

Speaker Biographies

HSRP Virtual Public Meeting, March 3-4, 2021

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

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



Captain (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.

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. 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 B.S. in mathematics. She received a MBA from the University of Maryland's Robert H. Smith School of Business.

Rear Admiral (select) Richard Brennan

Designated Federal Official, HSRP, and Director (select), Office of Coast Survey, NOS, NOAA



Rear Admiral (select) Richard Brennan is the director (select) of the Office of Coast Survey (OCS) and has served with the NOAA Corps for over 20 years. He was the chief of the Hydrographic Surveys Division, sailed on nearly every hydrographic ship in the modern NOAA fleet, and 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](#). Rear Admiral 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 M.S. 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 B.S. in civil engineering and the Harvard Kennedy School Senior Executive Fellows program.

Mr. Pat Burke



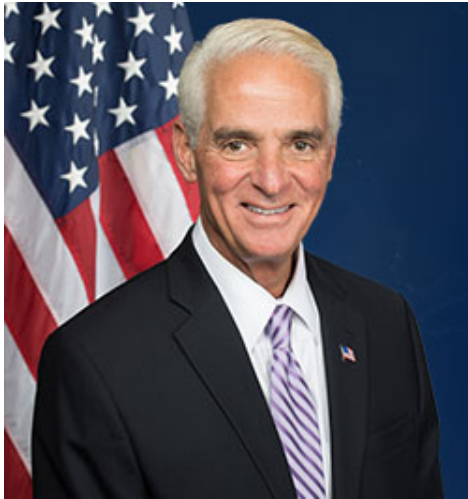
Chief, Oceanographic Division, CO-OPS, NOS, NOAA

Patrick Burke is the Chief of the Oceanographic Division for the NOS Center for Operational Oceanographic Products and Services (CO-OPS). He oversees operational aspects of NOS' coastal modeling program, and works closely with other NOS and NOAA Program Offices and the external modeling community to transition and implement coastal modeling systems that support navigation and water quality applications. He has over 15 years of experience in physical oceanography, coastal modeling and operations management. Patrick received his B.S. in Civil and Environmental Engineering from Rutgers University and his M.S. in Ocean Engineering

from the Stevens Institute of Technology.

Representative Charlie Crist

U.S. Representative, Florida's 13th Congressional District



Charlie Crist represents Florida's 13th which covers Pinellas County from Clearwater down through St. Pete, where he grew up and lives. He spent his life's work serving his fellow Floridians. He was elected to the Florida State Senate in 1992, where he championed environmental protection issues and public education. In 2000, after two terms in the Florida Senate, Charlie continued to push for education funding and better teacher pay as the state's Education Commissioner. In 2002, he was elected Florida Attorney General and fought for consumer protections, civil rights, and opportunities for at-risk youth. Elected as Florida's 44th Governor, Charlie furthered his commitment to public education, using federal stimulus funding to save thousands of teachers' jobs. As a staunch environmental

advocate, he secured a landmark land acquisition to preserve the Florida Everglades, and fought to hold BP accountable after the 2010 oil spill that ravaged Florida's coastline. In Congress, he is committed to working in a nonpartisan manner to create jobs, increase wages, protect our beaches from climate change, honor our military and veterans, and protect the benefits seniors have earned. With his role on the prestigious House Appropriations Committee, he fights to combat climate change, protect clean air and water, provide for a strong national defense, support veterans, build better roads and bridges, and strengthen programs designed for those struggling to make ends meet.

Mr. Richard Edwing

Director, Center for Operational Oceanographic Products and Services, NOS, 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. His 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 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 NOS'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 from George

Washington University (1976) with a B.S. 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. 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 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 20 years of experience in coastal resource management and has managed or assisted with more than 20 beach preservation projects along the U.S. Southeast and Gulf coasts. She works with various State and Federal agencies to communicate the coastal resilience needs of local communities. Dr. Elko has co-authored a book on coastal management, numerous technical reports, and 16 journal publications, including *The Future of Nearshore Processes Research*, a seminal report that provides a research vision developed by the nearshore community. At ASBPA, Dr. Elko helps provide science-based guidance to Congress, Federal and State agencies, and local communities on

national coastal resilience challenges. She serves 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. Her business provides hydrographic surveying, coastal research and advocacy services. Dr. Elko teaches a "Beaches 101" training course to regulators and elected officials in the Carolinas.

