

THE FLORIDA STATE UNIVERSITY Center for Ocean-Atmospheric Prediction Studies News



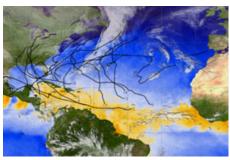


Spring 2013

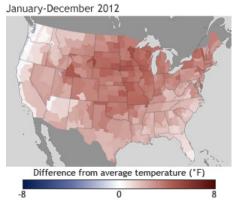




Left: Winter storm image captured by NOAA's GOES-13 satellite on 3/6/13. Credit: NOAA-NASA.

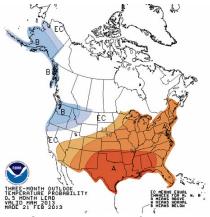


New Hurricane Measurement Technique
A new technique for measuring the Atlantic
hurricane season has been developed at
COAPS by <u>Dr. Vasu Misra</u>, <u>Steven DiNapoli</u>, and
<u>Dr. Mark Powell</u>. Track Integrated Kinetic Energy
(TIKE) is a wholistic analysis of the intensity,
size, and durations of cyclones and is
complimentary to existing metrics such as
Accumulated Cyclone Energy (ACE). <u>More...</u>



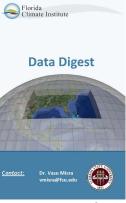
2012 Warmest Year on Record for Continental USA

According to NOAA scientists, the average temperature for the contiguous U.S. for 2012 was 55.3°F, which was 3.2°F above the 20th century average and 1.0°F above the previous record from 1998. The U.S. Climate Extremes



Warm, Dry Spring Predicted for Florida

The current 3-month seasonal forecast (Mar-Apr-May) from NOAA's Climate Prediction Center predicts above normal temperatures and below normal precipitation for Florida. Neutral El Niño-Southern Oscillation conditions continue in the Pacific Ocean. More...



Climate Data Now Available for Researchers

<u>Dr. Vasu Misra</u> has put together a <u>digest</u> of climate data products developed through the <u>Florida Climate Institute</u> and available to researchers <u>online</u>. Most of the datasets are for the southeast USA.

Index indicated that 2012 was the second most extreme year on record for the nation. More...



in the Gulf of Mexico

Deep-C Consortium Completes Year 1

The FSU-led Deep-C Consortium has completed the first year of its research into the effects of the 2010 Deepwater Horizon oil spill on the northeastern Gulf of Mexico and the interconnectedness of the deep sea, slope, and continental shelf. Ongoing activities include mapping, sampling, data collection and analysis, modeling, and more. For more information, visit deep-c.org.

Events

Saturday, 3/16, 1-5p Science Saturday in the Park Railroad Square Tallahassee, FL

Tuesday, 4/2, 10a-2p FSU Day at the Capitol Tallahassee, FL

Thursday, 4/4 Oceans Day at the Capitol Tallahassee, FL





Saturday, 4/20, 10a-3p FSU Coastal & Marine Lab Open House St. Teresa, FL

Thursday, 5/16

Nat'l Weather Svc Hurricane Preparedness Day Tallahassee Regional Airport, FL

Honors



Arsalan Ahmed Competes in Cyber Defense

Arslan and FSU colleagues placed 3rd at the 2013 Southeast Regional Collegiate Cyber Defense Competition in Georgia in March. He is working on his MS in computer science.



Alexandra Keclik Selected for Summer Internship at Colorado State



Dr. Bourassa Promoted to Full Jiaxin Feng Completes MS **Professor**

Dr. Mark Bourassa is being promoted to a full professor of meteorology this year at COAPS and the FSU Department of Earth, Ocean & Atmospheric Science.



Dr. O'Brien Receives Irish **Education Award**

Professor emeritus James O'Brien was included in the 2012 Irish Education 100, a



Jiaxin defended her MS thesis in meteorology titled "A possible trigger for ENSO by sea surface temperature anomalies off Baja California" and is now working on her PhD under the direction of Dr. Zhaohua Wu.



Austin Todd Completes PhD Austin Todd defended his PhD dissertation in oceanography titled "Circulation dynamics and larval transport mechanisms in the Florida Big Bend" under the

Undergraduate Alexandra
Keclik will be going to Colorado
State University this summer for
an internship at the Center for
Multiscale Modeling of
Atmospheric Processes.

listing of the leading figures in education across the U.S. deemed to have "Irish blood." More...

direction of Dr. Eric Chassignet. Dr. Todd first came to COAPS in 2006 to work on his BS in meteorology and mathematics.

Photos/Video



Melissa Griffin of the Florida Climate Center provides a 3D fluid dynamics weather demonstration for Florida teachers through the CPALMS Perspectives video project.



Scientists in the <u>Deep-C Consortium</u> participate in a policy communications training led by <u>COMPASS</u>.



PhD student Rachel Weihs (2nd from left) works with teachers at an ASK Florida climate change education workshop.



