



Committee on Earth Observation Satellites
<http://www.ceos.org>

NEWSLETTER

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CEOS and WSSD 2002

Dr. Josef Aschbacher, ESA
Ms. Linda Moodie, NOAA
Mr. Naomasa Murakoshi, NASDA

As one of the major themes for its Chairmanship of CEOS during 2002, ESA has co-ordinated the promotion of CEOS in key international bodies and conventions – building on the efforts of the previous Chair, MEXT/NASDA, and their achievements in developing links with UNFCCC and IPCC. Our efforts have focused this year on visibility efforts for the World Summit on Sustainable Development. WSSD 2002 in Johannesburg will bring together tens of thousands of participants, including heads of State and Government, national delegates and leaders from non-governmental organizations (NGOs), businesses and other major groups to focus the world's attention and direct action toward meeting difficult challenges, including improving people's lives and conserving our natural resources in a world that is growing in population, with ever-increasing demands for food, water, shelter, sanitation, energy, health services and economic security.

The official website for the summit (<http://www.johannesburgsummit.org>) explains that "At the 1992 Earth Summit in Rio, the international community adopted Agenda 21, an unprecedented global plan of action for sustainable development. But the best strategies are only as good as their implementation. Ten years later, the Johannesburg Summit presents an exciting opportunity for today's leaders to adopt concrete steps and identify quantifiable targets for better implementing Agenda 21." The Summit will take place from 26 August to 4 September 2002.

Thanks to the enthusiastic efforts of a number of CEOS colleagues throughout the preparatory process (notably NOAA, NASDA, and ESA staff) - particularly in preparing statements and side events for the many Preparatory Committee (PrepCom) meetings - the Chairman's text contains a number of high profile references to the benefits of global Earth observations, and their value in providing information in support of sustainable development (refer to the panel in page 2 for details).

ESA has arranged for an exhibition space for CEOS at WSSD 2002 and will take the opportunity to showcase many of the new and exciting CEOS publications which have been developed during the last 12 months, including:

- The CEOS brochure developed specifically for WSSD 2002;
 - The CEOS Handbook and CD-ROM;
 - The 2002 CEOS Annual Report;
 - The CEOS Newsletter;
- as well as materials promoting the IGOS Partnership.

A 'WSSD follow up event' is planned by CEOS for November 19th (the day before the CEOS Plenary), and it is planned to invite senior officials involved in the WSSD process. All CEOS Principals and IGOS Partners are actively encouraged to participate and to help define the way ahead for efforts to promote Earth observation in the context of the implementation plan which will arise from WSSD. Details will be provided on the CEOS www site (<http://www.ceos.org>) as they become available. ■





Draft Plan of Implementation for the World Summit on Sustainable Development

Paragraphs relating to Earth observation

• Joint observation and research on the Water cycle

"27. [Agreed] Improve water resource management and scientific understanding of the water cycle through cooperation in joint observation and research, and encourage and promote knowledge sharing, and provide capacity-building and the transfer of technology, as mutually agreed, including remote-sensing and satellite technologies, particularly to developing countries as well as countries with economies in transition, for this purpose."

• Joint observation and research for natural disaster management

"35. [Agreed] An integrated, multi-hazard, inclusive approach to address vulnerability, risk assessment and disaster management, including prevention, mitigation, preparedness, response and recovery, is an essential element of a safer world in the 21st century. Actions are required at all levels to:

(b) [Agreed] Strengthen the institutional capacities of countries and promote international joint observation and research, through improved surface-based monitoring and increased use of satellite data, dissemination of technical and scientific knowledge, and the provision of assistance to vulnerable countries;"

• Development and wider use of Earth observation technologies

"114. Promote the development and wider use of earth observation technologies, including satellite remote sensing, global mapping and

geographic information systems to collect quality data on environmental impacts, land use and land-use changes, [including through actions at all levels to:] [with action to:]

(a) [Agreed] Strengthen cooperation and coordination among global observing systems and research programmes for integrated global observations, taking into account the need for building capacity and sharing of data from ground-based observations, satellite remote sensing and other sources among all countries;

(b) [Agreed] Develop information systems that make the sharing of valuable data possible, including the active exchange of Earth observation data.

