Memorandum of Understanding established between IUGS and the China Ministry of Land and Resources that was signed in Beijing in April 2004 and covers the period of 2005-2008. Zhenyu Yang, a professor in the Department of Earth Sciences at Nanjing University, is the editor. The PC continues to have close communication with the staff working on Episodes. The Chair looks over the proofs for each issue and provides feedback on the content. This is an on-going commitment of the PC.

Three of the issues of Volume 29 published in 2006 comprised 15 articles, 1 classic paper, 3 forums, 3 geological maps, 20 conference reports, 7 news reports, 12 book reviews and 2 profiles. Among the articles, four cover recently approved GSSPs. Three articles were published on the International Year of Planet Earth (IYPE). A fourth issue appeared in December. Agreement was reached with IYPE to place an advertisement on the back cover of Episodes, every two issues, starting with the December issue of 2006. There will also be a regular IYPE section inside the journal.

Episodes is distributed to 145 countries and regions. The impact factor for Episodes in 2005 was the highest it has been since we began measuring in 1992, reaching 1.2. Interestingly, a review of the history (1992-2005) of the impact factor reveals that it is lowest in each of the IGC years, when an issue is devoted to reviews of the geology of the host country. The journal's web site is updated with each issue, such that 31 issues are now on line. Over 8300 readers have visited the site in 2006. A total of 1338 copies of each issue are distributed (972 paid; 366 free)

On-line Publication

All issues from volumes 21-29 (1998 – present) are available on-line at www.episodes.org. At the recent meeting of the Publications Committee in Washington, D.C., the Editor agreed to start to work backwards through older volumes to get as much as possible on-line, starting with v. 20 published in 1997. The PC has also recently re-contacted Geoscience World to see if they are interesting in adding Episodes to their portfolio.

Associate Editors

The editor has identified that the terms for six associate editors have been completed. The PC is currently seeking replacements and two have been identified as willing to serve. Therefore the PC proposes that the following three Associate Editors be ratified by the Executive Committee: Dr. David Oldroyd (University of New South Wales, Australia); Dr. Maarten de Wit (University of Capetown, South Africa) and Dr. Kalachand Sain (NGRI, Hyderabad, India)

Motion: Peter Bobrowsky moved to approve the three choices for Associate Editors of Episodes; Sylvi Haldorsen seconded; **unanimously approved.**

IYPE Publications

At its last meeting, the PC decided to try and get some IYPE materials translated for use around the world. At this point, Susana Damborenea has translated the main IYPE Brochure into Spanish and is willing to translate some more. Some Indian colleagues have also been approached to see if translation is possible into languages for that subcontinent.

Work Plan

At a recent meeting in Washington, D.C., the PC discussed possible paths for future work. Using a document developed in 2005 at the Vilnius meeting as a starting point, the committee devised the following work plan for the coming two years. It was recognized that a certain list of ongoing priorities and responsibilities must always have our attention:

- Ongoing review of IUGS Publication Policy
- Response to enquiries about copyright and usage of IUGS material
- Ongoing review of the performance of GSL and the MOU
- Ongoing review of the quality and timeliness of Episodes and assistance with its content
- Ongoing review of the IUGS web site

However it was recognized that this does not constitute an action plan. In addition to the ongoing responsibilities, the following are the prioritized, specific actions we will take to accomplish some new goals:

1) Identify new Associate Editors for Episodes. Six new Associate Editors are required. Three have been identified so far. They are still looking for Associate Editors ideally with expertise in one of the following general fields: tectonics, planetary science, petrology, engineering geology, climate change, volcanology, environmental geoscience, and oceanography. Underrepresented regions of the world include Oceania, India and Africa. Suggestions are welcome.

2) Survey of IUGS-related bodies to see what publications are emanating from the different areas and whether they are using Episodes and/or the GSL agreement. This priority is to ensure that the PC knows the current status of publications by all IUGS-related bodies. At present, we do not know which IUGS joint programs (e.g. IGCP, ILP, MRSP, Remote Sensing) or IUGS Commissions, Task Groups and Initiatives are using the GSL agreement and which are not. It was agreed that we need to review this situation so that we are in a position to take appropriate action in the future. Letters have been prepared for leaders of all IGCP projects with a completion date in 2007 and earlier to find out how they have been publishing and how they plan to complete any final publications. Letters have been sent to all the other IUGS organizations: Commissions, Joint Programs (except IGC), Task Groups and Initiatives. Some replies have been coming in, but the process is not complete. Nowlan reported that the GSL was happy with the results of this survey.

3) Improve communication with all IUGS-related organizations. Specific actions in this area are to: a) update the IUGS web site with the listing of IUGS and IGC books published by

GSL as part of a general update of the site; and b) send regular articles and updates to IUGS organizations as developments take place in publications. An initial step in 2006 was the e-mailing of an article on the value of Episodes to fourteen organizations for inclusion in their newsletters. Ten organizations have published it so far (IAGC, IAGOD, IAH, IAMG, IAS, IFPS, IGEO, IMA, and INQUA). The IPA replied but has no newsletter or web portal. The article has now been translated into Spanish and will be submitted to several South American newsletters. A plan will be developed to ensure that all IUGS publications (Episodes and GSL) are advertised/reviewed in appropriate journals/newsletters of affiliates and it may well be worth developing advertising exchanges with appropriate journals/newsletters of affiliated organizations. The PC also aims to develop an e-mail listing for announcements of IUGS publications and we could use the same list for targeted advertising of other IUGS news (e.g. some of the E-Bulletins). This will be undertaken in consultation with Anne Liinamaa-Dehls at the IUGS Secretariat at NGU.

4) Assess Internet Accessibility in Developing Countries. One of the main ideas that the PC had with respect to increasing readership of Episodes is to develop an on-line subscription to Episodes. The survey of publications emanating from IUGS bodies may also reveal that some organizations are having difficulty publishing material. Before any meaningful developments can be made in this area, the PC has decided that it needs to undertake an assessment of internet accessibility in developing countries. We have to understand this if we are to serve all countries equally. There were some basic statistics available at www.internetworldstats.com and AGU staff indicated that the Start Program (www.start.org) that is part of the International Geosphere-Biosphere Program might have some insights to offer. It was agreed that if we are to undertake to assist developing countries with their IUGS-related publications, and we believe that we might do some on-line publishing, then we will need to know about access levels worldwide. The questions we need to answer are:

- Access speed and bandwidth
- Scope of journal access
- Scope of community access
- Location of accessibility (shared or not)
- Levels of accessibility (schools, universities, government, industry)
- Who pays for access
- Cost of access
- On-line access to locally produced material

The PC decided to move forward with surveys in Africa and South America. This will be researched and scheduled for later in 2007.

5) Establish better relationships with the global editorial community. Another part of the PC's Action Plan is to develop relationships with related organizations like AESE and EASE. To this end, we have decided to hold our next meeting in Calgary in conjunction with the AESE meeting that will take place in the fall of 2007. We have agreed to present a program of talks on publishing in developing countries and this has been accepted by the AESE organizers. This will serve the double purpose of gaining information from the meeting and imparting information on IUGS to the editorial community.

General Discussion

Godfrey Nowlan wanted to know from the EC whether the PC was on the right track, then directed discussion to two intermediate issues: 1) copyright for IGC documents and who controls copyright (this following a request from Professor Friedman to re-print one his IGC 30 articles); and 2) the INHIGEO newsletter. Eldridge Moores thanked Nowlan for his report and saw three issues for discussion: 1) on-line digitizing of Episodes; 2) copyright; and 3) INHIGEO. Peter Bobrowsky also complimented Nowlan and considered the following issues: 1) other potential new Associate Editors; 2) on-line access; 3) improving communications; 4) internet accessibility.

Bobrowsky started on the issue of on-line access, stressing that digitization of Episodes was an important priority for IUGS and the need for help. Getting back issues digitized was important enough for the EC to set money aside. Moores wondered how much money was needed. Bobrowsky asked Zhenyu Yang for more information regarding projections of the on-line versioning of back volumes: how long would it take to digitize back copies, and how many back copies can, and have been completed. Yang was unsure, but noted that copies have been digitally available since 1998 and that staff shortages may slow production down. Bobrowsky recommended that money be set aside for the digitizing of back copies and conversion of files. Nowlan suggested US\$ 5000 would go a long way to getting it done. The PDFs would be low level with no links to references. He calculated that 20 years of back issues would amount to ~6000 pages for scanning and conversion. Moores recommended this be a budget item for later discussion.

Action item: Zhenyu Yang to find out how long it takes and the cost to digitizing a back copy of Episodes and converting to a PDF format then report back to the EC as soon as possible.

Bobrowsky then asked whether on-line access would be through the Episodes or IUGS website. What ever can be done to improve access to Episodes will be good for IUGS. On-line access should be a priority for the PC. He also advised against studying access problems; as this would confuse matters. Nowlan was looking at scaled access: developing countries would have free access; industrial nations would pay. He also noted that the AGU was extremely interested in the activities of the PC.

Moores then raised the matter of copyright and Friedman's request, adding that it was an issue faced by all organizations. He pointed out that copyright was not considered in the IUGS Statutes and Byelaws. The AGU copyrights everything, but the GSA only copyrights issues but not individual papers. Copyright is often specific to where the proceedings are published. Attilio Boriani noted that there was no copyright for the Florence IGC, but that the Proceedings and Symposia Volumes were different from the Abstract Volume. Moores felt that if it was an IGC publication, then permission should be given to Professor Friedman.

Action item: Godfrey Nowlan can respond in the affirmative to Professor Friedman regarding efforts to obtain permission to reprint his 30th IGC article elsewhere.

Bobrowsky then turned to INHIGEO noting that free printing of their Newsletter has stopped in Australia, and that the organization was concerned that their publication was not getting out to its readers. INHIGEO approached the Secretary General asking for money to support the publication. Bobrowsky suggested INHIGEO could digitize their publication and release it on-line. If Episodes is getting digitized, then the Newsletter could be digitized at the same time. Gabi Schneider, Godfrey Nowlan and Eldridge Moores all thought that digitizing was the

obvious solution and recommended INHIGEO go digital; if this was a problem, then INHIGEO could come back to the EC and request money to print the Newsletter.

Action item: Godfrey Nowlan to respond directly to INHIGEO recommending that in the future their Newsletter be produced and distributed digitally.

Motion: Peter Bobrowsky moved to receive the PC Report; seconded by Mikhail Fedonkin; **unanimously approved.**

5. b. 3. Ad hoc Review Committees

Review of the IUGS Commission on Fossil Fuels (CFF)

Rapporteur Antonio Brambati began by remarking that from the report it is clear that the ARC did a very detailed work deeply discussing the main issues. At the beginning the Chair of the Committee summarised the Rules of Commissions and stressed that CFF has been part of IUGS for at least 17 years (as Advisory Committee before 1989; as Commission from 1989 to 1999; as Task Group from 2000 to 2004, and as Commission since 2004). Then the Chair of the Commission on Fossil Fuels was requested to present some issues concerning the activities; in particular to give information about the following items: (a) historical overview; (b) major accomplishments and problems; (c) financial overview on income and expenditures; (d) planned activities and preview on the future of CCF.

CFF: (1) serves IUGS as a vehicle to develop relationship among Industry, Academia and Governments; (2) serves IUGS to improve knowledge, on marginal areas with oil resources, and on the existence of unconventional hydrocarbon resources, averting ideas held by the public on peak oil; (3) helps industry, using geological knowledge, to prevent and change the negative outlook on oil exploration caused by groups (ecologists, etc.) without proper expertise; (4) is trying to contact African pressure groups to explain the present importance of agreements with transparency against past activities based on plunder. The CFF Geointelligence proposal has potential for many activities sponsored by IUGS. But on the specific field of Fossil Fuels, CFF analyses are built up on past data as they are released by the oil industry, when new data (not open to the public), and probably play a significant role in determining political outcomes.

After a deep discussion it was noticed that in order to achieve its goals CFF should be disseminating information throughout the world using its relationships with other organizations and through different kind of publications while CFF publications are restricted to a few technical papers. Moreover it was stressed the fact that many published data are just given to impress investors, and any analysis of them produces erroneous results and that Central Africa appears to be a target of convenience, but is too localized, and that a more global approach would be more convenient. The ARC arrived at several conclusions. Beyond the fact that several goals exposed by CFF are quite important, the ARC highlights that CFF:

- (1) CFF appears to be more political than scientific and concrete results on the listed goals are not clear, despite more than 15 years of work.
- (2) The CFF Geointelligence proposal has an important potential for many activities sponsored by IUGS. But on the specific field of Fossil Fuels, CFF analysis are build up on past data

as they are released by the oil industry, when new data -not open to the public-, probably play a significant role in determining political outcomes.

- (3) Has not been able to open its activities neither to other energy fields, as recommended by the 1999 ABRD review, nor to other geological issues.
- (4) Officers it is not clear that other CFF members listed in the Annual Reports have an effective participation in CFF activities;
- (5) Has not been able -as planned-, to develop working relationships with other IUGS bodies and other geological and non-geological organizations, and/or initiate an IGCP project. It has not been able either to expand to other world regions beyond central Africa.
- (6) Dissemination of results is almost non existent, and is mainly focused in methodology.
- (7) Didn't apply the suggestions of the 1998 Review Committee (ARC) that recommended above all, opening the activities to "energy".

Brambati indicated that on the basis of the conclusions it seems a reasonable consequence that the CFF should not go on longer and that the EC consider the possibility of establishing a new Commission open to new goals (i.e., energy, etc). Mikhail Fedonkin agreed with Brambati saying that the Commission did not really address any issues; there was a need to change focus from specifically oil to other fuel sources; change the direction and terminate the Committee.

Action item: Secretary General to contact Richard Sinding-Larsen and request a prompt reply (within the month) to the IUGS EC regarding the ARC report of CFF that was submitted in late 2006.

Review of the Systematic of Petrology (CSP)

The IUGS Executive Committee at its meeting in Punta Arenas (Chile), in January 2006 decided to review the CSP; Ryo Matsumoto and Eduardo de Mulder were asked to conduct this ARC. The ARC concluded that the work for the igneous and metamorphic rocks classification and nomenclature is practically completed and that other modes should be identified to conduct such work on sedimentary rocks. To that end IUGS should initiate discussions with its affiliated organizations IAS and SEPM. The CSP and its Sub-commissions should be complimented for their important achievements. After a lifetime of 36 or more years, the ARC sees no reasons for prolongation of the Commission's lifetime and proposes to close CSP either at the 33rd IGC in Oslo, or, in case CSP would be involved in a joint activity on sedimentary rocks, at the 34th IGC in Brisbane.

Motion: Peter Bobrowsky moved; Eldridge Moores seconded to close CSP and compliment the group on 36 years of substantial achievements; **unanimously approved.**

Review of Global Geochemical Baselines (TGGGB)

Eldridge Moores then announced that it was time to review the Task Group on Global Geochemical Baselines (TGGBG).

Motion: Eldridge Moores moved review TGGGB; Peter Bobrowsky seconded; **unanimously approved.**

Action item: Ryo Matsumoto to Chair and complete an ARC on TGGGB, together with Mikhail Fedonkin plus external person are part of the ARC before the next EC meeting.

Action item: Secretary General to approach TGGGB informing them that they will be reviewed by an IUGS ARC later this year. In preparation for this ARC, the TGGGB should prepare a summary report of their past activities, budgets, future long-term plans, etc.

5. b. 4. International Geological Congress (IGCC)

Minutes of last two meetings (April and November) were reviewed with no comments from the EC or observers.

5. c. Commissions

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

Rapporteur Sylvi Haldorsen noted that GEM promotes the development of environmental geoscience. The objective of GEM is to integrate geoscience into environmental policy. This includes communication with groups like policy makers, politicians, organisations, scientists and general public.

The work is truly international, and a large number of countries are involved. Many scientists from developing countries participate in GEM. The work clearly falls under the IUGS science policy, and is also very central for IYPE. The Commission has, therefore, also prepared for an active participation in IYPE and a broad presentation of papers in the 33rd IGC in Oslo in 2008. There is also a good collaboration with different other international organizations.

GEM has a central leadership, with 16 officers from 14 countries. The Commission has four Working Groups: Urban Geology, Geology and Ecosystems (has concluded its task and completed the monograph “Geology and Ecosystems” (Springer Publishing House)), International Borders – Geoenvironmental Concerns and Communicating Environmental Geoscience

GEM offers a variety of membership categories: Branch Members (US\$ 1000), Supporting Members (US\$ 500 for organizations and US\$ 50 for individuals) and Corresponding Members (free of charge).

Four meetings were arranged in 2006: The GEM Business Meeting (London, September) and three meetings of Working Group 4. Eight technical meetings are planned for 2007.

The website <http://www.lestari.ukm.my/iugsgem/> is the focus of all Working Group activities and from this site one can also load down GEM’s excellent newsletter GEM NEWS. The current website will be moved to Victoria University, Canada in 2007. A number of books related to Capacity Building Materials or containing scientific articles from meetings were published in 2006.

The work in 2007 will be a continuation of the activities in 2006, with focus on dissemination (publications, brochures, newsletters (GEM-News 7-10) etc.), stronger links to other international organisations and the first draft of an Urban Geoscience Book (Geol. Soc. London).

The Commission budget in 2006 was US\$ 75,000 of which US\$ 5000 was support from IUGS. The budget for 2007 is estimated to US\$ 74,000. It is a goal to become independent from IUGS by generating larger funding from other sources during the next five years. The request for support from IUGS for 2007 is US\$ 10,000. This is to be used for events that support the GeoUnions Initiative, International Year of the Planet Earth and other activities.

Overall evaluation: GEM is a very active Commission, and has a broad participation. The GEM Newsletter is an excellent publication. The Commission is one of IUGS' important meeting points with the outside community. Although the Commission has been very active to search for outside funding it is important that also IUGS contribute to its economy. A high funding is recommended. Arne Bjørlykke agreed that GEM was a fantastic organization.

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

Antonio Brambati reported that the International Commission on the History of Geological Sciences (INHIGEO) had another good year in 2006, as evidenced by publication productivity and hosting a highly successful meeting and associated field excursions in the Baltic States. The primary objective of the Commission on the History of Geological Sciences (INHIGEO) involves promoting studies in the history of geological disciplines. All the OBJECTIVES and STRATEGIES during 2006 have been met.

Publication productivity was high in 2006: the important volume stemming from the INHIGEO symposium on "Geological Travellers," held in Dublin (2003), will appear as a Special Publication edited by the Geological Society of London (GSL).

A number of papers presented at the 2006 INHIGEO meeting in Vilnius, will be part of a book on the history of geomorphology and Quaternary geology. INHIGEO members have also contributed to Episodes together with several papers submitted for publication. Editing of INHIGEO Newsletter No. 38 was distributed to approximately 200 members, representing 41 countries. A very relevant goal regards the Commission that gained eighteen new members, from fourteen different countries.

With regard to the annual meeting, in 2006, INHIGEO's venue was the Baltic States of Lithuania, Latvia, and Estonia; and there theme was "History of Quaternary Geology and Geomorphology". The talks on trips will be published in the upcoming articles in Episodes and in the INHIGEO Newsletter No. 39.

INHIGEO's annual meeting for 2007 will be hosted by the Jura Museum in Eichstätt, Bavaria (Germany), home of one of the famous skeletons of Archaeopteryx. The theme is "The Historical Relationship of Geology and Religion." At the 33rd International Geological Congress (IGC), the Commission plans to conduct a symposium on "The History of Exploration of Polar Regions." The focus will most likely be on the Arctic, but latitude exists for papers to treat Antarctic studies.

For 2009, Canadian colleagues are currently planning to host a meeting to be held in Calgary, Alberta and the Spanish colleagues have proposed an impressive opportunity for 2010, hosting a symposium on “History of Mineral Resources,” to be held in Madrid and Almadén. Laudable the promotional activity, diffusion of the information and above all the organization of field trips in famous historically areas under the geological point of view.

Peter Bobrowsky remarked that INHIGEO was an undervalued commission with a high output of outreach products, but cautioned that it is suffering a crisis: the Australian organization that supports INHIGEO can no longer subsidize the production of the Newsletter. Brambati noted a Financial Request of US\$ 6500 for Guidebook, Newsletter production, travel, etc.

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

Eldridge Moores reviewed Zhang Hongren’s report for the EC and observers. The website of CGI received 400,000 visitors in 2006. CGI now has 161 members in 50 countries across the world. In July, CGI organized a Pre-Outreach Workshop at the 21st Colloquium on Africa Geology in Maputo, Mozambique. The workshop was viewed by all as a successful event.