Mr. Benjamin Friedman

Deputy Under Secretary for Operations, performing the duties of Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

Benjamin Friedman serves as the agency's chief operating officer and is responsible for the day-to-day management of NOAA's national and international operations for oceanic and atmospheric services, research and coastal and marine stewardship. This is Ben's third position within NOAA, having previously served as NOAA's Deputy General Counsel and as Chief of the Office of General Counsel's Enforcement Section.

He brings more than 14 years of federal management and leadership experience. Ben previously served as Assistant General Counsel for the Department of Commerce (DOC),



where he oversaw employment, labor, litigation, and oversight matters for the Department and its bureaus. Prior to joining the DOC, he spent 16 years as a federal prosecutor with the Department of Justice, including four years in the Organized Crime and Racketeering Section and 12 years at the U.S. Attorney's Office for the District of Columbia. While with the U.S. Attorney's Office, Ben was responsible for managing two different trial sections and served as a Special Assistant to the U.S. Attorney. He was a clerk to Judge Pierce Lively on the Sixth Circuit Court of Appeals. He is a graduate of Vanderbilt University with a B.S. in Molecular Biology (1989) and a graduate of Emory University Law School and the Emory

School of Theology (1993), with a masters in Theological Studies.

Dr. Nicole Kinsman



Alaska Regional Advisor, National Geodetic Survey, NOS, NOAA

Nicole Kinsman is Alaska's Regional Geodetic Advisor at NOAA's National Geodetic Survey (NGS). In this role she provides technical guidance on geospatial positioning topics in support of activities such as mapping and charting, navigation, flood risk determination, transportation, land use and ecosystem management. She managed the State of Alaska's Coastal Hazards Program for five years prior to joining NOAA in 2015. In addition to supporting geospatial positioning throughout the state, she plays an active role

in regional mapping activities as a technical advisor to the Alaska Geospatial Council and the Alaska Mapping Executive Committee. She holds a Ph.D. in Earth Sciences from the University of California Santa Cruz, and is an affiliated faculty member in official NOAA capacity at the University of Alaska Fairbanks.

Ms. Nicole R. LeBoeuf

Acting Assistant Administrator, National Ocean Service, NOAA

Nicole R. LeBoeuf is the Acting Assistant Administrator, and the permanent Deputy Assistant Administrator, for the National Oceanic and Atmospheric Administration's National Ocean Service, an organization of 1,800 staff in more than 50 locations around the country. Ms. LeBoeuf oversees all strategic and operational aspects of America's premiere coastal and ocean agency, which provides science-based solutions through collaborative partnerships to address evolving economic, environmental, and social pressures on our ocean, coasts, and coastal communities.



She worked on a wide range of issues from protected species conservation and oil spill response to international treaty negotiation. Prior to joining NOS, Ms. LeBoeuf 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. Before that, she spent four years as the Chief of the Marine Mammal and Sea Turtle Conservation Division in the Office of Protected Resources. Her work included, among numerous duties, application of scientific information to implement the Marine Mammal Protection Act and the Endangered Species Act and is a subject matter expert in the implementation of this legislation. Ms. LeBoeuf served in the NOAA Budget Office as NOAA's finance lead during the Deepwater Horizon oil spill. Her international expertise includes overseeing

NOAA's Antarctic Treaty System responsibilities, coordinating protected species bycatch reduction efforts in multiple tuna treaties, and representing NOAA at the U.N. General Assembly regarding the protection of deep sea corals. Ms. LeBoeuf holds a B.S. in Marine Biology from Texas A&M University and a M.S. in Sustainable Development and Conservation Biology from the University of Maryland.

Ms. Audra Luscher



Resilience Program Manager, CO-OPS, NOS, NOAA

Audra Luscher works with the NOAA Center for Operational Oceanographic Products and Services (CO-OPS) as the Coastal Hazards Program Manager applying water level data to products and services related to climate and coastal hazards. 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 B.S. in Marine Biology and minor in Chemistry from California State University at Long Beach, and a M.S. in Marine Sciences from the University of North Carolina at Wilmington.

