

**Program for the 30th Annual
Climate Diagnostics and Prediction Workshop
The Pennsylvania State University
October 24-28, 2005**

Monday, October 24, 2005

7:00-8:00 Registration

7:15-8:00 Poster Set-up

8:00-8:30 Welcome and Opening Remarks

Mr. James Laver, Director, Climate Prediction Center/NCEP/NWS/NOAA

Dr. Bill Brune, Chair, Department of Meteorology / The Pennsylvania State University

Mr. Paul Knight, Department of Meteorology / The Pennsylvania State University

Dr. Louis Uccellini, Director, National Centers for Environmental Prediction/NWS/NOAA

SESSION 1: CLIMATE MODEL ASSESSMENTS (NOAA CLIMATE TEST BED)

Chairperson: Jae Schemm

8:30-8:45 The NOAA Climate Test Bed (CTB) / 1st CTB Annual Meeting

Wayne Higgins

8:45-9:15 An Overview of New Developments with the CFS

Suranjana Saha

**9:15-10:30 POSTER SESSION 1: CLIMATE MODEL ASSESSMENTS AND
MULTI-MODEL ENSEMBLES**

10:30-11:00 An Analysis of Subseasonal Variability in the NCEP CFS and NASA NSIPP
Coupled GCMs

Myong-In Lee, Siegfried Schubert, and Max Suarez

11:00-11:30 Coupled Shock Initialization in the CFS Prediction System

Ben Kirtman

11:30-12:00 Marine Stratus and its Relationship to Regional and Large-Scale Circulations: An
Examination with the NCEP CFS Simulations

Pingping Xie, Wanqui Wang, Wayne Higgins and Phil Arkin

12:00-1:00 LUNCH

SESSION 1: CLIMATE MODEL ASSESSMENTS (NOAA CLIMATE TEST BED), cont.

Chairperson: Jae Schemm

1:00-1:30 Using GLDAS to Derive Optimal Land States for CFS/Noah Testing in the NOAA Climate Test Bed

Jesse Meng, Kenneth Mitchell, and Helin Wei

1:30-2:00 Evaluation of CFS-Tier2 Forecasts with Bias-Corrected SST

Jae Schemm, K. Seo, Q.Zhang and M. L'Heureux

SESSION 2: MULTI-MODEL ENSEMBLES (NOAA CLIMATE TEST BED)

Chairperson: Arun Kumar

2:00-2:30 MM Ensembles for Week 1 and Week 2 Predictions

Edward O'Lenic, Zoltan Toth and David Unger

2:30-3:00 Multi-Model Ensembling for Seasonal-to-Interannual Prediction: From Simple to Complex

Lisa Goddard and Simon Mason

3:00-3:30 BREAK

3:30-4:00 Performance-Based Probabilistic Multi-Model Climate Change Scenarios

Arthur Greene, Lisa Goddard and Upmanu Lall

4:00-4:30 Multi-model Ensembles, Climate Attribution and Predictions

Arun Kumar

4:30-5:00 From DEMETER to EURO-SIP : The European Seasonal-to-Interannual Prediction Project

Richard Graham

5:00-5:30 APCC Multi-model Ensemble Seasonal Prediction System

Chung-Kyu Park, Won-Tae Yun, and Hyun-Kyung Kim

5:30-7:00 ICE BREAKER RECEPTION & CASH BAR

7:00-10:00 NOAA CTB Science Advisory Board / Oversight Board Executive Session

Tuesday, October 25, 2005

7:15-8:00 Poster Set-up

SESSION 3: SEASONAL CLIMATE PREDICTION AND APPLICATIONS (NOAA CLIMATE TEST BED)

Chairperson: Huug van den Dool

8:00-8:30 An Evaluation of the Probabilistic Information in the Multi-Model Ensemble Predictions.

