A New Decade for an Integrated and Sustained Ocean Observing System

November, 13-16 2012
Hyatt Dulles
2300 Dulles Corner Blvd.
Herndon, Virginia, USA 20171
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DAY 1 - TUESDAY, NOVEMBER 13, 2012

CELEBRATING A DECADE OF PROGRESS AND PREPARING FOR THE FUTURE

These sessions will celebrate the decade of progress in the ocean observing system since the 2002 Ocean US Workshop, Building Consensus: Toward an Integrated Ocean Observing System, which provided the foundation for an Integrated Ocean Observing System (IOOS). In 2012, a decade later, government, industry, and academic leaders can look back and provide intelligent perspectives and present a vision for IOOS moving forward.

9:00 Opening and Welcome to the Summit
Dr. Eric Lindstrom, IOOS Summit Co-Chair and Physical Oceanography Program Scientist, NASA Headquarters
The purpose and expected outcomes of the Summit, the Summit design, and post-Summit actions.

9:15 Keynote Addresses: Celebrating Success and the Path Forward
Vice Admiral Paul G. Gaffney II, U.S. Navy, (Ret.), President, Monmouth University

10:00 IOOS and the Opportunity Ahead
Dr. Kathy Sullivan, Assistant Secretary of Commerce for Environmental Observation & Prediction and Deputy Administrator and Acting Chief Scientist, NOAA
The opportunities for IOOS in the next decade, making the “system of systems” work from the watershed to the coast, from the Great Lakes to the global oceans.

10:30 Break

11:00 Linking to the International Global Ocean Observing
Ambassador David A. Balton, the U.S. State Department Deputy Assistant Secretary for Oceans and Fisheries, Bureau of Oceans and International Environmental and Scientific Affairs

11:30 IOOS in 2022: A Vision for the Future
Dr. Rick Spinrad, Vice President for Research, Oregon State University
What will IOOS look like in 10 years? How will people be using IOOS information?

12:00 Lunch

1:00 Visionary Vignette of the Day: Accessing, Fusing and Sharing Data within a Real-Time Decision Making Collaborative Environment: The Future of IOOS is Here
Dave Jones, Founder, President & CEO, StormCenter Communications Inc.

1:15 Panel Discussion: IOOS, from the User’s Perspective
Session Moderator: Molly McCammon, Executive Director, Alaska Ocean Observing System
Remarks from IOOS users on how they currently use observing products and what they would like to see in the future. Comments will represent the IOOS themes of marine safety, sea level rise, fisheries, ecosystems, and hazards.
Panel:
Andy McGovern, Sandy Hook Pilots Association, NJ
Michael Vogel, Shell Oil Company, TX
Jay Odell, The Nature Conservancy, VA
Maggie Rodgers, Cleveland Water District, OH
Alan Barton, Whiskey Creek Shellfish Hatchery, OR
Greg DiDomenico, Garden State Seafood, NJ
Gabriel Vecchi, Climate Researcher, NOAA

2:00 Break

2:45 Observing from regional to global scales
Dr. Eric Lindstrom, Co-Chair of the Global Ocean Observing System Steering Committee

4:15 Panel Discussion: Developing Support for IOOS, Politics, Policies, and Personalities
Session Moderator: Dr. Bob Gagosian, President, Consortium for Ocean Leadership
Panel:
Kevin Wheeler, Vice-President and Director, Public Affairs, Consortium for Ocean Leadership
Catherine Barrett, Oceans Counsel, Senate Subcommittee on Oceans Atmosphere, Fisheries and Coast Guard
Peter Hill, Director of Government Relations, Woods Hole Oceanographic Institution

5:15 Adjourn (Reception Immediately Following)
DAY 2: WEDNESDAY, NOVEMBER 14, 2012

USER REQUIREMENTS AND OBSERVING SYSTEM NEEDS

Day 2 will examine technical and scientific requirements for delivering products to users. This includes observing system components (observations, models, data management, product development) needed to address those requirements. The draft Summit Report will set the stage for the discussions. Facilitated breakout sessions will identify priorities for post-summit actions to move IOOS forward.

8:30 Opening: Charge for the Day
Dr. Jan Newton, IOOS Summit Co-Chair and Executive Director, Northwest Association of Networked Ocean Observing Systems

8:40 Celebrating the Progress to Date: Recommendations from Chapter 2
Session Moderators: Zdenka Willis, Director, U.S. IOOS Program Office and Dr. David Martin, Associate Director and Senior Principal Oceanographer, Applied Physics Laboratory, University of Washington

9:45 Break

10:15 The Next Decade: User Engagement and Requirements: Recommendations from Chapter 3
Session Moderators: Debra Hernandez, Executive Director, South East Coastal Ocean Observing Regional Association; Cara Wilson, Research Oceanographer, NOAA Fisheries Service; and Holly Price, NFRA Consultant

Session Topic: Users and Requirements. Discussion will focus on the recommendations of Chapter 3 of the Draft IOOS Summit Report.

11:40 Visionary Vignette of the Day: Navy Innovations
Rear Admiral Jonathan W. White, Oceanographer and Navigator of the Navy

1:15 Break-Out Session 1: Products to Fulfill Future User Needs
Break-Out Session 1 will identify the post-Summit actions needed to address user needs in the next decade. This will consist of updating user requirements, identifying gaps, and generating action items.

1) Maritime Operations (Rockbridge)
Session Leads: Gerhard Kuska, Roy Watlington

2) Addressing Ocean Environmental Changes (Luray A)
Session Leads: Libby Jewett, David Legler

3) Ecosystems and Fisheries (Layton)
Session Leads: Josh Kohut, Raphael Kudela

4) Water Quality (Luray B)
Session Leads: Dwayne Porter, Nancy Rabalais, Kelli Paige

5) Hazards (Luray C)
Session Leads: Mary Erickson, Amy Holman

3:00 Break

3:15 Special Session: Mid-Atlantic Responds to Hurricane Sandy
Dr. Scott Glenn, Mid-Atlantic Regional Association for Coastal Ocean Observing Systems, Rutgers University

3:30 Observing System Capabilities: Gap Assessment and Design: Recommendations from Chapter 4
Session Moderator: Dr. Harvey Seim, Professor, University of North Carolina

Session Topic: The required observing system elements needed to address future needs. Discussion will focus on Chapter 4 of the Draft IOOS Summit Report.