Dr. Larry Mayer

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

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.

Dr. Steven A. Murawski

Director, Center for Ocean Mapping and Integrative Technologies, College of Marine Science, University of South Florida, St. Petersburg, FL



Steven Murawski is the Downtown Partnership/Peter R. Betzer Endowed Chair of Biological Oceanography at the University of South Florida's College of Marine Science in St. Petersburg, FL. Dr. Murawski has 45 years of experience in marine science research and applications to ocean management, including 35 years in federal government service at the National Oceanic and Atmospheric Administration (NOAA) where he retired as the Director of Scientific programs and Chief Science Advisor for the National Marine Fisheries Service. Murawski has led a number of interdisciplinary research consortia since becoming an academic including the Center for Modeling and Analysis of Gulf Ecosystems (C-IMAGE), 2011-2020, to evaluate impacts of the *Deepwater Horizon* accident. He

supervised the most extensive habitat mapping project ever conducted on the West Florida continental shelf, funded by the National Fish and Wildlife Foundation. Currently he serves as the Director and

Principal Investigator of the Center for Ocean Mapping and Integrative Technologies (COMIT), a research, education and public dissemination joint venture between the NOAA, Office of Coast Survey and the University of South Florida's College of Marine Science. He has been extensively involved in marine and habitat mapping activities including the development of towed video arrays used for habitat and fisheries studies. He is a past member and fisheries sub-committee chair of the National Academies of Science, Engineering and Medicine's Ocean Studies Board, and USA delegate (commissioner) to the International Council for the Exploration of the Sea (ICES), where he served as vice-president. Murawski has published over 225 journal articles, technical reports and book chapters and co-edited two books on ocean research and applications to management. He is the recipient of numerous awards for scientific achievements including the US Department of Commerce Gold Medal, four NOAA Bronze Medals and the Meritorious Senior Executive Service Award from President Obama.

Mr. Mark Osler

Senior Advisor for Coastal inundation and Resilience, NOS, NOAA



Mark Osler is the Senior Advisor for Coastal Inundation and Resilience for the U.S. National Oceanic and Atmospheric Administration (NOAA). His leadership advances coastal inundation science and the ability of decision makers to prepare for and respond to changes affecting the nation's coastlines. He serves as senior advisor to NOAA leadership on defining research, applied science, and policy priorities related to understanding and reducing impacts of coastal risk to the public, our national security, and our nation's economy. Mark's inter-agency leadership includes: U.S. Government representative to the G7's Ocean Risk and Resilience Action Alliance; Co-chair of the Coasts Workgroup within the U.S. Global Change

Research Program; NOAA representative within various White House interagency fora including the National Security Council, Office of Science and Technology Policy, and the Council on Environmental Quality. Prior to joining NOAA Mark worked for 17 years in the private sector. He holds a B.S. in civil engineering from Lehigh University and a M.S. in coastal engineering from the University of Delaware's Center for Applied Coastal Research.

Dr. Shachak Pe'eri

Chief, Coast Survey Development Laboratory, OCS, NOS, NOAA



Dr. Shachak Pe'eri is the Division Chief of Coast Survey Development Lab at NOAA's Office of Coast Survey that provides coastal and ocean modeling development and support for NOAA's operational forecast models, surge models and VDatum. In addition, the Lab provides hydrographic technology and IT support for the Office of Coast Survey. Dr. Pe'eri's previous positions at NOAA included Branch Chief of the Chart Standards Group and Chief of the Cartographic Support Branch within the Office of Coast Survey's Marine Chart Division. Dr. Pe'eri earned his Ph.D. in Geophysics, atmospheric and planetary sciences from Tel Aviv University, Israel. Dr. Pe'eri is also affiliated

with Center of Coastal and Ocean Mapping (CCOM), University of New Hampshire (UNH), and George Mason University, VA.