David Unger, Peitao Peng, Suranjana Saha and Huug van den Dool

8:30-9:00 Objective weighting of Multi-Method Seasonal Predictions

Huug van den Dool, David Unger, Peitao Peng, Malaquias Pena and Suranjana Saha

9:00-10:30 POSTER SESSION 2: CLIMATE MONITORING AND PREDICTION

10:30-11:00 Consolidation of Predictions of Seasonal Climate by Several Atmospheric General Circulation Models at IRI

Anthony Barnston, Lisa Goddard, Simon Mason, and Andrew Robertson

11:00-11:30 The Assessment of Seasonal Forecast Skills from the Canadian HFP

Qiaobin Teng, Viacheslav Kharin, Francis Zwiers and Xuebin Zhang

11:30-12:00 Experimental Weekly to Seasonal Ensemble Fire Danger Forecasts

J. Roads, P. Tripp, H. Juang, J. Wang, S. Chen and F. Fuioka

12:00-1:00 LUNCH

SESSION 4: REVIEW AND ASSESSMENT OF RECENT CLIMATE ANOMALIES

Chairperson: Ake Johansson

1:00-1:30 Major Climate Anomalies During 2005

Gerald Bell

1:30-2:00 Reasons for the Unusually Destructive 2004 Atlantic Basin Hurricane Season

Philip Klotzbach and William Gray

2:00-2:30 The Recent Increase in North Atlantic Hurricane Activity

Muthuvel Chelliah and Gerry Bell

2:30-3:00 U.S. Drought Highlights Since October 2004

Douglas Lecomte

3:00-3:30 BREAK

3:30-4:00 The Recent Evolution of the MJO and Description of an Experimental Global Tropics Hazard Assessment Activity at CPC

Jon Gottschalck, Vern Kousky, Wayne Higgins, Marco Carrera, Klaus Weickman, Ed Berry, Klaus Weickman, Chet Schmitt, Brad Pugh, Wanqui Wang, Wassila Thiaw, Michelle L'Heureux, Qin Zhang, Wei Shi, Eric Blake, Richard Pasch and Huug van den Dool

SESSION 5: INTERANNUAL VARIABILITY

Chairperson: Chester Ropelewski

4:00-4:30 Nonlinear Patterns of North American Climate Associated with ENSO

Aiming Wu, William Hsieh and Amir Shabbar

4:30-5:00 Genesis Potential Index and ENSO

Suzana Camargo, Kerry Emanuel and Adam Sobel

5:00-5:30 A Journey to 'ENSO' simulation at COLA

V. Misra, L. Marx, Z. Guo, J. Kinter, B. Kirtman, M. Zhao, D. Straus and P. Dirmeyer

Wednesday, October 26, 2005

7:15-8:00 Poster Set-up

SESSION 6: DIURNAL AND INTRASEASONAL VARIABILITY

Chairperson: Siegfried Schubert

8:00-8:30 An Examination of the Diurnal Cycle in the NCEP Global Forecast System (GFS) Model Precipitation Forecasts

Vernon Kousky, John Janowiak and Robert Joyce

8:30-9:00 Simulations of the Madden-Julian Oscillation by Global Weather Prediction and Climate Models

Chidong Zhang, Min Dong, Harry Hendon, Kenneth Sperber, Eric Maloney, Andrew Marshall and Wanqui Wang

9:00-10:30 POSTER SESSION 3: INTRASEASONAL, INTERANNUAL AND DECADEAL VARIABILITY

10:30-11:00 Tropical Intraseasonal Variability in 22 Weather and Climate Forecasting Models: Encouraging Results, Common Biases, and Possible Missing Physics

Jialin Lin

11:00-11:30 Variability of the Atlantic ITCZ Associated with Amazon Rainfall and Convectively Coupled Kelvin waves

Hui Wang and Rong Fu

11:30-12:00 Tropical and Stratospheric Influences on Extratropical Variability and Predictability

Matthew Newman and Prashant Sardeshmukh

12:00-1:00 Lunch

SESSION 7: LONG-TERM CLIMATE VARIABILITY AND CHANGE

Chairperson: Muthuvel Chelliah

1:00-1:30 Regional Expression of Multi-Decadal Variability in the Arctic

Uma Bhatt, Igor Polyakov and Roman Bekryaev

1:30-2:00 An Observational Analysis of Decadal Variations in the Madden Julian Oscillation

