Summary of the 11th GEO User Interface Committee Meeting

May 2, 2009, in Stresa, Italy

Purpose

- Confirm UIC 2009-2010 Activity Plan and begin assigning UIC members to activities
- Review progress on UIC-led tasks
- Brainstorm and discuss joint efforts with other GEO Committees
- Review UIC events for ISRSE week

Deliverables

- Agreement to adopt the 2009-2010 Activity Plan
- Initial catalog of UIC Member assignments for Activity Plan activities
- List of specific UIC deliverables for 2009 Plenary and 2010 Ministerial Summit
- Dates, locations, objectives, and organizers for 12th (and future) UIC meetings
- Determination of the way forward for UIC’s approach to US-09-01b & Communities of Practice

Present

Charlie Baker, co-chair of GEO’s Monitoring and Evaluation Working Group; National Oceanic and Atmospheric Administration (NOAA)
Michael Brady, Natural Resources Canada, Canadian Forest Service
Jan Connery, ERG (contractor to the U.S. Environmental Protection Agency [EPA])
Maria Dalla Costa, Italian Environmental Protection and Research Agency
Andrew Eddy, Athena Global, on behalf of Canadian Space Agency
Gary Foley, UIC co-chair, EPA Office of the Science Advisor
Kathy Fontaine, National Aeronautics and Space Administration (NASA)
Lawrence, Friedl, NASA
Toshio Koike, Chair, Japan GEO Committee
Rick Lawford, University of Maryland, Baltimore County
Ellsworth LeDrew, UIC co-chair; IEEE representative to GEO; University of Waterloo
John Lyon, EPA Office of Science Advisor
David McCabe, EPA Fellow
Carol Meyer, Earth Science Information Partners (ESIP) Federation
Humbulani Muda, South Africa
Oystein Nesje, Norway Ministry of Environment
Michael Nyenhuis, University of Bonn (commissioned by German Federal Institute of Hydrology [BfG])
Masami Onoda, GEO Secretariat
Jai Singh Parihar, UIC co-chair; Space Applications Center (ISRO) Indian Space Research Organization
Jay Pearlman, IEEE
Francesco Pignatelli, UIC co-chair; European Commission, Environmental Institute of the Joint Research Center
Fernando Ramos, GEO Secretariat
Kerry Sawyer, NOAA
Per Erik Skrovsseth, ISOE 33, Norwegian Representative to GEO
Bill Sonntag, EPA Office of Environmental Information
Amy Jo Swanson, NASA
Sushel Unninayar, NASA
WELCOME, INTRODUCTIONS, AND AGENDA

The UIC co-chairs welcomed participants and reviewed the meeting agenda, objectives, and deliverables. Two new UIC co-chairs were introduced: Carsten Dettmann from Germany and Jai Singh Parihar from India.

**Action Item:** If you are not on UIC e-mail list and would like to be, please provide your contact information to Masami Onoda at monoda@geosec.org.

UIC ACTIVITIES FOR ISRSE WEEK

Several events at ISRSE are relevant to the UIC:
- User testing of the three GEO portals (the ESRI, ESA/FAO, and Compusult portals)
- Information sessions on the GEO Call for Proposals
- UIC booth
- UIC/Science and Technology Committee (STC) Joint Meeting
- UIC/Architecture and Data Committee (ADC) Joint Meeting
- UIC User Engagement Reception
- NASA videotaping of user stories
- UIC Wrap-up Meeting

UIC members were encouraged to contribute to these activities (e.g., by staffing the booth), to engage with users and encourage them to participate in relevant activities, and to listen for key themes, trends, and user-oriented needs that could be shared at the UIC Wrap-up Meeting on May 8.

ACTIVITY PLAN

Presentation

Kathy Fontaine presented the draft UIC Activity Plan, developed by Kathy Fontaine, Michael Nyenhuis, Lawrence Friedl, Masami Onoda, Fernando Ramos, and the UIC co-chairs. The idea for an Activity Plan was first presented at the UIC meeting in Bucharest. Intended for internal use, the Plan matches UIC activities to important issues within GEO over a specific time frame (initially two years). A draft was prepared for the UIC meeting in Sophia Antipolis, and comments were incorporated into a draft that was distributed to the UIC in late March. Since then, comments have been received and incorporated from the UIC, GEO Secretariat, all Committees, and the Monitoring and Evaluation Work Group to produce the latest version. The Activity Plan will be further revised based on comments and suggestions from the GEO Secretariat, this May 2 meeting, and the May 8 UIC Wrap-up Meeting.

