



Data from NASA's Nimbus-7 Coastal Zone Color Scanner and the NOAA-7 Advanced Very High Resolution Radiometer were combined to create this image of the global biosphere. Color codes represent phytoplankton pigment concentrations in the ocean and vegetation patterns on land. (Image courtesy of NASA Goddard Space Flight Center.)

Purpose

In a pivotal decade for the U.S. Global Change Research Program, this unique conference is intended to help build a national partnership for earth observations and global change decision making by:

- Facilitating dialogue between the various communities involved in global change research and policy;
- Communicating the Federal research strategy (including Mission to Planet Earth);
- Identifying and discussing issues not addressed by Federal initiatives; and
- Discussing how the national agenda fits into the evolving international program.

Conference Participants

The conference will be of special interest to the:

- Federal earth observation community,
- Research community,
- Educators and students,
- Industry,
- Policy makers (local, state, Federal, and international),
- Public interest groups, and
- Media.

Panel Sessions

Presentations and panel sessions that include high-ranking elected officials, senior-level administrators, and private sector representatives are being organized to address the following topics and issues:

- Mission to Planet Earth—National Partners
- Mission to Planet Earth—International Partners
- Earth-Based Observations—U.S. Initiatives
- Data Policy and Availability
- Economics of Global Environmental Change
- Policy Response to Global Environmental Change
- Building a National Partnership—Getting Our Act Together

The conference proceedings will include records of the panel sessions and contributed papers that address one or more of the session topics. Those interested in contributing papers should contact ERIM for additional information and the author's kit.

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All contributed papers received by **October 24, 1990**, will be reviewed and those selected will be published in the conference proceedings.



Photo by David Valdez

Global climate has changed dramatically throughout humanity's evolution. Yet, while human impact on the natural world has slowly accumulated over centuries, historically climatic changes have been almost entirely of natural origin. In the future, changes may well be attributed directly to human causes.

Recently it has become clear that human alteration of the earth is occurring with unprecedented rapidity. Continuation of these trends may lead to global climatic conditions well outside the range experienced in recent history. Indeed, some experts have stated that climatic effects are already observable.

The magnitude of the potential impacts on climate and the entire earth system has led to calls for changes in policy and for an enhanced research program to serve as the foundation for national and international policy discussions. Satellite earth observations and the development of a concomitant scientific data and information system are critical to establishing that research base, as well as to setting the parameters of the discussion and providing the opportunity for sound policy making.

In 1987 the presidential science advisor established the Committee on Earth Sciences (CES) to develop a coordinated national research strategy to address these concerns. Early in 1989 the CES (composed of senior representatives from each Federal agency involved in monitoring and under-

"Let us remember as we chase our dreams into the stars that our first responsibility is to our Earth, to our children, to ourselves. Yes, let us dream, let us pursue those dreams, but let us also preserve the fragile world we inhabit."

Presidential Greeting to 1989 Global Change Conference

standing the earth) developed goals, an implementation strategy, and a research budget for the U.S. Global Change Research Program. The CES report, *Our Changing Planet: The FY 1991 U.S. Global Change Research Program*, presents an excellent foundation for establishing the crucial Federal research program element of a national global change program.

Because the national global change effort must involve many participants beyond the Federal Government, communication of the Federal strategy to a national and international audience is imperative to the success of the U.S. Global Change Research Program. The Federal earth observation community, the research community, educators, the media, the industrial sector, public interest groups, and policy makers at all levels must work as a team to effect any significant change on a global scale.



Sessions

Tuesday, October 23, 1990

Master of Ceremonies: National Geographic Society

Mr. Noel R. Grove, Senior Assistant Editor for Environment

7:00 Registration and Continental Breakfast

There will be no seating from 8:15 a.m. until the completion of the President's address.

8:15 Welcome—Dr. William M. Brown, President, Environmental Research Institute of Michigan

"Global Change: The Challenge"—Payson R. Stevens presents his multimedia production

Conference Overview—Mr. Noel Grove, Senior Assistant Editor for Environment, National Geographic Magazine

9:00 Keynote Address—President George Bush (Invited)

9:45 U.S. Strategy for Global Change Research—Dr. Dallas L. Peck, Chairman, Committee on Earth and Environmental Sciences; Director, United States Geological Survey

10:15 Break

10:30 Session 1: Mission to Planet Earth—National Partners

Space-based and ground-based measurements are crucial to the success of the U.S. Global Change Research Program (GCRP), which calls for an integrated, comprehensive, and global approach to monitoring the earth system. This first in a series of three consecutive sessions designed to explore the U.S. and international earth observation programs will focus on the U.S. space-based contribution to Mission to Planet Earth.

As the cornerstone of the U.S.-initiated international program, the NASA Earth Observing System (EOS) and Earth Probes, along with the NOAA Operational Satellites, will be the main discussion topics of this session. Speakers will provide detailed mission descriptions, highlight the planning and status of the proposed FY 1991 budget initiatives, and discuss how these programs relate to other planned earth science missions.

Moderator:

Mr. James R. Asker, Space Technology Editor, Aviation Week & Space Technology

Panelists will include:

Dr. Francis Bretherton, Director, Space Science & Engineering Center, University of Wisconsin

Dr. Robert Corell, Vice Chairman, Committee on Earth and Environmental Sciences; Assistant Director, Geosciences Directorate, National Science Foundation

Dr. Lennard A. Fisk, Associate Administrator, Office of Space Science and Applications, NASA

Dr. John Knauss, Undersecretary of Commerce for Oceans and Atmosphere, U.S. Department of Commerce

Mr. John Swihart, President, American Institute of Aeronautics and Astronautics Inc.; President, National Center for Advanced Technology

U.S. Senate Member (To be announced)

Papers submitted for publication in association with this session should address related matters, such as proposed enhancements to the missions.

12:00 Lunch (JW Marriott Hotel, Capitol Ballroom). "Mission to Planet Earth—A Senate Perspective"

Luncheon Speaker:

U.S. Senate Member (To be announced)

2:00 Session 2: Mission to Planet Earth—International Partners

International cooperation and collaboration are essential to increasing our knowledge of global change. This session will be devoted to discussing the international space-based earth measurement programs, how they relate to the U.S. component, and how future research plans fit into an evolving international global change program. International space agency representatives will address the status of and plans for their participation in Mission to Planet Earth, as well as other global change research missions and operational missions.

Moderator:

Dr. John McElroy, Dean, College of Engineering, University of Texas, Arlington

Panelists will include:

Mr. Phillip Goldsmith, Director, Observation of the Earth and its Environment, European Space Agency (Invited)

Dr. Larkin Kerwin, President, Canadian Space Agency

Academician Guriy Ivanovich Marchuk, President, Academy of Sciences, U.S.S.R. (Invited)

Mr. Thomas Pyke, Jr., Assistant Administrator for Satellite and Information Services, NOAA/NESDIS