Charles Jones and Leila Carvalho

2:00-2:30 Variability and Trends in Global Precipitation as Revealed in an Analysis of the GPCP Data

Chester Ropelewski and Phil Arkin

2:30-3:00 Atmospheric Hydrological Cycle in the Tropics in the Twentieth Century Coupled Climate Simulations

Hailan Wang and K.-M. Lau

3:00-3:30 BREAK

SESSION 8: TELECONNECTIONS

Chairperson: George Young

3:30-4:00 The Link Between Tropical Precipitation and the North Atlantic Oscillation

Mathew Sapiano and Phillip Arkin

4:00-4:30 Preferred Modes of Variability and Their Relationship with Climate Change

Seok-Woo Son and Sukyoung Lee

4:30-5:00 A Global Convection Circulation Paradigm for the Annular Mode

Ming Cai and R-C Ren

5:00-5:30 Best Practices vs Misuse of PC Analysis (PCA) in the Analysis of Climate Variability

Robert Livezey

6:00-9:00 WORKSHOP BANQUET

Banquet Speaker: Charles L. Hosler (tentatively)

Thursday, October 27, 2005

7:15-8:00 Poster Set-Up

SESSION 9: HYDROLOGIC VARIABILITY

Chairperson: Ken Davis

8:00-8:30 An Experimental Real-Time Seasonal Hydrologic Forecast System for the Western US
Andrew Wood and Dennis Lettenmaier

8:30-9:00 Mechanisms for Interannual Variations in Summer Streamflow from Headwater Catchments in Western Mexico
David Gochis and Luis Brillo-Castillo

9:00-10:30 POSTER SESSION 4: HYDROLOGIC VARIABILITY AND MONSOONS

10:30-11:00 Intercomparison of US Land Surface Hydrologic Cycles from Multi-reanalyses and Models
Yun Fan and Huug van den Dool

11:00-11:30 Role of Sub-synoptic Variability of Soil Moisture in Seasonal Precipitation Variations
Song Yang, S. Yoo, R. Yang, K. Mitchell, H. van den Dool and W. Higgins

11:30-12:00 Preliminary results from 50-year 10km resolution downscaling over California.
Masao Kanamitsu and Hideki Kanamaru

12:00-1:00 LUNCH

SESSION 10: MONSOONS AND WARM SEASON PREDICTION

Chairperson: Jenni Evans

1:00-1:30 An Introduction to the Globally Unified Monsoon Index (GUMI)
Xubin Zeng and Er Lu

1:30-2:00 Northern Summer Circumglobal Teleconnection and Tropics-Extratropics Interaction
Bin Wang

2:00-2:30 On the Nature of the Recent SW US Drought
P. Pegion, S. Schubert, M. Suarez and R. Koster

2:30-3:00 Impact of Tropical Easterly Waves on the North American Monsoon
Jennifer Adams and David Stensrud

3:00-3:30 BREAK

3:30-4:00 Warm Season Diurnal Cycle Simulations Over North America – Sensitivities to Model Resolution

Myong-In Lee, Siegfried Schubert, Max Suarez, Julio Bacmeister, Phil Pegion, Isaac Held, Jeff Ploshay, Gabriel Lau, Arun Kumar, Hyun-Kyung Kim and Jae Schemm

4:00-4:30 Warm Season Precipitation Prediction over North America Using the Eta Regional Climate Model

Rongqian Yang and Kenneth Mitchell

4:30-5:00 The Intra-Americas Sea Low-Level Jet: An Analysis of Atmospheric Sounding Observations

Jorge Amador, Erick Rivera, Marcela Ulate and Chidong Zhang

5:00-5:30 A June Monsoon

David Mitchell, Dorothea Ivanova, and David Gochis

Friday, October 28, 2005

SESSION 11: RESULTS FROM NAME 2004

Chairperson: Wayne Higgins

8:00-8:30 Radar Observations During NAME 2004 – Data Products and Initial Results

Timothy Lang, David Ahijevich, Rit Carbone, Rob Cifelli, Stephen Nesbitt, Gustavo Pereira and Steven Rutledge

