



Mr. Steve Bowen, Associate Director and Meteorologist, Aon Benfield

Steve Bowen is an Associate Director and Meteorologist for Aon Benfield's Impact Forecasting division in Chicago, Illinois. Since joining the firm in 2007, he has played a leading role in natural catastrophe analysis for Aon global clients and colleagues. A key component to this analysis is conducted through Aon Benfield's Cat Reports, which he transformed into an industry-leading product. The reports are now internationally recognized by clients, colleagues, insurance industry representatives, government officials, emergency management agencies, and media as a critical tool for real-time meteorological and natural disaster information.

Steve is working across the three branches of Aon in finding solutions for specific client-related weather queries; the development of an extensive historical natural disaster loss database and utilizing it to determine various catastrophe loss trends; maintaining Impact Forecasting's 'Catastrophe Insight' website; leading Impact Forecasting colleagues in the real-time deployment of catastrophe event footprints and loss projections; answering industry and client questions surrounding the potential implications of climate change; providing scientific analysis during post-event damage surveys (including tornadoes, hurricanes, floods, and wildfires).

Bowen was selected in 2014 to participate on a steering committee for an ongoing White House climate initiative with the Obama administration. The committee is focused on finding ways to help better integrate the public and private sectors by seeking to mitigate future impacts from weather events and climate pattern shifts. He has also collaborated with, appeared in, or had his work cited by select outlets including: U.S. Congress, NOAA, USA Today, The Weather Channel, NBC Nightly News, The Associated Press, The New York Times, The Wall Street Journal, The Washington Post, and The Financial Times.

Steve is pursuing his Master of Science degree in Business Analytics from the University of Notre Dame. He earned his Bachelor of Science degree in Meteorology from Florida State University. He is a member of the American Meteorological Society (AMS) and the National Weather Association (NWA).



Dr. W Russell Callender, Acting Assistant Administrator, National Ocean Service

Dr. Russell Callender is the Acting Assistant Administrator for NOAA's National Ocean Service. The National Ocean Service (NOS) is the nation's most comprehensive ocean and coastal agency. Its mission is to provide science-based solutions through collaborative partnerships to address evolving economic, environmental and social pressures on our oceans and coasts. The agency observes, measures, assesses, and manages the nation's coastal, ocean, and Great Lakes areas; provides critical navigation products and services; and conducts response and restoration activities to protect vital coastal resources.

As Acting Assistant Administrator, Dr. Callender provides strategic vision for NOS. He leads the implementation of activities that support NOS's priorities of coastal resilience, coastal intelligence, and place-based conservation. He serves as the focal point for conveying the value of NOS products and services within NOAA and to the Department of Commerce, the Office of Management and Budget, and Congress. Dr. Callender actively establishes and grows partnerships with other federal agencies, non-governmental organizations, and industry.

Dr. Callender brings more than 20 years of science, policy, and management experience that includes senior positions in Sea Grant and two line offices in NOAA. These positions reflect progressively greater organizational complexity and programmatic scope. As NOS's Deputy Assistant Administrator from 2013 to 2014, Dr. Callender oversaw the financial, administrative, and performance activities of an agency that includes more than 1,700 staff members located across more than 50 places around the country. He forged long-lasting change to better integrate NOS's broad portfolio of activities. For example, the development of the NOS Roadmap represented the first ever integration of NOS activities and milestones under a unified approach to meet Department of Commerce, NOAA, and NOS priorities. He also initiated a number of activities to increase employee satisfaction covering areas from professional development to performance assessment.

From 2009-2012, Dr. Callender served as the Deputy Director and then Director of NOAA's National Centers for Coastal Ocean Science. In this position, he oversaw a diverse portfolio of research, monitoring and assessments with a focus on forecasting, prevention, detection, control and mitigation of harmful algal blooms; contaminant monitoring and impact assessments on coastal ecosystems; understanding and assessing how sea level, ocean chemistry, and temperature changes impact coastal ecosystems; and geospatial mapping, modeling, and analytical capability to guide coastal planning. During this period he led major changes in NCCOS resulting in a new scientific mission focus, a new business model, and increased national relevance. Under his direction NCCOS played a key role in supporting NOAA's response to the Deepwater Horizon oil spill, enhanced

partnerships with EPA in the Great Lakes, and contributed to a bi-state integrated ocean and coastal mapping effort in Long Island Sound.



