



The 2013 Public Policy Forum
**THE ECONOMIES OF
A CHANGING OCEAN**

March 6, 2013, *Reserve Officers Association Building
Capitol Hill, 1 Constitution Ave NE, Washington, D.C.*



Welcome to the Consortium for Ocean Leadership's Public Policy Forum



I would like to welcome all of you to the Consortium for Ocean Leadership's 2013 Public Policy Forum, *Economies of a Changing Ocean*. We have organized an exciting meeting allowing for participation from all of our attendees in the ocean community, industry, and government. We are pleased that you are here to engage in discussions with each of our panel speakers and the Consortium for Ocean Leadership about these vital ocean issues.

This forum offers an important opportunity to discuss the most pressing national issues of the day, including coastal inundation threats to our economy and security, ocean acidification impacts on sustainable seafood production, and economic impacts of a changing Arctic. Our country's ocean and coastal economies generated around \$102 billion and \$6 trillion in wages, respectively, in 2010. Facing challenges and threats to our ocean and coastal economies is important to all Americans and science plays an important role in mitigating those impacts.

Ocean Leadership will post much of the valuable information generated during this forum on our web site, www.oceanleadership.org. And, if you have any questions about the Public Policy Forum, don't hesitate to contact us.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert B. Gagosian". The signature is stylized and fluid.

Robert B. Gagosian, Ph.D.
President & CEO
Consortium for Ocean Leadership



2013 Public Policy Forum Agenda

THE ECONOMIES OF A CHANGING OCEAN

Reserve Officers Association Building • Wednesday, March 6, 2013

9:00 AM *Breakfast*

9:30 AM Welcome Remarks

Bob Gagosian, President and CEO of Consortium for Ocean Leadership

10:00 AM Representative Alan Lowenthal (D- CA 47)

10:15 AM Coastal Inundation Threats to our Nation's Economy and Security

- Sherri Goodman – Moderator – Center for Naval Analysis
- Larry Atkinson – Old Dominion University
- Frank Nutter – Reinsurers Association
- Margaret Davidson – NOAA's Office of Ocean and Coastal Resource Management
- Dave Jansen – House Transportation and Infrastructure Committee

11:45AM Rear Admiral Jonathan W. White (Oceanographer and Navigator of the Navy; Director, Space and Maritime Domain Awareness)

Update on U.S. Navy's Task Force on Climate Change Activities

12:15 PM *Lunch*

1:15 PM Senator Lisa Murkowski (R-AK)

Recipient of Ocean Leadership's Admiral James D. Watkins Award

1:45 PM Ocean Acidification Impacts on Sustainable Seafood Production

- Mark Abbott – Moderator – Oregon State University
- George Waldbusser – Oregon State University
- Libby Jewett – NOAA's Ocean Acidification Program
- Mark Wiegardt – Whisky Creek Shellfish Hatchery
- Catherine Barrett – Senate Commerce Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard

3:15 PM *Break*

3:45 PM Senator Mark Begich (D-AK)

Recipient of Ocean Leadership's Admiral James D. Watkins Award

4:00 PM Representative Rob Wittman (R-VA 1)

4:15 PM Economic Opportunities and Impacts in a changing Arctic

- John Farrell – Moderator – U.S. Arctic Research Commission
- Brendan Kelly – White House Office of Science and Technology Policy
- Frank Herr – Office of Naval Research
- Michael Kearns – National Ocean Industries Association
- Joel Clement – Department of Interior
- Bill Mowitt – Office of Senator Mark Begich (D-AK)

5:45 PM Closing Remarks and Adjourn

Bob Gagosian, President of Ocean Leadership

6:00 PM Reception – Senate Russell Office Building, Room 253

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FEATURED SPEAKERS

Representative Alan Lowenthal (D-CA-47)



Congressman Lowenthal (D-CA 47) is currently the U.S. House Representative of California's newly-created 47th Congressional District, which includes portions of Long Beach, Signal Hill, Lakewood, Cypress, Los Alamitos, Rossmoor, Garden Grove, Westminster, Stanton, and Buena Park.

