Speaker Biographies, HSRP public meeting, Washington, DC, March 5-7, 2019

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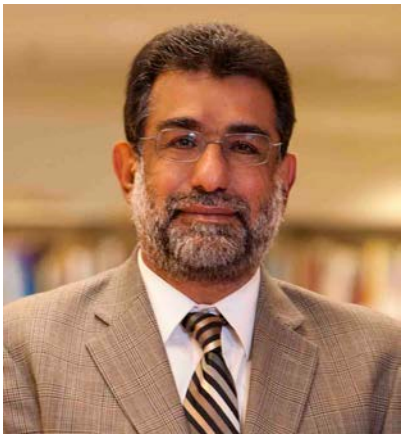
Dr. Qassim Abdullah

Chief Scientist and Senior Associate, Geospatial Services, Woolpert Inc.



Dr. Qassim Abdullah is an accomplished scientist with more than 40 years of combined industrial, research and development, and academic experience in analytical photogrammetry, digital remote sensing, and civil and surveying engineering. His current responsibilities include designing and managing strategic programs to develop and implement new remote sensing technologies focused on meeting the evolving needs of geospatial users. Currently, Dr. Abdullah is the Chief Scientist for Woolpert Geospatial Services and a member of Woolpert Labs team. In addition, Dr. Abdullah serves as an adjunct professor at the University of Maryland, Baltimore County and at Penn State teaching graduate courses on UAS, Photogrammetry and Remote Sensing. His latest accomplishments include evaluating and introducing the Geiger and single photon LiDAR to the geospatial industry and leading Woolpert research activities in the field of Unmanned Aerial System (UAS), its sensor calibration, and its workflow development. Dr. Abdullah obtained his doctorate and master degrees in photogrammetry from the Civil Engineering Department at the University of Washington in Seattle. Dr. Abdullah publishes a monthly column “Mapping Matters”, in the American Society for Photogrammetry and Remote Sensing (ASPRS) journal PE&RS. During 2017, Dr. Abdullah was elected as a Fellow in the ASPRS and he is the recipient of several prestigious awards such as the Life Time Achievement Award, ASPRS 2010 Photogrammetric Fairchild award, the ASPRS Outstanding Service award for publishing the monthly column “Mapping Matter” for more than 10 years, the ASPRS Presidential Citation award in recognition to his contributions in co-authoring the new “Positional Accuracy Standards for Digital Geospatial Data”, and the ASPRS Outstanding Workshop Instructor award. Dr. Abdullah is a certified photogrammetrist by ASPRS and licensed professional surveyor and mapper with the states of Florida, Oregon, Virginia, and South Carolina. He is also a certified thermographer by the FLIR Infrared Training Center and a Certified GEOINT Professional in Remote Sensing and Imagery Analysis (CGP-R) by the United States Geospatial Intelligence Foundation (USGIF).

Ms. Allison Allen

Chief, Marine, Tropical, and Tsunami Services Branch, National Weather Service, NOAA

Allison Allen is the Chief of the Marine, Tropical, and Tsunami Services Branch of the National Weather Service (NWS), where she oversees the policy and strategic direction of NWS's Tsunami, Tropical, and Tsunami Programs. In this role she engages routinely with both NOS and the external marine communities. Prior to coming to NWS, Allie spent 15 years with the National Ocean Service's Center for Operational Oceanographic Products and Services (CO-OPS). From her first role performing tidal corrections for hydrographic surveys, she soon assumed a Program

Manager role overseeing all of CO-OPS' non-navigational mission support, including tsunami, storm surge, sea level, and coastal inundation, followed by a 4-year assignment as NOAA's Ecological Forecasting Roadmap Portfolio Manager. She graduated from Colgate University in 2002.

