

## IEOS PUBLIC ENGAGEMENT WORKSHOP: *Continuing the Dialogue*

May 9-10, 2005  
Ronald Reagan Building  
Washington, DC

***“I believe this integrated observing system will be one of those rare technologies that will fundamentally change the way we live, the way we make policy decisions, and the way we manage scarce and precious resources.”***

Secretary of Commerce,  
Carlos M. Gutierrez  
Earth Observation Summit III  
remarks

### Introduction

Nearly 60 countries have endorsed a 10-year plan to develop and implement the Global Earth Observation System of Systems (GEOSS), which would connect satellites, ocean buoys, weather stations and other Earth observing instruments that are scattered around the world. The end result will be access to an unprecedented amount of environmental information, integrated into new data products benefiting societies and economies worldwide.

The U.S. contribution to GEOSS is the Integrated Earth Observation System (IEOS). Seventeen federal agencies comprise the Interagency Working Group on Earth Observations (IWGEO) that developed a plan for the IEOS. The IWGEO reports to the National Science and Technology Council’s (NSTC) Committee on Environment and Natural Resources (CENR), and is co-chaired by NASA, NOAA and the White House Office of Science and Technology Policy (OSTP).

The ultimate success of both the IEOS and GEOSS depends on input from not only federal sources, but also state and local governments, industry, academia and non-government organizations who, in the end, will play a major role in the leveraging of these observation systems for social and economic benefit.

As a means to engage the broad community in the implementation of the IEOS, IWGEO is hosting the IEOS Public Engagement Workshop, May 9-10, 2005, at the Ronald Reagan Building and International Trade Center in Washington, D.C.

### The Benefits of Earth Observations

Earth-related information has become increasingly important, both to government policymakers and to decision-makers in the private sector. In the United States alone, where 30 percent of the gross domestic product is affected by the environment, improved observation of the entire Earth system could have a wide-ranging impact across many sectors, and, inevitably, on many aspects of our daily lives:

- The annual cost of electricity could be reduced by \$1 billion if the accuracy of weather forecasts was improved by just one degree Fahrenheit.
- Better observations of ocean currents and maritime winds could reduce the costs associated with oil-spill cleanup, by \$750,000 per year just in the Gulf of Maine.
- Improved weather observations and forecasts could save the aviation industry \$1.7 billion of the \$4 billion lost annually to weather delays.
- Enhanced monitoring of air quality and tracking of disease could improve the quality of life for many Americans, and for populations around the world.

The surface-based, airborne and space-based instruments that collect the data needed to support these and other social and economic benefits are widely distributed around the nation and the world. It is believed that only by integrating these measurements with advanced science numerical models and decision support tools will we be able to take full advantage of the power of Earth observations.

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## The Strategic Plan

The *Strategic Plan for the U.S. Integrated Earth Observation System* states the IEOS vision to “enable a healthy public, economy, and planet through an integrated, comprehensive, and sustained Earth observation system.”

The plan addresses nine societal benefit areas:

- Improve Weather Forecasting
- Reduce Loss of Life and Property from Disasters
- Protect and Monitor Our Ocean Resources
- Understand, Assess, Predict, Mitigate and Adapt to Climate Variability and Change
- Support Sustainable Agriculture and Combat Land Degradation
- Understand the Effect of Environmental Factors on Human Health and Well-Being
- Develop the Capacity to Make Ecological Forecasts
- Protect and Monitor Water Resources
- Monitor and Manage Energy Resources

Six near-term opportunities are also identified:

- Data Management
- Improved Observations for Disaster Warnings
- Global Land Observation System
- Sea Level Observation System
- National Integrated Drought Information System
- Air Quality Assessment and Forecast System

A copy of the U.S. Strategic Plan and the supporting technical reference documents can be found at the IWGEO Web site: <http://iwgeo.ssc.nasa.gov/>



*Experts estimate that the agriculture sector benefits from weather services at a cost ratio of about 15 to 1 — farmers get about \$15 of value out of every dollar spent on forecasting the weather.*

—Source: *Taking Nature's Pulse — All Over the Globe. Commentary. MTS Journal, Vol. 37, No. 3*



## Workshop Goal and Approach

The IWGEO recognizes that a comprehensive plan must have comprehensive input. Therefore, this workshop is designed to encourage active participation of representatives from all sectors—science research, agriculture, energy, public health, conservation, information technology, transportation, data integration, etc.

