<u>Program for the 35th Annual Climate Diagnostics and Prediction Workshop</u>

Sheraton Raleigh Hotel Raleigh, NC, October 4-7, 2010

Monday, October 4, 2010

07:00-08:00	Registration	
08:00-08:10	Welcoming Remarks	
	Wayne Higgins, Director - Climate Prediction Ce Otis Brown, Director - CICS-NC	enter
Session 1:	Recent Climate Events	Chair: Wayne Higgins, CPC
08:10-08:30	An overview of the 2009-10 El Nino and transition Michelle L'Heureux, CPC	on to La Nina - INVITED
08:30-08:50	State of the Climate for 2009-2010 - INVITED Deke Arndt, NCDC	
08:50-09:10	The Rise and Fall of "Drought David": A Review United States - INVITED Mike Hayes, NDMC	of Recent Droughts Across the
09:10-09:30	Application of Long-Term Monitoring and Data INVITED Margarita Gregg, Tim Boyer, Hernan Garcia, NC	,
09:30-09:50	Delivering Policy-Relevant Information from Lor Jim Butler, ESRL	ng-Term Observations - INVITED
09:50-10:10	Extremely Negative Arctic Oscillation persisting and the spring 2010 Shingo Ushida, JMA	during the winter 2009/2010
10:10-10:30	Morning Break	
10:30-10:50	2009-10 Snow Siege: Role of El Niño, NAO, and Klaus Wolter, CIRES	Global Change
10:50-11:10	The 2009-2010 El Nino and Florida Dry Season S for the Limits of Predictability Bart Hagemeyer, NWS	Severe Weather – A Reality Check
11:10-11:30	An Analysis of Extreme Precipitation Events in th	he US During Spring 2010

	Wayne Higgins, CPC	
11:30-11:50	Climate Perspective on the 2010 Atlantic Hurri Gerry Bell, CPC	icane Season- INVITED
11:50-12:30	Keynote Talk Tom Karl, Acting Director - NOAA Climate Serv	vice
12:30-13:50	Lunch	
Session 2:	Climate Data Records	Chair: John Bates, NCDC
13:50-14:10	New Developments in NOAA's New Climate Do David Markham (on behalf of Jeff Privette), So	<u> </u>
14:10-14:30	The Climate Data Record Program and the Res Process for CDRs David Markham, Scientific Research Corporati	·
14:30-14:50	High-Resolution Global Precipitation Analyses Assessments and Diagnostics of Global Climat Pingping Xie, Soo-Hyun Yoo, Robert Joyce, and	e
14:50-15:10	An updated Rainfall Analysis for Hawaii and the supplement to the Pacific Rainfall Atlas Luke He and Co-authors, CPC	ne US-affiliated Islands-a
15:10-15:30	Afternoon Break	
15:30-15:50	The inhomogeneities caused by changes of the reanalysis Junye Chen, NASA/GSFC, ESSIC	e observing system in MERRA
15:50-16:10	Satellite Observations of Atypically-Thick Low Matthew Miller, NCSU	Marine Clouds
16:10-16:30	Converting NASA Observational Datasets for t Robert Ferraro, NASA/JPL	he CMIP5/IPCC Assessment
16:30-16:50	Regional Downscaling of IPCC Sea Surface Wir Satellite Data Statistics Ruoying He, Zuo Xue, and Zhigang Yao, NCSU	nd Predictions Based on Long-term
18:00-20:00	Icebreaker	

