

CAROL ANNE CLAYSON, BIOGRAPHICAL SKETCH

ASSOCIATE SCIENTIST WITH TENURE, PHYSICAL OCEANOGRAPHY DEPARTMENT
Woods Hole Oceanographic Institution • Woods Hole, MA 02543
Phone: (508) 289-3626 • Email: cclayson@whoi.edu

EDUCATION:

1988 B. S., Physics and Astronomy, Brigham Young University
1990: M.S., Aerospace Engineering Sciences, The University of Colorado
1995: Ph.D., Aerospace Engineering Sciences, Program in Atmospheric and Oceanic Sciences, The University of Colorado

PROFESSIONAL EXPERIENCE:

2011 - Associate Scientist with Tenure, Physical Oceanography Department
Woods Hole Oceanographic Institute, Woods Hole, MA
2002-2011 Associate Professor, Department of Meteorology
Director, Geophysical Fluid Dynamics Institute
Florida State University, Tallahassee, Florida
2001-2002 Associate Professor, Department of Earth and Atmospheric Sciences
Purdue University, West Lafayette, Indiana
1995-2001 Assistant Professor, Department of Earth and Atmospheric Sciences
Purdue University, West Lafayette, Indiana

SELECTED HONORS:

2010 Florida State University Graduate Faculty Mentor Award
2005 Florida State University Developing Scholar Award
2000 Presidential Early Career Award for Scientists and Engineers (PECASE)
2000 ONR Young Investigator Award
1999 Purdue Teaching for Tomorrow Award
1996 NSF CAREER Award

PROFESSIONAL SERVICE/ACTIVITIES:

Chair, GEWEX SEAFLUX Project, 2005 -
Member, NASA Sea Surface Temperature Science Team, 2009 - present
AMS Committee on Coastal Environments, 2009 – present
AMS Satellite Meteorology, Oceanography, and Climatology, 2012 - present
Member, National Research Council Board on Atmospheric Sciences and Climate, 2005 - 2008
Member, National Research Council Committee for Study on TRMM, 2004 – 2006
Associate Editor, Monthly Weather Review, 2004 – 2006
Member, National Research Council Committee on Earth Studies, 2002 – 2005
Member, AMS Committee on Interaction of the Sea and Atmosphere, 2000 – 2005
Member, AMS Board of Meteorological and Oceanographic Education in Universities 2000-2003

SELECTED RECENT REFERRED PUBLICATIONS (BOLD INDICATES GRADUATE STUDENT):

- Clayson, C. A., J. B. Roberts, and A. Bogdanoff, 2013: Seaflux Version 1: a new satellite-based ocean-atmosphere turbulent flux dataset. *Int. J. Climatol.*, in revision.
- Roberts, J. B.** and C. A. Clayson, 2013: Assessing the closure of the mixed layer temperature balance from observations. Part I: Seasonal variability. *J. Geophys. Res.*, in revision.
- Clayson, C.A. and **A. Bogdanoff**, 2013. The effect of diurnal sea surface temperature warming on climatological air-sea fluxes. *Journal of Climate*, **26**, 2546-2556.
- Bourassa, M., S. Gille, C. Bitz, D. Carlson, I. Cerovecki, C. A. Clayson, M. Cronin, W. Drennan, C. Fairall, R. Hoffman, G. Magnusdottir, R. Pinker, I. Renfrew, M. Serreze, K. Speer, L. Talley, and G. Wick, 2013: High-latitude ocean and sea ice surface fluxes: challenges for climate research. *Bull. Amer. Meteorol. Soc.*, accepted.
- Stephens, G., J. Li, M. Wild, C. A. Clayson, N. Loeb, S. Kato, T. L'Ecuyer, P. Stackhouse Jr., M. Lebsack, and T. Andrews, 2012: An update on the Earth's energy balance in light of new surface energy flux estimates. *Nature Geosciences*, **5**, 691-696, doi:10.1038/ngeo1580.
- Roberts, J. B.**, F. R. Robertson, C. A. Clayson, and M. G. Bosilovich, 2011. Characterization of turbulent latent and sensible heat flux exchange between the atmosphere and ocean in MERRA. *J. of Climate*, doi: <http://dx.doi.org/10.1175/JCLI-D-11-00029.1>.
- Liu, J., J. A. Curry, C. A. Clayson, and M. A. Bourassa, 2011. High-resolution satellite surface latent heat fluxes in North Atlantic hurricanes. *Monthly Weather Review*, **139**, 9, 2735-2747.
- Romanou, A., G. Tselioudis, C. S. Zerefos, C. A. Clayson, J. A. Curry, and A. Andersson, 2010. Evaporation-precipitation variability over the Mediterranean and the Black Seas from satellite and reanalysis estimates. *J. Climate*, **23**, 5268-5287.
- Gille, S., M. A. Bourassa, and C. A. Clayson, 2010. Surface fluxes: Challenges for high latitudes. *Eos*, **91**, (35), 307.
- Roberts, J. B.**, C. A. Clayson, F. R. Robertson, and D. Jackson, 2010. Predicting near-surface characteristics from SSM/I using neural networks with a first guess approach. *J. Geophys. Res.*, **115**, D19113, doi: 10.1029/200d9JD013099.
- Clayson, C.A. and L. H. Kantha, 2008. On turbulence and mixing in the free atmosphere. *J. Atmos. Oceanic Tech.*, **25**, 833 - 852.
- Clayson, C. A. and **D. Weitlich**, 2007. Variability of tropical diurnal sea surface temperature. *J. Climate*, **20**, 334-352.
- Curry, J. A., A. Bentamy, M.A Bourassa, D. Bourras, E.F. Bradley, M. Brunke, S. Castro, S.H. Chou, C.A. Clayson, W.J. Emery, L. Eymard, C.W. Fairall, M. Kubota, B. Lin, W. Perrie, R.R. Reeder, I.A. Renfrew, W.B. Rossow, J. Schulz, S.R Smith, P.J. Webster, G.A. Wick, X. Zeng, 2004. SEAFLUX. *Bulletin of the Amer. Meteorol. Soc.*, **85**, 409-424.
- Clayson, C. A. and **D. Weitlich**, 2005. Interannual variability of tropical Pacific diurnal sea surface temperature warming and nighttime cooling. *Geophys. Res. Lett.*, **2**, L21604, doi:10.1029/2005GL023786.
- Kantha, L.H. and C. A. Clayson, 2004. On the effect of surface gravity waves on mixing in an oceanic mixed layer model. *Ocean Modeling*, **6**, 101-124.