As a city council member, and then as a state legislator, the Congressman fought against the then-commonplace private and public sector belief that environmental protections and economic success at the ports of Long Beach and Los Angeles were mutually exclusive. His landmark environmental legislative efforts helped lead the two adjacent ports becoming the cleanest and greenest ports in the world, while remaining the busiest and most successful container ports in the Western Hemisphere. The green business model advocated by the Congressman instituted by the two ports has become a role model for ports throughout the world. While a State Assembly member, and as a founding member of the Assembly's Bipartisan Caucus, he paved the way for creation of California's first ever independent Citizens Redistricting Commission, which took the power of redistricting out of the hands of politicians and gave it back to the people.

In addition, the Congressman championed the College Promise Partnership Act to help K-12 students better transition to college. The passage of his Student Success Act also helped higher education students by introducing significant reforms to the state community college system that focused on increasing graduation and transfer rates.

Born March 8, 1941, Congressman Alan Lowenthal was raised in the Queens Borough of New York City. After earning his Bachelor's Degree from Hobart and William Smith Colleges and his Ph.D. from Ohio State University, he moved to Long Beach, California in 1969 where he taught Community Psychology at California State University, Long Beach until 1998.

Rear Admiral Jonathan W. White



Rear Adm. White was born in Panama City, Fla. His father was a World War II Army Air Corps veteran and Purple Heart recipient; his mother supported the war through her work in Oak Ridge, Tenn. 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.

Senator Lisa Murkowski (R-AK)



Senator Murkowski (R-AK) is a third-generation Alaskan who has served in the U.S. Senate since 2002. Murkowski is the Ranking Member on the Senate Committee on Energy and Natural Resources, and also serves on the Committee on Appropriations. Within the Committee on Appropriations, she is the Ranking Member of the Subcommittee on Interior,

Environment and Related Agencies. Murkowski earned her Bachelor of Arts in Economics from Georgetown University in 1980, and her J.D. from Willamette University in 1985. Prior to serving in the Senate, she practiced commercial law in Anchorage and served for four years in the Alaska State House of Representatives. While Murkowski is a strong supporter and sponsor of energy efficiency efforts and the development of alternative energy technologies, she also believes in developing the nation's traditional energy resources. She has introduced legislation to promote development of oil and natural gas in the coastal plain of the Arctic National Wildlife Refuge (ANWR) as well as America's outer continental shelf.

Senator Mark Begich (D-AK)



Senator Begich (D-AK) was elected to the U.S. Senate in November 2008 after serving as the Mayor of Anchorage since April 2003. This is his third year representing Alaska in the U.S. Senate. Born and raised in Anchorage, Senator Begich's priorities include focusing on a national energy policy that includes Alaska's oil and gas resources, an Alaska natural gas pipeline and the many renewable resources in Alaska. He was recently named chairman of the Subcommittee on Oceans, Fisheries and the Coast Guard, under the Senate Committee on Science, Commerce and Transportation, which has broad jurisdiction over important Alaska issues. With Alaska at "ground-zero" of global climate change, he has introduced the Inuvikput Package, seven pieces of legislation designed to help Alaska and the nation adapt to new challenges and opportunities due to the diminishing polar ice pack. A businessman for more than 20 years, Senator Begich is bringing his business acumen to the work in the Senate. His extensive experience in public office, along with service to dozens of non-profits and community groups, all add to his know-how and ability to get things done.

Representative Rob Wittman (R-VA-1)



Representative Wittman (R-VA-1) was first elected to serve the First Congressional District of Virginia, America's First District, in December of 2007. He was re-elected for his third full term in the House of Representatives in November 2012. For more than 20 years, Rob has served in several levels of government, from Montross Town Council to United States Congress.

Rob won his first campaign for public office in 1986 when he was elected to the Montross Town Council, where he served for 10 years, four of them as Mayor. In 1995, Rob was elected to the Westmoreland County Board of Supervisors and was elected its Chairman in 2003. In 2005, voters in the 99th Legislative District elected Rob to the Virginia House of Delegates, where he served until he was elected to the United States House of Representatives in 2007.

In the U.S. Congress, Rob serves on the House Armed Services Committee and the Committee on Natural Resources, where he is well-positioned to represent the needs of Virginia's First District. As a member of the House Committee on Natural Resources, Rob brings his professional expertise in water quality, fisheries, and other natural resource issues. He is a champion of the Chesapeake Bay -- for its environmental and economic attributes -- and has introduced legislation that will increase the accountability and effectiveness of cleaning up the Bay. He serves as co-chair of the Chesapeake Bay Watershed Caucus, which brings Bay issues into focus for Members of Congress.

