2023 Speaker Biographies
NOAA HSRP Public Meeting, February-March, 2023

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Dr. Qassim Abdullah

Dr. Qassim Abdullah, Vice President and Chief Scientist, Woolpert Inc., Adjunct Professor, Penn State and UMBC

Dr. Qassim Abdullah is a scientist with more than 45 years of combined industrial, research and development (R&D), and academic experience in analytical photogrammetry, digital remote sensing, and civil and surveying engineering. Dr. Abdullah obtained his doctorate and master degrees in photogrammetry from the Civil Engineering Department at the University of Washington in Seattle. He is the Vice President and Chief Scientist for Woolpert Inc. His responsibilities include designing and managing strategic programs to develop and implement new remote sensing technologies focused on meeting the evolving needs of geospatial users. He also serves as an adjunct professor at the University of Maryland, and at Penn State, where he teaches graduate courses on unmanned aircraft systems (UAS), photogrammetry and remote sensing. Among his achievements, Dr. Abdullah evaluated and introduced a Geiger-mode and single photon lidar to the geospatial industry while leading Woolpert research activities surrounding intelligent transportation systems, digital twin, smart cities, and UAS sensor calibration and workflow development. Dr. Abdullah is a Fellow with the ASPRS and the creator and principal author of the new ASPRS Positional Accuracy Standards for Digital Geospatial Data where he received the organization's Lifetime Achievement Award in 2019 and has been the recipient of several prestigious awards. He publishes a monthly column, "Mapping Matters," in the American Society for Photogrammetry and Remote Sensing (ASPRS) journal, PE&RS. Dr. Abdullah is a member of the NOAA Hydrographic Services Review Panel (HSRP) and is on two of the Transportation Research Board's Standing Committees, the New Users of Shared Airspace (AV095) and the Geospatial Data Acquisition Technologies (AKD70). Dr. Abdullah is a certified photogrammetrist and licensed professional surveyor and mapper in 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 USGIF.

Dr. Nicolás Alvarado

Dr. Nicolás Alvarado, Navigation Manager Navigation Services Division, OCS/NOS/NOAA

Dr. Alvarado became a Navigation Manager in 2021 after working at NOAA for 17 years. He worked as a fishery management specialist and an Endangered Species Act consulting biologist for 8 years supporting NOAA Fisheries and worked as a physical scientist for 9 years supporting NOAA Research in the Office of Ocean Exploration & Research. Dr. Alvarado obtained his Bachelor of Science in Chemistry and his Master of Science in Earth Sciences in Canada, and his PhD in Oceanography from Texas A&M University.

Dr. Alvarado began his career with NOAA in 2004 as a Knauss Marine Policy fellow. After his fellowship, he transitioned to the Office of Oceanic and Atmospheric Research/Office of Ocean Exploration. After 9 years he relocated to the Tampa Bay/St. Petersburg area where he joined the National Marine Fisheries Service/Southeast Regional Office/Protected Resources Division as an Endangered Species Act

Consultation Biologist for the NOAA Deepwater Horizon Oil Spill restoration projects in the Gulf of Mexico. After 4 years with Protected Resources, he transitioned to the Office of Sustainable Fisheries/Atlantic Highly Migratory Species Management Division where he completed complex analyses required for the HMS longline fisheries management and endangered species interactions and drafted fishery management regulatory actions (i.e., Caribbean Swordfish and Shark Retention Rulemaking).

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

Capt. (NOAA, Ret.) Andrew (Andy) A. Armstrong III, Co-Director, NOAA/University of New Hampshire Joint Hydrographic Center, NOS, NOAA

Andrew Armstrong is Co-Director of the NOAA/University of New Hampshire Joint Hydrographic Center where leads NOAA's role in the research, mapping, and educational programs of the Center. 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. He has specialized in hydrographic surveying and seafloor mapping throughout his NOAA career. 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 a M.S. in technical management from The Johns Hopkins University.

Dr. Maritza Barreto-Orta

Dr. Maritza Barreto-Orta, Principal Investigator and geological oceanographer, University of Puerto Rico

Geological Oceanographer and professional geologist. She is a professor in the Graduate School of Planning, University of Puerto Rico, Rio Piedras Campus and Director of the Coastal Research and Planning Institute of PR (CoRePI). Dr Barreto has 26 years of experience in the academia and coastal research studies in Puerto Rico (Coastal planning and Policy, beach erosion, Coastal Hazards). She was nominated by the Governor of Puerto Rico and selected as a member of the Puerto Rico Expert Advisory Committee on Climate Change. She is member of the American Shore and Beach Preservation Association (ASBPA), Latinoamerican Beach Association ProPLayas, Red Latinoamericana de erosion Costera (RELAEC). Dr Barreto was granted to conduct research in coastal process and beach erosion by the National Aeronautics and Space Administration (NASA/1.4 millions), Federal Emergency Management Agency (FEMA/1.2 million), US Geological Survey (USGS ($150,000), National Science Foundation (NSF (3 millions), Department of Environmental and Natural Resources of PR (DRNA/ $150,000); Para La Naturaleza and University of Puerto Rico. She has publications as an author and co-author in peer review journals as Shore and Beach,

Environmental Management, Marine Frontiers, Coastal Management, American Journal of Marine Science, Australis (Chile).

Ms. Juliana P. Blackwell

Ms. Juliana P. Blackwell, Director, National Geodetic Survey, NOS, 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. The 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 is a member of NOAA's Hydrographic Services Review Panel, a federal advisory committee providing advice to the NOAA Administrator on matters related to hydrographic services. 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 B.S. in mathematics. She received a MBA from the University of Maryland's Robert H. Smith School of Business.

Capt. Tomas Busto

Captain Tomas Busto, San Juan Bay Pilot

Captain Tomas was born and raised in San Juan, Puerto Rico. He started his maritime career working as a ship owner representative in San Juan while he studied Business Administration. He then attended a Maritime Academy in the United States where he also obtained a degree in Marine Transportation from Texas A&M University. Upon completing several years of formal education, he joined Royal Caribbean International where he served as Master on the world's largest cruise ships. While working in the cruise industry, Tomas was involved in various projects including: the development of bridge officer and pilot training, dry docking / ship revitalizations, new build deliveries, and navigation research projects. Presently, Captain Tomas serves as a San Juan Bay Pilot and collaborates in all aspects of the local marine industry with pleasure.