5:00 Adjourn (Reception Immediately Following)
DAY 3 - THURSDAY, NOVEMBER 15, 2012

SYSTEM INTEGRATION AND THE VISION FORWARD

Day 3 sessions this day are devoted to integrating the system into a unified vision that spans the local, regional, national and global scales.

8:30 Opening Session: Recap of Day 2 and Charge for the Day 3
Dr. Ru Morrison, IOOS Summit Co-Chair, Executive Director, North East Regional Association of Coastal Ocean Observing Systems.
Recap of the previous day’s discussions including overview of the break out discussions on user requirements.

8:50 Evaluating the Risk: Can IOOS Aid the Insurance Industry?
Dr. Dail Rowe, Weather Predict Unit, RenaissanceRe, Inc.

9:30 Integration Challenges and Opportunities: Recommendations from Chapter 5
Session Moderator: Dr. Michael Bruno, Dean, School of Engineering and Science, Professor, Stevens Institute of Technology
Session Topic: Integration Challenges and Opportunities. Discussion will focus on Chapter 5 of the Draft IOOS Summit Report.

10:30 Break

10:45 Break-Out Session 2: Addressing User Needs
This session will build on the first break-out session that identified user needs and products for the next decade by defining the priorities for the system elements. Each session will identify gaps in the system, future needs, and recommendations for post-Summit actions.

1) Designing the Observing System to Address Gaps (Rockbridge)
Session Lead: Harvey Seim

2) Stakeholder Engagement (Luray A)
Session Leads: Molly McCammon, Chris Ostrander

3) Integration through data management (Layton)
Session Lead: Charly Alexander

4) Beyond Chlorophyll: Expanding the biological component of IOOS (Luray B)
Session Leads: Tom Malone, Sam Simmons

5) Education and Outreach (Luray C)
Session Lead: Chris Simoniello

12:30 Lunch

1:15 Visionary Vignette of the Day: Animal Tagging
Dr. Barbara Block, Charles & Elizabeth Prothro Professor, Stanford University

1:40 The Way Forward: High Level Recommendations for the Next Decade
Session Moderator: Dr. Rick Spinrad, Vice President for Research, Oregon State University
Session Topic: IOOS in its past and current structure depends heavily on federal support, has an evolving governance model, and must continue to be sensitive to and supportive of new methods and technologies. This panel will stimulate discussion and thoughts for recommendations on the way forward.
Panel:
Ralph Rayner, IOOC Industry Liaison: New resources for sustaining IOOS
Margaret Davidson, National Ocean Service, NOAA: Potential organizational models for the future IOOS
Scott Glenn, Rutgers University: Integrating disruptive technologies into IOOS

2:45 Break

3:00 Break-Out Session 3: Cross-Cutting Issues
These break-out sessions will focus on developing innovative ideas and actions on cross-cutting issues that are critical to moving IOOS forward over the next decade.

1) Planning for a Multi-Regional Systems Integration Pilot Project (Rockbridge)
Session Leads: Michael Bruno, Scott Glenn, Chris Mooers

2) Integrating Across Regional, National and Global Scales (Luray A)
Session Leads: Paul DiGiacomo, Jan Newton

3) Emerging Technologies (Layton)
Session Leads: Joe Swaykos, Tom Johengen

4) Advancing Development of a Business Model (Luray B)
Session Lead: Justin Manley

5) Advancing IOOS through Advocacy (Luray C)
Session Leads: Staci Lewis, Chris Cohen, Molly McCammon

5:00 Adjourn (Dinner on own: Shuttles will be available to transport people to Reston Town Center)
DAY 4 - FRIDAY, NOVEMBER 16, 2012

THE NEXT DECADE FOR US IOOS

Day 4 sessions will review the results of the break-out sessions and the IOOS 2012 Summit Report. Discussion will focus on post-Summit actions, summarizing accomplishments and expectations for follow-up after the 2012 Summit.

8:30 Opening: Recap of Day 3 and Charge for Final Day
Dr. Paul DiGiacomo, IOOS Summit Co-Chair and Chief of the Satellite Oceanography and Climatology Division, NOAA Satellites and Information

8:45 The Way Forward: Actions for the Next Decade
Session Moderator: Dr. Paul DiGiacomo, Chief of the Satellite Oceanography and Climatology Division, NOAA Satellites and Information

Findings from the break-out sessions, priorities for Post-Summit Actions.
Reports by break-out session leaders.

10:30 Vision for Next Year: Post-Summit Actions
IOOS 2012 Summit Co-Chairs

Synthesis of the major recommendations and next steps.

11:00 Reactions to the Summit: Panel Discussion
Session Moderator: Gerhard Kuska, Executive Director, Mid-Atlantic Regional Association Coastal Ocean Observing System

Panel:
- David Kennedy, Assistant Administrator, NOAA’s National Ocean Service
- RDM Richard West (ret)
- Tom Gulbransen, Battelle Memorial Institute
- David Legler, Interagency Ocean Observing Committee
- Julie Thomas, Southern California Coastal Ocean Observing System

12:00 Closing Remarks: Presentation of Summit Declaration and Final Outcomes
12:30 Adjourn - Summit Closes
BACKGROUND
In the United States, public and private decisions affecting our economy, homeland security and environment depend on
accurate and reliable ocean information, a fact now rooted in U.S. law. This information comes from sustained observations
integrated with models, combined and delivered with data management and communications. The past ten years have seen
substantial progress in designing and implementing the U.S. Integrated Ocean Observing System (IOOS®). We are now on the
verge of delivering fully on the promise to the American public. The Interagency Ocean Observing Committee convened the
IOOS Summit 2012, held in Herndon, VA, on November 13-16. The participants at the Summit reviewed progress in the design
and implementation of IOOS since the foundational workshops held from 2002-2005. They acknowledged the notable successes
in developing a functioning system, as well as the technical and practical challenges and opportunities that IOOS will face
in the coming decade. This Declaration captures and emphasizes the findings and commitments of the participants in the
Summit relative to the future of IOOS over the next ten years.

