# ad hoc Group on Earth Observations (GEO)

# **DRAFT SUMMARY**

# Sixth Meeting, 14-15 February 2005 Brussels, Belgium

## Monday, 14 February 2005

#### 1. ORGANIZATION OF THE SESSION

#### 1.1 Welcome and Opening Remarks

GEO Co-Chair Achilleas Mitsos, Director General for Research, European Commission (EC), opened the meeting at 8:40 am. He expressed hope that the work of the GEO Plenary would establish GEO on a stable, long-term basis. All Co-Chairs expressed their condolences to those who experienced loss of life and damage from the Indian Ocean earthquake and tsunami. They concurred in the need for GEO to respond to this tragedy.

Co-Chair Conrad Lautenbacher, Under Secretary of Commerce for Oceans and Atmosphere, United States, remarked that he was pleased we were going to be removing the term "*ad hoc*" from the name of GEO as it becomes a permanent body. He reported that the U.S. had developed a "Strategic Plan for the U.S. Integrated Earth Observation System," the U.S. contribution to GEOSS. He added that the U.S. is enhancing its contributions to tsunami warning systems in the Atlantic and Pacific Oceans and the Caribbean Sea, and that these can become part of an international tsunami warning system.

Co-Chair Rob Adam, Director-General, Department of Science and Technology, Republic of South Africa, expressed optimism as GEO focuses on transition mechanisms and adopts plans to make the new Secretariat fully operational in Geneva as soon as possible. He encouraged GEO to be guided by a vision of enhancing global capacity in Earth observation, and not be preoccupied by administrative issues.

All Co-Chairs expressed their appreciation to the original Co-Chair from Japan, Akio Yuki, and welcomed new Co-Chair Tetsuhisa Shirakawa, Deputy Minister of Education, Culture, Sports, Science and Technology of Japan. In his opening remarks, Co-Chair Shirakawa expressed his gratitude to the EC for hosting the meeting and to the Implementation Plan Task Team (IPTT) and Secretariat for their efforts. He hoped that GEO would maintain momentum while moving forward from the *ad hoc* status to that of permanent GEO.

#### **1.2** Administrative Announcements

GEO Secretariat member Errol Levy (EC) made opening administrative comments about the logistics for the meeting.

#### **1.3** Adoption of Agenda

Co-Chair Mitsos presented the draft agenda (GEO 601-7) for adoption. It was adopted without modification. (*See Annex X: GEO 601-7, GEO-6 Draft Agenda*)

#### 1.4 Recognition of New Members and Agreement on New Participants

Co-Chair Mitsos welcomed seven countries as new GEO members since the GEO-5 meeting: Honduras, Latvia, Malaysia, Niger, Slovak Republic, and Tunisia. Recognized as observers were Austria, Bolivia, Hungary, and Poland. Ten new Participating Organizations were also recognized:

- AARSE: African Association of Remote Sensing of the Environment
- APN: Asia-Pacific Network for Global Change Research
- ESEAS: European Sea Level Service
- EuroGeoSurveys: Association of the Geological Surveys of the European Union
- GSDI: Global Spatial Data Infrastructure
- INCOSE: International Council on Systems Engineering
- ISPRS: International Society for Photogrammetry and Remote Sensing
- OGC: Open Geospatial Consortium
- SOPAC: South Pacific Applied Geoscience Commission
- UNITAR: United Nations Institute for Training and Research

Co-Chair Mitsos noted that there are now 60 member nations plus the European Commission, and 43 Participating Organizations, which is an indication of the increasing interest in the work of GEO. (See Annex X: GEO 602-7, New Members and Organizations Requesting Participation)

#### 1.5 GEO-5 Summary

Co-Chair Lautenbacher presented a summary of the GEO-5 meeting, expressed his appreciation to Canada for hosting the meeting on 29-30 November 2004 in Ottawa, Ontario, Canada. Highlights of the meeting included: adopted of a resolution to extend the ad hoc GEO through the Earth Observation Summit (EOS)-III on February 16, 2005; received a proposal by the World Meteorological Organization (WMO) to host the permanent GEO Secretariat in WMO offices in Geneva; negotiated of the text of the Global Earth Observation System of Systems (GEOSS) 10-Year Implementation Plan; strengthened and clarified language covering GEO governance; and gave guidance for development of the GEO transition plan and for the GEO-6 and EOS-III meetings. The written GEO-5 Summary was adopted. (*See GEO 603-3, GEO-5 Draft Summary*)

#### 1.6 GEO Support for Global Tsunami Early Warning Capabilities\*

Co-Chair Shirakawa introduced this agenda topic by noting that disaster reduction is one important societal benefit area that GEOSS is addressing, and it is certainly a priority focus for Japan; much greater international cooperation is needed to safeguard people from the effects of disasters. He noted that this week GEO has the ability to establish its support for enhanced Tsunami detection and prediction, and to do so in a broad geographic and all-hazards framework.

He introduced Patricio Bernal, Executive Secretary, Intergovernmental Oceanographic Commission (IOC), who provided an overview of how the IOC is leading an effort to improve tsunami warning capability in the Indian Ocean. He described how tsunamis occur and how various observing capabilities can be used to monitor phenomena associated with tsunami generation and propagation. He highlighted the role of IOC in developing a successful Tsunami Warning System in the Pacific Ocean and then explained how existing observing capabilities in the Indian Ocean could be expanded and upgraded to provide a comparable warning system for the Indian Ocean region. He highlighted the process that IOC was leading to marshal the resources of many organizations and countries to develop this improved capability.