The two-day program will consist of a series of keynotes, plenary and breakout sessions. Day one will focus on the nine societal benefit areas as outlined in the U.S. Strategic Plan. Data and information needs—the requirements of users—will be addressed throughout all nine of the theme areas.

The second day of the workshop will focus on the near-term opportunities and will provide a forum for cross-sector, multidisciplinary input on ways to move toward implementation on the strategic plan. Participants will be asked to develop several specific recommendations for moving forward within the topic area of the particular group.

Each breakout session will have a chair that will guide the discussion and encourage dialogue. In addition, each breakout group will be assigned a rapporteur to document the interaction and record the recommendations. To encourage open dialogue there will be no presentations during the breakout sessions.

A report outlining the workshop outcomes and recommendations will be compiled by the writing team and presented to the IWGEO for consideration.



*During a typical hurricane season, the NOAA National Weather Service forecasts, warnings and associated emergency responses result in a \$3 billion savings —Source: <http://www.magazine.noaa.gov/stories/mag134.htm>*

## Workshop Goal and Approach (*continued*)

To facilitate the formulation of implementation plans for the near-term opportunities, the workshop breakout sessions are organized to:

- A. Identify specific candidate entities for improving coordination of strategies and systems for Earth observations; identify measurements to minimize gaps and fulfill user requirements; move toward a comprehensive, integrated and sustained IEOS.
- B. Identify opportunities for coordinating capacity-building efforts to improve and sustain national contributions to Earth observation systems, including access to and effective utilization of observations, data and products, science models, and related technologies.
- C. Identify strategies that ensure that the IEOS promotes full and open access to data from observations recorded from *in situ*, aircraft and spacecraft, consistent with the Earth Observation Summit I Declaration.



*More accurate water depth measurements will allow ships to carry more cargo, thus resulting in more profit. The nation receives 95 percent of its goods by ship, and any information that keeps this supply-chain flowing safely is vital.*  
 –Source: <http://www.magazine.noaa.gov/stories/mag107.htm>

## Expectations

Participants will be expected to have background knowledge of:

- The final version of the U.S. Strategic Plan, especially the societal benefit areas and near-term opportunities outlined in the plan, and the technical reference documents;
- The process and progress to date, including the Earth Observation Summit, the *ad hoc* Group on Earth Observations, and the Interagency Working Group on Earth Observations;
- The purpose, approach and expectations for the U.S. portion of the 10-Year GEOSS Implementation Plan.

Information on all topics can be found at the following Web sites:

- IWGEO: <http://iwgeo.ssc.nasa.gov/>
- Earth Observation Summit: <http://www.earthobservationsummit.gov/>
- Federal Enterprise Architecture: <http://www.whitehouse.gov/omb/egov/a-1-fea.html>
- GEO: <http://earthobservations.org/>
- GEO Public Documents: [http://earthobservations.org/docs\\_set\\_one.asp?sec=geo4](http://earthobservations.org/docs_set_one.asp?sec=geo4)
- EPA's GEOSS website: <http://www.epa.gov/geoss>
- NOAA's GEOSS website: <http://www.noaa.gov/eos.html>

Although the efforts toward an integrated Earth observation system are international in scope, the focus of this workshop is domestic. Your perspective, background and experience are sought on ways the *United States* can move forward with the six near-term opportunities outlined in U.S. Strategic Plan.