Capt. (NOAA, ret.) Andrew A. Armstrong III

Co-Director, NOAA/University of New Hampshire Joint Hydrographic Center

Capt. (NOAA, ret.) Andrew Armstrong is Co-Director of the NOAA/University of New Hampshire Joint Hydrographic Center where he leads NOAA's role in the research, mapping and educational programs of the Center. He is the Bathymetric Data Acquisition team leader for the U.S. Interagency Extended Continental Shelf Task Project where he has been responsible for mapping nearly 875,000 square nautical miles of the seafloor in the Arctic Ocean, the U.S. Pacific Islands, and along the U.S. Atlantic and Pacific margins. Andy joined the NOAA Commissioned Officer Corps in 1974, following 4 years of commissioned service in the U.S. Navy. He retired from the NOAA Corps in 2001, continuing with NOAA as Co-Director of the Joint Hydrographic Center in a civil service capacity. Throughout his NOAA career, he has specialized in hydrographic surveying and seafloor mapping. He has served on several NOAA hydrographic ships and field parties, conducting hydrographic and bathymetric surveys in Alaska and Hawaii, along the Pacific, Atlantic, Gulf of Mexico coasts, and in the Great Lakes. He served as commanding officer of *NOAA Ship Peirce* and *NOAA Ship Whiting*, and as chief of NOAA's Hydrographic Surveys Division. He has a B.S. in geology from Tulane University and an M.S. in technical management from The Johns Hopkins University.

Dr. Brian K. Batten

Dr. Brian K. Batten, CFM, Senior Coastal Scientist / Senior Associate, Dewberry

Brian Batten, Ph.D., CFM, is a senior coastal scientist and project manager with Dewberry's resilience solutions group. In his 20 years of experience, Brian has provided technical project leadership to federal, state, and municipal clients addressing coastal erosion and flood hazards, as well as climate change and sea level rise. Brian provides technical leadership to the FEMA coastal program lead as the coastal manager for the STARR II Joint Venture, and served on the Future Conditions Subcommittee of FEMA's Technical Mapping Advisory Council. He has supported recovery mapping and/or rapid geospatial damage assessments for hurricanes Michael, Florence, Maria, Irma, Sandy, Katrina, and Rita. Brian has supported multiple states and communities for sea level rise and resilience planning, and is currently managing the City of Virginia Beach's 5-yr Comprehensive Sea Level Rise

Recurrent Planning Study, a risk-informed effort to develop community resilience policy and engineering strategies, funded in part by a NOAA Regional Coastal Resilience grant award. Prior to Dewberry, Brian was a research scientist at the USACE Coastal and Hydraulics Laboratory. Dr. Batten received his doctorate in coastal oceanography and master's degree in marine environmental science from Stony Brook University, and a bachelor's degree in marine environmental science from Coastal Carolina University.

Ms. Juliana P. Blackwell

Director, National Geodetic Survey, National Ocean Service, NOAA

Ms. Juliana P. Blackwell is the Director of NOAA's National Geodetic Survey (NGS). As Director, she is responsible for the financial, administrative and programmatic performance of NGS, the lead federal agency for positioning activities in the Nation. She oversees the management and delivery of the National Spatial Reference System (NSRS), the nation's consistent coordinate system for latitude, longitude, height, shoreline, gravity measurements and shoreline information throughout the United States. NSRS supports a wide range of important activities including mapping and charting, navigation, flood risk determination, transportation, land use and ecosystem management. Ms. Blackwell serves as Chair of the Federal Geodetic Control Subcommittee of the Federal Geographic Data Committee, exercising government-wide leadership in the development and improvement of geodetic surveying specifications, methods, instrumentation, and data transfers. She represents NOAA on the interagency Alaska Mapping Executive Committee and the 3D Elevation Program Executive Forum. A graduate of Tufts University, Ms. Blackwell earned a Bachelor of Science degree in mathematics. She received a master's in business administration from the University of Maryland's Robert H. Smith School of Business.

Mr. Glenn Boledovich

Policy Director, and Chief, Policy and Constituent Affairs Division, Management and Budget Office, NOAA National Ocean Service

Glenn Boledovich is the policy director and chief of the Policy and Constituent Affairs Division for NOAA's National Ocean Service. He manages a team of policy and program analysts overseeing ocean and coastal policy development and implementation, including congressional relations, legislative analysis, interagency coordination and constituent relations. He lived in Alaska for 14 years where he worked in the seafood and maritime industries and served as city council member in Unalaska/Dutch Harbor. He obtained his undergraduate degree in journalism with a minor in political science

from the University of Alaska Anchorage. He began his career at NOAA in 1995 as a Knauss Sea Grant Fellow. He is a Harry S Truman Scholar and graduate of the University of Oregon School of Law.

