Committee on Earth Observation Satellites http://www.ceos.org CONTENTS CEOS Principals Mid-year Meeting – 24th May 2005 16th Strategic Implementation Team (SIT) Meeting Report from the IGOS-P12 Meeting The Group on Earth Observations (GEO) Update Working Group on Education, Training, and Capacity Building (WGEdu) WSSD Follow-up-Team - Review of Activities and future pairs

Iorking Group on Information Systems and Services (WGIS WGISS and WGCV Input Iorking Group on Calibration and Validation (WGCV) rom the CEOS Chairman / Meeting Calendar August 2005

CEOS Principals Mid-year Meeting – 24th May 2005

No.

Dr. Colin Hicks, BNSC (UK), CEOS Chairman

The Group on Earth Observations (GEO) and its Global Earth Observation System of Systems (GEOSS) Implementation Plan have a growing momentum. CEOS has recognised that it must maintain proactive involvement in GEO, being able to respond to the opportunities that such an international initiative provides. This mid-year meeting provided an opportunity for CEOS Principals to reinforce their view that CEOS should be fully committed and supportive to GEO and undertake a high profile role within GEO on behalf of the space segment community.

> The meeting, held at United Nations Environment Programme (UNEP) Headquarters in Geneva, centred on the interim recommendations and conclusions of the CEOS Task Force which was set up in November 2004 to consider how best CEOS can adapt to the GEO era. The objective of this meeting was for the Task Force to obtain feedback and guidance from CEOS Principals on how its work should be completed. The Task Force will now prepare its final report and present it to the November Plenary.

> There was good attendance at the meeting and the overall tone was extremely positive and constructive. Yasushi Horikawa (Japan Aerospace Exploration Agency (JAXA), Task Force & Strategic Implementation Team (SIT) Chairman) presented a set of the draft recommendations prepared by the Task Force. The recommendations set a course aimed at helping CEOS build upon its 20 years of experience of coordinating space-borne Earth observations in order to serve GEO.





CEOS and SIT Chair at the CEOS Principals Meeting

* It was recommended that CEOS should keep its separate identity but ensure that it is able to be responsive to GEO requirements in a timely fashion while still serving other entities such as G-8, United Nations Framework Convention on Climate Change (UNFCCC), Intergovernmental Panel on Climate Change (IPCC) etc.

* It was further recommended that, in the short-term, CEOS should work closely with the GEO Work Plan Team and the GEO Secretariat in helping to develop the GEOSS Work Plan. Alongside that, CEOS should ensure that it is sufficiently represented both to the new Executive Committee and the GEO Director. It was thought that this could best be achieved if the SIT Chair became the primary point of contact between CEOS and GEO.

* The CEOS Working Groups (WGISS, WGCalVal, WGEdu) could provide a dual role in support both of CEOS and GEO – it was recommended that CEOS support them in adapting to that role.

* It was also proposed that, in the medium-term, CEOS should organise the annual Plenary so it fits in with major events within the GEO calendar.

The CEOS Task Force pointed out that this agenda for change and action could only be delivered successfully if CEOS delegates are willing to commit and provide adequate resources to CEOS. In addition, it was suggested that the CEOS Chair should be strongly supported by the previous and future year's chairmen, forming a troika able to give continuity of strong and dynamic leadership to CEOS.



Dr. Yasushi Horikawa

MEXT/JAXA (Japan), SIT Chairman

Welcome to the first newsletter as the Chairman of SIT since I took over the chairmanship from Dr. Yoji Furuhama who retired as of March 31, 2005.



The 16th SIT Meeting

The 16th SIT meeting was held at UNEP International Environment House in Geneva on 23rd May 2005 (thanks to UNEP for offering to host us) following the CEOS Task force meeting. It was my great pleasure to have so many senior representatives attend this meeting in spite of intensive schedule of our community.