Dr. Daniel Roman

Chief Geodesist, National Geodetic Survey, NOS, NOAA



Dr. Roman has served as the U.S. Chief Geodesist since 2017 and worked for NOAA's National Geodetic Survey for over 20 years. He served as the Geoid Team Lead for nearly 12 years developing definitional vertical datum transformation tools and is a subject matter expert on vertical datums and their change over time. He served for three years as Chief, Spatial Reference System Division and was responsible for the NOAA Continuously Operating Reference Station (CORS) Network (NCN) as well as a suite of Online Positioning User Service ((OPUS) tools. The NCN is a public/private partnership that archives geodetic coordinates from around the country, OPUS enables users to access their own geospatial coordinates. The NCN and OPUS further the NGS mission to "maintain and provide access to the NSRS." He is actively involved in the USGS-NASA(JPL)-NOAA National Land Level Change (NLLC) Project and NOS-JPL Sea Level RISE Project. He participates on the NOAA/National Ocean Service Modeling Advisory Board (MAB), serves as U.S. representative to the U.N. SubCommittee of Geodesy, UN-GGIM-Americas WG4, co-chairs the IAG North American Reference Frame Working Group, and is Chair for FIG Commission 5 on Positioning and Measurement. He is one of the U.S. representatives to Geocentric Reference System for the Americas (SIRGAS) and the Pacific Geospatial and Surveying Consortium (PGSC). He has a B.S. in Geology, the University of Southern California (1985), and served in the U.S. Navy until 1991. He attended the Ohio State University and received a M.S. in Geodetic Science and Surveying (1993) and a Ph.D. in Geological Sciences/Geophysics (1999).

Mr. Ed Saade

Mr. Edward J. Saade, Group Director Americas, President USA, Fugro Inc.



Edward J. Saade has 40+ years of Hydrographic, Coastal Zone Management, Geospatial Survey and Ocean Engineering experience. Since 2014, Mr. Saade has been serving as Americas Regional Director for the Fugro Marine Division and in June of 2015 was promoted to the President of Fugro (USA) Inc., serving Fugro in both capacities. His responsibilities include the management of the largest of Fugro's Regional Divisions, overseeing a staff of 1200, operating from eleven primary offices located from Alaska and Canada to Brazil, with multiple offices in the USA, Mexico, Colombia and Trinidad and Tobago; operating in virtually every country in the Region. He has overseen 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,

Coastal Zone and Essential Fish Habitat analysis. These techniques have been directly applied to the offshore oil and gas and construction industries and a wide variety of national hydrographic offices including NOAA, CHS (Canada), GCS (Kingdom of Saudi Arabia), RAN (Australia) and SHOM (France). 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 has authored/coauthored over 70 reports and studies related to seafloor geology and sub-bottom conditions. He is the outgoing HSRP chair.

Mr. Charles Seaton

Program Coordinator, Coastal Margin Observation and Prediction, Columbia River Inter-Tribal Fish Commission



Charles Seaton is a senior oceanographer and program coordinator for the Coastal Margin Observation and Prediction (CMOP) program at the Columbia River Inter-Tribal Fish Commission (CRITFC). After receiving an M.S. in Environmental Science and Engineering from the Oregon Graduate Institute, he worked on numerical modeling and observation data management and analysis in the Columbia River Estuary for over twenty years. He participated in evaluating the effects of deepening the navigation channel of the Columbia River, storm surge modeling for FEMA flood mapping, and modeling supporting the U.S.-Canada Columbia River

Treaty Review. He recently coordinated the transition of the former NSF science and technology center CMOP to its new home at CRITFC, after the retirement of the former director, Dr. Antonio Baptista. Mr. Seaton is developing a 3-D numerical model of the Pacific Basin using the community model SCHISM, in collaboration with the Coastal Marine Modeling Branch of NOAA.