Dr. Miguel Canals-Silander

Dr. Miguel Canals-Silander, founder, Professor and Co-Director of the UPRM Center for Applied Ocean Science and Engineering and CARICOOS

Dr. Miguel Canals is an oceanographer and numerical modeler with 14 years of experience in coastal hydrodynamics, numerical ocean modeling and forensic oceanography. He has extensive experience in numerical model implementation and development and has conducted numerical modeling, instrument deployment, data analysis and met-ocean hindcast analyses for projects in Puerto Rico, the US Caribbean and Latin America. Dr. Canals is also professor of physical oceanography and ocean/coastal engineering at the University of Puerto Rico at Mayaguez. His work focuses on coastal hydrodynamics, coastal wave transformation, geophysical fluid dynamics and renewable ocean energy. From 2012 to 2017 he served as the Technical Director of the Caribbean Coastal Ocean Observing System (CARICOOS; https://www.caricoos.org) and co-led the design and implementation of the observational and numerical modeling components of CARICOOS. He is the Director of the UPRM Center for Applied Ocean Science and Engineering and leads a portfolio of externally funded research projects focusing on nearshore wave modeling, coral reef restoration, coastal circulation and hydrodynamics, numerical marine connectivity studies, and ocean energy resource characterization projects. He is also directly involved in several projects related to coastal hazards and shoreline protection led by the USACE in Puerto Rico.

Ms. Ashley Chappell

Ms. Ashley Chappell, Team Lead, NOAA Integrated Ocean and Coastal Mapping program, NOS

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 an exciting stint at National Geographic, she joined the National Oceanic and Atmospheric Administration as an aeronautical chart cartographer in 1992. Her childhood summers spent at Virginia Beach and a love of the sea soon necessitated a move to nautical charting for 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 the worthy mission of safe and efficient marine transportation. Since then, Ashley has focused in large part on the emerging threats and opportunities from a warming Arctic, and the national need for better marine transportation system infrastructure and foundational geospatial data to support good decision-making in the coastal zone. She currently serves as NOAA's Integrated Ocean and Coastal Mapping Coordinator. Ashley lives in Alexandria, Virginia with her husband and three children, where she advocates for elementary STEM education in her spare time.

Dr. Patricia Chardón-Maldonado

Dr. Patricia Chardón-Maldonado, Deputy and Technical Director, CARICOOS

Dr. Patricia Chardón-Maldonado is a coastal and civil engineer with 6 years of experience in coastal morphodynamics, numerical ocean and weather modeling, and ocean observing. Chardon-Maldonado earned a B.S. in Civil Engineering and M.S. in Environmental and Water Resources Engineering from the University of Puerto Rico at Mayagüez, and a Ph.D. in Coastal Engineering from the University of Delaware. Dr. Chardón-Maldonado currently serves as the Deputy and Technical Director of the Caribbean Coastal Ocean Observing System (CARICOOS; https://www.caricoos.org) and co-leads the design and implementation of the observational and numerical modeling components of CARICOOS. She has been involved in multiple research projects measuring, analyzing, and modeling climate, weather, and coastal features/processes and their impacts on socio-ecological systems, infrastructure, and communities in the US Caribbean region.

Capt. Anuj Chopra

Prof. (Capt.) Anuj Chopra, Co-founder and CEO, ESGplus LLC

Captain Anuj Chopra is an international executive, enterprise risk manager, and big data champion who has successfully forged client relationships in the maritime industry for more than three decades. His deep experience developing ethical, customer-focused EQ & SQ cultures has led him to conclude high-value contracts with some of the largest shipping companies in the world. Captain Chopra cofounded ESGplus LLC, an international consulting firm focused on bringing resiliency, efficiency, and independent board advisory to clients invested in the global maritime supply chain. ESGplus promotes sustainability, increased safety standards, and reducing the environmental impact of the maritime industry as a whole. Captain Chopra guides ESGplus as a diversity-focused company, providing client value by promoting exemplary, transparent customer solutions for a sustainable and resilient maritime supply chain. Captain Chopra spent nearly a decade as a Vice President of RightShip, negotiating high-level due diligence and compliance agreements in developing business across North and South America. Prior to RightShip, he served as the President of U.S. Operations for the Anglo-Eastern Group, with direct oversight of all vessels visiting U.S. ports, risk evaluation, and government relations. Captain Chopra began his seafaring career as a deck cadet, working his way up to Captain. He has commanded large bulk carriers and tankers and holds a Commonwealth Extra Masters Certificate of Competency and Shipping Management from the Indian Institute of Management, Ahmedabad. He serves as a Fellow of The Nautical Institute (Chair, U.S. Gulf Branch), an Ambassador for the Sailor Society, and on the Board of Directors at the Houston International Seafarers Center. He also teaches at the University of Houston, where he is an Adjunct Professor for the Supply Chain & Logistics Program. He is a Board Member and Treasurer of the North American Marine Environment Protection Association (NAMEPA) and a member of NOAA's Hydrographic Services Review Panel. He continually mentors' students and professionals in the maritime supply chain.

Capt. Alex E. Cruz

Capt. Alex E. Cruz, Owner, West Indies Marine Services, and Vice Chairman, South Coast Harbor

Safety and Security Committee, Puerto Rico

Captain Alex E. Cruz is the owner of the West Indies Marine Services and worked in the marine transportation sector for over 25 years. He served as the Vice Chairman of the South Coast Harbor Safety and Security Committee of Puerto Rico since 2012, on the board of the Caribbean Coastal Ocean Observing System (CARICOOS), and as a Harbor Pilot for the Southeast Harbor Pilots. He was a Merchant Marine officer and has experience in Puerto Rico, U.S. Virgin Islands as well as Alaska and east and west coasts of the U.S. He is involved with the private sector and academia and for day to day management of Puerto Rico ports. In 2000 he was appointed by the Governor of PR to serve as a commissioner in the newly created Puerto Rico Pilotage Commission until 2013 including 2 years as the president. He was a key player in the development of the LNG Terminal in Guayanilla, and the Aguirre Gas port. In 1997 he was appointed State Harbor Pilot for all the seaports of Puerto Rico. From 1990-1997 he worked for Exxon Shipping Company as a Second and Third Mate navigating the waters of east and west coast of the U.S. and Alaska. As a naval reserve officer he had the rank of LCDR at naval bases in the U.S. and Puerto Rico, also with the USCG base in Puerto Rico. He has a B.S. in Maritime Transportation from Texas A&M University, Galveston. He obtained a 3rd Mate license from the U.S. CG and a commission as an Ensign in the U.S. Navy reserve. He is a Licensed Merchant Marine Officer with a Master 1600 GRT vessel and Chief Mate Unlimited plus First Class pilot for all the seaports of Puerto Rico and the U.S. Virgin Islands.