Kathy Fontaine emphasized that the Plan is internal to the UIC. UIC controls the Plan and needs to make it work for the Committee. The Plan has four sections. The first three provide important background and context; the fourth presents the activities in seven categories: Support of GEO Work Plan, Targets, and Events; Communities of Practice; User Needs and Requirements; GEOSS Applications and Societal Benefits; Key Cross-Committee Actions; Outreach and Training; and UIC Management. Of the 36 activities described in Section 4, 16 are underway at some level. Volunteers are needed to lead the other activities. The Plan offers ideas for conducting activities; however, activity leads are free to develop their own approach.
Discussion

- National-level GEO teams are important, but they take time. Explaining how UIC’s activities relate to the whole will be important.
- The UIC should focus on a smaller subset (three to four) of activities that make the most sense from a cost-benefit standpoint, given the UIC’s limited resources. These priorities could also be targets at the ministerial level. The User-oriented Handbook activity (Activity 3.6) shows particular promise because it can build on the Global Monitoring of Environment and Security (GMES) Handbook of Users (being developed under a GMES Network of Users [GNU] project led by Herbert Haubold). Activity 3.6 should be combined with 4.5 (User Engagement Handbook). The Applications Examples Project (Activity 4.3) is also important.
- Activities 3.6 and 4.5 were envisioned as very different projects with different goals and priorities. This could pose a challenge to combining them. This is also the case for activities 4.2 and 4.3.
- Another activity under “Outreach and Training” could be preparing an outreach and training template for use at national or regional levels by those who might want to conduct outreach and training using a common approach.
- Activities in Section IV, subsections 1, 2, 3, and 5, are related to high-profile GEO activities. This dimension needs to be considered in setting UIC priorities.
- The Activity Plan provides a good outline for projects the UIC would like to do if it has the resources. We need to figure out what resources our members can provide.
- We may be able to adjust the scope of some activities, depending on available resources. For example, the handbook (Activity 4.5) could be a substantial textbook or high-level guidance.
- Gary Foley has invested resources in testing the GEOSS Common Infrastructure portals. He encouraged all UIC members to test the portals at ISRSE or on-line and provide feedback. The results of UIC’s activity US-09-01a may also provide useful input for GEOSS Common Infrastructure (GCI) portal development.
- Toshio Koike made several suggestions: 1) The Activity Plan is a bottom-up approach to accomplishing goals. GEO should keep high political momentum to also provide a top-down approach (for example, Japan put GEOSS in the G8). Political reading should be introduced into the Activity Plan; 2) The UIC should consider regional-level cooperation and approaches to promoting GEO activities, and this should be added to the Activity Plan.
- Activities in the “Outreach and Training” section should be closely coordinated with the Secretariat and the Capacity Building Committee, since both are active in these areas.

Outcome: The UIC agreed to adopt the Activity Plan, with modifications, as an internal working document to guide its work. Modifications included 1) prioritizing activities, and 2) making clear which activities are ongoing versus planned.

Action Item: GEO UIC members should talk with their national GEO contacts to consider national and regional priorities and identify the highest priority activities among those listed in the Activity Plan. Send these priorities to Kathy by June 30 at the latest. Kathy will use this input to modify the Plan to indicate assignments for the Plan.

Action Item: An email will be sent to the entire UIC mailing list about this action item to encourage their participation in setting priorities.

Action Item: Maria Dalla Costa will talk to the Italian Space Agency and develop an example handbook related to the Activity Plan elements on the user-oriented and engagement handbooks.
USER TYPE ANALYSIS

Kathy Fontaine introduced this session on characterizing user types, as initially discussed in February 2009 at the UIC meeting in Sophia Antipolis. Developing a definition of user types will help the UIC engage UIC members, engage GEOSS users, and allow for more useful feedback on all aspects of GEO. Several activities in the Activity Plan could benefit from a defined set of users. The UIC hopes to identify volunteers to lead this activity.

Michael Nyenhuis gave a presentation on user typology that had been prepared by Herbert Haubold, Austrian Federal Environment Agency and the Global Monitoring of Environment and Security (GMES) Network of Users (GNU). This presentation described different ways in which users could be categorized—for example, by location in the value-adding chain; political level they operate in; field of work; role in projects; activity level; etc.