More than 31.3 million Americans are estimated to have asthma, which accounts for 14.5 million lost workdays for adults and 14 million lost school days for children each year. Asthma attacks can be triggered by a variety of factors including allergens, pollution (poor air quality), and changes in weather (air pressure, humidity, wind, heat and cold air). –Source: <http://www.pfizerhealthsolutions.com/pdf/AsthmaFactSheet.pdf>



*In the commercial aviation community, weather is responsible for approximately 2/3 of air carrier delays at a cost of \$4 billion annually -- \$1.7 billion of which is avoidable with better observations and forecasts.*  
 --Source: <http://images.profsurv.com/ProfSurv21arc.htm>



## Registration

There is no registration fee for participating in this meeting, however, for security and logistical reasons **all** participants, moderators and rapporteurs must fill out a registration form (attached) and fax to 703-312-8657 by **April 29, 2005**. Space is limited and forms will be accepted on a first-come, first-served basis.

There will be a luncheon with a featured keynote on the first day of the workshop. A boxed lunch will be provided on the second day.

On May 10, a reception will be held on Capitol Hill from 5-7 p.m. For security purposes, please be sure to mark your intent to participate in the reception on the registration form (attached). Please also allow sufficient time for passing through security upon entering the building.

The registration form requires that on the first day participants sign up for **one** of the nine societal benefit areas. Please mark a "1" in the box by your first choice and a "2" in the box by your second choice.

On the second day, participants are asked to sign up for **one** of the six near-term opportunity areas. Again, please mark a "1" in the box by your first choice and a "2" in the box by your second choice.

Because of space restrictions, registrations will be accepted on a first come, first served basis. Please be aware that the deadline for registration is April 29<sup>th</sup>.

Note that in order to ensure a balance of perspectives and expertise within the breakout groups, the planning committee reserves the right to a final decision on who participates in which group on both day one and day two, based on responses.

Prior to the meeting, a letter of confirmation will be sent to all participants noting their assigned breakout groups for each day.



*Statistics compiled from insurance companies from 1950-1999 show that major natural catastrophes across the globe caused economic losses of \$960 billion. --Source: Taking Nature's Pulse — All Over the Globe. Commentary. MTS Journal, Vol. 37, No. 3*

***"The goals and promises of this system are both great and noble. The health and prosperity of future generations will be determined by our success in making this system a reality."***

--Secretary of Commerce, Carlos M. Gutierrez  
 Earth Observation Summit III, remarks



## Preliminary Program



### May 9, 2005

- 7:30 – 8:30 Registration / Breakfast  
 8:30 – 8:35 Administrative and Introductory Remarks  
     Dr. Teresa Fryberger, IWGEO Co-Chair; Assistant Director for Environment, White House Office of Science and Technology Policy  
 8:35 – 8:50 Welcoming Remarks  
     Dr. John Marburger, Science Advisor to the President  
 8:50 – 9:30 Overview of GEOSS and IEOS: Process and Progress  
     Vice Admiral Conrad Lautenbacher, (Ret.), Undersecretary of Commerce for Oceans and Atmosphere; Administrator, NOAA  
 9:30 – 9:50 Overview of the Societal Benefit Areas  
     Dr. Charles “Chip” Groat, Director, U.S. Geological Survey  
 9:50 – 10:00 Charge to the Breakout Groups  
     Dr. Teresa Fryberger, IWGEO Co-Chair; Assistant Director for Environment, White House Office of Science and Technology Policy  
 10:00 – 10:15 Break  
 10:15 – 12:00 Breakout Sessions: Societal Benefit Areas with Summary and Discussion of Technical Reports  
 12:00 – 1:30 Luncheon  
     Keynote: Dr. Rick Anthes, President, University Corporation for Atmospheric Research (UCAR)  
 1:30 – 3:15 Breakout Sessions: Societal Benefit Areas  
 3:15 – 3:30 Break  
 3:30 – 5:00 Plenary: Breakout Reviews, Open Discussion on Crosscutting Opportunities, and Identifying Overlaps and Gaps  
     Mr. Greg Withee, IWGEO Co-Chair; Assistant Administrator for Satellite and Information Services, NOAA  
 5:00 Adjourn



*Improved ocean observations would reduce over-all oil spill costs — in the Gulf of Maine alone, a one-percent reduction in oil spill volume saves \$750K a year. —Source: <http://images.profsurv.com/ProfSurv21arc.htm>*



