

Robin Robertson

University of New South Wales at the Australian Defense Force Academy
School of Physical, Environmental and Mathematical Sciences

UNSW@ADFA

ADFA

Canberra, ACT 2617

Phone: 61 (0)2 626 88290

email: r.robertson@adfa.edu.au

<http://www.pems.adfa.edu.au/~rrobertson>

Professional Preparation:

Florida Institute of Technology (Melbourne, FL)	Oceanography	B.S.	1977
University of Rhode Island (Kingston, RI)	Ocean Engineering	M.S.	1982
Oregon State University (Corvallis, OR)	Physical Oceanography	Ph.D.	1999
Lamont-Doherty Earth Observatory (Palisades, NY)	Post-doctoral position	-	1999-2000, 2001
Alfred-Wegener-Institute (Bremerhaven, Germany)	Post-doctoral position	-	2001

Appointments and Employment:

University of New South Wales at the Australian Defence Force Academy, Canberra, ACT, Australia

(7-08 to present) Senior Lecturer and

(3-06 to 7-08) Lecturer

Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY;

(10-02 to 3-06) Doherty Associate Research Scientist and

(3-06 to present) Adjunct Associate Research Scientist

Fairleigh Dickinson University, Teaneck, NJ (9-02 to 12-03); Adjunct Instructor

Alfred-Wegener-Institut für Polar- und Meeresforschung, Bremerhaven, Germany, International Research

Fellow (2001); Postdoctoral Researcher

Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY (3-99 to 1-01; 12-01 to 10-02);

Postdoctoral Researcher

College of Oceanic and Atmospheric Sciences, Oregon State University, Corvallis, OR (9-91 to 2-99);

Graduate Student

Ocean Research and Engineering, Pasadena, CA (7-89 to 2-91); Ocean Engineer

Tekmarine, Inc., Pasadena, CA (2-88 to 5-89); Ocean Engineer

Areté Associates, Sherman Oaks, CA. (5-84 to 2-88) and (6-89 to 7-89); Programmer/Analyst

Science Applications International Corp., Newport, RI (3-82 to 5-84); Programmer/Field Assistant

Synergistic Activities:

Modeling of internal tides and tidal mixing in the Antarctic and Indonesian Seas, investigating the sensitivity of the results to warming deep water, sea ice, shelf break fronts, stratification, and the critical latitude. Investigating the simulation of tidal mixing using regional models for inclusion into larger scale global models. Comparison of the two terrain-following ocean models, POM and ROMS, for this use. Investigation of historical hydrographic data in the Weddell Sea for temporal and spatial changes.

Service:

AMOS (Australian Meteorological and Oceanographic Society) – National Treasurer 2008-2009

AMOS – At-large National Council member – 2010 to present

AMOS ACT Chapter - Council Member – 2007-present
AMOS 2011 Meeting – Co-Convener for Oceanography sessions
AGU Fall 2009 Meeting – Session Chair for 2 Oceanography sessions.
Lamont-Doherty Earth Observatory – Executive Committee Member (Junior Staff representative) –
2003-2006
UNSW@ADFA – various committees across ADFA and within the school – 2004-present

Publications: [no. of citations as of 30 March 2013: Web of Science; SCOPUS; Google Scholar]
h-factor=10(Scopus)-9(Google Scholar)

Peer-Reviewed Journal or Book Chapter:

1. Robertson, R. (2013) [-] Tidally induced increases in Melting of Pine Island and other Amundsen Sea ice shelves, accepted with minor revisions Feb, revised and resubmitted to *J. Geophys Res*, March 2013.
2. Hibiya, T., N. Furuichi, and R. Robertson (2012) [-;-;-] Assessment of fine-scale parameterizations of turbulent dissipation rates near mixing hotspots in the deep ocean, *Geophys. Res. Lett.*, *39*, L24601; doi:10.1029/2012GL054068.
3. Robertson, R., (2011) [3;3;4] Interactions between tides and other frequencies in the Indonesian Seas, *Ocean Dynamics*, *61*, 69-88, doi:10.1007/s10236-010-0343x..
4. Robertson, R., (2010) [5;5;6], Tidal Currents and mixing at the INSTANT mooring locations, *Dynamics of Atmospheres and Oceans*, *50*, 331-373.
5. Robertson, R.,[-;-;-] Are the deep waters of the Weddell Sea still warming?,(2010) [-;-;-]Chap 4. in *Climate Change Monitoring and Strategy*, eds. J. You and A. Henderson-Smith, Sydney Univ. Press, 111-141.
6. You, Y, T Rossby, W Zenk, AG Ilahude, M Fukasawa, R Davis, D Hu, D Susanto, PL Richardson, C Villanoy, T Liu, JH Lee, R Molcard WW Pandoe, M Koga, T Qu, RA Fine, A Gabric, R Robertson, Y Matsumoto, S Riser, H Hasumi, P Sigray, and T Lee, (2010), [-;-;-] Indonesian Throughflow: PACific Source Water INvestigation (PACSWIN) An international ocean climate program Chap 8. in *Climate Change Monitoring and Strategy*, eds. J. You and A. Henderson-Smith, Sydney Univ. Press, 238-298.
7. Robertson, R. and A Ffield (2008), [6;5;8] Baroclinic Tides in the Indonesian Seas: Tidal Fields and Comparisons to Observations, *J. Geophys. Res.*, doi:10.1029/2007JC004677, 2008.
8. Ffield, A. and R. Robertson (2008), [1;1;2] Temperature finestructure in the Indonesian Seas, *J. Geophys. Res.*, *113*, C09009, doi:10.1029/2006JC003864.
9. Robertson, R. (2006), [11;11;19] Modeling Internal Tides over Fieberling Guyot: Resolution, Parameterization, Performance, *Ocean Dynamics*, doi 10.1007/s10236-006-0062-5.
10. Robertson, R. and A. Ffield (2005), [-;17;31] M₂ baroclinic tides in the Indonesian Seas, *Oceanography*, *18*, 62-73.
11. Ffield, A. and R. Robertson (2005), [-;6;9] Indonesian Seas finestructure variability, *Oceanography*, *18*, 108-111.
12. Robertson, R. (2005), [11;12;9] Barotropic and baroclinic tides in the Ross Sea, *Antarctic Science*, *17*, 107-120.
13. Robertson, R. (2005), [10;10;16] Barotropic and baroclinic tides in the Weddell Sea, *Antarctic Science*, *17*, 461-474.
14. Robertson, R., A. Beckmann, and H. Hellmer (2003), [15;16;23] M₂ Tidal dynamics in the Ross Sea, *Antarctic Science*, *15*, 41-46.
15. Robertson, R., M. Visbeck, A. L. Gordon, and E. Fahrbach (2002), [63;57;87] Long-term temperature trends in the deep waters of the Weddell Sea, *Deep-Sea Research*, *49*, 4791-4806.

16. Robertson, R. (2001), [13;16;21] Internal tides and baroclinicity in the southern Weddell Sea: Part I: Model description, and comparison of model results to observations, *J. Geophys. Res.*, *106*, 27,001-27,016.
17. Robertson, R. (2001), [22;21;35] Internal tides and baroclinicity in the southern Weddell Sea: Part II: Effects of the critical latitude and stratification, *J. Geophys. Res.*, *106*, 27,017-27,034.
18. Robertson, R., L. Padman, and M. D. Levine (2001), [10;12;14] A correction to the baroclinic pressure gradient term in the Princeton Ocean Model, *J. Atmos. Ocean. Tech.*, *18*, 1068-1075.
19. Robertson, R., L. Padman, and G. D. Egbert (1998), [-;-;90] Tides in the Weddell Sea, in *Ocean, Ice, and Atmosphere: Interactions at the Antarctic Continental Margin*, Antarctic Research Series, *75*, 341-369.
20. Robertson, R., L. Padman, and M. D. Levine (1995), [37;35;50] Fine structure, microstructure, and vertical mixing processes in the upper ocean in the western Weddell Sea, *J. Geophys. Res.*, *100*, 18517-18535.
21. Robertson, R. and M. Spaulding (1985), [-;-;-] A three-dimensional numerical dispersion model for acid-iron waste disposal, in *Wastes in the Ocean: Volume 5: Deep sea waste disposal*, Wiley Interscience, D. R. Kester, P. K. Park, P. H. Ketchum, and I. W. Duedall (eds.), 125-145.