Captain Richard Brennan

Chief, Hydrographic Surveys Division, Office of Coast Survey, NOAA NOS

Captain Brennan has served with the NOAA Corps for over 20 years, and is currently the chief of the Hydrographic Surveys Division. He has sailed on nearly every hydrographic ship in the modern NOAA fleet. He has conducted surveys throughout U.S. waters, through the Gulf of Mexico and Caribbean to the Gulf of Maine, and from the Oregon coast to Chukchi Cap in the Arctic Ocean. Brennan's most recent sea assignment was as the commanding officer of the NOAA Ship *Rainier*, surveying Alaskan waters. Captain Brennan has served as the chief of the Coast Survey Development Lab, chief of Coast Survey's Atlantic Hydrographic Branch and as the mid-Atlantic navigation manager. Brennan has a Master of Science degree in ocean engineering from the University of New Hampshire's Center for Coastal and Ocean Mapping, specializing in ocean mapping, acoustics, and tidal error models. He led the Hydrographic Systems and Technology Program at NOAA, with a focus on transitioning new technology into fleet operations. He graduated from the Citadel in Charleston, South Carolina, with a Bachelor of Science degree in civil engineering and the Harvard Kennedy School Senior Executive Fellows program.

Ms. Helen Brohl

Director, U.S. Committee on the Marine Transportation System

Helen A. Brohl was appointed as the first Executive Director of the U.S. Committee on the Marine Transportation System (CMTS) in 2006. Maritime transportation oversight and interest within the U.S. Federal government is spread throughout many authorities, departments and budget line items. Ms. Brohl manages the CMTS partnership, created under Presidential Directive in 2012, that joins over 25 Federal agencies to address our Nation's waterways, ports and intermodal connections. Working with senior political, military and civilian leaders in the Federal government, Ms. Brohl directed the development and Cabinet-level approval of the first National Strategy for the Marine Transportation System to improve the MTS for capacity, safety and security, environmental stewardship; resiliency and financing. The CMTS has engaged in a number of dynamic issues including Federal infrastructure financing and investment; system performance measures; navigation technology integration and coordination; and

integration of marine transportation issues into the President's Arctic and Ocean Policies, National Export and Build America initiatives. She led development of the CMTS Strategic Action Plan for Research and Development in the MTS; response to the National Ocean Policy; National Strategy for E-Navigation; U.S. Arctic MTS Priorities Report; Federal MTS Funding Handbook; compendium of Federal maritime energy programs; and the Ten-Year Projection of Maritime Activity in the U.S. Arctic report to the White House. Ms. Brohl was detailed to the U.S. Merchant Marine Academy (USMMA) where she facilitated the 2012 development of the USMMA Strategic Plan 2012- 2017. For the ten years, she was the Executive Director of the U.S. Great Lakes Shipping Association working with NOAA and Congress to build the Great Lakes Water Level Observation Network, a lakes-wide system of real-time water and atmospheric observations provided directly to the mariner.

Ms. Ashley Chappell

Integrated Ocean and Coastal Mapping Coordinator (IOCM), Office of Coast Survey, NOS, NOAA

Ashley Chappell earned a B.A. in Geography from the University of North Carolina at Chapel Hill in 1991, and a Master's degree in Geography and Cartographic Sciences from George Mason University in 1997. After a stint at National Geographic, she joined the National Oceanic and Atmospheric Administration as an aeronautical chart cartographer in 1992, then to NOAA's Office of Coast Survey in 1995, where she produced charts of Alaska, the Pacific and Great Lakes waters. In 2000, she moved to policy, strategic planning, and budget formulation to support NOAA's mission of safe and efficient marine transportation. She currently serves as NOAA's Integrated Ocean and Coastal Mapping Coordinator.

Captain James Crocker

Chief, Navigation Services Division, Office of Coast Survey, NOAA/NOS

Captain Crocker has served with the NOAA Corps for 24 years. He was the executive director to the Deputy Under Secretary for Operations where he was responsible for executing operational management and policy coordination activities across NOAA's line and corporate offices. His responsibilities also included serving as a senior advisor to the Deputy Under Secretary. Crocker has conducted hydrographic survey operations from Texas to Maine and from Southern California to the North Slope of Alaska. He completed highly successful back-to-back tours of duty as commanding officer of NOAA ships *Fairweather* and *Thomas Jefferson.* While serving as commanding officer on *Fairweather*, he led the first Arctic reconnaissance survey conducted by a NOAA ship to the

U.S./Canadian border. Additional NOAA sea experience includes hydrographic survey operations as executive officer on *Thomas Jefferson* and *Rude*, and junior officer on *Rainier* and *Heck*. Prior to his commands, Capt. Crocker was the chief of operations for the Hydrographic Surveys Division.
He holds a Master of Business Administration degree in general management from the College of William & Mary and Bachelor of Science degrees in physical oceanography and ocean engineering from the Florida Institute of Technology.

