FLORIDA STATE UNIVERSITY
Center for Ocean-Atmospheric Prediction Studies

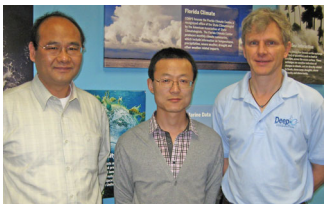
Summer 2014 Newsletter

COAPS 2014 Atlantic Hurricane Season Forecast

This year's forecast, developed by Dr. Tim LaRow, calls for a below normal season, with a 70% chance of 5 to 9 named storms, including 2 to 6 hurricanes, and an average accumulated cyclone energy of 60. The primary reason for the below normal numbers is that El Nino is forecasted to develop this year. More >

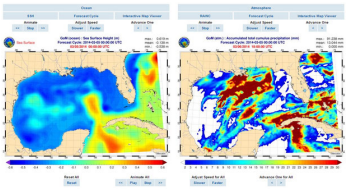
Hunting Hurricanes and Data to Improve Offshore Wind Turbines

Drs. Mark Powell and Steve Cocke are part of a new collaboration between the NOAA and the Dept. of Energy to collect data that could lead to improved offshore wind turbine designs. Powell's efforts will involve boundary layer research, and Cocke will work on hurricane risk modelling. More >



Shedding Light on Global Warming Trends

New research led by PhD student Fei Ji, Dr. Zhaohua Wu, and Dr. Eric Chassignet and published in *Nature Climate Change* provides a detailed look at global land surface warming trends over the last 100 years, illustrating precisely when and where different areas of the world started to warm up or cool down. More >



New Gulf of Mexico Forecasting System (GoM-FS)

This near real-time coupled forecasting system provides improved ocean-atmosphere predictions in the Gulf of Mexico region. GoM-FS, developed by Dr. Panagiotis Velissariou and funded by the Deep-C Consortium, provides 2D and 3D data communications and support to research, recreation,

PhD Student Danielle Groenen Interning at NASA

Ms. Groenen is spending the summer at NASA's Jet Propulsion Laboratory in Pasadena, CA, working on a Regional Climate Model Evaluation System. Prior to California, she spent several weeks at the University of Virginia's

FAMU Environmental Education Project

The Florida Climate Center at COAPS is pleased to participate in a NOAA-funded Florida A&M; Univ. project titled *"From the Sky to the Sea: Investigating the Hydrologic Cycle in a Coastal Watershed, an Exemplary Pilot Program for K-12 Environmental Literacy."* Researchers will provide climate data for

coastal, ecological, fishery management, and emergency response communities.

Intensive Summer School for Computing in the Environmental Sciences.

field studies to be conducted by teachers and students. More >


Steve Cocke and Mike McDonald Promoted
Congratulations to Dr. Steve Cocke on being promoted to Senior Scientist and Michael McDonald on being promoted to Associate in Research!


Student Awards
Congratulations to Chana Seitz on receiving an award through FSU's Ermine M. Owenby, Jr. Fund to Promote Excellence and to Alexandra Keclik on receiving FSU's Bess H. Ward Honors Thesis Award!

Graduating Students
Five COAPS students have successfully completed final projects for their degrees over the last few months: J-P Michael defended his PhD disseration; Chana Seitz and John Steffen defended their Masters theses; and Alli Keclik and Carlysle McNaught defended their Undergraduate Honors in the Major theses. Congratulations graduates! All of their projects are listed in the publications section below.

Publications

*COAPS authors are in **bold**.*

Bunge, L., and A. J. Clarke (2014), On the Warm Water Volume and Its Changing Relationship with ENSO, *Journal of Physical Oceanography*, 44(5), 1372-1385, doi:10.1175/JPO-D-13-062.1.

Coleman, F.C., J.P. Chanton, and **E.P. Chassignet** (2014), Ecological Connectivity in Northeastern Gulf of Mexico - The Deep-C Initiative, *IOSC 2014 Conference Proceedings*, (in press).

Feng, J., Z. Wu and G. Liu (2014), Fast Multidimensional Ensemble Empirical Mode Decomposition Using a Data Compression Technique, *J. Climate*, 27(10), 3492-3504, doi:10.1175/JCLI-D-13-00746.1.

Feng, J., Z. Wu, and X. Zou (2014), Sea Surface Temperature Anomalies off Baja California: A Possible Precursor of ENSO, *J. Atmos. Sci.*, 71(5), 1529-1537, doi:10.1175/JAS-D-13-0397.1.

Griffies, S.M., J. Yin, P.J. Durack, P. Goddard, S.C. Bates, E. Behrens, M. Bentsen, D. Bi, A. Biastoch, C. Bning, **A. Bozec, E.P. Chassignet**, G. Danabasoglu, S. Danilov, C. Domingues, H. Drange, R. Farneti, E. Fernandez, R.J. Greatbatch, D.M. Holland, M. Ilicak, **J. Lu**, S. J. Marsland, **A. Mishra**, et al. (2014), An assessment of global and regional sea level for years 1993-2007 in a suite of interannual CORE-II simulations, *Ocean Modelling*, 78, 35-89, doi:10.1016/j.ocemod.2014.03.004.

Ji, F., Z. Wu, J. Huang, and **E. P. Chassignet** (2014), Evolution of land surface air temperature trend, *Nature Climate Change*, doi:10.1038/nclimate2223.

Keclik, A. (2014), The accuracy of the National Hurricane Center's United States tropical cyclone landfall forecasts in the Atlantic Basin (2004-2012), B.S. Honors Thesis, Florida State University, Tallahassee, FL, USA (accepted).

Lu, J., A. Hu, and Z. Zeng (2014), On the possible interaction between internal climate variability and forced climate change, *Geophys. Res. Lett.*, doi:10.1002/2014GL059908.

McNaught, C. (2014), The increasing intensity and frequency of ENSO and its impacts to the Southeast U.S., B.S. Honors Thesis, Florida State University, Tallahassee, FL, USA (accepted).

Michael, J.-P. (2014), On initializing CGCMs for seasonal predictability of ENSO, Ph.D. Dissertation, Florida State University, Tallahassee, FL, USA (accepted).

Misra, V., H. Li, and M. Kozar (2014), The precursors in the Intra-Americas Seas to seasonal climate variations over North America, doi:10.1002/2014JC009911.

Nag, B., V. Misra, and S. Bastola (2014), Validating ENSO teleconnections on Southeastern United States Winter Hydrology, Earth Interactions, (accepted).

Seitz, C. (2014), Estimating the effects of climate change on tropical cyclone activity, M.S. Thesis, Florida State University, Tallahassee, FL, (accepted).

Steffen, J. (2014), The effects of sea surface temperature gradients on surface turbulent fluxes, M.S. Thesis, Florida State University, Tallahassee, FL, USA (accepted).

Weihs, R. R., and M. A. Bourassa (2014), Modeled diurnally varying sea surface temperatures and their influence on surface heat fluxes, Journal of Geophysical Research - Oceans, doi:10.1002/2013JC009489.

http://coaps.fsu.edu
contact@coaps.fsu.edu