Tuesday, October 5, 2010

Session 3: Climate Variability 1 Chair: Mike Halpert, CPC

08:00-08:20	Report: Assessment of Intraseasonal and Interannual Climate Prediction and Predictability Joseph Casola, National Academy of Science	
08:20-08:40	Variability of the MJO in the NCEP CFSR and coupled climate model simulations Scott Weaver, CPC	
08:40-09:00	A synoptic-climatology of episodic, sub-seasonal retractions of the Pacific jet Sharon Jaffee	
09:00-09:20	Surface Water and Energy Budgets in CFSR and NARR and GR2 Reanalyses for the Mississippi River Basin Rongqian Yang, Michael Ek, and Jesse Meng, EMC	
09:20-09:40	Effects of river routing processes on simulated climatology in the Air-sea coupled model Suryun Ham, Yousei University	
09:40-10:00	Moisture sources of dry and wet spells of the Indian Monsoon Peter Pantina and V. Misra, FSU	
10:00-10:20	Morning Break	
10:20-10:40	Separating weather and climate: The cold and snow of winter 2009/10 as test case Huug van den Dool, CPC	
10:40-11:00	Aqua-planet simulations of the role of cold fronts in the onset of the South Atlantic Convergence Zone Rosana Nieto Ferreira and Winston Chao, East Carolina University	
11:00-11:20	Specification of surface temperature from multiple model fields; determining which model fields produce the best forecast of surface conditions Dan Collins and David Unger, CPC	
11:20-11:40	Atlantic Tropical Cyclones in the 20th Century: Natural Variability and Secular Change in Cyclone Count Sumant Nigam, University of Maryland	
11:40-12:00	Diurnal Cycle of Precipitation in Observations and the CFS Reanalysis Soo-Hyun Yoo, Pingping Xie, and Wanqiu Wang, CPC	
12:00-13:30	Lunch	
Session 4:	Climate Products and Services Chair: Shari Dixon, CSD	
13:30-13:50	Using Climate Products in Making Agricultural Assessments	

Brian M	lorris,	USDA
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	Brian Morris, USDA	
13:50-14:10	Assessing the value of climate information in agriculture using the Stochastic Production Frontier approach Daniel Solis and David Letson, University of Miami	
14:10-14:30	Predictions of meningitis epidemics in West Africa using climate indicators Pascal Yaka, Benjamin Sultan, and Wassila Thiaw, CPC	
14:30-14:50	User Engagement and Applied Research Activities at NOAA's Southeast Regional Climate Center Chris Fuhrmann and Co-authors, SERCC	
14:50-15:10	Engaging stakeholders for conducting regional climate assessments Greg Dobson, Jim Fox, Karin Lichtenstein, and Matt Hutchins, UNC-Asheville	
15:10-15:30	Afternoon Break	
15:30-17:30	Panel Discussion	Moderator: Fiona Horsfall, CSD
	15:30-15:45: Art DeGaetano, NERCC 15:45-16:00: Keith Ingram, SECC 16:00-16:15: Andrew Freedman, Clima 16:15-16:25: Marina Timofeyeva, CSD 16:25-16:35: Ed O'Lenic, CPC	te Central
17:30-17:35	Poster Event Introduction	Jon Gottschalck and Sky Yang, CPC
18:00-21:00	Poster Event – All sessions	

Wednesday, October 6, 2010

Session 5:	DYNAMO/IASCLIP	Chair: Jin Huang, CPO
08:20-08:40	DYNAMO: A Research Program on MJO Initiation	on- INVITED
08:40-09:00	Intraseasonal Mixed Layer Process Variability in Assimilation Product: Preliminary Analyses Rele D.J. Halkides, D. Waliser, T. Lee, R. Murtugudde	evant to DYNAMO
09:00-09:20	Factors affecting the forecast skill of the Madde Augustin Vintzileos and Jon Gottschalck, CPC/ES	
09:20-09:40	Better Initial Conditions Significantly Improve In Joshua Fu, IPRC/University of Hawaii	ntraseasonal Prediction

