

Program for the 33rd Annual Climate Diagnostics & Prediction Workshop/CLIVAR Drought Workshop

Lincoln, Nebraska

Monday, October 20, 2008

7:30am-8:15am: Registration

0815– 0830 am	Wayne Higgins; CPC/NCEP	Welcome remarks
0830- 0845 am	Mike Hayes; NDMC/UNL	Welcome remarks
0845 -0900 am	David Legler; US CLIVAR	Welcome remarks

Session 1 : Review of Recent Climate Conditions and Forecasts

Chair person: Wayne Higgins

0900-0920am	Michelle L'Heureux	An overview of the evolution of the 2007/08 La Nina
0920-0940 am	Yan Xue	The 2007/08 La Niña Cycle: Evolution, Prediction and Remote Oceanic Influences
0940 -1000 am	Jon Gottschalck, Qin Zhang, Wanqui Wang, Yan Xue, Arun Kumar, Michelle L'Heureux Mike Halpert	MJO Event of November 2007- February 2008: Assessment of Global Impacts and Real-time Predictions

10:00 am - 10:30 am—Coffee break

1030-1050 am	Gerry Bell	Review of hurricane activity in 2008
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1050-1110 am	Kingtse Mo and Wanru Wu	Hydro-climate conditions over the United States for the water year 2008
1110-1130 am	Wassila Thiaw	Overview of the Global Monsoon Systems in 2007-08
1130- 1150 am	Wei Shi, Lindsey Long, and Jae E. Schemm	Overview of the 2008 North American Monsoon: Introducing the CPC NAME Forecast Forum
1150 am-1210 pm	Anthony Barnston	Verification of IRI's seasonal climate forecasts, 1997 to present

12:10 pm- 1:00 pm Lunch

Session 2 .1: Reanalyses and Prediction systems

Chair person:

0100-0120 pm	S. Saha, and the NCEP CFSRR team	Status of the NOAA CFSRR project
0120-0140 pm	Michael Bosilovich , Siegfried Schubert, Steve Bloom, Michele Rienecker and the GMO MERRA validation team	Validation and status of NASA's Modern Era Retrospective-analysis for Research and Applications (MERRA)
0140-0200 pm	Huug van den Dool and Steven Lord	International Multi model ensemble
0200- 0220 pm	Ben Kirtman	Multi model ensemble climate prediction with CCSM and CFS
0220- 0240 pm	Guomin Wang	Seasonal Prediction Research and Development at the Australian Bureau of Meteorology

2:40 pm- 3:10 pm Coffee Break

Session 2.2: Climate Variability : ENSO, MJO and Teleconnections

0310-0330 pm	Emily Becker	Variability of daily precipitation over the United States
0330-0350 pm	Barbara E. Mayes, Joshua M. Boustead, Jeffrey S. Boyne, Glenn R. Lussky, Craig Cogil,	Synoptic-scale convective environment climatology by ENSO phase in the north central U.S.

	Richard S. Ryrholm	
0350-0410 pm	Edward Berry and Klaus Weickmann	The Great Floods of 1993 and 2008: The Roles of ENSO and the MJO/GWO
0410-0430 pm	Sarah Levinson, Wanqiu Wang, and Pingping Xie	Oceanic Surface Wind in Satellite Retrievals, NCEP Reanalyses, GFS, and CFS
0430-0450 pm	Hui Wang, Wenhong Li, and Rong Fu	Intensification of summer rainfall variability in the Southeastern United States in recent decades

6:00 PM: Icebreaker (Morrill Hall)

Tuesday Oct. 21

Session 2.3 : Intraseasonal oscillations, Tropical Cyclones and Prediction

0830-0850 am	Charles Jones	A probabilistic view of the activity of the Madden-Julian Oscillation
0850-0910 am	Kyong-Hwan Seo, Wanqiu Wang, Jae-Kyung Schemm	Tropical intraseasonal variability simulated
0910-0930 am	Yehui Chang, Siegfried Schubert, Max Suarez, and Duane Waliser	Dynamical MJO Hindcast experiments: Sensitivity to Initial Conditions and Air-Sea Coupling
0930-0950 am	Tom Murphree and David Meyer	Long Term Changes in Tropical Cyclone Activity in the Western North Pacific
0950-1010 am	Philip Klotzbach	Refinements to Atlantic Basin Seasonal Hurricane Prediction from 1 December