Mr. Ernesto Diaz

Mr. Ernesto Diaz, Caribbean Regional Manager - Lead Climate and Coastal Scientist, Nature-based Solutions Designer, Tetra Tech Architects and Engineers

Ernesto L. Diaz is Tetra Tech's Caribbean regional manager based in Puerto Rico and a lead coastal and marine scientist specializing in risk reduction, shoreline protection, and development of sea level rise adaptation strategies using ecological and nature-based engineering approaches. Having served as director of the Puerto Rico Office for Coastal Management and Climate Change, Ernesto has more than 25 years of experience leading the development of adaptation plans, coastal storm feasibility studies, climate change vulnerability assessments, and nature-based interventions to protect and build resilient coastal communities and infrastructure. Ernesto is a lead author of the Fourth National Climate Assessment report's U.S. Caribbean chapter and served as state on-site coordinator for the Federal Emergency Management Agency's Emergency conducting coastal damage assessments. He has led the implementation of multidisciplinary projects involving planning, design, permitting, and environmental compliance with federal, Puerto Rico, and U.S. Virgin Island regulations. Ernesto teaches at the School of Environmental Affairs at Metropolitan University, Puerto Rico, and lectures for the University of Puerto Rico-Mayagüez Department of Civil Engineering and Surveying. Ernesto holds a Bachelor of Science degree in Coastal and Marine Sciences from the University of Puerto Rico, Humacao campus, as well as an Associate of Science degree in Oceanography and Marine Sciences from Shoreline College in Shoreline, Washington, and a Master of Engineering Management from the Polytechnic University of Puerto Rico.

Captain José E. Díaz

Captain José E. Díaz, Commander, Sector San Juan, Captain of the Port PR/USVI, U.S. Coast Guard

CAPT Díaz reported to Coast Guard Sector San Juan and assumed the duties of Sector Commander in June 2022 after serving as Deputy Commander from June 2020 to June 2022. CAPT Díaz is a native of Aibonito, Puerto Rico and a 1995 graduate of the Inter American University of Puerto Rico, earning a Bachelor's degree in Business Administration and possesses a near costal Master 100-ton US Merchant Mariner credential. CAPT Díaz has been assigned to five cutters over his career; Commanding Officer USCGC THETIS (WMEC 910) homeported in Key West, Florida from May 2016 to June 2018. Executive Officer USCGC TAMPA (WMEC 902) in Portsmouth, Virginia, Commanding Officer USCGC ADAK (WPB 1333) in Manama, Bahrain, Operations Officer aboard USCGC MOHAWK (WMEC 913) in Key West, Florida, and Deck Watch Officer aboard USCGC FORWARD (WMEC 911) in Portsmouth, Virginia. CAPT Díaz's assignments ashore include Law Enforcement and Search & Rescue Command Duty Officer at Coast Guard Greater Antilles Section in San Juan, Puerto Rico, Chief of the Law Enforcement Training Branch at the Coast Guard International Training Division in Yorktown, Virginia, Coast Guard Atlantic Area Office of Cutter Forces in Portsmouth, Virginia, Coast Guard Attaché to the Republic of Ecuador, Joint Inter Agency Task Force South Operations Directorate (J3) as Targeting Chief in Key West, Florida, and as the Maritime Enforcement Branch Chief for the Coast Guard FifthDistrict in Portsmouth Virginia. CAPT Díaz is married to Gloribel Rivera-Rodríguez from Barranquitas, Puerto Rico. CAPT Díaz's military awards include two Defense Meritorious Service Medals, three Meritorious Service Medals, Iraq Campaign Medal, and four Coast Guard Commendation medals, in addition to other personal and service awards.

Ms. Clarivette Díaz Sosa

Clarivette Díaz Sosa, President, Puerto Rico Shipping Association and General Manager, Tropical Shipping

Clarivette Diaz is the first woman to preside over the Puerto Rico Shipping Association. A non-profit organization that houses Puerto Rico's maritime industry companies. The organization has more than thirty-five members committed to serving our island with the highest service standards. As part of her role as president of this organization, Clarivette works hand in hand with agencies, both federal and state, promoting and enforcing the safety protocols and regulations that govern our industry. She also represents our members in different forums and organizations of interest, both local and international, inserting our organization in the country's discussion on the economic development of Puerto Rico. She is passionate about this industry and has led the association in many philanthropy and charity projects, giving back to the communities we serve. "As an organization, we understand we have a responsibility with our communities. Doing so can create a profoundly positive impact on the world around us". Clarivette began her career in the Maritime Industry with Tropical Shipping in 2008 as the Office and Commercial Manager for Puerto Rico. In her role, she oversaw Traffic, Customer Service, Accounting, and Operations Departments. Since her first day with Tropical Shipping, she fell in love with this industry and always looked for opportunities to grow and learn something new. In 2019 she was promoted to General Manager in charge of all Operations for Tropical Shipping in Puerto Rico. One of the things she enjoys the most is building strong customer relations, which are essential to business success.Clarivette holds a bachelor's degree in finance. She is also a dedicated mother to her daughter Nana, a 24-year-old Biology student who is looking to become a dentist in the near future.

Dr. Nicole Elko

Dr. Nicole Elko, Science Director, American Shore and Beach Preservation Association (ASBPA), Executive Director of the South Carolina Beach Advocates, and President of Elko Coastal Consulting

Dr. Nicole Elko works with U.S. coastal communities on topics of resilience, research, and restoration. She provides hydrographic services, including topographic and bathymetric survey data and water level data, to her clients in the Southeast. In her role as Science Director for ASBPA, Dr. Elko understands the challenges facing coastal practitioners such as flooding, erosion, and channel maintenance; and helps address these challenges through advocacy for resilience planning, coastal restoration projects, and the beneficial use of dredged material. Dr. Elko helps provide science-based guidance to Congress, Federal and State agencies. In addition to her state and national advocacy roles, Dr. Elko is one of the three civilian members of the U.S. Army Corps of Engineers' Coastal Engineering Research Board (CERB). She received her Ph.D. (Geology) from the University of South Florida after working with the USGS Coastal Marine Geology Program, and while serving as the coastal coordinator for Pinellas County, FL. Dr. Elko has 25 years of experience in coastal resource management and has managed or assisted with dozens of beach preservation projects along the U.S. Southeast and Gulf coasts. Dr. Elko has co-authored a book on coastal management, numerous technical reports, and over 35 journal publications, including The Future of Nearshore Processes Research, a seminal report that provides a research vision developed by the coastal research community. This led to her role as a co-Executive Director for the grass-roots U.S. Coastal Research Program. Regionally, Dr. Elko serves on South Carolina Governor McMaster's Floodwater Commission, and the Southeast Coastal Ocean Observing Regional Association (SECOORA) Science Committee. Dr. Elko teaches a "Beaches 101" training course to regulators and elected officials in

the Carolinas. In her free time, she enjoys surfing with her family and serving as the Director of the Folly Beach Wahine Classic, the longest running all-female surf contest on the U.S. East Coast.

