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EDUCATION

1991-1995 B.S. Civil Engineering, Rutgers University
1995-2001 Ph.D. Ocean Engineering, Stevens Institute of Technology

EMPLOYMENT

2001-2002 Senior Engineer, TRC Omni Environmental, Princeton, New Jersey
2002-2004 Project Engineer, Institute of Marine and Coastal Science (IMCS), Rutgers University
2004-2005 Manager, HF Radar Lab, Institute of Marine and Coastal Science, Rutgers University
2005-2007 Manager, Hardware Operations, Institute of Marine and Coastal Science, Rutgers University
2007-pres. Director, COOL Operations Center, IMCS, Rutgers University

PUBLICATIONS

Roarty, H. J. and Bruno, M. S. (1999). "Measurement of Suspended Sediment in the Laboratory Through Photographic Techniques", Proc. 4th Int. Conf. on Coastal Sediments, ASCE, Vol. 1, 163-178

Roarty, H.J., Kohut, J., and Glenn, S. (2003). "Intercomparison of an ADCP, ADP, standard and long-range HF Radar: Influence of Horizontal and Vertical Shear" Proceedings of the IEEE/OES/CMTC Seventh Working Conference on Current Measurement Technology, 75-78

Glenn, S., O. Schofield, T. Dickey, R. Chant, J. Kohut, H. Barrier, J. Bosch, L. Bowers, L. Creed, C. Haldemann, E., Hunter, J. Kerfoot, C. Mudgal, M. Oliver, *H. Roarty*, E. Romana, M. Crowley, D. Barrick, and C. Jones (2004). "The Expanding Role of Ocean Color & Optics in the Changing Field of Operational Oceanography", *Oceanography*, 107:86-95.

Kohut, J.T., *Roarty, H.J.*, Glenn, S.M., Schofield, O., Chant, R.J., Creed, E. (2005) "Observed response of the Hudson River plume to wind forcing using a nested HF radar array" (2005) Current Measurement Technology, Proceedings of the IEEE/OES/CMTC Eighth Working Conference on, 63-65

Kohut, J.T., *Roarty, H.J.*, Glenn, S.M., and Chant, R.J. (2005) "Surface Current Response of Hudson River Plume to Wind Forcing" *Oceans*, 2005. Proceedings of the MTS/IEEE, Vol. 3, 2540-2542

Roarty, H.J. and Bruno M.S. (2006) "Laboratory Measurements of Bed Load Sediment Transport Dynamics" *Journal of Waterway, Port, Coastal and Ocean Engineering*, Vol. 132, No. 3, 199-211

Kohut, J.T., *Roarty, H.J.* and Glenn S.M. (2006) "Characterizing Observed Environmental Variability with HF Doppler Radar Surface Current Mappers and Acoustic Doppler Current Profilers: Environmental Variability in the Coastal Ocean" *IEEE Journal of Oceanic Engineering*, Vol. 31, No. 4, October 2006, 876-884

Glenn, Schofield, Chant, Kohut, *Roarty*, Bosch, Bowers, Gong, Kerfoot (2007) "Wind- Driven Response of the Hudson River Plume and its Effect on Dissolved Oxygen Concentrations" *Environmental Research, Engineering and Management*, No. 1 (39), 14-18

Schofield, O., Kohut, J., Aragon, D., Creed, L., Graver, J., Haldeman, C., Kerfoot, J., **Roarty, H.**, Jones, C., Webb, D., Glenn, S. M. (2007). [Slocum Gliders: Robust and ready](#). Journal of Field Robotics. 24(6): 1-14. DOI: 10:1009/rob.20200

Roarty, Kohut, Glenn (2008) "The Mid-Atlantic Regional Coastal Ocean Observing System: Serving Coast Guard and Fisheries needs in the Mid-Atlantic Bight", Proceedings of the IEEE/OES/CMTC Ninth Working Conference on Current Measurement Technology, 151-155

Kohut, **Roarty**, Lichtenwalner, Glenn, Barrick, Lipa, Allen (2008) "Surface Current and Wave Validation of a Nested Regional HF Radar Network in the Mid-Atlantic Bight", Proceedings of the IEEE/OES/CMTC Ninth Working Conference on Current Measurement Technology, 203-207

PRESENTATIONS

Roarty, H. J., Bruno, M. S. and Rankin, K. L. (1998). "Field Observations of Sediment in Shallow Water near Key West, Florida." Poster, American Geophysical Union Fall Meeting

Roarty, H. J. and Bruno, M. S. (1998). "Measurement of Suspended Sediment in the Near Shore Coastal Zone through Photographic Techniques.", Poster, American Geophysical Union Spring Meeting