09:40-10:00	Morning Break
10:00-10:20	The CLIVAR-VAMOS Intra Americas Science Processes Program - INVITED Art Douglas, Creighton University
10:20-10:40	Gauging international interest in IASCLIP Mike Douglas, NSSL
10:40-11:00	GPS measurements in the Caribbean and surrounding regions Robert Kursinski, University of Arizona
11:00-11:20	Caribbean Precipitation Variability in Observations and IPCC AR4 Models Elinor Martin and Courtney Schumacher, Texas A&M University
11:20-11:40	Predicting Caribbean Basin Tropical Cyclone Activity Phil Klotzbach, Colorado State University
11:40-12:00	Climate Change, Drought, and Jamaican Agriculture Scott Curtis, East Carolina University
12:00-13:30	Lunch
Session 6:	Climate Variability 2 Chair: David Levinson, NCDC
13:30-13:50	A MERRA-Based Analysis of the Nature and Potential Predictability of Heat Waves and Dry Spells During Boreal Summer Siegfried Schubert, Hailan Wang and Max Suarez, NASA/GSFC
13:30-13:50 13:50-14:10	Waves and Dry Spells During Boreal Summer
	Waves and Dry Spells During Boreal Summer Siegfried Schubert, Hailan Wang and Max Suarez, NASA/GSFC Sea Breeze Variations in Florida
13:50-14:10	Waves and Dry Spells During Boreal Summer Siegfried Schubert, Hailan Wang and Max Suarez, NASA/GSFC Sea Breeze Variations in Florida Lauren Moeller and V. Misra, Florida State University 2010 Hurricane Season Prediction with the NCEP T382 CFS CGCM
13:50-14:10 14:10-14:30	Waves and Dry Spells During Boreal Summer Siegfried Schubert, Hailan Wang and Max Suarez, NASA/GSFC Sea Breeze Variations in Florida Lauren Moeller and V. Misra, Florida State University 2010 Hurricane Season Prediction with the NCEP T382 CFS CGCM Jae Schemm and Lindsey Long, CPC Sensitivity of Tropical Climate to Low-Level Clouds in the NCEP CFS
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13:50-14:10 14:10-14:30 14:30-14:50 14:50-15:10	Waves and Dry Spells During Boreal Summer Siegfried Schubert, Hailan Wang and Max Suarez, NASA/GSFC Sea Breeze Variations in Florida Lauren Moeller and V. Misra, Florida State University 2010 Hurricane Season Prediction with the NCEP T382 CFS CGCM Jae Schemm and Lindsey Long, CPC Sensitivity of Tropical Climate to Low-Level Clouds in the NCEP CFS Zeng-Zhen Hu and Co-authors, CPC Regional downscaling of NCEP CFS seasonal forecasts by NCEP RSM Yunfei Zhang and Hann-Ming Henry Juang, EMC

16:10-16:30	Seasonal Predictabil Vasu Misra, Florida	lity of the Atlantic Warm Pool in the NCEP CFS State University
16:30-16:50	Prediction of Tropica Statistical-Dynamica Tom Murphree and	• •
16:50-17:10	Assessment of the h Jung-Eun Kim, Yonse	ydroclimate predictability under global warming ei University Korea
18:30-21:30	Dinner Banquet	Speaker: Tony Busalacchi "Climate and Wine"

Thursday, October 7, 2010

Session 7:	Climate for Coastal Applications Chair: Dave Esl	<u>linger</u>
08:30-08:50	NOAA Coastal Services Center Linking People, Information, and support the environmental, social, and economic well-being of the Dave Eslinger, CSC	
08:50-09:10	Overview of the pacific storms climatology products David Levinson, M. Kruk, J. Marra, and E. Gibney, NCDC	
09:10-09:30	CoCoRaHS: Volunteer Precipitation Monitoring in Coastal Commu. "When it Pours, We Measure!" Henry Reges, Colorado State University	nities
09:30-09:50	Climate signals derived from historical coastal observations off the Coast Sung Yong Kim, Bruce Cornuelle, and Eric Terrill, Scripps	e U. S. West
09:50-10:10	Morning Break	
10:10-10:30	Trajectory study on the origin of moisture associated with Atmosp the west coast of United States Ju-Mee Ryoo, NASA/JPL	oheric Rivers in
10:30-10:50	The Impact of Climate Change on Storm Surges over the U.S. East Waters Zhigang Yao, Zuo Xue, and Ruoying He, NCSU	Coastal
10:50-11:10	Potential Future Effects of Sea Level Rise in Northeastern North Co Thomas Shay, Brian Blanton, and Richard Luettich, Univ. of North	
11:10-11:30	Multi-level model downscaling of Coastal Ocean Responses in face Climate: Carolinas Perspective Zuo Xue, Zhigang Yao, and Ruoying He, NCSU	e of a Warming

