



The Earth Observer

An EOS Periodical of Timely News and Events

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Message from HQ

NASA Headquarters wishes all investigators, colleagues, and readers of this periodical a

HAPPY HOLIDAY SEASON

and we look forward to a productive 1990

EDITOR'S CORNER

1989 has been an exciting year of progress and change for the EOS Project. We are approaching the end of Phase B. The selected Investigators are intensively involved in developing science requirements, instrument complementarity, data needs, and the role of each scientist. Project Management has increased considerably at the GSFC. Management of the EOS platforms is being transferred from Space Station to the EOS Project. The Project Scientist has formed an Office organized towards more specialized functions. Accommodation studies have revealed the constraints of various payload combinations.

Most notable, and gratifying, has been the increasing level of leadership and responsibility that EOS Investigators have assumed for guidance and direction of the Project. Fourteen EOS science panels are now in place, and are advising the Program and Project.

In the coming year, with the help of everyone in EOS, we will have firmed up our priorities. We look forward to establishing stronger bonds with our international partners in developing our complementary missions.

Jerry Soffen

Message from EOS Project

A two-day EOSDIS implementation strategy meeting was held at GSFC December 19-20, primarily to consider alternative approaches to EOSDIS implementation and their possible impacts. It was concluded that it would be desirable and feasible to adopt a "distributed" rather than totally centralized approach to data processing and archiving. GSFC, JPL, LaRC, NCAR, EROS Data Center, and the EOS IWG were represented at the meeting.

EO-ICWG Meets

The twelfth meeting of the Earth Observations International Coordination Working Group (EO-ICWG) was held in Washington, DC, November 13-15, 1989. The meeting's highlights included agreement on:

- an updated international planning scenario;
- next steps at the technical and policy level for data management coordination for polar platforms and for overall global change data management; and
- a process for developing international agreements covering mission management, data management, data policy, instrument exchange, and calibration/validation.

The EO-ICWG includes representatives of NASA, ESA, the Canadian Space Agency (CSA), Japan (NASDA, MITI, and STA), plus their counterpart operational agencies, NOAA, EUMETSAT, the Atmospheric Environment Service (Canada) and the

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Japan Meteorological Agency (JMA). The group meets approximately three times per year to address the full range of technical and policy issues involved in establishing the global polar-orbiting observational capability of the late 1990s and beyond.

At the meeting, the planning scenario was updated to reflect recent decisions in each agency. The proposed instruments were grouped by technology and/or application so participants could examine and consider areas of potential or actual overlap. This process provides input to each agency's decisions on payload manifesting and helps rationalize the overall international system.

Several activities were agreed upon for data management and data policy. Japan has proposed an initiative to establish a worldwide network for global change data exchange. In EO-ICWG, it was agreed that this important initiative should be directed at existing international groups where possible, with clear guidance and coordination. EO-ICWG representatives responsible for coordinating data-related matters will develop specific guidance for the Committee on Earth Observations Satellites (CEOS) Working Group on Data (WGD) to build on WGD directory, network, format, and other relevant efforts in developing the Japanese initiative at the technical level. EO-ICWG will also work with Japan to define and resolve data policy issues. This will be a major focus of the next EO-ICWG meeting in March and the next several CEOS WGD meetings (April in Japan, and September in Germany).

Specific polar platform data management coordination is also progressing at the technical level. This includes the proposed Canadian X-band downlink and its commonality with European and Japanese platform communications systems, as well as mission operations and data processing, archiving, and distribution.

To move forward in formalizing international commitments, EO-ICWG members agreed to develop agreement "modules" on the critical topics in anticipation of decisions about the level and form of the formal documentation. These modules will permit discussion and resolution of issues prior to beginning the formal agency political process.

Dr. Dixon Butler, NASA Headquarters, chaired the EO-ICWG-12 meeting. The next meeting will be hosted and chaired by ESA in Frascati, Italy in

March 1990. For additional information, contact Lisa Shaffer, (202) 994-7013.

Lisa Shaffer

SEC Meets at GSFC

An SEC meeting was held at Goddard Space Flight Center, December 13-14, 1989. The focal point of the meeting was a panel report by Berrien Moore on what had taken place at the New Hampshire meeting of the Payloads Advisory Panel. Other subjects discussed were the reorganization of the EOS Project, a review of the IWG charter, requirements for writing Phase C/D Team Leader, Team Member, and PI instrument proposals, as well as the status of the various IWG panels.

Jerry Madden was introduced as the new EOS Project Manager. In his former role as Project Manager of the Gamma Ray Observatory (GRO), he interfaced regularly with the ESA community. He will function at the Associate Director level with the following Project Managers reporting to him: Richard Obenschain, platforms; Marty Davis/Marty Donohoe, instruments; and Tom Taylor, ground systems and operations.

Stan Wilson presented an update of the IWG charter, which led to a decision that the full IWG must approve dissolution of any of the IWG panels. Wilson will present a revised version of the charter at the next SEC meeting, scheduled for January 30 near NASA Headquarters.

Tom Taylor and Darrel Williams discussed strawman requirements for the preparation of Phase C/D proposals by Facility Instrument Team Leaders/Team Members and the PI instrument people. Details of the procedure will be finalized and mailed mid to late January. Some of the highlights are: (a) all proposals should present budgets covering the period through December 31, 2001, (b) proposals for instruments scheduled for flight on Platform A are due April 30, 1990, while proposals for Platform B instruments are due one year later; (c) costs are to be broken into categories of science, algorithm development, and science computing facility needs. There will be a single contract administered by the EOS Instrument Project Office for the PI instruments. The Project Science Office will assist in oversight of the proposed science.