Dr. Greg Seroka

Physical Scientist, Coastal Marine Modeling Branch, Coast Survey Development Lab, OCS, NOS, NOAA



Greg Seroka coordinated the recent transition to operations of the new Global Extratropical Surge and Tide Operational Forecast System (Global ESTOFS), which provides storm tide (storm surge plus tides) water level forecast guidance for the entire globe (<https://polar.ncep.noaa.gov/estofs/>). He led requests from across NOS to get observations into the operational data tanks on NOAA National Weather Service's (NWS) Weather and Climate Operational Supercomputing System (WCOS). He is Project Manager for the Pacific Enhancement Project where he manages upgrades to vertical datum referencing and storm surge modeling efforts (e.g. Global

ESTOFS) in NOAA's high priority Pacific region. An end goal of the Pacific Project is to provide operational water level and surface current forecast guidance products following international data

standards to the navigation community. These products will conform to the International Hydrographic Organization's (IHO) S-100 Universal Hydrographic Data framework which enables interoperability on mariners navigational display systems. Greg works with the IHO community on developing some S-100 standards, including the S-104 Water Level and S-111 Surface Current Product Specifications. Greg enjoys being a federal civil servant because his work directly benefits society, providing operational oceanographic forecast model guidance (water levels and currents) for real-world applications such as safe and precise marine navigation and disaster mitigation services. Greg was a contractor for NOAA/NWS Ocean Prediction Center where he worked on international weather data standards (S-41x) in support of marine navigation. He received his Ph.D. in physical oceanography from Rutgers University, researching interactions between the stratified Mid-Atlantic Bight and tropical cyclones (improving hurricane intensity forecasts) and the sea breeze in support of offshore wind energy resource assessment. He has an M.S. in atmospheric science from Texas A&M and B.S. (honors) in meteorology from Penn State.

Rear Admiral Shepard M. Smith

Designated Federal Officer, HSRP, and Director, OCS, NOS, NOAA



Rear Admiral Shepard M. Smith became the director of the Office of Coast Survey (OCS) on August 26, 2016. As director, Smith is dedicated to advancing the Coast Survey initiatives of [modernizing digital charting](#), increasing use of [autonomous systems for hydrography](#), and [improved integrated navigation services for seaports](#). Rear Adm. Smith serves as a presidentially-appointed member of the [Mississippi River Commission](#) that oversees navigation and flood control projects on the largest river system in the United States. Smith also serves as the chair of the [International Hydrographic Organization's](#) (IHO) Council that comprises 30 leading IHO member nations and oversees performance management and business requirements. Hallmarks of Smith's career have been his leadership in the

modernization of NOAA's charting systems and transformation of NOAA's hydrographic technologies to expand Coast Survey's data capabilities and support a data-enabled maritime economy. Smith was commanding officer of NOAA Ship *Thomas Jefferson*, on which he served three tours. During his latest tour, Smith became NOAA's first commanding officer to operationalize autonomous surface vehicles for mapping shallow areas previously inaccessible and uncharted. While chief of Coast Survey's Marine Chart Division, he changed the nation's charting tradition, established in the 19th century, by restructuring chart production and distribution. This modernization made U.S. navigational data more accessible to the public through a wider range of electronic formats, faster and more accurately. Smith has a bachelor of science degree in mechanical engineering from Cornell University and a master of science degree in ocean engineering from the University of New Hampshire. He received a direct commission to the rank of ensign in the NOAA Corps in 1993.

Dr. Hilary Stockdon

Coastal Change Hazards Coordinator, U.S. Geological Survey

Dr. Hilary Stockdon is a research oceanographer at the U.S. Geological Survey, serving as the Coastal Change Hazards coordinator for USGS Coastal-Marine Hazards and Resources Program. She is an Executive Director for the U.S. Coastal Research Program. Her focus is helping develop and coordinate National programs for coastal research and science applications. Her previous research on the effects of storms on coastal communities has led to tools that predict beach response to extreme events and has raised public awareness about the value of scientific information on coastal vulnerability, helping residents prepare for challenges associated with living by the ocean. She received her B.S. in Geology from Duke University and her M.S. and Ph.D. in Oceanography from Oregon State University.



