Public Policy Forum
U.S. Capitol Visitor Center
March 10, 2010
2010 Public Policy Forum
U.S. Capitol Visitor Center (Room 212/210)
Wednesday, March 10, 2010

Agenda

8:30 Breakfast
9:15 Opening Remarks – Robert Gagosian
9:30 Panel Regarding Sea-Level Rise
   • Moderator – Don Boesch – UMD
   • Craig Fulthorpe – UTX
   • Rear Admiral Tim McGee – U.S. Navy (ret.)
   • Dave Jansen – House Natural Resources Committee
11:00 Break
11:30 Senator Sheldon Whitehouse
12:00 Lunch – Tom Karl, Director of National Climatic Data Center and
   Interim Director of NOAA Climate Service
1:00 Senator Mark Begich
1:30 Panel Regarding the Arctic
   • Moderator – Molly McCammon AOOS
   • RADM David Titley – Oceanographer of the Navy
   • Simon Stephenson – NSF
   • Michele Longo Eder – U.S. Arctic Research Commission
   • John Rayfield – House Transportation Committee
2:45 Senator Barbara Boxer
3:15 Panel Regarding Marine Spatial Planning
   • Moderator – Larry Mayer – UNH
   • Kate Moran – OSTP
   • Sandra Whitehouse – Ocean Conservancy
   • Kris Sarri – Senate Commerce Committee
   • Ed Saade – Fugro EarthData, Inc.
4:45 Shere Abbott, Associate Director OSTP
5:15 Closing Remarks – Robert Gagosian
6:00 Reception – B-354 Rayburn House Office Building
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 2010 Public Policy Forum. We have organized an exciting meeting allowing for important dialogue among all of our attendees from the academic, industry and government ocean communities. This forum addresses some of the key subjects highlighted by the President’s National Ocean Policy Task Force, for which Ocean Leadership was proud to participate by providing the science requirements. Today’s meeting offers a valuable opportunity to engage in discussions with each of our panel speakers on the most pressing current national issues including sea-level rise, the Arctic, and Marine Spatial Planning - all of which are critical to our nation’s ocean policy.

Ocean Leadership will post much of the valuable information that we discuss today on our web site, www.oceanleadership.org. If you have any questions about the Public Policy Forum or about the U.S. Capitol Visitor Center please ask any Ocean Leadership staff member. We hope that you will find the day informative and enjoyable.

Sincerely,

Robert B. Gagosian, Ph.D.
President & CEO
Consortium for Ocean Leadership
Sherburne “Shere” Abbott serves as the Associate Director for Environment of the Office of Science and Technology Policy in the Executive Office of the President. She manages a portfolio of S&T policy that ranges from energy and climate change to environmental quality and sustainability.

Prior to her confirmation for this position by the Senate on April 30, 2009, Ms. Abbott was a faculty member of the College of Liberal Arts at the University of Texas at Austin and served as the Director of the Center for Science and Practice of Sustainability in the Office of the Executive Vice President and Provost. Previously, Ms. Abbott served as Chief International Officer of the American Association for the Advancement of Science. Prior to that appointment, over a 17 year period at the National Academies’ National Research Council she served as Executive Director of the Board on Sustainable Development, the Director of International Organization Programs for the Office of International Affairs, and the Director of the Polar Research Board of the National Academies’ National Research Council. Ms. Abbott also served as Assistant Scientific Program Director of the U.S. Marine Mammal Commission.

Ms. Abbott earned her A.B. from Goucher College and her M.F.S. from Yale University’s School of Forestry and Environmental Studies. She and her husband, James Steinberg, have two young daughters.
Senator Mark Begich was elected to the U.S. Senate in November 2008 after serving as the Mayor of Anchorage since April 2003. 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. Senator Begich’s Committee assignments include the Senate Committee on Science, Commerce and Transportation and the Subcommittee on Oceans, Fisheries, and the Coast Guard. 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.
Donald F. Boesch is a Professor in and President of the University of Maryland Center for Environmental Science and also serves as Vice Chancellor for Environmental Sustainability for the University System of Maryland. He earned his BS from Tulane University and Ph.D. from the College of William and Mary and held faculty positions in Virginia and Louisiana before coming to Maryland in 1990.