(c) [Agreed] Encourage initiatives and partnerships for global mapping.

• Assistance to national efforts regarding Earth observation

"115. [Agreed] Support countries, particularly developing countries, in their national efforts to:

(a) [Agreed] Collect data that are accurate, long-term, consistent and reliable;

(b) [Agreed] Use satellite and remote-sensing technologies for data collection and further improvement of ground-based observations;

(c) [Agreed] Access, explore and use geographic information by utilizing the technologies of satellite remote sensing, satellite global positioning, mapping and geographic information systems."

CEOS Review - Development of a Five Year Plan (2002-2007)

Dr. Stephen Briggs, ESA / ESRIN

The 15th CEOS Plenary has mandated the current CEOS Chair, ESA, to lead the development of a new "CEOS Strategic Plan", building upon the work carried out already during 2001. While the previous review focused on the interface with IGOS, the CEOS review 2002 exercise addresses a wider range of activities. This includes, in particular, a review of the activities of and interfaces with the CEOS Working Groups, the identification of priority areas for the coming years, links with developing countries, the commercial sector, and a review of the position of CEOS in the international context. As regards the latter issue, the involvement of CEOS in the preparations of the WSSD is a prime example of how CEOS can act as a forum to respond to international user needs such as the ones expressed by the WSSD stakeholders.

In order to carry out its task, the CEOS Review Team has held a number of teleconferences and face-to-face meetings to discuss the strategy, content, depth of review and the

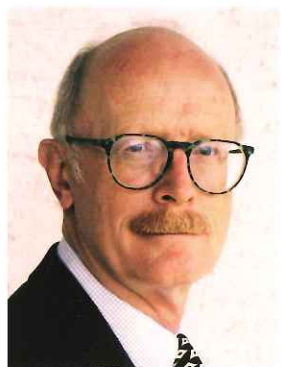
reports being produced. CEOS Principals have been formally invited early in the process to express their views and provide guidelines.

In terms of outputs, the CRT is developing the following two documents:

- A "CEOS Five Year Plan (2002-2007)", and
- A Report to Plenary on activities of CRT-2 & Recommendations for the CEOS Five Year Plan (2002-2007);

Draft versions of the two documents have been sent to CEOS Principals at the end of July for comments by mid September 2002. After integration of the various comments, the final versions of the documents will be sent to the CEOS Principals in early October as a formal input to the 16th CEOS Plenary in Frascati. ■

10th Strategic Implementation Team (SIT) Meeting



Dr. Tillmann Mohr
EUMETSAT
SIT Chairman

Welcome to the first newsletter as the Chairman of SIT since I was asked to take over the chairmanship from Dr. Jean-Louis Fellous of CNES at the 1st CEOS Plenary in November 2001. At this meeting, CEOS made SIT a permanent body responsible for CEOS relations with the IGOS Partnership. The Plenary also agreed Terms of Reference noting that these will be reviewed as part of a wider review of CEOS activities during 2002.

My first meeting as SIT Chairman -the 10th SIT - was held on 18/19 April 2002 in Pasadena, California and it was gratifying that so many senior representatives were able to attend. I believe that SIT meetings should aim to make commitments and authoritative statements on behalf of the space agencies. Thus the personal appearance and endorsement of decisions by the key players is absolutely essential.

The 10th SIT meeting addressed two major issues. The first was to review the status of the implementation of the space components of the approved IGOS-P Themes. Of course the themes themselves are at various stages of development, with the Ocean theme being the most advanced. Nonetheless as a result of the review by SIT, I will be able to report to the CEOS plenary and the IGOS Partners, that overall, the space agencies are responding in a satisfactory manner to the themes. In reaching this conclusion, it was noted that the existing commitments constitute a significant burden on the space agencies, and that before CEOS members can accept new themes there is a need for the IGOS Partners to concentrate on the full implementation of agreed themes.