### May 10, 2005

- 7:30 – 8:30 Registration / Breakfast  
 8:30 – 8:45 Opening Remarks  
     Mr. Greg Withee, IWGEO Co-Chair; Assistant Administrator for Satellite and Information Services, NOAA  
 8:45 – 9:15 Keynote Address  
     Hon. Michael Leavitt, Secretary of Health and Human Services  
 9:15 – 9:30 Overviews of the Near Term Opportunities and Charge to the Breakout Groups  
     Mr. Greg Withee, IWGEO Co-Chair; Assistant Administrator for Satellite and Information Services, NOAA  
 9:30 – 10:15 Breakout Sessions: Near Term Opportunities  
 10:15 – 10:30 Break  
 10:30 – 12:00 Breakout Sessions: Near Term Opportunities  
 12:00 – 1:00 Working Lunch (boxed lunches provided)  
 1:00 – 2:45 Breakout Sessions: Near-Term Opportunities  
 2:45 – 3:00 Break  
 3:00 – 4:00 Plenary: Presentations by Breakout Moderators  
 4:00 – 4:30 Public Comments and Closing Remarks  
     Dr. Ghassem Asrar, IWGEO Co-Chair, Science Deputy Associate Administrator, NASA  
 4:30 Adjourn  
 5:00 – 7:00 Reception, Capitol Hill



*1F degree improvement in the precision of a weather forecast can save \$1 billion in electricity. —Source: [www.crh.noaa.gov/ilx/winter/Winter\\_WX\\_Fact%20Sheet.pdf](http://www.crh.noaa.gov/ilx/winter/Winter_WX_Fact%20Sheet.pdf)*

# REGISTRATION FORM



## IEOS PUBLIC ENGAGEMENT WORKSHOP

May 9-10, 2005

### Instructions

- \* For security reasons, registration is REQUIRED for participation.
- \* Deadline for registration is **April 29, 2005**.
- \* Please **fax** completed form to **703-312-8657**.

### 1 CONTACT INFORMATION

Greeting: Mr. \_\_\_ Mrs. \_\_\_ Ms. \_\_\_ Dr. \_\_\_ Other: \_\_\_\_\_  
Family Name: \_\_\_\_\_ Given Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Full Address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Email: \_\_\_\_\_  
Name for Badge: \_\_\_\_\_  
Special Needs: \_\_\_\_\_

### 2 BREAK OUT SESSION DAY 1: 9 AREAS OF SOCIETAL BENEFIT

*Please choose 2 of the following 9 breakout groups in case your first choice is not possible by inserting a 1 on the box for your first choice and 2 on the box of your second choice.\*:*

- Improve Weather Forecasting
- Reduce Loss of Life and Property from Disasters
- Protect and Monitor Our Ocean Resources
- Understand, Assess, Predict, Mitigate and Adapt to Climate Variability and Change
- Support Sustainable Agriculture and Combat Land Degradation
- Understand the Effect of Environmental Factors on Human Health and Well-Being
- Develop the Capacity to Make Ecological Forecasts
- Protect and Monitor Water Resources
- Monitor and Manage Energy Resources

### 3 BREAK OUT SESSION DAY 2: 6 NEAR-TERM OPPORTUNITIES

*Please choose 2 of the following 6 breakout groups in case your first choice is not possible by inserting a 1 on the box for your first choice and 2 on the box of your second choice.\**

- Improved Observations for Disaster Warnings
- Global Land Observing System
- Sea Level Observing System
- National Integrated Drought Information System
- Air Quality Assessment and Forecast System
- Integrated Data Management

### 4 RECEPTION: May 10, 2005, 5:00-7:00 pm, Capitol Hill

I will attend.  I will not attend.

\*The planning committee reserves the right to a final decision based on responses in order to ensure a perspective/participation balance within the groups. A letter of confirmation will be sent prior to the meeting.

Please fax completed form to 703-312-8657



1300 Pennsylvania Avenue, NW  
Washington DC 20004  
Tel: 202-312-1300  
Fax: 202-312-1310



## Ronald Reagan Building International Trade Center

This landmark building fulfills a dream by President Kennedy to revitalize Pennsylvania Avenue, "The Avenue of the Presidents." It brings together, under one roof, trade services, offices, meetings, conference and event spaces to energize and revitalize downtown Washington, DC and convey the United States' recognition of the importance of Trade in linking countries and communities.