10:10 -10:40AM Coffee break

1040-1100 am	Augustin Vintzileos; T. Marchok; H.-L. Pan and S.J. Lord(2)	Prospects for subseasonal forecasting of Atlantic Tropical Cyclone activity
1100-1120 am	Jae-Kyung E. Schemm, Lindsey Long, Suranjana Saha and Shrinivas Moorthi	Application of T382 CFS Forecasts for Dynamic Hurricane Season
1120-1140 am	Kathy Pegion, Philip Pegion and Mihai Sirbu	Simulation and Forecast of Subseasonal Variability of Hurricane Activity
1140-1200 am	Muthuvel Chelliah	A probabilistic Atlantic hurricane activity forecast based on early summer atmospheric conditions

12:00 pm- 1:00 pm Lunch

Session 2. 4: Climate Prediction and Predictability

0100-0120 pm	Rongqian Yang, Kenneth Mitchell, and Jesse Meng	Winter Season Forecast Experiments with the NCEP Coupled Forecast System (CFS) Using Different Land Models and Different Initial Land States
0120-0140 pm	Young-Kwon Lim, D. W. Shin, S. Cocke, T. E. LaRow, J. J. O'Brien, and E. P. Chassignet	Statistical downscaling of NCEP CFS retrospective forecasts for regional climate simulation over the southeast United States
0140-0200 pm	Moon-Hyun Kim ¹ , Hyun-Suk Kang ¹ , Young-Hwa Byun ¹ , Suhee Park ¹ , Won-Tae Kwon ¹ , and Dong-Hoon Kim	Effects of the Dynamical Downscaling for Seasonal Forecast over East Asia: Wintertime Hindcast and its Analysis

2:00- 4:00PM Coffee and Poster Session 1

0400-0420pm	Mingyue Chen, Wanqiu	Predictability of monthly precipitation and temperature associated with atmospheric/land
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	Wang, and Arun Kumar	initial conditions and sea surface temperatures
0420-0440pm	Alice M. Grimm and Marcia T. Zilli	Predictability of South American Summer Monsoon Precipitation from Previous Conditions in Spring
0440-0500pm	Xiaohua Pan; J.Shukla; Bohua Huang	The impact of the mean state on the ENSO simulation and prediction

Wednesday Oct. 22

Session 3.1 Status & prospects for drought monitoring & prediction (Invited Talks)

0830-0900 am	D. Wilhite School of Natural Resources, University of Nebraska)	Breaking the Hydro-illogical Cycle: Are we making progress?
0900-0930 am	R. Pulwarty (NIDIS)	NIDIS – what is it? What does it do?
0930-1000 am	D. LeComte (NOAA-CPC)	Drought monitoring – how its done now, how well does it work, what is needed?
1000-1030 am	S. Schubert (NASA-GSFC) and extended Drought Working group	A multi model assessment of the impact of SST variability on drought: An overview of the US CLIVAR drought working group activities

10:30-11:00 AM Coffee break

Session 3.2 Observing and monitoring drought

1100- 1130 am	TBA	
1130 am -1200 pm	TBA	
1200- 1230 pm	T. Pagano (USDA Natural Resources Conservation Service)	Operational Drought Monitoring and Forecasting at the USDA-NRCS

12:30 - 2:00 pm Lunch

0200- 0230PM	M. Svoboda (Univ of Nebraska)	Wizards of the Drought Monitor: What's behind the green curtain?
0230-0300PM	R. Koster (NASA-GSFC)	Drought Working Group analysis of model- produced soil moisture as an index of agricultural drought
0300-0330 PM	A Ray (NOAA-ESRL)	Lessons learned from the 2000s Western drought: Evolving linkages between research and services

3:30- 4:00 PM Coffee Break

Session 3.3 Drought impacts, products, and meeting user needs

0400- 0430 PM	G. Garfin (Univ of Arizona)	Drought monitoring and impacts in the Southwest
0430- 0530 PM	Discussion	

6:00-8:00PM Reception and Poster session 2.

