

Teresa Garner Updyke

Curriculum Vitae

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CURRENT POSITION

Research Scientist
Center for Coastal Physical Oceanography
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EDUCATION

M.S. Physical Oceanography, Old Dominion University, Norfolk, VA, 2005.

B.S. Earth & Atmospheric Sciences with High Honors (Geophysics focus), Georgia Institute of Technology, Atlanta, GA, 2000.

PROFESSIONAL EXPERIENCE

2007 – present: Research Scientist, Center for Coastal Physical Oceanography, Old Dominion University

Management and quality control of high frequency radar surface current data for incorporation into regional and national ocean observing systems. Development and presentation of near real-time data products of interest to the public and scientific community. Sub-regional manager for Mid-Atlantic radar systems located in NC, VA, MD and DE.

2003 – 2006: Research Assistant, Old Dominion University

Development of a method to estimate the largest vertical turbulent eddy length scales from CTD measurements. Wrote MATLAB code to implement this new method. Determined time and length scales for vertical mixing in the Ross Sea as part of a collaborative project to investigate the impact of enhanced UV radiation on phytoplankton health and productivity.

2001 – 2002: Environmental Careers Organization Intern, NOAA Center for Operational Oceanographic Products and Services, Silver Spring, MD

Generated tidal current predictions with harmonic analysis techniques and participated in tidal current surveys.

2001: M.A.T.E. Program Electronics Technician Internship, Raytheon Polar Services, R/V Nathaniel B. Palmer

Internship aboard the polar research vessel Nathaniel B. Palmer in transit from Louisiana to Punta Arenas, Chile for participation in electronic technician's training.

2000 – 2001: Intern, Skidaway Institute of Oceanography

Performed harmonic analyses on tidal current and pressure data to assess the effects of certain harmonic overtides on tidal asymmetry. Streamlined data processing through composition of scripts for UNIX platforms. Assisted as needed with estuarine fieldwork.

PUBLICATIONS

Gargett, A.E. and T. L. Garner, "Determining Thorpe Scales from ship-lowered CTD density profiles". J. Atmos. Oceanic Tech., 25 (9), 1657-1670, 2008.

Roarty H. et al., "Operation and Application of a Regional High-Frequency Radar Network in the Mid-Atlantic Bight", Marine Technology Society Journal 44 (6), 133-145, 2010.

SELECTED CONFERENCE PROCEEDINGS AND PRESENTATIONS

O Donncha F., Ragnoli E., Suits F., Updyke T. and H. Roarty, "Uncertainty analysis of numerical model simulations and HFR measurements during high energy events", European Geosciences Union General Assembly, April 2013.

Updyke, T. G. and Larry P. Atkinson, "A Study of Surface Currents in the Coastal Ocean Outside Chesapeake Bay Using HF Radar", Proceedings of the 2012 MTS/IEEE Oceans Conference, October 2012.

Garner, T., "High Frequency RADAR Activities at Old Dominion University", Fifth Radiowave Operators Working Group (ROWG) meeting, April 2011.

Garner, T., "Surface Current Mapping in the Lower Chesapeake Bay" 37th Annual Mid-Atlantic Bight Physical Oceanography and Meteorology (MABPOM) meeting, October 2010.

Garner, T., "A study of surface currents in the lower Chesapeake Bay using HF RADAR", 10th International Radiowave Oceanography Workshop (ROW-10), September 2010.

Garner, T., "Near Real-Time Observations of Surface Currents Using High Frequency RADAR", Virginia Institute of Marine Science workshop "Using Observing Systems to Address Coastal Management Issues!", January 2010.