A REINFORCED UNDERSTANDING OF THE NEED FOR IOOS
The initial years of the design and implementation of the Integrated Ocean Observing System have coincided with events that
today underscore its importance to the economic, security and environmental interests of the United States.
• Ocean and coastal observations have proven to be essential to managing weather, ocean, and human-mediated disasters on
  scales that have been global, regional and local; as well as in reducing disaster risk.
• The increasingly clear understanding of the scope and impacts of environmental changes, such as sea level rise and the
  increase in ocean acidity, and the need to respond, adapt to and manage those changes, call for a more complete and
  sustained monitoring of the oceans and coasts as the engine for the earth’s climate systems.
• Challenges of maintaining the quality and quantity of food and water for the US population and a rapidly growing global
  population will require improvements in our ability to predict weather, including drought and other conditions, based on
  ocean dynamics.
• Growth and dynamic change in the energy sector and in maritime transportation accentuate the need for the public and
  private sectors in the United States to understand ocean and coastal conditions as they relate to a transforming global
  economy and to ensure safe and efficient operations.
• A new dynamic of national and homeland security emphasizes that we must enhance our ability to monitor the oceans and
  detect change from natural phenomena.
• Increasing need for sustained marine ecosystem goods and services and the attendant societal benefits requires a robust
  infrastructure for biological, biogeochemical and ecological observations.
• The societal needs documented in the IOOS development efforts of prior years continue to be relevant to the U.S. national
  interest. Now, more than ever, the United States requires a sustained and integrated ocean observing system.

ACCOMPLISHMENTS IN THE LAST DECADE
1. The Integrated Ocean Observing System (IOOS) has matured significantly. And initial operational capability has been
   established and supporting real-time decision making. Federal law strongly supports IOOS and provides a governance
   framework for a federal/regional partnership with a unified policy and operational success.
2. Investments in in situ and remote observations have developed essential data and more reliable techniques and
   methodologies for monitoring conditions above and below the water’s surface.
3. Data have been made interoperable between diverse systems and data standards have been established so that data can
   now flow between federal and non-federal partners.
4. Communities of practice have developed around IOOS and its subsystems, and around regional responses to coastal
   information challenges, that have strengthened the ocean science contributions to addressing societal needs.
5. Abroad set of communities have been engaged in developing the value and need for an ocean observing system.
MOVING FORWARD - THE NEXT TEN YEARS

SYSTEM FOUNDATION
The basic foundation for a systematic approach to ocean observing has been established over the past ten years. An initial operational capability has been achieved. IOOS will continue to elaborate the design and execution of this system, to meet user requirements and achieve societal goals.

OBSERVING CAPABILITY
All IOOS components under-observe their target phenomena. IOOS could encompass requirements for deep ocean observing, biological and chemical variables, ecosystem variables, better integrate remote sensing, and seek to better meet spatial and temporal requirements for ocean data that would address user requirements.

TECHNOLOGY
IOOS will promote leading edge technological development capabilities. IOOS will incorporate emerging technologies, and apply due diligence to disruptive technologies, as a standard operating procedure. IOOS will foster the development of a workforce for the future, adept at using and furthering these technologies.

MODELING AND PREDICTIVE CAPABILITY
Modeling that is collaborative with the observing community will provide the foundation for user-specific ocean observing products. Improved and more sophisticated models will lead to more precise and accurate predictions to aid in making economic, environmental and societal decisions.

PARTNERSHIPS (INCLUDING INTERNATIONAL)
IOOS will continue to succeed as a collaborative effort among federal, state and tribal government agencies, regional partnerships, the academic community, and the private commercial and environmental communities. The U.S. collaborative will help to sustain global efforts, as well as derive understanding and context from parallel efforts around the globe.

USER COMMUNITIES
The demand for IOOS products and services will become more imperative as the requirements for addressing economic growth and stability, sea level rise and ocean acidification, and energy production become more urgent. User communities that stimulate demand will become a stronger focus of IOOS partnerships and governance.

FUNDING AND SPONSORSHIP
IOOS will continue to integrate observing, data management and communications and modeling of ocean parameters in a world characterized by stressed public resources. New approaches to product development and distribution, and overall system governance, need to consider a broadening of funding support for a system of systems.

November 16, 2012/Electronic Signatures Appended
Please send any revisions to declaration@ioos.us
Amb. David A. Balton
Deputy Assistant Secretary for Oceans and Fisheries, Bureau of Oceans and International Environmental and Scientific Affairs

Amb. David A. Balton is the Deputy Assistant Secretary for Oceans and Fisheries in the Bureau of Oceans and International Environmental and Scientific Affairs, U.S. Department of State. In March 2005, the President, with the consent of the Senate, accorded to Amb. Balton the rank of Ambassador during his tenure. Amb. Balton previously served for 6 years as Director of the Office of Marine Conservation in the Department of State. In that capacity, he was responsible for coordinating the development of U.S. foreign policy concerning living marine resources and overseeing U.S. participation in international organizations dealing with the conservation and management of these resources. He has functioned as the lead U.S. negotiator on a wide range of agreements in the field of oceans and fisheries and has chaired numerous international meetings. In 2009-10, he co-chaired an Arctic Council Task Force in negotiations on the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic.

Amb. Balton previously served for 6 years as Director of the Office of Marine Conservation in the Department of State and for 12 years in the Office of the Legal Adviser in the Department of State. His international law practice covered such areas as the law of the sea, human rights and international claims. Amb. Balton negotiated numerous treaties and other international agreements on fisheries, marine mammals and other matters pertaining to the marine environment.


Dr. Barbara Block
Professor and Researcher for Stanford University Hopkins Marine Station

Dr. Barbara A. Block holds the Charles and Elizabeth Prothro Professor Chair in Marine Sciences at Stanford University. She is a MacArthur Fellow, a Pew Marine Fellow for Marine Conservation and in 2012 has received the Rolex Award for Enterprise.