Prior to his election to Congress, Rob spent 26 years working in state government, most recently as Field Director for the Virginia Health Department's Division of Shellfish Sanitation. Earlier, he worked for many years as an environmental health specialist for local health departments in Virginia's Northern Neck and Middle Peninsula regions. He holds a Ph.D. in Public Policy and Administration from Virginia Commonwealth University, a Master of Public Health degree in Health Policy and Administration from the University of North Carolina, and a Bachelor of Science degree in Biology from Virginia Tech.

PANEL 1: COASTAL INUNDATION THREATS TO OUR NATION'S ECONOMY AND SECURITY

Sherri Goodman



Sherri W. Goodman is Senior Vice President, General Counsel, and Corporate Secretary of Center for Naval Analysis (CNA), an American non-profit organization providing research, analyses, and policy recommendations for national security and public sector leaders. She is also the Executive Director of CNA's Military Advisory Board, which she founded in 2006, and which is noteworthy for issuing some of the earliest reports establishing climate change as a national security concern.

Prior to joining the CNA in 2001, Goodman served as Deputy Undersecretary of Defense for Environmental Security, from 1993-2001. From 1987-90, Goodman served on the staff of the Senate Armed Services Committee, working for Committee Chairman Senator Sam Nunn. Her responsibilities included oversight of the United States Department of Energy's nuclear weapons research, development, production and environmental remediation, as well as ratification of nuclear arms control treaties. Prior to her public service, Goodman practiced law at Goodwin Procter and worked as a defense analyst at RAND and SAIC.

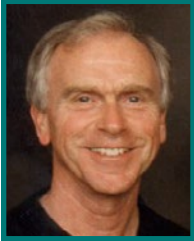
She received her Bachelor of Arts summa cum laude from Amherst College, after which she earned a J.D. cum laude from the Harvard Law School and a Masters in Public Policy from Harvard's John F. Kennedy School of Government. Goodman serves on the boards of the Atlantic Council of the U.S., the Energy & Environmental Systems Board of the National Academy of Sciences, the Marshall Legacy Institute, the Woods Hole Oceanographic Institution, Blue Star Families, and the Committee on Conscience of the U.S. Holocaust Museum. Goodman also serves on the Alliance Commission on National Energy Efficiency Policy, the Joint Ocean Commission Leadership Council, and the Responsibility to Protect Working Group co-chaired by former Secretary of State Madeleine Albright.

Dr. Larry Atkinson



Dr. Larry P. Atkinson is the Samuel and Fay Slover Professor of Oceanography in the Department of Ocean, Earth and Atmospheric Sciences at Old Dominion University. He received his Bachelor of Science and Master of Science in 1964 and 1967, respectively, from the University of Washington in Seattle. He received his Ph. D. from Dalhousie University in Halifax, Canada in 1972. Prior to joining the faculty at Old Dominion University he was at the Skidaway Institute of Oceanography in Savannah Georgia. He is a member of the Oceanography Society, the American Meteorological Society, the Marine Technology Society and the American Association for the Advancement of Science (AAAS). He is a Fellow of the AAAS. He was editor of *Oceanography* (1993-1997) and Editor (1988 - 1990) and Senior Editor of *Journal of Geophysical Research - Oceans* (1990-1992). He is the author or co-author of over 90 reviewed publications. He has served on and was chair of the Department of Interior Science Advisory Committee for Outer Continental Shelf oil and gas production. He was chair of a national committee coordinating replacement of the fleet of oceanographic research ships in the US. From 2001 to 2004 he was with the inter-agency Ocean.US office creating the integrated ocean observing system for the US. He is now Director of the Old Dominion University Climate Change and Sea Level Rise Initiative and publishes on sea level rise and increased flooding risk.

Frank Nutter



Frank Nutter has been president of the Reinsurance Association of America (RAA) since 1991. He held the same position with the RAA from 1981-1984. In the interim, he was president of the Alliance of American Insurers and the Property Loss Research Bureau.

Nutter currently serves on multiple boards, including the Advisory Board of the Center for Health and the Global Environment, an adjunct to the Harvard University School of Public Health; and the Advisory Board of the OECD's International Network for the Financial Management of Large Scale Disasters. He has also served on the Council of the American Meteorological Society; the Board of the University Center for Atmospheric Research, a consortium of universities managing the National Center for Atmospheric Research sponsored by the National Science Foundation; and the Board of the Bermuda Institute for Ocean Sciences.