Roarty, H.J., Kohut, J., and Glenn, S. (2003). "Intercomparison of an ADCP, ADP, standard and long-range HF Radar: Influence of Horizontal and Vertical Shear" IEEE Seventh Working Conference on Current Measurement Technology, San Diego, California

Roarty, H.J., Kohut, J., and Glenn, S. (2003). "Intercomparison of an ADCP, ADP, standard and long-range HF Radar: Influence of Horizontal and Vertical Shear" Third Radiowave Oceanography Workshop (ROW-3) Venice Italy

Roarty, H.J., Kohut, J., and Glenn, S. (2003). "Recent Results from a Nested Multi-Static HF Radar Network for the NorthEast Observing System (NEOS)" Oceans 2003 Marine Technology and Ocean Science Conference

Bowers, Dunk, Kohut, **Roarty**, and Glenn (2003) "Sea Breeze Forecasting and Applications Along the New Jersey Coast" AMS Fifth Conference on Coastal Atmospheric and Oceanic Prediction and Processes, Seattle, WA

Kohut, J., **Roarty, H.J.** and Glenn, S. (2004). "Recent Results from the HF Radar Network of the New Jersey Shelf Observing System (NJSOS) and the Regional Northeast Observing System (NEOS)" ASLO/TOS 2004 Ocean Research Conference

Roarty, H.J., Kohut, J. Glenn, S., Barrick, D. and Browning, W. (2004). "The Use of HF Radar in NJSOS for Ship Detection and Tracking" Fourth International Radiowave Oceanography Workshop (ROW-4)

Kohut, J., **Roarty, H.J.**, Glenn, S., Schofield, O. and Chant, B. (2004). "Recent Results: NJSOS and NEOS" Fourth International Radiowave Oceanography Workshop (ROW-4)

Kohut, J., **Roarty, H.J.**, Glenn, S., Schofield, O. and Chant, B. (2004). "Codar HF Radar Network Development LEO, NJSOS, NEOS, SCMP" MMS Alaska OCS Region Research Sponsorship Meeting on the Mapping of Surface Currents from HF Radar in the Cook Inlet and Beaufort Sea, Alaska

Kohut, J., **Roarty, H.J.**, Glenn, S., Schofield, O. and Chant, B. (2004). "Recent Results from the HF Radar Network for NJSOS & NEOS" USF/ACT Surface Current Radars Workshop

Schofield, Glenn, Chant, Kohut, Barrier, Bosch, Creed, Kerfoot, Mudgal, **Roarty**, Jones, Webb, Twardowski, Kirkpatrick, Barrick, McLean, Berstien, and Crowley (2004) "Operational Research Observatories: Opportunities and Challenges in the Coming Year" AGU Fall Meeting

Gong, D., Glenn, S, Chant, B, Kohut, J., **Roarty, H.**, and Bosch, J. (2004). "Statistical Analysis of Surface Currents off the Coast of NJ/NY – Initial Study" AGU Fall Meeting

Josh Kohut, **Hugh Roarty**, Scott Glenn, Arthur Allen, Paul Hall, Dave Ullman, Jim O'Donnell, and Todd Fake (2005) "Integration of Coastal Ocean Dynamics Application Radar (CODAR) surface current data and Short term Predictive System (STPS) into the Search and Rescue Optimal Planning System (SAROPS)" Fifth International Radiowave Oceanography Workshop (ROW-5), Pescadero, CA

Roarty, Kohut, Glenn, Kung and Barrick (2005) "World's First Triple Nested HF Radar Test Bed for Current Mapping and Ship Detection" Fifth International Radiowave Oceanography Workshop (ROW-5)

Kohut, J.T., **Roarty, H.J.**, Glenn, S.M., Schofield, O., Chant, R.J., Creed, E. (2005) "Observed response of the Hudson River plume to wind forcing using a nested HF radar array" Current Measurement Technology, 2005. Proceedings of the IEEE/OES Eighth Working Conference on

Scott Glenn, Oscar Schofield, Josh Kohut, **Hugh Roarty**, Chip Haldeman, Clayton Jones, Tom Campbell, Liz Creed and Trisha Bergmann, (2005) "Rutgers University - Webb Research Partnership for Glider Technologies" Autonomous and Lagrangian Platforms and Sensors (ALPS), Portland, Oregon

Gong, Bosch, Chant, Kohut, **Roarty** (2005) "Coastal Plume & Shelf Circulation - LaTTE 2005 Remote Sensing Results" Gordon Conference