8:30-9:00 Main Results and Future Plans for the NAME Enhanced Rain Gauge Network (NERN)

Christopher Watts, David Gochis, Julio Rodriguez and Jaime Garatuza - Payan

9:00-9:30 Break

9:30-10:00 A 50 Year Analysis of Rain Bearing Synoptic Features in Northern Mexico: Placing the NAME 2004 Summer Experiments in an Historical Context

Arthur Douglas and Phillip Englehart

10:00-10:30 NAME CPT Project – Issues for Warm Season Prediction

Jae Schemm and David Gutzler

10:30-11:00 The Impact of the NAME 2004 Special Soundings on the NCEP Analyses and Forecasts

Kingtse Mo, Eric Rogers, Wesley Ebisuzaki and Wayne Higgins

11:00-11:30 Model Simulation of the Diurnal Cycle and Moisture Surges Along the Gulf of California During NAME

E. Berbery and E. Becker

11:30 – 12:00 Assessment and Verification of North American Monsoon Quantitative Precipitation Forecasts from the Weather Research and Forecasting Model using 2004 NAME EOP Data

David Gochis

12:00 CDPW WORKSHOP ENDS

12:00-5:00 Interim NAME (SWG 7.5) Meeting

Monday, October 24, 2005

**9:15-10:30 POSTER SESSION 1: CLIMATE MODEL ASSESSMENTS AND
MULTI-MODEL ENSEMBLES**

Chairperson: Kingtse Mo

P1.1 Climate Model Diagnoses from a Weather Modeler's Point of View

Hualu Pan and Suranjana Saha

P1.2 Impact of a New Land Surface Model on the NCEP Climate Forecast System (CFS)

Helin Wei, Sarah Lu, Kenneth Mitchell and Jesse Meng

P1.3 Identification of El Nino's Dynamical Regime in the Climate Forecast System

Cecile Penland and Suranjana Saha

P1.4 Comparison of the NCEP CFS Model Simulated Indian Summer Monsoon – ENSO
Relationship and Local Air-Sea Relationship With Observations

Renguang Wu and Ben Kirtman

P1.5 Simulation and Predictability of Tropical Intraseasonal Variability in the CFS

K. Pegion, D. Straus, B. Kirtman and J. Shukla

P1.6 Temporal and Spatial Characteristics of CFS Simulations in the Tropics

Wilbur Chen

P1.7 Indian Ocean SST Variability, Predictability and Prediction in the NCEP Climate Forecast
System

Qin Zhang and Arun Kumar

P1.8 Mean State and Predictive Skill of the NCEP Coupled Forecast System in the Tropical
Atlantic Ocean

Hohua Huang and Zeng-Zhen Hu

P1.9 ENSO-Related Salinity Variability in the Equatorial Pacific Ocean from Simulations of a
Coupled Model (CFS03)

Sudhir Nadiga, Wanqui Wang, Jiande Wang and David Behringer

P1.10 Relationship Between Forecast Skill and Ensemble Size in the NCEP CFS

Wanqui Wang, and Arun Kumar

P1.11 Effect of Ensemble Size on Forecasts of Seasonal Extremes

Lisa Goddard and Simon Mason

P1.12 Ensemble Weighting: Can we do better than the ensemble mean of the CFS?

Wesley Ebisuzaki

P1.13 The Effect of SST Forcing on Seasonal Prediction by Nonlinear Multimodel Ensemble

Suhee Park, Sung-Dae Kang and Won-Tae Kwon

P1.14 Assessing Seasonal-to-Interannual Prediction Skill and Predictability from a Hierarchy of Atmospheric and Coupled GCM Ensemble Forecasts

W. Stern, R. Gudgel and A. Rosati

P1.15 The Boreal Summer Intraseasonal Oscillation in the NCEP GFS and CFS Simulation Runs

Kyong-Hwan Seo, Jae Schemm, Wanqui Wang and Arun Kumar

P1.16 Prediction of Global SST Using a Markov Model

Yan Xue

P1.17 Preliminary Comparison of Climate Predictions with Fully Coupled and Anomaly Coupled Versions of the COLA 3.0 MOM3 Coupled GCM