Professor Barbara A. Block was among the team that developed the original proposal to create the Center for Ocean Solutions. Block received her Ph.D. from Duke University. Her research is focused on how large pelagic fishes utilize the open ocean environment. Investigations of her lab center upon understanding the evolution of endothermic strategies in tunas, billfishes and sharks. Block and her colleagues investigate the cellular mechanisms underlying heat generation and force production in skeletal muscle, the evolution of endothermy, and the physiological ecology of tunas and billfishes. The research in the lab is interdisciplinary, combining physiology, ecology and genetics with oceanography and engineering.

Professor Block and colleagues at the Monterey Bay Aquarium have also established the Tuna Research and Conservation Center, a unique facility that permits physiological research on tunas. They are employing new techniques in wildlife telemetry and molecular genetics to directly examine the short and long-term movement patterns, stock structure and behavior of tunas and billfishes. The fish are highly exploited in international fisheries and effective management of existing biodiversity requires an understanding of their biology and population structure. The Block lab actively engages in research at sea to understand the movements and physiological ecology of tunas and billfishes and to gain insight into the selective advantage of endothermy in fishes.

Block and her colleagues are conducting research with a new type of remote telemetry device, called pop-up satellite archival tags. The tags are essentially computers that record navigational information, body temperature, depth and ambient temperature data. The information gained with these tags will improve our understanding of the biology of these species and increase our knowledge of stock structure. The successful implementation of the novel satellite and archival tag technology has provided marine researchers with new tools for studying inaccessible marine vertebrates.
Dr. Paul M. DiGiacomo

IOOS Summit Co-Chair and Chief of the Satellite Oceanography and Climatology Division in the NOAA/NESDIS Center for Satellite Applications and Research (STAR).

Previously, Dr. DiGiacomo was Chief of the Marine Ecosystems and Climate Branch in STAR, as well as the NOAA CoastWatch Program Manager. Prior to joining NOAA in 2006, Dr. DiGiacomo served as Supervisor of the Earth Missions Concepts Group at NASA’s Jet Propulsion Laboratory (JPL) in Pasadena, CA, as well as the Discipline Program Manager of the Carbon Cycle and Ecosystems Program Office at JPL.

Dr. DiGiacomo is a biological oceanographer, with particular interest in the remote sensing of coastal regions. He has a B.S. from Penn State University and a Ph.D. from UCLA, both in Biology, and subsequently was a National Research Council (NRC) Resident Research Associate at JPL. Dr. DiGiacomo is active in a number of national and international ocean observing working groups and panels, including previously serving as Co-Chair of the IGOS Coastal Theme and the Global Ocean Observing System (GOOS) Panel for Integrated Coastal Observations, and presently as Co-Chair of the Coastal Zone Community of Practice of the Global Earth Observing System of Systems (GEOSS). He also serves as the NOAA Representative to the International Ocean Colour Coordinating Group (IOCCG).

Vice Admiral Paul G. Gaffney II

President, Monmouth University, West Long Branch, New Jersey

Paul G. Gaffney II became the seventh president of Monmouth University in July 2003. President Gaffney, a retired Navy Vice Admiral, is a respected academic leader and proponent. He was president of the National Defense University from 2000 to 2003. Prior to assuming those duties, he was the Chief of Naval Research with responsibility for science and technology investment, a substantial part of which supported basic research in American universities. He was appointed to the statutory U.S. Ocean Policy Commission in July 2001, and served during its full tenure from 2001 to 2004.

His distinguished naval career spanned over three decades including duty at sea, overseas, and ashore in executive and command positions. He served in Japan, Vietnam, Spain, and Indonesia. While a military officer, his career focused on oceanography, research administration and education.

President Gaffney is a 1968 graduate of the U.S. Naval Academy. Upon graduation, he was selected for immediate graduate education and received a master’s degree in Ocean Engineering from Catholic University of America in Washington, D.C. He completed a year as a student and advanced research fellow at the Naval War College, graduating with highest distinction. He completed an M.B.A. at Jacksonville University. The University of South Carolina, Jacksonville University, and Catholic University have awarded him honorary doctorates.

He has been recognized with a number of military decorations, the Naval War College’s J. William Middendorf Prize for Strategic Research and a number of awards from civic organizations. He is a member of the National Academy of Engineering. He has served on several boards of higher education, and is honored on the Catholic University “Engineering Wall of Fame.” He serves on the Meridian Health Board of Trustees and is a director of Diamond Offshore Drilling, Inc.
Dr. Robert Gagosian  
President and CEO, Consortium for Ocean Leadership

In November of 2007, Robert B. Gagosian was appointed the first President & CEO of the Consortium for Ocean Leadership. As President, Gagosian oversees the management of major research and education programs, accounting for roughly $250 million. Gagosian also coordinates the community’s advocacy efforts, articulating to policy makers the importance of ocean research and education to the nation.

Prior to his work at Ocean Leadership, Gagosian served as Director of the Woods Hole Oceanographic Institution (WHOI). He joined WHOI as a marine geochemist in 1993 and his following 13 year tenure included five years as Chairman of the Chemistry Department, six years as WHOI Director of Research and two as Senior Associate Director.

A Massachusetts native, Gagosian attended Massachusetts Institute of Technology, where he completed a bachelor’s degree in chemistry in 1966 and was named outstanding undergraduate in the Chemistry Department. He then received his Ph.D. from Columbia University in organic chemistry in 1970. From 1970 to 1972, he was a National Institutes of Health Postdoctoral Fellow at the University of California, Berkeley.

Dave Jones  
Founder, President and CEO, StormCenter Communications, Inc., Principal Investigator, NASA Applied Sciences Program

As Founder, President and CEO of StormCenter Communications, Inc. Dave has built the company to become the leader in real-time data sharing through collaborative cloud-computing technologies and holds a coveted SBIR Phase II Contract (Small Business Innovation Research) that opens the doors for any Federal agency to work with StormCenter to implement its technologies immediately.

In 2009, Dave was selected to receive the AGU & ESIP Federation Charles Falkenberg Award - The award is given to a scientist under the age of 45 who has contributed to the quality of life, economic opportunities and stewardship of the planet through the use of earth science information and to the public awareness of the importance of understanding our planet.

