ROBERT A. WELLER

Born:

July 27, 1950

Education:

B.A., 1972, magna cum laude, Harvard University (Engineering and applied physics)
(advisor: Dr. D. James Baker)

Ph.D., 1978, Scripps Institution of Oceanography, University of California, San Diego, 1978
(advisor: Dr. Russ Davis)

Awards:

Patent: U.S. Patent No. 4,152,934, "Vector Measuring Current Meter" (with R. Davis, assigned to the Secretary of the Navy)

James B. Macelwane Award, 1986, American Geophysical Union

Fellow, American Geophysical Union, 1986

Henry B. Bigelow Chair for Excellence in Oceanography, 1993-1997

Secretary of the Navy Chair in Oceanography, 1998-2002

Sverdrup Gold Medal, American Meteorological Society, 2003

Fellow, American Meteorological Society, 2003

Special Scientific Interests:

Upper ocean response to atmospheric forcing (wind stress and buoyancy flux); the role of horizontal variability in air-sea interaction; the role of surface waves and related processes in upper ocean dynamics ; coupling between the upper ocean and the interior; Innovative ocean observations; prediction of upper ocean variability on scales of meters to 10's of kilometers; dustained observations in and at the surface of the ocean; the ocean's role in climate.

Recent Positions and Experience:

Woods Hole Oceanographic Institution - Senior Scientist, 1994- ;Director, Cooperative Institute for Climate and Ocean Research, 1998-2010; Chair, Department of Physical Oceanography, July 2006-

Recent Field Work:

R.V. *Revelle*, Chief Scientist, climate studies, mooring recovery and deployment, Hawaii, June 2006.

NOAA Ship *Ronald H. Brown,* Chief Scientist, climate studies and mooring recovery and deployment, northern Chile, October 2006.

R.V. *Oceanus*, Chief Scientist, mode water formation experiment, mooring recovery and deployment, Woods Hole to Woods Hole, November 2006.

R.V. *Oceanus*, Chief Scientist, mode water formation experiment, mooring recovery and deployment, Woods Hole to Woods Hole, September-October 2007.

NOAA Ship *Ronald H. Brown,* Chief Scientist, climate studies and mooring recovery and deployment, northern Chile, October 2007.

R.V. *Kilo Moana*, Chief Scientist, mooring recovery and deployment, Hawaii, June 2008.

NOAA Ship *Ronald H. Brown,* Chief Scientist, VAMOS Ocean Cloud Atmosphere Land Study (VOCALS), Charleston SC to Arica, Chile, Sept. 21-Nov 3, 2008

Recent Publications:

Yu, L., R. A. Weller, and B. Sun, 2004. Improving latent and sensible heat flux estimates for the Atlantic Ocean (1988-1999) by a synthesis approach, *J. Climate,* **17(2),** 373-393.

Weller, R. A., E. F. Bradley, R. Lukas, 2004. The interface or air-sea flux component of the TOGA Coupled Ocean-Atmosphere Response Experiment and its Impact on Future Air-Sea Interaction Studies, *Journal of Atmospheric and Oceanic Technology*, **21,** 223-257.

Yu, L. , R. A. Weller, and B. Sun, 2004: Mean and variability of the WHOI daily latent and sensible heat fluxes at in situ flux measurement sites in the Atlantic Ocean. *J. Climate,* **17(11),** 2096-2118.

Yu, L., R. A. Weller, and B. Sun, 2004. Improving latent and sensible heat flux estimates for the Atlantic Ocean (1988-1999) by a synthesis approach, *J. Climate*, **17**, 373-393.

Bretherton, C. S., T. Uttal, C. W. Fairall, S. Yuter, R. Weller, D. Baumgardner, K. Comstock, R. Wood, and G. Raga, 2004. The EPIC 2001 stratocumulus study. *Bull. Amer. Meteor. Soc.*, **85**, 967-977.

Ali M. M., D. Swain, R. A. Weller, 2004. Estimation of ocean subsurface thermal structure from surface parameters: A neural network approach, *Geophys. Res. Lett.,* **31**, L20308, doi:10.1029/2004GL021192.

Pritchard, M. and R.A. Weller, 2005. Observations of internal bores and waves of elevation on the New England inner continental shelf during summer 2001. *J. Geophys. Res.*, **110**, C03020, doi:10.1029/2004JC002377.

Farrar, J. T. and R. A. Weller, 2006. Intraseasonal Variability near 10N in the Eastern Tropical Pacific Ocean. *J. Geophys. Res.,* **111**, doi:10.1029/2005JC002989.

Pritchard, M., and R. A. Weller, (2005),Observations of internal bores and waves of elevation on the New England inner continental shelf during summer 2001, J. Geophys. Res., **110**, C03020, doi:10.1029/2004JC002377.

Yu, L., X. Jin, and R. A. Weller, 2006. Role of net surface heat flux in seasonal variations of sea surface temperature in the tropical Atlantic Ocean. *J. Climate*, **19(23),** 6153-6169.

Ali, M.M., A. K. S. Goplan, K. N. Babu, R. Sharma, and R. A. Weller, 2006. Predicting upper ocean mixed layer depth in the north Indian Ocean using surface fluxes from a medium range weather forecast system, *Indian Jrnl. Mar. Sciences*, **35(2),** 14-110.

Cronin, M. F., N. A. Bond, C. Fairall, and R. A. Weller, 2006. Surface cloud forcing in the east Pacific stratus deck/cold tongue/ITCZ complex. *J. Climate*, **19(23),** 392-409.

Colbo, K. and R.A. Weller, 2007. The variability and heat budget of the upper ocean under the Chile-Peru stratus. *J. Mar. Res.*, 65 (2007): 607-637

Yu, L., X. Jin, and R. A. Weller, 2008. Annual, Seasonal, and interannual variability of air-sea heat fluxes in the Indian Ocean. *Journal of Climate*. In press.

Colbo, K. and R. A. Weller 2008. The accuracy of the IMET sensor package in the subtropics. *Journal of Atmospheric and Oceanic Technology*, in review.

Weller, R. A., Bradley, E. F., Edson, J., Fairall, C., Brooks, I., Yelland, M. J., and Pascal, R. W., 2008. Sensors for physical fluxes at the sea surface: energy, heat, water, salt, *Ocean Sci. Discuss.*, 5, 327-373.

Yu, L., R. A. Weller, 2008. Objectively Analyzed air-sea heat Fluxes (OAFlux) for the global ice-free oceans. Bull. Amer. Meteor. Soc., 88(4), 527-533.

Yu, L., X. Jin, and R. A. Weller, 2008. Air-sea turbulent heat flux estimates at the global buoy sites. *J. Geophys. Res*, submitted.