

Resume



PHILIP A McKEE **Senior Technical Associate**

Experience Highlights

Mr. McKee is a technical associate with a wide range of practical experience in coastal studies. He is a certified scuba diver and certified instructor in water safety, CPR, and first aid. As a scuba diver, he is experienced in search and recovery, and has performed numerous underwater inspections. As a US Coast Guard-licensed captain, he has over 35 years of experience in small craft operation, including professional sailboat racing and commercial fishing.

He is an expert navigator with inshore and offshore experience using GPS and other traditional techniques and is certified by Trimble Navigation Limited in RTK land and marine hydrographic surveying. As senior technical associate at CSE, he is responsible for implementation of sampling and data acquisition schemes ranging from sediment surveys to directional wave measurements. Working with senior scientists, McKee plays a key role in laying out sampling grids which are workable, efficient, and safe while producing meaningful data. He has an excellent record of equipment retrieval under adverse conditions including high-energy sites and zero-visibility sites. Mr. McKee is responsible for in-situ servicing of gauges during deployments.

Mr. McKee is a surveyor with over 12 years of experience using a range of equipment including RTK GPS (Trimble® R8 GNSS), total station, theodolite, laser level, and traditional levels. His surveying experience focusses on work in hostile environments such as the surf zone, tidal inlet shoals, and intertidal marshes. The majority of shoreline surveys completed by CSE include data acquisition beyond the surf zone to the estimated depth of closure. McKee has pioneered techniques for safe, efficient profiling across the surf zone during fair-weather conditions.

A majority of CSE projects involve sediment sampling and testing. Mr. McKee has conducted borrow-area searches for nourishment sand in a wide range of settings using a variety of techniques including vibracores (up to 20-foot recovery), diver sampling (up to 10-foot recovery), grab sampling, and trawl sleds. Mr. McKee has conducted suspended-sediment sampling using bulk samples and pump systems. His laboratory experience includes traditional dry sieving/wet sieving for grain-size distribution, percent mud, percent carbonates, and suspended sediment concentrations. He has also participated in

sand-tracer studies involving tagged littoral sands and environmental sampling of benthic organisms.

Mr. McKee's nourishment, coastal structures, and inlet relocation experience includes on-site representative for South Carolina projects at Edisto Beach, Debidue Island, Pawleys Island, Seabrook Island, Kiawah Island, and Folly Beach. He provides close liaison with contractors, owners, regulatory agencies, and the general public at each project site and has developed a reputation for building community support and defusing controversies. Mr. McKee provides careful oversight of construction based on extensive experience in beach surveys. His specific project experience includes the following.

Asharoken Beach, New York – Detailed beach and inshore surveys to closure depth along a two-mile reach for use in a court case.

Bogue Banks, North Carolina – Beach and inshore profiling to near closure depth along a 25-mile project shoreline; offshore coring at over 100 sites for a borrow area search.

Kuala Baram, Malaysia – Deployment and retrieval of ten gauges (tide, current, nondirectional, and direction wave) in connection with a harbor improvement study; bottom sediment and suspended sediment sampling and current hydrography surveys during a six-week deployment.

Daufuskie Island (SC) – Beach profiling, sand-tracer study, and coastal process measurements for a beach restoration plan.

Keta Sea Defense Project, Ghana – Nearshore and offshore wave data acquisition (nondirectional gauges), beach surveying via Trimble RTK GPS for preparation of a base map suitable for 3-D modeling and project design.

Rio Grande, Tierra del Fuego, Argentina – Deployment and retrieval of SONTEK doppler current meters as well as tide and wave gauges in extreme conditions (5-meter waves, 10-meter tides, near-freezing sea temperatures).

Education

A.S. Marine Science, University of South Carolina
Fisheries Management, Nicholls State University

Professional Certifications

PADI Scuba Diver (1979)
SCDNR Small Boat Instructor (1992)
South Carolina Sea Turtle Certification (1997)
USCG-Licensed OUPV Captain