11:30-13:00	Lunch	
Session 8:	Climate Variability 3	Chair: Ken Kunkel, NCSU
13:00-13:20	An Improved Climate Division Database for the Russell S. Vose, NCDC	e Conterminous United States
13:20-13:40	The Influence of the El Niño-Southern Oscillation Modes Amy Butler, M. L'Heureux, A. Kumar, B. Jha, W.	·
13:40-14:00	The Madden-Julian Oscillation (MJO) and prob precipitation in the U.S. Charles Jones, L.Carvalho, J.Gottschalck, W. Hi	
14:00-14:20	Dominant intraseasonal variability modes over representation in climate models Xianan Jiang, UCLA	r the eastern Pacific ITCZ and their
14:20-14:40	Atlantic temperatures as a predictor of drough A. Dezfuli and S. E. Nicholson, Florida State Un	
14:40-15:00	Afternoon Break	
15:00-15:20	The OCN and EOCN methods of climate foreca averaging time Peitao Peng, Arun Kumar and Huug van den D	
15:20-15:40	Variability of the Great Plains Low-Level Jet in Group Global Climate Model Experiments Scott Weaver, CPC	the US CLIVAR Drought Working
15:40-16:00	New Patron of continental behavior (Brazilian 2008 Antonio Rodriguez Bedoya	basin) causes floods in Ecuador
16:00-16:20	Energy budget over semi-arid agro-ecosystem Kailas Kamaji Dakhore, Anand Agricultural Uni	9
16:20	Workshop Adjourns	

<u>Posters</u>

Recent Climate Events

Hydro-climate conditions over the United States for the water year 2010

Mo, Kingtse, CPC

Overview of MJO activity during 2009-2010 Jon Gottschalck, CPC

Evaluation of MRED reforecasts of severe weather outbreaks Chris Anderson, Iowa State University

Climate Data Records

Utilizing the SBUV/2 Ozone Profile Climate Data Record to Discern Climate Change Craig Long, CPC

Hidden values in dynamical downscaling systems for application models Dong-Wook Shin and Steve Cocke, FSU

Data Assimilation on automatic weather stations Nilton Sergio Castro, FUNCEME

Vertical Cloud Structures of the Boreal Summer Intraseasonal Variability Based on CloudSat Observations Xianan Jiang, UCLA

A System for Calibration and Quality Control of Gridded Datasets David Unger, CPC

Climate Variability

Recurrent Supersynoptic Evolution of the Great Plains Low-Level Jet Scott Weaver, CPC

Assessment and Modelling of Malaria outbreak (case study of Arba Minch area)

Dagachew Molla

Seasonal Mean Atmospheric response to Sea Ice forcing in GFS Bhaskar Jha and Arun Kumar, CPC

Unusual Extremes in the Negative Phase of the Arctic Oscillation during 2009 Michelle L'Heureux, CPC

What can we learn about the Northern Hemisphere circulation from the 20th Century Reanalysis? Phil Pegion, Martin Hoerling, and Judith Perlwitz, ESRL/CIRES

Prospects for Improving Subseasonal Predictions
Kathy Pegion and Prashant Sardeshmukh, ESRL/CIRES

Sensitivity of dynamical downscaling ability to changes in model domain size Suhee Park, Hyun-Suk Kang, and Young-Hwa Byun, KMA

An Analysis of Climate Variability to Increase of GHG Concentrations in CCSM3 Zeng-Zhen Hu, Arun Kumar, Bhaskar Jha, and Bohua Huang, CPC

Predictability and fidelity of dry season downscaled reforecasts over the tropical South American region Adam Frumkin and V. Misra, FSU

Seasonality of the Pacific Decadal Oscillation Hui Wang, Arun Kumar, Wanqiu Wang, and Yan Xue, CPC

Impacts of the El Niño-Southern Oscillation and the Quasi-Biennial Oscillation in the CFSR reanalysis Amy Butler and Craig Long, CPC