Mr. J. Anthony (Tony) Cavell, PLS, CFedS, President Elect, National Society of Professional Surveyors

Mr. J. Anthony (Tony) Cavell serves as President-elect of the National Society of Professional Surveyors (NSPS) and hails from Lafayette, Louisiana. He is an active member of Louisiana Society of Professional Surveyors (LSPS) and served as the president. He is a LAPELS Board-approved Sponsor/Provider of CPD activities and enjoys writing. He works at the LSU Center for Geoinformatics and Louisiana Spatial Reference Center and was a member of the original class of Certified Federal Surveyors. He was the 2007 recipient of the ACSM Earl J. Fennell Award for distinguished educational contributions to the surveying and mapping profession. He surveyed offshore with John Chance and Assoc., experiencing the changes in technology from conventional optical equipment through microwave and acoustic positioning to the age of satellite positioning. Cavell joined Navigation Electronics, Inc (NEI) as Vice President in 1993, and served as CEO from 2000-2002. He was a member of the original class of Trimble Certified Trainers and created the Cavell 1995 RSO projection. He managed ESP Associates' QA for FEMA's LiDAR surveys of Louisiana, and GPS and LASER scanning surveys for SAM, Inc. in Texas.

NSPS represents the surveying community of United States. NSPS provides the platform by which members can share their thoughts and opinions about our common interests through business meetings/committees, regional groups, and student chapters. It also provides a forum for input from other groups such as the National Association of County Surveyors, members of state boards of registration, and the Forum for State Surveying Society Executives. Membership is open to all professional surveyors and to persons trained, registered, or interested in the profession of surveying and mapping.



Mr. Charles (Bud) Darr, Senior Vice President of Technical and Regulatory Affairs, Cruise Line Industry Association

As Senior Vice President of Technical and Regulatory Affairs for the non-profit Cruise Lines International Association (CLIA), Bud Darr is responsible for the cruise industry's interests in shipboard operations, safety, security, environmental stewardship, emergency response planning and exercises, medical facilities, public health matters both in the U.S. and internationally. He also coordinates and represents the industry with regard to regulatory and legislative matters. Mr. Darr left the United States Coast Guard in September 2010 after 17 years of service in a variety of roles, both military and civilian. He represented the United States as a delegate to the International Maritime Organization (IMO) at the Assembly, Committee, Sub-Committee, and Working Group levels, and served in capacities as

head of delegation, advisor, and elected Chairman. During his notable career, Mr. Darr was also an enlisted submarine nuclear propulsion supervisor in the US Navy from 1983-1989, after which he enrolled at the US Merchant Marine Academy, where he graduated with honors in the Marine Transportation program and received his Merchant Marine License as a Deck Officer. Mr. Darr is also licensed to practice law in the Commonwealth of Virginia and a graduate with high honors of the George Washington University Law School. CLIA is the world's largest cruise industry trade association with representation in North and South America, Europe, Asia and Australasia. CLIA represents the interests of cruise lines, travel agents, port authorities and destinations, and various industry business partners before regulatory and legislative policy makers. CLIA is also engaged in travel agent training, research and marketing communications to promote the value and desirability of cruise holiday vacations with thousands of travel agency and travel agent members. CLIA's Associate Member and Executive Partner program includes the industry's leading providers of supplies and services that help cruise lines provide a safe, environmentally-friendly and enjoyable holiday vacation experience for millions of passengers every year.

John Haines, Ph.D., Coastal and Marine Program Coordinator, U.S. Geological Survey

Dr. John Haines is currently the Coastal and Marine Program Coordinator for the U.S. Geological Survey. In that capacity he leads a coastal and marine geology program supporting research spanning issues including storm, tsunami and earthquake hazards; coral reef health; sediment and contaminant transport; gas hydrates; and sand and aggregate resources. A primary focus of the USGS coastal and marine program is to provide research and information products, including geologic, coastal, and habitat maps, vulnerability assessments, and models; that inform management decisions with respect to coastal change, natural hazards and marine resources.