Andrew Eddy gave a presentation (on behalf of Dr. Guy Séguin [CSA], co-leader of GEO Task DI-06-09) on user interface in the context of GEO Task DI-06-09 (Use of Satellites for Risk Management). This task sought to help the space community understand the needs, operational mechanisms, and interactions of the disaster management community and to collect information on needs of users in order to establish requirements. The project team was comprised of a System Architecture Group and User Requirements Group. The approach included four elements:

- Identify organizations with extensive user contacts to lead outreach to user community.
- Develop consensus on the methodology to collect user requirements for multi-hazard disaster management for all phases.
- Establish and implement a validation process using a large representative user body (including civil defense, international organizations).
- Ensure a continuous feedback loop even after the report is completed and use this loop to identify champions for user-led activities.

Several different user types were identified, with very different needs: responders; local, regional, and national decision makers; and international organizations. For each disaster type and phase, user requirements were established with respect to region of interest, target characteristics, temporal revisit period, timeliness/latency, and data end use. User needs were then translated into architecture requirements for each disaster type and phase, and these were rolled up across all disaster types to establish overall requirements of virtual constellation of satellites to address each phase of disasters. One lesson learned is that face-to-face contact is important to gain information on user needs; questionnaires are much less effective.

Discussion

- Results of the UIC’s user characterization activity will provide a tool for looking at other UIC activities and for identifying organizations that may not be participating in GEO.
- A user analysis was conducted in the early stages of GEO. A suggestion was made to focus on users defined in the GEO Implementation Plan.
- Maria Dalla Costa mentioned a March 2009 workshop in Vienna, Austria, which examined project documents to understand the role that users played in all projects financed by the European Space Agency and the European Commission in the Framework Program on Research (i.e., R&D projects within framework of the European Community). This work revealed that users were typically asked individually to validate results by responding to a questionnaire, but no funding was provided for validation.
- The challenge of the broad domain of users makes the value chain important.
- Intermediate users (those that interact with end users) are an important user category.
- Characterizing users will be important for communication within GEO—e.g., the UIC will be better able to communicate with the UIC’s Architecture and Data Committee if we understand what types of users need to be served by GCI and GEOSS.

- Maria Dalla Costa emphasized the need to build off work that has already been done—for example, the communities of practice (CoPs) that have evolved from work funded by the Committee on Earth Observation Satellites (CEOS). She suggested that the UIC invite input from CoPs to leverage their past, present, and future work, rather than trying to do that work, which would take a great deal of time. She was concerned this would be more difficult job than envisioned.

- Lawrence Friedl mentioned that 15 of the 114 task sheets are doing a good job with users (see below). A key UIC question is: How do we work with the other GEO task leads to help them understand how to engage users, particularly since task leads do not always think in terms of user engagement? A user document could provide a common tool to help them think in those terms.

Kathy Fontaine and John Lyon volunteered to co-lead a small group that will work during Stresa week to further evolve the discussion on user-type analysis. David McCabe, Oystein Nesje, Humbulani Mudau, Ellsworth LeDrew, Andrew Eddy, Michael Nyenhuis, Lawrence Friedl, Carol Meyer, and Sushel Unninayar volunteered to participate.

**Action Item:** UIC members should send Kathy suggestions for who should be on this team by June 30.

**Action Item:** Kathy will send an email to reach out to the Architecture and Data Committee and the Science and Technology Committee by June 30.

**ANALYSIS OF USER ENGAGEMENT IN GEO WORK PLAN TASK SHEETS**

**Presentation**

Lawrence Friedl presented the approach to and results of an analysis, conducted by Lawrence Friedl and Kathy Fontaine, to learn about opportunities for UIC involvement in tasks that have an inherent need for user engagement and a high probability of success in engaging users. This analysis was conducted in response to the UIC’s recognition at its 10th meeting (February 2009) that the UIC is responsible for addressing the user element in all GEO Work Plan tasks.