Nutter has also served as a member of the Board of Directors of the Advocates for Highway and Auto Safety, the Insurance Institute for Highway Safety and the Worker's Compensation Research Institute, and the Board of Overseers of the Institute for Civil Justice, a subsidiary of the Rand Corporation.

Nutter has a J.D. from the Georgetown University Law Center and a bachelor's degree in economics from the University of Cincinnati. Nutter was an officer in the U.S. Navy and is a Vietnam veteran.

Margaret Davidson



Margaret Davidson is currently the Acting Director of NOAA's Office of Ocean and Coastal Resource Management (OCRM). Before joining NOAA as director of the Coastal Services Center, Margaret A. Davidson was executive director of the South Carolina Sea Grant Consortium from 1983 to 1995. She also served as special counsel and assistant attorney general for the Louisiana Department of Justice.

An active participant in coastal resource management issues since 1978, Davidson earned her J.D. in natural resources law from Louisiana State University. She later earned a master's degree in marine policy and resource economics from the University of Rhode Island. Davidson holds a faculty appointment at the University of Charleston and serves on the adjunct faculties of Clemson University and the University of South Carolina.

Davidson has served on numerous local, state, and federal committees and has provided leadership for national professional societies. She has focused her professional work on environmentally sustainable aquaculture, mitigation of coastal hazards, and impacts of climate variability on coastal resources. Davidson served as the acting assistant administrator for NOAA's National Ocean Service from 2000 to 2002.

Dave Jansen



David S. Jansen currently serves as Minority Staff Director for the House Subcommittee on Coast Guard and Maritime Transportation. Before joining the subcommittee in the 112th Congress, he served as Legislative Staff on the House Committee on Natural Resources and functioned as senior legislative staff on the Subcommittee on Insular Affairs, Wildlife and Oceans, which has oversight responsibility for numerous ocean and coastal programs administered by the National Oceanic and Atmospheric Administration (NOAA).

Jansen's areas of expertise include: statutory authorities affecting the U.S. Coast Guard and maritime commerce, including the Jones Act; the Oil Pollution Act; Coastal Zone Management; the National Marine Sanctuary System, including marine protected areas and marine reserves; coral reef conservation and management; the Marine Mammal Protection Act; the National Sea Grant College Program; and NOAA's ocean and coastal research, observations, technology, exploration and survey programs. Prior to joining the Natural Resources Committee in 1999, Jansen worked for five years as a Congressional Affairs Specialist within NOAA's headquarters in Washington, DC. Jansen began his career in Washington in 1992 as a Dean John A. Knauss Marine Policy Fellow in the office of Senator John F. Kerry (D-MA). He received his Masters in Marine Affairs (M. Master of Arts) in 1992 from the University of Washington in Seattle, and received his Bachelor of Science degree in Natural Resources from the University of Rhode Island in 1980.

PANEL 2: OCEAN ACIDIFICATION IMPACTS ON SUSTAINABLE SEAFOOD PRODUCTION

Dr. Mark Abbott



Mark R. Abbott is dean and professor in the College of Earth, Ocean, and Atmospheric Sciences at Oregon State University (OSU). He received his Bachelor of Science in conservation of natural resources from the University of California, Berkeley, in 1974 and his Ph.D. in ecology from the University of California, Davis, in 1978. He has been at OSU since 1988 and has been dean of the college since 2001.

Dr. Abbott's research focuses on the interaction of biological and physical processes in the upper ocean and relies on both remote sensing and field observations. Dr. Abbott is a pioneer in the use of satellite ocean color data to study coupled physical/biological processes. He has also advised the Office of Naval Research and the National Science Foundation on ocean information infrastructure.

Dr. Abbott served a six-year term on the National Science Board, which oversees the National Science Foundation and provides scientific advice to the White House and to Congress. He is presently serving as a consultant on the Board. He is vice chair of the Oregon Global Warming Commission, which is leading the state's efforts in mitigation and adaptation strategies in response to climate change.

He is a member of the Board of Trustees for the Consortium for Ocean Leadership and is President of The Oceanography Society.

Dr. George Waldbusser



Dr. George Waldbusser is an Assistant Professor of Ocean Ecology and Biogeochemistry in the College of Earth, Ocean, and Atmospheric Sciences (CEOAS) at Oregon State University. Waldbusser's general research interests reside at the interface between biogeochemistry and invertebrate ecology. He has strong interests in understanding ocean acidification in estuaries and trying to understand how bivalves will respond at different life history stages.

