



The Seventh Annual Climate Prediction Applications Science Workshop

March 24-27, 2009
National Weather Center
Norman, OK



Hosted by:

The Oklahoma Climatological Survey (OCS) & Southern Climate Impacts Planning Program (SCIPP) and
the NOAA National Weather Service Climate Services Division (CSD)

Meeting Organizers:

James Hocker - OCS/SCIPP

Diana Perfect - NOAA CSD

Mark Shafer - OCS/SCIPP

Renee McPherson - OCS

Gary McManus - OCS/SCIPP

Melissa Brown - OU Center for Spatial Analysis

Jo Ann Miller-Dudgeon - OCS

Cathryn Hagler - OCS

Marsha DeRose - OCS

Agenda

All sessions are held in National Weather Center Room 1313 (Auditorium)

Tuesday, March 24, 2009

8:00 AM – 12:00 PM	Workshop Registration
8:00 AM – 8:30 AM	Coffee
8:30 AM – 9:00 AM	Introduction <i>Mark Shafer, Oklahoma Climatological Survey/Southern Climate Impacts Planning Program (SCIPP)</i> <i>Ahsha Tribble, NOAA Climate Services Division</i> Welcoming Address <i>Kelvin Droegemeier, Associate Vice President for Research, OU</i> Logistics, NWC procedures, Schedule Overview <i>James Hocker, Oklahoma Climatological Survey/SCIPP</i>
9:00 AM – 10:00 AM	Session 1a: Stakeholder Evaluation of Climate Products and Services <i>Moderator: Gregg Garfin, IES/University of Arizona</i>
9:00 AM	Evaluating Climate Assessment and Translational Science Efforts in the U.S. Southwest: Lessons from a CLIMAS Pilot Evaluation Project <i>Dan Ferguson, University of Arizona/CLIMAS</i>
9:20 AM	Improving Stakeholder Access to Climate Information: Results from the Southwest Climate Outlook Evaluation <i>Gigi Owen, University of Arizona/CLIMAS</i>
9:40 AM	Evaluation of the Intermountain West Climate Summary: Lessons for Communicating Climate Information <i>Jessica Lowrey, University of Colorado/Western Water Assessment</i>
10:00 AM – 10:30 AM	Morning Break (snacks provided)
10:30 AM – 12:00 PM	Session 1b: Stakeholder Evaluation of Climate Products and Services; Panel Discussion <i>Moderator: Gregg Garfin, University of Arizona</i>
10:30 AM	Moving Beyond the "Loading Dock": A Multi-dimensional Evaluation of Agroclimate <i>Carla Roncoli, University of Georgia/Southeast Climate Consortium</i>
10:50 AM	Enhancing Climate Literacy <i>Tom James, University of Oklahoma</i>
11:10 PM – 12:00 PM	Session 1 Panel Discussion <i>Panelists: Gigi Owen, Jessica Lowrey, Dan Ferguson, Carla Roncoli, and Tom James</i>

Climate Prediction Applications Science Workshop (CPASW) 2009

12:00 PM – 1:30 PM	Lunch (provided)
12:45 PM – 1:15 PM	Guided tour of the National Weather Center building (limited space; please sign up at registration desk)
1:30 PM – 3:10 PM	Session 2: Drought Monitoring and Tools <i>Moderator: Renee McPherson, Oklahoma Climatological Survey</i>
1:30 PM	Update on Activities of the National Integrated Drought Information System (NIDIS) <i>Mark Shafer, Oklahoma Climatological Survey/SCIPP</i>
1:50 PM	A Freezing Level Tool for Drought Monitoring <i>Kelly Redmond, Desert Research Institute</i>
2:10 PM	Discovering the Spatial and Temporal Relationships Between Vegetation Condition and Climate in Monitoring Drought <i>Tsegaye Tadesse, National Drought Mitigation Center</i>
2:30 PM	Multi-scale Hydroclimatic Index for Monitoring Drought <i>Gregg Garfin, IES/University of Arizona</i>
2:50 PM	Climate Impact Indices for Drought Risk Management, Focusing on Index Insurance and the Millennium Villages Project Sites in Africa <i>Eric Holthaus, International Research Institute for Climate & Society</i>
3:10 PM – 3:40 PM	Afternoon Break (snacks provided)
3:40 PM – 5:00 PM	Session 3: Water Issues <i>Moderator: Suzanne Van Cooten, National Severe Storms Laboratory</i>
3:40 PM	Developing Hydroclimatic Reconstructions for Water Resources Management in the Pacific Northwest <i>Jeremy Littell, University of Washington Climate Impacts Group</i>
4:00 PM	National Water Resources Outlook <i>Jim Noel, NOAA/NWS Ohio River Forecast Center</i>
4:20 PM	Climate Change in Colorado: Developing a Science Synthesis to Support Water Resources Management Adaptation <i>Andrea Ray, NOAA Earth System Research Laboratory</i>
4:40 PM	Lake Mead's Future: Out of Water or Out of Context? <i>Joseph Barsugli, CIRES/University of Colorado at Boulder</i>
5:00 PM – 7:00 PM	Welcome Reception, National Weather Center