For facility instrument investigations, contractual procedures will be different for Team Leaders and

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Team Members. Team Member investigations will be funded and managed by the Project Science Office, while Team Leader investigations will be funded by the EOS Ground Systems and Operations Project Office. Contractually, Team Leaders will be responsible for overseeing the development and integration of algorithms from all their Team Members. Thus, Team Members must closely coordinate their algorithm development plans and funding needs with their Team Leader prior to finalizing their proposals. The Project Science Office will maintain a close liaison with Team Leaders in evaluating Team Member progress relative to the timely delivery of algorithms.

All panels except the Biogeochemical Panel were represented at the SEC meeting and reported progress in their respective areas. Panel highlights are provided here (all panel chairpersons were asked to submit short summaries of their status for publication in a future issue of *The Earth Observer*).

Panel Highlights

The Oceans Panel (Abbott) reported the following instrument concerns: it is essential to fly a microwave radiometer with the scatterometer; SAR is important to them; and MODIS-T is preferred over a potential replacement by ESA's MERIS. Following are some of the instrument concerns voiced by the Atmospheres Panel (Schoeberl): will AIRS do an adequate job of measuring near-surface water vapor? Will TES be best for precipitation chemistry? CO measurements may require simultaneous AIRS temperatures.

The Land/Biosphere Panel (Sellers) is still concerned with getting adequate observations for diurnal sampling, and asked that consideration be given to changing equator crossing times, and also to raising the orbit to 824km. The Particles and Fields Panel (Langel sitting in for Heelis) has studied synergisms among the instruments in their suite. They think their instruments collectively could supersede the SEM package. The Physical Climate/Hydrology Panel (Barron) is formulating its objectives, and has identified data products of concern to them. They have written a letter to Dr. Fisk advising him of the significance of keeping SAR in the program.

The Modelling Panel (Dickinson) will be interacting with EOSDIS by identifying needed data sets. They point out the need for availability of 4-D data assimilation to the instrument investigators. The EOSDIS

Advisory Panel (Dozier) has issued its first report. There is a plan to have EOSDIS running prior to launch. Prototype systems will be used to do scientific research and to establish useful data sets. The Precision Orbit Determination/Mission Design Panel (Tapley) is examining orbit/attitude capabilities and needs, and they are concerned with platform flexure. The panel will also take up diurnal sampling and platform altitude issues in conjunction with the Land/Biosphere Panel.

The Calibration/Validation Panel (Chahine) will develop an instrument matrix to indicate which instruments can share calibration targets. The PI Instrument Panel (Russell) will be evaluating performance claims of the various instruments. January 10 is the deadline for Facility Instrument Teams to send their "silver bullets" and CES priority determinations to their chairman, Vince Salomonson.

The second day of the SEC meeting was devoted to the report of the Payloads Advisory Panel (Moore). Invited panel members consisted of interdisciplinary PIs or their designated representatives. Although vigorous attempts were made to ensure broad representation on the panel, it was believed that the solid earth, particles and fields, and vegetation communities were underrepresented at this first meeting. The "violet" payload presented at the October IWG meeting fared pretty well under panel scrutiny, but the panel expressed concerns in the following areas: the treatment of rainfall; possible use of HRDI for stratospheric winds; the utility of TES for tropospheric chemistry; the contributions of SAR; and the omission of EOSP from the payload (apparently just a slip-up). The panel asked the Project to consider the possibility of adding subsets of the following instruments to the "violet" payload, assuming no dollar constraints, but adhering to weight, power, data rate, and space constraints: HRDLS (the agreed-upon collaborative effort by HIRRLS and DLS people), MOPITT/TRACER, SCAT, ALT, and EOSP. The panel is concerned that ALT, because of the need for precise track repeats, will interfere with the other instruments through frequent thruster firings. The panel would like to examine possible descoping of ITIR and HIRIS.

The next panel meeting will be held January 23-24, 1990, in Columbia, MD, and all PI's are encouraged to attend as observers.

Renny Greenstone
Darrel Williams

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EOS Science Meetings - 1990

	Monday	Tuesday	Wednesday	Thursday	Friday	Sat/Sun
	1	2	3	4	5	6 7
J A N U A R Y	8 Solid Earth Panel and Atmospheres Panel	9	10	11 ← Biogeochemical Panel →	12	13 14
	15 ←	16 LAWS Team Meeting	17	18	19	20 21
	22	23 ← Payload Panel Meeting →	24 ← SEC Working Dinner →	25 ← IDS Panel Meeting →	26	27 28
	29	30 SEC Meeting	31 ← MODIS Team Meeting →	1 ← Tropicospheric Chemistry Workshop →	2	3 4
F E B R U A R Y	5 ← GLRS Team Meeting →	6	7	8	9	10 11
	12 ←	13	14 ← EOSDIS Final System Design Review →	15	16	17 18
	19	20	21	22	23	24 25
	26	27	28 ←	1 ← HIRIS Team Meeting →	2	3 4
M A R C H	5	6	7 ←	8 ← ICWG Meeting →	9	10 11
	12	13	14	15	16	17 18
	19 Land-Bio Panel (pm)	20 ←	21 ← IWG Meeting →	22	23	24 25
	29	27	28	29	30	31

NOTE: See EOS Science Calendar for additional information

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