M. Fennessy, J. Kinter, B. Kirtman, L. Marx, V. Misra, D. Paolina, D. Straus

P1.18 Real-time Monitoring and Verification of the MJO in the NCEP GFS and CFS Forecasts

Kyong-Hwan Seo, Jae Schemm, and Wanqui Wang

P1.19 The Continuum and Dynamics of Northern Hemisphere Teleconnection Patterns

Christian Franzke and Steven Feldstein

P1.20 Indian Summer Monsoon Prediction in the NCEP Climate Forecast System

Catherine Thiaw, Suranjana Saha, Diane Stokes and Steve Lord

P1.21 Anomaly Initialization in the CFS Prediction System

Eric Altshuler and Ben Kirtman

P1.22 SST forecast using the APCN multi-model ensemble climate prediction system

June-Yi Lee, Bin Wang, In-Sik Kang, Chung-Kyu Park, and Lorenz Maggaard

Tuesday, October 25, 2005

9:00-10:30 POSTER SESSION 2: CLIMATE MONITORING AND PREDICTION

Chairperson: Wayne Higgins

P2.1 The 2005 Atlantic and East Pacific Hurricane Season

Gerald Bell and Muthuvel Chelliah

P2.2 Storm Track Monitoring and Research at the Climate Prediction Center

Jon Gottschalck, Wayne Higgins and Tim Eichler

P2.3 The abnormally Wet Winter (2004-2005) in Southern California: The Role of Atmospheric Blocking

Marco Carrera

P2.4 Activity of the Major Climate Modes in the Past Year (Oct. 2004-Sep. 2005)

Peitao Peng

P2.5 Overview of the 2005 Monsoons

Wayne Higgins, Wei Shi, Viviane Silva, Wassila Thiaw, Pingping Xie and Muthuvel Chelliah

P2.6 Dust Observations in El Paso Del Norte During the 2005 North American Monsoon Season

Karina Apodaca and Vernon Morris

P2.7 U.S. Real Time Drought Monitoring Based on NCEP Regional Reanalysis

Muthuvel Chelliah and Kingtse Mo

P2.8 An Experimental Daily Surface Water Monitor for the Continental US

Andrew Wood, Ali Akanda and Dennis Lettenmaier

P2.9 A Web Site for NCEP's Operational Global Ocean Data Assimilation System

Yan Xue and Boyin Huang

P2.10 Predictability of the NCEP Coupled Forecast System

Kyung Jin, James Kinter and Jagadish Shukla

P2.11 A Suitable Bias Correction for CFS Forecasts

Peitao Peng, Arun Kumar, Wanqui Wang, Qin Zhang and Bhaskar Jha

P2.12 Mean Bias Correction on NCEP Regional Spectral Model for Seasonal Climate Simulations

Hann-Ming Juang and Jun Wang

P2.13 Regional Climate Prediction by NCEP Regional Spectral Model

Jun wang and Hann-Ming Juang

P2.14 The Fidelity of NCEP-CFS Seasonal Hindcasts over Nordeste

V. Misra and Yuning Zhang

P2.15 Prediction Skill of NAO and PNA From Daily to Seasonal Time Scales

Ake Johansson

P2.16 The New ECPC GSM/MIT Coupled Experimental Seasonal Prediction Model

Elena Yulaeva, Masao Kanamitsu and John Roads

P2.17 The Impact of Cloud Water Schemes on Seasonal Prediction

Akhihiko Shimpo and Masao Kanamitsu

P2.18 Feasibility Study of the Downscaling of Global Seasonal Forecasts over the Western US

Masao Kanamitsu and Laurel Dehaan

P2.19 Regional Downscaling over Southeast Asia by using RegCM3

Jian-Hua Qian

P2.20 Predictability of Ensemble Weather Forecasts with a Newly Derived Similarity Index

Tomohito Yamada, Shinjiro Kanae, Taikan Oki and Randal Koster

P2.21 Effect of Noise on Predictions Based on Empirical Models Derived from Coupled Simulations