Thursday Oct. 23

Session 4.1 and 4.2 Simulating past droughts, predicting present and future drought, drought predictability, DRICOMP

0830-0900 AM	K. Findell (NOAA-GFDL)	Large-scale impact of common SST anomalies on drought and pluvial frequency and occurrence
0900-0930 AM	S. Nigam (Univ of Maryland)	North American Droughts in the 20th Century: Role of SST Variability and Trend

0930-1000 AM	J. Meehl (NCAR)	Mechanisms of drought in present and future climate
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10:00 -10:30 AM Coffee Break

1030-1100 AM	M. Biasutti (Columbia Univ/LDEO)	The role of the Sahara Low in Sahel Rainfall Variability and Change in the CMIP3 Models
1100-1130 AM	Kerry Cook and E. K. Vizy (Cornell U)	Hydrodynamics of the Caribbean low-level jet and its relationship to drought

1130 AM- 0100PM Lunch

1:00-300 PM: Poster session 3

0300- 0330 PM	R. Seager (Columbia Univ/LDEO)	Mechanisms of tropical Pacific and tropical Atlantic forcing of North American hydroclimate
0330 -0400 PM	L. Luo (Princeton Univ)	Eastwide/Westwide hydroclimate prediction
0400-0500 PM	Discussion	

**1800 Transport to School of Natural Resources
RECEPTION**

Friday Oct.24

Session 5.1 Drought impacts, products, and meeting user needs, cont

0900-0930AM	K. Redmond (Western Regional Climate Center)	Impacts and evidence of drought, what additional information is needed?
0930-1000 AM	M. Hayes (Univ of Nebraska)	Drought chasing: An NDMC perspective on future drought activities
1000-1030 AM	Discussion	Future directions for drought-research
1030-1100 AM	Wrapup-Summary	

1115 AM END OF WORKSHOP

Poster session 1

P1.1 Review of Recent Climate Conditions and Forecasts

P1.1

Author Name: Hassan Khodabakhsh and Mina Motamedi

Abstract Title: Meteorological approaches for optimize air pollution management in Esfahan

P1.2

Author Name: Erwin Makmur

Abstract Title: Analyze of climate change In Java as impact global warming

P1.3

Author Name: V. E. Kousky, V. B. S. Silva, and R. W. Higgins

Abstract Title: Intercomparison of Daily Precipitation Statistics for the United States in Observations, the NCEP/NCAR Reanalysis, and the NCEP/DOE Reanalysis

P1.4

Author Name: Douglas Le Comte

Abstract Title: U.S. Drought Highlights since October 2007

P1.5

Author Name: Michelle L'Heureux, Arun Kumar, Gerry Bell, Mike Halpert, Wayne Higgins

Abstract Title: The Role of the Pacific- North American (PNA) Pattern in the 2007 Arctic Sea Ice Decline

P1.6

Author Name: E-Hyung Park, Eun-Jeong Lee, Won-Tae Kwon, Song-You Hong

Abstract Title: Assessment of the greenhouse gas contribution to global warming based on multi-model ensemble

P1.2: Climate Prediction: ENSO, MJO and Teleconnections

P1.7

Author Name: Feng He and Zhengyu Liu

Abstract Title: The Nature of the Decadal Variability of Surface Climate Over the North Atlantic Ocean --- Coupled Ocean-Atmosphere-Sea Ice Interaction Organized by Damped Ocean Mode

P1.8

Author Name: Bhaskar Jha and Arun Kumar

Abstract Title: Variability and Predictability of the seasonal mean atmospheric circulation during winter in three version of ECHAM model