The 16th SIT meeting made discussions about CEOS response to GCOS Implementation Plan and CEOS position to IGOS-Partnership, and prepared recommendations for the mid-year CEOS Principal meeting

Preparing coordinated response to the GCOS Implementation Plan was requested in COP-10, Buenos Aires, December 2005. SIT-16 participants agreed that it was critically important for CEOS to respond to these high level requirements. The GCOS Implementation Plan is essentially the same as the Climate Societal Benefit Area described in the GEOSS Implementation Plan, and CEOS needs to carefully coordinate response to the various tasks which the GEO/WPT is seeking for the Climate Societal Benefit Area. It was agreed that CEOS SIT should lead coordination of the response from space agencies to the GCOS Implementation Plan which includes the GCOS strategy, GCOS Climate Monitoring Principles and the implications for current and future space systems. Dr. Stephen Briggs, ESA, was appointed as a leader of this activity. CEOS Chair will arrange for presentation of the CEOS coordinated response at COP-11 of the UNFCCC in this context.

The 16th SIT also reviewed briefly the progress on implementation for the Ocean, Water Cycle, Carbon, Geo-Hazards, Atmospheric Chemistry and Coastal Themes and I was pleased to be able to comment at 12th IGOS-Partnership meeting that the Themes were moving at a good pace in their implementation phase. We also had the brief status report from the Land and Cryosphere Themes which are preparing Theme reports. These Themes are also now progressing in a very satisfactory manner.

And, we also invited each space agency (BNSC, CNES, CONAE, ESA, EUMETSAT, JAXA, NASA, NOAA, NRSCC and USGS) to update their status regarding each IGOS-P Theme. The programmes of the each agency were reported to be progressing well.

The next SIT meeting is planned for 14th November 2005 in London - just before the 19th CEOS Plenary meeting. The London events are likely to be a milestone in the history of CEOS, as we realign and refocus to adjust to the priorities of GEOSS Societal Benefit Areas. I hope that all Principals and/or senior representatives from CEOS space agencies will attend the 17th SIT meeting in November.■

(continued from Page 1.)

After the presentation of the recommendations, CEOS Principals were invited to make statements on what they had heard. All Agencies and Organisations represented fully supported the recommendations and encouraged the Task Force to continue to finalise the report for Plenary along the lines proposed. Many of those present emphasised their support for CEOS to continue and adapt to the GEO era. They also fully acknowledged that members needed to be more pro-active and agreed to consider and respond to individual requests as they arose. In the meantime the CEOS Secretariat was asked to continue to provide the 'engine-room' within CEOS but also to look to encourage participation by additional members.

In summary, the meeting was successful and the recommendations were given a positive endorsement. CEOS was affirmed as a primary body through which the EO space community will continue to coordinate Earth observations, and through which it will seek to serve GEO.

Report from the IGOS-P12 Meeting

Dr. Marion Cheatle, UNEP, Former IGOS-P Co-Chairperson **Dr. R. Norberto Fernandez**, UNEP

The 12th meeting of the IGOS Partnership was co-chaired by Colin Hicks (CEOS/BNSC) and Marion Cheatle (UNEP). Hosted by UNEP at the International Environment House in Geneva, the meeting was attended by some fifty representatives from the IGOS Partners, UN agencies and observing systems organisations.



IGOS-P12 Co Chairs

Discussions in the IGOS-P 12 were dominated by the developments of the GEO/GEOSS process. In this regard, there was coincidence amongst all Partners to continue with the IGOS activities and

Partnership, emphasising linkages and cooperation with the GEO/GEOSS. Through the years, the IGOS has developed a much extended scientific and technical network and expertise, which will be instrumental to the implementation of the GEOSS 10-Year Implementation Plan targets. To facilitate the discussions, UNEP commissioned the background document "The IGOS Partnership and the Group on Earth Observations: Strategic Options". The paper was prepared (and presented) by Dr. Arthur Dahl (UNEP's Environmental Senior Advisor); it provided an excellent base for the discussions, including a range of strategic options for the future of the IGOS Partnership. IGOS Theme Leaders also presented their views on the future of the Themes vis-à-vis the GEO/GEOSS societal benefit areas. The World Meteorological Organisation (WMO), as the new Co-Chair of the IGOS-P, expressed concurrent views for the future of the IGOS. A presentation by the GEO Secretariat reinforced the need for co-operation between the IGOS and the GEO for a successful implementation of the GEOSS Implementation Plan. In this regard, the Partners agreed that a comparison of the IGOS themes with the GEO societal benefit areas to identify and prioritise gaps and opportunities for collaboration, was seen as a necessary first step to establish direct relationship between the IGOS and the GEO processes.