Notable progress has been made on the global data model and exchange language during 2006. The CGI Interoperability Working Group has been working on the development of an XML-based document format for the exchange of geology data. GeoSciML has been designed as an application language based on Geography Mark-up Language (GML). A test-bed was developed to demonstrate the feasibility and application of GeoSciML. The test-bed was described in a series of papers, demonstrated to hundreds of audiences, GeoSciML v2 is under development, and will be used in OneGeology.

CGI has bid for two sums of money in 2007: US\$ 5000 for publicity and communication material for GeoSciML; and US\$ 10,000 for preparation work in relation to the planned Outreach Workshop in Africa (Namibia) in 2008. Gabi Schneider mentioned planned CGI outreach activities and felt that money should be made available to them.

Peter Bobrowsky noted that when IUGS used to have a Grant Program, CGI received US\$ 10,000 for a workshop. He recommended send a strong letter of acknowledgement for their work. Bobrowsky also mentioned that the Geological Survey of Canada is also developing XML-GML-GIS systems. The development costs are phenomenal, and he wondered where CGI is going to get the money to continue their development. There is the need for feedback on how the money will be obtained. Bobrowsky also brought up the good work of Jean-Paul Cadet with CGMW; OneGeology is an IUGS event. The British Geological Survey will be touring to promote CGI, CGMW and IUGS (although it is not a BGS initiative).

Arne Bjørlykke cautioned that the data used is owned by the 20-odd Geological Surveys and measures must be taken to protect the surveys. They must have some influence on how data is used and applied. Neil Williams emphasised that Geological Surveys are custodians of the data. GML is an exciting development and a common language is an important development for the geological community in the 21st Century. Gabi Schneider agreed with Bjørlykke: Geological Surveys have to be acknowledged. IUGS and the BGS must put more money into CGI and their important role should be properly acknowledged. Everyone needs to get credit: state and provincial surveys, industry and universities, concluded Eldridge Moores.

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

Rapporteur Mikhail Fedonkin told the EC that the leaders of the ICS prepared a detailed report (177 pages) that summarized the current goals and activities of the Commission and its 15 Sub-commissions; plans and budget for 2007; a multi-year overview of achievements and future goals; as well as an updated list of officers and detailed reports of all ICS Sub-commissions; an Appendix of ICS-sponsored Symposia and other activities for the 33rd IGC. The report was supplemented by a separate attachment with the latest version of the International Stratigraphic Chart.

The key issues that were discussed in 2006 by the ICS are as follows: the distinct role of a Bureau of Standards (preservation of GSSPs and other stratotypes, intra-stage standardization); councillors for regional contacts, coordination with INQUA, IODP, and the radiogenic isotope (EarthTime) community; collaboration with national Geologic Surveys, Industry, BRGM and Geology Sections in Academies of Sciences and the IYPY; favoured and distinct status for two magazines (Episodes and Stratigraphy); the founding of an “International Association of Stratigraphic Geologists” that would have a complementary role to ICS in Earth history activities and promotion. ICS interfaces with many international organizations; however, the truly working contact with national stratigraphic committees has yet to be established.

Among the major achievements the ICS report is the ongoing standardization of the International Chronostratigraphic Scale (in particular, approval and ratification of the GSSPs for the Serravalian, Toarcian, Middle Ordovician, 6th stage (Drumian) of Cambrian). Fedonkin also noted the request of Executive ratification of the Servallian. On the basis of the information provided by the ICS leaders, Fedonkin moved to ratify the base of the Servallian Stage; Gabi Schneider seconded the motion. After some off-the-record discussion, it was agreed to re-table this motion during the *in camera* session. ICS actively supports the Orbital Tuning stratigraphy that is unfolding now for the most of the Cenozoic and Mesozoic deposits. In addition to ICS publications, a stratigraphic information system is developing on the Web, for instance, ICS main site: <http://www.stratigraphy.org> and two database networks Chronos: www.chronos.org and PaleoStrat: www.paleostrat.org

ICS indicates problems encountered in 2006, such as low funding, asymmetric orientation towards developed, ‘western’ universities and surveys, retired status of many ICS officers and related financial problems, slowdown progress on GSSP selection in some ICS Sub-commissions, “misunderstandings” of the global GSSP concept (versus the regional unit stratotype concept) by part of the stratigraphic community. Of no less importance in terms of the ICS methodology and strategy are the reported working problems experienced by the most of the ICS Sub-commissions. This experience deserves a separate analysis.

ICS requested U\$45,000 from the IUGS that would be the same level of funding as in 2003 and 2004. During spring of 2005, the IUGS Ad-hoc Review Committee analyzed the ICS activities over a long period of time and made a number of specific recommendations.

***In camera* discussion**

Eldridge Moores opened by mentioning that he had talked to the ICS Vice-Chair about being left in the dark by Felix Gradstein; the Sub-commissions were also left in the dark. Moores expressed deep concerns about Gradstein and strongly recommended suspending support until their problems were resolved and to send a message to ICS expressing the need to be more

Sub-commission-biased. The Sub-commissions should be directly informed of the problems IUGS is encountering.

Antonio Brambati agreed with Moores and mentioned a letter drafted by Zhang Hongren listing the problems and clearly stating the position that IUGS did not agree with Felix Gradstein's management of ICS. Brambati thought Gradstein should resign. Eduardo de Mulder concurred and suggested tabling an amount of money (US\$ 30,000) which ICS will receive after IUGS has a response. If this is not acceptable, then no money would be given. However, there had to be some delicacy in how this matter is handled because ultimately it will be the scientists and their projects that would suffer.

Action item: Zhang Hongren should send his letter to ICS officers (all sub-commissions) and pending their reply a decision regarding financial support will then follow.

Action item: Eldridge Moores will edit the Zhang Hongren letter to be sent to ICS.

There would be no vote on ratification of the Serravallian until the matter of the ICS management was resolved.

5. c. 5. Systematics in Petrology (CSP)

Ryo Matsumoto reported that an Ad hoc Review of the CSP was conducted with Eduardo de Mulder, himself and Board members of the Commission, Guilano Bellieni (Chairman) and Raffaele Sassi (Secretary-General) on October 12, 2006 at the University of Padova, Italy. Base on the Commission report for the last 8 years, Matsumoto and de Mulder interviewed the board in person. The ARC concluded that the work for the igneous and metamorphic rocks classification and nomenclature is practically completed and that other modes should be identified to conduct such work on sedimentary rocks. The CSP and its Sub-commissions should be complimented for their important achievements.

After a lifetime of 36 or more years, the ARC sees no reasons for prolongation of the Commission's lifetime and proposes to close CSP either at the 33rd IGC in Oslo, or, in case CSP would be involved in a joint activity on sedimentary rocks, at the 34th IGC in Brisbane. The group is requesting US\$ 2000 for 2007.

Motion: Ryo Matsumoto moved and Eldridge Moores seconded to close the CSP by IGC 33 and to outsource the remaining activities of the CSP; and compliment the CSP on their work on the systematics of sedimentary, igneous and metamorphic petrology. **Unanimously approved**

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

Rapporteur Marta Mantovani and the Secretariat noted that, as of 8 January 2007, SECE had submitted no report for 2005 and 2006. Sylvi Haldorsen remarked that she had contacted SECE but had no response; adding that there was no apparent activity over the past two years. She wondered whether IUGS has the power to stop a commission between IGCs. Eduardo de Mulder and Eldridge Moores saw no immediate need for action; suggesting that the Council should act and proposed SECE be closed by IGC 33. Alberto Riccardi added that there was no financial support in 2005.

Peter Bobrowsky said that IUGS can act between IGCs, adding that SECE started out well but has not been acting lately so it should be closed. He suggested writing a letter to Council motioning to terminate the Commission. Eduardo de Mulder liked the idea to send a letter (electronically) to Council recommending that SECE be closed by IGC 33 (this is unless they are doing work and have not had time to submit their reports). Haldorsen asked to have the Statutes and Byelaws checked regarding this action.

Motion: Bobrowsky moved that IUGS write a letter of concern informing SECE that the EC is recommending termination of Commission by the Council if they do not improve their performance; Haldorsen seconded; **unanimously passed.**

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

Gabi Schneider reported that in 2006 COGE discussed its options for supporting groups who were looking to undertake activities for IYPE. It decided that it would undertake two specific tasks. The Commission would support the International Earth Science Olympiad (IESO) by providing the ISEO organizing committee (Korea) a letter of support from the Commission if requested to assist them to obtain additional funding and support from IUGS/IYPE. The Commission will support the Earth Science Education Unit (ESEU) (United Kingdom) to undertake the IYPE Teacher Education Project.

The Commission worked with the International Geoscience Education Organisation (IGEO) to undertake a survey of the status of Earth science education in schools internationally. Twenty countries responded and the data is being collated. The preliminary survey results were discussed, and the project leader, Dr Ian Clark (Australia), will incorporate the final country data (India, USA) and prepare the research for publication. IGEO will look to publish the results in IUGS Episodes. The final report was due to the Commission by the end of 2006.

The Commission was very pleased with the initial development of the COGE website by Greg McNamara (Australia). The call has been put out for Commissioners to feed McNamara with designated links and information to continue to keep the site updated.

The Commission considered a number of options to increase its work in training and technology transfer into developing countries. It will continue to seek and invite people with expertise in this area to join the Commission. One program discussed at length was the development of teachers in developing countries identified in the IGEO survey. The ESEU program, which the Commission would support for the IYPE, is looking to diversify into the training of teachers and the transfer of Earth systems science concepts into schools in developing counties identified by the IGEO survey. Countries identified include: South Africa, Philippines, Trinidad and Indonesia. The Commission will also post international training and technology transfer opportunities, like short courses and technical training, on its website.

The Commission seeks US\$ 5000 from IUGS to operate its programs during the 2007. These funds will be used toward: Maintenance and continued development of the website for IYPE (US\$ 2000); Seed funding for ESEU teacher development program (US\$ 2000); Conference phone calls, postage and materials (\$1000). Schneider recommended supporting COGE's request.

Peter Bobrowsky likes the group: they fill a gap, working with IGEO and promoting IUGS. He recommended sending a note of appreciation for putting IUGS on the map.

Action item: Secretary General to send a note of appreciation to COGE for putting IUGS on the map.

5. c. 8. Fossil Fuels (CFF)

Rapporteur Mikhail Fedonkin noted that current membership of the CFF represents more than 30 countries with a strong fuel sector or with potentially high fuel resources. During 2005-2006 the membership from Bolivia, Madagascar, Sao Tome, Timor Leste, Vietnam and Zambia was added.

The CFF was able to demonstrate effectiveness of the Internet tools in the study of the published information concerning the fuel resources of some regions. Regional resource assessment and collaboration regarding sustainable resource management are believed to be a firm ground for negotiations between the sides of the potential or developing conflicts in the socially unstable regions. The study via geointelligence technique was focused on central African rift and the Okavango Basin and Karoo basins in Zambia. A report Desk Study of the Petroleum Potential in Zambia that has been prepared by R. Sinding-Larsen (2006) for the CFF could be considered as a case study but was unavailable for the commentator. A Web Portal was constructed where geoscientists from current and potential IUGS member countries can learn how to use this technique (<http://www.geointelligence.org>).

In support of the International Year of Planet Earth, the CFF prepared in 2006 a provisional brochure on the resources (<http://www.esfs.org/downloads/Resources.pdf>). Preparation for the 2nd Central African Rift Petroleum Resources and Regional Governance seminar with invited representatives from mining and oil directorates in Chad, Niger and Sudan was an important part of the CFF activity on 2006. The CFF Annual Report contains detailed plan for the next 5 years. In order to facilitate the participation of scientists from the less developed countries in the CFF activity planned for 2007, the Commission requests \$5000 of seed money from IUGS.

A detailed review of the CFF long term activity was recently undertaken by an IUGS Ad-hoc Review Committee (ARC) including Alberto Riccardi, Antonio Brambati and Jean-Paul Cadet on 22nd November 2006 in Paris. Peter Bobrowsky wanted to hear Fedonkin's point-of-view; Fedonkin replied that he wanted to terminate the Commission. Eduardo de Mulder was surprised the ARC did not give recommendations. Antonio Brambati remarked that the ARC report was mostly negative comments; he felt it best to leave it to the EC to make conclusions. As it stands, CFF is more political than scientific, using Web-based information of dubious quality. It has also failed to examine fossil fuels other than oil. Sylvi Haldorsen was alarmed that this was the second Commission that has not been productive. In the Mid-Term Vision it was recommended the number of Commissions be reduced. Since the tasks of the CFF are not completed, Haldorsen suggested the IUGS try to terminate the Commission.

Eduardo de Mulder asked if Richard Sinding-Larsen had seen the ARC report. Fedonkin and Brambati replied that he has seen a synthesis of the report. To reiterate, the main findings were that CFF was too political, had not opened reviews of other fossil fuel sources, and did not engage other IUGS groups. The conclusion of the ARC was to stop funding activity.

Arne Bjørlykke suggested that it was not too urgent to close down the Commission before IGC 33. To the contrary, Bobrowsky recommended action sooner, but following the Statutes and Byelaws. IUGS does not wish to burden the IGC by closing the Commission at that time. It was better to close the Commission between now and the IGC and vote on the matter electronically. Bjørlykke did not agree on the matter of urgency and suggested continuing the discussion later in the meeting.

Action item: Peter Bobrowsky to write Richard Sinding-Larsen regarding the ARC Report

5. d. Task Groups

5. d. 1. Isotopes and Geochronology (TGIG)

Rapporteur Mikhail Fedonkin commented that the IUGS Task Group on Isotopes and Geochronology, jointly with one of the ICSU scientific Unions: International Union of Pure and Applied Chemistry (IUPAC, see info at http://www.iupac.org/index_to.html), has an objective to update and harmonize recommendations based on a critical re-evaluation of data on half-lives and decay schemes of long-lived radioactive nuclides used by the geological and planetary science communities. The initial stage of the work during 2006-2008 should focus on nine nuclides (^{40}K , ^{87}Rb , ^{138}La , ^{147}Sm , ^{176}Lu , ^{187}Re , ^{232}Th , ^{235}U , ^{238}U). Short message received by the IUGS Secretariat from the member of the Task Group does not expose the progress in detail but the notion on established collaboration with the IUPAC and on obtained funding for the first meeting in Fall, 2007.

5. d. 2. Global Geochemical Baselines (TGGGB)

Rapporteur Sylvi Haldorsen identified the main objectives of the Task Group on Global Geochemical Baselines as to prepare a global geochemical database in order to give baseline data as a background to understand the natural quality of soils and identify long-term human pollution. It also aims to produce maps based on these data and document the concentration and distribution of chemical elements and species in the Earth's near surface. These objectives fit well with the policy of IUGS as well as that of IYPE. The work is a truly international collaboration, with clear goals within an important research area.

The task group is led by a steering committee consisting of 10 persons, all of them from Europe, except for one representative from Canada. TGGGB has been active in 2007, 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>).

The task group has an excellent interface with other relevant international projects. However, except for IAEA, all these are European bodies. One may hope that also African scientists will join the group. However, there is a main problem with the lack of economical support and staff capacity.

The most important result in 2006 is that the Geochemical Atlas of Europe was completed. Part 1 was published in 2005, while "Part 2: Interpretation of Geochemical Maps, Additional Tables, Figures, and Related Publications" was finished in 2006 and is available in both

printed and electronic versions (<http://www.gsfi/publ/foregsatlas>). In addition to this, also a series of publications have been produced in 2006 and many oral lectures have been presented.

IUGS provides nominal seed money, while the most important contribution is from European National Geological Surveys and other national institutions, which have provided staff time and support to complete the work with the Atlas. The task group is now advertising this complete product as widely as possible, and one important factor for the distribution is that it can be loaded down for free from the website.

The plan for 2007 includes: Revision of the Geochemical Mapping Field Manual from 1998; Participation by more countries from outside Europe as observers; Collaboration with the Joint Research Center, Ispra, Italy; and, Seminars for young geochemists

The request for 2006 from IUGS was US\$ 20,000; funding in 2006 was US\$ 1500, which has been kept for future small promotional activities. Any support from IUGS towards the advancement of this project in developing countries is welcome. For 2007 IUGS is also asked to fund the following items: 1) Seed money for promotional purposes; 2) Supply of addresses of all Geological Surveys in the world; 3) Designing an Internet section dedicated to the project within the IUGS website in collaboration with the IUGS Webmaster

A general evaluation was provided by Haldorsen: this task group is very active, and has produced good and important results. It also seems to be well organised, and it has a good collaboration with important governmental and international agencies. The plans for the future seem realistic, based on what is achieved so far. The task group should be given a high support.

Eduardo de Mulder remarked that this activity has been on-going for a long time and wondered when it would be completed. Peter Bobrowsky complimented TGGGB on their great work. He noted that every year they ask for US\$ 20,000 and every year IUGS gives them US\$ 1500. The group should not be punished and neither was he recommending closing or offering more funding. He did see the need for more discussion time. Haldorsen reiterated that high funding was recommended: this was a group that makes IUGS known amongst geochemists.

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

Rapporteur Marta Mantanovi complimented TecTask on their accomplishments, including the First Field workshop held at Cap de Creus, Spain; expansion and maintenance of the website and the continuous growth of our Internet platform; and an arrangement to publish activities of TecTask in the Journal of Structural Geology in order to reach a larger public.

Meetings and short courses included: a Special session on “Microtectonics” at the 27th Nordic Geological Winter Meeting, Oulu (Finland); A short course in “Brittle tectonics” was given in Oulu, Finland; A short course in Microtectonics took place in April 2006 in Mainz. A Marie Curie Summer School was held in August 2006 on “Composite and Polyphase Materials” in Sweden by Jessell and Bons. A short course on the geological analysis of Regional Geophysical Data was organised for 25 staff, students and industry members at the University of Ouagadougou, Burkina Faso, in December 2006.

Presentation of TecTask to the public included the ISES meeting December 2005 in San Francisco; 21st Colloque de Géologie Africanise in Maputo Mozambique; GSA Annual Meeting 2006 Philadelphia; 27th Nordic Meeting January 2006 in Oulu; IUGP 485 meeting in Alger in December 2006; 6th Gordon Conference on Rock Deformation in Big Sky, Montana, in September 2006

Two scholarships each of 500 Euros were made available to support TecTask members who are graduate students, post-docs or researchers from developing countries to assist them in attending the 6th Gordon Conference on Rock Deformation in September 2006; another scholarship in the amount of Euro 1000 was provided for TecTask's field workshop held in Spain in participation support of graduate and postgraduate students from developing countries. TecTask requested of EU5000 for 2007.

Eldridge Moores asked whether IUGS should consider their financial request; yes, Mantovani replied. Peter Bobrowsky noted that this was very active group and supported the request, wanted to know if the request was in Euros or Dollars; Tectask received US\$ 5000 last year but this request was in Euros. Mantovani checked their report and confirmed their request was in Euros. Moores recommended accepting the TecTask report.

5. d. 4. IUGS-IGC Statutes

Eldridge Moores transferred the Chair of the meeting to Vice President Sylvi Haldorsen so that he could present the issue to the EC.

Following on recommendations by the Council at IGC 32, a Statutes/Byelaws Task Group with representatives from IUGS and IGC and a chair not connected to either organization was commissioned to merge, modernize, simplify and make efficient the States and Byelaws of both organizations. Eldridge Moores reminded all that the revised Statutes and Byelaws were gone through in detail at the 56th EC meeting in Punta Arenas. Most were similar and approved in principle by the IUGS. They were not approved by the IGCC and Bureau was then asked to separate the two documents to produce a set for IUGS and a set for IGC. Minor changes are still coming in from Wolfgang Eder and Alberto Riccardi. The main issue is whether the EC wants a separates Statutes and Byelaws or one document as approved at EC56.

Eduardo de Mulder was not happy with Statutes as they were and would like to see one set covering both IGC and IUGS. The current situation is not in the spirit of that was proposed at IGC 32. The Council in Oslo will have problems with the document as it stands when it comes to voting. Peter Bobrowsky commented on the remarkable job of merging two documents into one, then splitting the resulting document in two again. He was wary about voting on the tabled document because it is different from the latest version. He would only vote on the final document since wording changes may be significant.

Arne Bjørlykke cautioned the EC that the mission was to streamline and not to introduce new items. The IUGS Bureau should take care of things related to IGC. Bjørlykke did not like much that was written in the Statutes and Byelaws, remarking that there was too much emphasis on Congress matters related to IUGS. He got the impression from reading the tabled Statutes and Byelaws that IUGS is superior to the Congress. It was clear that IGC and IUGS had different visions. However, IUGS reports to IGC and then to the IGCC. The IGC Statutes can be accepted. Bjørlykke said that the IGCC will meet before Oslo and will make representations and recommendations to Council.