Some tasks have a significant, inherent user-engagement dimension, while others do not (though eventually all might). The analysis focused on assessing the quality of the user-engagement component in the task sheets. Work involved analyzing information on sheets for all of GEO’s 42 overarching tasks, including 114 subtasks, in order to understand what opportunities exist for UIC involvement, how important they are, and whether the UIC is currently involved. Preliminary results are that:

- The UIC is currently involved in 19 (17%) of the 114 subtasks. An additional 35 tasks (31%) are of high potential interest for UIC involvement, 67 (59%) might be of interest; and 11% did not seem relevant. The UIC therefore has the potential to be engaged in many more tasks.

- The task sheets often appeared to misunderstand or underestimate the importance of user engagement and end users. This lack of user understanding highlights the need for an analysis of user types, which would provide a tool for the UIC to use in working with task leads to engage a continuum of users appropriate for their tasks.

- Some tasks with the potential for broad user engagement might need support in developing an understanding about the importance of user engagement.
Next steps include preparing a report for the UIC on this analysis and recommending which are the most important tasks for initial UIC focus. An important goal is to identify tasks where the UIC should participate as part of the task team to develop the user engagement components.

**Discussion**

- The task sheet versions available about six months ago had much more detail.
- The GEO Secretariat should check whether the March 2009 version of the task sheets reflects the contributions of countries.
- The CoPs will be good resources for this analysis.
- Andrew Eddy cautioned that a separate earlier task-related effort revealed that several of the tasks were “phantom” tasks. He suggested contacting the task leads as next step to learn the true task status and recommended that the UIC be sure to focus its efforts on dynamic tasks.
- Maria Dalla Costa confirmed this perspective. Past communications with tasks leads in Italy confirmed that some tasks were not active, often due to lack of funding. She suggested that the GEO Secretariat eliminate tasks that have not been active in two years.
- The C4 has asked for UIC’s comment on a draft letter of commitment that they may require tasks leads to sign.

**Action Item:** Gary volunteered to look at the sheets for user engagement tasks associated with air quality and health, contact the leads, and work with the task leads to develop user engagement language if it is missing.

**CALL FOR PROPOSALS: EARTH OBSERVATIONS IN DECISION SUPPORT**

**Presentation**

Lawrence Friedl, the UIC lead for this activity, reported on the status of the recent GEO call for proposals (CFP), a joint effort of the GEO Capacity Building Committee (CBC) and the UIC. Released on February 13, 2009, the CFP seeks proposals for projects to apply Earth observations to improve policy decisions and management decisions in four societal benefit areas (SBAs): agriculture, energy, health, and water. The CFP seeks proposals for new applications of Earth observations (especially from developing countries), improvements to existing applications, and examples of successful applications. The CFP also seeks project advisors. GEO will not directly fund projects identified through this CFP; however, CBC/UIC may attempt to mobilize resources for identified projects by engaging relevant resource-providing organizations. In addition, GEO offers users opportunities to connect with appropriate, knowledgeable people who can support Earth observations and to demonstrate their success and the benefits of Earth observations. Concept proposals are due on June 4. Full proposals will be invited on August 12 and due on November 10. Results will be announced January 15, 2010. The CFP has been broadly distributed, and two proposals have been received so far. UIC members are asked to:

- Distribute and circulate the CFP to GEO organizations and interested parties for their broader distribution.
- Propose and/or participate in projects.
- Encourage submission or participation by developing countries and others.
- Encourage people to serve as project advisors (interested parties should respond to CFP Section 4.4).
- Encourage experts to serve as reviewers on proposal review panels. Potential reviewers should be nominated to secretariat@geosec.org.
- Serve as the UIC co-lead on the agriculture, health, or water review panels. (Ellsworth LeDrew and Thierry Ranchin have already volunteered for energy review panel.)
- Broker relationships between projects and Earth observation experts.
• Volunteer to work with the CBC to talk with resource-providing organizations.

Discussion

• Michael Brady suggested that the Forest Community of Practice could look at proposals submitted within the agriculture SBA. Perhaps other communities of practice could also serve as reviewers.
• Concern was expressed that the CFP had no funding attached. Lawrence Friedl responded that UIC and CBC would help to broker funding from donors, who would probably be more likely to fund specific projects once they have been identified.
• Concern was expressed that many professionals already know who the funders are and typically would tailor a proposal to the interests of the funding organization. Lawrence Friedl responded that the UIC/CBC would make it clear when brokering with organizations that the final proposals can be revised.
• One model that has worked before is for donors to provide targets and specifications so proposers can know what types of projects would be considered.