Another important agenda item was the inclusion of socioeconomic data in the existing IGOS Themes, especially in the Land, Coastal and Water Cycle themes. UNEP and ICSU (the International Council for Science) prepared the background document "Integrating Socio-Economic Data and Information into the Land and Coastal Themes of IGOS" (by Dr. Steve Lonergan, UNEP, and Dr. Leah Goldfarb, ICSU) that discussed some of the key methodological issues we may face to try to integrate socio-economic and biophysical data. Theme Leaders provided an update on the actions being carried out to incorporate socioeconomic data in their themes (as requested at the IGOS-P11bis); amongst them, links to existing research programmes such as the Land Use and Cover Change/Global Land Project (LUCC; joint IGBP-IHDP). Clearly, additional capacity building efforts will be necessary to achieve this integration.

3

Leaders of the Ocean, Carbon, Water Cycle, Geohazards, and Atmospheric Chemistry themes reported on the implementation of their different themes; including a full report from the Coastal Theme, now under implementation, which incorporated the Coral Reef sub-Theme (a request from previous IGOS-P meetings). The Land and Cryosphere themes are under development; both themes were asked to synchronise the preparation of their reports to be presented at the next CEOS Plenary and IGOS-P meetings in November 2005. There was a special presentation on the proposed Geodetic theme, but no immediate action was asked from the Partners.

UNEP, as Chair of the Sponsors Group of the Global Observing Systems (GTOS, GCOS and GOOS), announced to the IGOS-P that the Sponsors (UNEP, WMO, FAO, UNESCO and ICSU) agreed to transmute the Sponsors Group into a new coordination mechanism for the UN agencies and ICSU, in order to better respond to the new dynamic that is associated with the GEO/GEOSS process. This new coordination mechanism (pending approval from the Executive Heads of Agencies) evolved from meetings and the Joint Statements that the Executive Heads of UNEP, WMO, FAO and UNESCO have prepared for the various meetings of the GEO and the Earth Observations Summits --statements that helped keep the continuing role that the UN agencies play in Earth observations vis-à-vis the GEO/GEOSS. WMO, as the new Chair of the G3OS Sponsors Group will lead through the transitional period.

At the end of the IGOS-P 12 meeting, UNEP handed the Co-Chair of the IGOS-P to the WMO, for the 2005-2006 period.



UNEP, WMO and CEOS/BNSC: past and present Co-Chairs of IGOS-P



The Group on Earth Observations (GEO) Update

Ms. Helen M. Wood

NOAA (USA), GEO Secretariat Director

Tn February 2005, the *ad hoc* intergovernmental Group on Earth Observations (GEO) presented ministers at the third Earth Observation Summit the Global Earth Observations System of Systems (GEOSS) 10-Year Implementation Plan, now endorsed by nearly 60 countries and the European Commission. The plan summarizes the steps to be taken over the next decade by a growing community of nations and intergovernmental, international and regional organizations, to put in place the GEOSS. The ministers also established the intergovernmental Group on Earth Observations (no longer termed "ad hoc") to take those steps necessary to implement GEOSS. Specific attention was given to the importance of consultation with intergovernmental and other sponsors of component systems of GEOSS, and to seeking the assistance of relevant international and regional organizations (e.g., CEOS) in the work of GEO.



The first formal meeting of the "new" GEO (GEO-I), was held in at the headquarters of the World Meteorological Organization (WMO), Geneva, Switzerland, on May 3-4, 2005. The primary focus was GEO governance and the formation of the GEO Executive Committee. A 12member Executive Committee was approved, with the following regional allocation of members: Africa (Morocco, Republic of South Africa), Americas (Brazil, Honduras, United States), Asia and Oceania (Japan, China, Thailand), CIS (Russia), and Europe (European Commission, Germany, Italy). Four co-chairs were selected, two representing developed countries (the European Commission and the United States), and two representing developing countries (China and the Republic of South Africa).