Several interventions were made in response to the presentation, including support for the effort that IOC is leading and the need for GEO to support a multi-hazard response strategy. Co-Chair Mitsos noted that there appeared to be agreement on the need for a resolution of support for tsunami and all-hazards response to be presented for consideration at EOS-III. He invited plenary participants to provide suggested text to the GEO Secretariat before early afternoon so that a draft resolution could be prepared for GEO consideration tomorrow.

#### 2 PREPARATION FOR THIRD EARTH OBSERVATION SUMMIT

#### 2.1 Overview of Summit Documents\*

GEO Secretariat Director Helen Wood presented an overview of the draft documents to be prepared in final form for consideration at EOS III: Draft GEOSS 10-Year Implementation Plan (GEO 304-2), draft Final GEOSS 10-Year Implementation Plan Reference Document (GEO 204), and Draft Resolution of EOS III (GEO 402-1). She also reviewed the chronology of GEO events that led to the preparation of these documents, beginning with the charge from EOS I to prepare a 10-Year Implementation Plan. When approved, the European Space Agency will publish the Plan and Reference Document.

#### 2.2 Approval of Draft GEOSS 10-Year Implementation Plan for Submission to Third Earth Observation Summit

Co-Chair Mitsos introduced the discussion of this topic by noting that the introduction of any changes to the document would create problems since delegations would have to consult with their governments for concurrence. He preferred that only marginal changes be offered from the floor. The first few interventions raised concerns about the existing text and proposed that some significant changes be made. Mr. Mitsos responded that deadlines for making suggested changes had been agreed, and that by reopening issues now, problems would be created for the approval process.

Questions were raised about whether the proposed (bracketed) changes in the draft (GEO 304-2) would be discussed. Co-Chair Mitsos recommended that discussion be focused on two or three points of major concern, and that other wording changes be accepted. The ensuing discussion centered on the bracketed changes to section 5.4, Data Sharing. Agreement was not reached on whether or not to accept the proposed changes to this section of the draft, but Mr. Mitsos declared that the remainder of the text of the Plan was accepted.

Following a break, Co-Chair Adam assumed the role of meeting Chair for Mr. Mitsos. Two delegations made statements regarding their difficulty in accepting proposed language in portions of the draft, and concern was also expressed regarding whether the Resolution should be "adopted" or "recognized" at EOS III. It was agreed to return to this point later in the meeting.

#### 2.3 Presentation of Draft Final GEOSS 10-Year Plan Reference Document\*

IPTT member David Williams presented the Reference Document, explaining that it complements the Implementation Plan and will be the basis for actions in the GEOSS work plans that will be prepared. The document will be a "reference" and will not be negotiated. The document was prepared with inputs from a wide range of scientists, GEO Members, and Participating Organizations. Over 2500 comments were received and processed to reach this point, and the final review ensured consistency with the Implementation Plan.

#### 2.4 Acceptance of Reference Document

Co-Chair Lautenbacher recommended that GEO-6 accept the Reference Document, recognizing that the term "accept" does not mean that everyone totally agrees with every word. The Reference Document will be a "living document," evolving as GEOSS evolves. He instructed the Secretariat to ensure that the meeting summary reflects the understanding that the translation of GEO documents from English into the various languages of members may sometimes result in slightly different meanings to specific terms. Following this clarification, the Reference Document was accepted.

#### 2.5 Approval of Resolution for Submission to Third Earth Observation Summit

GEO Secretariat Director Wood noted that only one change was made to the Resolution since it was drafted at GEO-5, i.e. to insert the word "intergovernmental" to describe GEO in the 10<sup>th</sup> paragraph. During the ensuing interventions, many text changes were suggested, and there was discussion regarding alternative wording to "adopt" the Implementation Plan and "accept" the Reference Document. In closing the morning's discussion, the Co-Chairs emphasized the need to bring closure to the document by mid-afternoon and to focus on the critical issues. Interested parties were invited to meet during the lunch period to contribute to a redraft for later consideration.

#### **3.** FORWARD PLANNING AND ROADMAP TO GEO-6 OUTCOMES

#### **Overview\***

GEO Secretariat Director Wood presented an overview of the transition planning necessary to begin the work of the permanent GEO. She requested that action be taken by GEO-6 for the WMO Standing Arrangement, the GEO Secretariat Purpose and Function, the Secretariat Transition Plan, and the Work Plan Development Document. Guidance is needed on funding approaches and mechanisms for scientific and technical advice and for user interfaces.

#### 3.1 GEO-WMO Standing Arrangement\*

GEO Secretariat representative Daan du Toit (Republic of South Africa) described the purpose, origin, and key elements in the proposed Standing Arrangement between WMO and GEO (GEO 604-7) through which the WMO will provide administrative support to GEO and its Secretariat. An appendix has been added to the document containing a resolution of assent to the Standing Arrangement between GEO and WMO.

The delegate from Switzerland stated that his government warmly supports the GEO-WMO arrangement, noting that Geneva already hosts several international organizations and secretariats, many of which are active in environmental fora. The Swiss government offered to support the GEO Secretariat in Geneva with a generous offer of 240,000 Swiss francs for purchase of office equipment for the Secretariat.

#### **3.2** Assent to GEO-WMO Standing Arrangement

Following a short break, a few wording changes were offered (including changing "agreement" to "arrangement" and "shall" to "will," and adding a termination clause). GEO agreed to the changes and assented to the revised Standing Arrangement.

#### 2.5 Approval of Resolution for Submission to Third Earth Observation Summit (continued)

At this point Co-Chair Lautenbacher returned the attention of GEO to a new draft of the EOS III Resolution (GEO 402-2). There was extensive discussion about whether the Implementation Plan would be "adopted" or "acknowledged." Co-Chairs Mitsos and Adam concluded that GEO cannot invite the Ministers just to "acknowledge" the Plan; it would be an admission that GEO had failed to agree on a significant commitment to its purpose. Other constructions were offered, but this point was unresolved.