Mr. Chris Edmonston

President, BoatU.S. Foundation for Boating Safety and Clean Water

Chris is the Vice President for Government Affairs of the Boat Owners Association of The United States, better known as BoatUS, and President of the BoatUS Foundation. He has been with the organization for more than 20 years and in the marine industry for more than 30 years. He has served on numerous boards and councils, including recently serving as the Chairman of the National Safe Boating Council. Mr. Edmonston works with a wide range of external partner organization and companies to promote safe and clean boating, as well as boating in general, on behalf of the organization's over a half a million Members. BoatUS is sometimes described as "The Boat Owner's Auto Club" due to its membership-based recreational boat and trailer towing services offered by TowBoatUS. He is a graduate of the Virginia Military Institute and lives in Maryland.

Mr. Richard Edwing

Director, Center for Operational Oceanographic Products and Services, National Ocean Service, NOAA

Richard Edwing is the director of **NOAA's Center for Operational Oceanographic Products and Services** (CO-OPS), the nation's authoritative source for accurate, reliable and timely water-level and current measurements. In his role, he oversees and continues to improve this 24-hour a day operation to provide mariners, coastal managers, and many other users with real-time data on ocean conditions along America's 95,000-mile coastline. Edwing's career with NOAA spans three decades with much of that time spent advancing NOAA's navigation services mission to provide the nation with up-to-date ocean, weather, mapping and positioning data and tools for safe transits to and from U.S. ports. He started with NOAA in 1976 in the Marine Boundary Program, a partnership between NOAA and coastal states to establish tidal data such as base elevations in sensitive wetland areas vulnerable to urban growth. He was the division chief of the National Ocean Service's policy, planning and analysis division, where he shaped NOAA's priorities for

ocean issues, as well as identified budget needs to advance and modernize ocean science. He graduated in 1976 from George Washington University with a Bachelor of Science degree in oceanography, and completed graduate level work in civil engineering at the University of Maryland. For two hundred years, CO-OPS and its predecessor agencies have provided the critical oceanographic data needed to protect life, property, and the marine environment. The Center manages NOAA's Physical Oceanographic Real-Time System, the National Water Level Program, and National Current Observation Program - major national systems critical to keeping America's oceans, coasts, and Great Lakes safe, healthy and productive.

Dr. John (Jack) Eggleston

Hydrologist and Chief, Hydrologic Remote Sensing Branch, Water Resources Mission Area, U.S. Geological Survey

Dr. Jack Eggleston is a hydrologist and Chief of the Hydrologic Remote Sensing Branch in the Water Mission Area of the USGS. He advises water utilities and state, national, and international government agencies, helping them better understand and manage water resources. His areas of specialty include groundwater and surface-water resources, land subsidence, and the use of satellite and Unmanned Aerial System (UAS) data to monitor inland waters. Prior to joining the USGS in 2002 he was a Research Professor at Duke University, teaching graduate hydrogeology courses and conducting research on contaminant transport in complex groundwater systems. He received a BA in Mathematics and Philosophy from St. John's College in 1989 and a PhD in Civil and Environmental Engineering from Duke University in 1996.

