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## **Working Group on Earth Observation Education, Training and Capacity Building**

### **Progress Report on a Draft Plan of Implementation for the CEOS “Principles of Satellite Data Provision in Support of Earth Observation Training and Education”**

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#### **SUMMARY AND PURPOSE**

The “Principles of Satellite Data Provision in Support of Earth Observation Training and Education”, adopted by the 17<sup>th</sup> CEOS Plenary provide a framework for agencies to support of Earth observation education, training and capacity building consistent with agency data policies. To implement these principles, there is a need for a simple plan of implementation that allows bona fide educators, particularly in the developing countries, to apply for limited amounts of data. The WGEdu is presenting a progress report to Plenary for its comments and approval of the direction of the WGEdu’s work for implementing the data principles and including a proposal for work to be carried out in 2005.

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#### **ACTION PROPOSED**

The 18th Plenary participants are invited to:

- (a) The 18<sup>th</sup> Plenary participants are invited to comment and to approve the proposed direction being followed by the WGEdu to develop the plan of implementation of the CEOS “Principles of Satellite Data Provision in Support of Earth Observation Training and Education” as reflected in its progress report (Document 13.2).
- (b) Approve the proposed pilot project for 2005 to test the draft implementation plan that would be presented to the 19<sup>th</sup> Plenary.

## **Working Group on Education, Training and Capacity Building**

### **A Progress Report on Implementation: CEOS Principles of Satellite Data Provision and Support of Earth Observation Training and Education**

#### **I. Introduction**

On 20 November 2003, the “Principles of Satellite Data Provision in Support of Earth Observation Training and Education” (heretofore referred to as “data access principles”) were adopted by the 17<sup>th</sup> CEOS Plenary (Appendix 1). This document is a progress report for the 18<sup>th</sup> CEOS Plenary on the development of a plan to implement these data access principles.

#### **II. The Role of Data Principles in CEOS WGEdu’s Strategic Vision**

The CEOS WGEdu’s (Working Group on Education, Training, and Capacity Building) activities are rooted in the Five Year Plan of CEOS (2002-2007) which cites “education and training” as a priority activity. In developing the data access principles adopted by the 17<sup>th</sup> Plenary, the CEOS WGEdu identified four categories of data to which user groups should obtain increased access for capacity building purposes.

##### Data Categories:

1. **Sample Data Sets:** This category consists of data that typically are free from government and private data providers, and others, and often are readily available via the Internet.
2. **Case Study Datasets:** This category consists of multiple types of data that are brought together into a large case study focused on select areas of interest to educators (e.g the Sahel, Rift Valley Fever).
3. **Significant Event Data Sets:** This type is near-real-time data that could be used following a specific event (e.g a hurricane, an earthquake), or that occurs in a pre-identified regional hotspot or globally interesting test site.
4. **Archived or Near-Real-Time Data to Support Professional Development:** This could include consistent sets of multi-temporal, multi-sensor satellite data that are needed by trainees to build operational capacity in remote sensing. For an institution to benefit from these data, there may need to be field work done in support of the data requested, a GIS infrastructure for integration with other data types needed (e.g. thematic cartography), and there may be other considerations to develop an education program for real-time applications.

The WGEdu will promote the awareness of how to access data types 1 to 3. Data type 1 will be available through the CEOS Education Portal once populated following the 18<sup>th</sup> CEOS Plenary. Data types 2 and 3 are future initiatives of the CEOS WGEdu. These data will be available via the Internet and are initiatives linked to populating Education Portal. The implementation of developing access to data types 1, 2 and 3 is progressing and is discussed in other documents to the 18<sup>th</sup> CEOS Plenary. Developing access to data type 4 is a major objective of the data access principles and is the main focus of this progress report on implementation of those data access principles.

### **III. The Aims of Implementing the Data Access Principles**

The intended purpose of the data access principles is to provide qualifying applicant educators access to more comprehensive Earth observation data and data sets than what is available on the Internet. Through consultations with educators and remote sensing professionals in developing countries, the WGEdu recognized that it is challenging to teach students and trainees how to plan and implement the inclusion of satellite-based digital data into programmatic planning while only having access to the data which are available online or other static data sets without a range of sensor(s) or temporal, spatial, or spectral characteristics. Through the implementation of the data access principles, selected educators will be able to offer a more realistic educational program to prepare both individuals and institutions for achieving operational capabilities including mission planning, data ordering, and fieldwork.

### **IV. The Components of an Implementation Plan**

Parties interested in obtaining Type 4, data as defined under the data access principles, will need to complete a written application process by a set due date. Each application will be evaluated on a range of criteria including the following:

- 1) Merit of application's educational, training and/or capacity building goals.
- 2) Degree to which the data applied for will enhance capacity building efforts in developing countries and/or underserved populations.
- 3) Degree to which the applicant specifies how the training resulting from this data provision will then be applied to achieving operational and/or research goals on a local, national and/or regional level.
- 4) Availability of data requested in the application, and the cost of those data to the agency providing it (if known).
- 5) Whether the data requested are raw or processed, archived or real-time, and from one or multiple space agencies.

Each application received will be evaluated by a CEOS WGEdu data access subcommittee that will include representatives of CEOS Member space agencies, as well as other user communities, particularly those based in developing countries. The role of this subcommittee will be to evaluate applications using a set of defined criteria while also balancing the needs of user communities and data providers.

### **V. Request for Endorsement and Advisement**

At this time, the CEOS WGEdu is asking the CEOS Plenary to endorse the above-mentioned direction for implementing the data access principles, while offering strategic assistance in strengthening its elements. During the next year, the WGEdu intends to finalize, prior to the 19<sup>th</sup> CEOS Plenary, and make available for review and endorsement a full implementation plan consisting of an application process that includes a set of evaluation criteria, a subcommittee to evaluate applications, an outreach plan to obtain a wide range of applications and a method to evaluate the success of the implementation. CEOS Plenary is invited to encourage its Members and Associates, as well as a CEOS SEC, to provide comments on drafts of the implementation plan that would be circulated by the WGEdu. Those comments would also help guide a test implementation of the data access principles prior to the 19<sup>th</sup> CEOS Plenary.

**Working Group on Earth Observation Education, Training  
and Capacity Building**

(Appendix to Document 13.2, Draft Plan of Implementation for the CEOS “Principles of Satellite Data Provision in Support of Earth Observation Training and Education” – a Progress Report)

**Appendix 1. Principles of satellite data provision in support of Earth observation (EO) training and education** (Adopted by the 17<sup>th</sup> CEOS Plenary)

CEOS Agencies commit to the following set of principles on data provision in support of EO education and training and will implement them to the fullest extent possible within available resources and consistent with agency data policies;

- CEOS agencies should endeavour to provide on a sustainable basis comprehensive and complete data sets for education, training and capacity building purposes.
- When making data available for education, training and capacity building purposes, CEOS agencies should strive to adhere to the satellite data exchange principles in support of global change research (1992) and principles on satellite data provision in support of operational environmental use for the public benefit (1994) as previously adopted by CEOS.
- CEOS agencies should provide access to data at the lowest possible cost and on a non-discriminatory basis.
- CEOS agencies should provide easy and timely access to their data and information which are to be used for Earth observation education and training. This access can be through individual agencies’ distribution mechanisms or through mechanisms developed by CEOS, such as WSSD follow-up Programme.