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The Second Earth Observation Summit held in April 25th in Tokyo for Adoption of the Framework Document for the GEOSS

Mr. Hiroshi Fukai, Director, Office of Earth and Environmental Science and Technology, Ocean and Earth Division, Research and Development Bureau, Ministry of Education, Culture, Sports, Science and Technology (MEXT), JAPAN

The Second Earth Observation Summit was held in Tokyo on April 25th of this year with the attendance of Japanese Prime Minister Junichiro Koizumi. The success of this Summit marks a crucial step in the development of the 10-Year Implementation Plan for Earth Observations.

The *ad hoc* Group on Earth Observations (GEO) was established by the commitment (from the Washington Declaration of the First Earth Observation Summit on July 31st, 2003) to undertake the extremely important task of developing a 10-Year Implementation Plan for Earth Observations. Based on the Declaration, and the Terms of Reference of GEO, countries and international organizations - including CEOS - are discussing how to establish a comprehensive, co-ordinated, and sustained Global Earth Observation System of Systems (GEOSS) in the framework of GEO.

Since the First Summit in Washington DC, four GEO meetings have been held. On April 25th, 2004, 350 ministers and high-ranking officials from 43 countries and the European Commission, and 25 organizations - including CEOS - met for the Second Earth Observation Summit in Tokyo, Japan. The Communiqué and the Framework Document for a 10-Year Implementation Plan were adopted at the Summit, as major achievements.

The Framework Document states at the outset that understanding the Earth system - its weather, climate, oceans,

land, geology, natural resources, ecosystems, and natural and human-induced hazards - is crucial to enhancing human health, safety and welfare, alleviating human suffering including poverty, protecting the global environment, and achieving sustainable development. It states that data collected and information created from Earth observation constitute critical inputs for advancing this understanding.

The significance of the Framework Document is that it identifies nine socio-economic benefits of Earth observation, which are:

- 1) Reducing loss of life and property from natural and human-induced disasters;
- 2) Understanding environmental factors affecting human health and well being;
- 3) Improving management of energy resources;
- 4) Understanding, assessing, predicting, mitigating, and adapting to climate variability and change;
- 5) Improving water resource management through better understanding of the water cycle;
- 6) Improving weather information, forecasting, and warning;
- 7) Improving the management and protection of terrestrial, coastal, and marine ecosystems;
- 8) Supporting sustainable agriculture and combating desertification;
- 9) Understanding, monitoring, and conserving biodiversity.

(to be continued on next page.)



Photo of the participants of Earth Observation Summit II (Center : Japanese Prime Minister Junichiro Koizumi)



14th Strategic Implementation Team (SIT) Meeting

Dr. Yoji Furuhashi

MEXT / JAXA (Japan), SIT Chairman

This is my first contribution to the CEOS newsletter as the Chairman of SIT – a role I took over from Dr. Tillmann Mohr of EUMETSAT at the 17th CEOS Plenary meeting. The Earth observation community has faced a remarkable turning point during 2003-4 in the shape of the Earth Observation Summit and Group on Earth Observation (GEO) process. Continued progress of the IGOS Themes is vital during 2004, as we promote their value for the implementation plan of GEO. This means having solid requirements, and committed implementation partners equipped with fully resourced plans. SIT is the CEOS body created to co-ordinate the CEOS contributions to IGOS and represents CEOS in meetings of the IGOS Partnership (IGOS-P). I was heartened to hear – in the recent Partners meeting in Rome – the value that the Themes place on the interaction with SIT and the real impact that we are having on their implementation progress.

The 14th SIT meeting was held at FAO HQ in Rome on 25th May 2004 (thanks to FAO for hosting us). It was a great pleasure to have so many senior representatives attend this meeting – in spite of the current intensive schedule of meetings in our community. I believe, as we agreed at CEOS 17th Plenary meeting, that it is essential to have senior representatives from space agencies attend SIT to make commitments and authoritative statements on behalf of the space agencies. I sincerely hope that such high level attendance will continue in future meetings.