Moore's reminded Bjørlykke that he was at their last meeting and everything was discussed with unanimous consensus. The EC had to decide whether to vote on the revised document now or wait until the IGC Council Meeting in 2008. If voting is at Oslo, then Moore's fears too much time will be absorbed in discussion of this matter, deflecting from other issues and topics of interest.

Antonio Brambati recommended voting to show approval; the Council at Oslo will need to know the opinion of the EC and the philosophy of merging the documents. The main aim is to make the two sets of Statutes compatible; the identities of IGC and IUGS must be preserved, but they should at least be compatible. Brambati stressed the Commission did much work to reach a general consensus.

Eduardo de Mulder agreed with Arne Bjørlykke: the aim of the Commission was to streamline; the current document will not satisfy the Council. He added that this did not mean the two organizations had to merge. Bjørlykke said that de Mulder was correct, and added that there needed to be a Policy and Strategic Document that explains how to develop a document for Council to make decisions on merging and streamlining.

Peter Bobrowsky reminded everyone that until Oslo, the IUGS would function with the modified Statutes and Byelaws approved at Florence. The EC agreed in principle that the Councils would vote on the IUGS version of streamlining, and we agreed to table a document for Council to vote on. Electronic voting was a streamlining measure not used to its maximum effect.

Moore's reiterated the need for action to approve, in principle, the document with minor changes, stressing that it was incumbent that Council had to agree. The principal forum of the IUGS is the IGC; and the Union has a right to income from the IGC. The principles of the new document do not need to be changed, but the wording may need to be revised.

Neil Williams was interested in the success of IGC 2012 in Brisbane and learning what makes a successful IGC. Williams felt that the two organizations could not be brought together by simply merging both Statutes and Byelaws. There was a need to have a vision for the future of the new body; a strategic overview was needed that could be taken to Oslo for discussion. Bjørlykke stressed that he had to be part of the discussions at the IGCC; and that the Council has to get the recommendations of the EC before voting takes place.

Sylvi Haldorsen questioned whether or not the new version is what IUGS was asked to do, reminding everyone that the EC did, in principle, approve the revised, merged Statutes and Byelaws last year in Punta Arenas. Haldorsen saw the need to ask IGC what it wanted. Gabi Schneider, Ryo Matsumoto and Peter Bobrowsky said that EC has a mandate and it has to act. Matsumoto recommended improving the wording, but maintaining the thrust of the document and suggested taking the matter up at EC 58. Marta Mantovani and Mikhail Fedonkin recommended approving the new document in principle, and then there would be time to modify and change the document before IGC 2008. Refining of the final document could be done by email before Oslo.

Brambati agreed with the Councillors and Vice Presidents: approve and improve; improve the wording, but not change the meaning or implications of the Statutes and Byelaws. Bobrowsky agreed in principle to accept the new document; an effort had been made to streamline the

document. He was not as concerned about strategic visions at this point as it was another mission. Bobrowsky suggested the EC prepare a version of the Statutes and Byelaws to vote on, and approve in principle.

Eduardo de Mulder pointed out that the IUGS Mid-Term Vision document sets out the approved future: this should be the baseline. He cautioned against “approve and improve;” it was not the way to operate on this issue. A re-think of the document was necessary to check if the product is in keeping with the Mid-Term Vision. The Council will not be happy; IUGS and IGC need one set of Statutes and Byelaws. Remembering the chaos at IGC32, de Mulder cautioned that communications cannot be simply done electronically: face-to-face discussions are also necessary.

Motion: Eldridge Moores moved that the EC approve, in principle, the final revised document of the Statutes and Byelaws of the IUGS and IGC prepared by the Task Group, with the final voting to be done electronically; Antonio Brambati seconded the motion; **unanimously approved.**

5. d. 5. Task Group on Membership and Promoting IUGS

Rapporteur Antonio Brambati noted that at EC 56, the membership issue was discussed; in particular how to improve and get a more active membership. Brambati worked with Mikhail Fedonkin, Marta Mantovani, Anne Liinamaa-Dehls and Godfrey Nowlan on this Task Group.

Brambati showed a PowerPoint Presentation and graph to distinguish countries that match membership level with GDP and those that could upgrade their membership in relation to gross domestic product. He recommended complimenting those countries that pay their due amount and contacting those that do not pay up to an adequate level. In the presentation, Brambati also pointed out that some Category 1, 2 and 3 countries could upgrade their membership and should be encouraged to do so.

Nowlan suggested membership for individuals (“Patrons” of IUGS), with benefits including subscription to Episodes online, receiving IUGS Bulletins, a Certificate of Membership, special membership access to the Website, GSL links and a 40% discount on GSL books. He advocated the need to create ways to involve individuals in IUGS. However, decisions had to be made from a practical point of view.

Eduardo de Mulder complimented their work too, but cautioned on individual membership: IUGS is an ICSU union – a condition of funding is that there is no individual membership. Nations hesitate to pay their dues if there are individuals paying membership. Fundamentally, countries will only pay IUGS if it is seen as a relevant and important organization (cf. IGC). If IUGS has a higher profile, then countries would probably pay more. Arne Bjørlykke had a short comment about how the IGC is structured: it is a not-for-profit organization. For the Oslo Meeting, 50% of the income will come from membership fees. Alik Ismail-Zadeh added that there was no individual membership in the IUGG.

Liinamaa-Dehls noted that the Statutes allow for individual membership. Eldridge Moores read from the Statutes and Byelaws and cautioned that there was a need to look closely at this issue. He added that IUGG looks at the financial position of countries and suggests what they should pay. Peter Bobrowsky also appreciated the work of the Task Group, stressing the need

for an action item regarding membership categories; previous attempts have failed. Brambati said that a letter should stress justifications for the increase. Bobrowsky also saw the big problems regarding the individual membership solution. Some creative thinking was a need to accommodate the ISCU restriction. It was not so much a matter of raising more money through increased membership, rather it is about getting more people interested in IUGS and to increase the community of the Union.

Action item: Secretary General to approach individual countries and ask if they are willing to increase their membership fees based on the GDP.

Action item: Godfrey Nowlan to examine the issue of individual memberships and table a document for discussion by the Bureau outlining possible solutions and options.

5. d. 6. Task Group on Under-Represented Groups

Sylvi Haldorsen reported that all IUGS bodies were examined and broken down by under-represented groups. None of the leaders were under 35-years of age. The least representation was from Africa, China, Asian and Japan. Australia and Latin America were also low. Haldorsen suggested the way to proceed was not to make decisions based on gender, but on abilities.

Regional representation in the leadership of IUGS Bodies							
	Africa	Asia	Australia/ New Zealand	Latin America	North America	Eastern Europe	Western Europe
IUGS' own bodies Total representation 147 (13 women)	8	16 China 9 Japan 6	6	4	35	5 all from Russia	73
IGCP-projects 447-523 (-2006) (Total 40 projects) 155 (15 women (8 after IGCP 512))	7	37 China 14, Japan 6, Turkey 6, India 5	12	17 Argentina 6, Brazil 5	21 USA 11 Canada 10	6	55 UK 15, France 7, Germany 7, Norden 7
IYPE Advisory Board 43 (5 women) (Women 5)	3	7	2	1	7 Canada 1	1	22
Total representation 345 (26 women 7.5%)	18 (5.2%)	60 (17.4 %)	20 (5.8%)	22 (6.4 %)	63 (18.3%)	12 (3.5%)	150 (43.6)

Eldridge Moores hoped to see a complete report sent to everyone. Peter Bobrowsky noted that the emphasis was on women geoscientists; other under-represented groups were not considered: e.g., visible minorities, disabled people. Moores added that minorities are an essential category that is poorly represented in geology.

Motion: Peter Bobrowsky moved to accept the Task Group report; Gabi Schneider seconded; **unanimously approved.**

5. d. 7. Task Groups on IGC

Peter Bobrowsky and Sylvi Haldorsen suggested that new task groups were required to address IGC matters. Some concerns were raised that chairs and people to populate the task groups would be required. Also, the Secretariat needed to provide the EC with basic data. Bobrowsky recommended that the new Councillors be involved. Two Task Groups were envisioned:

Task Group 1: on general IGC matters; comprising Peter Bobrowsky, Mikhail Fedonkin, Marta Mantovani, Ryo Matsumoto and the Permanent Secretariat.

Task Group 2: on developing a vision and strategic positions; with Eldridge Moores, Gabi Schneider, Neil Williams and representatives from the IUGG and Commissions

5. e. Initiatives

5. e. 1. GeoHeritage

Peter Bobrowsky opened by stating IUGS supports the concept of GeoHeritage and it was involved in a number of issues. He pointed out that the GeoHeritage Secretariat is in Beijing, China (the old GEOSEE office); and that Antonio Brambati represents IUGS in EuroGeoparks. In this capacity, Brambati was invited to visit a Geopark in China that was found wanting more science and educational content.

The 2006 Geoparks Symposium in Jiaozuo raised global public awareness of the significance and importance of geology for geoscientist and the general public. The importance of conserving geological heritage for its own sake was acknowledged because it does have economic, environmental and cultural value. All symposium attendees were encouraged to “spread the word” about the Geopark Network, both within and outside the geosciences. This success cannot be left to the geoscientists alone; there is clearly a need for site interpreters, media involvement and closer links to initiatives from the Division of Ecological and Earth Sciences (DEESc) of UNESCO and to the International Year of Planet Earth in 2008.

Geoparks have a role to play in counteracting the decline in interest in geosciences for students. Geopark management must acknowledge and cater for the different users of the parks, to ensure that there is appropriate access to geological sites for professional and practicing geologists as well as for visitors. Their needs are significantly different. Geopark interpretive materials (maps, signs, trails, brochures, etc) need to be improved to include geological information in an engaging way as well as good pictures and diagrams to facilitate the learning process for non-geoscientists. The development, sustainable and appropriate management of Geoparks should form part of a larger global move towards environmental and cultural awareness and sensitivity to the whole of society’s role in the planet earth. There is a real sense that the time is right for Geoparks, and delegates were encouraged to use the Geopark Network guidelines for the development of existing and proposed Geoparks.

Bobrowsky noted that there were three sessions at IGC 33 related to GeoHeritage. IUGS has also signed a MoU with IUCN to evaluate new GeoHeritage proposals. IUCN will send a new list of sites (20) and IUGS has to provide a technical report. IUGS readers are only one group

of 10 sets of reviewers; with one leader reviewing the reviews. Bobrowsky recommended compiling a list of evaluators by asking through the E-bulletin. This process will help IUGS do a better job for IUCN. Gabi Schneider asked for clarification on the relationship between IUGS and IUCN and wondered whether the World Heritage Commission was involved. Bobrowsky replied that IUCN is using IUGS technical expertise on geoscience matters.

Action item: Secretary General to distribute a copy of the IUGS agreement with IUCN to the entire EC.

Robert Missotten feels that UNESCO-IUGS cooperation is now more structured. The Geopark Guidelines were redrafted after the 2006 Belfast Meeting, and Missotten thought the IUGS should be aware of the changes (that included simplified procedures). With more than 50 Geoparks, there is now the need to study costs and benefits. Bobrowsky asked whether the new guidelines were online. Missotten answered that the last revisions were just approved and recommended that each EC member download them from the UNESCO Website.

5. e. 2. State of the Art of Geology

Peter Bobrowsky reported that a large number of reports were compiled and efforts were now directed to summarizing them. Robert Missotten complimented the Geological Survey of Canada for offering to produce a Strategic Vision on Geoscience. Richard Grieve was tasked to do this; and Missotten asked whether the two documents were complementary. Neil Williams was in philosophic disagreement with what Richard Grieve had to do since the task was meaningless at some levels. The Academy of Science in Australia has already produced a similar State-of-the Art report. Bobrowsky hoped the document might prompt nations to look at the state of the geosciences in other countries.

5. f. Affiliated Organizations

With the recent Council ratification of ProGeo and DOSSEC, IUGS has 41 affiliated organizations; pending ratification are IMGA, AAWG, and NWGA. INQUA has now moved from an IUGS affiliated organization to become sister GeoUnion (ICSU Scientific Union).

5. f. 1. AAG (Association of Applied Geochemists)

Eldridge Moores reported that the Association of Applied Geochemists was founded in 1970 as the Association of Exploration Geochemists (AEG) and changed its name to the Association of Applied Geochemists in 2004. It has an active membership about 600. In May 2006, AAG convened a workshop on recent advances in exploration geochemistry at the SEG biennial conference held in Keystone, Colorado. AAG also sponsored an annual Distinguished Lecturer Series. The AAG is continuing preparation its biennial Symposium in Oviedo, Spain in June 2007. The Association sponsors the Publication of the Journal Geochemistry: Exploration, Environment, Analysis, the newsletter EXPLORE, and supports a Website.

5. f. 2. AAPG (American Association of Petroleum Geologists)

Marta Mantovani said that IUGS received a short (1 page) report. The number of members in 2006 had risen in comparison with 2005, although the % increase is not quantified. Meetings included the highest attendances at the Annual Meeting (Houston) in the last 20 years and the International Convention (Perth). AAPG is also in partnership with NAPE and APPEX. In

2006 there were 10 Special Publications. Milestones included the 5-year Business Plan for Committees, Regions and Sections; AAPG opened the European London Office; and new products and services (digital archives) were started. Eldridge Moores mentioned that the AAPG awarded him for debunking Michael Crichton's book "Global Warming: a State of Fear." Eduardo de Mulder reminded the EC and observers the AAPG is a founding member of IYPE.

5. f. 3. AEGS (Association of European Geological Societies)

Eldridge Moores discussed a brief report AEGS. This organization's main mission is to strengthen the geological societies of Europe by periodic meetings. These all-AEGS meetings are every two years, with its Executive Committee meeting yearly. The association currently has 30 members from 29 countries. In 2006, the Executive Committee meeting was in Tallinn, Estonia. The next (15th) AEGS meeting will be in Tallinn in September, 2007. The focus will be on trans-European cooperation and societal needs, particularly on mineral and energy resources. The 16th meeting will be in 2009 in Romania, with a planned focus on "Geology Today—education, science, application". A medal, the Percival Allen medal was initiated to be awarded biennially to a geoscientist for outstanding achievements in the field of international relations in Earth Sciences. Peter Bobrowsky added that AEGS was small but influential group and an important Affiliate of IUGS. He recommended strengthening ties with AEGS.

Action item: The Secretary General to contact AEGS (Association of European Geological Societies) and tell them to enhance contact with IGEO and IYPE.

5. f. 4. AGA (Arab Geologist Association)

Marta Mantovani noted that there was no AGA report as of mid January 2007. There are major political complications surrounding this group, with rivalry between factions vying for power. It was noted that Zhang Hongren went to their annual meeting.

Action item: Zhang Hongren to write a carefully worded letter to the conflicting bodies in he AGA (Arab Geologists Association) to obtain clarification about their association.

5. f. 5. AGI (American Geological Institute)

Eldridge Moores reported that the American Geological Institute is a not-for-profit federation of 44 geoscientific and professional societies representing more than 100,000 geologists, geophysicists, and other earth scientists. AGI reported the tragic death of long-time Senior Advisor and Executive Director Dr. Marcus E. Milling from cancer. Continuing efforts in Earth science education include field testing of a high school Environmental Science textbook, co-development with TERC of Cambridge MA, a website supporting middle school (years 6-8) teachers of Earth science, a national training course for K-5 teachers, and an online resource for K-5 teachers. AGI has lobbied vigorously with the US Government agencies and Congress for support for research and science education programs, for support for the U.S. Geological Survey, and it has participated in the Congressional Hazards Caucus Alliance to enhance Congressional understanding of hazards risk and mitigation. AGI's geoscience database Georef has reached 2.8 million references to become the world's largest and most comprehensive geoscience. AGI also participates in GeoScience World (GSW), an integrated system of dozens of journals and GeoRef. The fifth edition of the Glossary of Geology

(40,000 terms) is available online, including Spanish equivalents for many terms. AGI participates as a member of the IUGS CGI Working Group for the Multilingual Thesaurus of Geosciences. AGI also organized the ninth annual Earth Science Week (in October) together with the USGS, NASA, NOAA, IRIS, the AAPG Foundation, and the National Park Service. Peter Bobrowsky added that AGI is a portal into the international scene and does not cost IUGS anything.

5. f. 6. AGID (Association of Geoscientists for International Development)

Rapporteur Gabi Schneider noted their Annual Report arrived late. Membership had declined despite a number of activities taking place in 2006. Their website is hosted by the British Geological Survey. AGID is involved in outreach for IYPE. There was no request for funding. Bobrowsky complimented AGID, and added that although they get support from influential players, they do lot with little

Action item: Secretary General to contact AGID and ensure that they do not want money for 2007.

5. f. 7. AGU (American Geophysical Union)

Moore had no report to present, but noted that their contact Fred Spilhaus had been ill. AGU is a large organization that is always growing. It is a global player and did not ask for money. Godfrey Nowlan commended the AGU for supporting the 2006 Publications Committee Meeting in Washington, D.C.

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

Sylvi Haldorsen reported that 2006 was a gap year for AIPEA, so it was not very active. The AIPEA Secretary General experienced great difficulty in obtaining annual reports from member societies, and therefore no special annual report was produced for 2006. The number of clay mineral scientists is falling worldwide, which makes it more difficult to expand the activity of the association. Plans for 2007 include the following activities: a) encouraging new national clay societies, particularly in Asia; b) stronger relation to clay minerals industry; c) continuation of the AIPEA Educational and Nomenclature Committee; and d) improvement of the AIPEA web site and list server. The primary product in 2007 will be the biannual meeting with the European Clay Groups in Portugal, 22-27 July. Kazue Tazaki mentioned that the International Clay Conference was held in Japan in 2005; it is held every two years.

5. f. 9. CBGA (Carpathian Balkan Geological Association)

Eduardo de Mulder reported that the objective of this group was to promote and encourage joint fundamental and applied geological research, as well as training and specialization in the Carpathian- Balkan realm. In 2006, the XVIII Congress was held in September in Belgrade (Serbia) and was attended by 152 participants. A report of the Congress was obtained from the internet as no report to IUGS was delivered for 2006. From the Congress report, IUGS learned that CBGA cancelled all its standing Commissions and replaced by working groups. CBGA is a relatively small group of specialists with a strong Serbian representation, as is its Chairman, Aleksander Grubic. CBGA still has no operational website. At the end of 2006 the presidency changed from the Representative of Serbia (Prof. Grubić) to Representative of Greece (Prof. Christofides). The XIX Congress will be held in September 2010 in Thessaloniki (Greece).

Peter Bobrowsky noted that Werner Janoschek used to attend their meetings and was in contact with the group.

5. f. 10. CGMW (Commission for the Geological Map of the World)

Rapporteur Moores commented that this organization was a long-time affiliate of IUGS (since 1961). Its aims are “the promotion, coordination, publication and dissemination of public synthetic Earth sciences maps at small scale of continental and/or oceanic areas of the World”. The organization has a Bureau and a series of thematic and geographic sub-commissions. Support for the organization comes from fees from 30 subscriber countries (out of 100 requested), an allocation from UNESCO (EU 5000, in contrast to much larger amounts a few years ago, a EU 15,000 subsidy plus the Secretary General’s salary, from BRGM, and revenue from sales (EU 45,000 in 2006, down from EU 62,000 in 2005).

Accomplishments and products in 2006 include: 1) an active marketing policy focusing on products designed for the general public; 2) translation of the “Face of the Earth” into Arabic, text is now ready to print and a sponsor is being looked for; 3) design and printing of “Plate Tectonics from Space”; 4) printing of a 1:10M International Geological Map of Europe; 5) publication of a CD-ROM edition of “Giant Deposits of the World” by the Vernadsky Museum, Moscow; and 6) participation in several conferences.

The Commission was very aware of the GIS revolution in map-making and is working to incorporate these techniques in its production. Despite these activities, sales are down, purportedly from lack of production of “flag maps” in 2006. The CGMW’s income has also suffered from the decline in support from several subscriber countries and UNESCO. Two countries, Canada and China, have ended their support. UNESCO’s contributions have also decreased significantly. The Commission plans an ambitious series of maps in the next few years, many in concert with the IGC.

At issue, however, is their budget. They request restoration of the subsidy from IUGS to US\$ 4000 from its present US\$ 2500. This seems a reasonable request, and it should be granted if at all possible.