Ribbon cutting of the new GEO Secretariat office



Some members of GEO Secretariat

In conjunction with GEO-I, the new GEO Secretariat Office, located in the headquarters building of the World Meteorological Organization in Geneva, was officially opened.

The GEO Executive Committee convened its first meeting immediately following the adjournment of the GEO-I plenary, and its second meeting on 3-4 June at the WMO Headquarters in Geneva, Switzerland. At this meeting, the GEO Executive Committee approved a draft proposed structure for GEO subsidiary bodies (e.g., committees), based on the decisions and guidance provided by GEO-I.

At the 2nd Executive Committee meeting, Professor José Achache, of French nationality, was selected to fill the post of GEO Secretariat Director. Achache has extensive experience with systems and applications comprising both in situ and remote sensing observations. In 1996, he joined the French Geological Survey (BRGM) as deputy director of the Research Division and the following year became its director. In 1999, he was named advisor to the President of the French Space Agency (CNES) and in 2000, was appointed to the post of deputy director general for science. In 2002 he was appointed Director of Earth Observation for the European Space Agency (ESA). Achache is currently Professor at the Institut de Physique du Globe de Paris. He will take up his duties in September 2005, succeeding Helen Wood (US/NOAA), who served as Director for the ad hoc GEO Secretariat from its inception in 2003.

For more information contact: Secretariat Group on Earth Observations (GEO) Case postale 2300 CH - 1211 Geneva 2 Switzerland

Tel: +41 22 730 8505 Fax: +41 22 730 8520 E-mail: secretariat@geosec.org http://earthobservations.org■

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

Dr. Sergio Camacho UNOOSA, Chair, WGEdu

The CEOS Working Group on Education, Training, and Capacity Building (WGEdu) held its 6th annual meeting in Paris, from 18-19 May 2005 at the Headquarters of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

The participants developed draft Terms of Reference for the WGEdu that indicate that, among other objectives, "The CEOS WGEdu will be a focal point for CEOS capacity building contributions to the Global Earth Observation System of Systems (GEOSS)", for review by the 19th CEOS Plenary. On 20 May, the WGEdu and the CEOS WSSD Follow-up Programme held a joint meeting to discuss coordination of common objectives and actions. The participants in the joint meeting discussed ways in which the activities of each group can contribute to GEOSS implementation targets. The meeting agreed that it will be necessary to strengthen the membership of both groups to achieve this goal. Taking into account their experience with these issues and their current and future activities, the two groups began to prepare a document that includes the capacity building and outreach targets established for the GEOSS 10-year Implementation Plan and a brief description underneath each of the targets on how the WGEdu and the CEOS WSSD Follow up Programme can contribute to the implementation of the established targets. A joint message to this effect was transmitted by the Chair of the WGEdu and Leader of the WSSD Follow up Programme to the ad hoc meeting of CEOS Principals held in Geneva on 24 May 2005. The meeting reviewed the status of the CEOS WGEdu Education Portal which is now operational (wgedu.ceos.org). Participants at the meeting finalized a simple template identifying the meta data needed to enable CEOS Members and Associates to provide access to their education materials and resources. An invitation will be sent to CEOS Principals to populate the Education Portal. Participants also agreed on actions to take and a timeline for a pilot test of a mechanism through which educators, particularly from developing countries, could request limited amounts of satellite data for education and capacity building purposes under the Data Principles adopted by CEOS at it 17th Plenary. The meeting heard presentations on progress made in education and capacity building programmes and activities of ESA, Eumetsat, NOAA, UNESCO, UNESCO-IOC, UN-OOSA and USGS and discussed ways of making these resources more widely available to developing countries. The meeting emphasized the need for capacity building in order for developing countries to benefit from the use of Earth observation data. In this context, participants considered a document submitted by the African Advisory Group, "African concerns: priorities and needs by African Advisory Group". The meeting also reviewed the list of action items on the work plan of the WGEdu for 2005 to establish the status of their implementation and to determine how to carry out outstanding actions in time for the 19th Plenary.