As the USGS coastal and ocean programs coordinator John is responsible for engaging the breadth of USGS science in efforts to understand, forecast, and respond to priority national issues including coastal water quality, hazards, resource use, and ecosystem restoration. Dr. Haines represents the USGS on the Joint Subcommittee for Ocean Science and Technology; is a former co-chair of the Interagency Working Group for Ocean and Coastal Mapping; and is a member of the Department of the Interiors Senior Ocean Policy Team.

John received his Ph. D. in physical oceanography from Dalhousie University in Halifax, Nova Scotia. His thesis research developed and applied statistical tools to decompose multi-variate data sets and identify the structure of infragravity wave fields over complex nearshore topography. Joining the USGS as a research oceanographer in 1989 John published on topics including field observations and models of cross-shore flows in the nearshore environment, hurricane impacts on barrier islands, and the response of wetlands to variations in local sea-level over decadal time-scales. He participated in and led regional coastal erosion studies in Lake Michigan and Lake Erie. John was appointed to his current position, based in Reston, VA, in 2001.



Dr. Irving Leveson, President, Leveson Consulting

Leveson is an economist with extensive experience in strategic and economic consulting and research in private industry, prominent research organizations, and

government. He founded Leveson Consulting in 1990. Dr. Leveson has worked extensively with NOAA since 2001, examining diverse programs and issues.

Dr. Leveson holds a Ph.D. in economics from Columbia University. He previously served as Director of Economic Studies of the Hudson Institute, Senior Vice President and Director of Research of Hudson Strategy Group, Assistant Administrator for Health Systems Planning for the New York City Health Services Administration, and as a research director for the New York City Planning Commission. He is a member of the Institute of Navigation, the American Economic Association and the National Association for Business Economics.

His books include *Economic Security, American Challenges: Business and Government in the World of the 1990s*, *The Future of the Financial Services Industry* (main author), *Western Economies in Transition*, *Analysis of Urban Health Problems* (co-editor) and *Quantitative Explorations in Drug Abuse Policy* (editor).

Dr. Leveson has performed extensive studies of GPS markets, benefits, financing and related issues. His work for NOAA includes a study of benefits of the National Geodetic Survey's Coastal Mapping Program, an analysis of the socio-economic benefits of the NGS CORS and GRAV-D programs, reports examining benefits of the National Polar Orbiting Environmental Satellite System, assessing societal impacts of high impact weather, analyzing public-private partnership issues and a comprehensive examination of external trends affecting NOAA. Other activities include analyzing scientific and technical workforce trends and recruitment and business risk management.

Mr. W. Jeff Lillycrop, Technical Director, Civil Works R&D, U.S. Army Engineer Research and Development Center

Mr. Lillycrop is Lead Technical Director for Civil Works Research & Development and Technical Director (TD) for Navigation R&D, Engineer Research and Development Center (ERDC), U.S. Army Corps of Engineers (USACE). As Lead CW TD, he is

responsible for integration of the Environmental, Flood Risk Management, and Navigation R&D and as Navigation TD, he is responsible for nine R&D programs covering a wide range of topics including navigation infrastructure, channel dredging and performance, coastal inlets and sedimentation, surveying and mapping technologies, eNavigation, regional sediment management, and many more. He is Chair of the Committee on the Marine Transportation System Integrated Action Team for R&D. Jeff has worked for ERDC since 1986. From 1996 to 2007, he was stationed at the Mobile District, as Chief of the Spatial Data Branch, Operations Division and Director of the Joint Airborne Lidar Bathymetry Technical Center of Expertise, a partnership between the Navy, NOAA, USGS, and Corps of Engineers. From 1984 to 1986, he worked at the Jacksonville District, Planning Division's Coastal Branch. Mr. Lillycrop holds a master's of science in coastal and oceanographic engineering from the University of Florida and has published over 50 papers related to airborne lidar surveying and mapping, sediment management, and other topics related to navigation and coastal engineering.