Neil Williams wanted to know why Canada and China reduced their funding. Eduardo de Mulder and Arne Bjørlykke thought that geological surveys should have a stronger role to play in map production. Bobrowsky complimented Jean-Paul Cadet’s involvement with CGMW and said that IUGS had to ensure it does not lose this good working relationship. Gabi Schneider thought the EC should support their request.

Robert Missotten said that UNESCO cut back its support because of the general cut-back in science funding. Missotten assured the EC that UNESCO was still supportive. He also mentioned that the BGS will be helping to produce the digital map of the world with IYPE and CMGW.

5. f. 11. CIFEG (International Centre for Training and Exchange in Geoscience)

Rapporteur Mantovani said that CIFEG’s objective was sharing knowledge. It is supported by UNESCO 10%, FMFA 70%, IUGS and others 20%. Projects and accomplishments in 2006 include: 1) SIGA-Afrique: In 2006, CIFEG organised the evaluation of the project by external consultants; 2) PANGIS (Pan African Network Geol. IS) Training for Sierra Leone; 3)

SANGIS (southeast Asian network for a geological information system); 4) a bibliographic exchange with more than 40,000 records; 5) AMI (Asian Multilingual Thesaurus) – a thesaurus of 6,000 words (9 Asian languages, French and English); 6) MAWARI (Sustainable Management of Water Resources in the Rift System); 7) annual researchers meetings, including the Consultative Scientific Committee and Steering meeting (Djibouti); 8) "Bibliography of African Cainozoic Continental Macropalaeontology" compiled by Martin Pickford from the National Museum of Natural Sciences, Paris (PANGIS); and 9) AMTG - Asian Multilingual Thesaurus of Geosciences. Mantovani reported that there was a recurrent problem of funding for the PANGIS network and the publications.

Action item: Gabi Schneider to contact CGI to ensure they are in touch with CIFEG (International Centre for Training and Exchange in Geosciences) to collaborate on the upcoming workshop in Namibia.

5. f. 12. CPC (Circum-Pac. Council)

Moore said the Circum Pacific Council was an international, non-governmental association of scientists and engineers, from industry, government, and academia, with the mission to foster better understanding of sustainable resource use and risk mitigation in the Pacific region. The Annual Directors Meeting, held in Wellington, N.Z., in April 2006, included reports from the Vice Presidents for Asia, North America, and Oceania, as well as reports from representatives of Russia, Japan, and others. Major themes included tsunami follow-ups, energy issues in Russia, Japan, and China, hazard assessment and emergency management, and geology and human health. Meetings of interest to the CPC include the International Symposium on the Future of Energy around the Pacific Rim, Beijing, China, October 15-18, a Workshop on Benthic Habitats in New Caledonia in 2007, a Workshop on Water and Energy from Renewable Resources in Mexico City, March 23-25, 2007. An interesting effort is "RimSim", or "Pacific Rim Simulation" a "conflict negotiation simulation" for addressing risk in an increasingly interconnected global community, available in English, Spanish, Chinese, and Russian. A Simulation in Spanish will be conducted in March, 2007, in Mexico City. It was Moore's impression that CPC was not as vigorous an activity as in previous years, perhaps because of the passing of one of its founding members. David Howell maintained close contacts with IUGS.

5. f. 13. EASE (European Association of Science Editors)

Ryo Matsumoto found that EASE had been active in promoting improved communication in science in Europe, with four issues of the Association's journal, ESE, and three-yearly conference in 2006. The Association's web site with a number of items such as Editors' bookshelf has been visited frequently, producing new members. No money was requested. Bobrowsky commented that IUGS does not have much interaction with EASE, but wondered if the PC should be exploring linkages, especially in relation to IYPE. Godfrey Nowlan said EASE was the premier group of science editors, and added that the timing of their last meeting was not appropriate for the PC.

Action item: Eduardo de Mulder on behalf of IYPE is to approach EASE (European Association of Science Editors) to explore if there is a role for their organization to play in IYPE.

5. f. 14. EMU (European Mineralogical Union)

Rapporteur de Mulder noted 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 September 2006, EMU organised its annual Council meeting during the Symposium on 'Experimental Mineralogy, Petrology and Geochemistry (EMPG-XI)' in Bristol, UK. EMU also organised the 8th School the Eötvös L. University in Budapest, Hungary; and it prepared for the 9th and 10th School. 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. As in 2006, EMU does not request any financial support from IUGS.

5. f. 15. GS (Geochemical Society)

Mikhail Fedonkin reported that the Geochemical Society (GS) is one of the most effective international non-profit organizations affiliated with the IUGS. The GS unites at present over 2000 members who represent more than 45 countries. Most the GS programs are performed in cooperation with other scientific organizations such as GSA, SEG, MSA, MAC, MS, CMS, EAG, IAGC and SFMC. GS successfully develops its publication policy via Elements Magazine, an international magazine of mineralogy, geochemistry and petrology (10,000 copies), *Geochemica et Cosmochemica Acta (GCA)*, the premiere research journal on geochemistry (over 5400 pages of research papers within 24 issues); *Geochemistry, Geophysics, Geosystems*, an on-line journal; Special Publications Series, *Reviews in Mineralogy and Geochemistry*, etc. The GS Programming Committee organizes the Goldschmidt Conference, the major annual, international conference on geochemistry and mineralogy that is very well attended (1400-1800 participants) as well as the geochemical sessions and symposia for the Spring AGU meeting, Annual GSA meeting and the Fall AGU meeting. The 2007 Goldschmidt Conference (www.goldschmidt2007.org) will be held August 19-24, 2007, in Cologne, Germany. The 2008 Goldschmidt Conference will be held July 13-18, 2008, in Vancouver, BC, Canada. The GS annually allocates US\$ 10,000 as travel grants to qualified students attending the Goldschmidt Conference and provides a number of awards to the leading scientists. Diverse and effective activity of the GS makes an enormous positive impact over the world's geological community through information, education, relationships and resources that advances both fundamental and applied geochemistry. Arne Bjørlykke noted that IGC had been in contact with them. The GS home page: www.geochemsoc.org

5. f. 16. GSA (Geological Society of America)

Moore said that this Society has increased its membership to 20,000 members from North America and elsewhere. GSA continues to flourish as one of the world's leading geoscience societies. The organization has a substantial endowment. In the past year, it has succeeded in separating its operating budget, which depends on dues and sales, from its strategic budget, which uses income from its endowment. In addition it is considering a new strategic initiative to determine how best to serve its diversity of interests, focus on public recognition for the geosciences, determine what knowledge base unifies its membership, geoscience education, how geoscientists can contribute to policy decisions involving natural causes, better communication with students, better recognition and stature for geoscientists, possibly including licensure, accreditation, and certification.

The Society has issued position statements on Geoscience Data Preservation, Geoscience and Natural Hazards Policy, Global Climate Change, The Importance of Teaching Earth Science in High Schools, the Value of Geologic Mapping, and one on the Teaching of Evolution is in preparation. A “National Leadership Initiative” is exploring establishment of an office in Washington, DC., to improve communication between GSA members and public policy decision-makers. GSA’s publications, *Geology*, *GSA Bulletin*, and its new electronic journal *Geosphere* are all doing well. GSA’s participation in the not-for-profit geoscience publication aggregate “GeoScienceWorld” seems to be working well. GSA’s Annual Meeting and its Sectional Meetings have done well. Joint international conferences have included “Earth Systems Processes 2” with the Geological Association of Canada; “Backbone of the Americas—Patagonia to Alaska, with the Asociación Geológica Argentina; and the “5th International Conference on the Tibetan Plateau” with the Chinese Academy of Sciences.

GSA has had difficulties, and Sylvi Haldorsen mentioned problems keeping “Geology” as a non-profit publication. Eduardo de Mulder noted that GSA was an International Partner of IYPE. Of all the affiliates, GSA has the strongest connexion to IUGS, Bobrowsky remarked.

5. f. 17. GSAf (Geological Society of Africa)

The Geological Society of Africa was founded in 1973. Its aim is to act as an umbrella organisation for African geologists, to promote earth science and to promote the development of African geoscientists throughout the continent through improved education and training. The organisation of regional and international meetings remains central to achieving these aims. Haldorsen reported that 2006 was an active year, culminating in the "21st Colloquium on African Geology" held in Maputo, Mozambique from 2 July to 11 July. IUGS was very visible in this meeting. Members of the Executive Committee contributed with a number of talks, including specialised geological lectures and more strategic presentations of IUGS. The Colloquium was hosted by the AGMM (Geological Mining association of Mozambique) in conjunction with the Geological Society of South Africa. 300 people participated, coming from: Africa (205), Europe (17), Asia and Oceania (11), North America (5), South America (2). A plan of a Special Issue in the *Journal of African Earth Sciences* as an output of this meeting is being refined. The presence of IUGS officials at the Colloquium, their recognition of the growing strength of geosciences in the continent, and their efforts to publicise IYPE at the forum were much appreciated.

Discussion during the Assembly included the future scheduling of the Society's principle meetings, the GSAf International Conference and the Colloquium of African Geology. The meeting approved the adoption of an alternating biannual cycle for these events. Discussion also took place on the strengthening of the Society's links to the increasing numbers of national geological societies and associations in Africa (which GSAf has encouraged as best possible over recent years) and in promoting the A B (Henri) Kampunzu Award, intended to provide financial assistance to young African geoscientists. At the end of this meeting, the Maputo Declaration on the development of Geoscience in Africa was adopted.

The Society does not directly implement scientific projects but continues to encourage members to take the initiative and become involved in international collaborative research. A small but growing number of African geoscientists (members and non-members) now participate in the IUGS-UNESCO IGCP programme. The Council is particularly keen to see the emergence of more African-led projects under this programme, thereby increasing the

African profile within the world geoscience community. Encouraging young African geoscientists to avail themselves of the opportunity recently offered by the IGCP Board, to propose and implement collaborative projects led by young scientists, remains a priority.

It is a problem to maintain communication with the members (ca. 600 in all). Access to the Internet in Africa is improving but still limited. It partly reflects the often extremely difficult social and economic circumstances that prevail in most African countries together with the difficulties and high costs of travel within the continent. GSAf continues, therefore, to rely heavily on the financial, professional, and moral support provided by IUGS. Membership dues alone are insufficient to permit the Society to operate. More effort is required to attract financial support and sponsorship from the minerals and hydrocarbons industries, which is generally more successful at national level in support of specific major meetings in the country(s) concerned.

GSAf support for all meetings normally takes the form of grants to assist the LOC GeoHost programmes and/or of individual travel grants, in both instances to facilitate the participation of GSAf members in the meetings or in other relevant activities (e.g., training courses, professional exchanges). Keeping in mind that 2008 will be a very active year with the 13th GSAf Conference and the 22nd Colloquium of African Geology in Tunisia incurring significant expenditure, the society will minimise grants during 2007 to allow some chance for GSAf finances to recover after the heavy outlay in 2006.

The Society will continue its efforts to promote African National Committees of the IYPE and to encourage the formation of national societies. Eduardo de Mulder complimented GSAf's heavy involvement with IYPE.

Funding from IUGS in 2006 seems to have been well spent. A grant in 2007 is needed for travelling and for planning of the next CAG22 in 2008 in Tunisia. Given the financial constraints that affect GSAf, the Council kindly requests IUGS to maintain its vital grant aid to the Society during 2007 at the 2006 level (US\$ 5000). This grant will constitute the main support to the various activities, particularly the preparation of CAG22-GSAf13 and other meetings to be held in the continent.

5. f. 18. GV (Geologische Vereinigung)

Eduardo de Mulder reported that Geologische Vereinigung has 2200 members in 64 countries and its Executive Committee is almost entirely German. G. Wefer is the Chairman of the Executive Council. The GV has started a new series of publications by Springer Verlag, entitled *Frontiers in Earth Sciences*. The first book was issued in 2006, entitled: *The Andes – Active Subduction Orogeny*, by Oncken, O., Chong, G., Franz, G. et al. (Eds.). There was no report in 2006. Werner Janoschek used to be in contact with GV. Bobrowsky was concerned about losing momentum with organizations as old EC members move on and new members without connexions join.

5. f. 19. IAEG (International Association of Engineering Geology and Environment)

Rapporteur Peter Bobrowsky said there was no report for 2006. IUGS and IAEG have had a “functional” relationship in the last few years. IUGS occasionally participates in IAEG meetings and some of their members contribute to the IGC but strong bilateral ventures are non-existent and therefore the bond between the two groups is not that strong.

5. f. 20. IAG (International Association of Geomorphologists)

Bobrowsky remarked that their brief report confirms that IAG continues to excel as a professional organization. They are extremely successful at their association activities to promote geomorphology, encourage young student participation and generate income. For example, the 2002 CD publication of select photographs for US\$ 25, or their incredible publications series of monographs, books, field books, etc. (most notable is the 2 volume Encyclopaedia of Geomorphology 2004). IAG is a proactive partner with IUCN for world heritage natural site evaluation. They remain an excellent affiliate for IUGS.

5. f. 21. IAGC (International Association of Geochemistry and Cosmochemistry)

Gabi Schneider announced that there were 7 working groups active in IAGC during 2006. There was no IUGS participation in their meetings. No request for funding accompanied the report.

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

Rapporteur Schneider noted that IAGOD had a low membership. Income was from books and symposia. There was no request for funding. The main achievement of IAGOD in 2006 was their database work. Gerel Ochir mentioned she had some contact with the Organization. Eduardo de Mulder noted IAGOD was an Associate Partner of IYPE.

5. f. 23. IAH (International Association of Hydrogeologists)

No IAH report had arrived as of January 8, 2007. Sylvi Haldorsen found this unfortunate and hoped it did not mean that IUGS was losing them. Zhang Hongren was at their meeting in China, April, 2006 and was given an award; Haldorsen was also invited. Peter Bobrowsky noted IAH was a long standing partner of IUGS. Eduardo de Mulder noted IAH is instrumental to IYPE and worked on the Groundwater Brochure.

5. f. 24. IAMG (International Association for Mathematical Geology)

Ryo Matsumoto reported that the IAMG was active in 2006, with continuous publications of three Association's journals, and co-sponsorship of an international meeting. However, the Association has been suffering from a recent and continuous decrease in the number of members, partly because of the retirement of long-term members. Bobrowsky remarked that fewer people are interested in mathematical geology. Niichi Nishiwaki mentioned that he was a member and added that the existing and new members, of whom there are perhaps 600, are very active. Neil Williams was concerned that the community was suffering from a lack of mathematically competent geoscientists and noted that Geoscience Australia was encouraging mathematics and physics students. No money was requested.

5. f. 25. IAS (International Association of Sedimentology)

Rapporteur Matsumoto noted that the IAS was very active with a number of scientific events such as the very successful International meeting, ISC2007 in Japan, co-sponsored conferences in South America and Europe, and lecture tours by distinguished sedimentologists in 7 countries. The IAS published 6 issues of its journal with some 1500 pages. Bobrowsky

acknowledged Matsumoto for being active in IAS, and noted the Organization was involved with IYPE, IGC and IGS. No money was requested.

5. f. 26. ICL (International Consortium on Landslides)

Bobrowsky reported that the ICL has continued to grow in visibility and activities since its formation in 2002. ICL is a recent affiliate and IUGS has been a strong ally to the organization since its inception, providing a small seed grant annually to assist with particular items. ICL should be applauded for the excellent journal it now produces and the large number of conferences it organizes. ICL is encouraged to increase its actual efforts at education and capacity building in developing countries and increase its efforts to sponsor, support or endorse other landslide/hazard meetings and events. Both of these are apparently priorities but are not actually pursued aggressively by ICL. IUGS is fortunate to have such an organization as one of its official Affiliated Bodies. ICL has also been invited to become a partner with IYPE. It submitted a request for US\$ 5000; Bobrowsky questioned whether the EC gives them this amount, but with directed conditions.

5. f. 27. IFPS (International Federation of Palynological Societies)

Gabi Schneider announced that the report arrived, but no commentary was given.

5. f. 28. IGEO (International Geoscience Education Organization)

Bobrowsky commented that IGEO was a great organization and that IUGS had benefited from their affiliation. Godfrey Nowlan organized their 2006 meeting in Calgary, Alberta. Gabi Schneider announced IGEO was seeking money for a conference in Africa, Newsletter and other activities. Bobrowsky encouraged continuing support.

5. f. 29. IMA (International Mineralogical Association)

Rapporteur Schneider remarked that IMA had many active commissions, committees and working groups. It has also published a Website. Funding is through membership and there was no request for funding in 2007. Arne Bjørlykke noted that IMA will be participating in IGC 33. Eldridge Moores noted that none of the EC attended their meetings. Bobrowsky reported that IMA was experiencing internal problems and that it was not responding to requests because it was dysfunctional. Godfrey Nowlan complimented the Association on the Elements Journal; it was stunning and worth a look at.

5. f. 30. IMGGA (International Medical Geology Association)

Bobrowsky commented that the official organization was launched in 2006 after leaving IUGS as an Initiative. Achievements include a monthly electronic newsletter and paper bulletin annually, several short courses per year, very popular website (e.g., in 2004 Google hits would result in 300 and now in 40, 000). It has participated in numerous conferences, developed university credit courses, and published the very popular Academic Press volume that has won several awards. The new Division for Medical Geology in the GSA also started in 2006. Medical Geology remains active as a theme for IYPE. IUGS is very fortunate to have this new organization as an affiliate and a very positive relationship for our Union to maintain. IMGGA is no longer asking for money but is contributing to the IGC. Eduardo de Mulder reported that IMGGA has a good working relationship with IYPE.

5. f. 31. IPA (International Palaeontological Association)

Mikhail Fedonkin said that the International Palaeontological Association provided a detailed Annual Report that demonstrates an active role of IPA in the promotion and coordination of international cooperation in palaeontology and encouragement of integration and synthesis of palaeontological data globally. Fedonkin noted that there was no request for funding.

The IPA home page: <http://ipa.geo.ku.edu> The major event of 2006 was the 2nd International Palaeontological Congress successfully organized by The Palaeontological Society of China in Beijing, China, June 17-23, 2006 (see info at <http://www.ipc2006.ac.cn>). Zhang Hongren and Fedonkin attended this meeting. Many IPA Corporate Members offered travel grants to graduate students to help them to attend this meeting. The IPA General Assembly meeting (June 20, 2006, Beijing) approved the revised Constitution of IPA and elected the officers of IPA headed by its new President David A. T. Harper.

In May 2006 the IPA submitted an Expression of Interest to the IYPE in regards to funding for the PaleoParks Project (sum requested from the IYPE: US\$ 54,000). There are some concerns related to the similarity between “PaleoParks” and “GeoParks”, European initiative with somewhat comparable objectives and some overlap of sites. This problem should be solved in the course of discussion between the leaders of “PaleoParks” and “GeoParks”. IPA sponsored five international palaeontological meetings and some other activities. IPA supports the construction and development of a few electronic data bases: The Directory of Palaeontologists of the World, The Directory of Fossil Collections of the World, PaleoLink Database, The Directory of Globally Important Palaeontological Sites (together with a web site for the PaleoParks Project) and The Directory of Palaeontological Societies and Associations.

In 2006 IPA accepted the invitation to join the ProGEO, European Association for the Conservation of the Geological Heritage, affiliated to IUGS. This consortium of national and international, scientific and geoconservation organizations will function as a global editorial board for a proposed new journal Geoheritage with a wide scope (from geosite conservation, on-site science, and GSSPs to the education and tourism). The IPA expressed its willingness to coordinate this initiative with existing projects, such as PaleoParks and the International Year of Planet Earth.

5. f. 32. IPA (International Permafrost Association)

Eldridge Moores reported that this was not a large organization, with a recent meeting attracting only 202 participants but from 17 countries. Nevertheless, it was a young and vigorous group. The Association is ramping up for contributions to IYP, and many projects are planned. IPA asked Moores to attend a recent business meeting at AGU, where he encouraged its members to attend the IGC. IPA also requested the use of the IUGS logo at the Quadrennial Meeting in Fairbanks. Bjørlykke mentioned that IGC had met with the group and tried to get them to move their meeting. Bobrowsky complimented IPA on their relationship with IUGS and remarked the group has benefited from the IUGS Grants Program in the past.

Action item: Secretary General to send a brochure or short synopsis of IUGS along with digital file of the IUGS logo.