Statistical indices of the northward rainfall progression over eastern Africa Emily Riddle, CPC

Summer Season Precipitation Prediction over America with the NCEP Climate Forecast System Using Different Land Components and Different Sea Surface Temperatures
Rongqian Yang, Michael Ek, Jesse Meng and Ken Mitchell, EMC

Circumglobal teleconnection and early summer rainfall in the US Intermountain West S. Wang, L. Hipps, R. Gillies, X. Jiang, L. Moller, Utah State University

Simulations of precipitation over the North-American Monsoon region and Intra-Americas Sea during 2008/2009 summer with NCEP models Wanqui Wang, Pingping Xie, and Soo-Hyun Yoo, CPC

Tropical Storm Detection in the CFSR Lindsey Long and Jae Schemm, CPC

Monitoring of Key Indices and Prediction Uncertainty on ASM Onset Process Bing Zhou

Trends and variability of rainfall in Tripoli Younis Al-Fenadi, Libyan National Meteorological Centre

Evaluating and Classifying the Phase Cycles of Madden-Julian Oscillation Tom Walsh, Northern Illinois University

Variability in the impacts of teleconnections on precipitation patterns in the western US Erika Wise, UNC-Chapel Hill

Predictability of near-surface climate extreme events Emily J. Becker, Huug van den Dool, and Malaquias Peña, CPC

Regional atmospheric reanalysis at high resolution: sub-seasonal and diurnal variability in the Southeast United States

Lydia Stefanova, FSU

Computing Agricultural Indices using the NCEP Global Analysis Systems Wesley Ebisuzaki and Li Zhang, CPC

A climatology of infrared-based tropical cyclone wind radii, integrated kinetic energy, and damage potential

Paula Hennon and K. Knapp, STG Inc.

Preliminary results from the Multi-RCM Ensemble Downscaling (MRED) project Raymond Arritt, Laurel DeHaan, and Masao Kanamitsu, Iowa State University

Climate Analysis and Long Range Forecasting of Radar Performance in the Western North Pacific David Ramsaur, Tom Murphree and Paul Frederickson, FNMOC

Long Range Prediction of Sea Ice Concentration in the Beaufort Sea Megan Stone, FNMOC

Climate Products and Services

Use of the early warning information in the field of agriculture Sjoji Notsuhara and Shingo Ushida, JMA

Introduction to seasonal forecast systems at NIMR/KMA and its evaluation for 2009/10 wintertime prediction

Moon-Hyun Kim, Hyun-Suk Kang, Young-Hwa Byun, Suhee Park, Won-Tae Kwon, KMA

Application of North-American Land Data System in Support of National Integrated Drought Information System

Youlong Xia and Co-authors, EMC

Climate Prediction Application Science Priorities and Issues - Contribution from 2010 CPAS Workshop Jiayu Zhou, M. Hawkins, and M. Timofeyeva, NWS/OST

Improving Local Climate Services by Fostering Local Climate Studies
Annette Hollingshead and Co-authors, CSD

Development Plan and Status for Earth System Model in KMA Johan Lee, Young-Hwa Byun, Hyunsuk Kang, Suhee Park, Won-Tae Kwon, KMA

Dependence of Midwest Rainfall Anomalies on Gulf of Mexico SST Anomalies Chris Anderson and Craig Clark, Iowa State University

Customer Satisfaction with NOAA's National Weather Service Climate Products and Services Jenna Meyers, Michelle Hawkins, Marina Timofeyeva and Shari Dixon, CSD

DYNAMO/IASCLIP

The Rendition of the Atlantic Warm Pool in Reanalyses Ashley Stroman and V. Misra, FSU

Operational forecast support of DYNAMO by NCEP Augustin Vintzileos and Jon Gottschalck, CPC

Western Hemisphere Warm Water Pool Response to Placement of ENSO Warming Art Douglas and Phillip J. Englehart, Creighton University

The midsummer strengthening of the NASH: A zonal mean perspective Patrick Kelly