The 14th SIT discussed the progress on the Water Cycle, Carbon and Geo-Hazards Themes. We had fruitful discussions – focused on space segment implementation issues. I was pleased to report to the IGOS-P 11 meeting that overall, the



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The Framework Document also identifies the shortcomings of current observation systems which must be overcome – such as lack of access to data and associated benefits in the developing world, eroding technical infrastructure, large spatial and temporal gaps in specific data sets, and a lack of relevant processing systems to transform data into useful information. Moreover, the Framework Document sets forth the primary components of the 10-year Implementation Plan for Earth Observation. According to the document, the observation system will be a distributed system of systems, which should be built incrementally on existing observation systems, while encouraging and accommodating new components.

space agencies are very responsive to the requirements of these Themes.

The 14th SIT also reviewed the Theme report from the Atmospheric Chemistry Theme and considered whether it is ready to proceed to the implementation phase. The meeting was very pleased to endorse the Theme to move to implementation – anticipating confirmation of the membership, roles and responsibilities of the implementation team soon after WMO Executive Committee approval. It is hoped that the same endorsement can be extended to the Coastal Theme team at the next SIT meeting – anticipating distribution of their report for review in August.

We also reviewed proposals for 2 new Themes: a Land Theme and a Cryosphere Theme, and considered whether the proposals meet the criteria set out in the IGOS Process Paper. There were a number of offers of support for resources to the Land Theme and strong endorsement for its approval. We also decided to endorse the Cryosphere Theme – but required that the Theme team develop the proposal further and seek guidance from the IGOS Secretariat to ensure compliance with the IGOS Process Paper.

As tasked by CEOS Plenary, the meeting also discussed how CEOS agencies might support implementation of the space segment required to address the data requirements defined by WCRP and GCOS.

The next SIT meeting will be held on November 15th in Beijing, just before the CEOS 20th anniversary event. This meeting will have special focus on consolidating a CEOS position on GEO and we will hopefully also be in a position to approve the Coastal Theme report. I hope that many senior representatives from space agencies will attend the SIT-15 meeting. ■

The Framework Document also raises the participation of and capacity building in developing countries as crucial issues for GEOSS. The need to establish a ministerial-guided, international mechanism to implement the 10-year Implementation Plan from 2005 onwards is also highlighted.

Based on, and guided by, this Framework Document, we are now working to develop the Plan – which will be presented at the Third Earth Observation Summit, to be held in Brussels in February 2005.

In the discussion of GEO, satellite Earth observations are recognized as a major contributor to the nine socio-economic benefits identified in the Framework Document. Therefore, contributions by CEOS to the GEO initiative are highly appreciated. ■

Solid Progress and New Horizons for IGOS-P

Minister Xu Guanhua

MOST / NRSCC (China), CEOS Chairman and IGOS-P Co-Chairman

The 11th full meeting of the IGOS Partners was hosted by FAO in Rome on 27th May 2004 – co-chaired by myself (representing CEOS/NRSCC) and Dr Dietrich Leihner (FAO). I am very pleased to report to CEOS Members and Associates that the meeting was very successful in achieving all of its objectives relating to the Themes and to the future evolution of IGOS:



Current Themes

Carbon Theme: Following frank dialogue with the SIT Chairman, the IGCO Team, with the support of CNES, is taking the first steps towards development of an implementation plan – to be circulated soon to IGOS Partners.

Water Cycle Theme: We heard that, despite funding challenges, the IGWCO Team is making excellent progress on establishment and population of an implementation framework and timetable. Dialogue on the TRMM-GPM gap has been established, and JAXA has proposed to host an implementation workshop for the Theme team early in 2005.

Geo-hazards Theme: From the outset, the Geo-hazards Team has emphasized a well-resourced and managed implementation mechanism for the Theme and the effort continues at a good pace. It was reported that ESA will fund a geo-hazards bureau in support of the Theme and that the UNESCO GARS programme will provide the overall framework for implementation.

Coral Reef Sub-Theme: NOAA's new Coral Reef Ecosystem Integrated Observing System (CREIOS) programme was cited as an example of how IGOS Themes can inspire implementation efforts within operational agencies. CREIOS is the first concrete step towards implementation of the IGOS Coral sub-theme recommendations.

Ocean Theme: No representative or report provided by the team.

Themes moving to implementation phase

Coastal Theme: The Coastal Theme team has re-

scheduled completion of their report for August 2004 – when it will be circulated for comment and approval by all IGOS Partners to move to implementation phase.

Atmospheric Chemistry Theme: The IGACO team, led by WMO, has provided IGOS Partners with an excellent and comprehensive final report on the Theme – which the P-11 meeting had no hesitation in approving to move to implementation. WMO/GAW will lead the implementation process.