Dr. Waldbusser's current work on acidification effects on bivalves includes understanding the mechanisms of physiological responses to acidification, quantifying acidification stress on bivalve larvae in variable environments, and how changing coastal chemistry will affect the preservation or degradation of shell material in oyster reefs and clam beds. His interest in bivalve ecology spans back to undergraduate research of oyster recruitment dynamics in the Hudson-Raritan River estuarine complex. Waldbusser received his PhD in marine and estuarine environmental science from the University of Maryland in 2008, and his Master of Science in oceanography from University of Connecticut in 2002. He is currently on the editorial board for the Journal of Shellfish Research, an Associate Editor for Limnology and Oceanography: Methods, and most recently served on the Washington Governor's Blue Ribbon Panel on Ocean Acidification.

Dr. Libby Jewett



Dr. Elizabeth (Libby) Jewett, a National Oceanic and Atmospheric Administration (NOAA) scientist with diverse science and management experience in ocean acidification and coastal hypoxia (low oxygen) research programs, is the first director of NOAA's Ocean Acidification Program. As director, Jewett oversees current NOAA research on ocean acidification which includes monitoring open ocean and coastal conditions and studying the impacts on marine organisms in addition to developing adaptation strategies and coordinating and expanding efforts to understand the socioeconomic impacts.

A founding member of NOAA's Ocean Acidification Steering Committee, Jewett has led NOAA-wide meetings of scientists and policymakers to conceive and develop NOAA's first comprehensive ocean acidification research plan. For the past several years, she has represented NOAA on the ocean acidification interagency working group (under the National Science and Technology Council's Subcommittee on Ocean Science and Technology) where she helped develop an ocean acidification strategic research plan for the nation. Prior to this, Dr. Jewett led the nation's two national hypoxia research funding programs as Hypoxia Research Program manager at the Center for Sponsored Coastal Ocean Research in NOAA's National Ocean Service. In this role, she worked to make the funded science relevant to the management of coastal ecosystems, especially in the Chesapeake Bay and northern Gulf of Mexico. She led the creation of the 2010 Scientific Assessment of Hypoxia in US Coastal Waters.

Dr. Jewett earned a Ph.D in biology at the University of Maryland, a Master of Public Policy at Harvard University's Kennedy School of Government, and a Bachelor of Arts at Yale University.

Mark Wiegardt



Mark Wiegardt runs and owns Whiskey Creek Shellfish hatchery, in Tillamook, Oregon, with his wife, Sue Cudd. Wiegardt grew up tending oysters on Willapa Bay, where his family has been farming them since the late 1800s. When Wiegardt was 15, he went overseas to learn about the multi-million dollar oyster industry in Japan. Wiegardt and his wife took over the business together in 2002.

Whiskey Creek is a key link in the nation's seafood supply chain as the hatchery helps provide nearly all the seed for the West Coast's growers, who in turn produce more than a quarter of the 700 million or so farmed oysters that Americans consume every year. Recently, the Whiskey Creek Shellfish Hatchery experienced substantial oyster larvae "die-offs" due to ocean acidification that reduced West Coast production. The hatchery has been utilizing ocean acidification seawater monitoring techniques and instrumentation to adapt to the problem.

Cat Barrett



Catherine Hazlewood Barrett is the Oceans Counsel for the Majority Staff of the Senate Committee on Commerce, Science, and Transportation, chaired by John D. Rockefeller (D-WV). In her service, Barrett is responsible for the Committee's portfolio relating to ocean policy and governance, coastal management, ecosystems and habitat, water quality, offshore development and impacts, weather and atmospheric issues and oversight of the National Oceanic and Atmospheric Administration (NOAA). Prior to coming to the Hill, she served as Senior Policy Advisor at The Nature Conservancy, the largest environmental charitable organization in the world, and directed several legislative and regulatory campaigns. She has also worked at The Ocean Conservancy, the United Nations and the Commission on Environmental Law of the IUCN (World Conservation Union). Barrett has previously been appointed to international, federal and state advisory bodies, and has served as a lecturer on ocean policy and law for the American Law Institute and the American Bar Association. She received her Bachelor of Arts degree from the University of Wisconsin - Madison, and her J.D. from Pace University School of Law in New York, where she served as the Editor-in-Chief of the Environmental Law Review.

