

## NOAA Ocean Exploration Program Review

7-8 May 2012

### Biographies of OE Leadership and Team Leads

#### Director - Tim Arcano

Joseph T. (Tim) Arcano, Jr. became the Director of the NOAA Office of Ocean Exploration and Research in November 2011. Prior to this he served as Corbin A. McNeill Endowed Chair in Naval Engineering at the United States Naval Academy, Deputy Chief of nuclear safety at the Department of Energy, and Technical Director and Technical Authority for the VIRGINIA Class Submarine Program and Technical Authority (Ship Design Manager) for advanced submarines at the Naval Sea Systems Command. For the National Science Foundation, he serves as a member of the Replacement Human Occupied Vehicle (HOV) Oversight Committee, overseeing the development of the replacement for the HOV Alvin.

He retired as a captain from the U.S. Navy after 30 years of commissioned service (active and reserve) as an engineering duty officer qualified in submarines, as a salvage diving officer and as an acquisition professional. He commanded five reserve units including: a Joint Reserve Unit for the Director, Defense Research and Engineering (Department of Defense Chief Technology Officer) and a Navy Reserve Unit for Director of Ocean Engineering, Supervisor of Salvage and Diving, USN.

He earned a Bachelor of Science degree in ocean engineering from the U.S. Naval Academy; a Master of Science degree in mechanical engineering and an Ocean Engineer Degree from the Massachusetts Institute of Technology; a Master of Science degree in national resource strategy from the National Defense University Industrial College of the Armed Forces; and a Ph.D. in civil and environmental engineering from the University of Maryland. He is a Fellow of the American Society of Mechanical Engineers and a licensed Professional Engineer in Maryland.

#### Deputy Director - John McDonough

John McDonough served as a physical scientist with NOAA's National Ocean Service from 1989 to 2002, where he developed data and geographic information systems related to coastal and marine environments, and applied that information to help prepare management plans for marine protected areas. From 1998 to 2002, John was the project manager for large-scale undersea research expeditions using a variety of tools and techniques, including manned and unmanned submersibles. Specific efforts include the Sustainable Seas Expeditions, a joint endeavor between NOAA and the National Geographic Society to explore the system of National Marine Sanctuaries managed by NOAA's National Ocean Service. Mr. McDonough initially joined the NOAA Office of Ocean Exploration as the Operations Coordinator in January 2003, and has been the office's Deputy Director since 2005. He is committed to exploring and learning more about natural systems in marine and coastal areas, and providing the data and information required for effective ecosystem-based management.

John received his master's in Environmental Science and Policy from the Johns Hopkins University in Baltimore, MD, in 1998 and a B.S. in Coastal Geomorphology from the University of Maryland in 1989.

**Acting Chief Scientist - Stephen R. Hammond**

Dr. Stephen Hammond is the Acting Chief Scientist for NOAA's Office of Ocean Exploration and Research. He is a marine geophysicist specializing in submarine volcanic and hydrothermal processes. He has led and participated in more than 30 seagoing expeditions and has published more than 50 journal articles concerning a broad range of marine geological and geophysical discoveries and processes. Dr. Hammond is also the Leader of the Ocean Environment Research Division of the NOAA Pacific Marine Environmental Laboratory in Seattle and Newport, Oregon and he is the Director of the NOAA Vents Program, a program focused on discovering and understanding large-scale ocean environmental impacts of submarine volcanism.

**Senior Advisor - David McKinnie**

David McKinnie is senior advisor for OER. His expertise includes development of domestic and international external partnerships, moving concepts to operations, and translating science for decision makers.

He leads coordination of the Indonesia-U.S. Ocean Exploration Partnership. He was technical manager for the NOAA component of the Indian Ocean Tsunami Warning System (IOTWS) and worked with counterparts in Thailand, Sri Lanka, India, the Maldives, Indonesia, and Australia to design and implement the first phases of the IOTWS while serving as U.S. representative to the Intergovernmental Oceanographic Commission on tsunami issues. David drafted and negotiated seven international agreements since 2005 for ocean technology transfer and ocean/climate observations.

David earned a MS in Natural Resources from the University of Michigan and BA in History from Colorado College.

**Team Leaders****Administration - Sharon K. Hamilton**

Sharon is Finance and Policy Officer for the Office of Ocean Exploration and Research, and is responsible for oversight of all administrative and financial activities. The administrative team headed by Sharon provides guidance on all non-science aspects necessary for keeping a national program running smoothly including, but not limited to, grants administration, budget, procurement, human resources, travel, interagency agreements and overall customer service.

Sharon has been a Federal employee for over 30 years. In addition to serving OER since 2005, she was the senior administrative officer for the OAR Air Resources Laboratory for 13 years, served two years as a program analyst in the National Weather Service, and two years as the OAR budget analyst at NOAA Headquarters Budget Execution and Formulation Division. Sharon was also competitively selected for an internship at the Office of Management and Budget, where she was responsible for review and justification of the full NOAA budget.