Wednesday, March 25, 2009

8:00 AM – 9:00 AM	Workshop Registration
8:00 AM – 8:30 AM	Poster set-up in atrium
8:00 AM – 8:30 AM	Coffee
8:30 AM – 9:50 AM	Session 4: Agricultural Applications <i>Moderator: Harvey Hill, Agriculture and Agri-Food Canada</i>
8:30 AM	The Value of ENSO Forecast Information to Dual Purpose Winter Wheat Production in the U.S. Southern High Plains <i>Steven Mauget, U.S. Department of Agriculture/ARS</i>
8:50 AM	Predicting Spring Wheat Yields from Climate and Microwave Remote Sensing Data on the Canadian Prairies <i>Harvey Hill, Agriculture and Agri-Food Canada</i>
9:10 AM	Accuracy of the Medium Range Precipitation Predictions in the U.S. and Their Use in Agricultural Decision-Making <i>Qi Hu, University of Nebraska – Lincoln</i>
9:30 AM	Multi-decadal Variability in Temperature and Precipitation in the Southeast United States <i>David Zierden, Florida State University/COAPS</i>
9:50 AM – 10:20 AM	Morning Break (snacks provided)
10:20 AM – 12:00 PM	Session 5: Regional Climate Modeling Applications; Panel Discussion <i>Moderator: Keith Ingram, University of Florida/Southeast Climate Consortium</i>
10:20 AM	A New Geospatio-temporal Weather Generator <i>Guillermo Baigorria, University of Florida</i>
10:35 AM	Sensitivity of Crop Yields to Various Weather Data <i>Dong-Wook Shin, Florida State University/COAPS</i>
10:50 AM	ENSO Signals in Seasonal Predictions made with a Regional Climate Model Given Forecasts from NCEP CFS <i>Chris Anderson, Iowa State University</i>
11:05 AM	Decadal Land Use Change and Regional Climate Modeling Experiments Applied to Water Management: West Central Florida Case Study <i>Jose Hernandez, University of Florida</i>
11:20 AM – 12:00 PM	Session 5 Panel Discussion <i>Panelists: Guillermo Baigorria, Dong-Wook Shin, Chris Anderson, and Jose Hernandez</i>
12:00 PM – 1:30 PM	Lunch (provided)