Prior to forming StormCenter Communications in 2001, Dave was an on-air meteorologist for NBC4 in Washington, DC for nearly a decade. Dave was the primary meteorologist for the weekend evening newscasts and also filled in for Chief Meteorologist Bob Ryan when needed. Dave also anchored the weather segments periodically on NBC’s Today Show as well as NBC Asia and NBC Europe in the mid 1990’s. While at NBC, Dave conceived of and won funding from NASA to create the nation’s first television news weather website, WeatherNet4 which paved the way for use of the Internet throughout television news and weather.

Dave received his BS degree in Physical Sciences with a major in Meteorology and minors in math and computer science from the University of Maryland in 1987.
Dr. Eric Lindstrom
IOOS Summit Co-Chair and Physical Oceanography Program Scientist, NASA Headquarters

Dr. Eric Lindstrom is Physical Oceanography Program Scientist in the Science Mission Directorate at NASA Headquarters in Washington D.C. He is Program Scientist for the QuikSCAT, Jason, Jason-2, Jason-3, SWOT and Aquarius satellite missions and is the leader for Earth Science Division Climate Focus Area. He initiated NASA’s Earth science organization around variable-based rather than mission-based science teams leading to long-term support for ocean surface winds, ocean surface topography, sea surface temperature, and sea surface salinity research.

Dr. Lindstrom has degrees in Earth and Planetary Sciences from Massachusetts Institute of Technology (1977) and Physical Oceanography from University of Washington (1983). His scientific interests include the circulation of the ocean and air-sea exchange processes.

Under Dr. Lindstrom’s leadership the NASA Physical Oceanography program has become a more active participant with other US agencies in developing the integrated global ocean observing systems of the future. He is co-chair of the Co-chair of the US Interagency Ocean Observations Committee (IOOC). In recent years he has served as chairman of the international Ocean Observations Panel for Climate (OOPC) of the Global Climate Observing System (GCOS) and now co-chairs the international Global Ocean Observing System (GOOS) Steering Committee.

Dr. J. Ru Morrison
IOOS Summit Co-Chair and Executive Director NERACOOS

J. Ruairidh (Ru) Morrison is the Executive Director of NERACOOS, the Northeastern Regional Association of Coastal Ocean Observing Systems, one of the eleven regions of the U.S. Integrated Ocean Observing Systems (IOOS®). He received his Ph.D. from the University of Wales, Bangor in 1999 and since then has worked at the Bermuda Biological Station for Research, the Woods Hole Oceanographic Institution, and the University of New Hampshire where he retains an affiliate faculty position. His research background is in optical oceanography, ocean color remote sensing, and observing systems.

Dr. Morrison believes that sharing and communicating scientific knowledge with policy makers and educational communities is essential. He is a member of a number of regional, national, and international organizations including being vice chair of the National Federation of Regional Associations of Coastal and Ocean Observing, a councilor on the bi-national Gulf of Maine Council on the Marine Environment, a member of the Interagency Ocean Observing Committee Data Management and Communications steering team, and is a participant in working groups for the International Council for Exploration of the Sea and the Group on Earth Observations.
Dr. Jan Newton

IOOS Summit Co Chair and Principal Oceanographer with the Applied Physics Laboratory of the University of Washington

Dr. Jan Newton is a Principal Oceanographer with the Applied Physics Laboratory of the University of Washington and affiliate faculty with the UW School of Oceanography and School of Marine and Environmental Affairs. A biological oceanographer (Ph.D. 1989), her research has focused on a systems view of marine ecosystems, spanning estuaries, Puget Sound, the outer Pacific Northwest coast, and the open Pacific Ocean, to assess factors such as human and climate forcing on water properties and primary productivity of these systems. Recent research interests include hypoxia and ocean acidification.

Dr. Newton is the Executive Director for the Northwest Association of Networked Ocean Observing Systems (NANOOS), the U.S. Integrated and Sustained Ocean Observing System (IOOS) regional association for the Pacific Northwest. With NANOOS she aims to optimize regional coastal ocean observing infrastructure and increase the availability and usability of coastal ocean data. Dr. Newton is involved with several regional, national and international coastal/estuarine observing and assessment efforts, including appointments to the WA Governor’s Blue Ribbon Panel on Ocean Acidification, Puget Sound Partnership Science Panel, Alliance for Coastal Technologies (ACT) Advisory Council, Joint European Research Infrastructure network for Coastal Observatories (JERICO) Scientific Advisory Board, and briefings to the Washington State Legislature.

Dr. Dail Rowe

Regional Manager, WeatherPredict Providence Office

Dr. Rowe is responsible for leading a team of WeatherPredict scientists focused on hurricane risk assessment and forecasting, and works closely with clients managing their exposure to hurricane risk. Dr. Rowe joined WeatherPredict’s predecessor organization as a senior research scientist in 1999 and has assumed positions of increasing responsibility since that time, including serving as an integral part of WeatherPredict’s atmospheric and oceanic research and development efforts. Dr. Rowe is a principal contributor to many WeatherPredict initiatives including real-time tropical cyclone prediction, simulation of historical tropical cyclone events, assessment of risk from tropical cyclones and extratropical storms, and research into climatological control of catastrophic weather including tropical cyclones, tornados and winter storms.

Dr. Rowe has over fifteen years of experience as an oceanographer and meteorologist including several years as a scientist at the University of Hawaii, where his research focused on the western Pacific warm-pool and near-equatorial currents in the broader tropical Pacific. Dr. Rowe holds a B.S. in Physics from Guilford College and a Ph.D. in Physical Oceanography from the University of Rhode Island.
Dr. Rick Spinrad
Chair of the IOOS Federal Advisory Committee and Vice President for Research, Oregon State University

Dr. Richard W. (Rick) Spinrad became Vice President for Research at Oregon State University (OSU) in July of 2010. Prior to this role, he served as Assistant Administrator for research for NOAA, in Washington, D.C. As NOAA’s Assistant Administrator for research, Spinrad directed the agency’s programs in oceanography, atmospheric science and climate from 2005-2010. He directly supervised several of NOAA’s high-profile research efforts, including ocean exploration, the National Sea Grant College Program and the Climate Program Office, as well as seven NOAA laboratories around the United States.

