

MINUTES

COMMITTEE ON EARTH OBSERVATIONS SATELLITES

SEPTEMBER 24-25, 1984

WASHINGTON, D.C.

includes attendees list

The Committee on Earth Observations Satellites (CEOS) held its first meeting in Washington, D.C. September 24-25, 1984. The group was chaired by the U.S. National Oceanic and Atmospheric Administration (NOAA) and was convened using the name International Earth Observation Satellite Committee (IEOSC). Attending the meeting were representatives of the Canada Centre for Remote Sensing, Centre National d'Etudes Spatiales (CNES) of France, the European Space Agency (ESA), the Indian Space Research Organization (ISRO), the Instituto de Pesquisas Espaciais (INPE) of Brazil, the Japanese National Space Development Agency (NASDA), U.S. National Oceanic and Atmospheric Administration (NOAA), and U.S. National Aeronautics and Space Administration (NASA), as well as observers from the U.S. Geological Survey and the U.S. Department of State. The attendees are listed in Attachment 1.

Following opening remarks by Dr. John McElroy, Assistant Administrator of NOAA, the group agreed on the name CEOS and that CEOS would replace the previous Multilateral Meetings on Remote Sensing, and the Coordination on Land Observing Satellites (CLOS) and Coordination on Ocean Remote Sensing Satellites (CORSS) groups. The proposed charter, renamed "Terms of Reference", was discussed and revised, and the final agreed document is presented as Attachment 2. The NASDA (Japan) representative requested that formal approval of the Terms of Reference by Japan be rendered upon confirmation from Tokyo.

Presentations were made by each participating agency covering its current and planned earth observation system with presentation materials distributed to all members. Topical discussions covered ocean satellite systems, satellite data products and archives, the role of commercial and government-funded satellite programs, regional user meetings, and training programs. These items are summarized below.

Ocean Satellite Systems--Presentations were made on U.S. plans for coordinating and integrating data from a variety of current and planned satellites of interest to the marine community, with the suggestion that work needs to begin now to ensure an adequate system for handling the rapidly increasing volume of ocean observations expected by the early 1990s. NASA presented its plans for ocean observations from space, as did ESA. Discussion related to ensuring user community involvement and progress made to date on interesting the oceanographic community in satellite data. CEOS members agreed that coordination of planned missions was advantageous to system operators and data users. Specific cooperative arrangements are being addressed in various bilateral discussions between relevant agencies.

Data Issues: There was general agreement on the desirability of increasing coordination and standardization in data management. A Working Group was established to define areas where progress was feasible and to develop a plan for proceeding, mindful of the risk of attacking too large a problem and never making any substantial, practical progress.

Commercial and Government Programs: There was discussion on the proper role for a potential commercial operator of an earth observations system in this or another forum. The Terms of Reference do not exclude the possibility of a commercial organization participating, either directly or as part of a government agency's delegation. The consensus was that there was no immediate case requiring a precise position and that the CEOS would continue to discuss this as the situation evolves. All agreed that communication between commercial and government space-borne earth observations systems was desirable. There was not agreement on the formalities or terms under which that communication should take place.

It was agreed that the addition of new members to CEOS can be effected between plenary sessions if there is unanimous agreement among members. If there is not unanimity, the proposed membership will be discussed at the next plenary session.

Regional User Meetings: The discussion centered on the previous Multilateral Meeting sponsorship of regional meetings as a means of increasing interaction between system operators and users throughout the world. The group agreed that while such interaction was desirable, a formal program for regional meetings was unnecessary. There were several action items agreed on regarding increased exchange of information on regional remote sensing organizations, upcoming meetings, and CEOS. (See Action Items 1-3)

Training: Each participant described training activities in its country or agency. There was general agreement on the desirability of coordinating plans for training, and of providing training on-site, in the location of the trainees, rather than bringing the trainees to the location of the training organization. The upcoming international meeting planned for February 1985 in Bangkok to coordinate planned remote sensing training was described, and NOAA will provide participants with further information. (Action Item 3)
The results of this meeting will be reported at the next CEOS meeting, and the CEOS will then consider whether CEOS should take further action in training.

WORKING GROUPS

1. NOAA will chair a Working Group on Data. Each interested participant will designate a point of contact for this Working Group, and transmit that name to Lisa Shaffer (NOAA) within 6 weeks of the CEOS meeting.
2. ESA will chair a Working Group on Intercalibration and Performance Verification. Each interested participant will designate a point of contact and transmit that name to Guy Duchossois (ESA) within 6 weeks of the CEOS meeting.