Climate Prediction Applications Science Workshop (CPASW) 2009

- 12:45 PM – 1:15 PM Guided tour of the National Weather Center building (limited space; please sign up at registration desk)
- 1:30 PM – 2:30 PM** **Session 6: Extreme Events and Severe Weather Applications**
Moderator: Harold Brooks, National Severe Storms Laboratory
- 1:30 PM The Clustering of Extreme Weather Events with Respect to Time and Their Relationship with the Planetary Circulation
Charles Konrad, NOAA Southeast Regional Climate Center
- 1:50 PM Statistical Relationships Between the El Nino Southern Oscillation, the North Atlantic Oscillation, and Winter Tornado Outbreaks in the U.S.
Ashton Robinson, University of Oklahoma/Storm Prediction Center
- 2:10 PM A Preliminary Investigation of Severe Thunderstorm Environment Distributions under Global Warming as Simulated by CCSM3
Patrick Marsh, University of Oklahoma/School of Meteorology
- 2:30 PM – 3:30 PM** **Session 7: International Climate Applications**
Moderator: Andrea Ray, NOAA Earth System Research Laboratory
- 2:30 PM Climate Information for Disaster Risk Management: Early Warning - Early Action
Simon Mason, International Research Institute for Climate & Society
- 2:50 PM Status of Health-Climate Related Applications at Spanish Meteorological Agency
Jose Camacho, Spanish Meteorological Agency
- 3:10 PM A Non-Linear Bayesian Analog Technique of Climate Prediction: An Application to the Prediction of Monsoon Intraseasonal Oscillation
Rajib Chattopadhyay, Indian Institute of Tropical Meteorology
- 3:30 PM – 5:00 PM** **Session 8: Poster Presentations and Refreshments**
- Climate Change in Colorado: Scientific Challenges in Preparing a Statewide Assessment
Joseph Barsugli, CIRES/University of Colorado at Boulder
- Enablers and Barriers to Climate Forecast Use in Agriculture in Two Distant Study Areas
Norman Breuer, University of Miami
- Changes in Summertime Precipitation Over the U.S. Due to Climate Change as Simulated by the WRF Model
Melissa Bukovsky, University of Oklahoma/School of Meteorology
- Drought Policy in Oklahoma and Missouri
Heather Campbell, University of Oklahoma/SCIPP
- A Non-Linear Bayesian Analog Technique of Climate Prediction: An Application to the Prediction of Monsoon Intraseasonal Oscillation
Rajib Chattopadhyay, Indian Institute of Tropical Meteorology

Fostering Collaboration and Information Exchange with New Technologies: Drought, Climate Change, Water, Impacts, and Indigenous People

Dan Ferguson, University of Arizona/CLIMAS

Improving Information Flows to Enhance Drought and Climate Change Resilience in Northern Mexico

Gregg Garfin, IES/University of Arizona

Reducing Drought Vulnerability Through an Urban Landscape Decision Tool

Gregg Garfin, IES/University of Arizona

Homogeneity Analysis of Hamlet and Lettenmaier (2005) and Daly et al. (1994) precipitation gridded data sets for the Colorado River Basin

Galina Guentchev, UCAR/CLIVAR/CPAPP

The Effect of ENSO Events on Freeze Occurrences in New Mexico: Supporting Better Resource Management Decisions

Zack Guido, University of Arizona/CLIMAS

The Return of the Dust Bowl to the Southern High Plains?

Chris Kimble, National Weather Service Amarillo, TX

Statistical Relationships Between the El Nino Southern Oscillation, the North Atlantic Oscillation, and Winter Tornado Outbreaks in the U.S.

Ashton Robinson, University of Oklahoma/Storm Prediction Center

Estimating Uncertainties in Global and Regional Climate Change Projections Using a Large Multi-member Climate Model Ensemble

Derek Rosendahl, University of Oklahoma/School of Meteorology

Weathering Drought: One State's Experience

Mark Shafer, Oklahoma Climatological Survey/SCIPP

Using Climate Forecasts to Reduce Risk in Dairy Farming

Daniel Solis, University of Miami

Climate-based Decision Making for Cattle Ranchers

Daniel Solis, University of Miami

Relationships Between Temperature and Residential Natural Gas Consumption in the Central and Eastern United States

Reed Timmer, University of Oklahoma/School of Meteorology

6:30 PM – 9:30 PM

Workshop Dinner, Sam Noble Museum of Natural History
(First floor museum exhibits will be open for viewing all evening.)