Mr. Peter Stone

Technical Director, Center for Operational Oceanographic Products and Services (CO-OPS), NOS, NOAA



Since February 2015, Mr. Stone has served as the Technical Director formulating strategy and policy on technical issues for NOS' CO-OPS and the representative to the Tides and Currents working group of the International Hydrographic Organization and the GLOSS Program. He worked in NOS since 1985 conducting tidal current surveys supporting NOAA Tide and Tidal Current Tables and on early PORTS demonstration projects in Charleston, SC, Galveston Bay, TX and Tampa Bay, FL. For 15 years he installed, analyzed, and created user products from current meters and other oceanographic/meteorological sensors throughout the country to support safe marine navigation. For 6 years, he worked for the Smithsonian Institute's Environmental Research Center maintaining, and analyzing the data from a suite of environmental sensors which were part of a long term local climate observation network. Returning to NOS, he served as the chief of the Oceanographic Division where he oversaw quality control and data dissemination for all of CO-OPS observing systems and products including PORTS, NWLON, National Current Observation Network (NCOP), Tide and Tidal Current Tables, tidal datums and benchmark sheets, Operational Forecast Systems (OFS) hydrodynamic models, and Harmful Algal Bloom OFS. Over time he oversaw the PORTS system growth to include 24 ports, NCOP to expand from 20 current meter deployments to 70 installations per year, and for the number of operational hydrodynamic forecast models to more than double. He led the team with the transition to now run on NOAA's High Performance supercomputer which increases their reliability and allows for high resolution forecasts of water levels and currents in navigational channels. Recently, he managed CO-OPS to develop fully electronic tide and tidal current tidal predictions and move them to its website (<http://tidesandcurrents.noaa.gov/>) which provides greater accuracy and faster updates over

the traditional printed tables. He earned a B.S. from the University of Rhode Island and a M.S. in Marine Science from the University of Maryland.

Ms. Julie Thomas

Ms. Julie Thomas, Senior Advisor, Southern California Coastal Observing System (SCCOOS) and Coastal Data Information Program (CDIP), Scripps Institution of Oceanography (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 worked with a breadth of projects. 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 has 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 has 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 the 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 is the outgoing co-chair of HSRP and will become the chair on March 5, 2021.

Mr. Gary Thompson

Deputy Risk Management Chief, and Chief, North Carolina Geodetic Survey, NC Department of Public Safety

Mr. Thompson has worked for the North Carolina Geodetic Survey (NCGS), which is the agency responsible for developing and maintaining North Carolina's official survey base, since 1977. As Section Chief since 1994, he has been continually modernizing the agency to keep up with advances and spatial data needs in the engineering, surveying, mapping, and scientific fields. He put the

agency's modernized technologies, expertise, and quality control to the test while on the research team that conducted Light Detection and Ranging (LiDAR) aerial mapping research projects with NASA.



He incorporated the results of those projects in to practice while on the program management team that completed the engineering and surveying project that produced a statewide set of Digital Flood Insurance Rate Maps (DRIRMs) for North Carolina. Mr. Thompson promulgates outreach and technological transfer by conducting workshops with engineers and surveyors and by serving on two college advisory boards. During his career, he has participated in numerous state and national professional organizations and has managed/coordinated national and state conferences. He authored and co-authored numerous articles and issue papers on floodplain mapping and LiDAR technology. He is a former member of the Accreditation Board for Engineering and Technology (ABET)

Applied and Natural Science Accreditation Commission and serves on the National Geospatial Advisory Committee (NGAC), National Space-Based Positioning, Navigation, and Timing Advisory Board, and conducts seminars throughout the state on a topics for the engineering and surveying professions.

Ms. Katrina Wyllie



Operations Lead National Bathymetric Source, Operations Branch, Hydrographic Survey Division, OCS, NOS, NOAA

Katrina Wyllie is a Physical Scientist with NOAA's Office of Coast Survey Hydrographic Surveys Division and is the Operations Team Lead of the National Bathymetric Source project. Katrina served as the Chief of Survey Section for U.S. Army Corps of Engineers New England District. Katrina's previous positions with NOAA included Physical Scientist in the Hydrographic Surveys Division at both the Operations Branch in Silver Spring, MD, and Atlantic Hydrographic Branch in Norfolk, VA. Katrina has a

B.S. in Marine Biology, College of Charleston, and an M.S. in Earth Sciences Ocean Mapping, University of New Hampshire.