5. f. 33. ISRM (International Society for Rock Mechanics)

Ryo Matsumoto said that ISRM was active in 2006, holding four international symposia in Europe and Asia. The Association published News Journal and developed web site. However, the increase of publication costs is becoming a serious issue. The ISRM is seeking for a federation with the IAEG and ISSMGE, and this action would be a good model for merging IUGS and IGC. Bobrowsky added that he had sent IRSM a lot of information over the year and they are involved in IYPE.

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

Matsumoto noted that the Society was active in 2006, holding a regular scientific conferences and the Young GE Conference in Croatia. The Society has 23 technical committees, which are asked to produce reports by 2009. Newsletter with a more interest to the younger members will be re-launched soon.

5. f. 35. Met. Soc. (Meteoritical Society)

Matsumoto reported that the main scientific event of the Society was the 69th Annual Meeting in Zurich, with 370 registered participants. The Society published 12 issues of the journal and a new meteorite data in the Meteoritical Bulletin. Gerel Ochir remarked that she had been to one of their meetings in the past.

5. f. 36. SEG (Society of Economic Geologists, Inc.)

Rapporteur Fedonkin complimented the Society of Economic Geologists (SEG) for providing an informative report on the SEG's history, new officers, membership, conferences, field trips, and short courses, publications, education, awards and lectureships. The SEG is an international society committed to excellence in the science, discovery, documentation, interpretation, evaluation, and responsible development of mineral resources and to the professional development of its members. The SEG is dynamically growing organization that includes 4,061 members of all categories (against 3,818 at the end of 2005). Though the majority of the members (about 67%) are from only three countries (USA, Canada and Australia), there is a trend of increasing number of application from South America, Asia, and Europe. New SEG Officers have been elected for 2007 with Neil Williams as President-Elect.

In 2006 the SEG organized and sponsored 13 well attended conferences, field trips and short courses in Canada, USA, UK, Chile, Australia, Japan and Russia. These events involved over 20,000 specialists and students from over 50 countries. The SEG develops a successful publication policy (guidebooks, review volumes, special publications, monographs, conference series volumes as well as back issues and the Index to Economic Geology, most of the publications are supplied with the CD-ROMs or/and DVD). Total sales revenue in 2006 is estimated at over US\$ 250,000 (US\$ 141,356 in 2005).

The SEG Foundation awarded student research grants worth US\$ 130,045; predominantly to Ph.D. and M.S. projects. The 57 award recipients are based at 39 different universities in 14 countries. The SEG Honorary Lecturers in 2006 delivered their lectures in many countries across the world, including Hungary, Chile, South Korea, Philippines, Columbia, China, and Finland.

Peter Bobrowsky noted that SEG formed a tripartite relationship with IAGOD and SGA, and also has a good working relationship with IUGS. Neil Williams attended their meeting in Keystone, Colorado, where ~100 young geologists were in attendance. It has been a long time since Williams had seen such an active, vibrant group. Gerel Ochir noted that Mongolia has involvement with SEG.

Arne Bjørlykke suggested SEG work closer with IGC to get the mineral industry on board for the Congress; perhaps forming a Mineral Advisory Body for IUGS-IGC. Bjørlykke also wondered whether IUGS was using its affiliate bodies to their maximum potential. SEG is playing a modest role in IYPE as an Associate Partner and resources are a key issue for them. Eduardo de Mulder expressed the need for SEG to expand their presence in IYPE through science and outreach initiatives.

5. f. 37. SEPM (Society for Sedimentary Geology)

Antonio Brambati noted there was no SEPM report submitted as of January 8, 2007.

5. f. 38. SGA (Society for Geology Applied to Mineral Deposits)

Mikhail Fedonkin commented on the SGA annual report: it contained information on the purpose and objectives of the Society, description, history, organization and membership of SGA, its relation to the International Year of Planet Earth, meetings in 2006-2008, publications, awards and SGA officers in 2006-2007. SGA home page: <http://www.e-sga.org>

Among the major achievements of the SGA there are its fast growth (from about 450 members in 1995 to 808 paying members in over 70 countries in 2005), cooperation with other scientific Societies, especially with IAGOD and SEG, the setting up a committee (jointly with SEG and IAGOD) that works on a proposal to promote earth sciences during the IYPE. SGA carried out two Ordinary Council Meeting (May 4-5, 2006 Prague, Czech Republic, and November 2-3, 2006 Dublin, Ireland), co-sponsored scientific meetings such as MDSG (January 5-6, London, U.K.), Gold Short Course (June 4-7, Munich, Germany), the XXV SEG-UNESCO-SGA Latin American Course of Metallogeny (July 6-17, 2006 Antofagasta, Chile), the 10th GOLDSCHMIDT 2006 (August 27– September 1, Melbourne, Australia), and Fermor Meeting (September 13-15, London, UK).

The major future forum will be the 9th SGA Biennial Meeting “Mineral Research and Exploration: On Common Ground” (August 20-24, 2007 Dublin, Ireland) – information available at www.conferencepartners.ie/sga2007

According to the recent ISI science impact factor, the major SGA journal, *Mineralium Deposita*, continues to be number one in the field of mineral deposit-related journals worldwide in spite of the delayed publication with three issues behind schedule end of 2005.

SGA, IAGOD and SEG submitted a grant application to ICSU (through IUGS) for the production of an educational DVD movie “Promoting Responsible Mineral Resource Management for the Planet Earth” in recognition of the International Year of the Planet Earth. This application was rejected, but in late 2004 it was re-submitted IUGS but no official reply was received to date.

Eduardo de Mulder and Peter Bobrowsky had heard from past executives that there was some internal friction between SEG, SGA and IAGOD. Arne Bjørlykke noted that SEG started as a European organization and that DOSSEC had just become an affiliate. Bjørlykke was unclear about the relationship of IODP and DOSSEC.

Action item: Eldridge Moores to inform Arne Bjørlykke about DOSSEC.

6) REPORTS ON CO-OPERATIVE ENTERPRISES

6. a. Situation of Earth Sciences in UNESCO

Robert Missotten began by congratulating the organizers in IUGS and UNESCO and sponsors for opening of IYPE; this event shows how important geoscience is. UNESCO has a special, dual partnership with IUGS and how the UN evolves and reforms affects the IUGS. There is the need to work on global programs but be applicable at the regional and local level. Also, Member Countries are beginning to think that the social and natural sciences should be merged. To this end, for example, UNEP is to become a specialized agency.

In the discussion, Missotten focused on issues of the Millennium Goals and Sustainable Development. UNESCO is in the last year of its last Medium Term Plan; 2007 will see a new 6-year plan drafted. This change-over is a difficult time. A clear priority for the last 6 years was Water-based with a less emphasis on geoscience in the budget. Member States asked UNESCO to deliver a program with four budget scenarios. As part of the reforms there has been increased reporting and oversight studies, with a decentralization of funds to field offices. The new plan will be focussed on Science for Sustainable Development, so the Earth Sciences will have some representation. It is hoped that by 2015, industrialized countries will provide more money to reliable agencies that deliver on time.

Missotten then made a few comments on items missed earlier in the meeting, beginning with the need to have a more visible link between IGC and UNESCO. To this end, the Director General of UNESCO will address the next Congress. There have been some discussions to see if a link between the IGCC and UNESCO has more to offer if there is a more structured relationship. However, these changes may not take effect until IGC 34.

IYPE is in the Business Plan. A letter is being drafted by Zhang Hongren and Koichiro Matura, and National Committees are being set up. Missotten was happy with the last Board Meeting, but expressed concern that a Chair and Fund-Raising Director had yet to be appointed. Missotten recommended that IYPE prepare an exhibition for the UNESCO meeting in October; this would increase the visibility of IYPE to visiting Heads of State and Ambassadors.

Eldridge Moores commented that the liaison between UNESCO and the IGC would enhance both; and asked how the new plan would benefit IGCP. Missotten replied that an increase in budget would benefit IGCP with 1/3rd of the budget going to GPS, Remote Sensing and Earth Systems Science. Missotten hoped for improved dialogue between scientists and decision-makers at the next and future IGCs. The future of Earth Sciences depends on a structured relationship with IGC.

Peter Bobrowsky asked Neil Williams whether it was possible for UNESCO to be affiliated with the local Organizing Committees. Williams said that in principle, this was a good idea, but he was not sure how the IGCC could involve governments. He saw great opportunities in the GeoHost area, given that it will be expensive to get to Oslo and Brisbane.

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

Discussion for this agenda item focused on the document outlining the redirection of IGCP. The reorganization of IGCP is expressed through four documents. Robert Missotten began by noting that the document has already been communicated to Member States and welcomed comments only on the documents. Document A describes guidelines for submitting project proposals, provides the evaluation criteria and includes examples of successful projects. Document B describes the new organization of National Committees and operating structure of IGCP. Document C provides detailed guidelines for the project evaluation process, whereas Document D describes procedures to create National Committees.

The International Geoscience Program (IGCP) now consists of four Bodies:

- 1) The Bureau is the IGCP's highest authoritative body, responsible for all strategic and administrative matters within IGCP, including the official granting of projects based on prioritization of proposal tabled by the Scientific Board (SB), and the IGCP Secretariat.
- 2) The Scientific Board (SB) is responsible for evaluating project proposals according to Documents A and C, for quality assessment of projects that are in progress as well as for projects in the final year of completion.
- 3) National Committees have an advisory role in the IGCP. National Committees should be composed as broadly as possible of representative national bodies and organizations, while reflecting the mainstreams of national Earth science research, both in basic and of applied sciences.
- 4) The IGCP Secretariat is charged with the overall management of IGCP. This includes liaising with all relevant bodies active in IGCP, such as the National IGCP Committees, IUGS and UNESCO. Moreover, the IGCP Secretariat handles the project administration, the financial administration, the preparation of the annual meetings, the website, and the outreach activities of IGCP.

IGCP projects are selected and evaluated by IUGS on the basis of their perceived scientific merit and conformance to established criteria for evaluating new project proposals. Mainly, these criteria specify that new IGCP projects should:

- Have a leader and co-leaders of high scientific quality; participants must be qualified to carry out the project.
- Reflect the major objectives of the IGCP and focus on high-quality science relevant to the scientific objectives of the IUGS including new ideas, new techniques, etc.
- Meet a world-wide, continental or regional need of societal relevance.
- Involve applications of various branches of earth science and emphasize interdisciplinary cooperation of societal relevance.
- Constitute international participation including also scientists from developing countries and in particular young, and women scientists, respecting an appropriate number of geographic and scientific discipline distribution of participants.
- Require coordinated action between specialists from different countries.
- Offer long-term benefits and yield tangible short-term practical and societal benefits results.

- Provide a basis for future studies as well as education and training.
- Promote global geoscience visibility through the publication of scientific results using internationally recognized journals or other media as congresses, conferences, workshops, etc.
- Have work plans and schedules appropriate and feasible.
- Require appropriate and adequately justified level of funding.
- Contain indication on the all kind of support (if any) of the project at the national or regional levels.
- Explicitly acknowledge the sponsorship of IUGS and IGCP.

Recommendations on the basis of the above assessment: clear policy of publication of the scientific results that may include, along with the professional articles, the textbooks, popular science papers and programs via mass media; providing via Internet free access to the data bases, key results and bibliography related to Project for the international scientific community.

6. b. 1. Document A

Peter Bobrowsky suggested removing the sentence beginning with “Subscriptions...” from the document the next time UNESCO revises the document. Sylvi Haldorsen felt the document was too detailed and wondered how widely it was reviewed. Missotten replied that the document was negotiated by Eldridge Moores and Zhang Hongren along with consultation with the EC. Document A was placed on the Web-server and is the basis for new calls for IGCP projects in December 2006. Eldridge Moores outlined the topics for IGCP proposals; topics defined annually by IUGS (in answer to a question by Haldorsen):

- 1) Geoscience of the water cycle
- 2) Geohazards and mitigating risks
- 3) Earth resources and sustaining society
- 4) Global change and evolution of life: evidence from the geologic record
- 5) Deep Earth: how it controls our environment

Missotten was pleased to inform the meeting that as of early January, after a year’s silence, there were already twice as many new proposals and these were fairly evenly distributed amongst the topics. Sylvi Haldorsen proposed that the IUGS Secretariat receive documentation of all new proposals; Anne Liinamaa-Dehls could download proposals from the UNESCO Web-server and send them out to the EC.

6. b. 2. Document B

Missotten announced that Document B would be going out after the EC meeting. Eduardo de Mulder commented that the old structure included a large Scientific Board, Secretariat and National Committees. The new structure includes a smaller Scientific Board (50 members) and a Bureau consisting of the IUGS Secretary General, a UNESCO representative and the Chair of the Scientific Board. IUGS and UNESCO have the right to veto all decisions. This improves IUGS visibility remarked de Mulder. Missotten proposed minor changes to the wording in Document B (p.66-68) including changing “evaluate” to “register” and adding National Committees of IUGS to the text. He recommended patience: because of the transition period there will be problems.

Motion: Eldridge Moores moved to accept Missotten's suggested changes; Sylvi Haldorsen seconded; **unanimously approved.**

Action item: UNESCO to send revised Document B to the EC Members.

Haldorsen then asked about the election of Board Members (and Theme Leaders). She felt they should be elected on yearly basis, but wondered how it was done under the new rules. Bobrowsky and de Mulder replied that members of Scientific Board were elected on 4-year terms and could be extended another 4 years.

6. b. 3. Document C

Antonio Brambati reported that the revised document was sent out to EC members for comments and pointed out that the objectives must be relevant to IUGS. Robert Missotten said it was not clear if this was a first draft; but substance-wise, it was a great improvement (although the formatting has to be looked at). Missotten proposed the EC did not formalize Document C at the Nara Meeting, but try to look at it before February. Bobrowsky saw Document C as a working document; and expressed the need to incorporate a review IGCP project websites. Moores saw some overlap with Document A regarding the website issue. Zhenyu Yang mentioned that each IGCP project submits a final project paper to Episodes.

Missotten also thanked Brambati for his contribution and looked forward to receiving the new document. He recommended that any changes in Document C (and other documents) be sent to Margarete Patzak. Antonio Brambati said he would review the revised document and asked that each of the EC members send him suggestions and changes. He would then forward these on to Patzak and Missotten before the IGCP meeting.

Action item: Antonio Brambati and Secretary General to submit another version of IGCP Document C to Margarete Patzak and Robert Missotten at UNESCO by the end of January 2007.

6. b. 4. Document D

Robert Missotten noted that IUGS still had to decide on who would participate; and he had already written to the UNESCO National Commission. Clear guidance from IUGS is urgently needed if IGCP committees are to become more active. Missotten also considered other ways to enliven the IGCP committees, including private and government sector involvement. He thought that by September 2007, a document on restructuring should be complete. Haldorsen was concerned that in some countries, IGCP committees were appointed by science academies often with no involvement by the UNESCO Commission. IUGS should appoint people soon. Missotten was fully open to suggestions and added that Zhang Hongren would provide names by September.

Action item: Zhang Hongren to contact UNESCO and provide the name of the IUGS representative that will represent the Union in completing IGCP Document D.

Bobrowsky asked if there was a document on how IGCP committees were formed; Missotten would ask Margarete Patzak to send him the relevant document. Bobrowsky then brought up the issue of multiple committees again, and asked for the UNESCO position. Missotten replied

that UNESCO is looking to starting a dialogue soon; the present situation is a recipe for disaster. Bobrowsky recommended that IUGS form a Task Group on National Committees.

Action item: Robert Missotten and Margarete Patzak to send Peter Bobrowsky the document on how IGCP committees are formed.

Action item: IUGS to form a Task Group on National Committees and report to UNESCO and EC.

Action item: Secretary General will request a copy of the current recommendations from UNESCO regarding formation of a national committee for IGCP.

Missotten thought this would yield important information and UNESCO would benefit; he was encouraged by the discussion. UNESCO feels that IGCP is understaffed; it is relying on interns working for 3 month periods. Missotten was also unhappy with the current appearance of the Annual Report and Yellow Book. An action item to modernize is required and IUGS could help with a new concept for the Yellow Book. Haldorsen agreed it was a wise approach to update the Yellow Book. Missotten thanked Eduardo de Mulder and his team for the new IGCP Information Booklet and hoped it would give a boost to the reformed IGCP.

Gerel Ochir asked for more information on the National Committees and said there was confusion as to how many people could be nominated. Missotten and Bobrowsky agreed to send out an email explaining the process and number of nominations.

Action item: Secretary General will request a copy of the current recommendations from UNESCO regarding formation of a national committee for IGCP.

Action item: Robert Missotten and Peter Bobrowsky to send out an email explaining the process and number of nominations for National Committees.

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

Antonio Brambati reported that the Programme on the Geological Application on Remote Sensing (GARS) is sponsored jointly by IUGS and the UNESCO Ecology and Earth Sciences Division. GARS interfaces with IGOS, GEO/GEOSS, International space agencies (NASA, ESA) and ICL (landslides). The core programme membership includes 40 institutes and individuals from 28 countries, mostly from the developing world. The GARS Programme Chairman in 2006 was Dr Stuart Marsh of the British Geological Survey. The Programme Secretary, Mr Robert Missotten of UNESCO Earth Sciences Division, chairs the GARS-IGOS Geohazard Joint Committee. The GARS Programme continues to develop the IGOS Geohazards Theme (Reducing vulnerability of communities at risk to natural hazards); it's Groundwater Initiative (Managing resources in a sustainable and environmentally sound way) both themes that contribute to understanding of global environmental change.

Chief Products in 2006 included a: 1) new GARS Website and GARS Brochure; 2) report on GARS-IGWCO-ESA-UNESCO Groundwater Workshop held in Paris, France, March 2006; 3) report on IGOS Geohazard Regional Workshop held in Kuala Lumpur, Malaysia, in summer 2006; 4) Geohaz Update: the 2nd IGOS Geohazard Theme Newsletter was published in summer 2006; 5) GeoHazData: a new metadata system for hazard maps and related

information was established by the IGOS Geohazards Executive Bureau for the collection of a GEO geohazard map inventory; and 6) GeoHazNet: a new network for the geohazards community was established by the IGOS Geohazard Executive Bureau, extending its networking beyond the IGOS community through the mechanism of the GEO Communities of Practice concept

At total of US\$ 6000 was requested for support of members of the GARS-IGOS Joint Committee (US\$1500), the Chairman's attendance at 2007 Plenary and Business Meetings (US\$ 1500), and support for international expert participation in Workshops (US\$ 3000).

Robert Missotten thanked Brambati for his report. GARS can help IUGS: Missotten stressed that it was important for IUGS to get involved with Earth Observation linkages with IGOS. He also encouraged the Japanese observers to become involved with GARS, IGOS and work with geohazards. Neil Williams briefly talked about the excellent data from a new Australian Observation System recently launched with the help of Japan.

Eldridge Moores noted that the report had been duly received.

6. d. IUGS-IUGG International Lithosphere Programme (ILP) formerly SCL

Rapporteur Bobrowsky told the EC and observers that this joint Program between IUGG and IUGS has recently taken off in success. During a transition period a few years ago there were problems with communications, accountability and reporting and these have all been solved. Sierd Cloetingh and Jorg Negendank have done an excellent job as the executive officers running ILP. The new Terms of Reference for ILP are well grounded; the 2006 report of activities indicates a wide variety of positive moves including efforts to obtain external financial support, regular meetings, financial partner of IYPE, etc. IUGS is fortunate that the ILP responded so quickly and positively to the concerns raised by both IUGG and IUGS. It is functioning extremely well and should be supported in the future. Bobrowsky proposed that Mikhail Fedonkin help Robert Missotten formulate guidelines for IUGS-IUGG-ILP.

Motion: Eldridge Moores moved to formally approve the ILP Terms of Reference; Peter Bobrowsky seconded; **unanimously approved.**

Eldridge Moores noted that IUGS is currently represented by Jean-Paul Cadet and a second individual for IUGS has to be appointed shortly; IUGG also has two positions to fill. Bobrowsky asked for a list of candidates so they could be ranked. Eduardo de Mulder felt that the composition was too Euro-centric and wished to see candidates from other world regions to balance; and suggested Yoshiyuki Tatsumi or Larry Brown as suitable candidates.

Motion: Eldridge Moores moved to appoint Jean-Paul Cadet and Yoshiyuki Tatsumi to the ILP; Peter Bobrowsky seconded; **unanimously approved.**

Action item: Action item Secretary General should respond to the IUGG and inform them of the IUGS decisions which approve appointment of Cadet and Tatsumi to the ILP.