The second issue addressed was on the future of the IGOS partnership process. This was discussed from the CEOS/SIT perspective and the meeting had a free exchange of views. A number of observations and recommendations were made, and these were presented to the IGOS Partners at their meeting in Paris on 31 May, 2002. Two of the issues raised were:

- Each theme should address the issue of measurable objectives, including socio-economic benefits, because SIT members believe that the activities of IGOS Partners need

to have an impact on society at large

- Before a theme is accepted by the IGOS Partners, there should be an assurance that financial support and resources are going to be available to enable the Theme Team report to be produced. This may seem trivial but it is essential that the "seed" money is made available.

At the IGOS Partners meeting, there was a fruitful exchange of views with Partners who understandably approached these matters from different standpoints. Immediate solutions to the problems were not on hand, but the fact that a free and open discussion took place, and that there is in each case a will to find a way ahead, are signs of the growing maturity of IGOS Partnership.

Looking forward, SIT will arrange meetings to accommodate the time schedules of the approved themes. In this way advice on the space aspects can be introduced at an appropriate stage in their development. As always, CEOS through SIT, is looking for early results and will persist in encouraging Themes to develop observation requirements - even provisionally - as early as possible. In this way the space agencies will have the maximum knowledge of what IGOS Partners expect of them, and should then be able to respond rapidly with information as to what is possible within the current financial and programmatic limits of the space agencies. ■

The IGOS Brochure, "For the Monitoring of our Environment from Space and from Earth" was revised by MEXT/NASDA on behalf of IGOS in July 2002 reflecting the result of the IGOS-P9 which was held in May 2002 in Paris.

For further information, please visit at the IGOS website:

<http://www.igospartners.org>





The 9th IGOS Partners Meeting

Prof. José Achache

ESA
CEOS Chairman

The 9th meeting of the IGOS Partners was held in Paris on the 31st May, 2002, hosted by UNESCO and co-Chaired by UNESCO (Dr Walter Erdelen) and ESA (Prof. José Achache). Around 45 representatives from Partner organisations and from the Theme teams attended the event.

The highlights of the meeting were:

Implementation task force: Partners agreed to establish a Task Force to develop a consensus on the role of the IGOS Partnership in the implementation of IGOS-P Themes - including a detailed proposal for monitoring the implementation process after a Theme Report has been approved. The Task Force will report to the Co-Chairmen and Partners by the end of December 2002.

IGOS Process Paper: An updated version of the IGOS Process Paper was adopted.

IGOS Secretariat: The meeting adopted a proposal from the Chairs which defined responsibilities and tasks of the IGOS Secretariat and suggested to maintain the current membership of the Secretariat, on the basis that:

- 'membership' is for an IGOS Partner, rather than a named individual;
- new members can be accepted by consensus of all other members of the Secretariat;
- members may suggest to be removed on their own initiative after informing the Secretariat;
- the updated list of the Secretariat to be presented annually to the IGOS-P Plenary.

IGOS Themes: The 9th IGOS Partnership meeting received updates on the progress of Theme activities, including Ocean, Global Carbon and Atmospheric Chemistry. Several themes presented in depth reports:

Philippe Ciais (CEA/LSCE) reported the schedule for production of the **Integrated Global Carbon Observations (IGCO) Theme** report - with plans for a final meeting in September 02 of the team, and conclusion of the report in December. The IGCO team was reminded to take account of the review and adoption process by IGOS-P - including consideration by CEOS SIT.

Roger Newson (WCRP) reported progress on the **Integrated Global Water Cycle Observations (IGWCO) Theme**, and noted that the Report Writing Team had been established and a Report Advisory Group would be established in July. The first draft of the IGWCO Theme report is planned for April 2003 - with completion in September 2003.