Proposed Themes

Two new IGOS Themes were adopted at the meeting: one on "Land" led by GTOS (presented by Prof John Townshend); and one on "Cryosphere" led by WCRP (Vladimir Ryabinin). These Teams will now proceed to develop the Theme reports over the coming 12-24 months.

The important role of CEOS SIT

Several of the Theme team leaders referred in the meeting to the value of their interaction with CEOS SIT in progressing their implementation plans, and their desire to see an equivalent mechanism on the in-situ side. It was encouraging to hear that SIT is considered to be an effective way in which to engage space agencies at a senior level on the most pressing implementation problems faced by Themes.

I should like to encourage all CEOS Members who are actively planning missions in support of the domains addressed by the IGOS Themes (now spanning Oceans, Carbon cycle, Water cycle, Geo-hazards, Coastal zones and coral reefs, Atmospheric chemistry, Land, and Cryosphere) to recognise the value which the community attaches to the SIT process, and to ensure senior level representation wherever possible at SIT meetings.

GEO: the role for IGOS-P

The most important, and urgent, topic addressed by the meeting was the need for Partners to develop a position on how IGOS-P might best assist in the execution of the 10-year Implementation Plan for the Global Earth Observing System of Systems (GEOSS) – currently being developed by the Implementation Plan Task Team of the GEO.

It was agreed that the Co-Chairs would, with co-operation of all Partners, write to the GEO Co-chairs to establish a dialogue; and I was very pleased to invite all IGOS Partners to a special meeting to discuss this topic on 18th November 2004 in Beijing. If GEO can be represented at this event, it may be an ideal opportunity for us to initiate such discussions. ■



CEOS WSSD Follow-up Programme: Convergence and Partnership

Mr. Michael Hales

NOAA (USA), CEOS Ad-hoc WSSD Follow-up Team Leader

The CEOS WSSD Follow-up Programme was successfully launched at the 16th CEOS Plenary in November 2002. The goal of this programme is to coordinate the WSSD-related activities of CEOS Members and Associates so that space-based technologies are maximized to achieve the sustainable development goals outlined in the 2002 WSSD Plan of Implementation. Specifically, these goals are focused on five specific areas (or modules) including capacity building (Module 1), water resource management (Module 2), disaster and conflicts (Module 3), climate change (Module 4), and global mapping, GIS, and land cover change (Module 5).

Now that the programme is in its second year, all five of the modules are working together and complementing each other while also addressing their specific concerns. For example, Modules 1, 2 and 3 are converging their efforts on an ESA TIGER workshop being planned for 8-10 November in Pretoria, South Africa. While the primary focus of this workshop will be on water resource management issues and led by Module 2 (ESA/MEXT), it will also have a smaller component focusing on decision support tools for floods led by Module 3 (NASA), and an education and training component led by Module 1 (NOAA). At this workshop, CEOS, through TIGER, expects to build a number of lasting partnerships among data providers, users, and sustainers (resource supporters).

In addition to Modules 1, 2 and 3, other CEOS entities are getting involved in the upcoming workshop in Pretoria. For example, the CEOS WGEdU plans to make its education and training *Discovery Portal* website available to participants. It will also be promoting its plans to implement a mechanism

that could make additional satellite data available for education and training purposes. The effort will begin at the Pretoria workshop with making CEOS member data available to African partners. Additionally, the CEOS African Advisory Group, which was formed at the Module 1 capacity building workshop in 2003, plans to participate and contribute to the Pretoria workshop.

It should also be noted that Module 4 on climate change is just starting to plan its future activities. Module 5 on global mapping, GIS, and land cover change is working closely with the African Regional Remote Sensing Centres. Their activities include hosting representatives to attend training, working with the Centres to do needs assessments, and coordinating its activities with other WSSD-related programmes such as the Geographic Information for Sustainable Development (GISD) initiative. ■



CEOS ad hoc Team on Utilization- Wuhan Workshop on R²IS

Prof. John Townshend

University of Maryland (USA), Utilization Team Leader

The CEOS Workshop on Rapid Response Information Systems (R²IS) was held during May 5-7, 2004, in Wuhan, China. Over 200 scholars and experts, from USA, France, Norway, Japan, Thailand, Singapore, Indonesia, Mongolia, Vietnam, Iraq, Iran, Zambia, Rwanda, Libya, China, and other countries,



participated in this workshop. This workshop was a great meeting in the development of the R²IS field. It was jointly organized by the Ad Hoc Team on Data Utilization of CEOS, the National Remote Sensing Center of China (NRSCC), the CEOS China Secretariat, Wuhan University, the State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), the School of Remote Sensing & Information Engineering of Wuhan University, the National Satellite Meteorological Center of China Meteorological Administration (NSMC, CMA), China University of GeoSciences and the GTOS Panel Global Observations of Forest

Cover/Global Observations of Landcover Dynamics (GOFC/GOLD).