Mr. Will Fediw

Vice President, Industry and Government Affairs, Virginia Maritime Association

As Vice President of Industry and Government Affairs, Will Fediw is part of the leadership team of the

Virginia Maritime Association (VMA), Virginia's premiere maritime trade association. VMA's membership consists of over 450 businesses directly or indirectly engaged in a maritime industry that equates to 10% of Virginia's economy, and he plays a key role to promote, protect, and encourage domestic and international trade through Virginia's dynamic ports. While charged with developing and implementing strategies that improve the maritime business climate for VMA member companies, he keeps VMA's stakeholders advised of industry-related regulatory and legislative developments. He is a recognized industry advocate ensuring open and timely representation and has been involved in maritime operations, stakeholder relations, and industry advocacy working closely with federal, state, and local governments. He helps orchestrate marine infrastructure permitting, maritime transportation initiatives & legislation, and maritime economic development solutions in multiple U.S. ports. Previously he served as a Commissioned Officer in the U.S. Coast Guard working in maritime safety & security. Concentrating in regulatory compliance, Will specialized in petrochemical

facilities and vessels, while also overseeing waterways management activities such as waterway suitability assessments and the establishment of regulated navigation areas. He was a director/manager for a private liquefied natural gas firm developing marine export terminals in the Gulf Coast and served as the Vice-Chair of the Louisiana Energy Export Association. Will graduated from Old Dominion University with a degree in Maritime Supply Chain Management and holds a Master of Business Administration from the University of North Carolina's Kenan-Flagler Business School.

Rear Admiral Timothy Gallaudet, PhD., USN Ret.

Assistant Secretary of Commerce for Oceans and Atmosphere, and Acting Undersecretary of Commerce for Oceans and Atmosphere, NOAA

Timothy Gallaudet, PhD., was confirmed by the U.S. Senate on October 5, 2017, as the assistant secretary of commerce for oceans and atmosphere for the Department of Commerce in the National Oceanic and Atmospheric Administration. Dr. Gallaudet was previously a rear admiral in the U.S. Navy, where his most recent assignment was Oceanographer of the Navy and Commander of the Navy Meteorology and Oceanography Command. During his 32 years of military service, Dr. Gallaudet has had experience in weather and ocean forecasting, hydrographic surveying, developing policy and plans to counter illegal, unregulated and unreported fishing, and assessing the national security impacts of climate change. He has led teams of Navy sailors and civilians performing such diverse functions as overseeing aircraft carrier combat operations, planning and conducting humanitarian assistance and disaster response efforts, assisting Navy SEAL Teams during high visibility counter-terrorism operations, and developing the Navy's annual $52 billion information technology, cyber security and intelligence budget. Dr. Gallaudet holds a bachelor's degree from the U.S. Naval Academy and master's and doctoral degrees from Scripps Institution of Oceanography, all in oceanography.

Mr. Tony LaVoi

Chief, Integrated Information Services Division, Office for Coastal Management, NOS, and NOAA Geospatial Information Officer

Mr. Lavoi serves as the senior agency official for Geospatial Information at NOAA and manages a division that delivers the full range of enterprise information services for customer products and services development, and supports IT infrastructure for the office's digital presence as well as data management and database support services for staff members and partners. LaVoi serves as the NOAA geospatial information officer where he is the focal point for agency-

wide strategies, policy development, standards, and coordination activities related to geospatial technologies out of NOAA's Office of the Chief Information Officer. LaVoi and team members coordinate a enterprise geospatial services for the NOAA GIS community of users. These include enterprise license agreements with software vendors and a shared geospatial hosting environment for NOAA staff members. He participates in national and international bodies focusing on geospatial coordination, especially in the coastal and marine domain. LaVoi has been with NOAA for almost 20 years. Before NOAA, he spent five years working on GIS projects with state, regional, and local governments as well as the private sector. He is a graduate of the University of Wisconsin-Madison with a degree in civil and environmental engineering.

Ms. Nicole R. LeBoeuf

Deputy Assistant Administrator, National Ocean Service, NOAA

Nicole brings nearly 20 years of scientific expertise and program management experience with emphasis on the connections between science and policy. As the deputy assistant administrator at NOAA's National Ocean Service she she oversees 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. She served as acting deputy director of the Office of Protected Resources in NOAA Fisheries, where she maintained oversight of a diverse protected species conservation and management portfolio. She spent four years as the chief of the Marine Mammal and Sea Turtle Conservation Division in the Office of Protected Resources. Nicole served as the acting deputy director for the National Centers for Coastal Ocean Science in NOAA's National Ocean Service where she managed day-to-day financial and personnel operations that included five laboratories and a wide portfolio of intramural and extramural research activities. Nicole also spent time in NOAA Headquarters, both in the NOAA Budget Office and as NOAA's finance lead during the Deepwater Horizon oil spill. She completed NOAA's Leadership Competencies Development Program in 2009, and was an international fisheries biologist in the Office of International Affairs at NOAA Fisheries. Nicole completed a bachelor's in marine biology from Texas A&M University and a master's in sustainable development and conservation biology from the University of Maryland. She grew up along the Texas coast, and has a deep appreciation for coastal resources.