WSSD Follow-up-Team : Review of Activities and future plans

Mr. Gordon Bridge

EUMETSAT, WSSD Follow-up Team Leader

The main activity of the CEOS WSSD has been to review progress of activities based upon the action plan presented to the 18th CEOS Plenary, and to prepare future strategy. Activities of the following modules have been reviewed: Module 1 - Education, Training & Capacity Building, Module 2 - Water Resource Management, Module 3 - Disaster Management and Conflicts, and Module 5 - Global mapping, GIS and Land Cover. For each module the discussions were based upon a report submitted by the relevant team leader.

One important outcome from the process is that there is a need within each module for training and capacity building activities. These need to be co-ordinated within the CEOS overarching activities on education, training and capacity building capabilities within the CEOS WGEdu. This working Group is developing a portal for Earth observation education, training and capacity building resources which provides a solid format and access mechanism and its role should be expanded.

A second major outcome is the need to raise the level of awareness of the importance of satellite-based EO data for environmental protection and disaster mitigation in the developing countries. This has to be at all levels, from the level of politicians to national delegations and within the public domain in general. An effective mechanism has to be found to achieve this goal in order to guarantee an adequate level of support at both the political and managerial level, and to ensure a sustainable number of scientists and technicians working in these fields in the years to come. In this context the WGEdu Education Resources Portal, should be used as a means of "publicising" activities and targeting WSSD Follow-up Module themes.

The Follow-up Team also recognised the need for closer cooperation within the context of the GEOSS ten-year implementation plan. This plan highlights the importance of education, training and capacity building and CEOS, through its Working Groups, can make a significant contribution and, at the same time, minimise the duplication of efforts. To achieve this the CEOS WSSD Follow-up Team activities will be mapped to the requirements of GEO societal benefit areas in the next period of activity.

One concern was that in order to ensure sustainability of the CEOS WSSD Follow-up Team and its activities there is a need for the CEOS Plenary to consider a more permanent status for the Team with clear Terms of Reference. A formal submission on this topic will be presented to the 19th Plenary in London in November 2005.



The Working Group on Information Systems and Services (WGISS)

Mr. John Faundeen USGS (USA), Chair, WGISS

WGISS-19 was held near Cordoba, Argentina 7-11 March 2005. Approximately 30 representatives attended the combined Working Group and Sub-Group sessions.



WGISS-19 Participants

The Comision Nacional de Actividades Espaciales (CONAE) hosted the WGISS meeting at their receiving station outside of Cordoba. Liaison reports were presented involving International Council for Science (ICSU), Global Spatial Data Infrastructure (GSDI), ICSU Committee on Data (CODATA), Consultative Committee for Space Data Systems (CCSDS), Open Geo-spatial Consortium (OGC), International Society for Photogrammetry and Remote Sensing (ISPRS), International Standards Organizations (ISO), Global Map Project, Climate and Meteorology and CEOS's Working Group on Education, Training, and Capacity Building (WGEdu). These liaisons allow WGISS to interact with and to better understand activities affecting Earth Observation areas of interest.

Leadership changes over the last 12 months have been accomplished at the WGISS and Sub-Group levels with the Task Team level now requiring some attention. The GRID Task Team has been lead by Yonsook Enloe from NASA/SGT since its inception. The Data Services Task team has been lead by Bernhard Buckl from DLR for many years. The Archive Task Team has been lead by Stu Doescher from USGS for two years. All three Task Teams require new leaders. Paul Kopp from CNES is the Technology and Services Sub-Group leader from which these three Task Teams report through. Mr. Kopp is soliciting new leaders for each of those Task Teams.

WGISS established the Data Utilization Task Team, lead by the WGISS User Vice Chairs composed of Dr. Liu from NRSCC and Lorant Czaran from the UN. This Task Team has the charge to continue WGISS' response to the CEOS Plenary Action 17-04.