STATUS OF TASK US-09-01a NINE USER ENGAGEMENT TASKS

Presentation

Lawrence Friedl, the UIC lead for this task, reported on the status of GEO Task US-09-01a. The purpose of this task is to identify critical Earth observation priorities common to many GEOSS SBAs. It involves nine steps. Project teams have formed in all nine SBAs, and work is well underway. At least four of the teams are now working on Step 6. Final reports should be completed in four SBAs (climate, ecosystems, disasters, energy) by September/October 2009; preliminary reports should be completed by then in the other SBA areas, with final reports in the January/February timeframe. Initial findings across all SBA areas are expected by March 2010, with a final task report and recommendations by May 2010.

US-09-01a is just one of nine User Engagement Tasks (US-09-01 a,b; US-09-02 a,b,c; and US-09-03 a, b, c, d) that UIC has been assigned in GEO’s 2009-2011 Work Plan. The UIC needs to determine which of these tasks it wants full reports from at its September and November 2009 meetings.

Discussion

• Masami Onoda emphasized that the GEO Secretariat will be revising the GEO Work Plan in next few months and therefore seeks UIC input about what revisions to make. When the Work Plan was drafted, the intent was that tasks listed under “User Engagement” would be relevant to the UIC. The UIC needs to consider whether these tasks are, in fact, relevant. If so, these tasks should be a priority for the UIC. If not, the UIC should provide input about which tasks are most relevant to the UIC and how to realign them in the Work Plan—for example, whether they should be moved to a different category. This review should take into account that the task descriptions may differ from what is actually being done. She also stressed that the UIC should consider which tasks are the highest priority and achievable within available resources. It is more important to achieve results among a smaller set of tasks than to spread UIC efforts too thinly across a larger number of activities. It will be important for the UIC to identify its task priorities at least by its next meeting (September 2009).
• Kerry Sawyer mentioned that the SIT Chair, Mary Kicza, sent Michael Tanner a note that GEO would look at the threads analysis.
**Action Item:** Per Masami Onoda’s comment, all UIC members should consider reviewing whether the user engagement tasks are relevant to the UIC and which two or three are most relevant, feasible within available resources, and therefore of highest priority. Please e-mail your input by June 30 to Masami Onoda and/or Fernando Ramos at monoda@geosec.org and/or framos@geosec.org.

**Action Item:** UIC members should review the nine User Engagement Tasks and let the GEO Secretariat and co-chairs know by June 30 which of them should be presented at next two to three UIC meetings and what types of information are needed.

**Action Item:** Lawrence Friedl and Kerry Sawyer will talk about how GEO work connects with the CEOS threads analysis.

**US-09-01b: COMMUNITIES OF PRACTICE (CoPs)**

**Presentation**

Kathy Fontaine moderated this session. Appendix A of GEO’s Work Plan defines a “community of practice” as “a user-led community of stakeholders, from providers to the final beneficiaries of Earth observation data and information, with a common interest in specific aspects of societal benefits to be realized by GEOSS implementation.” Appendix A also lists five common objectives for CoPs. GEO’s 2009-2011 Work Plan identifies current Communities of Practice.

CoPs exist outside and independent of GEO, as well as within and because of GEO. GEO Task US-09-01b is dedicated to developing and nurturing CoPs within the GEOSS context. This can be done by identifying and recruiting potential communities that have sprung up organically and by analyzing needs within the GEOSS context that are not yet addressed, but that might benefit from the CoP approach. Also, the GEO Secretariat has placed a high priority on involving IGOS-P Themes in the CoPs somehow (if they are not already). The UIC needs to determine a way forward that will work for the task in general, and that might be initially applied to the IGOS-P Themes in the shorter term. The task description for US-09-01b offers flexibility about what approach can be taken. Important discussion questions include:

- To what extent are the tasks engaging or involving CoP members?
- How would the UIC go about assessing what CoPs might be needed? How would the UIC identify and recruit them into GEO?
- How would the UIC go about engaging existing CoP members and involving them in GEO activities?
- For the near term, which IGOS-P themes are engaged, and which are not?