Ms. Audra Luscher

Coastal Hazards Program Manager, CO-OPS, National Ocean Service, NOAA

Audra Luscher-Aissaoui joined NOAA Center for Operational Oceanographic Products and Services (CO-OPS) as the Coastal Hazards Program Manager to support the Office with applying water level products and services to climate, coastal hazard and ecosystem issues.

She has 20 years of experience working on federal, state and local coastal resilience and ecosystem issues and supporting partnership-building within NOAA's coastal management community. Before joining NOAA CO-OPS in 2014, she worked for the NOAA Office for Coastal Management and served as the Federal Program Manager for the NOAA Coastal Storms Program. Before joining NOAA, she worked on coastal hazard and resource management issues as a Coastal Hazards Manager from both the North Carolina and Maryland Coastal Programs. She holds a Bachelor's degree in Marine Biology and minor in Chemistry from California State University at Long Beach, and a Masters in Marine Sciences from the University of North Carolina at Wilmington.

Dr. Larry Mayer

Director, Center for Coastal & Ocean Mapping, and Co-Director, Joint Hydrographic Center, University of New Hampshire

Larry Mayer is a Professor and the Director of the School of Marine Science and Ocean Engineering and 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 did a Post-Doc at the School of Oceanography at the University of Rhode Island and worked on the early development of the Chirp Sonar, problems of deep-sea sediment transport and paleoceanography.

He was an Assistant Professor at Dalhousie University and moved to the University of New Brunswick to take up the NSERC Industrial Research Chair in Ocean Mapping. In 2000 he 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 participated in more than 90 cruises (over 70 months at sea!) in 35 years, and has been chief or co-chief scientist of numerous expeditions, including two legs of the Ocean Drilling Program and eight mapping expeditions in the ice covered regions of the high Arctic. He was a member of the President's Panel on Ocean Exploration, National Science Foundation's Advisory Committee for the Geosciences, and chaired a National Academy of Science Committee on national needs for coastal mapping and charting as well as the National Academies report on the impact of the Deepwater Horizon Spill on ecosystem services in the Gulf of Mexico. He was the co-chair of the NOAA's Ocean Exploration Advisory Working Group, the Vice-Chair of the Consortium of Ocean Leadership's Board of Trustees, and is the Chair of the National Academies of Science's Oceans Studies Board, a member of the State Dept.'s Extended Continental Shelf Task Force and the Navy's SCICEX Advisory Committee. In 2016 he was appointed by President

Obama to the Arctic Research Commission. Larry's current 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.

Ms. Susan Monteverde

Vice President for Government Relations, American Association of Port Authorities

Ms. Monteverde joined AAPA in 1999 to serve as the head of the Government Relations Department. She is responsible for planning, developing and conducting AAPA's legislative and regulatory affairs program in cooperation with AAPA President, AAPA Committees, the AAPA Legislative Policy Council, and the other government relations staff. Prior to joining AAPA, Ms. Monteverde was Department Head for Environmental and Public Affairs for the American Chemical Society where she determined the strategic direction for the Society's government relation's program and managed part of its implementation. Ms. Monteverde also worked in the government affairs operation of the National Solid Waste Management Association and the Miller Brewing Company. Ms. Monteverde holds a B.A. in Political Science from the George Washington University in Washington, D.C. and grew up in Philadelphia, Pennsylvania.

Rear Admiral John P. Nadeau

Assistant Commandant for Prevention Policy, U.S. Coast Guard

Rear Admiral John Nadeau assumed the duties as the Assistant Commandant for Prevention Policy in July of 2017. In this capacity, he leads development of national policy, standards, and programs to promote Marine Safety, Security, and Environmental Stewardship. He oversees three Directorates: Inspections and Compliance, Marine Transportation Systems, and Commercial Regulations and Standards. The programs under his leadership include waterways management, navigation and boating safety, ports and facilities, merchant mariner credentialing, vessel documentation, marine casualty investigation, commercial vessel inspections, and port state control. His previous flag officer assignment was the Assistant Commandant for Capability, where he was responsible for identifying and providing service-wide capabilities and developing standards or staffing, training, equipping, sustaining, maintaining, and employing forces to meet all U.S. Coast Guard mission requirements.