Among his accomplishments, Spinrad led the White House Committee that developed the nation’s first set of ocean research priorities and oversaw the revamping of NOAA’s research enterprise. He also developed the National Ocean Sciences Bowl, for high school students, while serving as the Executive Director of the Consortium for Oceanographic Research and Education, with ADM James D. Watkins (USN, Ret.).

Spinrad spent two years as NOAA’s Assistant Administrator for Oceanic Services and Coastal Zone Management, directing the agency’s navigation services, including the National Geodetic Survey, the National Marine Sanctuaries Program and the Office of Coastal Resource Management. As part of his duties, he represented American interests in the establishment of a global tsunami warning system, as U.S. permanent representative to the Intergovernmental Oceanographic Commission of UNESCO.

In addition to his NOAA stint, Spinrad has served as a research director with the U.S. Office of Naval Research, was the Technical Director for the Oceanographer of the Navy, taught at two universities (U.S. Naval Academy and George Mason University), directed a major national non-profit organization, presided over a private company and worked as a research scientist (with over 50 publications). Spinrad is the recipient of Presidential Rank Awards from Presidents George W. Bush and Barack H. Obama and the Distinguished Civilian Service Award from the Department of the Navy. He is a past President of The Oceanography Society and is a Fellow of three professional societies. Dr. Spinrad is an alumnus of The Johns Hopkins University and Oregon State University.
Dr. Kathryn D. Sullivan

Assistant Secretary of Commerce for Environmental Observation and Prediction and Deputy Administrator for the National Oceanic and Atmospheric Administration (NOAA)

On May 2, 2011, Dr. Sullivan was appointed by President Obama as assistant secretary of commerce for environmental observation and prediction and deputy administrator for the National Oceanic and Atmospheric Administration (NOAA). She is also performing the duties of NOAA’s chief scientist. She is a distinguished scientist, renowned astronaut and intrepid explorer. Dr. Sullivan was appointed NOAA’s chief scientist in 1993, where she oversaw a research and technology portfolio that included fisheries biology, climate change, satellite instrumentation and marine biodiversity.

Dr. Sullivan was the inaugural director of the Battelle Center for Mathematics and Science Education Policy in the John Glenn School of Public Affairs at Ohio State University. Prior to joining Ohio State, she served a decade as President and CEO of the Center of Science and Industry (COSI) in Columbus, Ohio, one of the nation’s leading science museums. Dr. Sullivan joined COSI after three years’ service as Chief Scientist.

Dr. Sullivan was one of the first six women selected to join the NASA astronaut corps in 1978 and holds the distinction of being the first American woman to walk in space. She flew on three shuttle missions during her 15-year tenure, including the mission that deployed the Hubble Space Telescope. Dr. Sullivan has also served on the National Science Board (2004-2010) and as an oceanographer in the U.S. Navy Reserve (1988-2006).

Dr. Sullivan holds a bachelor’s degree in earth sciences from the University of California at Santa Cruz and a doctorate in geology from Dalhousie University in Canada.

Rear Admiral Jonathan W. White

Oceanographer and Navigator of the Navy, Director, Space and Maritime Domain Awareness, (OPNAV N2/N6E)

Rear Adm. White earned a Bachelor of Science degree in Oceanographic Technology from the Florida Institute of Technology in 1981 and holds a master’s degree in Meteorology and Oceanography from the U.S. Naval Postgraduate School. After working at sea as a civilian oceanographer on board a seismic survey vessel, he was commissioned through Navy Officer Candidate School in 1983, and assigned as a surface warfare officer to USS John L. Hall (FFG 32) in Mayport, Fla.

White joined the oceanography community in 1987. Since then, he has had operational shore assignments at Jacksonville, Fla.; Guam; Monterey, Calif.; and, Stuttgart, Germany, where his joint duty included Special Operations Command Europe, and strike plans officer for U.S. European Command during Operation Allied Force in Kosovo and Serbia. White commanded Naval Training Meteorology and Oceanography Facility, Pensacola, Fla., and was the 50th superintendent of the United States Naval Observatory.

White’s sea tours as a naval oceanographer include commander, Cruiser Destroyer Group 12 where he completed deployments on board USS Saratoga (CV 60), and USS Wasp (LHD 1). White was selected as a flag officer and honorary chief petty officer in 2009 and served as Commander, Naval Meteorology and Oceanography Command. He was promoted to the rank of rear admiral (upper half) in August 2012 as he assumed his current duties, which include director, Task Force Climate Change, and Navy deputy to National Oceanic and Atmospheric Administration.

White wears numerous personal and unit awards, which are all a tribute to the Sailors, Marines, Airmen, Soldiers, Coast Guardsmen, and civilians he has served alongside throughout his career.
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National Oceanic and Atmospheric Administration

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Northwest Association of Networked Ocean Observing Systems

Andrechik, Jon
United States Coast Guard

Anderson, Don
Woods Hole Oceanographic Institute

Atkinson, Larry
Old Dominion University

Balton, David
State Department

Bamford, Holly
National Oceanic and Atmospheric Administration

Baringer, Molly
National Oceanic and Atmospheric Administration

Barth, Jack
Oregon State University

Barton, Alan
Whiskey Creek

Bayler, Eric
National Oceanic and Atmospheric Administration

Beardsley, Bob
Northeastern Regional Association of Coastal Ocean Observing Systems

Berkson, Jonathon
United States Coast Guard

Block, Barbara
Stanford

Boatman, Jerry
Marine Technology Society

Boda, Ken
United States Coast Guard

Boicourt, Bill
Mid-Atlantic Regional Association for Coastal Ocean Observing Systems