Several interventions were made on wording of other paragraphs of the draft, including guidance for midterm assessment of progress and when the next Ministerial meeting would occur. Further discussion was suspended so that a new draft could be prepared that incorporated the agreed wording changes and focused on the remaining open issues.

#### **3.3** Secretariat Purpose and Function\*

GEO Secretariat representative Naoko Sugita (Japan) presented an overview of the proposed draft purpose and functions of the Secretariat (GEO 605-3), which would be co-located and staffed by well-qualified professional and administrative personnel.

#### **3.4** Assent to Secretariat Purpose and Function

Following several interventions, Co-Chair Mitsos summarized the main clarifying points for which he understood there was consensus: strengthen language regarding coordination with existing organizations, securing funds for GEO operations, clarifying to whom the Secretariat

reports (to GEO, but to the Executive Committee on a routine basis). Assent was given to the text with the suggested revisions.

#### 3.5 Secretariat Transition Plan\*

GEO Secretariat Director Wood presented an overview of the key decisions associated with transition from an *ad hoc* to successor GEO Secretariat, including finalizing key agreements, recruiting and selecting the Secretariat Director, budgeting for transition costs and soliciting funds to cover these costs, and office relocation and interim operation while maintaining continuity with the Washington D.C. Secretariat office. These items are covered in document GEO 606-3.

#### 3.6 Assent to Secretariat Transition Plan

Several issues were raised during the interventions, including: a request for some detail on the transition costs; options for venues for future GEO meetings; details regarding the Director recruitment (especially the seniority level of the position and how the final recruitment decision will be made); and work plan development and desire to accomplish work during the remainder of 2005 as well as in 2006.

Secretariat Director Wood responded by identifying some of the anticipated transition costs and clarifying the intent of the United States to continue to support the Secretariat at the current level, at least through the end of September 2005. She described how the work plan team was proposed to be organized, using short-term secondments of staff to the extent possible. Co-Chair Mitsos suggested that the Executive Committee should make the final selection of the Director if it is formed by the time a selection must be made, otherwise the GEO Co-Chairs would be prepared to take this action. He closed the discussion by inviting GEO Members to make voluntary contributions to cover 2005 transition costs.

#### 3.7 2006 Work Plan Development Document\*

GEO Secretariat representative Josef Aschbacher (European Space Agency) presented an overview of the purpose, scope, and assumptions regarding the proposed approach to preparing the GEO Work Plans (document GEO 607-3) for 2006 as well as the remainder of 2005. The starting point will be the 2-, 6-, and 10-year targets in the GEOSS Reference Document. It is proposed to invite Members and Participating Organizations to provide a temporary Work Plan Manager and 3-4 staff through secondments to work with subject matter experts to prepare the draft Plans.

#### 3.8 Assent to 2006 Work Plan Development Document

It was agreed that work would begin to prepare a Work Plan for 2005 and 2006.

Following some administrative remarks by EC representative Levy regarding transportation to the GEO Welcome Reception and Dinner, the session was adjourned at 6:30 pm.

# Tuesday, 15 February 2005

#### **OPENING REMARKS FOR THE DAY**

Co-Chair Mitsos opened the session at 8:50 AM and reviewed the transition planning topics that were discussed and agreed on Monday. He presented the draft resolution expressing support for development of a tsunami warning system that is proposed for consideration at EOS III (GEO 612-1). Several interventions followed to improve the text by noting other important regional meetings and initiatives that have resulted in response to the Indian Ocean earthquake and tsunami. It was agreed to develop a new draft based on the suggestions that were made (GEO 612-4).

#### 3.9 Executive Committee Options\*

GEO Secretariat representative Errol Levy (EC) presented an overview of the draft document (GEO 608-3). He offered six decision points as a way of structuring the discussions:

- 1. Confirm election of Executive Committee will take place at GEO I
- 2. Decide on structure between co-chairs or chair/vice chair(s)
- 3. Decide on size: larger (e.g., 10-12) or smaller (e.g., 4-6)
- 4. Representatives of Participating Organizations
- 5. Agree on procedure for election possibly a two-step process, (1) choose co-chairs or chair and vice-chair(s), then (2) choose additional members (2-year mandate)
- 6. Agree on the suggested terms of reference

#### 3.10 Executive Committee Options Discussion and Agreement

Co-Chair Mitsos suggested that the proposed issue points be used to structure the discussion. A lively series of interventions followed, with views expressed on all points. Mr. Mitsos summarized what he heard as points of general agreement: the draft terms of reference would be acceptable with a few modifications; membership should rotate, no permanent members; Participating Organization role would mirror that of *ad hoc* GEO—active involvement but no voting rights; developing countries must have substantive representation; and leadership should be in the form of a "board" (e.g., co-chairs or chair/vice-chair(s). He recommended that a small group draft a proposal (preferably not several options) for consideration. After more discussion, Mr. Mitsos recommended and it was agreed that the GEO Co-Chairs and the Secretariat prepare a draft proposal within 2-3 weeks for GEO review and comments. Based on the comments received, the GEO Co-chairs would then prepare a revised proposal, which would be submitted for discussion and decision to GEO-I.