Since the previous WGISS-18 meeting, significant progress and achievements have been reported on several WGISS activities like the International Directory Network (IDN), the GRID activities, the WGISS Test Facility Core Site (WGISS-WGCV joint project) or the WGISS Test Facility CEOP (to support the CEOP science community in the frame of the IGOS Water Cycle activities).

The 2005 Earth Observation and GEO (EOGEO) Spatial Information Workshop was held 16-18 June 2005 in Minneapolis, Minnesota. This ninth workshop provided presentations on EO web map services utilizing Open GIS Consortium (OGC) standards, spatial data infrastructure models, Java GIS toolkits, global mapping and data delivery applications. The workshop was held in conjunction with the Open Source Geospatial '05 Conference leveraging a forum of like-minded attendees.

WGISS-20 will be hosted by the National Space Agency of the Ukraine (NSAU) in Kiev 12-16 September 2005.

Joint WGISS and WGCV Input

The Working Groups on Information Systems & Services and Calibration & Validation met jointly for the first time in many years. The opportunity came about as WGCV planned to have an ad hoc field campaign in Argentina near the time that WGISS was planning to meet in Cordoba, Argentina. The two Working Groups did hold their respective meetings at Cordoba and arranged an overlap day to learn more about each others activities and to seek additional collaboration opportunities. The WGISS and WGCV Chairs conducted an open session related to GEO and GEOSS allowing all present to become more familiar with those initiatives. The joint Core Test Sites project was extensively briefed and additional sites planned. The WGCV ad hoc field campaign was summarized and a presentation on SensorWeb was provided. WGISS used the opportunity to present a technology demonstration called GeoWall which is an inexpensive, 3-dimensional viewing application

Both Working Groups relayed that the opportunity to meet jointly was very beneficial and future overlap meetings should be planned.



Chair, Dr. Conrado Franco Varotto, incoming CEOS Chair, Dr. Steven Ungar, WGCV Chair

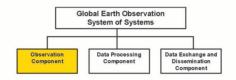
The Working Group on Calibration and Validation (WGCV)

Dr. Stephen G. Ungar

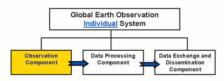
NASA / GSFC (USA), Chair, WGCV

The 23rd WGCV Plenary was graciously hosted by CONAE, in conjunction with the 19th WGISS Plenary, from 7 to 11March 2005, at the Ground Receiving Station in Cordoba Argentina. The overriding theme of this meeting was how to use or adapt current and planned WGCV activities to substantially contribute to GEOSS objectives. The article below outlines some of the preliminary recommendations coming out of this meeting. A detailed study will be ready for distribution at the next CEOS Plenary in December 2005.

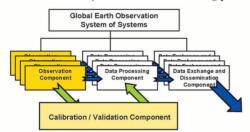
WGCV recognizes that the GEOSS component architecture (shown below) must incrementally build on existing systems to create a distributed system of systems.



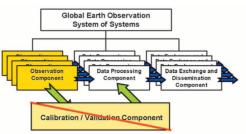
In an individual system, the GEOSS defined components completely encompass (as shown by addition of arrows below) flow from measurement to information.



However, in a "system of systems" it is critical to add a data Calibration / Validation component, to enable the integration of information and provide an estimate of information reliability for the decision-making process.



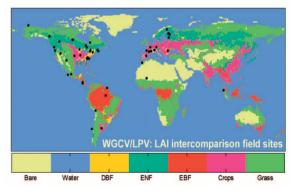
Absence of a common calibration component leads to disparate model outcomes due to inadequate integration of data sources, thus introducing uncertainty into the decision process.



Establishing Calibration and Validation guidelines is a necessary step to achieving Data Interoperability. The

WGCV is prepared to establish Calibration and Validation guidelines, to ensure interoperability of GEOSS member satellite data sources. These guidelines will be based on existing space agencies collaboration agreements, and identify commonly accepted formats and standards to assure integrability of information across the GEOSS. The WGCV will encourage all GEOSS partners to participate in the establishment of the following common practices: document the methodologies used to derive and further process at-satellite radiance; create and maintain an internet-accessible information database containing, on an instrument or satellite basis, links to all instrument characteristics needed for insuring the inter-operability process; provide/publish Cal/Val reference methods in a readily accessible form.

