

Biographical Sketch¹

DAVID D. MCGEHEE, P.E, M.Oc.E. - Coastal/Ocean Engineer

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SPECIALTY – Problem Solver. Over 50 years’ experience of innovative engineering & management solutions to research, design, & operational challenges in the coastal, marine, & submarine environment, with a focus on measurement, analysis, characterization, and prediction of ocean waves, currents, long wave oscillations, & storm surge and their impacts on coastal systems. Mr. McGehee has successfully planned, designed, installed, operated, recovered, analyzed, and summarized results from more coastal ocean instruments, in more challenging conditions, than anyone, anywhere, including capturing the only nearshore wave data during the peak conditions of both Hurricanes Ivan and Katrina, and made first survey of Lake Albert and Lake Edward bordering Uganda and the DRC during hostilities.

EDUCATION B.S. Ocean Engineering, Florida Atlantic University, '73
 M.S. Civil Engineering, Oregon State University, '97

CAREER EXPERIENCE

1998 – Present: Managing Director, Emerald Ocean Engineering LLC, Pensacola, FL
Conduct research, forensic analysis, design, project management, and field & laboratory studies. Model and evaluate Hurricane Katrina impacts to structures on MS and LA coast and extreme wave impacts to Los Angeles Harbor. Design and implement wave, surge, water level and current data collection systems. Design and manage construction of coastal habitats and shore/hurricane protection projects.

1986 - 1998: Research Engineer/Program Mgr., Coastal & Hyd. Lab, US Army ERDC, Vicksburg, MS
Develop/implement new research initiatives. Manage the Field Wave Gaging Program, a cooperative Fed/State program to collect and disseminate information from a global, real-time network of ocean measurement platforms. Produced the COE’s Wave Data Analysis Standard and Wave Climate Analysis Standard. Monitor, evaluate Corps of Engineers’ coastal projects nationwide. Research included: wave measurement theory and application, inlet hydrodynamics, reef and harbor oscillation/circulation, moored ship dynamics, wave-structure interactions.

1980 - 1986: Engineer/Operations Mgr., Coastal & Ocean Eng. Lab, Univ. of Fla., Gainesville, FL
Plan, design, and execute field and laboratory experiments. Manage the Florida Coastal Data Network, a real-time, statewide array of wave and hurricane surge gages.

1971 - 1980: Field Engineer, Various marine construction/dredging firms, domestic and international
Supervision, quality control, surveying, inspection and documentation activities for construction of offshore platforms, bridges, submarine pipelines, ports, and navigation channels.

LICENSES/AFFILIATIONS

Professional Engineer; Reg. in FL, AL, MS, & LA
Licenses - Master SCUBA Diver, PADI; Diving Supervisor/Inspector, USACE; Com'l. Vessel Op., US Coast Guard
Member - ACE, AGU, ASCE, ASBPA, COPRI, MTS
Board Member - Watershed Assessment and Management Institute, Inc. & International Sustainable Boating Council, Inc.,
 Emerald Coast Coalition for Clean Watercraft
Patents - Buoyant Elastically Tethered Articulated (BETA) Tower (1985)
 Anti-fouling Pressure Port (pending) - Tensile Breakwater (pending)
 Tuned Compliance Pile (pending) - Continuous Uptake Trawling (applied)

PUBLICATIONS – over 100 conference papers, journal articles and technical reports

¹ See Publication List, full CV, and complete Project Descriptions at www.EmeraldOE.com