#### 3.13 Science and Technical Mechanism Options\*

The agenda was adjusted at this point to consider Scientific and Technical Mechanism Option (agenda items 3.13-3.14) and then User Interface Mechanism Options (agenda items 3.15-3.16). IPTT representative Dr. Robert Scholes (Republic of South Africa) presented an overview of the issue of mechanisms for scientific and technical input to GEO (GEO 610-3). He described the

symbiotic relationship between observations and science, noting that scientific assessment is a bridge between observations and decision makers. A conventional model is to have a standing committee with a clear connection to GEO. This model requires a fixed budget and might be unwieldy and inflexible, particularly with the need to represent all nine societal benefit areas and the wide range of disciplines that are engaged with GEO. As an alternative, one could build *ad hoc* panels responding to GEO Work Plan priorities. He concluded by suggesting that GEO could wait to make a final decision.

#### 3.14 Guidance on Science and Technical Mechanism

Co-Chair Adam led the discussion. Several interventions favored the ad hoc approach and also recommended that existing scientific bodies be engaged. Co-Chair Adam suggested that a database of scientific experts could be organized. Mr. Scholes responded that the Secretariat should have some staff who are knowledgeable about existing sources of expertise that could be used. Co-Chair Adam recommended that a group of GEO members draft a recommendation by GEO-I. GEO Secretariat Director Wood offered the services of the Secretariat to assist in this process and noted that a final decision was not necessarily needed by GEO-I.

#### 3.15 User Interface Mechanism Options\*

IPTT representative Ivan DeLoatch (United States) made a presentation on user interfaces. He highlighted several key considerations for successful involvement of users and offered several mechanisms: a user interface standing committee; use of existing organizations and structure; assign user coordination to a single GEO Secretariat staff person or to several staff according to societal benefit areas; conduct user surveys or other means to solicit input from user communities. He also described several options for organizing user fora. He recommended that a combination of mechanisms be used, including: use of existing or new organizations and structures; assigning coordination roles to GEO Secretariat staff; users surveys and other communication mechanisms; and user fora among and within societal benefit areas.

#### 3.16 Guidance on User Interface Mechanism

Co-Chair Adam led the discussion of this topic. Several interventions emphasized the need to use existing mechanisms, not overlook the roles of national agencies and organizations, encourage cross-sector cooperation, and maintain a permanent user group taking advantage of the expertise of the ad hoc GEO Sub-Group on User Requirements and Outreach. Several Members, including Canada, Italy, and the United Kingdom, offered to work with the Secretariat to develop a proposal for consideration at GEO-I. Other Members and Participating Organizations were invited to volunteer to assist.

Following a break, Co-Chair Mitsos observed that the only unresolved issues related to Secretariat funding, logistics for the GEO-I meeting, and any open issues for the EOS III.

#### 3.11 Long-Term Funding Options

Secretariat Director Wood recalled that several approaches to contributions to GEO have been proposed, including no contribution levels or the use of contribution guidelines such as a flat rate, an indicative scale, or contribution units. She emphasized no approach was agreed, but that Members are urged to consider contributions to support the work of GEO through the remainder of 2005, as well as for 2006. The cost estimate for 2006 is \$US 3.5 million to cover salaries and benefits for 7-10 staff, development and implementation of the 2006 Work Plan, staff travel, organizing user fora and scientific/technical advisory meetings, and organizing the GEO and subsidiary body meetings.

# **3.12** Guidance on Long-Term Funding for Finalization at First Successor GEO (GEO-I)

Co-Chair Mitsos chaired the discussion of this topic. Several points were raised during the interventions, including the need to separate Secretariat from GEOSS development and implementation costs, allowing the option of in-kind as well as financial contributions, pros and cons of contribution guidelines, and selecting a common currency.

Mitsos summarized the points for which he thought there was general agreement: funding is for Secretariat operations only; contributions do not create rights for the contributors; the 2006 budget needs to be determined by May, with indicative budgets for succeeding years presented to ensure medium-term certainty; in-kind contributions are acceptable but the Secretariat must review and accept them. He urged Members to make known their intentions to contribute in the next 2 or 3 weeks. Because the Secretariat is to be located in Geneva, he recommended that all references to currency be in Swiss francs.

#### 4. THE WAY FORWARD

#### 4.1 GEO-I Host Arrangements

Don Hinsman, WMO, announced that WMO would host the GEO-I meeting. It was agreed that the meeting would occur on 3-4 May, with 2 May reserved for preparatory meetings.

#### 4.2 Any Other Business

Co-Chair Mitsos noted that four documents were prepared for Summit consideration: the GEOSS 10-Year Implementation Plan, the Resolution, the Tsunami Communiqué, and the Reference Document. It was agreed that the Resolution language would use the term "endorse" with respect to the Implementation Plan. It was to be clearly understood that involvement in GEO is on a voluntary basis and that the documents are legally non-binding.

#### 4.3 Conclusion of *Ad Hoc* GEO

The GEO Co-Chairs concluded the meeting by making summary comments. Co-Chair Adam expressed his appreciation to all for achieving so much concrete progress on difficult issues. Co-

Chair Shirakawa was pleased that the Implementation Plan was agreed. He observed that we now have the basis to coordinate, integrate, and effectively implement GEOSS. When the final deliberations take place in May, GEO should establish a more permanent organization upon which we can continue to build. Co-Chair Lautenbacher thanked all the Co-Chairs for their hard work, especially Co-Chair Mitsos for guiding GEO through some difficult moments. He recalled a phrase that appeared during the press conference that was just held: "Imagine the future if we are successful." He observed that we have all the major participants in the room to ensure this success. Co-Chair Mitsos thanked all who prepared for the meeting, including the Secretariat, its Director Wood, and Errol Levy.

The meeting was adjourned at 3:40 pm.

\* Indicates that the presentation or statement is available on the GEO web site: http://earthobservations.org.