Rear Admiral Benjamin K. Evans

Rear Admiral Benjamin K. Evans, Designated Federal Officer, HSRP; and Director, Office of Coast Survey, NOS, NOAA

Rear Admiral (lower half) Benjamin K. Evans is the Director of the Office of Coast Survey and U.S. National Hydrographer responsible for overseeing NOAA's hydrographic services, including the mapping and charting of all U.S. coastal waters, as well as representing the U.S. on interagency and in international hydrographic efforts. He leads NOAA's ocean mapping and nautical charting program, continuing the transformation of the agency's navigation services to meet the needs of twenty first century mariners and apply Coast Survey's technical expertise to meet a broad range of requirements for authoritative ocean mapping data. He is an experienced hydrographer with over twenty-one years of service in the NOAA Commissioned Corps, most of which has been in the NOAA mapping and charting community afloat and ashore. He has served in a wide range of leadership, technical, and policy roles, including command of NOAA Ships *Ferdinand R. Hassler* and *Rainier*, management positions in Coast Survey and the Office of Marine and Aviation Operations, and on the staff of the NOAA Administrator and the acting chief of staff of the NOS Assistant Administrator. Rear Admiral Evans holds degrees in Physics from Williams College, and Ocean Engineering from the MIT/WHOI Joint Program where his research focused on uncrewed systems. He is an American Conference on Surveying and Mapping / Hydrographic Society of America Certified Hydrographer.

Capt. Javier Figueroa

Captain Javier Figueroa, General Manager, Moran Towing

Representative Jenniffer González-Colón

Representative Jenniffer González-Colón, U.S. Congress, Resident Commissioner, PR

Jenniffer González-Colón was elected November 2016, as Puerto Rico's sole Representative to the U.S. Congress, known as Resident Commissioner. The first woman to hold the office, Ms. Gonzalez-Colón received the most votes of any elected official on the Island in that election. A lifelong Republican activist for Puerto Rican statehood, Ms. González-Colón entered elective office in a 2002 special Election, becoming the youngest member at the time of the Puerto Rico House of Representatives. She quickly rose through the ranks achieving the posts of Speaker of the House for four years and Minority Leader for another four. Her priorities as Puerto Rico's voice in Congress include spearheading the economic recovery of Puerto Rico, securing equal treatment for Puerto Rico's three and a half million U.S. Citizens in federal laws, regulations, services, and funding, and ensuring that Congress responds decisively to the overwhelming mandate of Puerto Rico's voters for admission as the 51st state of the Union in both plebiscites by 61.3% in November 2012 and 97% in July 2017. She has made her presence felt on Capitol Hill, being elected by her colleagues to the influential Republican Conference House Policy Committee and selected to the Speaker's Intergovernmental Affairs Task Force. González-Colón is a member of the House Committees on Transportation and Infrastructure, Science, Space, and Technology and Natural Resources in the 116th Congress and was part of the Committees on Veterans' Affairs and Small Business in the 115th. González Colón had to represent Puerto Rico during its worst natural disaster in 90 years after hurricanes Irma and Maria. Her efforts to keep Puerto Rico's recovery at the forefront of Congress' attention, organizing visits of members of Congress and high federal officials, building bipartisan alliances, have produced over $30 Billion in appropriations after the disaster as well as legislation allowing infrastructure to be rebuilt to improved standards, full federal share in funding for rebuilding, and an extension in the emergency agencies' mandates. She has been recognized by NewsMax as one of the 100 most influential Republican women, by The Hill as one of the new members to watch, and by Georgetown University and the Lugar Center as one of the top 20 team working Members of the House. She received the National Trailblazer Award from the League of United Latin American Citizens and APEX Award for Mental Health advocacy from the American Psychiatric Association. A product of the Puerto Rico public schools, holder of a Juris Doctor and Master of Laws degree (LL.M.), González-Colón serves as Chair of the Puerto Rico Republican Party, and First Vice Chair of the local New Progressive Party, standard bearer for Puerto Rico statehood. She has received recognition for her career as an elected official by the Puerto Rico United Retailers Center, the Spanish Chamber of Commerce, and Manufacturer's Association and was selected as an Elected Woman of Excellence by the National Foundation for Women Legislators, among other awards and memberships.

Rear Admiral Nancy Hann

Rear Admiral Nancy Hann, Director, NOAA Office of Marine and Aviation Operations (OMAO), and Director of the NOAA Commissioned Officer Corps (NOAA Corps)

Rear Admiral Nancy Hann serves as director of the NOAA Office of Marine and Aviation Operations (OMAO) and director of the NOAA Commissioned Officer Corps (NOAA Corps). Rear Admiral Hann is responsible for the direct leadership and management of OMAO's operational assets, including the agency's fleet of research and survey vessels and aircraft. She has served in many operational and management assignments, most recently completing tours as the OMAO deputy director for operations and deputy director of the NOAA Corps, commanding officer of the NOAA Aircraft Operations Center and as OMAO's Chief of Staff. Rear Admiral Hann has served aboard NOAA aircraft as both a pilot and flight meteorologist, and has supported a variety of scientific missions and multiple unmanned aircraft missions as a pilot and project manager. Her previous experience includes serving as executive officer at the NOAA Marine Operations Center-Atlantic, associate director at the Atlantic Oceanographic and Meteorological Laboratory, and NOAA liaison to the U.S. Pacific Command. She has served aboard two NOAA ships and is a certified diver. Rear Admiral Hann holds a master's degree in public administration from the John F. Kennedy School of Government at Harvard University, a master's degree in aeronautical science and space studies from Embry Riddle Aeronautical University and a bachelor's degree in marine science and biology from the University of San Diego. Rear Admiral Hann has a strong record of achievement and has received numerous awards, including the NOAA Corps Meritorious Service Medal, and multiple Department of Commerce medals.