It was agreed that the **Coral Reefs Sub-Theme** would best be addressed within an IGOS Coastal Theme; given the status of key players (such as GOOS) it was agreed that the decision on the Coastal Theme and its scope and



composition be revisited at IGOS-P-10 and that in the meantime the Coral Reefs Sub-Theme should proceed as proposed.

The Partners formally adopted a **Geo-hazards Theme** - which will cover the need for information on earthquakes, ground instability, and volcanoes - all driven by geological processes. The requirements address ongoing hazard management (mapping, monitoring, mitigation, and prediction) and the results are expected to contribute to risk assessment, response, and rehabilitation. A Theme report will be submitted by May 2003.

The Partners agreed that - with regards to **new themes and the overall number of themes** - the next year should concentrate on implementing already approved themes; and that whilst new theme proposals may be considered, they must all be subject to a strict application of the existing acceptance criteria as outlined in the IGOS Process Paper.

WSSD 2002 Preparations: The meeting acknowledged the contribution of a number of the Partners in promoting IGOS visibility within the World Summit on Sustainable Development (WSSD 2002) process, including through side-events and statements arranged for the PrepCom meetings. As a result, the WSSD 'Chairman's text' - which forms the basis of a political document to be adopted at WSSD 2002 - includes a number of acknowledgements of the importance of global Earth observation. IGOS-P has also been registered as a Type II Partnership of WSSD 2002 - a voluntary partnership aimed at implementing Type II (political) outcomes of the WSSD 2002).

Partners confirmed their support for the work of the ad-hoc IGOS Visibility Group and encouraged their continued efforts towards WSSD 2002 and its outcomes. The mandate of the ad-hoc IGOS Visibility Group was extended until the 10th IGOS Partners meeting.

IGOS-P-10

The IGOS-P-10 meeting (5th June 2003) will be hosted by ICSU and held at UNESCO HQ, Paris. FAO will take over IGOS-P Co-Chairmanship from UNESCO at IGOS-P-10.

ESA will hand over CEOS Chairmanship and IGOS-P Co-Chairmanship to NOAA at the CEOS Plenary in Frascati, 20th - 21st November, 2002. ■

The Working Group on Calibration and Validation

Mr. Yves-Louis Desnos
ESA / ESRIN
Chair, WGCV

The Working Group on Calibration and Validation (WGCV) met for its 19th plenary in Ottawa, Canada, from 1 - 3 May 2002. WGCV-19 was hosted by the Canada Centre for Remote Sensing and included a series of special session presentations and discussions. These were headed by an impressive display of the first results from ESA's Envisat satellite, which was launched in March of this year. This was followed by a special session on Canadian activities, which included presentations on RADARSAT-1, AVHRR, hyperspectral data and coarse resolution data, and their relation to sustainable development and climate change. A further special session was held on radiometric and geometric standards and the joint ISPRS / WGCV taskforce. A presentation was made on NPOESS and the NPOESS Preparatory Project (NPP). The NPP is scheduled for launch around 2005 and will be a precursor mission for the NPOESS constellation of satellites that will follow towards the end of the decade.



The new Atmospheric Chemistry subgroup, chaired by Dr Ernest Hilsenrath (NASA), met for its inaugural meeting in Ottawa, Canada, from 29 - 30 April 2002. The new subgroup will be particularly interested in long-term changes and the sensitivity of instruments over time. Currently some 28 instruments covering 14 missions have some interest in atmospheric chemistry and the activities of this new subgroup will thus provide an invaluable contribution to the community. Their next meeting is planned in conjunction with an Envisat validation workshop in December 2002 at ESA/ESRIN.

The 11th Infrared and Visible Optical Sensors (IVOS) subgroup meeting, held from 6 - 7 February 2002 at ESA/ESTEC, saw the installation of the new chair Dr Michael Rast (ESA). The meeting was held in conjunction with a MERIS calibration meeting, and was the first time the group had met for three years. A further IVOS meeting was thought necessary soon, and one is planned at the end of 2002.

