



Palm Beach, c.1918 (FloridaMemory.com)

Summer 2012

2012 COAPS Atlantic hurricane season forecast

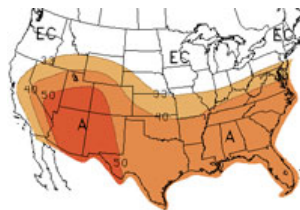
A team of scientists led by [Dr. Tim LaRow](#) has just released the fourth annual FSU COAPS Atlantic hurricane season forecast. This year's forecast calls for a 70 percent probability of 10 to 16 named storms and 5 to 9 hurricanes. The mean forecast is for 13 named storms, 7 hurricanes, and an average accumulated cyclone energy (ACE; a measure of the strength and duration of storms) of 122. [Read more...](#)



Tropical Storm Beryl on May 27, 2012 (credit: NASA).

Summer forecast for the southeast USA

The current 3-month seasonal forecast (Jun-Jul-Aug), from the NOAA Climate Prediction Center, shows that warmer conditions should be expected across the entire Southeast. Rainfall is predicted to have equal chances of being above average, normal, and below average during the next 3 months. There has recently been a transition from La Niña to ENSO-neutral conditions. [Read more...](#)



Scientists study the fate of oil in the Gulf of Mexico

Two years after the Deepwater Horizon explosion, researchers with the COAPS-led [Deep-C Consortium](#) continue to study the long-term fate



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and effects of petroleum hydrocarbons in the Gulf. Scientists are still able to find "patties" of sand mixed with oil on some Gulf beaches (see image at right). By analyzing patty samples, the scientists are better able to understand what crude oil does when it is spilled and where it travels, which will in turn help decision-makers better prioritize clean-up efforts during any future spills. [Read more...](#)

Environmental Minute now on iTunes

Outreach photos

Student honors



Congratulations to (from left): Daniel Gilford for his [American Meteorological Society Graduate Fellowship](#); Paul Hughes for his [Jim and Sheila O'Brien Graduate Fellowship](#); Nick Lopez for his [NOAA Hollings Scholarship](#); Rochelle Worsnop for her [National Science Foundation Graduate Research Fellowship](#); and Olmo Zavala-Romero for his Excellence Award in Information Management at [FSU DigiTech 2012!](#)

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COAPS director receives FSU Distinguished Research Professor award

FSU's [Distinguished Research Professor award](#) is the third highest faculty award at Florida State. COAPS director Dr. Eric Chassignet received the award at the Faculty Awards Ceremony on April 9.



COAPS alum receives FSU "Thirty under 30" award

COAPS alumnus Michael Lowry is one of FSU's inaugural class of [Thirty under 30](#). Michael received his MS in 2009 under COAPS professor James O'Brien and is now working as a physical scientist/storm surge specialist at the National Hurricane Center in Doral, Florida.



Dr. Zhaohua Wu receives funding for climate research

Assistant professor [Dr. Zhaohua Wu](#) has been awarded \$396,805 from the National Science Foundation to lead a 3-year project titled "Temporal-spatial evolutions of low-frequency climate variability and warming trend." Dr. Wu is also receiving \$266,028 as part of a 3-year NASA project titled "Integration of the NASA CAMVis and Multiscale Analysis Package (CAMVis-MAP) for tropical cyclone climate study,"

which is being conducted in collaboration with scientists at the University of Maryland and NASA.

Climate education project update

A joint team from the University of South Florida and COAPS has completed the first year of professional development for a NASA-supported project titled [Advancing Student Knowledge Through Teacher Education \(ASK Florida\)](#). The COAPS team, which includes Dr. Mark Bourassa, Shawn Smith, Rachel Weihs, and Kathy Fearon, traveled to Hillsborough County to conduct three workshops on topics such as ocean and atmospheric general circulations, climate variability, El Niño-Southern Oscillation, sea level change, and hurricanes. Following outstanding reviews by the participating teachers and district personnel, the team has revised and updated their workshop materials and will be heading to Volusia County in mid-July for the second year of professional development workshops.



Dr. Mark Bourassa and Shawn Smith advise teachers experimenting with advection.

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Publications

COAPS authors are in bold.

Chassignet, E., C. Cenedes, and J. Verron (eds.), 2012: [Buoyancy-Driven Flows](#). Cambridge University Press, 244 pp.

DiNapoli, S. M., M. A. Bourassa, and M. D. Powell, 2012: [Uncertainty and intercalibration analysis of H*Wind](#). *J. Atmos. Oceanic Technol.*, doi:10.1175/JTECH-D-11-00165.1. (accepted).

Frumkin, A., & V. Misra, 2012: [Predictability of dry season reforecasts over the tropical and subtropical South American region](#). *International Journal of Climatology* (in press).

Li, H., M. Kanamitsu, and S.-Y. Hong, 2012: [California reanalysis downscaling at 10 km using an ocean-atmosphere coupled regional model system](#). *J. Geophys. Res.*, doi:10.1029/2011JD017372, in press.