Mr. Stephen Malys, Senior Scientist for Geodesy and Geophysics, National Geospatial Intelligence Agency

Stephen Malys serves as the NGA Senior Scientist for Geodesy and Geophysics. He earned a B.S. in Earth Sciences from Penn State in 1981 and an M.S. in Geodetic Science from Ohio State in 1988. He represents NGA on the DoD Positioning, Navigation and Timing Executive Committee and the International Committee on GNSS. He is a founding member of the editorial board for the journal, GPS Solutions. He was designated a Science and Technology Fellow by the Office of the Director of National Intelligence (ODNI) in 2007.



Mr. Kurt Nagle, President, American Association of Port Authorities

Kurt Nagle has over 30 years of experience in Washington, D.C., related to seaports and international trade. Since 1995, Nagle has served as president and chief executive officer for the American Association of Port Authorities (AAPA). Nagle began working at AAPA, the alliance of the leading public port authorities throughout the Western Hemisphere, in 1985. Prior to joining AAPA, Nagle was director of international trade for the National Coal Association and assistant secretary for the Coal Exporters Association. Previously, he worked in the Office of International Economic Research at the U.S. Department of Commerce. Nagle serves on the Executive Committee of the Propeller Club of the United States and is a former commissioner of PIANC, the International Navigation Congress. Nagle holds a master's degree in economics from George Mason University.



Mr. Paul Rooney, Geospatial Information System Specialist, Risk Analysis Division, Federal Emergency Management Agency

Paul Rooney is a Mapping Technology Specialist in the Risk Analysis Division of the Federal Emergency Management Agency. He is responsible for providing technical leadership on mapping and GIS issues for the National Flood Insurance Program (NFIP). Mr. Rooney has worked on mapping issues for the NFIP for over 18 years in the private sector and as a FEMA employee. Mr. Rooney is responsible for the development of FEMA's Risk MAP standards and is the technical expert for elevation data, base maps, and digital flood data. He is also responsible for the coordination of mapping activities with other Federal Agencies through participation in the 3D Elevation Program and the National Digital Orthophoto program.



Mr. George P. Sempeles, Aeronautical Information Specialist, Air Traffic Safety Oversight, Federal Aviation Administration

Mr. Sempeles is an aeronautical information specialist responsible for oversight of the navigation products and services produced by the FAA. As a credentialed air traffic safety inspector, Mr. Sempeles performs audits and assessments to ensure the nation's air navigation products and supporting digital data and information comply with FAA and international standards. Prior to this current position; he was quality assurance manager of the National Flight Data Center (NFDC) and Obstruction Evaluation Group (2010-13), senior cartographer NFDC (2004-10), aeronautical cartographer FAA/NOAA (1986-2004) and nautical cartographer National Geospatial-intelligence Agency (1908-86). Mr. Sempeles holds a bachelor's

degree in Geography from Mary Washington University, has served as chairman of the Interagency Air Cartographic Committee and is currently an advisor to the International Civil Aviation Organization, Aeronautical Information Services-Aeronautical Information Management Study Group.



Dr. Kathryn Sullivan, Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

Dr. Kathryn Sullivan was confirmed by the Senate as the Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator on March 6, 2014, having served as Acting NOAA Administrator since February 28, 2013. She is a distinguished scientist, renowned astronaut and intrepid explorer.

Prior to her appointment as Acting Administrator, Dr. Sullivan held the position of Assistant Secretary of Commerce for Environmental Observation and Prediction and Deputy Administrator, and also performed the duties of NOAA's Chief Scientist, a vacant position. As Assistant Secretary, Dr. Sullivan played a central role in directing Administration and NOAA priority work in the areas of weather and water services, climate science and services, integrated mapping services and Earth-observing capabilities. She also provided agency-wide direction with regard to satellites, space weather, water, and ocean observations and forecasts to best serve American communities and businesses. As Deputy Administrator, she oversaw the smooth operation of the agency.

Dr. Sullivan is the United States Co-chair of the Group on Earth Observations (GEO), an intergovernmental body that is building a Global Earth Observation System of Systems (GEOSS) to provide environmental intelligence relevant to societal needs. Dr. Sullivan's impressive expertise spans the frontiers of space and sea. An accomplished oceanographer, she 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. She 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 of 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). She 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.