The Land Product Validation (LPV) subgroup is actively involved in a joint WGCV / WGISS effort to provide seamless internet-based access to multiple datasets. The initial focus for this are sites participating in the WGCV LAI inter-comparison, but it is anticipated that a network of CEOS core sites will grow to include sites needed to support validation and cross-comparison of other products. The LPV subgroup, initiator of the proposal, which was endorsed at

CEOS Plenary 15, is performing the WGCV's tasks and close co-ordination with WGISS is being ensured. The subgroup's new activities include the planning of a topical workshop on Albedo validation.

The Microwave Sensors subgroup, under the new chairmanship of Dr Manuel Martin-Neira, plan to meet in conjunction with the mCal workshop in Barcelona, Spain from 9 - 11 October 2002. New challenges face the group as there are now new techniques of calibrating microwave radiometers from space. The group will focus on microwave radiometry because of the new missions coming up, but also plan to follow other instruments such as altimeters and scatterometers.

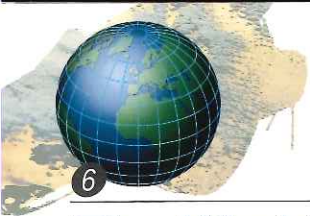
The Synthetic Aperture Radar (SAR) subgroup has been successful in facilitating international cooperation and coordination through their activities and at their workshops. The next SAR workshop will be held from 23 - 26 September 2002 in London, UK, and will include special sessions on Envisat, the calibration of future planned systems, of polarimetric systems, and of interferometric systems, and the validation of derived geophysical products.

The Terrain Mapping subgroup, under the new chairmanship of Prof. Jan-Peter Muller, met in July 2001 in Banff, Canada. The group is interested in the assessment of errors generated from digital terrain models derived from different space-borne data and, in particular, a close association between the group and the SRTM community is being forged.

The importance of joint activities between the WGCV and other groups and organisations is a key point of discussion at present. The WGEdU and the WGISS were both represented at WGCV-19 and the WGCV aims to promote and enhance alliances with these and other organisations, particularly by working closer with CEOP, GOFC, ISPRS and TCO. This should make for greater efficiency, eliminate any duplication of work and ensure the integration of the working groups within CEOS. As part of its continued effort towards outreach, the WGCV unanimously agreed to assist the WGEdU in the preparation of educational material relating to calibration and validation of satellite data.

The 20th WGCV plenary meeting will be hosted by CSIRO and the Australian Antarctic Institute in Hobart, Tasmania, from 10 - 14 February 2003. The 21st meeting is planned for 15 - 18 October 2003 in Beijing, China.

For more information, see the WGCV web site at <http://www.wgcvceos.org> or contact the WGCV Chair, Yves-Louis Desnos (email: Yves-Louis.Desnos@esa.int). ■



The Working Group on Information Systems and Services

Mr. Terry Fisher
CCRS
Chair, WGISS

WGISS-13 was hosted by MEXT/NASDA in Tokyo in February, 2002. The WGISS meeting was preceded by an ISO/TC211 and OpenGIS workshop. Three new WGISS Test Facilities (WTFs) were approved in principal at this meeting. These are: WTF/CEOP (Global Water Cycle), WTF/Oceans and Core Site WTF (being developed in co-operation with the WGCV). WGISS and application champions have been identified, and development plans are being composed for each of these new Test Facilities. These plans will be approved at WGISS-14.

At WGISS-13 members also approved in principal a reorganization of WGISS, that would replace the existing Network, Data and Access Subgroups with: a Projects and Applications Subgroup and a Technology and Services Subgroup. This recognizes our new emphasis on working with science and operational projects through the Test Facilities. This organization, including the new SG chairs and vice-chairs will be ratified at WGISS-14 and submitted to the Frascati CEOS Plenary for formal approval. WGISS members would like to thank our Japanese

hosts for a well-organized meeting.

NOAA will host the fourteenth meeting of the WGISS-14 in Honolulu, Hawaii, September 23-27, 2002. A Hazards workshop will precede the WGISS meeting.

