

Robert Andrew Weller

Department of Physical Oceanography
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Education:

B.A., Harvard University, 1972 (Engineering and Applied Physics); Ph.D., Scripps Institution of Oceanography, University of California, San Diego, 1978 (Oceanography).

Employment:

Secretary of the Navy, Chair in Oceanography, 1998–2002; Henry Bryant Bigelow Chair for Excellence in Oceanography, 1993-1996.

Department Chair, July 2006–present; Senior Scientist, 1992–present; Associate Scientist, 1984-1992, tenure awarded, 1988; Assistant Scientist, 1980-1984; Postdoctoral Investigator, 1980; Postdoctoral Scholar, 1979-1980, Woods Hole Oceanographic Institution. Postgraduate Research Oceanographer, 1978-1979; Research Assistant, 1972-1978, Scripps Institution of Oceanography, University of California, San Diego. Research Assistant, 1970-1972, Division of Engineering and Applied Physics, Harvard University.

Awards:

Clement Herschel Prize in Hydraulics, 1972
U.S. Patent No. 4,152,934, “Vector Measuring Current Meter”
James B. Macelwane Award, American Geophysical Union, 1986
Fellow, American Geophysical Union, 1986
NASA Certificate of Recognition, 1991
Fellow, American Meteorological Society, 2002
Sverdrup Medal, American Meteorological Society, 2002

Research Interests:

Upper ocean response to atmospheric forcing (wind stress and buoyancy flux); role of horizontal variability in air–sea interaction; role of surface waves and related processes in upper ocean dynamics; coupling between the upper ocean and the interior; the ocean’s role in climate; sustained ocean observing systems.

Recent Publications:

Yu, Lisan, Robert A. Weller, and W. Timothy Liu. Case analysis of a role of ENSO in regulating westerly wind bursts in the western equatorial Pacific. *Journal of Geophysical Research*, accepted.

Ali, M. M., D. Swain, and R. A. Weller. Estimation of ocean subsurface thermal structure from surface parameters: A neural network approach. *Geophysical Research Letters*, accepted.

Colbo, Keir, and Robert Weller. The accuracy of the IMET sensor package. *Journal of Atmospheric and Oceanic Technology*, in press.

Colbo, Keir, and Robert A. Weller. The variability and heat budget of the upper ocean under the Chile-Peru stratus. *Journal of Marine Research*, submitted.

Yu, Lisan, Jin Xiangze, and Robert A. Weller. Annual, seasonal, and interannual variability of air-sea heat fluxes in the Indian Ocean. *Journal of Climate*, submitted.

Synergistic Activities: Robert Weller now serves as Director of the Cooperative Institute for Climate and Ocean Research (CICOR), a WHOI/NOAA Joint Institute. This institute promotes research on marine mammals, coastal oceanography, and the ocean's role in climate and fosters partnerships between academic NOAA researchers. CICOR carries out public outreach and educational activities and works to foster the development of integrated observing networks for weather and climate that make data freely available. He is also a Secretary of the Navy Chair. As Chair, he carries out research on horizontal variability in the upper ocean and works to communicate and share basic research results with the Navy. He serves on the WCRP/IOC Ocean Observing Panel for Climate, the NOAA Climate Working Group, and the NOAA Climate Observing System Council. He has served on the Membership Committee of the University Corporation for Atmospheric Research (UCAR) and is presently the Chair of that committee. He is the Principal Investigator of the Coastal and Global Scale Nodes component of the National Science Foundation's Ocean Observatories Initiative.

Collaborating Scientists over last 48 months (not in publications list); co-editors of a journal, compendium or conference proceeding over last 24 months (not in publications list): Steve Anderson (Horizon Marine), Bob Beardsley (WHOI), Frank Bradley (CSIRO Australia), Meghan Cronin (PMEL, NOAA), Tom Dickey (UC, Santa Barbara), Jim Edson (WHOI), Charlie Eriksen (WHOI), Simon Josey (Southampton Oceanogr Ctr), Steve Lentz (WHOI), Roger Lukas (Univ Hawaii), Mike McPhaden (PMEL, NOAA), Al Plueddemann (WHOI), Mike Spall (WHOI), Peter Taylor (Southampton Oceanogr Ctr), Rick Trask (WHOI), Bob Weisberg (Univ So Florida), Wade McGillis, (WHOI), John Wilkin (Rutgers Univ), Anton Beljaars (ECMWF), Dick Reynolds (NOAA/NCDC), Uwe Send (IFM Kiel), Sandra Yuter (U Wash), Chris Fairall (NOAA/ETC), Dudley Chelton (OSU), C. Zappa (WHOI), A. Jessup (U Wash), M. Pritchard (Univ Leeds).

Advisors: Graduate, Russ Davis, Scripps Institution of Oceanography; Postgraduate, Melbourne Briscoe, Office of Naval Research.

Advisees: Graduate, Anand Gnanadesikan, Albert Fischer, Tom Farrar; Postgraduate, Al Plueddemann, David Siegel, Steve Anderson, Kerry Moyer, Anand Gnanadesikan, Shuliang Zhang, Mark Pritchard, Jason Gobat, Bomin Sun, Keir Colbo, Sudharshan Sathiyamoorthy.