A biological oceanographer who has conducted research on coastal and continental shelf ecosystems through the United States and in China and Australia, Don has spent much of his career conducting or leading research related to the restoration of two great American coastal ecosystems, the Chesapeake Bay and the Mississippi Delta. In recent years, he has worked to understand the potential impacts of climate change and how to adapt to them. Don is the Chair of the National Research Council’s Ocean Studies Board and serves as a member of the National Academies’ Committee on America’s Climate Choices.
A forceful advocate for the environment, and her State of California, Barbara Boxer became a United States Senator in January 1993 after 10 years of service in the House of Representatives and six years on the Marin County Board of Supervisors. Senator Boxer is the first woman to Chair the U.S. Senate’s Committee on Environment and Public Works (EPW). She also serves on the Senate Committee on Commerce, Science and Transportation, and the Senate Foreign Relations Committee, where she chairs the Subcommittee on International Operations and Organizations, Human Rights, Democracy, and Global Women’s Issues. She is a powerful advocate for clean air and water, and as Chairman, she has emphasized the Committee’s role in economic recovery and job creation by addressing clean energy and climate change, and America’s transportation and infrastructure needs. Senator Boxer has won numerous awards for her efforts to create a cleaner, healthier environment, and has fought to protect California’s coast from the harmful effects of oil drilling. To ensure that generations of Californians will be able to enjoy our environmental heritage, she has written laws protecting more than one million acres of pristine California wilderness.
Craig Fulthorpe

Craig seeks to better understand the origins of the sequence stratigraphic record by evaluating the relative roles of local geological processes and global sea level (eustasy) in creating depositional geometries. Though sequence stratigraphy has gained general acceptance as an interpretive tool, the theory that sequences are globally synchronous and caused by eustatic cycles has proved difficult to confirm, partly because both sequence architecture and timing are influenced by local controls (e.g., rates of subsidence and sediment supply, isostasy, compaction, and current activity) in addition to eustasy. Craig’s projects have focused on passive continental margins in different parts of the world: offshore New Jersey, the northeastern Gulf of Mexico, the North West Shelf of Australia, and the Canterbury Basin offshore New Zealand. He has also extended his work to active margins, analyzing the sequence stratigraphy of forearc basins off northern California and on the Pacific margin of Nicaragua. His work offshore New Jersey also involved participation in ODP Legs 150 and 174A and he was Co-Chief Scientist of the recently completed IODP Expedition 317 to drill the Canterbury Basin.
Mr. Jansen presently serves as Senior Professional Staff to Chairman Nick J. Rahall, II, on the Committee on Natural Resources in the United States House of Representatives. He functions 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). Mr. Jansen’s areas of expertise include: 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, Mr. Jansen worked for five years as a Congressional Affairs Specialist within NOAA’s headquarters in Washington, DC. Mr. 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.M.A.) 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. Aside from his life-long interest in wildlife, he is an avid reader, hiker and paddler.
Thomas Karl currently serves as Interim Director of NOAA Climate Service and Director of NOAA’s National Climatic Data Center in Asheville, N.C. Karl is a fellow and Past-President of the American Meteorological Society. He is also a fellow of the American Geophysical Union and has published more than 150 peer-reviewed articles and several books as Editor and Contributor. He has received many awards and recognition for his work in services and science in climate, observing systems, and data stewardship including: two Presidential Rank Awards, five Gold Medals from the Department of Commerce and two Bronze Medals; the American Meteorological Society’s Suomi Award; National Associate of the National Academy of Sciences; the NOAA Administrator’s Award, and several others. He has served as Editor of the Journal of Climate (1997-2000) and has been the Convening and Lead Author and Review Editor of all the major IPCC assessments since 1990, which were recently awarded the Nobel Peace Prize. He was Co-Chair of the U.S. National Assessment and the recent Global Climate Change Impacts in the U.S. state of knowledge report and a number of other assessments produced by the U.S. Climate Change Science Program.
Michele Longo Eder is a two-term Presidential appointee to the U.S. Arctic Research Commission and has served on the Commission since 2004. She is also a member of the North Pacific Research Board and the National Commercial Fishing Vessel Safety Committee. Ms. Eder has practiced law on the Oregon Coast for over 30 years. She is a co-owner of a commercial fishing business, and is the author of the book *Salt in Our Blood: The Memoir of a Fisherman’s Wife.*
Larry Mayer is a Professor and the Director of the Center for Coastal and Ocean Mapping at the University of New Hampshire. He graduated magna cum laude with an Honors degree in Geology from the University of Rhode Island in 1973 and received a Ph.D. from the Scripps Institution of Oceanography in Marine Geophysics in 1979. At Scripps he worked with the Marine Physical Laboratory's Deep-Tow Geophysical package, applying this sophisticated acoustic sensor to problems of deep sea mapping and the history of climate. After being selected as an astronaut candidate finalist for NASA's first class of mission specialists, Larry went on to a Post-Doc at the School of Oceanography at the University of Rhode Island where he worked on the early development of the Chirp Sonar and problems of deep-sea sediment transport and paleoceanography. In 1982, he became an Assistant Professor in the Dept. of Oceanography at Dalhousie University and in 1991 moved to the University of New Brunswick to take up the NSERC Industrial Research Chair in Ocean Mapping. In 2000 Larry became the founding director of the Center for Coastal and Ocean Mapping at the University of New Hampshire and the co-director of the NOAA/UNH Joint Hydrographic Center. Larry has participated in more than 70 cruises (over 50 months at sea!) during the last 20 years, and has been chief or co-chief scientist of numerous expeditions including two legs of the Ocean Drilling Program and four mapping expeditions in the ice covered regions of the high Arctic. He is currently co-chair of the NOAA's Ocean Exploration Advisory Working Group, a member of the National Science Foundation’s Ocean Observatories Initiative Program Advisory Committee, and the State Dept’s Extended Continental Shelf Task Force. Larry’s present research deals with sonar imaging and remote characterization of the seafloor as well as advanced applications of 3-D visualization to ocean mapping problems and applications of mapping to Law of the Sea issues, particularly in the Arctic.
Molly McCammon is the Executive Director of the Alaska Ocean Observing System, a coalition of government, academic and private partners working together to integrate ocean observations and provide better information for users of the ocean and ocean resources. Molly came to Alaska over 30 years ago after graduating from the University of California at Berkeley with a degree in journalism. Since then, she has worked as a natural resource policy specialist for Alaska’s governor, state legislature and department of fish and game, reported for radio and television news, and homesteaded in the Brooks Range. She also serves as the chair of the National Federation of Regional Associations for Coastal and Ocean Observing and is also a member of the Ocean Research Advisory panel which advises federal ocean research agencies. Prior to that, she served for nearly a decade as Executive Director of the Exxon Valdez Oil Spill Trustee Council, administering the billion-dollar restoration fund established as a result of a court settlement between the United States government and the state of Alaska and Exxon Corporation following the 1989 Exxon Valdez oil spill.
Rear Admiral Tim McGee