The WGCV will maintain a website to facilitate intercomparison of products from CEOS member EOS platforms/instruments. Participating data providers will be required to provide reference ("best practice") methods in a readily accessible form. These Cal/Val materials should address pre and post launch calibration, geo-referencing, geocoding (including ortho-rectification, where required), radiative transfer computation, validation and data merging etc. The database should also include validation site characteristics, image and vector maps and ancillary (meta-) data (e.g., WGCV/LPV LAI intercomparison field sites as shown below).



The WGCV science community is firmly convinced that the approach outlined above will ensure the quality assessment of space-borne instrument data in the context of a service driven global operational Earth observation remote sensing system of systems. This approach exploits ongoing work and available expertise among the CEOS working group members, and provides a mechanism for further development over the 10-year timescale of the GEOSS implementation plan.

Over the CEOS Chairman

I am now half way through my year of chairing CEOS which is proving to be both eventful and busy. I have just returned from Geneva after attending the suite of CEOS and IGOS meetings. Those meetings gave me an opportunity to review how far CEOS has come - not just in the six months that I have been Chairman - but over the last two years since the establishment of GEO in July/August 2003. CEOS has reacted positively and proactively to this new, rapidly developing international initiative. Our past CEOS chairmen laid a good foundation on which I have been able to build. I hope that over the next six months I can continue their good work.

As I wrote in my report on the mid-year Principals meeting, CEOS needs to gather

momentum and deliver on its promises. The CEOS Secretariat and the CEOS Task Force are driving GEO inputs from behind the scenes. They provide invaluable support to me as Chair and to all of us as CEOS Members and Associates. However, if CEOS is to prove itself as the primary representative of the space segment community, it needs to maintain a close watch, and be responsive to, GEO developments and requests. We will need to provide CEOS with additional resources in order to do what needs to be done.

As an example, CEOS is already providing support and input into the GEO Work Plan. Contributions by CEOS members have lead to Work Plan Team members being placed in Geneva on secondment but it is likely that more

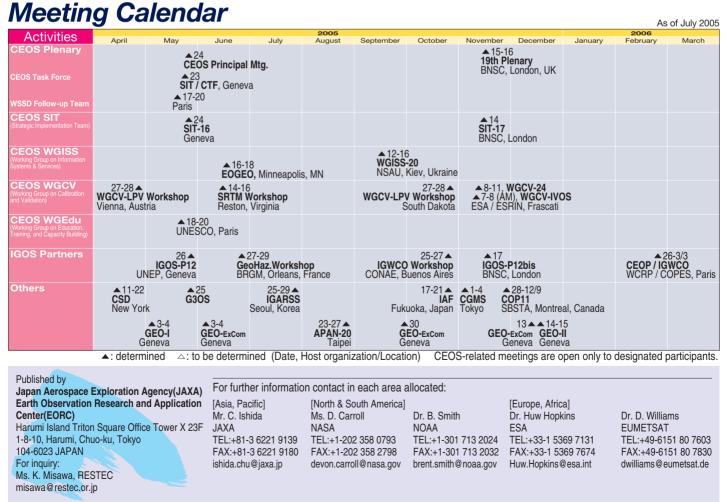
Dr. Colin Hicks BNSC (UK) CEOS Chairman



help will be needed in the future. CEOS members should consider whether they are able to provide any additional support. In addition the CEOS Secretariat is helping to identify space experts in the GEO socioeconomic areas and to co-ordinate inputs. So far the response from the CEOS community has been good.

It is essential that we, as participants in the CEOS process, maintain an active role in the rapidly evolving international EO scene. I urge all CEOS Members and Associates to take an active role wherever possible. I hope that in six months time I will be able to report to Plenary that CEOS – "is making a difference – for all of us".■

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://www.ceos.org/pages/pub.html#newsletter



This newsletter is made of recycled paper.