ACTION ITEMS

1. Each agency will include information on CEOS in its newsletter or other publications as appropriate.
2. Each agency will provide to other members information about relevant regional organizations and upcoming meetings which CEOS members may wish to attend. Agencies will provide information on CEOS to relevant regional organizations in which they participate.
3. NOAA will provide information to CEOS members on the planned Bangkok meeting to coordinate plans for remote sensing training.
4. Each agency will provide to other members the results of satellite failure analysis on relevant programs.
5. CCRS will notify members of a planned meeting in Canada on oceanographic satellite data use, and invite representatives of agencies with planned oceanographic satellite programs to participate.

NEXT MEETING

The European Space Agency will host the next meeting of CEOS in April/May 1986 in either Paris or Frascati. Included on the agenda will be presentations on training activities (including a report on the Bangkok meeting, as well as each agency's programs), and the status of commercialization.

TERMS OF REFERENCE
OF THE
COMMITTEE ON EARTH OBSERVATIONS SATELLITES

Adopted September 25, 1984
Washington, D.C.

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PREAMBLE

Remote sensing from space has evolved from an early period of limited applications satellite programs to a point where distinctions among existing missions result from the technology employed, rather than from the disciplines served in system operations. In the future, a number of international, national, and regional space-borne earth observations systems will operate simultaneously, and support both interdisciplinary and international applications.

The organization of international cooperation in space-borne earth observations systems also is evolving, from mission-specific reviews to the interdisciplinary coordination of multi-mission programs. Beginning with the first Multilateral Meeting on Remote Sensing--held in Ottawa on May 8-9, 1980, and attended by agency representatives from Canada, the European Space Agency, France, India, Japan, and the United States of America--current and potential operators of earth observations systems have met several times to discuss the means by which mutually beneficial cooperation and coordination could be achieved in both the near and longer term. As a result of these gatherings, the recent past has seen the creation of the Coordination on Land Observation Satellites (CLOS) by agency representatives from France, Japan, and the United States of America in Paris on November 13-14, 1980; the initiation of the Coordination on Ocean Remote Sensing Satellites (CORSS) in Paris on May 10-11, 1982, through the efforts of agency representatives from the European Space Agency and Japan; and the second Multilateral Meeting on Remote Sensing, held in Paris on May 12-13, 1982, and attended by agency representatives from France, Canada, the European Space Agency, India, Japan, and the United States of America.

This framework of initial discussion and cooperation has enhanced the utility of space-borne earth observations data to users worldwide, has encouraged the coordination of program plans among space-borne earth observations system operators, and has fostered international receptivity to, and acceptance of space-borne earth observations system activities and applications.

Consequently, the assembled representatives of international, national, and regional space-borne earth observations systems:

AWARE of the overlap of space-borne earth observation mission objectives and of the interdisciplinary applications of remotely-sensed data;

RECOGNIZING the advantages of ongoing communication and cooperation among space-borne earth observations system operators; and

DESIRING to promote the international growth and potential benefits of space-borne observations of the earth;

have affirmed the value of the activities described above, and have agreed to coordinate informally their current and planned systems for earth observations from space through the organization of a Committee on Earth Observations Satellites (CEOS).

The CEOS will not supersede current or potential agreements by members. Participation in the activities of the CEOS will not be construed as being binding upon space-borne earth observations system operators, or as restricting their right to develop and manage earth observations systems according to their needs.

MEMBERSHIP

International, national, or regional organizations responsible for a space-borne earth observations program currently operating or at least in Phase-B or equivalent of system development, will be eligible for membership in the CEOS. Members must have a continuing activity in space-borne earth observations with responsibility for the overall mission, intended to operate and provide data for some years. Other entities with sensors on board such missions will normally be represented by the entity responsible for the host mission. Initial members of CEOS are Canada Centre for Remote Sensing, Centre National d'Etudes Spatiales (France), European Space Agency, Indian Space Research Organization, Instituto de Pesquisas Espaciais (Brazil), Japan (to be confirmed), U.S. National Aeronautics and Space Administration, and U.S. National Oceanic and Atmospheric Administration. The addition of new members will be with the consensus of current members of the CEOS.

OBJECTIVES

The CEOS will seek to enhance the benefits of space-borne earth observations for members and the international user community.

The CEOS will serve as a forum for the exchange of technical information to encourage complementarity and compatibility among space-borne earth observations systems that are currently in service or development. Improved complementarity and compatibility will be sought through cooperation in mission planning and the development of compatible data products, services, and applications.