A native of Washington, D.C., Rear Admiral Tim McGee graduated from the U.S. Naval Academy in 1978. He graduated from the Naval Postgraduate School in 1986 with a Master’s degree in Meteorology and Oceanography and an advanced international certificate in Hydrographic Science. His tours afloat include executive officer Oceanographic Unit One, USNS Bowditch (T-AGS-21); Oceanographer, USS Carl Vinson (CVN-70) where he qualified Surface Warfare Officer; Oceanographer, Commander Carrier Group 3; Oceanographer/TLAM Theater Executive Agent, Commander Sixth Fleet / Commander Strike Force South, USS Belknap (CG-26) and USS LaSalle (AGF-3). His tours ashore include OIC, Defense Mapping Agency Office Norfolk; OIC, Naval Oceanography Detachment Diego Garcia BIOT; Advanced Ocean Technology Officer, Chief of Naval Operations (N096); Detailer, Placement Officer and Community Manager, Bureau of Naval Personnel; Commanding Officer, Naval Oceanography Facility San Diego; ACOS Resources, Commander Naval Meteorology and Oceanography Command; Executive Officer, Naval Oceanographic Office; Commanding Officer, Naval Oceanographic Office; Assistant Chief of Naval Research, Office of Naval Research; Associate Director of Operations, U.S. Commission on Ocean Policy; DACOS Plans (C5B), JTF-7, Iraq; Chief of Staff for Director of Operations and Infrastructure in Iraq, Coalition Provisional Authority, Iraq; Commander, Naval Meteorology and Oceanography Command. His awards include the Distinguished Service Medal, Legion of Merit medals, Bronze Star, Defense Meritorious Service Medal, Meritorious Service Medals and various other awards. He was selected as Pacific Fleet Shiphandler of the year in 1989 presented the Naval Postgraduate School Distinguished Alumni Award in May 2006, and named Distinguished Oceanographer, U.S, Naval Academy 2007. He has been nominated by President Obama as NOAA’s new Assistant Secretary for Environmental Observation and Prediction.
Kathryn (Kate) Moran is currently on detail at the Office of Science and Technology Policy, Executive Office of the President from the University of Rhode Island. She is a Professor with a joint appointment in the Graduate School of Oceanography and the Department of Ocean Engineering. Moran co-led the Integrated Ocean Drilling Program’s Arctic Coring Expedition which recovered the first paleoclimate record from the central Arctic Ocean. She also led one of the first offshore expeditions to investigate the seafloor following the devastating 2004 Indian Ocean earthquake and tsunami. Previously, Moran was a scientist at Canada’s national oceanographic institute where one of her major research focus areas was the Arctic Ocean. She also served as the Director of the international Ocean Drilling Program in Washington, D.C.; managed mission-specific drilling platform operations in the North Atlantic and Arctic; designed and developed oceanographic tools; participated in more than 35 offshore expeditions; and has served as Chair and member of national and international science and engineering advisory committees and panels. Professor Moran is active in public outreach (through public lectures, national panel discussions, and teacher training) on topics related to the Arctic and global climate change. At the University of Rhode Island, Moran spearheaded a research initiative on offshore renewable energy.
Edward J. Saade is president and managing director of Fugro EarthData, Inc., a full-service geospatial company specializing in airborne remote sensing and mapping for federal, state and local government needs. He is responsible for the company’s overall success and works with senior managers to oversee core business functions, including production operations, sales and marketing, research and development, finance, and human resources.