7) INTERNATIONAL GEOLOGICAL CONGRESS (IGC)

7. a. 33rd IGC in 2008

Arne Bjørlykke started with some introductory comments on the Statutes and was convinced that IUGS and IGC had to change; there was no future if things continue the way they are. Bjørlykke pointed out that the IGC requires a US\$ 5 M to 10M budget; the IGC event requires some 10 times the amount of sponsorship as IYPE. It is impossible to have a 5-7 day conference with the present level of sponsorship. Synergies are needed between organizations. Bjørlykke identified four major events occurring in 2008: IGC, IYPE, IYP and the 150-year NGU anniversary. The Nordic Foundation was supporting all these events. All geoscientists can contribute by attending IGC.

With ~6000 people attending, the IGC requires a large venue and number of activities. The venue of IGC 33 is the Norway Conference Centre, a 10 minute train trip outside Oslo. Bjørlykke described in a PowerPoint presentation the layout of the Centre, including 20 theatres and the largest convention hall in Norway. The meeting will comprise topical and special sessions, general symposia, short courses, workshops and business meetings. At the end of each day, there would be a round-table discussion and invited guest speakers will present at the Norsk Hydrology Lecture Series. One of the problems is to cover all major scientific events. IUGS is contributing to 10 % of the activities and input from IYPE is needed (e.g., sessions on the 10 themes of the Year). Special symposia with IYP, ICOGS, OneGeology and Nordic geology were also mentioned by Bjørlykke. Another proposal was for a Symposium on Africa.

Action item: Sylvi Haldorsen to contact the Association of Women Geoscientists and African Association of Women Geoscientists and ask them to collaborate and organize a session for IGC in Oslo as soon as possible.

Bjørlykke wanted to make IGC 33 more multi-disciplinary: many past Congresses involved geologists talking to geologists. Excursions were planned to Greenland, Iceland, Spitzbergen and other Nordic countries. Planned publications included maps, books, videos and a digital map of Arctic geology. Important milestones were March 2007 for the 2nd Circular and February 1 2008 for early registration, abstract deadline and 3rd circular.

Eldridge Moores saw the need for IUGS to play a greater role in the Congress. Eduardo de Mulder and Peter Bobrowsky wondered if and how the themes of the Norsk Hydrology Lectures could be combined with the IYPE themes. Arne Bjørlykke said that a call for candidates for lectures will be announced in the 2nd Circular. Kazue Tazaki wondered whether Koichiro Matsura was invited to lecture on Water; yes the UNESCO DG was a candidate. She also saw the need for a session about Women in Geoscience. Bjørlykke also mentioned that the logo of the sponsors (Statoil) would be clearly displayed, and that the IGC was looking at new ways to disseminate information following the lectures.

Alik Ismail-Zadeh asked why registration fees were so high (EU 700) and wondered if lower registration fees would attract more people. Bjørlykke did not think the fees were excessive for a 5-7 day meeting: the Maputo Meeting was EU 300 for a 2-day conference. Moores noted GSA fees were U\$ 400. Ismail-Zadeh and Bobrowsky noted that the IUGG only charged EU 400 for a 12-day meeting. Antonio Brambati asked if there would be a day rate; Bjørlykke

replied yes. Moores and Ryo Matsumoto were also concerned about accommodation rates in Oslo, and that the city was expensive. There would be cheap and expensive accommodation available. Top hotels were EU 150-200 a night; cheaper hotels were in the EU 50-60 range. IGC was in negotiation with university students on campus and hostels.

7. b. 34th IGC in 2012

Neil Williams opened by saying that he was beginning to see problems with merging IUGS and IGC. The Brisbane bid was accepted in Florence; the only other IGC held in Oceania was the 1976 IGC in Sydney. Planning at the moment has been low key at the moment because the focus is on the 2008 IGC. A MoU has been signed with the Brisbane Convention Centre; the Queensland Government is also expected to sign on. The venue is similar to the convention centre in Oslo, and is being expanded together with the addition of a hotel. For visitors, there will be a range of accommodation from cheap to luxury.

Mostly, activity is directed at getting the legal arrangements in place, arranging show-and-tell presentations and preparing an Oceania-focused website with the assistance of key players like the Australian Academy of Science, Geoscience Australia and Queensland Geological Survey; New Zealand is also helping. William's expressed concern about the current political problems in the South Pacific (e.g., Fiji, Solomon Islands), but hoped these would be resolved by the time of the Congress.

A display for 2012 will be at the 2008 IGC together with a range of proposed field trips. Feedback from Oslo will be important. After IGC 33, IGC 34 will go into full planning mode. The 2012 Congress will showcase the geology of Oceania: there will be a strong emphasis on mineral and petroleum resources and geo-environmental geohazards.

Eldridge Moores appreciated both presentations and then opened the floor to further discussion. Ryo Matsumoto expressed the hope of involving all countries of Oceania. The current situation in the SW Pacific is a problem because of the political problems. Hopefully these will be resolved soon. In particular, Matsumoto emphasized getting the involvement of Malaysia, Indonesia and Japan because of the potential for sleep-over field excursions before and after the main meeting. He also wished to know whether IODP will be involved.

Sylvi Haldorsen strongly advised a focus on Applied Quaternary Science to distinguish the Congress from the focus of INQUA 2007 and 2011. She also reminded the EC that the IUGG will hold a meeting in Melbourne in 2011. She also expressed interest in holding an EC meeting in Brisbane at the convention centre before IGC 34. Moores noted the next IUGG meetings is a year away, and also suggested the IGC contact the International Geographical Union (IGU). FIGS is also having a meeting in Sydney in 2010.

7. b. 1. Memorandum of Understanding for the 20th IGC

Eldridge Moores read through the draft MoU, asked for comments from the EC; and then moved to pass the MoU. Neil Williams hopes that the first signing of the MoU will take place at the Brisbane IGC.

Motion: Eldridge Moores moved to approve the document in principle, pending revisions of typos, etc.; Peter Bobrowsky seconded; **unanimously approved.**

7. c. IUGS and IGC cooperation

Eldridge Moores saw IUGS and IGC sharing the same aim: furthering the dissemination of geoscience information. Arne Bjørlykke expressed concern that IUGS is only contributing 10-20% of the IGC Science Program, including its Commission and Affiliated Bodies; and IYPE has yet to propose activities. He warned that IGC cannot continue as a congress for IUGS. Bjørlykke thought that IUGS has a declining influence (e.g., INQUA is now with ICSU) and is mostly working with its own agenda and key geoscience issues are not addressed (e.g., geohazards). The IGC vision was to have a Geoscience World Congress. IUGS and IGC should be working with other geoscience congresses and IUGS should be leading this integration; the common goal is to unify. Bjørlykke also thought that IYPE was a fantastic initiative. Neil Williams was also concerned at the lack of progress in bringing together IGC and IUGS, but also the lack of reporting by affiliated bodies. He recommended respecting the past, but moving on in the relationship. Sylvi Haldorsen saw a move toward multidisciplinary science and more integration. In Europe, multidisciplinary conferences are becoming popular and scientist benefit from these meetings.

Peter Bobrowsky responded to Bjørlykke's concerns. First, all the reports (with the exception of SECE) have come in. From the Affiliate Reports, it is clear that the influence of IUGS is growing; there are more Affiliates than ever. Regarding INQUA, IUGS supported its move to become a GeoUnion. He stressed that IUGS was a bottom-up organization; administration issues were its day-to-day business. IUGS attends other GeoUnion meetings. Bobrowsky wanted more interaction to provide a voting block on shared interests. ICSU sees the GeoUnions as a threat when it comes to voting. He cautioned against telling other GeoUnions where to hold their meetings. Regarding key issues not addressed, Bobrowsky noted that geohazards were the domain of IUGG and stressed the importance of respecting the boundaries of other GeoUnions. Finally, IUGS has contributed to IGC, peaking in Florence where the Past President of IUGS was the President of IGC 2004. IUGS took it upon itself to contact all the IGC, without stepping on local the local organizing committees.

Eldridge Moores could not agree more with the Secretary General's comments. They added that IUGS and IGC needed to be integrated and reminded the observers that IYPE was an IUGS creation. Haldorsen agreed with Arne Bjørlykke and suggested preparing by setting up Task Groups and Committees to decide on topics and interplay between Congress and IUGS. Gabi Schneider thanked Arne Bjørlykke and Neil Williams for their comments: their perceptions are real. Schneider admitted that many scientists in Africa do not see the relevance of IUGS. She strongly believes that the IUGS needs to know where it is going; new ways to operate are needed.

Ryo Matsumoto was concerned that IUGS and IGC have different functions: IUGS is a body of organizations whereas IGC is a Congress. Sylvi Haldorsen recognized that IGC was where Geology was most visible. IYPE will be a good chance to make Geology more visible to the global community. IUGS and IYPE could identify 2 or 3 main topics for the Congress. These could be worked on during inter-congress years. Arne Bjørlykke suggested a forum of topical issues for Affiliates would be a good idea. Peter Bobrowsky agreed that the Affiliates were important and stressed the need to send out invitations. He also noted that the GSA (with +20,000 members) has been informed about the IGC, IUGS and IYPE. IUGS tried to have some representation at Affiliate meetings but it was not possible to attend 40-odd in a year.

Bobrowsky thought every geologist should attend IGC. Eduardo de Mulder recommended a day or two of discussions focused around the Mid-Term Vision and reorganization.

Godfrey Nowlan remarked that all major organizations have experienced delays in identifying and agreeing on topics and content of meetings, congresses and the future of geology. IUGS should have a Science Program Committee with experts and people who have experience organizing large meetings. Marta Mantovani felt if there was to be any future for geology, IUGS needed a vision. Arne Bjørlykke again stressed the need to reach out to the science community and public at the Congress; business could be restricted to the IUGS Bureau meeting. Peter Bobrowsky saw a need to convince the geoscience community that IGC was the meeting place for organizations and affiliates; but noted that loyalties are first to their own organizational meetings. Neil Williams then mentioned that Zhang Hongren had asked Bjørlykke, Moores and himself to prepare a MoU on IGC 34. Williams then offered to host the next EC meeting in Brisbane.

Action item: Sylvi Haldorsen to Chair a Task Group (with Gabi Schneider, Eldridge Moores, Neil Williams, an IUGG representative, and others from Affiliates) to develop a strategic position on collaboration between IGC, IUGS and IUGS Affiliated Bodies. Report to be completed by 1 September, 2007.

Eldridge Moores concluded with several points: 1) there was a need for increased communication; 2) a policy statement was needed (this could be an action item); 3) there is a need for continuity between IGCs other than the IGCC; 4) geosciences need to be more integrated; 5) the future of geology was uncertain and perceptions were changing; 6) the EC received an invitation to Brisbane; and 7) a planning committee for the 2016 Inter-GeoUnion Congress is needed.

8) INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)

8. a. Relations with ICSU

Peter Bobrowsky commented that where possible, representatives of IUGS and ICSU meet; for example, Bureau members met with Thomas Roswell in Paris in 2006. In the GeoUnion Statement, the IUGG agreed to represent a collective opinion on what was wrong with ICSU. Following a meeting in Shanghai, it became clear that there were problems. IUGS responded but never got a reply from ICSU. Bobrowsky expressed concern that this Body did not operate transparently. After many edits, the GeoUnions came up with a document that was sent to the ICSU Executives and sent to other Unions. It was discussed by the ICSU Executive Board and Jean-Paul Cadet met with the incoming ICSU President. Other Unions have experienced similar problems with the ICSU EB. Roswell felt that the document was unfair and he was shocked that the Unions felt there was a problem. He also announced that he was stepping down at the next meeting.

Bobrowsky said that it had been agreed to lower the level of support to ICSU. ICSU has changed its currency of operation so that now all bills are sent out in Euros. The IUGS has agreed to a certain level of payment. Of the 29 Unions, the average membership level was 3; for the GeoUnions, it was 4. Regardless, ICSU has submitted a bill and IUGS is now in arrears. However, IUGS is sticking to a fixed amount and paying back-dues; and at a new level in Euros. In a few years, hoped Bobrowsky, if the situation at ICSU improves, then IUGS would increase its membership level.

8. b. ICSU Committees and IUGS representation

Policy Committees have been established by the ICSU GA to assist their EB in fulfilling the governance objectives of ICSU. ICSU currently has four Policy Committees. Members and Chairs, if not otherwise designated, are appointed by the EB.

[Committee for Scientific Planning and Review \(CSPR\)](#)

[Committee on Finance \(CF\)](#)

[Policy Committee on Developing Countries \(PCDC\)](#)

[Committee on Freedom and Responsibility in the conduct of Science \(CFRS\)](#)

Ad hoc Committees are set up by either the General Assembly or the Executive Board; these have a very specific remit and are expected to complete their tasks within a pre-determined timeframe. At present, ICSU has the following Ad hoc Committees addressing diverse issues:

[Review of the Earth System Science Partnership \(ESSP\)](#)

[Millennium Ecosystem Assessment \(MA\) Follow-up Group](#)

[Ad hoc Strategic Committee on Information and Data \(SCID\)](#)

[Planning Group on Natural and Human-Induced Environmental Hazards and Disasters](#)

[Review Committee for the Grants Programme](#)

[ICSU ad hoc Scoping Group on Human Health](#)

[International Science Panel on Renewable Energy](#)

[Working Group to Review the Dues Structure](#)

The Executive Board recently considered in detail the procedures for nominations and appointments to various types of ICSU committee. These procedures are available on the website (http://www.icsu.org/5_abouticsu/STRUCT_Comm_1.html) with the goal of providing greater transparency about the process. All the people invited to serve on ICSU committees are invited to do so in a personal capacity; they are selected on the basis of their personal qualities and knowledge and not as representatives of nominating organizations. The Executive Board emphasises that all nominations are considered very seriously and efforts made by Members in identifying nominees are very much appreciated. ICSU has several types of committees and, taking into account also the diversity of the ICSU Membership, the selection process that you propose is not feasible for ICSU committees *per se*. However, there are several areas where further improvements in the process can and should be made, including the feedback that is given to non-selected nominees and their nominating organisations once the selection process has been completed.

8. c. ICSU Grant Programme

The Grants programme has been temporarily suspended because of withdrawal of funding by the previous partners – UNESCO and the US State Department. ICSU fought very strongly to have this reinstated and the Program is currently under review, as proposed by the Executive Board and endorsed by the General Assembly in 2005. After consultation with all Unions and Interdisciplinary Bodies a review group has been established, under the aegis of the Committee on Scientific Planning and Review, and will be meeting in early November. This group includes members selected from Union nominations. Depending on the outcome of this review, which includes consultation with both National and Union Members, efforts may be made to attract additional sponsorship for a revised programme. All Members will be kept apprised of progress and ICSU looks forward to a successful outcome.

8. d. Relations with other ICSU Unions

8. d. 1. GeoUnions Meeting, Maputo, July 6, 2006

Peter Bobrowsky tried to arrange a GeoUnion meeting at Maputo, but there was no quorum.

8. d. 2. ICSU Unions Meeting, Rome, April 23 -24, 2007

Bobrowsky noted that the GeoUnions were not able to table their position. The IGU agreed to host a 2-day strategy forum in Rome before the ICSU meeting.

9) IUGS POLICY AND STRATEGY MATTERS

9. a. IUGS Statutes

Eldridge Moores talked about the request of the IGCC to re-split the combined Statutes and Byelaws and referred also to Agenda Item 5. c. 4. The EC was asked to vote after the revised document provided by Wolfgang Eder had been read. Eduardo de Mulder was still opposed to the dual set of Statutes and Byelaws and wondered whether the discussion was irrelevant given that the Task Group was still active. Sylvi Haldorsen note that the Task Group was charged with examining the relationships with other Unions and come up with tasks that are critical to increasing the visibility of the geoscience community. Moores recommended voting on the divided, then undivided Statutes and Byelaws, then sending a letter to Council based on the decision.

Action item: Eldridge Moores will provide a clean and final draft of the IUGS and IGC Statutes and Byelaws (this includes the combined and the two separate versions) to the IUGS EC.

9. b. Priorities of IUGS

From the 2006 report of IUGS President, Eldridge Moores reiterated Zhang Hongren's priority matrix for IUGS (*see* 4.a. President's Report). In the latter's absence, Moores and Peter Bobrowsky were not quite sure if the EC should cover this Agenda Item in any great detail. Gabi Schneider briefly mentioned IGCP activity in Africa and applying the results of Earth science studies as a clear priority for IUGS.

9. c. Financial support for access to Bureau positions

Antonio Brambati reported that IUGS covered some expenses amounting last year to EU 3000 and recommended forming a reserve fund to support requests. In this context, Sylvi Haldorsen asked if IUGS would support, say, a bureau member from a developing country. From Gabi Schneider's experience, funding would be found. Brambati highlighted another use for the reserve: for example, in some countries, if an institution offers to pay, instability results during years when it cannot cover the expenses of the Bureau member. The revised Statutes and Byelaws recognize that only the President's expenses are covered. Brambati recommended placing US\$ 3000 in reserve for financial contingencies.

9. d. Strategic Meeting in Maputo, July 1-2, 2006

Sylvi Haldorsen reported on this informal brainstorming session, adding that the Minutes still need some work. At the meeting, the Bureau attempted to identify poorly researched areas that were not well covered by IUGS, in particular, The Ocean. The problem, remarked Haldorsen, is that many Affiliates and other GeoUnions cover these topics, so there is perceived 7 under-represented areas. Eldridge Moores was concerned about the lack of link to Oceans and stressed this was something that required action, noting that DOSSEC was promoting IGC (to Arne Bjørlykke's surprise). Antonio Brambati felt that The Oceans was too broad a concept for many countries; Moores suggested focussing on the Geology of the Deep Ocean.

Action item: Eldridge Moores to inform Arne Bjørlykke about DOSSEC.

Eduardo de Mulder saw that it was a challenge to identify new fields of interest to IUGS because it was a bottom-up organization; developing a driving force for success is rarely top-down. IYPE is covering the Ocean and many new topics, added de Mulder. However, it was difficult to keep scientific teams active for longer than 9 months because of problems finding funding and people with time to dedicate to producing text books. As such, the idea is not feasible. Brambati wondered whether a Task Group was required. Haldorsen recognized that GEM was coming out with a book on how society is linked to the earth science issue.

Discussion turned briefly to Commissions and Affiliated Organizations. Haldorsen suggested that Commissions should sunset themselves after 8 years. Bobrowsky suggested each EC member contact their appropriate Commission and Affiliated Organization as an action item.

Action item: Each EC member should write a letter to their appropriate Commission and Affiliated Organization as appointed in the 57th meeting. EC members should copy the Secretary General on these communiqués.

After Maputo, Haldorsen saw the need to be careful in the way IUGS proceeds; some fresh material was needed. She wondered whether IUGS should be involved since Affiliates are working on many of the topics. Haldorsen and de Mulder also saw the need to define how many categories of sub-bodies existed.

Action item: Sylvi Haldorsen to inform Adhering Organizations and Affiliated Bodies the IUGS intends to publish volumes to coincide with the 2011 Anniversary.

Action item: Secretariat to send copies of all the Task Group reports (that were used to contribute to the Mid Program Vision) to all of the EC members.

Ryo Matsumoto asked about the procedure to select new themes. Schneider and de Mulder noted that much thought went into selecting IYPE themes, and it was hoped that the Year would become a legacy. It was a start, and something to build on. Robert Missotten was somewhat concerned that Japan wanted to express IYPE themes of their own choosing. On the topic of The Ocean, IODP and DOSSEC, Matsumoto found all were very important for Japan. He recommended strengthening the relationship with IODP.

Action item: Ryo Matsumoto to explore IUGS activity collaboration with IODP.

10) INTERNATIONAL YEAR OF PLANET EARTH

Eduardo de Mulder announced his resignation in December 2006 from membership in the IUGS EC to devote his time and efforts more fully to the International Year of Planet Earth, serving as the Executive Director of the Secretariat of the IYPE Corporation.

Upon proclamation of the International Year of Planet Earth by the UN General Assembly on 22 December 2005 (Resolution A/RES/60/192), three priority lines of action were on the agenda for IYPE in 2006: 1) creation of a professional organisation; 2) encourage countries to implement the Year on national levels; and 3) raise funds for implementation. With the help of a PowerPoint presentation and Anne Liinamaa-Dehls, the EC was informed by de Mulder about progress in the Science and Outreach Programme Committees, about the status on our plans for the official launch of IYPE in 2008 and on the current status of the IYPE Patrons.

