PROJECT ROLES
Program Management
Project Management

EXPERTISE
Coastal Oceanography
Environmental Sensing Platforms & Strategies
Numerical Modeling
Operational Weather Forecasting
Operational Planning and Decision Support
Ocean Tech Innovation

EDUCATION
Ph.D., Physical Oceanography, Naval Postgraduate School (NPS), 2013
MS, Meteorology & Oceanography, NPS, 2003
BS, Geosciences, Penn State University, 1996

PROFESSIONAL MEMBERSHIPS
American Geophysical Union (AGU)
Marine Technology Society (MTS)
American Shore & Beach Preservation Association (ASBPA)
Project Management Institute (PMI)

MICAH WELTMER

Senior Project Manager

Micah Weltmer, Ph.D., PMP, has 25 years of leadership experience in science-based, data-driven operational planning, risk management, and decision support.

Prior to joining the Institute, Micah served 24 years as a Meteorology and Oceanography Officer in the United States Navy, retiring as a Captain in 2022. He built his career on analyzing environmental data and numerical models to generate forecasts and impact assessments to maximize operational safety and effectiveness worldwide. He has experience managing a wide variety of environmental sensing, modeling, and decision support programs with total budgets up to $120 million, including ocean survey, satellite and airborne remote sensing, autonomous maritime systems, ocean and atmospheric modeling, and decision support tools. Most recently, he served as the Chief Science & Technology Officer at the Navy's Meteorology and Oceanography headquarters, where he managed a $300 million annual portfolio of programs to design and implement scientific and technological innovations toward improving the Navy's suite of environmental data collection and modeling capabilities.

A career-long champion of innovation and adoption of emerging technologies, Micah initiated the U.S. Navy's first-ever formal unmanned vehicle acquisition program; drove the establishment of the Gulf Coast Tech Bridge; directed the annual Advanced Naval Technology Exercise (ANTX) on-water testing events; guided development of the Navy's cloud-based numerical weather and ocean forecasting infrastructure; and pioneered the use of decision support tools to optimize operational planning. At the Water Institute, he helped develop the Innovation Studio, funded by EDA and LED, as well as several Climate Tech accelerator concepts funded by NOAA and Shell.

Micah received a bachelor's degree in geosciences from Penn State University, and both a master's degree in meteorology & physical oceanography and doctorate in physical oceanography from the Naval Postgraduate School in Monterey, CA. His research has focused on novel approaches to observing and understanding tidal and wave processes in nearshore and estuarine environments.

PROFESSIONAL EXPERIENCE

2022–Present: Senior Project Manager, The Water Institute

1998–2022: Meteorology and Oceanography Officer, United States Navy

2019–2022: Chief Science & Technology Officer, U.S. Naval Meteorology and Oceanography Command

2016–2019: Deputy Director, Oceanography Operations, U.S. Naval Meteorology and Oceanography Command

2014–2016: Program Director, Environment and Climate / Fleet Oceanographer, U.S. Naval Forces Europe & Africa - U.S. 6th Fleet

2013–2014: Director of Model and Forecast Operations, Fleet Numerical Meteorology and Oceanography Center

2009–2010: Senior Advisor, Environmental Forecasting and Operational Schedules, Commander, Carrier Strike Group Ten

2006–2008: Program Manager & Requirements Officer, Office of the Chief of Naval Operations (OPNAV)

2005–2006: Task Force Oceanographer, Submarine Group SEVEN (CTF 74 / CTF 54)

2003–2005: Optimum Track Ship Router, Naval Pacific Meteorology and Oceanography Center, Yokosuka

1999–2000: Gunnery Officer, USS FIFE (DD-991)

SELECTED PROJECTS

Lowermost Mississippi River Management Program (LMRMP). *Louisiana Coastal Protection and Restoration Authority (Ongoing).* Project Manager. Coordinated analyses, strategies, and tools for management of the Lowermost Mississippi River.

River Basin Flood Study (RBFS). *Texas General Land Office (GLO) (Ongoing).* Project Manager. Baseline flood modeling and mitigation alternative analysis for coastal Texas watersheds.

Barrier Island System Management (BISM). *Louisiana Coastal Protection and Restoration Authority (Ongoing).* Coastal SME. Coordinated analyses, strategies, and tools for management of Louisiana coastline, beaches, and sediment resources.

Sustainable Sand Stewardship (SSedS) at The Water Institute. *Louisiana Coastal Protection and Restoration Authority, Texas General Land Office, Bureau of Ocean Energy Management (Ongoing).* Portfolio and Project Manager. Sediment prospecting, characterization, geologic modeling and multi-use management in the Louisiana, Texas, and Atlantic coastal and outer continental shelf regions.

Nature-Based Solutions at MacDill Air Force Base. *National Fish & Wildlife Foundation, U.S. Air Force (Ongoing).* Project Manager. Apply Structured Decision Making to develop, design, and build nature-based storm surge and erosion resilience solutions for the coastline of MacDill Air Force Base, FL.

Ocean-based Climate Resilience Accelerator (OCRA). *National Oceanic and Atmospheric Administration (Ongoing).* Principal Investigator and Project Manager. Partnership with The Idea Village to implement a Gulf Coast Bluetech and Climate-tech business accelerator.