Bontempi, Paula
National Aeronautics and Space Administration

Bourassa, Mark
Florida State University

Bowen, Bob
University of Massachusetts

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National Science Foundation

Bruno, Michael
Stevens Institute of Technology

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United States Navy

Caldwell, Meg
Center for Ocean Solutions

Callender, Russell
National Oceanic and Atmospheric Administration

Canonico, Gabrielle
IOOS Program Office

Casey, Ken
National Oceanic and Atmospheric Administration

Chao, Yi
Remote Sensing Solutions

Chase, Tom
Coasts, Oceans, Ports and Rivers Institute

Chesnutt, Charly
United States Corps of Army Engineers

Clark, Candyce
National Oceanic and Atmospheric Administration

Clemente-Colon, Pablo
National Oceanic and Atmospheric Administration

Cleveland, Joan
Office of Naval Research

Codiga, Dan
University of Rhode Island

Cofer, William
Hampton Roads Pilots

Cohen, Chris
Scripps Institution of Oceanography

Cole, Rick
RDSEA International

Colleton, Nancy
Institute for Global Environmental Strategies

Colton, Marie
National Oceanic and Atmospheric Administration

Coon, Cathy
Bureau of Ocean Energy Management

Cooper, Cort
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Corredor, Jorge
Caribbean Regional Association for Coastal Ocean Observing

Costa, Dan
Central and Northern California Ocean Observing System

Courtney, Fara
United States Offshore Wind Collaborative

Crane, Kathy
National Oceanic and Atmospheric Administration

Curtin, Tom
Institute for Adaptive Systems

Curtis, William
United States Army Corps of Engineers

DeClerck, Alan
Liquid Robotics

Dewey, Bill
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DiGiacomo, Paul
National Oceanic and Atmospheric Administration

Dodge, Richard
Southeast Coastal Ocean Observing Regional Association

Dohah, Kathleen
Earth and Space Research

Dunnigan, Jack
United States Corp of Army Engineers

Easter, Dave
IOOS Program Office

Edwing, Rich
National Oceanic and Atmospheric Administration

Erickson, Mary
National Oceanic and Atmospheric Administration

Ewald, Jennifer
Bureau of Ocean Energy Management

Fairall, Christopher
National Oceanic and Atmospheric Administration

Feely, Dick
National Oceanic and Atmospheric Administration

Fitch, Robin
United States Navy

Foltz, Gregory
National Oceanic and Atmospheric Administration

Forbwall, Mark
US Geological Survey

Friedman, Brian
Government Accountability Office

Gaffney, Paul
Monmouth University

Gagosian, Bob
Consortium for Ocean Leadership

Garcia, Martha
United States Geological Survey

Gedamke, Jason
National Oceanic and Atmospheric Administration

Glenn, Scott
Mid-Atlantic Regional Association for Coastal Ocean Observing Systems

Glover, Linda
GloverWorks Consulting

Goldberg, Stuart
Consortium for Ocean Leadership

Goni, Gustavo
National Oceanic and Atmospheric Administration

Gouldman, Carl
National Oceanic and Atmospheric Administration

Gregg, Margarita
National Oceanic and Atmospheric Administration

Gulbransen, Tom
IOOS Advisory Committee

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United States Geological Survey

Hanson, Alfred
Northeastern Regional Association of Coastal Ocean Observing Systems

Harper, Scott
Office of Naval Research

Harris, Jennifer
Ecology and Environment, Inc.

Harrison, Ed
National Oceanic and Atmospheric Administration

He, Ruoying
North Carolina State University
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Hernandez, Debra
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Office of Naval Research

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Woods Hole Oceanographic Institute

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Applied Science Associates

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Johengen, Tom
University of Michigan

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Bureau of Ocean Energy Management

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Storm Center Communications

Keever, Jeff, Director
VA Port Authority

Kelly, Ed
Mid-Atlantic Regional Association for Coastal Ocean Observing Systems

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National Oceanic and Atmospheric Administration

Kerkering, Heather
Pacific Islands Ocean Observing System

Key, Erica
National Science Foundation

King, Bob
Senate (Begich)

Kite-Powell, Hauke
Woods Hole Oceanographic Institute

Kohut, Josh
Rutgers

Kosro, Mike
Northwest Association of Networked Ocean Observing Systems

Kudela, Raphael
Central and Northern California Ocean Observing System

Kuester, Scott
National Oceanic and Atmospheric Administration

Kurdna, Frank
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Kuska, Gerhard
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LaBelle, Robert
Bureau of Ocean Energy Management

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Senate (Whitehouse)

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Jet Propulsion Laboratory

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Southeast Coastal Ocean Observing Regional Association

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Lorhzenz, Steve
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National Oceanic and Atmospheric Administration

Matsumoto, George
Monterey Bay Aquarium Research Institute

McCammon, Molly
Alaska Ocean Observing System

McCurdy, Andrea
Consortium for Ocean Leadership

McGovern, Andrew
Sandy Hook Pilots Assn.

McManus, Liana
University of Miami

Melzian, Brian
United States Environmental Protection Agency

Miller, Jerry
Office of Science and Technology Policy

Mils, Dave
UK Integrated Marine Observing Network

Mooers, Chris
Portland State University

Morrell, Julio
Caribbean Regional Association for Coastal Ocean Observing

Morrison, Ru
Northeastern Regional Association of Coastal Ocean Observing Systems

Moustahfid, Hassan
National Oceanic and Atmospheric Administration

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University of South Florida

Newton, Jan
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The Nature Conservancy

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University of Connecticut

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Osgood, Kenric
National Oceanic and Atmospheric Administration

Ostrander, Chris
Pacific Islands Ocean Observing System

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National Oceanic and Atmospheric Administration

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Southeast Coastal Ocean Observing Regional Association

Potemra, Jim
Pacific Islands Ocean Observing System

Price, Holly
Monterey Bay Aquarium Research Institute

Prothro, Elizabeth
Stanford University

Quintrell, Josie
National Federation of Regional Associations for Ocean Observing

Rabalais, Nancy
Gulf of Mexico Coastal Ocean Observing System
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University Corporation for Atmospheric Research

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Rhoades, Jennifer
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Roffer, Mitch
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Rodgers, Maggie
Cleveland Water District

Rome, Nick
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Rosenfeld, Leslie
Central and Northern California Ocean Observing System