ESA/ESRIN hosted the WGISS Subgroup meeting in Frascati, Italy, May 6-10, 2002. More than 50 delegates attended this meeting. In addition to the regular review of the work of the Task Teams, this meeting featured a workshop on GRID. GRID is a suite of software that supports the sharing of all manner of distributed computer resources. It is used to support distributed, collaborative science projects. Several international experts gave presentations on GRID and on its applicability to the WGISS Earth Observation environment. After this workshop WGISS decided to initiate a Task Team to conduct a Pilot study on an EO problem using GRID technology. WGISS subgroup members would like to thank to the ESA ESRIN hosts for a very productive meeting. The next WGISS Subgroup meeting will be hosted by NASA in Alexandria, Virginia,



Participants of the WGISS-13 at NASDA HQs

September 9-13, 2002.

The Working Group on Information Systems and Services (WGISS) held its 6th annual EO/GEO Workshop at the Joint Research Center in Ispra, Italy May 13 - May 15, 2002. EO/GEO is a workshop for developers of Geospatial data services over the Web. It covers a wide field of applications from Earth Observation and GIS to Internet standards. The themes for this workshop were Web based solutions to resource discovery, interoperable data access, distributed data services and data fusion. One of the distinguishing features of EO/GEO is its interactive nature with an even mix of presentations and live demonstrations. Delegates to this 6th annual workshop were very pleased by the high degree of interaction. More information, including the EO/GEO 2002 proceedings, can be found at <http://eogeo.net>

Further information on WGISS can be found at <http://www.ceos.org> under the Subsidiary Groups button or directly at <http://wgiss.ceos.org>. ■

Disaster Management Support Group Completes Mission and Transitions Activities

Ms. Helen M. Wood, NOAA, Chair, DMSG
Mr. Levin Lauritson, NOAA

The Disaster Management Support Group (DMSG) was established in 1997 by the CEOS Plenary and tasked to support natural and technological disaster management on a worldwide basis by fostering improved utilisation of existing and planned earth observing (EO) satellite data. The DMSG served as a forum to identify, and interact with, current and potential users of space-derived data as one of the tools to achieve its goal. Over the last few years, the DMSG has transitioned its ongoing work to a number of international fora.

Final DMSG Report

The Final DMSG Report is available on the DMSG web site at <http://disaster.ceos.org> and will also be published prior to the CEOS Plenary. The report

highlights critical findings and recommendations developed over five years to provide enhanced support for disaster managers. The findings note that disaster managers often value and use new satellite technology, but there are obstacles to full implementation in an operational setting until the technology is fully proven and disaster managers are fully educated. The recommendations suggest ways that the space community can respond (e.g., by promoting mutual dialogue, performing compelling demonstrations, and using integrated approaches to create more user-friendly tools, products, and services). The report includes inputs from each of the DMSG specialist teams - earthquake, fire, flood, ice, landslide, oil spill, and volcanic hazards - including hazard-specific recommendations and emergency scenarios.

International Cooperation

The DMSG has worked closely with key international organizations and partnerships that have important roles in coordinating aspects of disaster management. These include the UN International Strategy for Disaster Reduction (ISDR); the UN Committee on the Peaceful Uses of Outer Space (COPUOS) and its Office of Outer Space Affairs (OOSA), which is working on actions from UNISPACE III; the Integrated Global Observing Strategy (IGOS); and the *International Charter: Space and Major Disasters*. Specifically, the DMSG has participated in OOSA regional workshops in South America and Africa and UNISPACE III action teams related to disaster management. DMSG team

(to be continued on next page.)

Progress in CEOS WGEdu Activities

Mr. Mukund Rao, ISRO, Chair, WGEdu
Dr. Sergio Camacho, UN-OOSA

Mr. Christine Hutton, CCRS
Dr. Rajeev Jaiswal, ISRO

The CEOS Working Group on EO Education and Training met during May 21-22, 2002 at CCRS, Ottawa. The meeting was hosted by CCRS in the pristine environment of Ottawa and was excellently coordinated by Christine Hutton and Carolin Jans of CCRS.