Peer Reviewed Conference:

22. Robertson, R., Yo-Yo and the PIG, 2010 IOP Conf. Ser.: Earth Environ. Sci 11 012002, proceedings for the Australian Meteorological and Oceanographic Society (AMOS) Conference, Canberra, Australia, January 2010.
23. Robertson, R., Vertical mixing in ocean models, 2010 IOP Conf. Ser.: Earth Environ. Sci 11 012035, proceedings for the Australian Meteorological and Oceanographic Society (AMOS) Conference, Canberra, Australia, January 2010.
24. Robertson, R., Tidal Effects on Circulation and Mixing in the Ombai Strait Region, paper published in the proceedings of the World Ocean Conference, Manado, Indonesia, May 2009.
25. Robertson, R., Internal Tides and Mixing in the Indonesian Seas, refereed paper published in proceedings of the International Symposium on Stratified Flows, Perth Australia, Dec. 2006.

Non-Peer Reviewed:

1. Robertson, R., Tidal Effects on Circulation and Mixing in the Ombai Strait Region, paper published in the proceedings of the 9th International Conference on Southern Hemisphere Meteorology and Oceanography, Melbourne, Australia, Feb 2009.
2. Robertson, R., M. Visbeck, and A. L. Gordon, Long-term Warming of Weddell Sea Warm Deep Water, *CLIVAR Exchanges*, *6*, No. 4, 21-22, 2001.
3. Robertson, R., Mixing and heat transport mechanisms for the upper water column in the Weddell Sea, Ph.D. Dissertation, College of Oceanic and Atmospheric Sciences, Oregon State University, 1999.
4. Padman, L., R. Robertson, and K. Nicholls, Modeling tides in the southern Weddell Sea: Updated model with new bathymetry from ROPEX, Filchner-Ronne Ice Shelf Programme Report No. 12, Alfred-Wegener Institute for Polar and Marine Research, Bremerhaven, Germany, 1998.

Collaborators and Other Affiliations:

Collaborators:

Dr. Jim Cochran, Lamont-Doherty Earth Observatory, Palisades, NY, USA
 Dr. Eberhard Fahrback, Alfred-Wegener-Institut, Bremerhaven, Germany
 Dr. Arnold Gordon, Lamont-Doherty Earth Observatory, Palisades, NY, USA
 Dr. Hartmut Hellmer, Alfred-Wegener-Institut, Bremerhaven, Germany
 Dr. Petra Heil, Australian Antarctic Division, Hobart, Tasmania, Australia
 Mr. Stan Jacobs, Lamont-Doherty Earth Observatory, Palisades, NY, USA
 Dr. Arianne Koch-Larrouy, Laboratory for Geophysics and Oceanography, Toulouse, France
 Prof. Jason Middleton, Univ. of New South Wales, Sydney, Australia
 Dr. Keith Nicholls, British Antarctic Survey, Cambridge, England

Dr. Andreas Schiller, CSIRO, Hobart, Tasmania, Australia
Dr. Bill Shaw, Naval Postgraduate School, Monterey, CA, USA
Dr. Janet Sprintall, Scripps Institute of Oceanography, La Jolla, CA, USA
Dr. Tim Stanton, Naval Postgraduate School, Monterey, CA, USA
Dr. Michael Studinger, Lamont-Doherty Earth Observatory, Palisades, NY, USA
Dr. Iain Suthers, Sydney Institute for Marine Science-UNSW, Sydney, Australia
Dr. Andreas Thurnherr, Lamont-Doherty Earth Observatory, Palisades, NY, USA
Prof. Bruno Tremblay, McGill University, Montreal, Canada
Dr. Martin Visbeck, IFM/GEOMAR, Kiel, Germany: Co-author
Dr. Susan Wijffels, CSIRO, Hobart, Tasmania, Australia
Dr. Xiaojun Yuan, Lamont-Doherty Earth Observatory, Palisades, NY

Graduate and Post Doctoral Advisors:

Dr. Aike Beckmann, Alfred-Wegener-Institut, Bremerhaven, Germany: Post-doctoral advisor
Dr. Arnold Gordon, Lamont-Doherty Earth Observatory, Palisades, NY: Post-doctoral advisor
Dr. Hartmut Hellmer, Alfred-Wegener-Institut, Bremerhaven, Germany: Post-doctoral advisor
Dr. Murray Levine, COAS, Oregon State University, Corvallis, OR: Doctoral advisor
Dr. Laurie Padman, Earth and Space Research, Corvallis, OR: Doctoral advisor
Dr. Martin Visbeck, Lamont-Doherty Earth Observatory, Palisades, NY: Post-doctoral advisor