JOHN P. WALLINGA

PROFESSIONAL EXPERIENCE

2001 - Present University of Maine, Physical Oceanography Group Orono, ME
Field Operations Manager for the GoMOOS Moored Buoy Program

1995 - 2001 University of Maine Orono, ME
Research Associate

1993 - 1995 University of Maine Orono, ME
Research Assistant

EDUCATION

1994 University of New Hampshire Durham, NH
M.S. Oceanography

- Thesis: On the Internal Semidiurnal Tide in Massachusetts Bay
- Awards: Research Assistant Scholarship
  Teaching Assistant Scholarship
  Margaret Mitchell Graduate Scholarship
  NASA Space Grant Fellowship
  Accumulated 41 hours of Graduate Credits

1987 Augsburg College Minneapolis, MN
B.A. Mathematics, Minors: Physics and Computer Science

- Awards: Mathematics Scholarship (1986), Dean's List (1984, 1985)

SUMMARY OF QUALIFICATION

- At-sea operations and logistics (21 years without a home port)
- At-sea experience, often as chief scientist, with mooring deployment and recovery operations (over 300 mooring deployments and recoveries)
- Mooring and buoy design and fabrication engineer (built 44 real-time buoys)
- Instrumentation and equipment specialist and procurement
- Manager of a large inventory of scientific and mechanical equipment (including ADCPs, SBEs, acoustic releases, deck gear and winches)
- Scientific support and data analysis
- Graduate student committee member
- Undergraduate student advisor
- Computer science instructor
- Teaching assistant

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SUMMARY OF SKILLS

- Experienced in mathematical, statistical time series analysis, and tidal analysis techniques
- Computer knowledge and programming in Fortran, Matlab, HTML, Excel, and JavaScript
- Hydrodynamic designs of surface and subsurface buoys and moorings using AutoCad, BuoyCad, Excel, Matlab, Multisurf, WHOI Cable, MoorDyn, and Statmoor
- Management of personnel, financial resources and equipment
- Logistical planning of research cruises, often in locations with extreme weather and tidal ranges
- Experienced in rigging and performing mooring deployment and recoveries on many different types and sizes of vessels, including, but not limited to, bottom frames, multi-leg surface and subsurface moorings with various instrumentation
- Trained and experienced with CTD packages and ship mounted ADCP
- Trained and experienced with various acoustic releases, Doppler current meters, Seabird Electronics, Inc., and URI Pressure Inverted Echo Sounder
- Basic electronic trouble-shooting and repair of oceanographic sensors
- Basic welding, fabrication, machining, sandblasting, and marine painting
- Basic plumbing, carpentry, hydraulic and automotive skills

PUBLICATIONS AND DATA REPORTS

"The kinematic and hydrodynamic structure of the Gulf of Maine Coastal Current." *Deep Sea Research II*. 52, 2005, 2369-2391. Pettigrew, N.P., J.H. Churchhill, C.D. Janzen, L.J. Mangum, R.P. Signell, A.C. Thomas, D.W. Townsend, **J.P. Wallinga**

"Field comparison tests of a bottom-mounted Aanderaa RDCP600 with an RDI Workhorse 600 ADCP, and a moored string of Aanderaa RCM9 MKII current meters." IEEE Proceedings, Eighth Current Meter Measurement Technology Conference 2005, 41-45. Pettigrew, N.R., **J.P. Wallinga**, and R. Fleming

"Gulf of Maine Ocean Observing System: Current Measurement Approaches in a Prototype Integrated Ocean Observing System, IEEE Proceedings, Eighth Current Meter Measurement Technology Conference 2005, 127-131. Pettigrew, N.R., **J.P. Wallinga**, F.P. Neville, and K.R. Schlenker

"On the GoMOOS Buoy Design". *Oceans*. 2003, 3. **Wallinga, J.P.,** N.R. Pettigrew, J.D. Irish

"Modeling the Circulation in Penobscot Bay, Maine." *Proceedings of the 6th International Conference on Estuarine and Coastal Modeling."* 2000. 1112-1127. Xue, H., D. Brooks, N.R. Pettigrew**, J.P. Wallinga**

"Blue Hill Physical Oceanographic Studies, Summer 1999." PhOG Data Report: 9902. 98pp. 1999. Pettigrew, N.R., **J.P. Wallinga**, L.J. Mangum

"The Penobscot Bay Experiment: Hydrography and Current Survey, April 27-30, 1998." PhOG Data Report: 9901. 142pp. 1999. **Wallinga, J.P**., B.E. Wallinga, R. Stessel, N.R. Pettigrew

"The Penobscot Bay Experiment: Hydrography and Time Series Data." PhOG Data Report: 9701. 200pp. 1997. **Wallinga, J.P.,** B.E. Wallinga, R. Stessel, N.R. Pettigrew

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"Observations of the Eastern Maine Coastal Current and its Offshore Extensions in 1994." *Journal of Geophysical Research.* 1998. 623-630. Pettigrew, N.R., D.W. Townsend, H. Xue, **J.P. Wallinga**, P. Brickley

"Use of otolith strontium: calcium ratios for hindcasting larval cod distribution relative to water masses on Georges Bank." *Marine Ecology Progress Services.* 1995, 119:37-44. Townsend, D.W., R.L. Radtke, D.P. Malon, **J.P. Wallinga**

RESEARCH PROJECTS (WEB LINKS AS NOTED)

- Advance Engineering and Wood Composite (AEWC) Lidar buoy and mooring design
- Gulf of Maine Ocean Observing System (neracoos.org)
- Agullas-South Atlantic Thermohaline Transport Experiment (gyre.umeoce.maine.edu)
- Asia Experiment (gyre.umeoce.maine.edu)
- Internal Wave Experiment: Gulf of Maine (gyre.umeoce.maine.edu)
- Ecology and Oceanography of Harmful Algal Bloom (gyre.umeoce.maine.edu)
- Penobscot Bay Experiment (gyre.umeoce.maine.edu)
- Regional Marine Research Program: Gulf of Maine (gyre.umeoce.maine.edu)
- Mexican Petroleum Industry (cicese.edu.mx)
- Caribbean Coastal Ocean Observing System (caricoos.org)

CONSULTING PROJECTS (WEB LINKS AS NOTED)

- Ocean Renewable Power Company, LLC tidal energy barge mooring design
- University of North Carolina, buoy and mooring design
- Aanderaa Instruments, RDCP600 field test and evaluation
- USGS mooring deployments
- Gilman Corporation 6x21 USCG navigation buoy, hydrostatic analysis
- Maine Oceanographic Services, bottom mounted RDI Workhorse current meter
- Downeast Marine Resources, Inc., Marine Technician and Boatswain
- Wet Labs, Inc., River mooring design and field operations

- Bigelow Labs for Ocean Research
- Ocean Science and Technology, LLC, Buoy and Mooring design, field operations
- Cianbro Constructors, tidal analysis in Penobscot river
- University of Washington (APL) Buoy Design and Fabrication (nanoos.org)
- Tetra Tech Bat Recorders for moored buoy applications
- Santech Bat recorders for moored buoy applications
- University of Maine Advance Engineering and Wood Composite Wind Turbine Project
- Town of Castine, Maine Harbor and boat buoy design
- University of New England
- Bowdoin College (Bowdoin.edu/coastal-studies-center/resources/buoy-project/index.shtml

PROFESSIONAL MEMBERSHIPS

Marine Technology Society, 2002

USA Hockey Coaching Education certified, 1994

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