Prof. Deren Li from NRSCC, the executive chair of the workshop, and Prof. John Townshend from USA, the chair of CEOS Ad Hoc Team on Data Utilization and the chairman of the Workshop Program Committee, conducted the meeting. Several distinguished guests gave speeches at the opening of the meeting and offered their enthusiastic support for its work. Subsequently Prof. Deren Li and Prof. John Townshend gave keynote speeches entitled 'An Outline of CEOS

(to be continued on next page.)

CEOS Working Group on Education, Training and Capacity Building (WGEdu)

Dr. Sergio Camacho, UNOOSA (Austria), Chair, WGEdu

Ms. Christine Hutton, CCRS (Canada), Vice-Chair

Dr. Maurizio Fea, ESA / ESRIN (Italy), Vice-Chair

The CEOS Working Group on Education, Training and Capacity Building (WGEdu) held its 5th annual meeting in Rome, May 24-25, 2004. The Food and Agriculture Organization of the United Nations (FAO) hosted the meeting, and some new representatives were enthusiastically welcomed. While focusing on the priority issues for the WGEdu, the meeting also involved discussions on the coordinated consideration of common objectives and actions shared with the CEOS WSSD Follow-up Programme Module-1 (Education, Training, and Capacity Building) and contributions to the Capacity Building Sub Group of the *ad hoc* Group on Earth Observations (GEO). WGEdu participated in the CEOS World Summit on Sustainable Development (WSSD), Module 1 Workshop in Stellenbosch, South Africa where in addition to the development of a set of Capacity Building Principles, an African Advisory Group was established to coordinate user inputs to CEOS through the WGEdu.

The WGEdu reviewed a draft document outlining a process to provide satellite data free of charge, or at minimal cost, for educational purposes as defined under the satellite data principles adopted by CEOS in 2003. It was agreed that the proposal process and criteria ("the model") should be simple and ensure that a broad range of *bona fide* educators would be eligible to apply for data of which a yearly limit would be established. The WGEdu agreed to initiate a Pilot project to test the model and to fully determine the challenges and problems that might be associated with its implementation. The model will be tested using three different institutions: a user NGO [represented by the African Advisory Group (AAG)]; an international organization [UN-Office of Outer Space Affairs (OOSA)]; and an educational institution (Peking University, Beijing).

Proposals for data are required from these institutions by 5 September 2004 using the application form being prepared by the WGEdu.

The development of the CEOS education Web Portal is progressing well and the WGEdu will provide a demonstration at the 18th CEOS Plenary. To further populate the Portal with information, targeted invitations will be sent to all CEOS Members and Associates in the near future.

Another priority for the WGEdu is a revision of its strategy and the preparation of its terms of reference. This action follows the decision of the 17th CEOS Plenary to change the status of the WGEdu from an *ad hoc* to a standing working group and to include Capacity Building in its mandate. Both documents will be prepared and tabled at the 18th CEOS Plenary in China. With the change in working group status and the expanded mandate, WGEdu hopes to stimulate interest and activities in, and from, the developing world, in order to ensure a wider understanding of related issues, needs and challenges.

The WGEdu will also contribute to the half-day Symposium being organized to celebrate the 20th anniversary of CEOS. ■

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Activities This Year' and 'The Work of the CEOS Utilization Team', respectively. There were 27 oral reports and 28 posters presented on this workshop, which were from Space Agencies, International Organizations, Universities, and other Institutes and companies. Representatives from Space Agencies and users provided analyses and assessment of many successful case studies and in particular highlighted data and information requirements for rapid response.

Recommendations were reached and have been submitted to CEOS and the Chinese Government. It is recommended that CEOS space agency members consider (a) making data streams available in real time whenever possible, and (b) provide any necessary preprocessing software, a benchmark data set

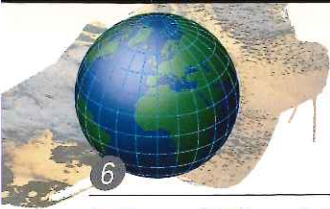
and a focal point for questions.