Rameshan Kallummal and Ben Kirtman

P2.22 National Weather Service Eastern Region Climate Outreach Toolkit

Patricia Wnek

P2.23 Science and Technology Infusion Climate Bulletin

Jiayu Zhou

P2.24 Web-Based Climate Product Portals from NOAA's National Climatic Data Center and Regional Climate Centers

Timothy Owen

P2.25 An Investigation of the Spring Predictability Barrier

Yehui Chang, Siegfried Schubert, Max Suarez, Michele Rienecker, Augustine Vintzileos, and Nicole Kurkowski

P.2.26 The Recent Evolution of the ENSO Cycle

Vernon Kousky

Wednesday, October 26, 2005

9:00-10:30 POSTER SESSION 3: INTRASEASONAL, INTERANNUAL AND DECADAL VARIABILITY

Chairperson: Pingping Xie

P3.1 Distinct Precursors for El Nino and La Nina Onsets

Wilbur Chen

P3.2 Propagation Characteristics of Off-Equatorial Synoptic Scale Disturbances and its Association with ENSO Phase Transitions

Zuqiang Zhang and Renhe Zhang

P3.3 The Climatology and Interannual Variability of North American Anticyclones

Timothy Eichler and Wayne Higgins

P3.4 Analysis of Atmospheric Signal and Noise to Tropical SSTs in Eight AGCMs

Bhaskar Jha and Arun Kumar

P3.5 The CFS126: a dynamical system for subseasonal forecasts -- challenges in predicting the MJO.

Augustin Vintzileos and Hualu Pan

P3.6 The Annual Cycle of Coupled Ocean-Atmosphere System Anomalies Over Tropical Indian and Pacific Oceans

Natalia Vjazilova

P3.7 East Eurasian Snow Cover Triggering the Northern Annular Mode

Eun-Jeong Cha and M. Kimoto

P3.8 Simulated Global Snow from the CPC Leaky Bucket Soil and Snow Model

Yun Fan and Huug van den Dool

P3.9 Role of Arctic Summer Sea Ice Extremes on Atmospheric Circulation

Uma Bhatt and Michael Alexander

P3.10 Evidence of Changes in the Atmospheric Tropical Circulation and Implications for Antarctic Ozone Trend

Leila Carvalho and Charles Jones

P3.11 The Signal of Pacific Pan-Decadal Variability in Surface Temperature and Atmospheric Fields

Junye Chen, Anthony DelGenio and Barbara Carlson

P3.12 Climate Change and Short-Term Forecasting For Alaskan Northern Coasts

Gary Hufford and James Partain

P3.13 Impact of Land Use Change on California's Climate

Hideki Kanamaru and Masao Kanamitsu

P3.14 Radiosonde Monthly Statistics Dataset: An Extended Version For Upper-Air Climate Research

Alexander Sterin and Arsenii Timofeev

P3.15 Using CMORPH to Disaggregate Daily Rain Gauge Analyses to Hourly Analyses

John Janowiak and Bob Joyce

P3.16 Improved CPC Gridded Historical Daily Precipitation Analyses Over Brazil

Viviane Silva, Vernon Kousky, Wei Shi and Wayne Higgins

P3.17 Cool-Season Regime Transition and Its Impact on Precipitation in the Northeast

Heather Archambault, Lance Bosart and Daniel Keyser

P3.18 Relative cooling of the N. Indian Ocean: Its relation to aerosols and Indian/sub-Saharan Africa rainfall trends

Chul Chung and V. Ramanathan

P3.19 Global Precipitation Variations and Long-term Changes Derived from the GPCP Monthly Product

Robert F. Adler, Guojun Gu, George Huffman, and Scott Curtis

P3.20 Inter-Basin Interactions and Biennial Climate Variability in the Indo-Pacific Region

Jin-Yi Yu

P3.21 Observed Relationships between the El Nino/ Southern Oscillation and the Extratropical Zonal-Mean Circulation.