With the CEOS Strategy on EO Education and Training defining a 3-year Action Plan, WGEdu is presently coordinating activities to "flesh" the Action Plan into a set of "soft and hard" initiatives that will focus to CEOS agencies on their combined efforts at supporting the UN Regional Space Centres and other EO Education and Training agencies - both at international and national level.

The Ottawa Meeting of WGEdu addressed the micro-actioning the 3-Year Action Plan by "breaking" the plan into specific actions and WGEdu decided to report on the achievements of it to the Frascati Plenary:

- To encourage CEOS agencies to make these materials available to education and training institutions
- To work with UN Centres and other EO education and training institutions so that CEOS agencies can leverage their existing training assets and programs by providing Earth observation data, expertise and materials

- To develop and adopt a set of CEOS data principles for education and training use.
- To establish a resource library of information regarding Earth observation training and education together with an interactive, user-driven, web-based access mechanism.
- To promote industry involvement and work with International Society for Photogrammetry and Remote Sensing (ISPRS) towards this.
- Enable a mechanism for continued of international coordination in this area.
- To increase awareness of Earth observation technology and applications - specifically in developing countries.
- To work with educational institutions to experiment with and demonstrate new tools and techniques for imparting education and training in the field of Earth observation.

The WGEdu has also made progress in the following areas, which were reviewed at the Ottawa meeting:

- Survey of UN Centre's EO data, experts and other requirements is in good progress. Inputs from UN Centres of Morocco and India have been received. This assessment will be completed in the near future so that CEOS agencies can respond to the stated requirements in the most effective manner.

- Development of a draft set of data exchange principles for education and training has begun. WGEdu intends to solicit CEOS agency feedback and input on the draft principles via mail prior to the Plenary in Frascati.
- Design and Development of a CEOS WGEdu web-site that not only provides information on the WG but is also a discovery site for EO education and training materials has been taken up. The web would also be linked to the CEOS Homepage.
- Initiating a CEOS WGEdu Newsletter that will provide outreach to the WG activities
- Development of the Internet-based EO/GIS module was reviewed and it is proposed to demonstrate this at the Frascati EO Summit. This is being developed as a collaborative CEOS-ISPRS initiative.

The WGEdu has a small, but very effective, Membership and it is the combined effort of all the Members, from CEOS and other EO Education and Training agencies, that the WG is attempting to make visible impact of the CEOS EO Education and Training Strategy/Action Plan. Lastly, the WG places its deep sense of appreciation to CCRS for hosting the 3rd WGEdu Meeting in the most pleasing and effective manner. ■

(continued from Page 6.)

members are also contributing to the development of the IGOS Geohazards Theme and the fire teams of the DMSG, the ISDR, and the IGOS Global Observation of Forest Cover (GOFC) initiative have collaborated closely. In addition, DMSG emergency scenarios have been provided to the five CEOS space agencies that are current members of the International Charter: Space and Major Disasters to augment their existing scenarios.

Cooperation with CEOS Working Group on Information Systems and Services (WGISS)

The CEOS WGISS has responsibility for developing several information tools that can be useful for disaster management activities. In

conjunction with its 14th meeting in Honolulu in September 2002, WGISS is holding a regional workshop focused on disaster management applications in the Pacific Basin. The DMSG will chair a session in that workshop.

The Way Forward

The accomplishments of the DMSG were only possible due to the support and encouragement of CEOS agencies that hosted meetings and provided experts to the work; and to the energy, enthusiasm, expertise, goodwill and good humor of the over 400 individuals who participated in DMSG deliberations over its 5 year lifetime. Throughout this endeavor, our motivation has been to seek practical means of improving the use of EO satellites for disaster

management support help to reduce disaster losses. We look forward to continuing the effort together, within the UN, the Charter, IGOS and other fora in the months and years ahead.