Workshop participants welcomed the improved availability of data already achieved by China and other countries; they noted that many agencies show the potential for providing rapid response capabilities but that few have achieved the end-to-end operational capability that is needed. It is recommended that CEOS space agency members provide continuity in the support of developing countries for efficient EO data utilization; CEOS should consider other well focused Rapid Response Workshops with the support of particular space agencies especially in connection to Disaster Management in other regions involving, if possible, its Education, Training and Capacity Building Working Group; CEOS Members should make improved information available on the algorithms used in deriving their products;

The CEOS/WGCV should consider validation in relation to the needs of specific rapid response systems.

The Workshop completed its work successfully with an open discussion including many lively contributions from students from Wuhan University. It should have far-reaching effects on promoting scientific inter-communications with scholars from all around the world especially within developing countries. ■





The Working Group on Calibration and Validation

Dr. Stephen G. Ungar

NASA / GSFC (USA), Chair, WGCV

The 22nd WGCV plenary (WGCV-22) was held from 15 – 17 June 2004 in Sioux Falls, South Dakota, USA. The plenary was preceded by a meeting of the Terrain Mapping (TM) subgroup on 14 June. Both meetings were hosted by the USGS EROS Data Center (EDC) at the EDC facility located near Sioux Falls. As well as reports from the subgroups and taskforces, which form the basis for the effective working of the WGCV, the plenary included very informative presentations from the USGS host and a tour of the EDC facility. At WGCV-22, a series of recommendations were approved for submission to CEOS plenary.

The WGCV Chair introduced the new Secretariat, Stuart Frye (MitreTek, NASA/GSFC). As part of the transition of the WGCV Chair to NASA, the WGCV Website has been successfully re-hosted at NASA/GSFC.

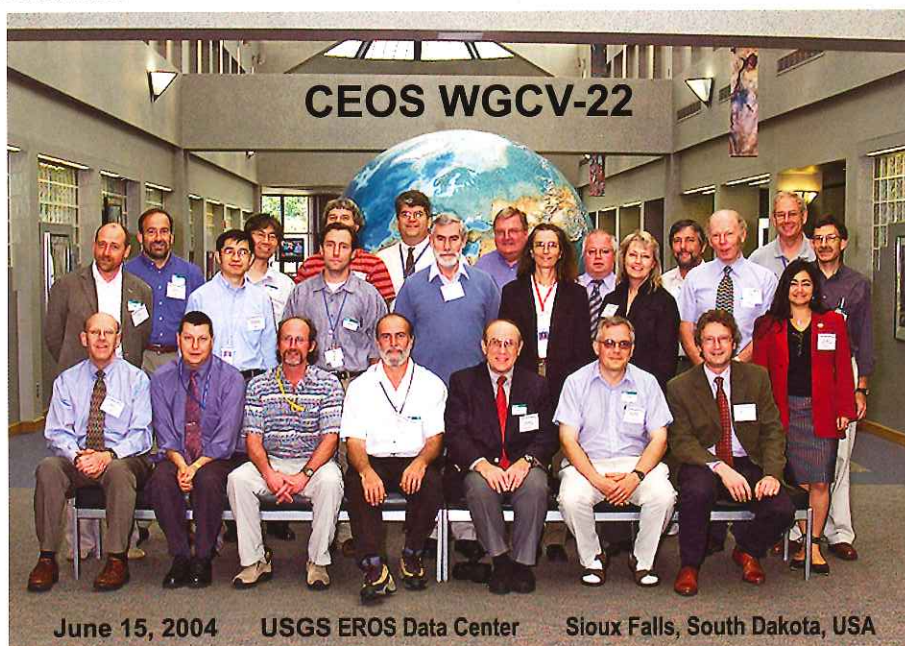
The WGCV-WGISS Test Facility (WTF) has been successfully demonstrated by the Land Product Validation (LPV) subgroup for the provision of simple web (“one-click”) access to online data-sets central to cal/val activities. Phase 2 implementation of the WTF calls for addition of up to 3 new sites (one each for) TM, IVOS and SAR. The TM subgroup members have agreed on a number of global test sites for spaceborne DEM validation. It is proposed to make SRTM-DTED2 data, which are difficult and costly to distribute on media, available to TM subgroup members, for selected sites, through the WTF portal. Also under consideration is the availability of IVOS maintained MERIS data, as well as SAR maintained JERS, ERS and A-SAR data, through the WTF portal. WGISS is considering options and guidelines for centralized or transparently distributed access to these distributed data-bases.