During President Kennedy's 1961 Inaugural parade, he noted the run-down shops on the north side of the "Avenue of the Presidents," and expressed his vision for creating a world-class main street for America on Pennsylvania Avenue.

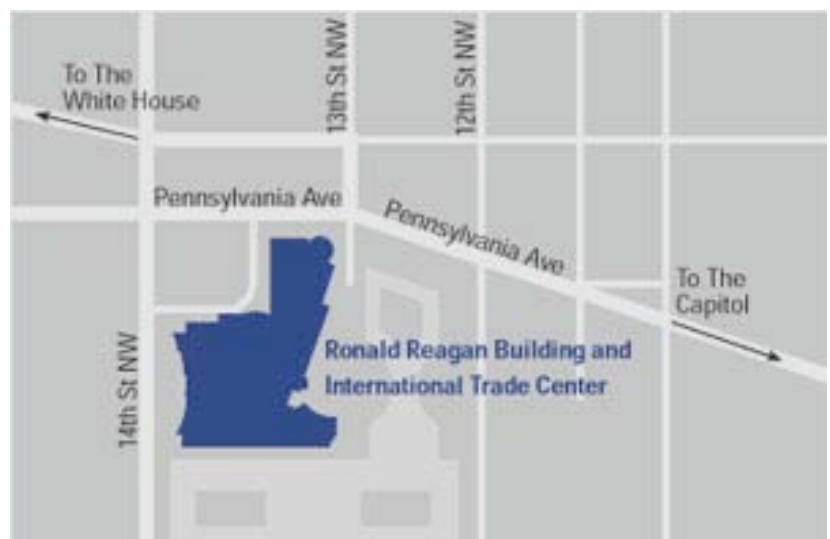
Today, the Federal Triangle contains its plaza, the restored Oscar Straus fountain, and more. With its skylight soaring upward and its Trade Center reaching out to the world, with its landscaped plazas and entrances on all sides, the Ronald Reagan Building and International Trade Center links the attractions of Washington's mall to the city's downtown business and commercial area.

The Ronald Reagan Building and International Trade Center's mission is to promote American products abroad, provide market information to U.S. firms, publicize export opportunities, and bring U.S. business people face-to-face with their foreign counterparts. It is the first federal building designed for use by both the government and the private sector. It is located on historic Pennsylvania Avenue in the heart of Washington, DC, within walking distance of the White House, the Capitol, Smithsonian Museums and other prominent businesses, historical sites and cultural organizations. It is just minutes from three major international airports – Reagan Washington National, Dulles, and BWI – and the Federal Triangle Metro stop is on site.

**Public parking** is available in an underground parking lot. Public access is available from 13 1/2 Street off Pennsylvania Avenue. After 6:00pm, and on weekends, there are two additional entrances on 14th Street. The clearance for public access parking is 6'8". Guests and attendees should allow themselves extra time as the lots are secure and all guests are screened upon entry. There is no overnight parking.

The **Federal Triangle metro stop** (blue and orange lines) is connected to the Ronald Reagan Building and International Trade Center by a covered passageway. In addition, **Metro Center** (blue, orange, and red lines) and **Smithsonian** (blue and orange lines) are within easy walking distance.

*"The type of data this system would transmit will be invaluable.... To put it simply, we would each have the pulse of the entire globe"*  
--Secretary of Commerce,  
Carlos M. Gutierrez  
Earth Observation Summit III  
remarks"



## Hotels

Below are hotel recommendations for your accommodations.