PANEL 3: ECONOMIC OPPORTUNITIES AND IMPACTS IN A CHANGING ARCTIC

Dr. John Farrell



Dr. John Farrell is the Executive Director of the U.S. Arctic Research Commission, an independent Federal agency of Presidential appointees that advises the White House and Congress on Arctic research matters and works with Executive Branch agencies to establish and execute a national Arctic research plan. The Commission also facilitates cooperation with local and state governments and recommends means for developing international scientific cooperation in the Arctic.

Dr. Farrell previously served as the Associate Dean of Research and Administration at the Graduate School of Oceanography at the University of Rhode Island. Before that, he was Director of the international Ocean Drilling Program that involved over 20 nations and had an annual budget of approximately \$65M/yr. The program was dedicated to advancing scientific understanding of the Earth.

Farrell helped organized and conduct the first successful international scientific ocean drilling expedition to the high Arctic in 2004, and he participated in the 2012 expedition aboard USCG Cutter HEALY to bathymetrically chart the Arctic's Nautilus Basin. He obtained a Ph.D. and Master of Science. in geological sciences from Brown University, and a Bachelor of Arts in geology from Franklin and Marshall College. He was a National Science Foundation (NSF)-funded Post-Doctoral Fellow at Brown University and an Natural Sciences and Engineering Research Council of Canada (NSERC)-funded Senior Research Associate at the University of British Columbia, in Vancouver, Canada.

Dr. Brendan Kelly



Dr. Brendan P. Kelly is the Assistant Director for Polar Science in the Office of Science and Technology Policy, Executive Office of the President. He served as Deputy Director of Arctic Sciences at the National Science Foundation after 35 years as a researcher in Alaska where he studied the ecology and behavior of ice-associated marine mammals. He worked for the State of Alaska, the National Marine Mammal Laboratory (NOAA), and the University of Alaska where he was a professor marine biology, Dean of Arts and Sciences, and Vice Provost for Research.

Dr. Frank Herr



Dr. Herr is the Head of the Office of Naval Research's Ocean Battlespace Sensing Department. He's held that position since 2001. A member of the Senior Executive Service since 1998, he is responsible for extramural science and technology development for undersea (mine and antisubmarine) warfare, ocean and meteorological science and prediction systems, and space technology.

Under his direction and sponsorship, naval S&T has developed off-board and autonomous undersea sensing systems and undersea gliders for naval applications and tactical oceanography. His department is composed of two divisions and 14 prograDr. Herr joined federal service at the Naval Research Laboratory (NRL) in 1975 and moved to the Office of Naval Research (ONR) in 1983. From 1992-94, Dr. Herr was the Assistant for S&T to the Chief of Naval Operations (CNO) Executive Panel. He holds a PhD. from the University of Maryland, College Park, MD. In 2005 and 2010, Dr. Herr received the Presidential Rank Award for Meritorious Executives. In 1994, 2008, and 2011 he received the Navy Superior Civilian Service Award.

Michael Kearns



Michael Kearns began serving as Vice President for Government Relations at the National Ocean Industries Association (NOIA) in 2012. In this role, he takes the lead in outreach to Congressional Democrats and seeks to strengthen relationships between the offshore industry and the U.S. Coast Guard and the National Oceanic and Atmospheric Administration (NOAA).

Additionally, Michael helps in outreach to prospective NOIA members and in developing state-level relationships.

Michael left NOIA in August of 2011 to work as Strategic Communications Director for the United Nations Foundation Energy & Climate Program. In this role, Michael was responsible for coordinating the outreach and media work of 11 different energy-related programs ranging from improving commercial building efficiency to promoting global bioenergy production to increasing the deployment of renewable energy projects domestically. Michael's principal area of focus at the United Nations Foundation, though, was in support of the United Nation's Secretary-General's Sustainable Energy for All initiative.

Joel Clement



Joel Clement is the Director of the U.S. Department of the Interior's Office of Policy Analysis, which provides economic, scientific, and program analysis to support and promote effective decision-making and policies across the Department. He serves as the U.S. co-Head of Delegation to the Arctic Council's Ecosystem-Based Management Expert Group, U.S. Government representative to the Arctic Council's Arctic Resilience Report, and Interior's Principal to the U.S. Global Change Research Program. In 2012 he was appointed by the DOI Deputy Secretary to co-direct a federal interagency initiative to develop an Arctic management framework that more effectively integrates cultural, ecological, and economic objectives in the face of rapid climate change.