**Discussion**

- The GEO-IGOS symposium that will be held in conjunction with the 2009 Plenary will provide an opportunity to find out if all IGOS Theme teams have been mapped to CoPs; however, the UIC may want to confirm this prior to that symposium.
- It will be important to hear from CoP representatives what value they derive from their association with GEO. This could be helpful in facilitating formation of new CoPs.
- Masami Onoda emphasized that it is important to decide what approach the UIC should take to implementing US-09-01b and developing CoPs, and whether the UIC has sufficient resources to do this.
- Gary Foley wrote the draft task sheet for US-09-01b based on information presented at prior UIC meetings; the GEO Secretariat added country contributions. Most of the information is at least a year old and should be updated, along with Appendix A, including the objectives. Gary Foley
volunteered to update the task sheet. He hoped the CoPs would contribute to this revision. For example, the Air Quality and Health CoP membership is not accurate. He encouraged the UIC to update Appendix A.

**Action Item:** Gary Foley will update the US-09-01b Task Sheet.

- Rick Lawford commented from the perspective of an IGOS Water Cycle Theme Team. This group meets annually and only agreed to become a CoP in February 2009, so the Water Cycle CoP still needs consolidation. IGOS provided the team with a reporting structure that legitimized its activity and served as a basis for coordination. This benefit is continuing under GEO because some of the group’s activities are now part of GEO’s Work Plan. The responsibilities and structure that GEO provides are an important foundation and rationale for the CoP. Since the CoP is an unfunded activity, GEO’s name is helpful to generate support, create visibility, and provide legitimacy in higher-level forums.

- Michael Brady spoke from the view of the Forest CoP. Many in this CoP are involved in international organizations. Association with GEO provides a solid framework from which to deal with GEO member countries and data providers. Also, GEO’s Work Plan provides useful coordination for different groups to contribute to specific tasks. This CoP started as a way to communicate to people outside the CoP, but this proved difficult as members did not have the time to do this. The group has since evolved to have a more internal focus. The CoP framework provides a good mechanism to keep task teams in touch via workshops, meetings, and conferences. CoP members have found it rewarding to see concrete activities. Michael Brady hopes the group will be more successful linking to non-GEO members as it evolves to have more of a presence. The current description of the CoP includes many organizations that are not active in the group. This should be communicated to the GEO Secretariat.

- Ellsworth LeDrew provided an update on the Energy CoP. This CoP had a meteoric rise, and then leveled off. Initially, many people were interested and worked to develop a 10-year Strategic Plan. Some key participants are receiving funding regardless of GEO. The group has not done well developing connections with developing countries. They want to move beyond solar and wind energy. There are good committees and subcommittees in renewable energies, nuclear, and fossil fuels, but it has proved challenging to get people to actually do work. The CoP is not progressing as quickly as he would like.

- The Earth Science Information Partners (ESIP) Federation has a structure called a “cluster,” which serves as a neutral forum for groups to meet. The air quality cluster has been particularly productive. There are other clusters, but leadership is a challenge without funding. ESIP is heavily U.S.-based, but has managed to include other countries in the past.

- ESIP’s air quality cluster has focused on building an infrastructure, including portals and catalogues that the air quality community can use to interface with GEOSS. This is an example of a group that has grown organically, without a specific leader, but is nevertheless productive.

- GEO could support CoPs by providing basic logistical support to enable them to develop a Web presence. Websites give international legitimacy.

- Gary Foley agreed with this suggestion. He also noted that there are seven air quality subtasks in different places in GEO’s Work Plan. They have commonalities, and often the same people are working on several subtasks, so a community is beginning to form naturally. The UIC needs to help this group expand its membership and exchange best practices. This type of exchange and learning from one another is essential to solving global issues. This is a place where GEO can add value. Even an ad hoc CoP of users who are becoming increasingly aware of issues will help move us in that direction.

- The European Commission has sent in a long list of projects to GEO. Some of these may help contribute to global efforts in CoP areas. Europe is now ready to contribute as a whole rather than country by country. For example, GMES is about to draft an activity on climate change that
anticipates what could be done by countries at national, transnational, or subnational levels within Europe.

- How would the UIC determine whether there is a critical mass to form a CoP in an area of interest to GEO? Responses:
  - Water has CoPs in different parts of the world. It is effectively a federation of CoPs based on a regional approach.
  - GEO should have a global rather than regional approach. However, it is difficult to involve people who are not part of established networks.
  - Gary Foley: We are working to create a Health CoP. Various health experts will participate in the GEOSS Workshop XXVIII: Health and the Environment to be held July 8-9, 2009, in Geneva. If that is successful, we may organize another GEO workshop in conjunction with the GEO Plenary in November 2009 to catalyze further development of this CoP.

