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Zachary J. Dukenfield

Marine Technician

EXPERTISE

Preparation, installation, and maintenance of real-time monitoring systems, including the deployment of Acoustic Doppler Current Profilers (ADCPs), tidal and meteorological equipment. Regular quality-control of data for all stations in the Delaware River and Bay, Chesapeake Bay, New York / New Jersey Harbor, and Jacksonville PORTS systems. Mobilization, demobilization, Deployment and recovery of deep-water moorings, buoy systems.

QUALIFICATION SUMMARY

- 5+ years of calibration, and maintenance of oceanographic and land-based meteorological monitoring equipment
- Assembly, deployment , and recovery of ADCP systems
- Experience in quality control and analysis of real-time oceanographic data
- Experience at sea, working on both small boats and large vessels
- Installation and maintenance of NOAA real-time monitoring station
- Experience with Procomm Plus, Aqua Pro, XTerm, Sontek SonUtils, Ace Manager,X-CTU, Smart Draw, Win-Situ, KOR-EXO
- Certified in OSHA 40 Hour HAZWOPER, In accordance with Federal OSHA regulations
- Deployment and recovery of deep-water mooring, buoy systems, Real Time Met-Ocean Mooring systems
- Geodetic survey work, including benchmark installations and digital level operation
- Experience with RTK GPS surveying and field data collection
- Operation and maintenance of YSI water quality sensors and associated data collection platforms

WORK EXPERIENCE

2013-Present	Marine Technician, Woods Hole Group
2003-2013	Head Forman/Technician, Colony Pool Service

Education
2007 – Diploma of Automotive Technology
Automotive Training Center, Exton, PA

Licenses and Registrations
-OSHA 40-Hour HAZWOPER
-NOAA National Geodetic Survey Digital Leveling
-Transportation Worker Identification Credential (TWIC)
-Secure Worker Access Consortium (SWAC)

Professional Affiliations
-N/A

Publications & Presentations
N/A

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(302) 272-0291

KEY PROJECTS

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Great Lakes VDatum Water Level Stations – Marine Technician
Serve as Marine Technician to Party Chief Dan Weirauch to install and remove seasonal water level stations in the Great Lakes region in support of hydrographic and shoreline mapping and new release of the International Great Lakes Vertical Datum 2020. Provide technical and field support for installations, removals, and emergency maintenance visits.

Planning Studies and Feasibility Analysis to Mitigate High Concentrations of Nitrogen and Phosphorous in the South Bethany Canals– Field Technician
Serve as Field Technician to support field activities of canal sediment sampling, description, mobilization and demobilization.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Delaware River & Bay – Marine Technician
Serve as Marine Technician to Project Manager, Clinton Hare, and Delaware Field Office. Provide support for routine operation and maintenance, annual inspection, and emergency service visits.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), Chesapeake Bay – Marine Technician
Serve as Marine Technician to Project Manager, Clinton Hare, and Delaware Field Office. Provide field support for routine operation and maintenance, and emergency service visits.

National Oceanic and Atmospheric Administration, National Ocean Service, Center for Operational-Oceanographic Products and Services (NOAA/NOS/COOPS), Physical Oceanographic Real-Time Systems (PORTS), New York/New Jersey Harbor – Marine Technician
Serve as Marine Technician to Project Manager, Clinton Hare, and Delaware Field Office. Provide field support for routine operation and maintenance activities, annual inspection, and emergency service visits.

Philadelphia Water Department, Measurements of Current Profile and Sediment Oxygen Demand in Select Tidal Reaches for the City of Philadelphia – Marine Technician
Serve as marine technician, providing assistance to Project Manager, David Walsh, for long-term current monitoring buoys, short term current meter deployments, and water quality sampling. Perform current meter calibrations, data recovery, and routine system inspections. Perform routine inspection, cleaning, calibration, and configuration of water quality instrumentation.

KEY PROJECTS (CONTINUED)

Jacksonville Marine Transportation Exchange, Physical Oceanographic Real-Time Systems (PORTS), Jacksonville, FL – Marine Technician
Serve as Marine Technician to Project Manager, Clinton Hare, and Delaware Field Office. Provide field support for routine operation and maintenance activities, annual inspection, and emergency service visits.

The Nature Conservancy of Delaware, Milford Neck Preserve Restoration – Marine Technician
Serve as Marine Technician to carry out hydrodynamic sensor recovery, RTK GPS surveying, and field data collection.

AKRF, B. L. England Generating Station, Great Egg Harbor Bay, Thermal Plume Monitoring – Marine Technician
Serve as Marine Technician to carry out hydrodynamic sensor deployment, recovery RTK GPS surveying, and field data collection.

Deep Water MetOcean Mooring and Buoy Deployment and Recovery Operations, Gulf of Mexico – Marine Technician
Served as Marine Technician for mobilization/demobilization, deployment, recovery, regarding the Woods Hole Group, Inc. (WHG) designed WatchDog 1000 Real Time Deepwater Meteorology and Ocean Monitoring System. The WatchDog 1000 is a real time met-ocean monitoring (RTMM) system deployed offshore, US Gulf of Mexico, at a depth of over 1370m (4500ft).

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