

TESTIMONY OF NANCY COLLETON
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SUBMITTED ON MARCH 21, 2013
TO THE
HOUSE APPROPRIATIONS
SUBCOMMITTEE ON COMMERCE, JUSTICE, SCIENCE, AND RELATED AGENCIES
HEARING ON THE FISCAL YEAR 2014 BUDGET

Chairman Wolf, Ranking Member Fattah, members of the Subcommittee, special guests, ladies and gentlemen, I am Nancy Colleton, executive director of the Alliance for Earth Observations. Thank you for the opportunity to speak today.

Since 2003, the Alliance for Earth Observations has helped bring together those that develop the tools to monitor the planet with those that need the information to manage it, serving as a link between the private sector, government and the general public. Through active stakeholder engagement and with members from the private sector, academia and non-governmental organizations community, we have worked to ensure the rapid and broad delivery of the timeliest, most comprehensive and accurate environmental information for improved decision-making.

In regard to the FY2014 budget, I am here today to request that the Subcommittee:

1. Support funding for Earth science and observing programs;
2. Strengthen the nation's investment through long-term planning; and
3. Recognize that this investment is essential to protecting and growing the U.S. economy.

Never before has our nation so heavily relied on or so sorely needed the science and technologies that enable us to understand and respond to our changing planet. Across the nation, we have seen and felt the impacts of severe weather events, droughts, and ocean and coastal changes.

Compared to other programs that you might be discussing today, the U.S. investment in Earth science and observations is relatively small given the context of events and sectors it serves. Estimated at an annual \$3 billion spread across 17 agencies, this amount and how it is managed is woefully inadequate to protect America's future. Consider the following statistics from Munich Reinsurance's U.S. Natural Catastrophe Update for 2012:

- *Insured losses in the United States in 2012 totaled \$58 billion—far above the 2000 to 2011 annual average loss of \$27 billion (in 2012 Dollars)*

- *Hurricane Sandy made landfall in New Jersey, becoming the worst storm to hit the northeastern United States since the Great New England Hurricane of 1938, and causing insured losses in excess of \$25 billion.*
- *Despite a relatively quiet year for tornadoes, insured losses from thunderstorm events exceeded \$14 billion, the second highest annual total on record.*
- *Severe drought crippled agriculture over a large section of the central United States.*
- *Dry conditions led to the most damaging wildfires in Colorado history.*

It is ironic that given these extreme events, their tremendous economic impact, and the fact that numerous respected institutions, such as the National Research Council and the Government Accountability Office (GAO), have repeatedly called attention to the decline of U.S. Earth monitoring capabilities, we have yet to see an increase in investment or a change in how that investment is managed.

It is vital that we address these issues now. Just two weeks ago, GAO added weather satellites to its high-risk list, citing concerns of a potential gap in weather satellite coverage of 17 to 53 months beginning in 2014. As reported broadly through the media these last few weeks, our nation has now fallen behind Europe in weather forecast modeling. The Reinsurance Association of America estimates the insured value of U.S. coasts at \$12 trillion, yet the country has only a small, emerging operational ocean-observing capability. Despite more than 60 percent of the continental US experiencing drought last summer, our national drought monitoring and forecasting capabilities continue to face funding challenges. Finally, while more and more national security experts identify climate change as a major threat to the US, the country has yet to establish an operational long-term forecasting capability.

Therefore, Congress should recognize the need to embark on a new era of environmental monitoring and forecasting and advance our weather, climate, ocean and land monitoring capabilities. This would protect American lives and property, reduce the cost of recovery from events like Hurricane Sandy, and strengthen and grow the economy – a priority we all share in light of the current fiscal constraints.

Our government-supported Earth science and observing programs benefit every American, every state, and – in one way or another – every business sector. Consider our nation’s weather enterprise, an astonishingly successful combination of government and commercial capabilities. The National Weather Service provides the foundation for satellite and ground observations, computer forecast models, and basic services. Commercial companies expand on this to produce a wide variety of consumer and business services, ranging from daily weather on your mobile phone to precision wind energy forecasts saving utility ratepayers millions of dollars. This model should be actively facilitated in areas beyond weather, to include climate, ocean, and land observations.

Market-valuable environmental information products and services enable short- and long-term forecasting that gives U.S. business a strategic advantage. The faster and broader development of new products and services would support a variety of economic sectors,

from agriculture, tourism, and fishing, to infrastructure investment and alternative energy. With user demand for this information growing around the world, a clear business opportunity exists and, as the most technologically advanced nation in the world, the U.S. is poised to take advantage of it.

We must not forget that the environmental information supply chain begins with government investments in the foundational science programs within NASA, NSF and NOAA. Strategic investment in these programs will only be achieved through long-term planning. Because the benefits of a strengthened environmental information supply chain transcend science and impact the national economy, we believe it is essential for the Secretary of Commerce to be tasked with working with industry and government leaders to develop a national strategy for this business area.

As I hope my remarks have demonstrated, this Subcommittee's enduring commitment to sound science must be coupled with a commitment to expand and modernize our nation's Earth observing infrastructure. In the area of environmental information, a relatively small, strategic investment would go a long way to leverage the existing science investment, benefit U.S. business, spur economic growth, and create a more resilient nation.

On behalf of the members of the Alliance for Earth Observations, listed below, thank you again for the opportunity to testify today on this important subject.

- Atmospheric & Environmental Research, Inc. (AER)
- American Institute of Aeronautics and Astronautics (AIAA)
- Applied Physics Laboratory (APL) – The John Hopkins University
- Ball Aerospace & Technologies Corporation
- The Boeing Company
- Carbon2Markets – Michigan State University
- CARIS
- Center for International Earth Science Information Network (CIESIN) – Columbia University
- Computer Sciences Corporation (CSC)
- Center for Southeastern Tropical Advanced Remote Sensing (CSTARS)
- EADS Astrium
- Earth Networks
- GeoEye Foundation
- Harris Corporation
- ITT Exelis, Inc.
- The Consortium for Ocean Leadership
- The Planetary Society
- Raytheon Corporation
- Science Applications International Corporation (SAIC)
- Scripps Institution of Oceanography
- Southeastern University Research Association (SURA)
- University Corporation for Atmospheric Research (UCAR)
- Woods Hole Oceanic Institution (WHOI)