- GEO offers several benefits to CoP members: the ability to work through standards and develop a registry of best practices, as well as mechanisms to make basic tools available to users.

- The CoPs may be more engaged if we delegate to them. We need to figure out whether this is happening.

- Do we have the right set of CoPs? In what areas should GEO try to form CoPs or bring existing groups into GEO? How can the UIC go about doing that? Response: Contact the task leads and get them involved.

- A steering group such as the UIC may not be the most effective mechanism to foster development of CoPs.

- Masami Onoda: The UIC is the only forum in the GEO structure that can address the problem of CoPs. Development of GEOSS itself relies on our doing this.

- The UIC should develop indices to judge the maturity of a CoP.

- The UIC needs an accepted definition of a community of practice for proposal at the November Plenary.

**Action Item:** At its September 2009 meeting, the UIC will consider how it can best act as an interface between the CoPs and the GEO community. UIC members will be asked to suggest mechanisms to do this.

- Perhaps it makes sense to convene all GEO CoPs every two years or so—or at least to build off meetings such as ISRSE that bring many CoP members together in one place.

- Some CoPs have stronger relationships with other GEO committees than the UIC. The UIC needs to consider that and avoid imposing a structure that may seem too formal and rigid.

**Action Item:** Gary Foley and Ellsworth LeDrew will co-lead a small group to review the definition of CoPs. Michael Brady, Jay Pearlman, Rick Lawford, and Maria Dalla Costa volunteered to be on this group.

**2009 PLENARY AND 2010 MINISTERIAL SUMMIT**

The GEO Secretariat asked the UIC review to review draft deliverables for the 2009 Plenary and 2010 Ministerial. The UIC needs to develop a response to these items by the May 8 C4 meeting. The C4 will report to the GEO Secretariat after this meeting, so the results have high visibility. Specific areas for input include “Guidelines for Identifying Key Achievements,” a proposed letter of intent for task leads, and overarching task coordination.

**Action Item:** Ellsworth LeDrew will lead a discussion on May 4 to gather ideas for the C4 meeting. The following UIC members volunteered to participate: Lawrence Friedl, John Lyon, Dave McCabe, Michael Brady, and Rick Lawford.
WRAP UP

UIC members shared thoughts about future meetings. The UIC is being asked to hold meetings in different parts of the world. For some countries, meetings logistics take about a year to plan. Therefore, the UIC should be planning its meetings and asking for the needed international support well in advance. The UIC also needs to consider how many meetings it wants to hold each year—one of which will likely be in conjunction with the Joint Committee meetings that will likely be held each September. Another UIC meeting will likely be in conjunction with the GEO Plenary meeting, which attracts more people.

Concern was expressed that the need to attend UIC meetings made it difficult or impossible for many to participate in the UIC, particularly people from developing countries. Suggestions:

- Electronic meetings and/or standing teleconferences should be considered to encourage broader involvement from developing countries.
- The UIC should coordinate meetings with other conferences as much as possible to make it easier for members to justify travel.
- Hold just two in-person meetings a year.
- Consider videoconferences where members travel locally to participate with other organizations in the region.
- Consider holding regional meetings with results being reported via teleconference.
- Hold working meetings of a subset of the UIC and two broader UIC meetings per year.
- Hold UIC regional meetings in conjunction with CoP meetings.
- Consider having co-chair meetings at the Plenary rather than whole group meetings.

**Action Item:** All UIC members attending ISRSE should listen throughout the week for user engagement issues and opportunities. Please come to the UIC Wrap-up Session on May 8 with thoughts and feedback from your interactions with users throughout the week. If you cannot attend this meeting, e-mail your input to Lawrence Friedl and Kathy Fontaine before May 8.

**Action Item:** Provide any ideas for May 7 STC/UIC joint meeting to Kathy Fontaine before May 7. Provide ideas for the May 8 UIC/ADC joint meeting before May 8 to Thierry Ranchin, Kathy Fontaine, Jay Pearlman, or a UIC co-chair.

**Action Item:** The UIC co-chairs will meet on May 3 from 18:00–21:00. All UIC members are welcome.

Francesco Pignatelli thanked all participants for a productive day and adjourned the meeting.