Rossby, Thomas
University of Rhode Island

Rudnick, Daniel
Scripps Institution of Oceanography

Sanford, Dave
American Association of Port Authorities

Schuchat, Samuel
California State Coastal Conservancy

Schultz, Gwynne
Maryland Department of Natural Resources

Schumacker, Joe
Northwest Association of Networked Ocean Observing Systems

Seggarra, Kate
Joint Chiefs of Staff

Seim, Harvey
University of North Carolina

Send, Uwe
Scripps Institution of Oceanography

Sheng, Peter
University of Miami

Shuford, Becky
National Oceanic and Atmospheric Administration

Shyka, Tom
Northeastern Regional Association of Coastal Ocean Observing Systems

Signell, Rich
United States Geological Survey

Simmons, Samantha
Marine Mammal Commission

Simioniello, Chris
Gulf of Mexico Coastal Ocean Observing System

Simonson, Adrienne
DOC

Slaughter, CAPT John
United States Coast Guard

Snowden, Derrick
National Oceanic and Atmospheric Administration

Snowden, Jessica
IOOS Program Office

Soloviev, Alexander
Nova SE

Spinrad, Rick
Oregon State University

Subramanian, Yembali
Southeast Coastal Ocean Observing Regional Association

Sullivan, Kathy
National Oceanic and Atmospheric Administration

Swaykos, Joseph
National Oceanic and Atmospheric Administration

Taylor, Brian
Pacific Islands Ocean Observing System

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Chouest.com

Terrill, Eric
Southern California Coastal Ocean Observing System

Teutschel, Nicole
Senate (Cantwell)

Thomas, Julie
Southern California Coastal Ocean Observing System

Thoroughgood, Carolyn
Mid-Atlantic Regional Association for Coastal Ocean Observing Systems

Thurston, Sid
National Oceanic and Atmospheric Administration

Tilman, Craig
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Science Applications International Corporation

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Williams, Danielle
Scripps Institute of Oceanography

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Wolfe, Brett
United States Fish and Wildlife Service

Woll, Steve
Weather Flow

Yapalater, Jeff
Recreational Tuna Fishermen

Young, Josh
Interagency Ocean Observing Committee
Evening Receptions
On Tuesday, November 13th and Wednesday, November 14th there will be evening receptions immediately following the last session of the day. The receptions will held in the restaurant in the hotel lobby. There will be a cash bar and complimentary hor d’oeuvres will be served.

Hotel Shuttle
Schedule and pick-up locations for the complimentary IOOS 2012 Summit shuttle. If you are not staying at the Hyatt and plan to take the shuttle, please have your conference ID to identify yourself as an IOOS Summit attendee.

Shuttle to Reston Town Center from Hyatt Dulles
Pick-up Location: Hotel Lobby
Pick-up Times: The IOOS 2012 Summit shuttle will pick guests up approximately every hour beginning at 5:30pm. The last shuttle will depart at 9:30pm. A Hyatt Dulles courtesy shuttle will also provide pick up at 6:45 and 8:45pm.

Shuttle to Hyatt Dulles from Reston Town Center
Pick-up Location: Hyatt Regency Reston Hotel entrance on Discovery Street, across from M&S Grill
Pick-up Times: The IOOS 2012 Summit shuttle will pick up approximately every hour beginning at 6:00pm. The last shuttle will depart at 10:00pm. A Hyatt Dulles courtesy shuttle will also pick up from the same location at Reston Town Center at 7:00pm and 9:00pm.

A taxi cab can also be taken to the Reston Town Center for approximately $15.00 each way.

Internet Access
Internet Access is complimentary in your guest rooms as well as the hotel lobby (adjacent to the meeting space). In the conference rooms, there is a $10 per day charge should you need to access the Internet and is payable via credit card. There is also a complimentary business center with Internet capabilities.
Hyatt Dulles
At Dulles International Airport

DIRECTIONS
From Dulles International Airport (two miles): Take Exit 9A, Route 28 South to first stop light. Turn left on Frying Pan Rd. Go half mile. Turn left on Sunrise Valley Drive. Go one mile. Turn left onto Dulles Corner Blvd. Hotel is on right.

From National Airport (30 minutes): Exit onto George Washington Pkwy. Go to I-66 West. Take Exit 67, Dulles Toll Rd West (Rt 267). Take Exit 10 (Herndon / Chantilly). Turn left onto Centreville Rd. Go to Sunrise Valley Drive. Turn right. Hotel is 1 ½ miles on right.
A VERY SPECIAL THANKS TO OUR ORGANIZERS:

Summit Co-Chairs
Paul DiGiacomo
National Oceanic and Atmospheric Administration
Eric Lindstrom
National Aeronautics and Space Administration
Ru Morrison
Northeastern Regional Association of Coastal and Ocean Observing Systems
Jan Newton
Northwest Association of Networked Ocean Observing Systems

Steering Committee
Larry Atkinson
Old Dominion University
Bill Birkemeier
United States Army Corps of Engineers
Nancy Colleton
Institute for Global Environmental Strategies
Jack Dunnigan
United States Army Corps of Engineers
Carl Gouldman
United States Integrated Ocean Observing System
Alex Isern
National Science Foundation

Chapter Writing Groups
Chapter 1: A Vision for the Future
Margaret Davidson
National Oceanic and Atmospheric Administration
Jack Dunnigan
United States Army Corps of Engineers
Dave Jones
StormCenter Communications Inc.
David Martin
University of Washington
Rick Spinrad (Lead)
Oregon State University

Chapter 2: Progress during the Past Decade
Jack Dunnigan
United States Army Corps of Engineers
Kate Lambert
United States Integrated Ocean Observing System
David Martin (Lead)
University of Washington
Zdenka Willis (Lead)
United States Integrated Ocean Observing System

Chapter 3: User Engagement and Requirements
Richard Croutrans
National Oceanic and Atmospheric Administration
Debra Hernandez (Lead)
Southeast Coastal Ocean Observing Regional Association
Ann Jochens
Gulf of Mexico Coastal Ocean Observing System
Ralph Rayner
Interagency Ocean Observation Committee
Ray Toll
Science Applications International Corporation
Steve Weisberg
Southern California Coastal Water Research Project
Cara Wilson (Lead)
National Oceanic and Atmospheric Administration