Mr. Mark Osler

Senior Advisor for Coastal Inundation and Resilience, NOS /NOAA

Mark Osler joined NOAA in June 2018. He works across the National Ocean Service and the broader NOAA community to provide national level leadership on coastal inundation science and enabling decision-makers to prepare for and respond to changes affecting coastal communities. His portfolio focuses on internal program coordination and leadership, engagement with the interagency community, and external partnerships with private industry, NGOs, and academia. Educated as a Civil Engineer and trained as a coastal modeler, Mark's career prior to joining NOAA was entirely within private industry. His most recent role was providing national leadership for his firm's Coastal Science & Engineering business line. Mark holds a B.S. in Civil Engineering from Lehigh University and an M.C.E. in Coastal Engineering from the University of Delaware's Center for Applied Coastal Research.

Rear Admiral Ann C. Phillips

Rear Admiral Ann C. Phillips, (USN Retired), Special Assistant to the Governor for Coastal Adaptation and Protection, State of Virginia

Ann C. Phillips is the Special Assistant to the Governor for Coastal Adaptation and Protection for the State of Virginia. Prior to joining the administration, she worked to address sea level rise and climate impact on national security at the regional, national and international level, and chaired the Infrastructure Working Group for the Old Dominion University-convened Hampton Roads Sea Level Rise Preparedness and Resilience Intergovernmental Pilot Planning Project. Preceding her work on climate impact and sea level rise, Ann served nearly 31 years on active duty. She had the honor to commission and command USS MUSTIN (DDG 89) and to command Destroyer Squadron 28. Her final Flag command was as Commander, Expeditionary Strike Group TWO, including all the Amphibious Expeditionary Forces on the East Coast of the United States. Ann earned a Master of Business Administration from The College of William and Mary - Mason School of Business, in 2016. She is a 1983 graduate of the University of North Carolina at Chapel Hill. In addition, she is a certified Chesapeake Bay Landscape Professional, Level 2.

Rear Admiral Shepard M. Smith

Designated Federal Officer, HSRP; and Director, Office of Coast Survey, NOS, NOAA

Rear Admiral Shepard M. Smith became the director of the Office of Coast Survey (OCS) on August 26, 2016. Hallmarks of his career have been his leadership in the modernization of NOAA's charting systems and transformation of NOAA's hydrographic technologies. That leadership and experience are now be applied to expanding Coast Survey's data capabilities and supporting a data-enabled maritime economy. Smith returns to Coast Survey as commanding officer of NOAA Ship *Thomas Jefferson*, on which he served three tours during his NOAA career. Smith became NOAA's first commanding officer to operationalize unmanned surface vehicles for mapping shallow areas previously inaccessible and uncharted. He served as the chief of Coast Survey's Marine Chart Division where he changed the nation's charting tradition by restructuring chart production and distribution. That modernization made U.S. navigational data more accessible to the public through a wider range of electronic formats, faster and more accurately. During ship assignments, he surveyed Alaska on NOAA Ship *Rainier*, was on the interagency response teams for the search and recovery of TWA flight 800, Egypt Air flight 990, the private plane piloted by John F. Kennedy, Jr., and commanded *Thomas Jefferson*, under his command, was awarded a Commerce Gold Medal for heroism and lead the six-week response to the Deepwater Horizon oil spill. He has a bachelor of science in mechanical engineering from Cornell University. He has a master of science in ocean engineering in 2003, and completed the IHO Category "A" program, both at the University of New Hampshire.