## **Summary List of Presentations**

Presentation 1	Intergovernmental Oceanographic Commission (IOC) International Coordination Group for the Tsunami Warning System in the Pacific (ICG/ITSU)		
Presentation 2	Overview of Documents for EOS-III		
Presentation 3	GEOSS 10-Year Implementation Plan Reference Document		
Presentation 4	<ul> <li>GEO-6 Forward Planning: Decisions and Documents</li> <li>GEO-WMO Standing Arrangement</li> <li>Secretariat Purpose and Functions</li> <li>Secretariat Transition Plan</li> <li>2006 Work Plan Development</li> <li>Executive Committee Options</li> <li>GEO Secretariat Long-Term Funding</li> <li>Science and Technical Mechanism Options</li> <li>User Interface Options</li> </ul>		

## Summary List of Statements Referenced Above

Statement 1 Switzerland statement in support of WMO hosting of the GEO Secretariat

## Annexes

- 1 GEO-6 Draft Agenda [GEO 601-7]
- 2 New Members and Organizations Requesting Participation [GEO 602-5]
- 3 GEO-6 Delegates Roster

08:00

Ad Hoc Group on Earth Observations (GEO) Sixth Meeting 14-15 February 2005

Charlemagne Building Rue de la Loi 170 Brussels, Belgium

## Draft Agenda

Monday, 14 February 2005

2.	ORGA 1.1	NIZATION OF THE SESSION Welcome and Opening Remarks Co-Chair: Achilleas Mitsos, Director General for Research, European Commission Co-Chair: Conrad Lautenbacher, Under Secretary of Commerce for Oceans and Atmosphere, United States Co-Chair: Rob Adam, Director-General, Department of Science and Technology, South Africa Co-Chair: Tetsuhisa Shirakawa, Deputy Minister of Education, Culture, Sports, Science and Technology, Japan	08:30	
	1.2	Administrative Announcements Host	08:45	
	1.3	Adoption of Agenda (GEO 601) GEO Co-Chairs	08:50	
	1.4	<b>Recognition of New Members and Agreement on New Participants (GEO 602)</b> GEO Co-Chairs	08:55	
	1.5	<b>GEO-5 Summary (GEO 603)</b> GEO Co-Chair Lautenbacher: Summary presentation and adoption	09:00	
	1.6	<b>GEO Support for Global Tsunami Early Warning Capabilities</b> GEO Co-Chairs	09:10	
<b>3 PREPARATION FOR THIRD EARTH OBSERVATION SUM</b>		ARATION FOR THIRD EARTH OBSERVATION SUMMIT		
	3.1	<b>Overview of Summit Documents</b> GEO Secretariat, Helen Wood, Director	09:30	
	3.2	Approval of Draft GEOSS 10-Year Implementation Plan (GEO 304-2) for Submission to Third Earth Observation Summit, GEO Co-Chairs	09:35	
Break			10:30	

	3.3	<b>Presentation of Draft Final GEOSS 10-Year Plan Reference Document (GEO 204)</b> IPTT	11:00
	3.4	Acceptance of Reference Document (GEO 204) GEO Co-Chairs	11:05
	3.5	<b>Approval of Resolution (GEO 402) for Submission to Third Earth Observation Summit</b> GEO Co-Chairs	11:30
Lunch		GEO Co-Chairs	12:00
3.		ARD PLANNING AND ROADMAP TO GEO-6 OUTCOMES ew, GEO Secretariat, Helen Wood, Director	14:00
	3.1	<b>GEO-WMO Standing Arrangement (604)</b> Presentation from GEO Secretariat and the WMO	14:10
	3.2	<b>Assent to GEO-WMO Standing Arrangement</b> GEO Co-Chairs	14:15
	3.3	<b>Secretariat Purpose and Function (GEO 605)</b> Presentation from GEO Secretariat	14:30
	3.4	<b>Assent to Secretariat Purpose and Function</b> GEO Co-Chairs	14:35
	3.5	Secretariat Transition Plan (GEO 606) Presentation from GEO Secretariat	15:00
	3.6	<b>Assent to Secretariat Transition Plan</b> GEO Co-Chairs	15:10
Break			15:30
	3.7	<b>2006 Work Plan Development Document (GEO 607)</b> Presentation from GEO Secretariat	16:00
	3.8	<b>Assent to 2006 Work Plan Development Document</b> GEO Co-Chairs	16:05
	3.9	<b>Executive Committee Options (GEO 608)</b> Presentation from GEO Secretariat	16:30
	3.10	<b>Executive Committee Options Discussion and Agreement</b> GEO Co-Chairs	16:40

17:55

# CONCLUDING REMARKS FOR THE DAY

Adjourn	18:00
GEO Welcome Reception and Dinner	19:30
Earth and Space Exhibition, Autoworld, 11 Parc du Cinquantenaire,	
B-1000, Brussels	
Welcome Reception is sponsored by the Committee on Earth Observation	
Satellites (CEOS)	

#### Draft Agenda

Tuesday, 15 February 2005

Charlemagne Building Rue de la Loi 170 Brussels, Belgium

OPENING REMARKS FOR THE DAY 08			08:30	
3.	FOR	FORWARD PLANNING AND ROADMAP TO GEO-6 OUTCOMES (cont'd)		
	3.11	<b>Long-Term Funding Options</b> ( <i>GEO 609 doc in development</i> ) GEO Co-Chairs	08:35	
	3.12	Guidance on Long-Term Funding for Finalization at First Successor GEO (GEO-I) GEO Co-Chairs	08:45	
Break			10:30	
	3.13	<b>Science and Technical Mechanism Options (GEO 610)</b> Presentation from IPTT	11:00	
	3.14	<b>Guidance on Science and Technical Mechanism</b> GEO Co-Chairs	11:05	
	3.15	<b>User Interface Mechanism Options (GEO 611)</b> Presentation from IPTT	12:00	
	3.16	<b>Guidance on User Interface Mechanism</b> GEO Co-Chairs	12:05	
Lunch			13:00	