Ms. Nicole LeBoeuf

Nicole LeBoeuf, Assistant Administrator for Ocean Services and Coastal Zone Management, NOS, NOAA

Nicole R. LeBoeuf is the Assistant Administrator for the National Oceanic and Atmospheric Administration's (NOAA's) National Ocean Service, an organization of 1,800 staff in more than 50 locations around the country. As the Assistant Administrator for Ocean Services and Coastal Zone Management at NOAA, Ms. LeBoeuf oversees all strategic and operational aspects of America's premiere coastal and ocean agency. She provides the strategic vision needed to lead the implementation of activities that support NOS's priorities of safe and efficient transportation and commerce; preparedness and risk reduction; and stewardship, tourism and recreation. She 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. Ms. LeBoeuf actively establishes and grows partnerships with other federal agencies, non-governmental organizations, and industry. Ms. LeBoeuf has over 20 years of scientific and program management experience, with emphasis on the connections between science and policy. Previously, Ms. LeBoeuf served as the NOS Deputy Assistant Administrator. In this role, she oversaw the financial, administrative, and performance activities across NOS to address the evolving economic, environmental, and social pressures on our ocean, coasts, and coastal communities. Prior to joining NOS, Ms. LeBoeuf served as Acting Deputy Director of the Office of Protected Resources in NOAA Fisheries, and Chief of the Marine Mammal and Sea Turtle Conservation Division in the Office of Protected Resources, where she maintained oversight of a diverse

portfolio of protected species conservation and management activities. Ms. LeBoeuf has also worked in NOAA headquarters, in the NOAA Budget Office and as NOAA's finance lead during the Deepwater Horizon oil spill, in NOAA Fisheries' Office of International Affairs as NOAA's Lead for the Convention on the Conservation of Antarctic Marine Living Resources, and as the Special Assistant to NOAA Fisheries Science Director, during which time she represented NOAA at the U.N. General Assembly and the World Conservation Union. Ms. LeBoeuf grew up on the Texas Gulf Coast and knows the importance of coastal communities to our nation. She holds a bachelor's degree in marine biology from Texas A&M University and a master's degree in sustainable development and conservation biology from the University of Maryland. She is also a proud graduate of NOAA's Leadership Competencies Development Program. She lives with her husband, stepchildren, and hound dog in Kensington, Maryland.

Dr. Larry Mayer

Dr. Larry Mayer, Director, Center for Coastal and Ocean Mapping, and Co-Director, Joint Hydrographic Center, University of New Hampshire

Larry Mayer is a Professor and Director of The Center for Coastal and Ocean Mapping at the University of New Hampshire. He received a Ph.D. from the Scripps Institution of Oceanography in Marine Geophysics (1979). 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 2000 Larry became the founding director of the Center for Coastal and Ocean Mapping at the University of New Hampshire. Larry has participated in more than 95 cruises (over 75 months at sea!) during the last 38 years including 13 mapping expeditions in the ice-covered regions of the high Arctic. He is the recipient of the Keen Medal for Marine Geology and an Honorary Doctorate from the University of Stockholm. He was a member of the President's Panel on Ocean Exploration and chaired National Academy of Science studies on national needs for coastal mapping and charting and 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 currently the Chair of the National Academies of Science's Oceans Studies Board and the U.S. Committee for the Decade of Ocean Science, a member of the State Dept.'s Extended Continental Shelf Task Force, the Navy's SCICEX Advisory Committee, and Vice Chair of the Board of the Ocean Exploration Trust. In 2016 Larry was appointed by President Obama to the Arctic Research Commission, in 2017 he was elected to the Hydrographic Society of America Hall of Fame. In 2018 he was elected to the National Academy of Engineering and in 2019 he was elected as a foreign member of the Royal Swedish Academy of Sciences. In 2020 Larry became the first recipient of the Walter Munk Medal from The Oceanography Society and was elected a Fellow of the American Geophysical Union. 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.

Mr. Jeremy McMaster

Jeremy McMaster, Emergency Support Function #1 Representative, Regional Emergency Transportation Representative (RETREP), U.S. Department of Transportation/Federal Aviation Administration

Jeremy McMaster is the Regional Emergency Transportation Representative for the US Department of Transportation (USDOT) covering New York, New Jersey, Puerto Rico, and the US Virgin Islands. Jeremy coordinates federal response and recovery operations involving transportation system impacts. He started in this role in April 2021 and has responded to multiple disasters in this short time, including Hurricane FIONA in Puerto Rico. Prior to working for USDOT, he worked for the Federal Emergency Management Agency for 10 years as a Watch Officer in New York City and Washington DC in their 24/7 operations center. Jeremy started his federal career in 2008 working for the National Weather Service as a Meteorological Technician assigned to the remote village of Kotzebue, Alaska. Jeremy retired after 20 years in the Air National Guard as a weather forecaster with deployments to Iraq (2003), Kosovo (2011), and multiple stateside activations. Jeremy has an associate degree in Meteorology from the Community College of the Air Force and a bachelor's degree in Emergency Management from the Metropolitan College of New York. He lives in northern New Jersey with his wife and four children.

Mr. Alberto Mercado Vargas

Alberto Mercado Vargas, Undersecretary of Natural Resources, Puerto Rico

Alberto Mercado Vargas is the current Undersecretary of Natural Resources for Puerto Rico. Prior to that he spent more than three years at The Nature Conservancy serving as the Puerto Rico Program Manager. Mr. Mercado Vargas attended the University of Puerto Rico at Humacao studying Biology and Wildlife, he later went on to earn Pontifical Catholic University of Puerto Rico School of Law for his J.D., followed by a master of science at Loyola University of New Orleans. Alberto has a history of volunteer work across Puerto Rico supporting training, sea turtle recovery, and organizing student forums.

Mr. Chris Moore

Chris Moore, Hurricane Program Manager, Operational Planning Branch, FEMA Region 2

Chris Moore is the Hurricane Program Manager and Regional Hurricane Liaison Team Lead for FEMA Region II, supporting New York, New Jersey, Puerto Rico, and the US Virgin Islands. Chris began in disaster response as an American Red Cross volunteer in 2000 and supported 9/11 recovery in 2001 in New York, NY. He joined FEMA in 2016 after six years with the Texas Division of Emergency Management, serving as the state Hurricane Program Manager and deliberate planning supervisor. In these roles he provided hurricane preparedness training, lead the team that developed the state's emergency operations plans, and supported numerous exercises and disaster responses. Since joining FEMA, Chris has responded to Hurricanes Harvey, Irma, Maria, Dorian, and Fiona, along with the 2020 Puerto Rico earthquakes and the COVID-19 response in New York, the USVI and Puerto Rico. Chris's service in the United States Army included two tours of duty in Afghanistan. He holds a bachelor's degree from the University of Texas at Austin and is a graduate of the Texas Department of Public Safety Command College.