Early in her career, Sharon worked at the National Institutes of Health as the Chief, Budget Formulation and Execution Section, of the Allergy Institute and in several grants management positions. Sharon holds a Bachelors degree in Public Health from Towson State University.

**Public Affairs - Fred Gorell**

Fred is the Public Affairs Officer working for and funded by OER, but assigned to NOAA's Communications Office. He communicates via and with media and constituents using news releases, media availabilities, the program's award winning website, [oceanexplorer.noaa.gov](http://oceanexplorer.noaa.gov) and other means, to explain exploring the ocean for the purpose of discovery and the advancement of knowledge, and to explain associated research and technology development. He coordinated a team that communicated the 200 years of science, service and stewardship given the nation by NOAA and predecessor agencies and he served on a team of Smithsonian and NOAA representatives to develop and open "Ocean Hall," a 23,000 square-foot exhibit on the ocean that will run for 30 years in the National Museum of Natural History. Before joining NOAA in 2003, he was a senior communications representative for Chevron Corporation, leader of the company's Corporate Media Relations Team, and lead media spokesman and a media skills trainer for the company. Prior to that he was a public and government affairs manager for Marine Spill Response Corporation, Vice President of Partners in Learning Corp. in San Diego, where he created and managed multi-year educational programs, and a U.S. Navy Public Affairs Officer, retiring as a Commander. Fred earned a BA in English at Marietta College in Ohio, and a Master of Science in Public Relations at American University in Washington, D.C. He has a son in California who was recently elected to a State Assembly seat and two daughters attending universities. He and his wife Nancy live in Sterling, Virginia.

**Website – Torie Ketcham**

Torie is the Website Manager and Managing Editor for NOAA's Ocean Explorer website (<http://oceanexplorer.noaa.gov>). She designs, develops, edits, tests and publishes website content related to ocean expeditions on a daily basis, and manages other members of the OER web team. She also manages the OER Web Team's Annual Operating Plan, outsource contractors, budget and year-end statistics. Torie works closely with Principal Investigators and other science and education/outreach team members, conducting website planning meetings and ensuring the overall quality of Ocean Explorer's site content. Recently she has led the design efforts for the OER office website refresh (<http://explore.noaa.gov>). Torie has nearly 15 years of experience in the web industry as a web designer, project manager and content developer. She got her start as an account manager for a full-service design agency in Washington, D.C., and further honed her account management and design skills in London, where she worked as Design Director for The Motley Fool Ltd., the UK branch of the personal finance website Fool.com. Torie spent several years as a designer in the nonprofit sector as well. She has degrees in Art History and Italian from Princeton University.

**Advancing Technology - Frank Cantelas**

Frank is a Maritime Archaeologist with NOAA's Office of Ocean Exploration and Research in Silver Spring, MD. He oversees the maritime archaeology grant program that funds interdisciplinary expeditions to discover submerged archaeological sites in the United States and abroad. Shipwrecks, submerged landscapes and other underwater cultural heritage sites are the focus of these awards along with application of advanced sensors and platforms. He coordinates maritime archaeology activities conducted on NOAA's deep-sea exploration ship *Okeanos Explorer* and works with OER's interagency partners and other NOAA offices to accomplish mutual marine archaeological exploration

objectives including multiyear studies with Bureau of Ocean Energy Management (BOEM) in the Gulf of Mexico and Atlantic and the Battle of the Atlantic project with the Monitor National Marine Sanctuary. Mr. Cantelas heads OER's Advancing Technologies Team and served as NOAA/OER's lead for AUVfest 2008, a partnership with the Office of Naval Research (ONR) and the Naval Undersea Warfare Center Division Newport to demonstrate the application of unmanned underwater systems for maritime archaeology.

Before joining NOAA in 2006, Mr. Cantelas taught in the Maritime Studies Program at East Carolina University. He has directed and participated in numerous investigations, many on Civil War shipwrecks, including the USS *Monitor*. He has studied American whaling ships sunk by the Confederate commerce raider CSS Shenandoah in Micronesia and worked in Alaska and the Caribbean.

### **Expeditions - Jeremy Potter**

Jeremy started in NOAA's Office of Ocean Exploration as a Sea Grant Fellow in 2002. Except for a two-year stint at NOAA headquarters, first with the Program Coordination Office and then Policy Office, he has been at OE - now OER - ever since. At different times, Jeremy has been involved in office-related administration, education, outreach, operations, and data management activities. He has been involved in numerous expeditions in US, foreign and international waters.