10. a. Organisation

On 16 March 2006, the International Year of Planet Earth was registered as a not-for-profit 501 (c) 3 organisation under the law of the State of Delaware, USA. The Corporation reflects responsibilities of the stakeholders and players in the Year and consists of a Board with Officers for Decision making and a Secretariat to manage day-to-day operations. Both entities are supported by advisory bodies. Upon incorporation, the members of the (informal) Management Team were made Officers of the Board as to run the corporation until they are replaced when the Board has been installed, on the 9th of January 2007.

10. b. Board

The Board is responsible for all decision-making on strategic and legal matters, and instructs the Secretariat. All stakeholders are represented on the Board. These include both Initiators (IUGS and UNESCO) as ex officio members with veto voting power (see EC56 minutes), each of the Year's Founding Partners, one representative of the Associate Partners, one representative of the International Partners. In addition, Chairs of the three main lines of activity (science, outreach and fund-raising), and the National Committees by way of 6 (to 8) Regional Representatives are members of the Board as well. Major Sponsors (>US\$ 1M) are represented on the Board and representatives of all other sponsors and donors will share seats on the Board.

Representatives of IUGS (Bobrowsky) and UNESCO (Missotten) have been identified. This also holds for the Chair of the Science Programme Committee (Derbyshire) and of the Outreach Committee (Nield). Regional Representatives have been identified for North America (Woodfork), and Latin America (Rubio), Africa (Toteu). The following Founding Partners have identified a representative in the Board: FIGS (Consortium of IAEG, ISRM and ISSMGE): van Impe, GSL (Nickless), ILP (Cloetingh), ISRIC (Dent), IUGG (Shamir), IUSS (Nortcliff), and TNO (van Bracht). That leaves the Board with the following vacancies: the Chair of the Board, the Chair of the Development Committee, the Representatives for Australia & Oceania, Europe and Asia, representatives of several Founding Partners and a representative of the Associate and one for the International Partners. Selecting the Chair of the Board belongs to the highest priorities for the Corporation. These vacancies will be discussed in the first Board meeting on 9 and 10 January 2007.

10. c. Secretariat

The Secretariat is responsible for all of IYPE's operational activities at the international level, including preparing and implementing the Board's decisions and instructions, maintaining contact with the Advisory Bodies and the National Committees, promoting and representing the IYPE, producing promotional and documentation materials, maintaining the website, correspondence, book-keeping, budget preparation, 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 of events, maintaining contact with all stakeholders, responding to requests from stakeholders, maintaining contacts with other science years initiatives, et cetera.

The Secretariat is hosted by the Norwegian Geological Survey in Trondheim, Norway. The Secretariat has a full-time Executive Director responsible for all operations in the Secretariat. Services of the Executive Director and other staff members of the Secretariat are paid by the Corporation. The Executive Director acts as a non-voting Secretary of the Board. The relations between the NGU, the Board and the Executive Director are described in an Agreement. That Agreement is supposed to be signed for approval by all parties on 9 January 2007.

Peter Bobrowsky asked for further clarification on de Mulder's role as Executive Director (ED) of the Secretariat of the IYPE Corporation and his relationship to the NGU Secretariat. Arne Bjørlykke noted that although the ED orders the NGU Secretariat to do work, NGU is not formally responsible. The NGU Secretariat can be considered to be working a contract for IYPE.

10. d. Joint Statement and Bilateral Agreement

The relation between IUGS and UNESCO on the one hand and the International Year of Planet Earth Corporation on the other is based on the Joint Declaration, signed in November 2006 and published in the IYPE business plan. The relation between IUGS and the IYPE Corporation is described in the Bilateral Agreement. In the EC 56 meeting, UNESCO stated that it approves the contents of the Agreement once IUGS accepts this document. In the EC 56 meeting, the IUGS EC approved a Bilateral Agreement between both parties on the condition that all financial matters would be removed. The option for the Corporation to borrow a maximum amount of US\$ 125,000 from IUGS was incorporated as a special issue in the EC 56 minutes. Now that this matter has been resolved and the Joint Declaration has been signed, no more obstacles exist to sign the Bilateral Agreement. That would free IUGS from any future financial commitment to the Corporation except for the earlier agreed option to borrow money to the Corporation to a maximum of US\$ 125,000.

10. e. Statutes and Bye laws

As an independent organization, the Corporation produced its own Statutes and Bye laws. Draft Statutes were approved by IUGS on the condition that they would comply with the Bilateral Agreement and that they would be approved by the Board. As the Bilateral Agreement has been used as the basis for the Statutes, these fully comply. The Statutes of the Corporation are envisaged to be approved by the Board on 9 January. The IYPE Bye-laws were produced mid 2006 and were based on the Bilateral Agreement and the Statutes. The IYPE Bye-laws were submitted to the fiscal authorities in the USA for tax exemption and approved by the Board. Also, the IYPE Bye-laws are foreseen to be approved by the IYPE Board, in January 2007.

10. f. National Committees

Most impact of the aims and ambitions of the International Year of Planet Earth is expected at national levels. One of the deliverables scheduled for December 2006 was the creation of 20 National Committees. In reality, 32 such committees were established by early January 2007, i.e. 50% more. Once proclaimed by the UN, the IYPE initiative was received very well in many countries which started their preparations for a National Committee. In addition to the 32 National Committees, in 20 more nations establishment of such a committee is in progress and 8 others started their activities to that end. In sum, de Mulder expects at least 50 nations with a national committee by the end of 2007, although Africa is lagging behind. Relations between the International Corporation and the National Committees are secured through Memoranda of Understanding. By signing these MoU's responsibilities of both parties are described and assessed.

10. g. Fundraising

Regarding fundraising, de Mulder distinguished between raising funds for the IYPE on national levels and on an international level. Fundraising at national levels is the prime responsibility of the national committees, in some occasions assisted by the IYPE Corp. This has been quite successful in 2006, and about US\$ 20 M of mainly in-kind contributions was collected so far. It is not impossible that this amount may exceed US\$ 100 M by the end of 2009. A small part (rough estimate: US\$ 300,000) may return to the IYPE Corp. by the end of 2009, by a clause in the MoUs between National Committees and the Corporation.

By December 2006, cash income for international activities was committed by four International Partners and 9 Founding Partners, amounting to a total of US\$ 220,000. Some 12 potential International Partners (total value about US\$ 260,000) are in the pipeline. By providing in-kind support, several public and private organisations announced to cover significant parts (approximately US\$ 1,100,000) of the costs involved in the international outreach and administration activities.

The overall cash and in-kind financial support announced and partly committed by mid December 2006 is about US\$ 1.6 M, closely corresponding to the amount targeted for the end of 2006 in the Year's business plan (US\$ 1.5 M). As this money is not (yet) and for the major part never will be on the IYPE Corp. bank account, cash problems may and actually do occur in the IYPE Corp. This has partly been mitigated by a US\$ 40,000 loan by IUGS, mid 2006. Attempts to raise substantial funds from industry for international activities through the Corporation fund-raising activities have not been very successful yet. This may be attributed to several causes. First, the members of the Board and the Development Committee lack professional fundraising expertise as they are geoscientists in the first place. Secondly, the Chair of the Development Committee resigned for health reasons. Thirdly, an attempt to approach all major mining companies collectively through the Secretary General of the International Council on Mining and Metals (ICMM) proved to be unsuccessful.

Lessons learned from our 2006 fundraising activities reveal that there is, in general, significant interest in the IYPE aims and ambitions, both in the extraction industries and beyond, in particular those targeted on sustainability issues. Industry sees potential benefit of the IYPE in the first place for its potential to develop new generations of geo-experts exploring for new resources, based on the German GeoJahr 2002 experience. But they appear to be far more

interested investing money nationally than internationally. Lack of professional fundraisers retarded fundraising, although the target set for the end of 2006 was met. Potential sponsors should always be approached in person first and at the highest possible levels, preferably through Patrons and Goodwill Ambassadors. More efforts should be dedicated to approach Foundations, insurance and fertilizers companies and those operating in sustainability issues. Donors are a very significant potential resource and deserve special attention. TV and other media companies should be approached in a concerted action to provide not only free broadcasting, but rather paying IYPE for the content provided to their services.

The IYPE Fundraising Plan for 2007 includes the following components: reinforce the Development Committee by professional support, description of clear targets for funding, put more focus on the Arab world, identify a Chair of the Board and more Patrons, expand number of International Partners, organise Partnership Conferences, identify appropriate Foundations and Donors, and approach TV and media companies. Implementation of the Fundraising Plan 2007 is estimated to cost US\$ 120,000, most of which is self funded or covered by the IYPE Secretariat.

10. h. Financial Statement and Budget 2007

IYPE is running a deficit at the moment, with most money committed to run the core business by the Secretariat. Budget plans have been prepared. In the first year of the IYPE triennium, the budget is significantly higher than in 2006. A conservative estimate indicates that income and expenditures for 2007 will be approximately in balance, i.e. about US\$ 700,000. Expected income for 2007 is based on a very moderately successful implementation of the Fundraising Plan 2007. The AGU, a number of European geological surveys and Australia may contribute up to US\$15,000; 10-25% of the Secretariat costs could be covered by Norwegian ministries and companies; and other sponsors can be found.

10. i. Science Programme Committee (SPC)

In 2006, activities in the SPC were concentrated on the creation of the Science implementation Teams (SITs). Some 25 Expressions of Interest have been submitted for approval by the SITs. These will be evaluated early 2007 and partially granted as soon as there is some funding available for the Science Programme. In 2006, National Committees were checking options to label specific components in their current and forthcoming national science programmes to IYPE. Apart from a few seats, the SIT's are composed as follows:

Theme	SIT Leader	SIT Members
Groundwater	Hill (USA)	Struckmeijer (Ge), Adelana (Nig.), Jones (UK), Zhang (Cn), Xu (S. Afr.), Christian (USA), Wang (Cn)
Climate	Dodson (Au)	Alverson (USA), Nield (UK), Yuan (Cn), Yim (CN), Wigand (Ge), Larocque (Ca), Meadows (SA)
Earth & Health	Selinus (Se)	Centeno (USA), Finkelman (USA), Weinstein (Au), Derbyshire (UK), Manay (Ur), Gogan (Tu), Davies (Ta)
Deep Earth	Cloetingh (NI)	Mulugeta (Et), van der Pluijm (USA), Friedrich (Ge), Gabrielsen (No), Roure (Fr), Ludden (UK), Zoback (USA)
Megacities	Kraas (Ge))	Nennonen (Fi), Marker (UK), de Mulder (NI), Coy (Au), Aggarwal (In), Xue (Cn), Yu (Ko)
Resources	Sinding-Larsen (No)	Shields (USA), Gleditsch (No), Ekdahl (Fi), Mienert (No), Cherkasov (Ru), Kouda (Jp), Persson (Sw)
Hazards	Beer (Au)	Marsh (UK), Bobrowsky (Ca), Chadka (In), Cutter

		(USA), Pagliai (It), Supharatid (Th), Wu (Cn)
Ocean	Chen (Cn)	Lin (USA), Fischer (USA), Devey (Ge), Whitmarsh (UK), Cannat (Fr)
Soil	Hartemink (NI)	Nortcliff (UK), Frossard (Sw), Boettinger (USA), McBratney (Aus), Mendonca-Santos (Br), Zhang (Cn), Bationo (Kenya)
Earth & Life	Talent (Au)	Blieck (Fr), Codrea (Ro), Hartzhauser (Au), Liebermann (USA), Mocanu (Ro), Reichenbacher (Ge), Shen (Cn)

Arne Bjørlykke thought the bottom-up process worked. He also cautioned that although there are good programs, committees sometimes do not have fully appropriate members or the best possible SIT members. Eldridge Moores said there was not enough time to get a large amount of bottom-up science completed in the triennium; and that what little there was is limited by a lack of funding. Gabi Schneider asked how IYPE aimed to communicate with science: through the Website answered de Mulder. In addition, remarked de Mulder, only projects dealing with several countries or that are of regional importance will be considered, including projects already underway (e.g., IODP could be enlisted to adopt IYPE).

10. j. Outreach Programme Committee (OPC)

In 2006, the Outreach Programme Committee expanded in size and some major international events were being programmed. Most outreach activities during the triennium will be implemented at national levels. A provisional list of plans, ideas and concrete plans is incorporated in the latest IYPE flyer. Some 25 Expressions of Interest for Outreach projects were submitted to the OPC in 2006. Major outreach activities planned are:

1. Visibility at top international geo-knowledge conferences
2. Balloon launches
3. Geo-buses
4. Ministry of mining world forum
5. Exhibitions
6. Popular books and articles
7. Tours and excursions
8. Teaching teachers
9. TV documentaries
10. DVD on sustainable development
11. Youth and the Earth
12. Geoparks
13. Olympic Games
14. New Year 2008 concert in Vienna
15. Commissioned music symphonies (e.g., China)
16. Art competitions
17. Planet Earth ring-tones

Arne Bjørlykke thought the right priority was to emphasise outreach rather than science. He also noticed there was not a word about IGC 2008 in the IYPE report. Eduardo de Mulder assured Bjørlykke that IYPE-IGC activities are planned. The Board had also considered a commercial website for the public as another source of outreach. A book was possibly a better option, thought de Mulder, because IYPE, IUGS and UNESCO would have more control over the content and appearance of the product and late last year the EC and Godfrey Nowlan evaluated a proposal. Antonio Brambati and Marta Mantovani brought to the EC's attention

IYPE outreach activities in Brazil, including the dedication of a park in Sao Paolo and involvement of a major mining company in starting up a museum.

10. k. Official opening of the IYPE

The 2007-2009 Triennium started early 2007 and witness many unofficial openings events, among them the balloon events in January 2007. The official opening of the International (UN) Year will take place mid February 2008, at UN headquarters in Paris. During a two days event, distinguished politicians, scientists and industrial representatives will discuss options how to cope with some of the world's main challenges by using knowledge of Planet Earth. The second day, the same VIPs will debate these issues with some 1000 juniors from UNESCO schools around the world. These meetings will be chaired by the UNESCO DG and several sponsors have expressed interest in providing financial support. IYPE aims to implement that event at no cost to the Corporation.

10. l. Events for 2007 and IYPE involvement

The IYPE will be present at least in the following 2007 events: PDAC in March, Toronto; EUG in April, Vienna; IUGG in July, Perugia; GSA in October, Denver; and AGU in December, San Francisco.

10. m. Patrons

In 2006, Sam Nujoma (Founding President of Namibia), Benjamin Mkapa (Former President of the United Republic of Tanzania), Sir Mark Moody-Stuart (Chair of Anglo American) and Ruud Lubbers (Former Prime Minister of the Netherlands) became IYPE Patrons: It is an IYPE ambition to expand the number of VIP Patrons to 15 by the end of 2007.

10. n. General Discussion

Eduardo de Mulder wanted to discuss the agreement concerning the Secretariat, the proposal to publish a book and commercial website, and approval of the bilateral agreement between IUGS and the Board of IYPE. Another problem was that at present IUGS is represented by Peter Bobrowsky, who, because of technicalities with his position with the GSC, is not allowed to sign off; another IUGS EC member who is able to sign off is needed to replace the Secretary General.

After reviewing the budget, Antonio Brambati remarked on the low investment in science and suggested investment. Brambati wanted to see more investment in science and research for political reasons. Sylvi Haldorsen also looked at budget alternatives, noting that the Secretariat costs were the dominant expenditure. She felt that a budget plan was lacking for the different outreach activities and science themes. Haldorsen recommended lowering administrative costs and putting more money toward products.

Eduardo de Mulder replied that more money will be generated for science by outreach activities. This money would also be beneficial to the IGC and IUGS. Outreach products for 2008 should be prepared in 2007, but these materials have to be pre-paid. Arne Bjørlykke thought that this was a fantastic opportunity for IUGS to become involved with IYPE and exposed to the world. Contributing US\$ 20,000 would be nothing compared to the benefits. In the public's mind, if outreach cannot be done well, then it follows that there cannot be good

science. Bjørlykke recommended that science activities can be picked up from on-going projects. Alik Ismail-Zadeh asked about the role of Founding Partners of IYPE. Eduardo de Mulder pointed out that a key role was played by IUGG as the first Founding Partner, and complimented the commitment of Uri Shamir. He explained that Founding Members have a seat on the Board and can steer directions of decisions. There are invited to submit names for programs and involvement. IUGG was also instrumental in bringing together all three UNESCO Science Years.

Bobrowsky wished to know why a cap could not be placed on officers' expenditures; noting that 60-70% is going toward salary; up to US\$ 300,000. Could volunteers be used? Eduardo de Mulder replied that IYPE was a professional organization so money should be available to cover salaries. Haldorsen also question whether US\$ 15,000 was too much for the Website. No, replied de Mulder, because it was updated regularly. Ismail-Zadeh wanted to see an increase in the amount committed to Science and Outreach. Moores wanted to know how the Bilateral Agreement would affect the staffing of the Secretariat and IUGS. Bjørlykke said that both IUGS and IYPE could be accommodated.

Bobrowsky wondered whether Zhang Hongren could sit on the Board and what were the implications of operating without a Chair. Eduardo de Mulder responded that IYPE could operate without a Chair with the Vice Chair of the Board operating in the interim.

Action item: The Secretary General to write to Zhang Hongren and ask him to replace Peter Bobrowsky on the Board of IYPE; and Eduardo de Mulder to send Zhang Hongren a letter inviting him to sit on the IYPE Board as the formal representative of IUGS.

Eldridge Moores then moved discussion to the proposal to publish a book and commercial website. Moores had person philosophical problems on commercialization and he saw a key issue was whether IUGS should have a presence on any commercial venture. Moores was assured that IUGS/IYPE would have control and use of logos. Bobrowsky was also concerned about the book and commercialization. Gabi Schneider could not visualize what the book would be about. Haldorsen thought it would depend on what funds could be raised; the same going for other outreach initiatives and the Website. Godfrey Nowlan was assured by de Mulder that IYPE would have liberty over the content.

Action item: Gabi Schneider and Eduardo de Mulder will coordinate a plan related to publications related to IYPE themes to be published by 2011 through the GSL.

After being asked to remove financial comments from the report, Eduardo de Mulder requested the EC to vote on the Bilateral Agreement between the International Union of Geological Sciences (IUGS) and the International Year of Planet Earth Corporation (YEAR).

Motion: Eldridge Moores moved to approve the Bilateral Agreement between IUGS and IYPE; Marta Mantovani seconded; **unanimously approved.**

Motion: Sylvi Haldorsen moved to receive the report but *without* approving the budget; Gabi Schneider seconded; **unanimously approved.**

11) REQUESTS FOR FUNDING AND BUDGETS FOR 2007

This Agenda Item was discussed by the EC in a closed session. Eduardo de Mulder asked how much money IUGS had in the bank; Antonio Brambati estimated around US\$ 600,000 because of the accumulation of interest. The following key funding issues were addressed.

IGCP: Good news here reported Antonio Brambati because UNESCO will support IGCP in 2007 to the sum of **US\$ 90,860**. However, the time frame for receiving this money is uncertain.

Geoparks: requested **US\$ 5000**; Brambati and Peter Bobrowsky noted that request was for travel and website maintenance out of the Beijing office.

CFF: requested **US\$ 5000**

CGI: requested **US\$ 15,000**

COGE: requested **US\$ 5000**

CSP: requested **US\$ 2000**; Eduardo de Mulder pointed out that CSP was closed, so no money need be committed.

GEM: requested **US\$ 10,000**

ICS: Requested **US\$ 45,000**; Eldridge Moores suggested holding back on **US\$ 30,000** until their personnel problems are resolved.

INHIGEO: requested **US\$ 6500**

IGGB: Sylvi Haldorsen indicated that IGGB required much funding, and requested at least **US\$ 1500** to send people meetings. Eduardo de Mulder recommended no funding based on the results of the ARC. Haldorsen recommended high funding; Bobrowsky and Moores thought a ceiling of **US\$ 8000** would be good, but they would receive nothing until they report.

Action item: Peter Bobrowsky to write a letter to IGGB explaining the IUGS position on funding levels decided.

TECTASK: requested **US\$ 5000**

CGMW: requested **US\$ 6500**

ICL: requested **US\$ 5000**; Bobrowsky noted ICL, but recommended leaving the funding level at **US\$ 2000**.

12) UPDATE

12. a. Annual Report 2005

David Huntley reported that the priority for the 2005 Annual Report was to have the final version of the text Web-ready by early March. Work on a new template and the 2006 Annual Report would begin once the final draft of the Nara Minutes was circulated amongst the EC.

12. b. IUGS Brochures and Flyers

Anne Liinamaa-Dehls reported that there were many 1000s of flyers left, some of which are now out-of-date. The flyers have to be updated with the Namib Desert photo by Gabi Schneider.

