

## Graduate Study in Coastal Dynamics

The Environmental Fluid Mechanics (EFM) group at the University of Washington is looking for at least two highly motivated students for graduate study (masters or doctoral) in estuarine and coastal dynamics. Details of specific positions are outlined below. Students will work with Prof. Alex Horner-Devine in the Dept. of Civil and Environmental Engineering and / or Dr. Jim Thomson at the Applied Physics Laboratory / CEE. Students with strong quantitative backgrounds (math, physics, engineering) and an interest in hands-on work are encouraged to apply. More information on the research group, including details of specific project opportunities, is available at:

<http://depts.washington.edu/uwefm/>

and application details are available at:

[http://www.ce.washington.edu/programs/prospective/grad/applying/gen\\_admission.html](http://www.ce.washington.edu/programs/prospective/grad/applying/gen_admission.html)

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### 1. Sediment transport in wave-supported gravity currents

We seek a graduate student for a new project funded by the National Science Foundation that will determine the effect of waves on gravity-driven sediment flows. The project, which is a collaboration between Dr. Alex Horner-Devine and Dr. Andrea Ogston (UW Oceanography), will use laboratory experiments in a facility built expressly for this project in conjunction with data sets from a series of prior international field campaigns. Results will help to elucidate the dynamics of a little-understood sediment transport process in coastal regions and the fate of river-derived carbon. We particularly interested in PhD students who already have an MS degree, but will also consider highly motivated MS students. We hope that the student will start during the summer of 2009.

Contact: Alex Horner-Devine ([arhd@u.washington.edu](mailto:arhd@u.washington.edu))

### 2. Tidal Flat Thermography

As part of a large field study of tidal flat dynamics, sponsored by the Office of Naval Research, a Graduate Research Assistant would work with Dr. Jim Thomson at the UW Applied Physics Lab / CEE to collect and interpret infrared image data. The infrared data, collected from small planes and aerostats, will be combined with an array of temperature gages to estimate the regional heat fluxes and the estuarine circulation. Additional data will include acoustic Doppler current profiles, which will require assimilation into a model for the river plume and channel dynamics. Results will improve understanding of coastal processes and will enhance remote sensing capabilities. Ideally, the student would participate in fieldwork during the summer of 2009, prior to enrolling for the fall quarter 2009. The ONR program is described at:

<http://www.tidalflats.org>

and ongoing results from the UW-APL research are being posted to:

<http://wiki.tidalflats.org/index.php?title=APL-UW>.

Contact: Jim Thomson ([jthomson@apl.washington.edu](mailto:jthomson@apl.washington.edu))