#### 4. THE WAY FORWARD

4.1	<b>GEO-I Host Arrangements</b> Presentation from WMO	15:00
4.2	Any Other Business	15:45
4.3	<b>Conclusion of</b> <i>Ad Hoc</i> <b>GEO</b> GEO Co-Chairs and Plenary Remarks	16:00
Adjourn		17:00
B-1000, Bruss	ce Exhibition, Autoworld, 11 Parc du Cinquantenaire, els the European Association of Remote Sensing Companie	19:00

*(EARSC) and the Association of the European Space Industry (EUROSPACE)* 

#### <u>Ad Hoc Group on Earth Observations (GEO)</u> Sixth Meeting

#### 14-15 February 2005

European Commission Charlemagne Building Brussels, Belgium

As of 14 February 2005

#### New Members and Organizations Requesting Participation

New Members Joining Since GEO-5

- HONDURAS
- HONDUILATVIA
- LAIVIA
- MALAYSIANIGER
- SLOVAK REPUBLIC
- TUNISIA

#### **Organizations Requesting Participation\***

- AARSE: African Association of Remote Sensing of the Environment
- APN: Asia-Pacific Network for Global Change Research
- ESEAS: European Sea Level Service
- EuroGeoSurveys: The Association of the Geological Surveys of the European Union
- GSDI: Global Spatial Data Infrastructure
- INCOSE: The International Council on Systems Engineering
- ISPRS: International Society for Photogrammetry and Remote Sensing
- OGC: Open Geospatial Consortium
- SOPAC: South Pacific Applied Geoscience Commission
- UNITAR: United Nations Institute for Training and Research

\*The GEO Co-Chairs have agreed that organizations wishing to be recognized as an official participant must send at least one representative to one official GEO meeting.

Observers at GEO-6

AUSTRIA BOLIVIA HUNGARY POLAND

# **GEO-6** Roster of Delegates in Attendance

Member / Organization	Name of Delegate
Algeria	LANSARI, Abdeldjelil
Argentina	COLOMB, Fernando Raul
	MEDICO, Ana Gabriela
	MENGUCCI, Dario Luciano
	VAROTTO, Conrado
Australia	BARRELL, Susan
	HELD, Alexander
	JAN, Hutton
	ZILLMAN, John
Austria (observer)	LIPPSKY, Liane
Belgium	BOGAERTS, Steven
	DECADT, Brigitte
	NEMRY, Francoise
	SIMON, Paul
	VAN GELOVEN, Peter
	VER ELST, Marielle
	WAGNER, Monique
Belize	FULLER, Carlos
Bolivia (observer)	MOREAU, Sophie
Brazil	PAES LEME, Joao Marcos
	SOARES, João Vieinei
Cameroon	AMOUGOU, Joseph Armathe
Canada	ANGLE, Bruce
	BALLHORN, Richard
	BECHARD, Geneviève
	BECKING, lan
	EVERELL, Marc Denis
	GIBBS, Graham
	GIROUX, Michel
	GUERTIN, Florian
	HEINBECKER, Yasemin
	HUTTON, Christine
	ITZKOVITCH, Irwin
	JHA, Virendra
	ODONNELL, Brian
	QUEALEY, Patrick

Member / Organization	Name of Delegate
Canada (cont)	SAUNDERS, Allison
<b>.</b>	SMALL, Lauren
China	LI, Mengxue
	ZHANG, Wenjian
Croatia	CACIC, Ivan
	KATUSIN, Zvonimir
Denmark	JENSEN, Flemming
	KNUDSEN, Per
Egypt	IBRAHIM, Morad
European Commission	BELWARD, Alan
	BISCHOFF, Hartwig
	BRUNERIE, Philippe
	CAETANO, Ana Teresa
	DE GROOF, Hugo
	FABBRI, Karen
	FROTA, Octavia
	FUCHS, Tobias
	GUELI, Enzo
	Karamali, Apostolia
	KLAASSEN, Ger
	LEVY, Errol
	MALACARNE, Marco
	MALINGREAU, Jean Paul
	MITSOS, Achilleas
	MOGNI, Andrea
	PIGNATELLI, Francesco
	PODAIRE, Alain
	VALETTE, Pierre
	WINKLER, Sebastian
Finland	HERLEVI, Antti
	KOSKINEN, Jarkko
	SUCKSDORFF, Yrjo
France	BEAU, Laurence
	BELLOEIL, Marc
	GERARD, François
	MINSTER, Jean-François
	VIDAL-MADJAR, Daniel
	VINDIMIAN, Eric
Germany	FRITZ, Jan-Stefan
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Member / Organization	Name of Delegate
Germany (cont)	GÄRTNER, Udo
	KLEIN, Wolfgang
	KLEINE-BEEK, Werner
	MUELLER, Karl-Ulrich
	RÖSNER, Stefan
	STAUDENRAUSCH, Helmut
	TRIESCHMANN, Olaf
	VON PREUSCHEN, Ruediger
Greece	PAPADAKIS, loannis
	PAPADOPOULOS, GERASSIMOS
<b>.</b> . <b>.</b> .	ZEREFOS, Christos
Guinea-Bissau	CABRAL, Alexandre
Honduras	MAKRIS, Teodolinda
	PANTING GALO, Patricia
Hungary (observer)	LENGYEL, Peter
India	JAYARAMAN, V
	NAVALGUND, R. R.
Indonesia	KARTASASMITA, Mahdi
	MAULANA, Taufik
	MUCHLIS, Muchamad
	MUNANDAR, Aris
Iran	
luctor d	NOORIAN, Ali Mohammad
Ireland	MCGOVERN, Francis
la na al	OCONNOR, Patrick
Israel	ASSAFAR, Haim
lán ha	LIFSHITZ, Roni
Italy	ARISTEI, Giuseppe
	BUSSOLETTI, Ezio CESARI, Giorgio
	DALLA COSTA, Maria
	GUZZI, Rodolfo
	MANZELLA, Giuseppe
	PERNICE, Bartolomeo
	RUM, Giovanni
	SANTORO, Luisa
lanan	FUJITANI, Tokunosuke
Japan	FUKAI, Hiroshi
	FURUHAMA, Yoji