6:30 PM

Hors d'oeuvres

7:00 PM

Dinner

8:00 PM

Dinner Speaker – *Eileen Shea, NOAA National Climatic Data Center*

Thursday, March 26, 2009

8:00 AM – 9:00 AM	Workshop Registration
8:00 AM – 8:30 AM	Coffee
8:30 AM – 9:50 AM	Session 9: Products and Tools <i>Moderator: Ahsha Tribble, NOAA Climate Services Division</i>
8:30 AM	ENSO Alert System for Monitoring and Assessing the ENSO-Cycle <i>Michelle L'Heureux, NOAA Climate Prediction Center</i>
8:50 AM	An Update of the NOAA/Climate Prediction Center GIS Project <i>Viviane Silva, NOAA Climate Prediction Center</i>
9:10 AM	CPC Products: Present and Future <i>Wayne Higgins, NOAA Climate Prediction Center</i>
9:30 AM	Strategy for Developing Climate Forecast Products in Cooperation with Partners <i>Mike Halpert, NOAA Climate Prediction Center</i>
9:50 AM – 10:20 AM	Morning Break (snacks provided)
10:20 AM – 12:00 PM	Session 10: Climate Prediction Center Interactive Discussion <i>Moderator: Fiona Horsfall, NOAA Climate Prediction Center</i> <i>Panelists: Ed O'Lenic, Jon Gottschalck, Michelle L'Heureux, and Viviane Silva, NOAA Climate Prediction Center; Marina Timofeyeva, NOAA Climate Services Division</i>
12:00 PM – 1:30 PM	Lunch (provided)
12:45 PM – 1:15 PM	Guided tour of the National Weather Center building (limited space; please sign up at registration desk)
1:30 PM – 2:50 PM	Session 11: Products and Tools 2 <i>Moderator: Ed O'Lenic, NOAA Climate Prediction Center</i>
1:30 PM	Improving Seasonal Fire Predictions and Information Services in Alaska for Regional and National Fire Resource Planning <i>Dan White, Alaska Center for Climate Assessment and Policy</i>
1:50 PM	NOAA NWS Local Climate Services Tools <i>Marina Timofeyeva, NOAA Climate Services Division</i>
2:10 PM	A Disease Forecast System for Strawberries as a Tool on Agroclimate <i>Clyde Fraisse, University of Florida</i>
2:30 PM	Status Report: Assessing Decadal Precipitation Variations as Surrogate Forecasts <i>Jeanne Schneider, USDA ARS Grazinglands Research Laboratory</i>
2:50 PM	An Uncertainty Framework for Regional Climate Assessments? <i>Kristen Averyt, Western Water Assessment/University of Colorado</i>

3:10 PM – 3:40 PM

Afternoon Break (snacks provided)

3:40 PM – 5:00 PM

Session 12: Stakeholder Perspective of Climate Services – Panel Discussion

Moderator: Mark Shafer, Oklahoma Climatological Survey/SCIPP

Panelists: Sid Sperry, Oklahoma Association of Electric Cooperatives

Gayland Kitch, Moore Emergency Management

Marc Young, Oklahoma Insurance Department

Friday, March 27, 2009

8:00 AM – 9:00 AM	Workshop Registration
8:00 AM – 8:30 AM	Coffee
8:30 AM – 10:00 AM	Session 13: Fostering Collaboration in Decision Support Tool Development – Interactive Session
8:30 AM	Using Web Services to Integrate Climate Applications <i>Ellen Lay, Arid Lands Information Center/University of Arizona</i>
8:45 AM	Collaborative Development of Decision Support Tools for Climate Applications <i>Holly Hartmann, Arid Lands Information Center/University of Arizona</i>
9:00 AM	Panel and Roundtable Discussion <i>Moderator: Holly Hartmann, Arid Lands Information Center/University of Arizona</i> <i>Panelists: Keith Ingram, Southeast Climate Consortium</i> <i>Ed O'Lenic, NOAA Climate Prediction Center</i> <i>Greg Carbone, University of South Carolina</i>
10:00 AM – 10:30 AM	Morning Break (snacks provided)
10:30 AM – 11:50 AM	Session 14: Adaptation and Final Thoughts <i>Moderator: Heather Lazrus, University of Oklahoma</i>
10:30 AM	Getting the Balance Between Variability and Long Term Climate Change and How it Relates to Developing an Adaptation Program for the Canadian Agricultural Sector <i>Harvey Hill, Agriculture and Agri-Food Canada</i>
10:50 AM	The Urban Leaders Adaptation Initiative: Climate Resilient Local Governments <i>Josh Foster, Center for Clean Air Policy</i>
11:10 AM	Alaska Center for Climate Assessment and Policy: Stakeholder Adaptation - from Citizens to the State <i>Dan White, University of Alaska Fairbanks/ACCAP</i>
11:30 AM	Suppose a Long View: A Framework for Sustainability Using Climate Information Applications <i>John Wiener, University of Colorado/NCAR</i>
11:50 AM – 12:00 PM	Concluding Remarks <i>Mark Shafer, Oklahoma Climatological Survey/SCIPP</i>
12:00 PM	Adjourn