Mr. Julio Morell

Julio Morell, Principal Investigator and Executive Director, CARICOOS

Professor Julio Morell was born in Arecibo and raised in San Juan, Puerto Rico. As it is common for children in insular regions, he became familiar with the ocean early with watersports including sailing, fishing, and diving providing provocation to pursue a B.Sc. at the University of Puerto Rico-Rio Piedras BS in Natural Sciences and a MS in Chemical Oceanographer at the University of Puerto Rico-Mayaguez. He became a scientific diver, a USCG Master license holder (100t, currently inactive), worked on a recreational fishing charter vessel and later assisted with research vessel operations at the University of Puerto Rico. Fields pursued include plankton metabolism, marine pollution by oil and debris and the study of tropical marine biogeochemical processes and their role in modulating atmospherically active gases. He participated in interdisciplinary research efforts to identify the influence of major river plumes (Orinoco and Amazon) and mesoscale processes, such as eddies and internal waves, on the optical, physical, and biogeochemical character of Eastern Caribbean waters. Recent research targets include the diverse expressions of climate and ocean acidification in our oceanic and coastal surroundings and ocean observing applied science. Since 2007, Julio M. Morell has served as Executive Director and Principal Investigator of the Caribbean Coastal Ocean Observing System (CARICOOS), a regional component of the U.S. Integrated Ocean Observing System. His ocean related trajectory provided an awareness of coastal information needs faced by diverse societal sectors in the Caribbean. He focused on the development of CARICOOS for more than a decade with continuous engagement of stakeholder sectors and building strategic partnerships with pertinent research, educational, federal, state and private entities (http://caricoos.org). He serves in several advisory committees including the Puerto Rico Climate Change Council, the UPR Sea Grant program, the Jobos Bay National Estuarine Research Reserve, The Ocean Foundation and the South Puerto Rico Harbor Safety and Security Committee.

Eduardo Pagan

Eduardo Pagan, Vice President and General Manager, Caribbean Services, TOTE Maritime, Puerto Rico

Eduardo Pagan joined TOTE Maritime in November of 2010 as the Vice President and General Manager of Caribbean Services. He brings more than 30 years of management consulting and transportation industry experience. Prior to joining TOTE Maritime, Pagan led his own consulting firm (Caribbean Solutions Partners) assisting organizations with Business Development and Strategic Planning. Pagan worked at Unilever for 21 years in key roles including manufacturing, distribution, and international sales. He was deeply involved with Total Quality Management (TQM), Total Productivity Management (TPM), and Lean Manufacturing. In addition to the development and improvement of overall business practices. He was also the General Manager for C.R. Bard (medical devices Mfg.) operations in Puerto Rico. At TOTE, he played a pivotal role on the company business strategy & accomplishments for the past decade, including the build of the Marlin's (first two containerships in the world fueled by LNG). He holds a BS degree in Industrial Engineering from the University of Puerto Rico and a master's degree in Business Administration. Recipient of several awards, most recently; Executive of the year by the Puerto Rico Manufacturing Association, Puerto Rico Best Employers of the year by Kincentric (for the past 4 years). Humanitarian Award by the Seamen's Church Institute. Pagan is also an active board member of the following organizations: Puerto Rico Boys & Girls Club (President), Puerto Rico Shipping Association (Past President), Caribbean Shipping Association (Council Member), B.E.O.C. (Business Emergency Operations Center – Vice President), Enactus and others. Most recently, Pagan was the Leader for one of the workstreams of the Business Task Force working along with the Puerto Rico Government in managing the Covid-19 pandemic.

Mr. Fernando Pagés Rangel

Fernando Pagés Rangel, PE, Director, Tetra Tech

Mr. Pagés is a professional coastal, environmental engineer with 33 years of professional experience, of which 30 have been with Tetra Tech, specializing in project management, engineering analysis and design of environmentally sensitive coastal and impacted port areas. He has been involved in the design and development of ports and waterfront projects, from permitting through construction support and has been responsible for the planning, engineering analysis, feasibility studies, design and preparation of plans and specifications for the assessment and restoration of marinas, wharves, seawalls, breakwaters, dikes, piers, shorelines, lagoons, and estuaries. As part of these projects, he has developed a thorough understanding of the regulatory requirements and design guidelines of the International Building Code,
US Army Corps of Engineers under Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403),
Section 404 of the Clean Water Act (33 U.S.C. 1344) and Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 (33 U.S.C. 1413). Mr. Pagés has also been involved in supporting regional programs for marine spatial planning and developing sea level rise adaptation tools.
Mr. Pagés is currently managing several programs for municipalities, federal government and private clients, which involve the assessment, development and implementation of coastal infrastructure affected by sea level rise and coastal flooding. These projects involve multi-disciplinary technical coordination as well as public participation and negotiations with regulatory agencies.

Representative Stacey Plaskett

Representative Stacey Plaskett, U.S. Congress, U.S. Virgin Islands

Congresswoman Stacey E. Plaskett represents the United States Virgin Islands' at-large Congressional District in the United States House of Representatives. She is currently serving her fourth term in Congress. For the 117th Congress, the members of the House Steering and Policy Committee unanimously appointed Congresswoman Plaskett to serve on the House Committee on Ways and Means, the oldest and one of the most exclusive committees in Congress. In true historic fashion, Mrs. Plaskett is the first Member from a U.S. territory and the fourth African-American woman to serve on this committee. She is currently serving her fourth term on the House Committee on Agriculture and is the Chair of the Subcommittee on Biotechnology, Horticulture and Research. Mrs. Plaskett is also a new member of the House Committee on Budget. Previously, Congresswoman Plaskett served on the House Transportation and Infrastructure Committee, as well as the House Committee on Oversight and Reform. Mrs. Plaskett is a member of the Congressional Black Caucus, House Blockchain Caucus, and the New Democrat Coalition where she is a co-chair of the Infrastructure Taskforce and the at-large Leadership Member. Congresswoman Plaskett also co-chairs the Congressional Caribbean Caucus. Mrs. Plaskett earned her undergraduate degree from Georgetown University School of Foreign Service, and her Juris Doctorate from American University's Washington College of Law. Congresswoman Plaskett has a long history of public service, having started as an Assistant District Attorney in the Bronx DA's office as well as having worked as a political appointee at the Department of Justice where she served as Senior Counsel under both Deputy Attorney General Larry Thompson and his successor James Comey. In the Virgin Islands, she has served as General Counsel for the Virgin Islands Economic Development Authority, charged with the economic development of the U.S. territory

and has also worked in private practice as counsel and transactional attorney for numerous companies. Most importantly, Stacey is the mother of 5 – three adults and 2 younger children and the wife of Jonathan Buckney-Small. She and Jonathan are avid readers, cooks and news junkies.