Member / Organization	Name of Delegate
	GOMI, Jun
Japan (cont)	
	HARUYAMA, Yukio HATAYAMA, Takaki
	HIROKANE, Katsunori
	ISHIDA, Chu
	KACHI, Misako
	KINOSHITA, Hajimu KOIKE, Toshio
	MATSUBARA, Mizue
	MATSUMURA, Takashi
	MIURA, Satoko
	MIZUHATA, Junsaku
	MOTONAGA, Yoshitaka
	NOJIRI, Yukihiro
	SHIRAKAWA, Tetsuhisa
	SUGITA, Naoko
	TAKEMOTO, Akio
Kazakhstan	IVANOV, Dmitry
Latvia	ZAGARS, Juris
Luxembourg	BERGER, Eugène
Luxonibourg	FELTGEN, Jean-Paul
Malaysia	ALI, Mohd Zahit
	ARSHAD, Ahmad Sabirin
	CHOW, Kok Kee
	HO, Sinn-Chye
	OTHMAN, Mazlan
	WAN MAHMOOD, Nik Nasruddin
Mexico	MUÑOZ PIÑA, Carlos
	VALLEJO, Ana Luisa
Morocco	BENCHEKROUN, Hammad
	ELHADANI, Driss
Nepal	BARAL, Toy Nath
Netherlands	BROUWER, Frits
	GROOTERS, Frank
	VAN LEEUWEN, Wim
New Zealand	MATTHEWS, Andrew
Nigeria	CHIZEA, Francis
	Olakunle Anthony, Akinsulure
	WATA, Issoufou

Mombou / Ourouitation	Nome of Delegate
Member / Organization	Name of Delegate
Norway	NESJE, Øystein
<b>-</b> · ·	SKROVSETH, Per Erik
Poland	DABROWSKA-ZIELINSKA, katarzyna
	KOPCZEWSKI, Dominik
Portugal	ALEXANDRINO, Elsa
	CONDESSA, Rodolfo
Republic of Korea	JUNG, Hee Kwon
	LEE, Hee-Chul
	LEE, Dongi-II
	PARK, Kwang-Joon
Republic of the Congo	DZABA-BOUNGOU, Benjamin
	KOMBO, Germain
	MUDOY, Valérien
	YAMBO-DUSSAUD, Paulette
<b>Russian Federation</b>	ASMUS, Vasily
	BOGDANOV, Petr
	FILATOV, Valery
	FROLOV, Alexander
	KHOLOPOV, Alexander
	KRUTIKOV, Vladimir
	KRUTSKIKH, Andrey
	KULIK, Sergey
	MOZOLINA, Olga
	PERMINOV, Anatoly
	STYTSYUK, Vadim
	VASILIEV, Alexander
	VIKTOROV, Alexander
Slovak Republic	FRANZEN, Jozef
South Africa	DAVIDSON, Lyle
	DU TOIT, Daan
	NAIDOO, Dhesigen
	NYIDE, Nhlanhla
	RAMUSI, Nothibi
	SALOOJEE, Imraan
	SCHOLES, Robert
Spain	CADARSO, Francisco
- P.w	DIEZ STURRIOZ, Maria Teresa
	Estrada, Víctor
	LOMBA, JORGE

Mombou / Ourseiterti	
Member / Organization	Name of Delegate
Spain (cont)	MARCOS, José M.
	RODRIGUEZ AUGUSTIN, CARMEN
	TAMAYO, Jorge
Sweden	BOBERG, Göran
	HÄGG, Nils Conny
	OLOVSSON, Stigbjörn
Switzerland	GUYER, Elisabeth
	MUELLER, Gerhard
	ROMERO, José
	VOGELSANGER, David
Thailand	CHANTEM, Sermsak
	DOWREANG, Darasri
	SUWANARPA, Suthira
	THAJCHAYAPONG, Pairash
Tunisia	DENGUEZLI, Skander
Ukraine	FEDOROV, Oleh
	KUZNETSOV, Eduard
	LIAKH, Oleksandr
	VOVCHAK, Vasyl V.
United Kingdom	CAUGHEY, Jim
	HICKS, Colin
	MITCHELL, John
	WARRILOW, David
United States	ADANG, Thomas
	BIRK, Ronald
	BRENNAN, William
	CARROLL, Amy
	CHILD, Jeremy
	CHRISTIAN, Eliot
	COLLETON, Nancy
	DECKER, Cynthia
	DELOATCH, Ivan
	DEVINE, James
	FOLEY, Gary
	FRYBERGER, Teresa
	GANT, Mary
	GEORGE, Banks
	GROAT, Charles
	KELLY, Jack