Mr. Saade joined Fugro EarthData in May 2008, bringing with him more than 30 years of experience in marine- and land-based geospatial and geophysics applications. Prior to this appointment, Mr. Saade served as president and managing director of Fugro Pelagos, Inc., where he expand the company’s marketing presence and technical capabilities to become a world leader in hydrographic multibeam and backscatter techniques for coastal zone mapping and essential fish habitat analysis.

Mr. Saade’s other professional experience includes a wide range of roles related to geophysical surveys, search and recovery operations, and geological studies. He holds a bachelor’s degree in geology from the University of California, Santa Barbara, and completed Ph.D. courses and research in marine geophysics at the Hawaii Institute of Geophysics. Mr. Saade is a California Professional Geophysicist, and has authored/coauthored over 60 reports and studies related to seafloor geology and sub-bottom conditions.
Simon N. Stephenson was appointed Director of the Division of Arctic Sciences in April 2006. The Division, in NSF’s Office of Polar Program, is responsible for a research investment of about $100M annually. The science disciplinary drivers are both broad and interdisciplinary and a system approach is a core element. The main current driver is environmental change and its relationship to human activity in a regional and global context. Mr. Stephenson has over 30 years of experience in polar research, both conducting his own research on glaciers and ice sheets and administering programs in the Arctic and Antarctic. Mr. Stephenson holds a Master of Philosophy in Glacier Geophysics from the Council for National Academic Awards, UK.
A native of Schenectady, N.Y., Rear Admiral Titley was commissioned through the Naval Reserve Officers Training Commissioning program in 1980. While aboard USS Farragut (DDG 37) from 1980-1983, Titley served as navigator, qualified as a surface warfare officer, and transferred to the Oceanography community the following year. Titley has commanded the Fleet Numerical Meteorological and Oceanographic Center in Monterey Calif., and was the first commanding officer of the Naval Oceanography Operations Command. He served his initial flag tour as commander, Naval Meteorology and Oceanography Command. Previous shore tours include assignments at the Regional Oceanography Centers at Pearl Harbor and Guam, the Naval Oceanographic Office, on the staff of the Assistant Secretary of the Navy (Research, Development and Acquisition), Office of Mine and Undersea Warfare, as the executive assistant to the Principal Deputy Assistant Secretary of the Navy (Research, Development and Acquisition) and as chief of staff, Naval Meteorology and Oceanography Command.

Titley also served on the U.S. Commission on Ocean Policy, as Special Assistant to the Chairman (Admiral (ret.) James Watkins) for Physical Oceanography and as senior military assistant to the Director of Net Assessment in the Office of the Secretary of Defense. In 2009, Titley assumed duties as oceanographer and navigator of the Navy.