### **Okeanos Explorer - Craig Russell**

Craig is the program manager for the OER's *Okeanos Explorer (EX)* Program, managing day-to-day and long-term planning and operations. Since joining NOAA in 1996, Craig contributed to regional and national ocean governance policy initiatives, line office and program strategic planning, environmental assessments and restoration and ocean exploration initiatives. He is based out of NOAA's Western Regional Center at Sand Point in Seattle. He has a Master of Marine Affairs (MMA) degree from the University of Washington's School of Marine Affairs and an A.B. in Urban Studies from Vassar College.

### **Catalyzing Research - Nathalie Valette-Silver**

Nathalie joined OER in April 2011. She was previously the science coordinator for the National Centers for Coastal Ocean Science in NOS. Presently, she is the Undersea Exploration, Research and Technology Science Director. She oversees, steers and coordinates the science produced by the NURP Centers, Cooperative and National Institutes and contributes to the coordination of the science between the ocean exploration and the undersea research programs. Dr. Valette-Silver earned her degrees in France (Universities of Paris Sorbonne and Montpellier): a PhD in Oceanography (bio-geochemistry/marine geology/ecology), two Master's Degrees in Oceanography (geology/volcanology/geochemistry and geochemistry/ecology/biology), and a graduate degree in geology/geophysics/sedimentology. She also graduated from the Ecole Normale Supérieure in Paris, France where she earned the "Aggregation", an accreditation in University teaching, and taught at the University of Maryland for seven years. She has extensive experience in scuba diving and in seagoing expeditions. Dr. Valette-Silver also won a AAAS Science and Diplomacy fellowship, a Commerce Science and Technology Fellowship spending a year in Congress (as a Science Advisor to a senator from the State of Washington), was accepted and graduated from the NOAA Leadership Competency Development Program and Department of Commerce

Senior Executive Service (SES) Development Program and received the SES Certificate of Executive Qualifications from Office of Personnel Management. She is presently accepted in the OAR Leadership Effectiveness and Advancement Program.

### **Information Management - Sharon Mesick**

Sharon is a Regional Scientist at NOAA's National Coastal Data Development Center, a field office of the National Oceanographic Data Center. Among other responsibilities, she is the Federal Program Manager for the extramural project team that has developed a unique, end-to-end management system to organize, archive and disseminate ocean exploration information.

Prior to joining NOAA in 2002, Ms Mesick worked in business development for a Women Owned Small Business (WOSB) where she initiated a new line of business focused on geospatial data management for Federal, State, and local government clients. She began her career as a data analyst with the US Naval Oceanographic Office, where she developed geospatial visualization and decision support systems for coastal and marine environmental data.

Ms. Mesick holds a Master of Science degree in Geography and Area Development from the University of Southern Mississippi, as well as a Bachelor of Science degree in Computer Science and Statistics. She is also a certified Project Management Professional (PMP).

### **Education - Paula Keener**

Paula Keener is Director of the National Oceanic and Atmospheric Administration's (NOAA's) Ocean Exploration's Education Program. A marine biologist, she conducted extensive larval and adult fish research off the Southeastern coast of the U.S. and was a research team member in the Smithsonian Institution's Western Atlantic Mangrove Program off Belize, Central America. She now works closely with scientists and educators to reach out in new ways to teachers, students, and the general public through NOAA ocean exploration expeditions to enhance ocean sciences literacy. Keener served as a member of The President's Panel on Ocean Exploration and as a member of the National Academies Committee on Exploration of the Seas.

Keener served as a member of the National Science Foundation's Steering Workshop Committee and Implementation Committee for the Centers for Ocean Science Education Excellence (COSEE) and serves on the National COSEE Advisory Council. She served as a member of the Smithsonian Institution's National Museum of Natural History's Ocean Hall Statement of Purpose Team, the National Science and Technology Council Education and Workforce Subcommittee on Human Capacity in Science, Technology, Engineering and Mathematics (STEM) Working Group, the 2006 National Conference on Ocean Literacy (CoOL) Working Group, and was Conference Program Committee Co-Chair for Education for the Marine Technology Society (MTS) Oceans 2005 Conference in Washington, DC and the 2011 Oceans Conference in Kona, HI. She is a member of the NOAA Education Council, the National Marine Educators Editorial Board and the MTS Scholarship Committee. She is a Past-President of the National Marine Educators Association and the South Carolina Marine Educators Association and a founding member and Past-President of the South Carolina Marine Educators' Association. She

serves as a writer and editor for scientific and technical papers, publications targeted to the general public, and served as a scientific editor for Our Ocean World radio scripts which were distributed to 150 radio stations in the United States, the National Public Radio Network satellite network, 200-plus stations of Voice of America, and the Armed Forces Network. Keener has spent over 280 days at sea studying the ocean and its inhabitants.

Degree Area - Marine Biology/Ichthyology

Education - B.S. College of Charleston; M.S. University of Charleston