Mr. Thomas P. Smith, P.E., SES

Chief, Operations and Regulatory Division, Great Lakes and Ohio River Regional Integration Team North Atlantic Division, Regional Integration Team, Directorate of Civil Works, U.S. Army Corps of Engineers

Mr. Thomas P. Smith serves as the Chief of Operations and Regulatory Division for the U.S. Army Corps of Engineers at Corps Headquarters in Washington, D.C. Mr. Smith provides national oversight of the development, resourcing, and delivery of Operations and Maintenance programs for the Civil Works infrastructure portfolio and for Corps operational programs such as navigation, hydroelectric power, public recreation, environmental restoration, wildlife management, and the regulatory oversight of waterways and wetlands. He also provides leadership and oversight for activities and programs within the Corps' Great Lakes and Ohio River Division and North Atlantic Division Regional Integration Teams. As an Senior Executive Service member in July 2013 he served with the Department of Homeland Security (DHS as the Deputy Assistant Secretary for Plans with additional responsibilities as the DHS Coordinator for the Campaign to Secure the Southern Border and Approaches to the United States. From May 2015 through October 2016, Mr. Smith was the Assistant Secretary for Strategy,

Plans, Analysis and Risk with oversight of the Department's strategy, analysis, planning, and integration processes. Mr. Smith has extensive executive, managerial, and leadership experience in the delivery and operation of large, complex water resource solutions. He integrated worldwide engineering support to military and civil organizations and led Crisis Action Teams through nationally significant response events such as Hurricane Sandy in 2012, Mississippi and Missouri River flooding in 2011, and international contingency operations in Afghanistan, Iraq, Thailand, Pakistan, and Australia. As Commander of the Army Corps of Engineers Memphis District, he guided delivery of engineer projects, products, and services for flood risk management, navigation, environmental stewardship, and emergency operations for a six state region along the lower Mississippi River. Mr. Smith served as the Chief of the Army Initiatives Group for the Army's senior operations officer at the Pentagon during the peak of the Army's war efforts in Iraq. He is a combat veteran and commanded the lead Army engineer battalion in the attack to Baghdad in 2003.

Dr. William Sweet

Oceanographer, Center for Operational Oceanographic Products and Services, NOS / NOAA

Dr. Sweet is an Oceanographer at NOAA Center for Operational Oceanographic Products and Services who researches tide records around the U.S. and globally. He has published extensively on important cycles, patterns and trends affecting flood risk within coastal communities and U.S. military installations worldwide for the U.S. Department of Defense. He was a lead author for the 4th U.S. National Climate Assessment. Dr. Sweet received his Ph. D. from North Carolina State University and currently lives in Annapolis, MD, to witness sea level rise effects first-hand.

Captain Jorge Viso

President, American Pilots' Association

Captain Jorge Viso was elected President of the American Pilots' Association (APA) in 2016. He served in numerous leadership positons, including Vice President of the APA's South Atlantic States; Vice President and President of the Florida State Pilots' Association; and Chairman of the Tampa Bay Pilots' Association. He graduated from the U.S. Merchant Marine Academy at King's Point in 1985 with a Degree in Marine Transportation and Nautical Science and was commissioned as an Ensign in the U.S. Naval Reserve. He was a state pilot in the ports of Tampa Bay, Florida, from 1990 through 2016. He holds USCG credentials as Master of Steam and Motor Vessels (Limited Tonnage) and Chief Mate of

Steam and Motor Vessels (Unlimited Tonnage), and First Class Pilotage for Tampa Bay. He was a state pilot in the ports of Tampa Bay, Florida, from 1990 through 2016. He holds USCG credentials as

Master of Steam and Motor Vessels (Limited Tonnage) and Chief Mate of Steam and Motor Vessels (Unlimited Tonnage), and First Class Pilotage for Tampa Bay. He chaired the APA's Navigation and Technology Committee (NAVTECH) where he facilitated dialog among professional maritime pilots on portable pilot units (PPUs) and navigation technology matters, worked with local and federal officials on navigation policies and infrastructure support. Captain Viso served as Vice Chairman of the Florida Board of Pilot Commissioners, Executive Board Member of the Harbor Safety and Security Committee of Tampa Bay, an instructor at the Maritime Institute of Training and Graduate Studies (MITAGS), and the Maritime Pilot's Institute (MPI). The American Pilots' Association is the national trade association of professional maritime pilots. Its membership is made up of more than 50 groups of State-licensed pilots, representing virtually all the state pilots in the country, as well as the three groups of United States-registered pilots operating in the Great Lakes. APA members pilot over 95 percent of all ocean-going vessels moving in United States waters. There are approximately 1,200 individual pilots in the APA member pilot groups. The APA was established in 1884 to protect and improve the state pilotage system, to maintain the highest possible professional standards for licensed pilots in the United States, and to promote navigation safety.