Marengo, J. A., B. Liebmann, A. Grimm, **V. Misra**, P. L. Dias,

I. F. A. Cavalcant, L.M. V. Carvalho, E. H. Berbery, T. Ambrizzi, C.S. Vera, A. C. Saulo, J. Noguez- Paegle, A. Seth and E. Zipser, 2012: [Recent developments on the South American monsoon system](#). *International Journal of Climatology*, 32, 1-21, doi:10.1002/joc.2254.

Misra, V., & S. M. DiNapoli, 2012: [Understanding wet season variations over Florida](#). *Clim. Dyn.* (in press).

Misra, V., P. Pantina, S. C. Chan, & S. DiNapoli, 2012: [A comparative study of the Indian summer monsoon hydroclimate and its variations in three reanalyses](#). *Climate Dynamics*, doi:10.1007/s00382-012-1319-y, (in press).

Zheng, Y., J.-L. Lin, and T. Shinoda, 2012: [The equatorial Pacific cold tongue simulated by IPCC AR4 coupled GCMs: upper ocean heat budget and feedback analysis](#). *J. Geophys. Res.*, 117, C05024, doi:10.1029/2011JC007746.

Congratulations to our fall 2011/spring 2012 graduates!

Cristina Collier, MS Meteorology

Thesis Title: Effects of sea state on offshore wind resource assessment

Advisor: Dr. Mark Bourassa

Next Step: Cristina accepted a job at 3TIER in Seattle, where she will be developing forecasts for wind farms.

Nkem Dockery, BS Computer Science

COAPS Supervisor: Shawn Smith

Next Step: Nkem will begin working on his MS in computer science this fall at FSU.

Benton Farmer, MS Meteorology

Thesis Title: Evaluation of bulk heat fluxes from atmospheric data sets

Advisors: Drs. Eric Chassignet and Mark Bourassa

Next Step: Benton is now working in the energy industry in Portland, Oregon.

Daniel Gilford, BS Meteorology

BS Project Title: Southeastern US daily temperature ranges and El Nino Southern Oscillation

COAPS Supervisor: Shawn Smith

Next Step: Daniel will begin working on his PhD in atmospheric science this fall at MIT.

Geoff Montee, MS Computer Science

Thesis Title: SAMOS 2.0: High-resolution meteorological and oceanographic data processing

COAPS Committee Members: Dr. Mark Bourassa and Shawn Smith

Next Step: Geoff is now working for the U.S. Department of Defense in Maryland.

John Nguyen, BS Computer Science

COAPS Supervisor: Shawn Smith

Next Step: John will begin working on his MS in computer science this fall at FSU.

Johna Rudzin, Honors BS Meteorology

Thesis Title: The influence of atmospheric cold air outbreaks on the upper-ocean thermal variability of the Florida Straits

Advisor: Dr. Mark Bourassa with help from Dr. Steve Morey

Next Step: Johna will begin her PhD in meteorology and physical oceanography at the University of Miami this fall.

Christopher Selman, MS Meteorology

Thesis Title: Understanding the climate anomalies of the southeast summer in a future climate

Advisor: Dr. Vasu Misra

Next Step: Christopher will be continuing at COAPS as a PhD student.

Grayum Vickers, MS Meteorology

Thesis Title: An ingredients-based examination of U.S. severe tornado alleys using reanalysis data

Advisors: Drs. Eric Chassignet and Bob Hart

Next Step: Grayum is moving to Brooklyn to work as a K-12 science teacher through the NYC Teaching Fellows program.

Rachel Weihs, MS Meteorology

Thesis Title: Creation of a global, diurnally varying sea surface temperature data set with emphasis on surface heat fluxes, solar radiation, winds, and precipitation.

Advisor: Dr. Mark Bourassa

Next Step: Rachel is continuing at COAPS as a PhD student.

Rochelle Worsnop, Honors BS Meteorology

Thesis Title: Multidecadal variations of durations of extreme temperatures in the southeastern U.S.

Advisor: Dr. Mark Bourassa with help from Melissa Griffin

Next Step: Rochelle will begin her PhD in atmospheric and oceanic science at the University of Colorado, Boulder, this fall.

Environmental Minute now on iTunes



ENVIRONMENTAL
MINUTE

The [Environmental Minute](#) radio program is now available as an [iTunes podcast](#)! The program consists of 1-minute Q&A segments with researchers from FSU and aired on 88.9 WFSU-FM from May 2011 to April 2012.

Outreach photos



Dr. James O'Brien sharing research with visitors from Germany.

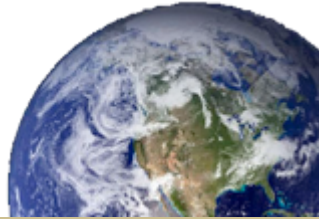


Melissa Griffin, Lydia Stefanova, and Heather Holbach demonstrating storm surge at the National Weather Service Hurricane Preparedness Day.

About COAPS

The Florida State University Center for Ocean-Atmospheric Prediction Studies (COAPS) is a center of excellence performing interdisciplinary research in ocean-atmosphere-land-ice interactions to increase our understanding of the physical, social, and economic consequences of climate variability. COAPS scientists and students come from a wide range of disciplines, including meteorology, physical oceanography, statistics, and the computer and information sciences.

Director: Dr. Eric P. Chassignet
Website: <http://coaps.fsu.edu>
Email: contact@coaps.fsu.edu



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