12. c. IUGS Exhibition Stand

Anne Liinamaa-Dehls and Peter Bobrowsky began the discussion by remarking that 2006 was a busy year, and asking for a decision on what meetings were to be selected and attended in 2007. Bobrowsky said that the EC had to review which meetings IUGS had a booth at, and which meetings should have IGC, IYPE and IUGS presence. Eldridge Moores added that it was necessary to prioritize meetings with large attendances.

According to the contract, the Secretariat shall, by agreement with the EC, prepare presentations of the work of the IUGS and the IGC, for delivery at selected international conferences. To allow time for booking of space and shipments to the conference site, the Secretariat contacted several meeting organizers early in January 2006 and distributed information related to timing and costs to the EC. Next year it hopes to receive more feedback from the IUGS EC and more suggestions for exhibit locations.

In 2006, with the approval of the IUGS Secretary General, the Secretariat moved ahead with the cooperation with IGC, IYPE and CGMW on various joint exhibits. It was agreed that the joint parties would pay only a) Exhibit space rental, b) Exhibit and material transport, c) other costs directly related to preparing the joint exhibit for the following meetings:

PDAC	Toronto, March 14
EGU	Vienna, April 2-4
CAG21	Maputo, July 2-5
ISC	Fukuoka, August 27
Geoparks	Belfast, Sept 15

The Secretariat suggested the IUGS Bureau and the IGC to agree to share costs of the booth space and furnishings at various exhibits considered high priority the IYPE. To save costs, on these meetings, Werner Janoschek, IYPE Exhibit manager and Treasurer, kindly offered to transfer the joint exhibit display wall from EGU in Vienna as hand luggage to the AAPG Spring Meeting in Houston (April 2006) and IUSS Congress in Philadelphia (July 9): IYPE also managed the following events: GSA, Philadelphia, October 22, 2006 and AGU, San Francisco, December 11 2006.

Full costs for meetings are difficult to predict. However, as a general rule, larger conferences are more expensive (US\$ 3000), than smaller conferences, have in several instances offered space and/or booth attendees free of charge (GSC during PDAC, Geoparks, ISC, IGEO).

The Secretariat acknowledges all those who assisted in making the various Joint Exhibits possible, including Brent Weinheimer (GSC, Canada), Lopo Vasconcelos (DNG, Mozambique), Ryo Matsumoto (ISC organizer, Fukuoka) and Mahito Watanabe (AIST, Japan). Thanks also goes to the following booth attendants: Morten Often (Norway), Clara Cardenas (France), Wolfgang Eder (Germany), Ted Nield (UK) and Clarise Cadet (France) and Judy Moores (USA).

Liinamaa-Dehls requested that the EC agree to update and reprint current IUGS panels that are now in Vienna (approximate cost US\$ 3000) along with the exhibit hardware. Also the EC should consider purchasing lighter weight display systems (Solo Roll-up) of door size frame (5-8 kg) that have panels that can be printed and laminated in-house at NGU (US\$ 100-200). The lighter displays are more economical to transport. Having exhibit size poster will allow for simultaneous promotional activities. The Secretariat suggests that the terms of costs sharing established in writing and that all booth expenditures be pre-paid by the IUGS Treasurer. Bobrowsky reminded the EC that there are always booth rental fees at meetings. Travel costs are paid for by individuals and those that go to meetings do the bookings and are reimbursed by IUGS.

Eldridge Moores then opened the floor to general comments and suggestions for meetings in 2007. Arne Bjørlykke said that the IGC would be attending the PDAC and EGU in Vienna. Gabi Schneider will be at the Annual African Mining meeting, a large venue with some 1500 attending. Eduardo de Mulder said that IYPE was planning on attending AAPG, IUGG, PDAC and EGU meetings in 2007. Peter Bobrowsky indicated that IUGS would not be at PDAC, but that it should have a presence at the EGU. Bobrowsky, Bjørlykke and Moores noted that they planned to attend AGU and GSA, so IUGS, IGC and IYPE would be there. Moores also suggested that IUGS needs to think more about ocean-focused meetings. Bobrowsky also mentioned the 10th International Symposium on Landslides and Engineering Slopes.

Liinamaa-Dehls and Bobrowsky then moved discussion to the Poster Displays for conferences and meetings with smaller number of attendees. The following venues were identified by Godfrey Nowlan (GAC/MAC), Bobrowsky (Vail landslide meeting), and Sylvi Haldorsen (INQUA and IAH). Mikhail Fedonkin mentioned the meeting of the Palaeontological Society of Russia. Marta Mantovani said that she would be attending the annual meeting of the Geophysical Society in Brazil. Schneider also mentioned that she would be attending PDAC and One Geology.

Bobrowsky then requested a follow-up on buying additional stands and printing new posters, and asked if the posters were in a Corel file format. Liinamaa-Dehls said that she would send the EC the FTP link so they could download the graphic files. Bobrowsky and Liinamaa-Dehls then asked whether the Wall Panel for booths was to be updated, commenting that the panels were in bad shape after much use. They stressed the panel should be reprinted and noted that current design does not give prominence to IUGS and IGC. Moores commented that there was an emphasis on IYPE. In its present condition, de Mulder remarked, the wall panel does not look professional. IGC would also like the wall panel and poster revised and reprinted added Bjørlykke.

Action item: Permanent Secretariat to send a final list of co-shared meetings with IYPE and IGC to the Secretary General as soon as possible.

Action item: Anne Liinamaa-Dehls to prepare a finalized list of conferences for Bobrowsky so he can contact IGC and IYPE and suggest they share the costs for displaying booths and posters with IUGS.

12. d. IUGS Exposure and Advertising Products

The Secretariat reported that over 1000 posters were distributed at the last Congress. A new poster for IUGS could be made with Gabi Schneider's photo: with only the website address in larger letters. The description of the photo, why it was chosen as the IUGS motif for 2004-2008 Term, and the name of the photographer could appear in smaller font. Episodes printing costs for A1 size paper are: 1 piece: US\$ 10; 1000 piece, US\$ 1000; and 10000 pieces, US\$ 3000. There were enough ties and scarves to last until 2008. Eduardo de Mulder said that IYPE was willing to put items on their Website; items could be distributed through the website. Sylvi Haldorsen suggested producing IUGS scale cards at the Oslo IGC. David Huntley also suggests producing IUGS geoart cards; blank greeting cards with reproductions of paintings highlighting geological landscapes. Peter Bobrowsky made it clear that if the EC wanted to items to give out at the IGC (Oslo and Brisbane), then money needs to put aside in the budget.

Motion: Peter Bobrowsky moved to have money (US\$ 10,000) put aside in the budget to cover IUGS exposure and advertising products; Gabi Schneider seconded; **unanimously approved.**

12. e. IUGS Power-Point presentations

Eldridge Moores noted that this was Zhang Hongren's task and he could not comment on its status. Antonio Brambati presented a short version of the PowerPoint presentation.

13) FREE DISCUSSION

There was no free discussion.

14) VENUE AND DATE OF THE 58th and 59th EXECUTIVE COMMITTEE MEETINGS

Peter Bobrowsky announced that the IUGS had tentatively accepted an offer to go to Morocco for EC 58; and suggested together with Neil Williams that following Oslo, the new EC should go to Brisbane to share in IGC preparations for 2012. Eduardo de Mulder suggested sharing the EC meeting with the February 2008 launch of IYPE in Paris; Robert Missotten offered to provide a room at UNESCO. Antonio Brambati thanked Missotten and Williams for their offers; but defended Morocco as a choice of venue because it was less expensive and already committed. Sylvi Haldorsen liked the idea of Paris and Brisbane, but agreed that Morocco should be the place since it was already scheduled.

Motion: Peter Bobrowsky moved to officially respond to Morocco's offer to host the 58th EC Meeting; Marta Mantovani seconded; **unanimously approved.**

Action item: Secretary General to contact Morocco and inform them that IUGS has accepted their offer to host the 2008 EC.

After general discussion it was decided that February or March was the best time to have the meeting. Bobrowsky, de Mulder and Williams suggested the EC accept Brisbane as the 59th EC Meeting.

Motion: Peter Bobrowsky moved to accept Brisbane as the host city for the 59th EC meeting in 2009; Sylvi Haldorsen seconded; **unanimously approved.**

Bobrowsky and Haldorsen agreed on the need to place an open call bid for IGC 2016 in an E-Bulletin.

Action item: Sylvi Haldorsen to include an open call for bids to host the 2016 IGC in the next E-Bulletin.

15) OTHER BUSINESS

Eldridge Moores brought to the attention of the meeting a letter written by Arun Deep Ahluwalia expressing concern that not enough is being done in the aftermath of the Sumatran tsunami disaster. In the letter he suggested IUGS should sponsor Tsunami museums across the world and appeal to all researchers to devote one day a week as geological missionaries spreading awareness about hazards and their mitigation. Local dialects and visuals would have to be adopted for the purpose.

Neil Williams assured the EC and observers that work was being done; the whole tsunami warning issue was being handled by the IOC and they should be left to do their job. The mechanisms had to be put in place to warn and evacuate people in low-lying areas. He was not sure what IUGS could contribute. Peter Bobrowsky said that Zhang Hongren should respond and the Secretary General would draft a response.

Action item: Secretary General to draft a letter for signature by Zhang Hongren responding to Arun Deep Ahluwalia's letter for tsunami museums.

In closing, Eldridge Moores thanked the Japanese hosts, sponsors and everyone who attended the 57th EC Meeting in Nara.

Appendix 1: List of Motions

Motion 1: Peter Bobrowsky moved to accept the Meeting Agenda; Gabi Schneider seconded; **unanimously approved.**

Motion 2: Sylvi Haldorsen moved to accept NWGA; Eldridge Moores seconded; **unanimously approved.**

Motion 3: Gabi Schneider moved to accept AAWG; Peter Bobrowsky seconded; **unanimously approved.**

Motion 4: proposed by Peter Bobrowsky and seconded by Eldridge Moores to establish a task group to study the structure and functionality of international committees within particular countries; and to establish a position statement on behalf of the IUGS on the function of multiple geoscience committees; **unanimously approved.**

Motion 5: Peter Bobrowsky moved to approve the three choices for Associate Editors for Episodes: Dr. David Oldroyd (University of New South Wales, Australia); Dr. Maarten de Wit (University of Capetown, South Africa) and Dr. Kalachand Sain (NGRI, Hyderabad, India); Sylvi Haldorsen seconded; **unanimously approved.**

Motion 6: Peter Bobrowsky moved to receive the PC Report; seconded by Mikhail Fedonkin; **unanimously approved.**

Motion 7: Peter Bobrowsky moved; Eldridge Moores seconded to close CSP and compliment the group on 36 years of substantial achievements; **unanimously approved.**

Motion 8: Eldridge Moores moved review TGGGB; Peter Bobrowsky seconded; unanimously passed.

Motion 9: Ryo Matsumoto moved and Eldridge Moores seconded to close the CSP by IGC 33 and to outsource the remaining activities of the CSP; and compliment the CSP on their work on the systematics of sedimentary, igneous and metamorphic petrology. **Unanimously approved**

Motion 10: Bobrowsky moved that IUGS write a letter of concern informing SECE that the EC is recommending termination of Commission by the Council if they do not improve their performance; Haldorsen seconded; **unanimously approved.**

Motion 11: Eldridge Moores moved that the EC approve, in principle, the final revised document of the Statutes and Byelaws of the IUGS and IGC prepared by the Task Group, with the final voting to be done electronically; Antonio Brambati seconded the motion; **unanimously approved.**

Motion 12: Peter Bobrowsky moved to accept the Task Group report; Gabi Schneider seconded; **unanimously approved.**

Motion 13: Eldridge Moores moved to accept Missotten's suggested changes; Sylvi Haldorsen seconded; **unanimously approved.**

Motion 14: Eldridge Moores moved to formally approve the ILP Terms of Reference; Peter Bobrowsky seconded; **unanimously approved.**

Motion 15: Eldridge Moores moved to appoint Jean-Paul Cadet and Yoshiyuki Tatsumi to the ILP; Peter Bobrowsky seconded; **unanimously approved.**

Motion 16: Eldridge Moores moved to approve the document in principle, pending revisions of typos, etc.; Peter Bobrowsky seconded; **unanimously approved.**

Motion 17: Eldridge Moores moved to approve the Bilateral Agreement between IUGS and IYPE; Marta Mantovani seconded; **unanimously approved.**

Motion 18: Sylvi Haldorsen moved to receive the report but *without* approving the budget; Gabi Schneider seconded; **unanimously approved.**

Motion 19: Peter Bobrowsky moved to have money (US\$ 10,000) put aside in the budget to cover IUGS exposure and advertising products; Gabi Schneider seconded; **unanimously approved.**

Motion 20: Peter Bobrowsky moved to officially respond to Morocco's offer to host the 58th EC Meeting; Marta Mantovani seconded; **unanimously approved.**

Motion 21: Peter Bobrowsky moved to accept Brisbane as the host city for the 59th EC meeting in 2009; Sylvi Haldorsen seconded; **unanimously approved.**

Appendix 2: List of Actions

Action Item 1: Permanent Secretariat to obtain copies of “earth science reports” from CCOP and EuroGeoSurveys and forward to the Secretary General.

Action Item 2: EC members to contact Permanent Secretariat directly to obtain copies of IUGS and IYPE brochures.

Action item 3: Permanent Secretariat to cc: Secretary General on all letters of thanks sent to outgoing members of Task Groups, ARCs, Commissions, etc.

Action item 4: Permanent Secretariat to prepare a one page summary of key decisions completed at the 57th EC meeting in Nara, Japan by the end of January; Secretary General to review the summary before distribution to all Adhering Organizations/National Committees.

Action item 5: Secretary General will send a copy of the Annual Reports and Minutes of Annual EC meetings directly to certain granting agencies in certain countries (e.g. Science Council of Japan).

Action item 6: IUGS EC to provide IUGS plaques of appreciation to both outgoing Councillors (Cadet and Riccardi) in person when the opportunity next presents itself.

Action item 7: Secretary General to send a formal note to UNESCO regarding the financial relationship between UNESCO and IUGS. UNESCO debt with IUGS cannot exceed US\$ 20,000 at any one time during the year.

Action item 8: Antonio Brambati should send an automatic update regarding membership status to the Editor of Episodes as soon as dues are paid by an Adhering Organization.

Action item 9: Secretary General to approach select Adhering Organizations to consider raising their level of membership in IUGS.

Action item 10: Zhenyu Yang to find out how long it takes and the cost to digitizing a back copy of Episodes and converting to a PDF format then report back to the EC as soon as possible.

Action item 11: Godfrey Nowlan can respond in the affirmative to Professor Friedman regarding efforts to obtain permission to reprint his 30th IGC article elsewhere.

Action item 12: Godfrey Nowlan to respond directly to INHIGEO recommending that in the future their Newsletter be produced and distributed digitally.

Action item 13: Secretary General to contact Richard Sinding-Larsen and request a prompt reply (within the month) to the IUGS EC regarding the ARC report of CFF that was submitted in late 2006.

Action item 14: Ryo Matsumoto to Chair and complete an ARC on TGGGB, together with Mikhail Fedonkin plus external person are part of the ARC before the next EC meeting.

Action item 15: Secretary General to approach TGGGB informing them that they will be reviewed by an IUGS ARC later this year. In preparation for this ARC, the TGGGB should prepare a summary report of their past activities, budgets, future long-term plans, etc.

Action item 16: Zhang Hongren should send his letter to ICS officers (all sub-commissions) and pending their reply a decision regarding financial support will then follow.

Action item 17: Eldridge Moores will edit the Zhang Hongren letter to be sent to ICS.

Action item 18: Secretary General to sending a note of appreciation to COGE for putting IUGS on the map.

Action item 19: Peter Bobrowsky to write Richard Sinding-Larsen regarding the ARC Report

Action item 20: Secretary General to approach individual countries and ask if they are willing to increase their membership fees based on the GDP.

Action item 21: Godfrey Nowlan to examine the issue of individual memberships and table a document for discussion by the Bureau outlining possible solutions and options.

Action item 22: Secretary General to distribute a copy of the IUGS agreement with IUCN to the entire EC.

Action item 23: The Secretary General to contact AEGS (Association of European Geological Societies) and tell them to enhance contact with IGEO and IYPE.

Action item 24: Zhang Hongren to write a carefully worded letter to the conflicting bodies in the AGA (Arab Geologists Association) to obtain clarification about their association.

Action item 25: Secretary General to contact AGID and ensure that they do not want money for 2007.

Action item 26: Gabi Schneider to contact CGI to ensure they are in touch with CIFEG (International Centre for Training and Exchange in Geosciences) to collaborate on the upcoming workshop in Namibia.

Action item 27: Eduardo de Mulder on behalf of IYPE is to approach EASE (European Association of Science Editors) to explore if there is a role for their organization to play in IYPE.

Action item 28: Secretary General to send a brochure or short synopsis of IUGS along with digital file of the IUGS logo.

Action item 29: Eldridge Moores to inform Arne Bjørlykke about DOSSEC.

Action item 30: UNESCO to send revised Document B to the EC Members.

Action item 31: Antonio Brambati and Secretary General to submit another version of IGCP Document C to Margarete Patzak and Robert Missotten at UNESCO by the end of January 2007.

Action item 32: Zhang Hongren to contact UNESCO and provide the name of the IUGS representative that will represent the Union in completing IGCP Document D.

Action item 33: Robert Missotten and Margarete Patzak to send Peter Bobrowsky the document on how IGCP committees are formed.

Action item 34: IUGS to form a Task Group on National Committees and report to UNESCO and EC.

Action item 35: Secretary General will request a copy of the current recommendations from UNESCO regarding formation of a national committee for IGCP.

Action item 36: Secretary General will request a copy of the current recommendations from UNESCO regarding formation of a national committee for IGCP.

Action item 37: Robert Missotten and Peter Bobrowsky to send out an email explaining the process and number of nominations for National Committees.

Action item 38: Action item Secretary General should respond to the IUGG and inform them of the IUGS decisions which approve appointment of Cadet and Tatsumi to the ILP.

Action item 39: Sylvi Haldorsen to contact the Association of Women Geoscientists and African Association of Women Geoscientists and ask them to collaborate and organize a session for IGC in Oslo as soon as possible.

Action item 40: Sylvi Haldorsen to Chair a Task Group (with Gabi Schneider, Eldridge Moores, Neil Williams, an IUGG representative, and others from Affiliates) to develop a strategic position on collaboration between IGC, IUGS and IUGS Affiliated Bodies. Report to be completed by 1 September, 2007.

Action item 41: Eldridge Moores will provide a clean and final draft of the IUGS and IGC Statutes and Byelaws (this includes the combined and the two separate versions) to the IUGS EC.

Action item 42: Eldridge Moores to inform Arne Bjørlykke about DOSSEC.

Action item 43: Each EC member should write a letter to their appropriate Commission and Affiliated Organization as appointed in the 57th meeting. EC members should copy the Secretary General on these communiqués.

Action item 44: Sylvi Haldorsen to inform Adhering Organizations and Affiliated Bodies the IUGS intends to publish volumes to coincide with the 2011 Anniversary.

Action item 45: Secretariat to send copies of all the Task Group reports (that were used to contribute to the Mid Program Vision) to all of the EC members.

Action item 46: Ryo Matsumoto to explore IUGS activity collaboration with IODP.

Action item 47: The Secretary General to write to Zhang Hongren and ask him to replace Peter Bobrowsky on the Board of IYPE; and Eduardo de Mulder to send Zhang Hongren a letter inviting him to sit on the IYPE Board as the formal representative of IUGS.

Action item 48: Gabi Schneider and Eduardo de Mulder will coordinate a plan related to publications related to IYPE themes to be published by 2011 through the GSL.

Action item 49: Peter Bobrowsky to write a letter to IGGB explaining the IUGS position on funding levels decided.

Action item 50: Permanent Secretariat to send a final list of co-shared meetings with IYPE and IGC to the Secretary General as soon as possible.

Action item 51: Anne Liinamaa-Dehls to prepare a finalized list of conferences for Bobrowsky so he can contact IGC and IYPE and suggest they share the costs for displaying booths and posters with IUGS.

Action item 52: Secretary General to contact Morocco and inform them that IUGS has accepted their offer to host the 2008 EC.

Action item 53: Sylvi Haldorsen to include an open call for bids to host the 2016 IGC in the next E-Bulletin.

Action item 54: Secretary General to draft a letter for signature by Zhang Hongren responding to Arun Deep Ahluwalia's letter for tsunami museums.