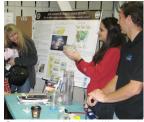
High school science teacher Mrs. Jones constructs a water temperature sensor at a <u>SENSE IT</u> workshop co-hosted by the <u>Deep-C Consortium</u>.



Outreach educator
Amelia Vaughan
(center) leads a handson activity about
plankton through the
Deep-C Consortium
Scientists in the
Schools program.



A Remote Operated Vehicle (ROV) competition for high school students hosted by the <u>Dauphin Island Sea Lab</u> (Alabama) and the <u>Deep-C</u> Consortium. More...



Students Ali Keclik and Robbie Nedbor-Gross make a cloud in a bottle at the Mag Lab Open House.



COAPS personnel at the FSU Coastal & Marine Lab for a Deep-C Consortium reception celebrating a new research vessel.

Publications

COAPS authors are in bold.

Bartels, W. L., C. A. Furman, D. D. Diehl, F. S. Royce, D. R. Dourte, B. V. Ortiz, **D. F. Zierden**, T. A. Irani, C. W. Fraisse, and J. W. Jones, JW, 2012: <u>Warming up to climate change: A participatory approach to engaging with agricultural stakeholders in the Southeast US. Regional Environmental Change, doi:10.1007/s10113-012-0371-9.</u>

Bastola, S., and V. Misra, 2012: <u>Evaluation of dynamically downscaled reanalysis precipitation data for hydrological application in the southeast United States</u>. *Hydrological Processes*, doi:10.1002/hyp.9734.

Bastola, S., and V. Misra, 2013. <u>Sensitivity of hydrological simulations of southeastern United States watersheds to temporal aggregation of rainfall</u>. *Journal of Hydrometeorology*, doi:10.1175/JHM-D-12-096.1.

Cammarano, D., J. Payero, B. Basso, P. Grace and L. Stefanova, 2012: <u>Adapting wheat sowing dates to projected climate change in Australia sub-tropic: analysis of crop water use and yield</u>. *Crop and Pasture Science*, **63**, 974-986, doi:10.1071/CP11324.

- **DiNapoli, S. M., and V. Misra**, 2012: <u>Reconstructing the 20th century high-resolution climate of the southeastern United States</u>. *Journal of Geophysical Research*, **117**, D19113, doi:10.1029/2012JD018303.
- Elsner, J.B., **S. E. Strazzo**, T. H. Jagger, **T. LaRow**, M. Zhao, 2013: <u>Sensitivity of limiting hurricane intensity to SST in the Atlantic from observations and GCMs</u>. *Journal of Climate*, doi:10.1175/JCLI-D-12-00433.1.
- Godinez, H. C., J. M. Reisner, A. O. Fierro, **S. R. Guimond**, and J. Kao, 2012: <u>Determining key model parameters of rapidly intensifying Hurricane Guillermo (1997) using the ensemble Kalman filter. *J. Atmos. Sci.*, **69**, 3147-3171, doi:10.1175/JAS-D-12-022.1.</u>
- Gonzalez-Rodriguez, E, A. Trasvina-Castro, G. Gaxiola-Castro, **L. Zamudio**, R. Cervantes-Duarte, 2012: Net primary productivity, upwelling and coastal currents in the Gulf of Ulloa, Baja California, México. Ocean Science, **8**, 703-711, doi:10.5194/os-8-703-2012.
- Harris, R., C. Pollman, D. Hutchinson, W. Landing, D. Axelrad, **S. Morey, D. Dukhovskoy**, and K. Vijayaraghavan, 2012: <u>A screening model analysis of mercury sources, fate, and bioaccumulation in the Gulf of Mexico</u>. *Environmental Research*, **119**, 53-63, doi:10.1016/j.envres.2012.08.013.
- Harris, R., C. Pollman, W. Landing, D. Evans, D. Axelrad, D. Hutchinson, **S. Morey**, D. Rumbold, **D. Dukhovskoy**, D. Adams, K. Vijayaraghavan, C. Holmes, D. Atkinson, T. Myers, and E. Sunderland, 2012: Mercury in the Gulf of Mexico: Sources to receptors. *Environmental Research*, **119**, 42-52, doi:10.1016/j.envres.2012.08.001.
- Holthuijsen, L. H., **M. D. Powell**, and J. D. Pietrzak, 2012: Wind and waves in extreme hurricanes. *J. Geophys. Res.*, **117**, C09003, doi:10.1029/2012JC007983.
- Hong, S.-Y., H. Park, H.-B. Cheong, J.-E. E. Kim, M.-S. Koo, J. Jang, S. Ham, S.-O. Hwang, B.-K. Park, E.-C. Chang, and **H. Li**, 2013: <u>The Global/Regional Integrated Model system (GRIMs)</u>. *Asia-Pacific Journal of Atmospheric Sciences*, **49**, 219-243, doi:10.1007/s13143-013-0023-0.
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About COAPS

The Florida State University <u>Center for Ocean-Atmospheric Prediction Studies (COAPS)</u> 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, oceanography, statistics, and the computer and information sciences.

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