Michelle L'Heureux and David W.J. Thompson

Thursday, October 27, 2005

9:00-10:30 POSTER SESSION 4: HYDROLOGIC VARIABILITY AND MONSOONS

Chairperson: Song Yang

P4.1 Relationships Between Indo-Pacific SSTs and Asian-Australian Monsoon in the NCEP Models

Soo-Hyun Yoo, Song Yang and Chang-Hoi Ho

P4.2 Coordination of NAME Modeling and Field Activities

Wayne Higgins and the NAME SWG

P4.3 NAMAP2: A Multi-Model Assessment of North American Monsoon Simulations

David Gutzler and NAMAP2 Collaborators

P4.4 NAME Upper-Air Gridded Datasets: Description and Some Preliminary Results

Paul Ciesielski, Richard Johnson, Peter Rogers and Richard Taft

P4.5 An Observational Analysis of Two Gulf Surge Events During the 2004 North American Monsoon Experiment

Peter Rogers, Richard Johnson, Paul Ciesielski and Brian McNoldy

P4.6 The Diurnal Cycle of the Windfield Over Northwestern Mexico Based on the NAME Pilot Balloon Sounding Network Observations

Michael Douglas, Javier Murillo, John Mejia, Raquel Orozco and Jose Galvez

P4.7 Seasonal Evolution of the Sea-Land Breeze Circulation Along the Gulf of California and Possible Relations to Vegetation Green-Up

Michael Douglas, Chris Watts, Jose Galvez, John Mejia, Javier Murillo and Raquel Orozco

P4.8 Role of Easterly Waves and the MJO in Gulf of California Moisture Surges

Man Li Wu, Siegfried Schubert and Myong-In Lee

P4.9 The Intra-Americas Sea Low-Level Jet

Jorge Amador and Kingse Mo

P4.10 Characteristics of Daily Precipitation From the NAME Precipitation Assessment Project

Wei Shi, Wayne Higgins, Viviane Silva and John Janowiak

P4.11 Evaluating the Hydro-Estimator Satellite Rainfall Algorithm over a Mountainous Region

Ismail Yucel, Robert Kuligowski and David Gochis

P4.12 In-Phase and Out-of-Phase Relations Between Seasonal Precipitation and Precipitable Water: A Theoretical and Data Analysis

Er Lu and Xubin Zeng

P4.13 Shift of Summer Precipitation Variability in the Southeast United States

Hui Wang and Rong Fu

P4.14 Covariabilities Between Warm-Season Rainfall and Pre-Season Soil Moisture in the US: A Climate Modeling Study

Wanru Wu and Robert Dickinson

P4.15 The Role of Antecedent Land Surface Conditions in Warm Season Monsoon Precipitation over Northwestern Mexico 1950-2003

Chunmei Zhu, Dennis Lettenmaier and Tereza Cavazos

P4.16 A Soil Moisture Initialization Scheme and its Impact on Quasi-Real Hindcasts of Summer Season Precipitation Anomalies over the USA

Sergey Malyshev and C.T. Gordon

P4.17 The impact of prescribed, model-diagnosed soil moisture on the interannual variability of AGCM-simulated precipitation over the USA

C.T. Gordon and Sergey Malyshev

P4.18 Soil Moisture Impacts on Potential and Actual Predictability

Laurel DeHaan, Masao Kanamitsu, Sarah Lu and John Roads

P4.19 Operational Streamflow Forecasts Development Using GCM Predicted Precipitation Fields

A. Sankarasubramanian and Upmanu Lall

P4.20 Experimental Statistical Climate Forecasts for the Interior Southwestern U.S.: Methodology and Skill

Klaus Wolter

P4.21 Climate and Management of the Colorado River

Andrea Ray, Doug Kenney, and Roger Pulwarty

P4.22 Climate Needs of Agricultural Researchers

Paul Knight

P4.23 A Coupled Mode over the NH Extra-Tropical Ocean and the Linkage to Potential Predictability of Climate over North America During Boreal Summer

Hailan Wang and William Lau

P4.24 Interseasonal Survey of Long-lived Positive Potential Vorticity Anomalies Generated from Monsoon Convection

Stephen Saleeby and William Cotton

P4.25 Impact of Sea Surface Temperature and Soil Moisture on Seasonal Rainfall Prediction over the Sahel

Wassila Thiaw and Kingtse Mo