The utility of a centralized database for CEOS member instruments and output parameters, as captured by the current CEOS/WMO database, has long been recognized by the WGCV. The LPV subgroup is planning to interact with the WMO database administrators to explore opportunities for providing the most up-to-date and accurate information. A pilot project, providing direct

internet links to supporting material for the information summarized in the database, will focus on MODIS land products. It is anticipated that this pilot work will be completed by WGCV's 2005 plenary. A report will be given by LPV at that time and WGCV can then provide more visibility for the WMO database by linking to the database from related WGCV web pages and distributing information on the database to WGCV subgroup constituents.

CONAE has offered to host overlapping meetings of the WGCV-23 and the WGISS, featuring a joint WGCV/WGISS session, in Cordoba, Argentina in March 2005. They have also offered to assist in locating sites for those interested in a possible prototype cal/val field measurements campaign immediately prior, or subsequent, to the meeting. WGCV-24 is tentatively slated for a site to be located in Europe in December of 2005.

The chair would like to thank all WGCV and subgroup members for their excellent teamwork leading to the success of WGCV-22. A more detailed account of WGCV-22 will be presented in the next WGCV Newsletter, expected to be published in September 2004. The Recommendations generated at this meeting, as refined through email exchanges with the WGCV membership, will be brought forward to the CEOS Plenary in Beijing next November. ■



June 15, 2004 USGS EROS Data Center Sioux Falls, South Dakota, USA

The Working Group on Information Systems and Services

Mr. John Faundeen

USGS (USA), Chair, WGISS



WGISS-17 Participants in Tromsø, Norway

Participants in WGISS-17 were able to enjoy the beauty of the northland in Tromsø, Norway located at 69 degrees North latitude. Over 50 participants, representing 17 CEOS organizations attended the combined WGISS and Sub-Group sessions held in the modern Arktika building. The Norwegian Space Centre hosted the meeting and provided us with excellent facilities and ample opportunities to learn about their EO activities while also educating us on the ways and customs of Norway. A tour of the Kongsberg Tromsø receiving station and a presentation of the Svalbard (78 degrees North) installation provided a firsthand look at the capabilities stations located at high latitude can offer.

Always agenda challenged, the participants worked hard to present their work since our last meeting in Chiang Mai, Thailand, in addition to discussing how to address future goals. Several leadership changes were announced in Tromsø including the appointment of Dr. Liu Chuang, from NRSCC, and Loran Czarán, from the UN, as our new User Co-Chairs. This role has been absent for some time and the 5-year plan was modified to incorporate the usage of co-chairs. These two very qualified volunteers were eagerly endorsed. Noting that Ivan Petiteville, from ESA, had served as the Projects and Applications Sub-Group Chair for 2 years, the Vice-Chair, Osamu Ochiai from JAXA, agreed to move up to the Chair's role. Nominations were solicited and Pakorn

Apaphant from GISTDA volunteered to become the new Sub-Group Vice-Chair. A similar evolution of leadership roles is anticipated at WGISS-18 as Wyn Cudlip, from BNSC / QinetiQ, will have fulfilled his 2 years as the Projects and Applications Sub-Group Chair. Completing the leadership changes, Stuart Doescher, from the USGS, agreed to Chair the WGISS Infrastructure Task Team. Jeff Smith, from NASA, has led this WGISS-level Task Team, but has reluctantly taken a tour of duty with another U.S. agency not affiliated with CEOS. Mr. Smith's contributions will be missed.

Addressing the Plenary action related to the Ad-hoc Team on Utilization was a major activity. The action states, "CEOS Space agency members need to develop information systems with more integrated catalog, search, ordering and retrieval mechanisms. It is recommended that the CEOS WGISS study how best to develop this incrementally for particular application fields..." Great discussion by all present led to the creation of a sub-committee comprised of 12 CEOS participants. This group has the task of identifying a strategy that will be reported at the 18th Plenary. Significant thought has already been put into this effort.