Bill Mowitt



Bill Mowitt currently works on the staff of Senator Mark Begich as a Congressional Fellow from the National Oceanic and Atmospheric Administration (NOAA). Prior to joining the Senator's office, Bill worked on the NOAA Administrator's staff. A member of NOAA's Commissioned Officer Corps, he has also served as an Executive Officer on a NOAA Ship in Alaska , and as an Operations Officer on a ship in Hawaii. Bill graduated with an MPA in Public Administration from American University and an M.S. in Marine Environmental Science from University of Maryland at College Park where he specialized in fish ecology. Bill also has B.A. in History from Williams College.

Consortium for Ocean Leadership Members

Ocean Leadership is a Washington, D.C.-based nonprofit organization that represents 97 of the leading public and private ocean research education institutions, aquaria and industry with the mission to advance research, education and sound ocean policy. The organization also manages, coordinates and facilitates ocean research and education programs in areas of scientific ocean drilling, ocean observing, ocean exploration and ocean partnerships.

Alabama

Dauphin Island Sea Lab

Alaska

Alaska Ocean Observing System
North Pacific Research Board
University of Alaska Fairbanks

California

Aquarium of the Pacific
Bodega Marine Laboratory
Esri
Hubbs-SeaWorld Research Institute
Liquid Robotics, Inc.
L-3 MariPro, Inc.
Marine Advanced Technology Education Center
Monterey Bay Aquarium Research Institute
Moss Landing Marine Labs
Naval Postgraduate School
Romberg Tiburon Center for Environmental Studies
Stanford University
Teledyne RD Instruments
University of California, San Diego (Scripps)
University of California, Santa Cruz
University of California, Santa Barbara
University of Southern California

Colorado

Cooperative Institute for Research in Environmental Sciences

Connecticut

Mystic Aquarium
University of Connecticut

Delaware

University of Delaware

Florida

Earth2Ocean, Inc.
Florida Atlantic University
Florida Institute of Oceanography
Florida State University
Harbor Branch Oceanographic Institution
International SeaKeepers Society
Nova Southeastern University
University of Florida
University of Miami
University of South Florida

Georgia

Savannah State University
Skidaway Institute of Oceanography

Hawaii

University of Hawaii

Illinois

John G. Shedd Aquarium

Louisiana

Louisiana Universities Marine Consortium
Louisiana State University

Maine

Bigelow Laboratory for Ocean Sciences
IOOS Association
University of Maine

Maryland

Johns Hopkins University
Marine Technology Society
Mid-Atlantic Regional Association for Coastal and Ocean Observing System (MARACOOS)
National Aquarium
UMD Center for Environmental Science

Massachusetts

Massachusetts Institute of Technology
New England Aquarium
University of Massachusetts, Dartmouth
University of Massachusetts, Lowell
Woods Hole Oceanographic Institution

Michigan

University of Michigan

Mississippi

Mississippi State University
University of Mississippi
University of Southern Mississippi

Nebraska

University of Nebraska, Lincoln

New Hampshire

University of New Hampshire

New Jersey

Rutgers University

New York

Columbia University (LDEO)
Stony Brook University

North Carolina

Duke University
East Carolina University
North Carolina State University
University of North Carolina, Chapel Hill
University of North Carolina, Wilmington

Oregon

Oregon State University

Pennsylvania

Pennsylvania State University

Rhode Island

University of Rhode Island

South Carolina

Grice Marine Laboratory
Medical University of South Carolina
South Carolina Sea Grant Consortium
South Carolina Dept. of Natural Resources
University of South Carolina

Texas

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Virginia

CARIS, USA
CNA
College of William and Mary (VIMS)
Institute for Global Environmental Strategies
Noblis, Inc.
Old Dominion University
SAIC
U.S. Arctic Research Commission

Washington

Sea-Bird Scientific
University of Washington

Washington, DC

Battelle
SURA

Wisconsin

University of Wisconsin-Milwaukee
Great Lakes WATER Institute

Australia

Institute for Marine and Antarctic Studies
at the University of Tasmania

Bermuda

Bermuda Institute of Ocean Sciences

Canada

Dalhousie University
University of Victoria



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