P1.9

Author Name: O.F.Omidiora and A.A Balogun

Abstract Title: NUMERICAL SIMULATION OF CLOUD MICROSTRUCTURE EFFECT ON SATELLITE SIGNAL AND APPLICATIONS

P1.10

Author Name: Min Wen, Song Yang, Augustin Vintzileos, and Wayne Higgins

Abstract Title: Impacts of Model Resolutions and Initial Conditions on Predictions of the Onset of Asian Summer Monsoon by the NCEP CFS

P1.11

Author Name: June-Yi Lee¹, Bin Wang¹, J.-K. E. Shemm, A. Kumar

Abstract Title: The role of air-sea coupling on seasonal climate predictability and prediction

P1.12

Author Name: Michael Bosilovich, David Mocko, John O Roads and Alex Ruane.

Abstract Title: Multi-model analysis for CEOP: Evaluating the uncertainty of analyses

Poster Session 2: Drought Simulations and Predicting Present and Future Drought

P2.1

Author Name: Noel Aloysius, James Saiers and Robert Mendelsohn

Abstract Title: The Role of Climate Change in the Vulnerability and Resilience of Water Resources within the Rio Bravo River Basin

P2.2

Author Name: Raymond W. Arritt

Abstract Title: Regional drought in the North American Regional Climate Change Assessment Program (NARCCAP)

P2.3

Author Name: Eleanor J Burke

Abstract Title: Quantifying the impact of plant response to increased CO₂ on drought

P2.4

Author Name: Amin Dezfuli

Abstract Title: The AMO and Sahel Rainfall - strong potential for seasonal forecasting of droughts

P2.5

Author Name: H. Mark Helfand

Abstract Title: Relationship between mean winds and large 10-day precipitation anomalies over the continental U.S.

P2.6

Author Name: Hyun-Suk Kang, Johan Lee, Won-Tae Kwon, Won-Tae Yun

Abstract Title: A Regional Climate Model Simulation of the 1994 East Asian Summer Drought: Present Climate and a Possible Response to Increased SST from the A1B Scenario

P2.7

Author Name: Lifeng Luo, Justin Sheffield, Haibin Li and Eric F Wood

Abstract Title: Toward A Global Drought Monitoring and Forecasting Capability

P2.8

Author Name: Nguyen Dang Mau

Abstract Title: Establishing multiple linear regression models to predict meteorological drought in Vietnam

P2.9

Author Name: Giuseppe Di Mauro

Abstract Title: POTENTIAL OF NORTH ATLANTIC OSCILLATION INDEX TO FORECAST DROUGHT IN SICILY

P2.10

Author Name: Dongxiao Zhang and Michael J. McPhaden

Abstract Title: Trends in the Pacific Shallow Overturning Circulation, Tropical Pacific SST and the Hydrological Cycle

P2.11

Author Name: Stefan Niemeier, Blaz, Kurnik, Giovanni Laguardia

Abstract Title: Drought Forecasting in Europe using Monthly Forecast Products of ECMWF

P2.12

Author Name: Richard Seager, Yochanan Kushnir and Mingfang Ting

Abstract Title: Mechanisms of tropical Pacific and tropical Atlantic forcing of North American hydroclimate

P2.13

Author Name: Shraddhanand Shukla, F. Munoz-Arriola, T. Bohn, A.C. Steinemann, and D.P. Lettenmaier

Abstract Title: Assessment of ESP based Drought Prediction Skill

P2.14

Author Name: M. Trnka, Z. Žalud, D. Semerádová, M. Hayes, M. Svoboda, P. Hlavinka, M. Dubrovský, D. Wilhite
Abstract Title: Expected Changes in Soil Moisture Regimes in two Central US and Central Europe

P2.15

Author Name: Edward K. Vizy and Kerry Cook
Abstract Title: influence of the Amazon/Orinoco Plume on the summertime Atlantic Climate

P2.16

Author Name: Annalisa Bracco, Fred Kucharski, Jin Ho Yoo and Franco Molteni
Abstract Title: Modulation of Indian Summer rainfall by tropical Atlantic forcing