Mr. Ernesto Rodriguez

Ernesto Rodriguez, Acting Meteorologist in Charge, National Weather Service, NOAA

Ernesto completed a master's degree in Physical Oceanography from the University of Puerto Rico, Mayaguez Campus. As a student and research assistant, he focused on numerical modeling associated with storm surges, tsunamis, and waves near the coast for CariCOOS. Currently, he is the Science and Operations Officer at NOAA National Weather Service – Weather Forecast Office (WFO) in San Juan, Puerto Rico where he ensures the scientific integrity of the hydrometeorological products and services provided to the public by the WFO and leads in joint research projects and developmental efforts. In addition, he oversees the transfer of new technologies from the research community to the operational environment, promoting the development of local forecast techniques. He also monitors and evaluates the accuracy and scientific basis of forecast and warning products and services provided by the WFO.

Ms. Sharon M. Rodríguez Hernández

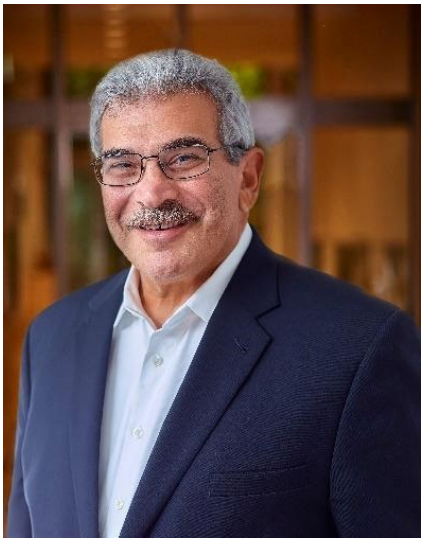
Sharon M. Rodríguez Hernández, Deputy, Programs and Project Management, South Atlantic Division Commander, Jacksonville District 7, U.S. Army Corps of Engineers

Ms. Rodríguez Hernández serves as Deputy Chief, Programs and Project Management Division, Jacksonville District. Serves as an alter ego to the Deputy District Engineer for Programs and Project Management (DPM) and fully shares the direction of all phases of programs and work for the district's area of responsibility. She has delegated authority from the DPM for overall Division execution including responsibility for programmatic and project schedules and budgets. Ms. Rodriguez Hernández also serves as the agency liaison for the Puerto Rico Interagency Policy Committee (IPC) Working Group. Prior to her overseas assignment, Ms. Rodriguez Hernandez served with the Savannah District in a dual capacity as Assistant Area Engineer and Chief of Contract Administration for the Fort Benning Hospital Area Office. Responsibilities included overseeing major military construction and contract administration work supporting the Fort Benning Maneuver Center of Excellence to include medical facilities. She held other roles: Acting Resident Engineer for the OMA Resident Office, Project Engineer and Office Engineer for the Main Post Resident Office where she was responsible for construction and renovation projects including historical facilities and the contract administration for all projects. Prior to her Federal career, Ms. Rodriguez Hernandez worked with the Puerto Rico Power Authority in various roles. Post-secondary education includes a Bachelor of Science in Electrical Engineering from the Polytechnic University of Puerto Rico and a Master of Transportation and Logistics from the North Dakota State University. She has taken numerous post-secondary courses in the areas of accounting, business administration, information systems, and building sciences. She is a Registered Professional Engineer in the Commonwealth of Puerto Rico and holds a USACE Contracting Officer warrant. She is DAWIA certified Level 2 in Contracting (2010), Level 2 Facilities Engineering certified, member of the Acquisition Corps, member of the Society of American and Military

Engineers (SAME), and member of the “Colegio de Ingenieros y Agrimensores de Puerto Rico (CIAPR).”

Mr. Edward J. Saade

Mr. Edward J. Saade, Chairman, Circum-Pacific Council, President EJS Solutions



Edward J. Saade has 45+ years of hydrographic, coastal zone management, geospatial survey and ocean engineering experience. Currently, he is president of EJS Solutions, providing consultancy services in ocean sciences and technology. From January 2014-May 2022, Mr. Saade served as Americas Regional Director for the Fugro, ultimately overseeing all four Marine and Land Divisions in the Region, and in June of 2015 was promoted to the President of Fugro (USA) Inc., serving Fugro in both capacities. He oversaw the expansion of Fugro’s capabilities to become the world leader in hydrographic LiDAR, multi-beam and backscatter data acquisition and mapping techniques for charting, site-characterization, coastal zone, essential fish habitat analysis. These techniques have been directly applied to the offshore wind farm, oil and gas and other construction industries and a wide variety of national hydrographic offices including NOAA, CHS (Canada), UKHO, GCS (Kingdom of Saudi Arabia), RAN (Australia) and SHOM (France), as well as IDB and World Bank. He has been actively involved in high resolution geophysical survey data acquisition and interpretation programs, both domestically and overseas. He holds a B.S. 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 authored/co-authored over 70 reports and studies related to seafloor geology and sub-bottom conditions. He served as the HSRP chair for 3 years.

Ms. Julie Thomas

Ms. Julie Thomas, Senior Advisor, Southern California Coastal Observing System (SCCOOS) and the Coastal Data Information Program (CDIP) Scripps Institution of Oceanography, La Jolla, CA (retired)

Since 1976, Julie Thomas worked at the Scripps Institution of Oceanography, and during the last several years, served as the Program Manager and Principal Investigator for the Coastal Data Information Program (CDIP). She served as the Executive Director for the Southern California Coastal Ocean Observing System (SCCOOS) from 2009 to 2018. She is now serving in an Advisory capacity for both of the above mentioned programs. She has been an advocate for sustained funding for real-time monitoring and model validation, working closely with many federal agencies, in particular the U.S. Army Corps of Engineers (USACE) and NOAA. She worked closely with many of the coastal USACE whose projects are dependent upon high quality, long-term wave data, realizing that this long term history is critical in infrastructure design and repair. Through the State of California, she has obtained sustained project funding, working closely with the recreational and commercial maritime community, including the Coast Guard and state Oil Spill Prevention and Response agencies. At the local and regional level, she is engaged with coastal issues, particularly those that are affected by energetic wave action, providing data for infrastructure design, shoreline change and sea level rise. Ms. Thomas has extensive outreach experience. She focused on listening to comments

from the maritime users/operators, spent many hours walking the fishing docks with nautical chart in hand, discussing the best location for a buoy deployment, and attending the maritime industry meetings to help resolve their concerns. Her priority is to maintain standards for collecting and disseminating high quality data, assure that these data are curated and archived at the NOAA National Centers for Environmental Information (NCEI), and advocate for the integration and communication of information that helps ensure safety, economic and environmental resilience, and the sustainable use of coastal oceans. She became the HSRP chairwoman in March 2021.

Dr. Legna M. Torres-García

Dr. Legna M. Torres-García, Research Oceanographer, Coastal and Marine Science Center, U.S. Geological Survey

Legna's research combined observational and the numerical model data over large scale regions to understand circulation, waves, sediment transport and potential impacts on reef-lined coast on coastal vulnerability. As a postdoctoral research oceanographer her work focuses on conducting simulations of hydrodynamics and coastal change in support of the “Coastal Impact Assessments” project in Puerto Rico and the Florida Keys. In addition, she works on a project on assessing the coastal vulnerability of coastal communities in Puerto Rico through a focused stakeholder engagement approach.