WGISS-18 will be hosted by NRSCC in Beijing, China on 6-10 September. NRSCC provided an extensive presentation regarding their hosting revealing the considerable forethought that has already been applied to the upcoming meeting. The website NRSCC created for the meeting is at the URL <http://wgiss18.rsgs.ac.cn>

All of the WGISS-17 meeting presentations are available from the WGISS web site at <http://wgiss.ceos.org> ■



View of Tromsø

Note from the CEOS Chair

Minister Xu Guanhua
MOST / NRSCC (China)
CEOS Chairman



Dear CEOS colleagues, by the time you receive this edition of the newsletter we will be just a few months away from the CEOS Plenary in Beijing. NRSCC efforts during our year of Chairmanship of CEOS have been dominated by interactions with the GEO process – and the intensive pace of development of the implementation plan being prepared in time for the 3rd and final Earth Observation Summit – scheduled for February 2005 in Brussels. I am pleased to report that CEOS is well represented at the working level on this process – with representatives on the Implementation Plan Task Team and in the Sub Groups contributing to development of the documents. However, it remains to be seen precisely how CEOS will feature in the proposals for governance currently being developed and negotiated.

CEOS could be considered as an outstanding model for the type of international co-operation envisaged by GEO, and our 20 years of experience, albeit with a less broad mandate than that of GEO, is likely to be of significant value for the work that lies ahead. Examples include:

- the CEOS structure: comprising Members (space agencies linked to national governments) and Associates (key international organisations); both data providers and users are represented;
- Leadership: CEOS chairmanship rotates annually (and approximately geographically equally among Americas, Europe/Africa, Asia/Oceania agencies);
- Secretariat: the permanent distributed secretariat has proven to be a very effective and

respected management mechanism; - SIT: which brings together senior agency representatives, capable of making commitments, to discuss the realities of programme harmonisation.

It is important for us to keep in close contact with our government representatives who are active in the GEO process – since it is they who will be at the table in the key GEO and EOS meetings. I encourage you to maintain this contact in the coming months and to ensure senior level representation of your agency in Beijing as we continue the debate on this most important of topics. I look forward to welcoming you to China in November and can assure you of a productive and enjoyable week. ■

Contributions for future issues of the CEOS Newsletter from the CEOS Members and Associates, and subscriptions to the CEOS Newsletter, please contact CEOS Japan Secretariat : ceos-jpn@jaxa.jp, or misawa@restec.or.jp http://jaxa.ceos.org/ceosnews_menu_e.html

Meeting Calendar

As of Jul. 2004

Activities	April	May	June	July	2004 August	September	October	November	December	2005 January	February	March
CEOS Plenary								▲ 16-18 11/16(a.m.), 20th Anniv. Sympo. 18th Plenary, NRSCC, Beijing, China				
WSSD Follow-up Team		▲ 26 FAO, Rome						▲ 8-10 WSSD / TIGER Workshop Pretoria, S-Africa				
Utilization Team		▲ 5-7, Workshop Wuhan Univ., China						▲ 15 SIT-15 NRSCC, Beijing, China				
CEOS SIT (Strategic Implementation Team)		▲ 25 SIT-14 FAO, Rome										
CEOS WGISS (Working Group on Information Systems & Services) Subgroups/Task Team		▲ 10-14 WGISS-17 NSC, Tromsø, Norway			▲ 6-10 WGISS-18 NRSCC, Beijing, China							△ WGISS-19
CEOS WGCV (Working Group on Calibration and Validation) Subgroups			▲ 15-17 WGCV-22, NASA/NOAA Sioux Falls, South Dakota, USA									△ WGCV-23 CONAE, Cordeba, Argentine
CEOS WGEdu (Ad Hoc Working Group on EO Education and Training)		▲ 24-25 FAO, Rome										
IGOS Partners	▲ 23 IGOS Event	▲ 27 IGOS-P11 Rome						▲ 18 IGOS-P11 bis NRSCC, Beijing, China				△ 2-5 CEOP / IGWCO Tokyo
Themes:												
Others	▲ 25 EO Summit-2						▲ 4-8 IAF Vancouver					▲ 16 EOS-III
	▲ 22-23 GEO-4 Tokyo			▲ 2-7 APAN Cairns, Australia		▲ 27-28 GEO Governance Brussels		▲ 29-30 GEO-5 Ottawa, Canada				▲ 14-15 GEO-6 Brussels

▲: determined △: to be determined (Date, Host organization/Location) CEOS-related meetings are open only to designated participants.

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