Education includes a Bachelor of Science in meteorology from the Pennsylvania State University, a Master of Science in meteorology and physical oceanography and a Ph.D in meteorology, both from the Naval Postgraduate School.
Dr. Sandra Thornton Whitehouse is a longtime environmental advocate and policy advisor who uses her expertise in marine science to help shape environmental initiatives in Rhode Island and on the federal level. She has worked as an environmental consultant for the past decade, providing research, analysis, and advice on environmental policy issues to clients including the Rhode Island General Assembly, the Coastal States Stewardship Foundation and the Ocean Conservancy. Dr. Whitehouse is a former chair of Rhode Island’s Coastal Resources Management Council and has served on the boards of Save the Bay, the Nature Conservancy’s Rhode Island chapter, the Metcalf Institute for Marine and Environmental Reporting, The Aquidneck Island Land Trust, Grow Smart Rhode Island, and the University of Rhode Island’s Marine Advisory Council, among others. She holds a B.S. from Yale and a Ph.D. in biological oceanography from the Graduate School of Oceanography at the University of Rhode Island. Dr. Whitehouse lives in Rhode Island and Washington, D.C. with her husband and their two children.
U.S. Senator Sheldon Whitehouse (D-R.I.), a member of the Senate Environment and Public Works (EPW) Committee, and a sailor and diver, has been active in addressing global climate change and its threat to ocean and coastal ecosystems. He authored an amendment to support investments in America’s oceans and coasts as part of the Senate’s FY09 and FY10 budget resolutions, and fought successfully to make sure climate change legislation passed by the EPW committee in 2008 and 2009 included protections for coastal communities, wildlife, and land and marine ecosystems. Whitehouse, who traveled to Greenland in the summer of 2007 to see firsthand the effects of climate change on its massive ice cap, has worked closely with Rhode Island’s environmental community to raise awareness of the potential impact of global warming on the Ocean State. In August 2008, he held an official field briefing of the EPW Committee at the University of Rhode Island’s Bay Campus to examine global warming’s impacts on Narragansett Bay, including sea level rise, warming waters, and ocean acidification. Whitehouse has also been a champion for coastal and estuarine habitats, successfully fighting to reauthorize the Estuary Restoration Act (ERA) in 2007 and leading the effort to secure annual funding for EPA’s National Estuaries Program. Elected to the Senate in 2006, Whitehouse lives in Newport, Rhode Island with his wife Sandra, an environmental policy expert and marine biologist, and their two children.
Consortium for Ocean Leadership Members

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

**California**
- Bodega Bay Marine Laboratory
- Monterey Bay Aquarium Research Institute
- University of California, Santa Cruz
- University of California, Santa Barbara
- Moss Landing Marine Labs
- Naval Postgraduate School
- Hopkins Marine Station
- Stanford University
- University of California, San Diego
- University of Southern California
- Aquarim of the Pacific
- Fleet Numerical Meteorology & Oceanography Center
- Marine Advanced Technology Education Center
- Romberg Tiburon Center for Environmental Studies
- L-3 MariPro, Inc.

**Colorado**
- Cooperative Institute for Research in Environmental Sciences

**Connecticut**
- University of Connecticut
- Mystic Aquarium
- Ocean Technology Foundation

**Delaware**
- University of Delaware

**Florida**
- Florida State University
- Florida Atlantic University
- Nova Southeastern University
- Harbor Branch Oceanographic Institution
- University of Florida
- University of Miami
- University of South Florida
- Earth, Ocean, Inc
- International SeaKeepers Society
- HARRIS Corporation

**Georgia**
- Skidaway Institute of Oceanography

**Hawaii**
- University of Hawaii

**Illinois**
- John G. Shedd Aquarium

**Louisiana**
- Louisiana Universities Marine Consortium
- Louisiana State University
- Dauphin Labs
- TAMU Corpus Christi

**Maine**
- Bigelow Labs
- Gulf of Maine OOS
- University of Maine, Orono

**Maryland**
- UMD Center for Environmental Science
- Johns Hopkins University
- Marine Technology Society
- National Aquarium in Baltimore
- NOAA Fisheries Service
- NOAA National Centers for Coastal Ocean Science
- NOAA National Sea Grant College Program
- Lockheed Martin

**Massachusetts**
- MIT
- University of Massachusetts
- Woods Hole Oceanographic Institution
- New England Aquarium

**Michigan**
- University of Michigan
- NOAA Great Lakes Environmental Research Lab

**Mississippi**
- Mississippi State University
- University of Southern Mississippi
- Naval Oceanographic Office

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

Oregon
Oregon State University

Pennsylvania
Pennsylvania State University

Rhode Island
University of Rhode Island

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

Texas
TAMU
University of Texas, Austin
Fugro Global Environmental and Ocean
    Sciences, Inc.

Virginia
College of William and Mary (VIMS)
Old Dominion University
Center for Naval Analysis
Noblis, Inc.
Research Centers of the USGS
U.S. Arctic Research Commission
CARIS, USA
SAIC

Washington
University of Washington

Washington, DC
Battelle
SURA

Wisconsin
University of Wisconsin-Milwaukee
    Great Lakes WATER Institute

Bermuda
Bermuda Institute of Ocean Sciences

Canada
Dalhousie University
University of Victoria