Roarty, H.J., Yan, A., Kohut, J., and Glenn, S. (2006) "The Use of High Frequency Radar to Measure Wave Parameters" 2006 Ocean Sciences Meeting OS25I-15

Schofield, O. Kerfoot, J., Kohut, J., **Roarty, H.J.**, Jones, C., and Glenn, S. (2006) "Studying Particle Dynamics on Continental Shelves Using Slocum Webb Gliders" Eos Trans. AGU, 87(36) Ocean Sci. Meet Suppl., Abstarct OS23E-05

Kerfoot, J., Glenn, S., Kohut, J., Schofield, O. **Roarty, H.J.**(2006) "Correction for Thermal Lag Effects in Non-Pumped Temperature-Conductivity Sensors on the Slocum Coastal Electric Glider" 2006 Ocean Sciences Meeting OS45D-21

Glenn, Schofield, Chant, Kohut, **Roarty**, Graver, Wilkin, Arango, Levin, Zavala-Garay, Zhang, McDonnell (2006) "Coastal Ocean Modeling, Observation, and Prediction", ONR Northeast Review Meeting, Woods Hole, MA

Glenn, Schofield, Kohut, **Roarty**, Kerfoot, Haldeman, Aragon, Jones, Campbell, Creed, Bergmann (2006) "Rutgers University - Webb Research Corporation Partnership for Glider Technologies" Glider Consortium Meeting, Washington, DC

Schofield, Glenn, Kohut, **Roarty**, Kerfoot, Haldeman, Aragon, Moline, Robbins (2006) "Rutgers University - Gliders and GOES Risk Reduction", GOES Meeting, Monterey CA

Kohut, J T; Ullman, D S, **Roarty H J**, (2008) "Rapid Response of the Mid-Shelf Front to a Passing Coastal Storm: Application of Sustained Glider AUV Missions off the Coast of New Jersey", Ocean Sciences Meeting, Session 159

Kerfoot, J M, Glenn, S M; Schofield, O M, **Roarty, H J**, Chant, R; Kohut, J T (2008) "The View from the COOLroom The Rutgers University Coastal Ocean Observatory", Ocean Sciences Meeting, Session 153

Schofield, Glenn, Chant, Kohut, McDonnell, **Roarty**, Wilkins (2008) "Dawn in a New Age of Ocean Science", National Marine Fisheries Service, Sandy Hook, NJ

Roarty, H J, (2008) “High Frequency Radar Network within the Mid Atlantic Regional Coastal Ocean Observing System”, Ocean Sciences Meeting, Session 07Kohut, **Roarty**, Lichtenwalner, Glenn, Barrick, Lipa, Allen (2008) “The Mid-Atlantic Regional Coastal Ocean Observing System: Serving Coast Guard Needs in the Mid-Atlantic Bight” US/EU-Baltic 2008 International Symposium, Tallinn, Estonia

Roarty, Kohut, Glenn (2008) “The Mid-Atlantic Regional Coastal Ocean Observing System: Serving Coast Guard and Fisheries needs in the Mid-Atlantic Bight”, IEEE Ninth Working Conference on Current Measurement Technology , Charleston, SC

Kohut, **Roarty**, Lichtenwalner, Glenn, Barrick, Lipa, Allen (2008) “Surface Current and Wave Validation of a Nested Regional HF Radar Network in the Mid-Atlantic Bight”, IEEE Ninth Working Conference on Current Measurement Technology , Charleston, SC

Glenn, Bowers, Chant, Dunk, Kerfoot, Kohut, McDonnell, Montagna , **Roarty**, Schofield, Wilkin (2008) “Ocean Observatories and Their Growing Role in the Energy Industry”, Rutgers Energy Institute, New Brunswick, NJ

Glenn, Schofield, Kohut, **Roarty**, Kerfoot, Haldeman, Aragon, Graver, Cross, Bricker, Bub, Jones, Scholz, Collins, Palanza, Wieler, Webb, Campbell, Fury, Farger, Jackson (2008) “Rutgers University-Webb Research Corporation Partnership for Glider Technologies”, Glider Technology Transfer Initiative Meeting , San Diego, CA

AWARDS, HONORS AND CERTIFICATIONS:

2001 John P. Breslin Award for Outstanding Research in Ocean Engineering
1999 ASCE Stevens Student Chapter Outstanding Teaching Assistant
1999 NJ American Water Resources Association Student Scholarship Award
1995 Chi Epsilon, Civil Engineering Honor Society
1994 Tau Beta Pi, Engineering Honor Society
1994 Rutgers University Jaqua Foundation Scholarship Award
1992 Rutgers College Certificate of Academic Achievement
1987 Eagle Scout