

**Steven J. Lentz**

Department of Physical Oceanography  
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**Education:**

Ph.D., Scripps Institution of Oceanography, 1984  
B.A., University of California, San Diego, 1977 (Mathematics)  
B.A., University of California, San Diego, 1977 (Applied Mechanics and Engineering Science)

**Positions Held:**

Senior Scientist, 2000–present; Associate Scientist, 1991–2000, tenure awarded, 1995;  
Assistant Scientist, 1987–1991; Visiting Investigator, 1985–1987; Woods Hole Oceanographic Institution.  
Research Assistant, 1984–1985; Graduate Research Assistant, 1978–1984; Center for Coastal Studies, Scripps Institution of Oceanography, University of California, San Diego.

**Awards:**

California State Scholarship, 1972–1976  
Graduated summa cum laude in Mathematics and Applied Mechanics and Engineering Science, 1977  
Regents Fellowship, 1977–1978

**Research Interests:**

Coastal oceanography including the wind-driven circulation, surface and bottom boundary layer dynamics, river plumes, surf-zone dynamics, tides, and coastal meteorology.

**Recent Publications**

- Sobarzo, M., R. K. Shearman, and S. J. Lentz, 2007. Coupling between sea breeze and near-inertial motions on the continental shelf off Concepcion, Central Chile. *Progress in Oceanography* (Chile), in press.
- Fewings, M., S. J. Lentz, and J. Fredericks, 2007. Observations of cross-shore flow driven by cross-shore winds on the inner continental shelf. Submitted to *Journal of Physical Oceanography*.
- Winsor, P., D. Chapman, L. Keigwin, and S. J. Lentz, 2007. The pathway and impact of fresh water discharge through Hudson Strait 8200 years ago. Submitted to *Paleoceanography*.
- Lentz, S. J., M. Fewings, P. Howd, J. Fredericks, and K. Hathaway, 2007. Observations and a model of undertow over the inner continental shelf. Submitted to *Journal of Physical Oceanography*.
- Shearman, R. K., S. J. Lentz, and K. L. Elder, 2007. Coastal sea surface temperature variations along the U. S. East Coast over the last one-hundred years. Submitted to *Nature Geosciences*.

**Synergistic Activities:**

My research focuses on a better understanding of physical processes that impact a variety of important interdisciplinary problems, including coastal upwelling, ground-fish survival on Georges Bank, larval transport, and sediment transport. I collect oceanic and meteorological data, which is processed, documented in data reports, archived and made available to the general scientific community and students. R. Beardsley, R. Pawlowicz, and I have developed and made available to the oceanographic community Matlab based software that allows easy analysis of the tides and air–sea fluxes. I am active in the MIT/WHOI education program. I have also served on numerous Ph.D. thesis committees both within the MIT/WHOI program and at other institutions. I have also been principal advisor to three students who completed their doctoral degrees.

**Advisees:**

*Ph.D. Students Advised:* E. Dever, J. Austin, M. Bowen, M. Fewings, R. Horwitz

*Post-Docs Supervised:* R. K. Shearman, A. Kirincich