P2.17

Author Name: Robert Burgman
Abstract Title: The role of tropical Pacific SSTs in forcing Medieval hydroclimate

P2.18

Author Name: Antonietta Capotondi
Abstract Title: Relationship between decadal precipitation anomalies in the Southwestern U. S. and global SSTs: Insights from the IPCC multi-model ensemble

P219

Author Name: Tsing-Chang Chen, Joseph J. Tribbia, Shih-Yu Wang, and Adam J. Clark
Abstract Title: Droughts in the Central Plains of the United States

P2.20

Author Name: Y. Fan, W. Wu and H. van den Dool
Abstract Title: North American Drought in the Past 8 Decades

P2.21

Author Name: Ian Ferguson
Abstract Title: 20th Century Drought Characteristics in Coupled Climate Simulations

P2.22

Author Name: Rong Fu, Wenhong Li, Lei Huang and Kingtse Mo
Abstract Title: Evaluation of the climate models' performance on the relationship of precipitation change over the SE US and SST changes over Pacific and Atlantic oceans

P2.23

Author Name: Lisa Goddard and Caio A. S. Coelho

Abstract Title: El Niño-induced tropical droughts in seasonal forecasts and climate change projections

P2.24

Author Name: Martin Hoerling, Jon Eischeid, Xiao-Wei Quan

Abstract Title: Early Warning Indicators for U.S. Drought

P2.25

Author Name: Emilia Jin and David Straus

Abstract Title: Ocean Forced Predictability of North American Drought

P2.26

Author Name: Kristopher B. Karnauskas, Antonio J. Busalacchi

Abstract Title: Low-frequency tropical Pacific forcing of multi-year North American drought in CMIP3 models.

P2.27

Author Name: Randal Koster

Abstract Title: Drought-Induced Increases in Air Temperature: Variations with SST Regime

P2.28

Author Name: Hongmei Li, Aiguo Dai, Tianjun Zhou, and Jian Lu

Abstract Title: Responses of East Asian Summer Monsoon to Historical SST and Atmospheric Forcing During 1950-2000

P2.29

Author Name: David Lorenz and Eric DeWeaver

Abstract Title: The Role of the Land Surface and Sea Surface Temperatures in Perpetuating Drought

P2.30

Author Name: Bradfield Lyon

Abstract Title: The Joint Occurrence of Summer Drought and Heat Waves in Coupled Models

P2.31

Author Name: Rachel R. McCrary, David A. Randall

Abstract Title: Do the AR4 IPCC models simulate the "Dust Bowl"?

P2.32

Author Name: Philip Pegion

Abstract Title: Multi-model Response of Idealized SST Experiments within the US CLIVAR Drought Working Group

P2.33**Author Name:** Xiao-Wei Quan, Martin Hoerling, Jon Eischeid**Abstract Title:** 20th Century U.S. Drought in Observations and CMIP Simulations**P2.34****Author Name:** Alfredo Ruiz-Barradas**Abstract Title:** SST North American Drought Links in 20th Century Simulations and 21st Century Climate Projections**P2.35****Author Name:** Jae-Kyung E. Schemm, K. C. Mo and S.-H. Yoo**Abstract Title:** Influence of ENSO and the Atlantic multi decadal oscillation on drought over the United States: CLIVAR Drought experiments**P2.36****Author Name:** Sang-ik Shin, Robert S. Webb, and Prashant D. Sardeshmukh**Abstract Title:** The impacts of tropical SSTs on the Regional Hydroclimate**P2.37****Author Name:** Hailan Wang, Siegfried Schubert, Max Suarez and Randal Koster**Abstract Title:** Model dependence on responses over the U.S. in idealized SST experiments**P2.38****Author Name:** Scott Weaver**Abstract Title:** Warm season variations in the low-level circulation and precipitation over the central United States in idealized SST experiments**P2.39****Author Name:** Ning Zeng, Brian Cook, Jin-Ho Yoon**Abstract Title:** Future drying of the southern Amazon and Central Brazil in the CMIP3 models: role of seasonality**Poster Session 3: Observing and Monitoring Drought and drought impact****P3.1****Author Name:** Randall S. Cerveny, Andrew W. Ellis and Robert C. Balling**Abstract Title:** Climatological Isentropic Analysis as a Drought Detection/Monitoring Tool**P3.2****Author Name:** Chipanshi A.C., Rahman M.M. and Fitzmaurice J.