COOPERATIVE ACTIVITIES

Cooperation in the development and management of remote sensing programs can be of benefit to operators of space-borne earth observations systems and to users of earth observations data. Redundancy among systems and the utility of data can be optimized through the appropriate coordination of complementary and compatible space and ground segments, data management practices and products, and earth observations systems research and development.

CEOS members will exchange technical information on and pursue the potential for coordination of space and ground segments. Such coordination could include discussions on current and future mission parameters, sensor capabilities and intercalibration, and data and telemetry downlink characteristics. In addition, earth observations systems coordination within CEOS could address issues of ground station technical compatibility for back-up satellite tracking, command and control, and sensor and telemetry data reception.

CEOS members will investigate the means for increasing data utility and cost-effectiveness, for both operators and users. CEOS activity could include the coordination of data acquisition, sampling and pre-processing methodologies; the standardization of data formats where appropriate; the increase in compatibility of data archives; and the enhancement of user access to CEOS member data bases, information products, and applications services. CEOS members will seek to assure that the user community is made aware of the satellite programs of members and encourage discussions between the users and the relevant satellite system operators, as necessary.

CEOS members will present their plans for emerging satellite remote sensing technologies and programs and will discuss appropriate approaches for the coordination of future systems. CEOS members could address current developments and future directions and opportunities in earth observation from space, including free-flying spacecraft, mission-specific instruments flown on space transportation systems, and the placement of instruments on space platforms.

ORGANIZATION AND PROCEDURES

CEOS will convene at least once every two years in plenary session. The CEOS meeting will be organized and chaired by the host organization. The host organization will provide and distribute minutes of the meeting and will report on any follow-on activities at the next regular meeting. At each meeting of the CEOS, the time, place, and host for the next meeting will be established.

CEOS also may establish, as mutually agreed, and on an ad hoc basis, special temporary Working Groups to investigate specific areas of interest, cooperation and coordination and to report at subsequent plenary meetings. Continuation of each ad hoc Working Group requires confirmation at each plenary session. Conclusions resulting from CEOS plenary sessions, or the findings and recommendations of ad hoc CEOS Working Groups, will be acted upon at the discretion of each CEOS member.

CEOS will replace the Multilateral Meeting on Remote Sensing, the CLOS, and the CORSS. During the development of and action on CEOS activities, the member agencies of CEOS will follow the example of the successful international technical and programmatic cooperation achieved by the Coordination on Geostationary Meteorological Satellites. CEOS members also will consider the issues, concepts, and conclusions arrived at in previous gatherings of the Multilateral Meeting on Remote Sensing, CLOS, and CORSS, and will address current and future activities of space-borne earth observing systems.

CEOS encourages its members to maintain communication as appropriate with other groups and organizations involved in space-borne earth observations activities and applications through the relevant channels within their respective governments. Such groups and organizations include, but are not limited to, the Coordination on Geostationary Meteorological Satellites; the International Polar-Orbiting Meteorological Satellite Group; the Landsat Ground Station Operations Working Group; the Groupement des Operateurs des Stations SPOT; the World Meteorological Organization; the United Nations Committee on the Peaceful Uses of Outer Space; the International Council of Scientific Unions; the Economic Summit of Industrialized Nations; and national, regional, and international remote sensing satellite data archiving, applications, and user organizations.

ADOPTION AND AMENDMENT

These Terms of Reference were adopted at the September 24-25, 1984, meeting of CEOS and may be amended by consensus of the members.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL ENVIRONMENTAL SATELLITE, DATA,
AND INFORMATION SERVICE
Washington, D.C. 20233

SUMMARY

REMOTE SENSING TRAINING COORDINATION MEETING

As agreed by the Economic Summit Panel of Experts on Remote Sensing, the United States will host a meeting on coordinating donor activities in remote sensing training for developing countries. The meeting is planned for the Asian Regional Remote Sensing Training Center located at the Asian Institute of Technology (AIT), Bangkok, Thailand. The date will be during the week of February 4, 1985, and the meeting is scheduled for two days.

Dr. Charles Paul, Forestry and Natural Resources Office, U.S. Agency for International Development, has agreed to assume organizational responsibility for the meeting. Dr. John McElroy, NOAA, will attend as the U.S. representative to the Panel of Remote Sensing Experts. An informal preparatory meeting is taking place October 10, 1984, in Toulouse during the GDPA International Conference on Training for Remote Sensing Users.

For further information on this activity, contact Kenneth Hodgkins, NOAA/NESDIS International Affairs Unit, Washington, DC 20233, telephone 301-763-4586.



CONFERENCE OF THE COMMITTEE ON EARTH OBSERVATION SATELLITES

SEPTEMBER 24 and 25, 1984

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