Mr. Bren Wade

Bren Wade, Marine Compliance Manager, Crowley Puerto Rico

Captain Bren Wade earned his BS degree and Third Mate's license in 1987 at the US Merchant Marine Academy before going to work for Crowley Maritime in Seattle. He spent the next three years working aboard harbor and deep sea tugs in Puget Sound and Alaska. In 1990, he left the Pacific Northwest to find warmer weather. Bren worked aboard an acoustic research vessel for the next two years. In 1992, he took a Chief Mate position aboard one of two NASA-owned Solid Rocket Booster Retrieval vessels. He became Captain in 2000 and sailed in that capacity until the last Shuttle lifted off in 2011. He also earned an MBA during his time at the Kennedy Space Center.Captain Wade joined Crowley as Manager, Marine Compliance in August 2011. Based in Jacksonville, Captain Wade provides his expertise from the towing industry to help plan and shape the industry-leading Mariner Assessment Program at Crowley, which now includes dynamic positioning, engineering and liquid cargo assessments. To date, he has done well over 1000 individual mariner assessments in the simulator and dozens of underway bridge team assessments. Bren Wade is an Associate Fellow with the Nautical Institute and USCG Designated Examiner and Qualified Assessor. He holds a Master 1600T and Master of Towing, 2nd Mate unlimited, and DPO unlimited.

Mr. Nathan Wardwell

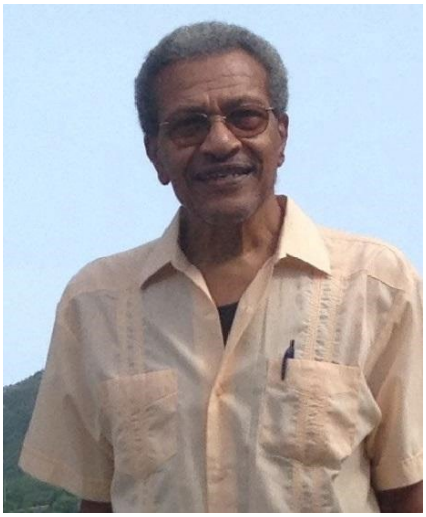
Mr. Nathan Wardwell, Managing Partner, JOA Surveys LLC

Mr. Nathan C. Wardwell is the Managing Partner of JOA Surveys LLC, a small business located in Anchorage, AK, that specializes in measuring water levels for tidal datum determinations. He began his career as an intern for the U.S. Geological Survey (USGS) measuring stream discharge and sediment transport around Alaska's Cook Inlet. He received a Bachelors of Science in Environmental Science from Alaska Pacific University and a Master's of Science from the University of New Hampshire's Center for Coastal and Ocean Mapping (UNH-CCOM) with a focus in ocean mapping. His graduate research included the use of Global Navigation Satellite Systems (GNSS) and a mobile platform for offshore geoid model validation. While at UNH-CCOM he had the opportunity to participate in UNCLOS Law of the Sea surveys of the Arctic and Atlantic oceans. He served as chair of the University of Alaska Anchorage Geomatics Advisory Board from 2016 to 2018. He is a member of the Alaska Water Level Water (AWLW) Steering Committee since 2019. The AWLW is a group of federal, state and private stakeholders working to improve the quality, coverage, and accessibility to water level observations in Alaska's coastal zones through innovative technologies and collaborative partnerships. He is a member of The Hydrographic Society of America's Education Committee and the International Hydrographic Office's Hydrographic Surveys Working Group. As a field technician at the beginning of his career he was a member of a team that installed 5 long term tide stations in Alaska for the National Oceanic and Atmospheric Administration's (NOAA) National Water Level Observation Network. In 2013 he became the Director of an Environmental Field Services contract with NOAA's Center for Operational Oceanographic Products and Services and managed an effort to collect tidal and GNSS observations at more than 200 locations along the coasts of the U.S. and its territories for the National Ocean Service's VDatum Program. From 2010 to 2018 he managed the ground survey of more than 1000 bare earth locations across Alaska to validate IfSAR data collected through the USGS 3D Elevation Program to update topographic maps for the

state.

Mr. Roy A. Watlington

Roy A. Watlington, Board of Directors, Caribbean Coastal Ocean Observing System (CARICOOS)



Native St. Thomian, Roy A. Watlington is a co-founder of the regional association for CARICOOS, the Caribbean Coastal Ocean Observing System, and serves as a member of its Board of Directors and as one of its representatives to the Integrated Ocean Observing System Association. He serves as USVI Science Representative to the National Tsunami Hazard Mitigation Program. He retired from the University of the Virgin Islands as physics professor and researcher after 40 years in higher education. As principal investigator he led the Anegada Climate Tracers Study and was founding coordinator of VI-EPSCoR, the Virgin Islands Established Program to Stimulate Competitive Research. He was the Incorporator and served as Project Director of OCOVI, Ocean and Coastal Observing – Virgin Islands, Inc, and remains an Associate to its Board Of Directors. Professor Watlington has authored refereed papers on ocean circulation, on Kick-`em-Jenny submarine volcano, and on anticipating recurrence of an 1867-class tsunami. He is co-author of the book, Disaster and Disruption in 1867, Hurricane, Earthquake and Tsunami in the Danish West Indies. In 2014, the National Weather Service honored Professor Watlington with the designation “Tsunami Ready Champion”. In 2021 the Marine Technology Society awarded him its John P. Craven Mentor Award. He continues to make presentations about coastal hazards in short courses sponsored by FEMA, as guest lecturer in Caribbean-wide disaster management workshops, sponsored by the private sector, and as occasional guest lecturer at UVI.

Dr. Marian Westley (Acting)

Dr. Marian Westley, acting Director, Center for Operational Oceanographic Products and Services, NOS, NOAA

Marian Westley, PhD, is the Deputy 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 this role, she oversees and continues to improve this 24-hour a day operation to provide mariners, coastal managers, and many other users with historic, real-time, and forecast data on ocean conditions along America’s 95,000-mile coastline. Dr. Westley's career with NOAA spans over twenty year with much of that time spent advancing climate research and the transition of research to operations. She joined CO-OPS in 2017 as the Deputy Director and has been the acting Director since January 2023. Dr. Westley has a BA in Physics and English from Yale University and an MSc and PhD in Oceanography and a Graduate Certificate in Ocean Policy from the University Hawaii at Manoa.