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Earth Observation Summit Prospectus

Introduction: The Earth's land, air, water, and life systems are interconnected and constantly changing. Variations in the Earth system processes have an effect on society. Observations, the building blocks of science, are the basis for understanding, monitoring, and predicting changes to the Earth system. No country, alone, can adequately provide all of the observations of the complex workings of the global dynamics of atmospheric, terrestrial, marine and aquatic systems. The benefits that a country derives from the set of global observations are great and transcend the benefits derived from observations provided by any one country. Moreover, through an international integrated program, national efforts can be strengthened and a new, unprecedented global observation capability can be achieved.

Earth observation systems have provided excellent results in the past 25 years, particularly in the areas of improved weather forecasts, El Niño predictions, earthquake and volcanic eruption precursors, and ecological assessments. Additional and higher quality observations are needed to address a wide range of priority applications, including climate monitoring and modeling, agriculture and forest management, water and energy resource management, watershed and marine ecosystem management, disaster management support, sustainable development, and meeting the needs of international environmental conventions.

The ingredients of a comprehensive, integrated Earth observation system exist: research and operational instruments and observing networks with sensors on fixed or moving platforms; communication links among measurement platforms, science modeling laboratories, and application development centers; computing capacity; and methods to combine observations from multiple sources to produce predictive capability, decision support tools, data management systems, and information products useful to society.

To address the environmental challenges of the 21st century, which have profound economic impacts, the existing Earth observation and data management infrastructure needs to be sustained and further evolved. A concerted international approach is essential to implement a comprehensive, integrated, and sustained Earth observation system. This system can be built on the foundation of existing Earth observing platforms and international coordination mechanisms. Improved and increased international collaboration is necessary to ensure continuity of the current Earth observing capacity and to realize integration of the evolving system of global observations.

Purpose: As a step toward building an international, comprehensive, integrated and sustained Earth observation system, the United States will host the Earth Observation Summit on July 31, 2003 in Washington, D.C. The Summit will call on countries to:

- (1) Exchange observations recorded from *in situ*, aircraft, and satellite networks in a full and open manner with minimum time delay and minimum cost;

(2) Agree on the concept of an international, comprehensive, integrated, and sustained Earth observation system that will meet collective requirements for observations, minimize data gaps, and maximize the utility of the system;

(3) Establish an Ad Hoc Working Group to prepare draft objectives and a 10-year implementation plan of an international, comprehensive, integrated and sustained Earth observation system. The plan should be developed in association with the Integrated Global Observing Strategy (IGOS) Partnership. This plan will be available for discussion in one year, and revised thereafter based on periodic evaluations and updates; and

(4) Help improve observing systems in developing countries and advance the capacity building of local scientific expertise.

Ministers are invited to participate in the network of countries and organizations that will implement the Earth observation system. They are also invited to adopt a brief Summit Declaration calling for an international, comprehensive, integrated, and sustained Earth observation system. The Declaration will recognize the need to support the components that comprise a long-term solution, as well as the international collaboration required to integrate the components into a global observation system for the benefit of all countries.

Invitations: Invitations will be issued to Ministers from the G-8 and other countries interested in the development of an international, comprehensive, integrated, and sustained Earth observation system. Also, invitations will be issued to senior executives of multilateral organizations, multilateral development banks, international science organizations, and foundations. The United States is seeking definite confirmation of interest in participating in the Earth Observation Summit by May 15, 2003.

Tentative Agenda: The Summit will be held at the U.S. Department of State on July 31, 2003, in Washington, D.C. Senior Bush Administration Officials will open and host the Summit. The morning program will provide an opportunity for Ministers to engage in a dialogue about their country's current and prospective contribution to an international, integrated global observation system. The afternoon program will present the rationale and requirements for improved observing capacity, which will address environmental challenges of regional and global priority, as well as the need for a more international, integrated approach. At the conclusion of the meeting, Ministers will have an opportunity to adopt the Summit Declaration.