### **JW MARRIOTT HOTEL**

1331 Pennsylvania Avenue  
Washington, DC 20004, USA  
Tel. 1-202-393-2000 • 1-800-228-9290  
Fax 1-202-626-6991  
Web:  
<http://marriott.com/property/propertyPage.mi?marshaCode=WASJW>  
*Across the street from the Reagan Building*

### **WILLARD INTERCONTINENTAL WASHINGTON D.C.**

1401 Pennsylvania Avenue NW  
Washington D.C. 20004, USA  
Tel: +1 202 628 9100 -- Fax: +1 202 637 7326  
E-mail: [washington@interconti.com](mailto:washington@interconti.com)  
Web: <http://www.washington.intercontinental.com/>  
*One block from the Reagan Building*

### **HARRINGTON HOTEL**

436 11th Street, N.W. (corner of 11th & E Streets, N.W.)  
Washington, DC 20004-4389  
Phone: (202) 628-8140 -- Fax: (202) 347-3924  
Toll-Free Reservations: (800) 424-8532  
E-mail: [reservations@hotelharrington.com](mailto:reservations@hotelharrington.com)  
Web: <http://www.hotel-harrington.com/>

### **HOTEL WASHINGTON**

515 Pennsylvania Ave at 15th Street,  
NW Washington, DC 20004  
Tel - (202) 638-5900 -- Fax - (202) 638-1594  
Web: <http://www.hotelwashington.com/>  
*Two blocks from the Reagan Building*

### **MARRIOTT AT METRO CENTER**

775 12th Street NW  
Washington, DC 20005, USA  
Phone: 1 202-737-2200 -- Fax: 1 202-347-5886  
Web:  
<http://www.marriott.com/dpp/PropertyPage.asp?MarshaCode=WASMC>  
*Four and a half blocks from the Reagan Building*

### **COURTYARD WASHINGTON CONVENTION CENTER**

900 F Street, NW  
Washington, DC 20004, USA  
Phone: 1 202-638-4600 -- Fax: 1 202-638-4601  
Web:  
<http://marriott.com/dpp/PropertyPage.asp?MarshaCode=WASCN&EPCEC=InProcess&EPNAVCEC=InProcess>  
*Five blocks from the Reagan Building*

### **GRAND HYATT WASHINGTON**

1000 H St NW  
Washington, DC 20001, USA  
Tel: +1-202-582-1234 -- Fax: +1-202-628-1641  
Web: <http://grandwashington.hyatt.com/property/index.jhtml>  
*Six blocks from the Reagan Building*

### **HILTON GARDEN INN WASHINGTON DC FRANKLIN SQUARE**

815 14th Street N.W., Washington, DC 20005, USA  
Tel: 1-202-783-7800 -- Fax: 1-202-783-7801  
Web:  
<http://www.hiltongardeninn.com/en/gi/hotels/index.jhtml;jsessionid=D3SUHZB4WUBIPJ31AOQ2HZQ?ctyhocn=DCACHGI>  
*Five blocks from the Reagan Building*

### **SOFITEL LAFAYETTE SQUARE WASHINGTON DC**

806 15<sup>th</sup> Street, NW  
Washington, DC 2005, USA  
Tel : 1-202-730-8800 -- Fax : 1-202-730-8500  
E-mail : [H3293@accor-hotels.com](mailto:H3293@accor-hotels.com)  
Web:  
[http://www.sofitel.com/sofitel/fichehotel/gb/sof/3293/fiche\\_restaurant.shtml](http://www.sofitel.com/sofitel/fichehotel/gb/sof/3293/fiche_restaurant.shtml)  
*Five blocks from the Reagan Building*

### **HOTEL MONACO WASHINGTON DC**

700 F Street, NW  
Washington, DC 20004, USA  
Tel. 1-800-649-1201 • 1-202-628-7177 – Fax: 1-202-628-7277  
Web: <http://www.monaco-dc.com/>  
*Seven blocks from the Reagan Building*

Please be aware that the list of hotels listed on this page are recommendations and represent a wide range of categories. Arrangements are to be made directly by all participants.





# DC Subway/Metro Map

This information is also available at <http://www.wmata.com>.



## System Map

### Legend

- Red Line • Glenmont to Shady Grove
- Orange Line • New Carrollton to Vienna/Fairfax-GMU
- Blue Line • Franconia-Springfield to Largo Town Center
- Green Line • Branch Avenue to Greenbelt
- Yellow Line • Huntington to Mt Vernon Sq/7th St-Convention Center