Abstract Title: Estimating Soil Moisture for Drought Monitoring from MODIS Data Using a Thermal Inertia Approach

P3.3

Author Name: Akhmetova Galiya

Abstract Title: Seismic activity on the Earth, changes of atmosphere circulation and droughts on the Northern hemisphere.

P3.4

Author Name: Wesley Ebisuzaki and Muthuvel Chelliah

Abstract Title: An examination of the trend of precipitation characteristics over the continental United States

P3.5

Author Name: David S. Gutzler

Abstract Title: U.S. Drought statistics based on persistent seasonal climate anomalies

P3.6

Author Name: John Janowiak

Abstract Title: PAC: A tool for monitoring and forecasting the initiation, longevity, and demise of droughts

P3.7

Author Name: Richard Lawford, Ronald Stewart

Abstract Title: An interdisciplinary study of a multi-year drought on the Canadian prairies.

P3.8

Author Name: Han-Cheol Lim, Suhee Park, Hyun-Suk Kang, and Won-Tae Kwon

Abstract Title: A Diagnostic Case Study of the Extreme Summer Drought over East Asia in 1994

P3.9

Author Name: Juan-Matias Mendez-Perez and Victor Magaña Victor

Abstract Title: Spatial-temporal variability of meteorological drought over Mexico

P3.10

Author Name: Sharon Nicholson

Abstract Title: The physical basis for drought in West Africa

P3.11

Author Name: Stefan Niemeier

Abstract Title: Towards a European Drought Observatory

P3.12

Author Name: Anup K. Prasad, Ramesh P. Singh and Menas Kafatos

Abstract Title: Monitoring and detection of drought conditions using Change Vector Analysis and Standardized Precipitation Index over India

P3.13

Author Name: Gerard van der Schrier

Abstract Title: Robustness of the self-calibrating Palmer Drought Severity Index

P3.14

Author Name: Chung-Hsiung Sui

Abstract Title: A pilot study of spring droughts and early warning in Taiwan

P3.15

Author Name: Huug van den Dool

Abstract Title: The Multi-Model Approach for Soil Moisture Analyses in the Absence of Verification Data

P3.16

Author Name: Renguang Wu and James L. Kinter III

Abstract Title: Relationship of U.S. droughts with SST and soil moisture: Distinguishing the time scale of droughts

P3.17

Author Name: Art Douglas and Phil Englehart

Abstract Title: Mid-summer drought in southern Mexico: Drought modulation by fluctuations in East Pacific cross equatorial flow, IAS tropical cyclone genesis and phase change alignments in the PDO and AMO

P3.18

Author Name: Youlong Xia, Kenneth Mitchell, Eric Wood, and the NLDAS team

Abstract Title: Configuration and Application of the NCEP Multi-model NLDAS System for Drought Monitoring and Prediction

P3.19

Author Name: Pingping Xie, Jian-Yin Liang, Anyuan Xiong, Yan ShenMingyue Chen, Robert J. Joyce, John E. Janowiak, and Phillip A. Arkin

Abstract Title: A Prototype Gauge-Satellite Merged Analysis of Daily Precipitation for Improved Real-Time Climate Monitoring

P3.20

Author Name: Jenifer C.G. Martin, Andrea J. Ray

Abstract Title: Communicating Drought Relative to Geography & Function

P3.21

Author Name: Viviane Silva, Lloyd Thomas, Kenneth Pelman, Mike Halpert and Wayne Higgins

Abstract Title: An Update of the NOAA/Climate Prediction Center (CPC) GIS Project

P3.22

Author Name: David Yates

Abstract Title: Drought Planning for Water Utilities: Indices, Triggers, and Response