NICHOLAS L. BEAIRD, PH.D.

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RESEARCH & EDUCATION

Woods Hole Oceanographic Institution *December 2013 - present*
Postdoctoral Scholar

University of Washington *November 2013*
Ph.D. Oceanography

University of Washington *January 2010*
M.Sc. Oceanography

Colby College *May 2006*
B.A. Physics, Mathematical Sciences
cum laude

Woods Hole Oceanographic Institution *January 2006*
Guest Student

RESEARCH INTERESTS

- Dynamics, mixing and entrainment in dense overflows and gravity currents.
- Ice-Ocean interaction.
- Nordic Seas - Sub-polar North Atlantic exchanges and the Atlantic Meridional Overturning Circulation.
- Observational oceanography from autonomous platforms, development of new sampling methodology.

PUBLICATIONS

- **Beaird, N.L.**, P.B. Rhines, C.C. Eriksen, *in prep.*: Evidence of Direct Exchange of Low Salinity Intermediate Waters Across the Iceland-Faroe Ridge in Winter.

- Ullgren, J.E., I. Fer, E. Darelius, **N.L. Beaird**, 2014: Interaction of the Faroe Bank Channel overflow with Iceland Basin intermediate waters. *J. Geophys. Res. Oceans, 119*, doi:10.1002/2013JC009437

- **Beaird, N.L.**, P.B. Rhines, C.C. Eriksen, 2013: Overflow Waters at the Iceland-Faroe Ridge Observed in Multi-year Seaglider Surveys. *J. Phys. Oceanogr.*, **43,** 2334-2351

- **Beaird, N.L.**, I. Fer, P.B. Rhines, C.C. Eriksen, 2012: Dissipation of Turbulent Kinetic Energy Inferred from Seagliders: An Application to the Eastern Nordic Seas Overflows. *J. Phys. Oceanogr.*, **42,** 2268-2282

CONFERENCE PRESENTATIONS

- Beaird, N.L., I. Fer, P.B. Rhines, C.C. Eriksen (2013). Vertical Velocity and turbulent dissipation in the Nordic Seas overflows. **Poster** presented at the 2013 CNLS-LANL Ocean Turbulence, Sante Fe, NM, USA, June 2 - 7, 2013.

- Beaird, N.L., I. Fer, P.B. Rhines, C.C. Eriksen (2012). Dissipation Rate and Vertical Mixing Inferred from Seagliders: An Application to the Nordic Seas Overflows. **Poster** presented at the 2012 Ocean Sciences Meeting, Salt Lake City, UT, USA, February 20 - 24, 2012. Poster ID: B1943

- Beaird, N.L., I. Fer, P.B. Rhines (2011). Dissipation rate and vertical mixing inferred from Seagliders. Geophysical Research Abstracts. Vol. 13, EGU2011-5959, European Geophysical Union General Assembly, Vienna, Austria April 3 - 8 2011. **Oral presentation**, delivered by I. Fer.

- Beaird, N.L., C.C. Eriksen, P.B. Rhines (2010), Vertical Velocity Inferred from Seaglider, **Oral presentation**, BIAC-POCAHONTAS Symposium, Rosendal, Norway, September 22, 2010.

- Beaird, N.L., C.C. Eriksen, P.B. Rhines (2010), Overflow Waters at the Iceland-Faroe Ridge from Seaglider Repeat Surveys. **Poster** delivered at AOSTA Alpine Summer School: Buoyancy Dirven Flows. Valsavarenche, Italy.

- Beaird, N.L., C.C. Eriksen, P.B. Rhines (2010), Overflow and Entrainment Along the Iceland-Faroe Ridge Observed in Seaglider Repeat Surveys, **Oral Presentation** at the 2010 Ocean Sciences Meeting, Portland, OR, USA, February 23, 2010.

INVITED SEMINARS

- Woods Hole Oceanographic Institution, PO seminar, Woods Hole, USA 2014.
- University of Rhode Island, GSO PO seminar, Rhode Island, USA 2014.
- Bjerknes Center-GFI Colloquium, Bergen, Norway, 2010.
- University of East Anglia Atmosphere, Ocean & Climate Seminar, Norwich, UK, 2010.
- National Oceanography Center Seminar, Southampton, UK, 2010.

FELLOWSHIPS & AWARDS

- Doherty Postdoctoral Scholarship, Woods Hole Oceanographic Institution, Dec. 2013
- S.S. & I.M.F Marsden Prize in Earth Sciences, May 2006.
- National Physics Honor Society, May 2006.

TEACHING

Teaching Assistant, Introduction to Oceanography *Spring 2008, University of Washington*
Conducted weekly review sessions for a section of students, and created and graded exams and out-of-class assignments.

Teaching Assistant, 'Math After Hours' *Fall 2005 - Spring 2006, Colby College*
Assisted running weekly evening problem solving sessions for undergraduate students in lower level Math courses, typically Calculus and Linear Algebra.

Teaching Assistant, Linear Algebra *Spring 2005, Colby College*
Graded assignments and led periodic review sessions for an introductory undergraduate Linear Algebra course.

OUTREACH & SCIENTIFIC SERVICE

Reviewer
Journal of Physical Oceanography, Journal of Atmospheric and Oceanic Technology.

Seaglider Laboratory Tours
Lead semi-regular tours of the Seaglider engineering laboratory and give presentations on oceanographic field work to visiting student groups ranging from primary students to undergraduates.

Ocean Inquiry Project *4/21/2012, 8/17/2012, 9/29/2012*
Volunteer instructor on educational citizen science cruises in the Puget Sound.

OCEANOGRAPHIC CRUISES

CLIVAR P18 South *January 21 - February 23, 2008*
South Pacific - Southern Ocean
Collected and analyzed the tracers CFC11/12 and SF6 using a gas chromatograph.

Faroe Bank Channel Seaglider Deployment *May 3 - 10 2009*
Faroe Islands
Assembled, prepared, and deployed three Seagliders.

Faroe Seaglider Project Piloting *September 2006 - November 2009*
Faroe Islands / Seattle, WA
Piloted and helped plan a nearly continuous Seaglider survey in the North Atlantic with quarterly deployment schedules. Involved in decision making regarding sampling with respect to science goals.

Local Seaglider deployments *August 2006 - 2013*
Puget Sound, WA / WA Coast / British Columbia
Participated in numerous deployments, tests, and searches involving Seagliders in the Puget Sound, off the Washington continental shelf, and off the central British Columbia coast.

Semilik Fjord *August 18 - 29 2013*
Southeast Greenland
CTDs and deployment and recovery of moorings in a glacially influenced fjord.