For further information please see the web site at disaster.ceos.org or please contact:

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From the CEOS Chair

Prof. José Achache
ESA
CEOS Chairman



Dear CEOS Colleagues

By the time you read this, ESA will be entering the closing months of its Chairmanship of CEOS and IGOS-P. I hope you will all agree that it has been a very productive period of Chairmanship. This latest edition of the CEOS Newsletter provides an update on the major initiatives which we have tackled during the last year, including: the CEOS Review Team progress; visibility efforts aimed at WSSD 2002; new publications, including the CEOS WSSD brochure, and the CEOS Handbook and CD-ROM; as well as a report on the 9th IGOS Partners Meeting held in Paris in late May. It is our hope that these contributions will provide lasting benefits to the work of CEOS.

Plans for the CEOS Plenary in Frascati are well underway, and I should like to repeat our previous requests for your early registration. All the relevant documentation may be found on the CEOS website



European Space Agency published a brochure, entitled "Sustainable Development - The Space Contribution" in May 2002 on behalf of the CEOS.

Further information can be obtained at:
<http://www.esa.int>

(www.ceos.org). For your convenience, all papers for the Plenary meeting will be posted to the website.

Before we gather in Frascati, we have the rare opportunity to promote CEOS at WSSD in Johannesburg, and we will be making every effort to ensure that this is a success. Exhibition space for CEOS has already been reserved and our new publications will be on show. CEOS Members can consider the high profile references to Earth observations in the WSSD Chairman's text to be a major achievement and a testament to the possibilities offered by the teamwork which CEOS fosters. I hope that all Members will continue to promote this spirit by ensuring senior-level representation at the WSSD follow-up event planned for 19th November 2002.

I look forward to welcoming you to Frascati.

José Achache ■



European Space Agency published the CEOS Handbook, entitled "Earth Observation Handbook" in July 2002 on behalf of CEOS.

Further information can be obtained at:
<http://www.ceos.org>

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@nasda.go.jp, or misawa@restec.or.jp http://nasda.ceos.org/ceosnews_menu_e.html

Meeting Calendar

As of Aug. 2002

Activities	2002						2003						
	May	June	July	August	September	October	November	December	January	February	March	April	
CEOS Plenary		▲30 CRT, Paris							▲20-21 CEOS Plenary ▲19 WSSD Follow-up Seminar ESA/ESRIN, Frascati, Italy				
CEOS SIT (Strategic Implementation Team)		▲4/18-19 SIT-10, NASA/JPL California											
CEOS WGISS (Working Group on Information Systems & Services) Subgroups/Task Team		▲6-7, #2EO Grid Workshop ▲8-10, SGs, ESA/ESRIN, Italy ▲13-15, EOGEO 2002, JRC/Ispra				▲23-27, WGISS-14, Honolulu							
CEOS WGCV (Working Group on Calibration and Validation) Subgroups		▲1-3 WGCV-19, CCRS/CSA Ottawa, Canada			23-26▲ SAR Workshop BNSC/DTI, London, UK	▲9-11 MW SG Barcelona, Spain	△ #2 IMRC Workshop △ IVOG △ AC SG, ESA/ESRIN			▲10-14, WGCV-20 CSIRO/AAI, Hobart, Tasmania			
CEOS DMSG (Ad Hoc Working Group on Disaster Management Support)			▲1-5 UN Workshop UNOOSA/Addis Ababa, Ethiopia				▲11-15 UN Workshop ESCAP/UNOOSA, Thailand, Bangkok					△ Munich Germany	
CEOS WGEdu (Ad Hoc Working Group on EO Education and Training)		▲21-22 CCRS, Ottawa, Canada											
IGOS Partners		▲31, IGOS-P9, UNESCO, Paris											
Themes:			▲10-12, GODAE Symposium, CNES/Biarritz, France										
Others		▲27-6/7, PrepCom IV Jakarta, Indonesia ▲5-14, COPUOS			▲26-9/4, World Summit(Rio+10), South Africa ▲26-28, APAN Workshop, Shanghai, China							△ APAN Symposium, Fukuoka	

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

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