Member / Organization	Name of Delegate
United States (cont)	KELLY Jr., John J.
United States (COIII)	LAUTENBACHER Jr., Conrad
	LONGENECKER, John
	LYON, John
	MOODIE, Linda
	PETTINGER, Lawrence
	REIFSNYDER, Daniel Alan
	ROLF, Joan
	RUPPE, Loret
	SMULLEN, Scott
	SONNTAG, William
	SULLIVAN, Carla
	SUSKIN, Mark A.
	TINKLE, Sally
	WATSON, Harlan
	WILSON, John
	WITHEE, Gregory
	YOFFE, Shira
APN	LIAKH, Oleksandr
	MATTHEWS, Andrew
	RICE, Martin
CCAD/SICA	CABRERA, Jorge
CEOS	PANTING GALO, Patricia
CEOS	HICKS, Colin
	LI, Mengxue
	SMITH, Brent VAROTTO, Conrado
ECMWF	HOLLINGSWORTH, Anthony
	KLOEPPEL, Manfred
	MARBOUTY, Dominique
EEA	MCGLADE, Jacqueline
	MCINNES, Gordon
	RAYNER, Ralph
	RIVIERE, Josiane
	STEENMAN, Christian
ESA	ASCHBACHER, Josef
	BRIGGS, Stephen
	DUCHOSSOIS, Guy
	20011000010, Guy

Member / Organization	Name of Delegate
ESA (cont)	LIEBIG, Volker
	TABACHE, Micheline
ESEAS	KNUDSEN, Per
EUMETNET	CAUGHEY, Jim
	CHALON, Jean-Pierre
EUMETSAT	GIBSON, Roy
	KOENEMANN, Ernst
	PRAHM, Lars
	WILLIAMS, David
EuroGeoSurveys	CHRISTMANN, Patrice
	Hosford, Steven
	Modaressi, Hormoz
FAO	TSCHIRLEY, Jeffrey B.
FDSN	GIARDINI, Domenico
	VAN ECK, Jan Torild
GCOS	MASON, Paul J.
	THOMAS, Alan R
GEO Secretariat Office	ADLER, John
	COLOHAN, Peter
	MEISTER, Peter
	STECKEL, Adam
	WOOD, Helen
GOOS	LEE, Boram
GSDI	DOYLE, Allan
GTOS	TSCHIRLEY, Jeffrey B.
IAG	BYE, Bente Lilja
	PLAG, Hans-Peter
	REIGBER, Christoph
	RICHTER, Bernd
ICSU	ROSSWALL, Thomas
IEEE	GARELLO, René
	GASIEWSKI, Albin
	LIGHTNER, Michael
	PEARLMAN, Jay
	YAMBO-DUSSAUD, Paul
IGFA	LEINEN, Margaret
	SPENCE, Thomas
IGOS-P	FERNANDEZ, R. Norberto
lisl	GABRYNOWICZ, Joanne Irene

Member / Organization	Name of Delegate
INCOSE	HARTMANN, Ralf
IOC	BALTUCK, Miriam
	BERNAL, Patricio
ISCGM	MARUYAMA, Hiromichi
ISDR	BASHER, Reid
	MOLIN VALDES, Helena
ISPRS	DOWMAN, lan
Norway	BYE, Bente Lilja
OGC	PERCIVALL, George
POGO	DE LEEUW, Jan
SOPAC	HOWORTH, Russell
UNCBD	THORGEIRSSON, Halldor
UNEP	FERNANDEZ, R. Norberto
	SINGH, Ashbindu
UNESCO	MISSOTTEN, Robert
UNFCCC	THORGEIRSSON, Halldor
UNITAR	PISANO, Francesco
	RETIERE, Alain
UNOOSA	CAMACHO, Sergio
WCRP	CARSON, David
	SOMMERIA, Gilles
WMO	GOLNARAGHI, Maryam
	HINSMAN, Donald
	MUELLER, Joachim
	RASMUSSEN, James



#### SWITZERLAND

Group on Earth Observation (GEO) Sixth Meeting - Brussels 14 - 15 February 2005

Mr. Chairman, Distinguished delegates:

- Switzerland warmly supports WMO's offer to host the GEO Secretariat at its headquarters at Geneva.
   We see important advantages resulting from cooperation with existing international environment structures. The main objective for my country is that the Secretariat can achieve its goals and perform its activities in the most efficient and effective manner. It is not necessary to stress the fact that Geneva already hosts a large number of international organizations and secretariats, many among them active in the field of environment. The concentration of such expertise in one city facilitates exchange of information and permits important synergies, thus favoring scientific progress.
- Having the Secretariat located at WMO headquarters at Geneva means, in our view, providing the best environment for its important work. The interaction of the GEO Secretariat with WMO in one building would be conducive to efficient technical cooperation and exchange of data. The fact that WMO is already involved in a number of activities in fields closely related to GEO's focus of work would lead to obvious and important synergies.
- Moreover, we are convinced that a decision to locate the Secretariat of GEO at WMO headquarters would result in important economies in Secretariat costs. Even GEO member countries themselves could expect such economies due to the fact that their Permanent Missions at Geneva already dispose of expertise in the environmental field among their personnel.
- Switzerland fully supports the conclusion of the GEO-WMO Standing Arrangement. It allows GEO and its Secretariat to be covered by the existing Headquarters Agreement between WMO and the host country.
- Furthermore, my country supports the establishment of the Secretariat at Geneva with a start up contribution for office equipment of up to 240'000 Swiss francs. We hope that others will also consider to be of assistance.
- Finally, Switzerland supports a budget on an annual basis. We understand that this budget will be administered under a trust fund mechanism separate from the WMO budget.

We thank you for your attention.