

CLIVAR 2004 Program

Sunday, 20 June 2004

1800 – 2000 Registration (set up posters)

Monday, 21 June 2004

0730 – 0930 Registration (set up posters)

0930 – 0945 Conference convenes – welcoming remarks

Lennart Bengtsson, Max-Planck Institut für Meteorologie, Germany and

David Carson, Director, World Climate Research Programme

0945 – 1030 Keynote: Societal value of CLIVAR research: Using Remote Sensing in the Bay of Bengal to Predict Cholera Epidemics

R. Colwell, Professor Emerita, CMPS-Institute for Advanced Computer Studies, University of Maryland, USA

1030 – 1100 Refreshments

1100 – 1130 Keynote: Why CLIVAR?

L. Bengtsson, Max-Planck Institut für Meteorologie, Germany

1130 – 1200 Keynote: What is CLIVAR? Progress to date.

A. Busalacchi, Director, Earth System Science Interdisciplinary Center, University of Maryland, USA

1200 – 1230 Keynote: Predictability of the coupled climate system: 100-year evolution from weather forecasting to climate prediction.

J. Shukla, Director, Center for Ocean-Land-Atmosphere Studies (COLA), George Mason University, USA

1230 – 1400 Lunch (set up posters)

Session 1: Short-term climate prediction

1400 – 1410 Welcoming Remarks

James R. Mahoney, Asst Secretary of Commerce for Oceans and Atmosphere; Director U.S. Climate Change Science Program (CCSP), USA

1410 – 1455 Mechanisms of short-term climate variability.

*B. Hoskins, Dept of Meteorology, University of Reading, UK and Vice-chair WCRP-JSC
M. Wallace, Dept of Atmospheric Sciences, University of Washington, USA*

1455 – 1515 Seasonal to interannual predictability (modeling aspects).

*P. Delecluse, LSCE-IPSL, CEA-CNRS, France, with
D. Anderson, M. Davey, B. Kirtman, R. Kleeman, C. Penland, C. Wang and S. Zebiak*

1515 – 1535 Evolution of observing system for seasonal to interannual climate prediction.

*M. McPhaden, NOAA Pacific Marine Environmental Laboratory, USA, and
A. Hollingsworth, European Centre for Medium-Range Weather Forecasts, UK, with
B. Kirtman, R. Reynolds, F. Vossepoel, and S. Wijffels*

1535 – 1720 Posters/Refreshments

1720 – 1810 Discussion: Value of climate forecasts.

*T. Palmer, European Centre for Medium-Range Weather Forecasts, UK, and
S. Zebiak, Int'l Research Institute for Climate Prediction, USA*

Tuesday, 22 June 2004

Session 2: The monsoon systems

- 0830 - 0915 Monsoons.
J. Slingo, NCAS Centre for Global Atmospheric Modelling, University of Reading, UK
C.R. Mechoso, Dept of Atmospheric Sciences, University of California, USA, and
P. Webster, School of Earth & Atmospheric Sciences, Georgia Institute of Technology, USA
- 0915 - 0935 Variability of the Asian-Australian monsoon and major roadblock to seasonal prediction.
B.N. Goswami, Centre for Atmospheric & Oceanic Sciences, Indian Institute of Science, India
T. Yasunari, Hydrospheric Atmospheric Research Center, Nagoya University, Japan, and
G. Wu, Nat'l Key Laboratory of Atmospheric Sciences, Chinese Academy of Sciences
- 0935 - 0955 The monsoon systems of the Americas.
C. Vera, CIMA, Universidad de Buenos Aires-CONICET, Argentina and
W. Higgins, Climate Prediction Center/NCEP/NWS/NOAA, USA, with
J. Amador, *T. Ambrizzi*, *R. Garreaud*, *D. Gochis*, *D. Gutzler*, *D. Lettenmaier*,
J. Marengo, *C.R. Mechoso*, *J. Noguez-Paegle*, and *C. Zhang*
- 0955 - 1015 The African monsoon system.
C. Thorncroft, University of Albany, SUNY, USA and
L. Ogallo, Professor, Drought Monitoring Center - University of Nairobi, Kenya, with
C. Reason, and *F. Semazzi*

1015 - 1200 Posters/Refreshments

1200 - 1330 Lunch

Session 3: The challenge of decadal prediction

- 1330 - 1415 Climate variability and predictability on decadal to century time scales.
E. Sarachik, University of Washington, USA
G. Boer, Canadian Centre for Climate Modelling and Analysis, Canada, and
A. Weaver, University of Victoria, Canada
- 1415 - 1435 Atlantic variability and predictability: Progress and challenges for CLIVAR.
M. Visbeck, Lamont-Doherty Earth Observatory of Columbia University, USA, and
J. Hurrell, Nat'l Center for Atmospheric Research, USA, with
A. Busalacchi, *A. Clarke*, *T. Delworth*, *R. Dickson*, *W. Johns*, *K.P. Kotermann*, *Y. Kushnir*, *D. Marshall*, *C. Mauritzen*, *M. McCartney*, *C. Reason*, *G. Reverdin*, *F. Schott*, *R. Sutton*, *I. Wainer*, and *D. Wright* (Current and former members of the International CLIVAR Atlantic Implementation Panel)
- 1435 - 1455 Pacific decadal variability: A review.
N. Schneider, Int'l Pacific Research Center, University of Hawaii, USA, and
S. Minobe, Division of Earth & Planetary Sciences, Hokkaido University, Japan, with
C. Deser, *Z. Liu*, *N. Mantua*, *H. Nakamura*, and *M. Nonaka*
- 1500 - 1700 Posters/Refreshments
- 1700 - 1745 Discussion: Challenges for long-term climate prediction.
M. Latif, Max-Planck Institut für Meteorologie, Germany, and
G. Boer, Canadian Centre for Climate Modeling, Victoria, Canada

Wednesday, 23 June 2004

Session 4: Understanding long-term climate variations

- 0830 - 0915 Comparisons of observed paleoclimate and model-based studies of climate changes over the past two millennia.

- M. Mann*, Dept of Environmental Sciences, University of Virginia, USA, and
K. Briffa, Climatic Research Unit, University of East Anglia, UK
- 0915 – 0935 Paleoclimatic perspectives on abrupt climate change.
J. Overpeck, Institute for the Study of Planet Earth, University of Arizona, USA, and
R. Alley, Dept of Geosciences, Pennsylvania State University, USA
- 0935 – 0955 Progress in Paleoclimate Modeling.
M. Cane, Lamont-Doherty Earth Observatory of Columbia University, USA, and
S. Joussaume, CNRS France, with
P. Braconnot, *A. Clement*, *H. Gildor*, *M. Khodri*, *D. Paillard*, *S. Tett*, and *E. Zorita*
- 1000 – 1200 Posters/Refreshments
1200 – 1330 Lunch
- Session 5: The role of oceans in climate**
- 1330 – 1415 Key ocean mechanisms in climate.
J. Marotzke, Max Planck Institute for Meteorology, Germany,
S. Wiffels, CSIRO Marine Research, Australia, and
D. Wallace, Chemische Ozeanographie, Forschungsbereich Marine Biogeochemie, Leibniz-
Institut für Meereswissenschaften, Germany
- 1415 – 1435 The role of tropical oceans in climate.
P. Chang, Dept of Oceanography, Texas A&M University, USA, and
T. Yamagata, Dept of Earth and Planetary Science, University of Tokyo, Japan, with
P. Schopf, *S.K. Behera*, *G. Meyers*, and *S. Shetye*
- 1435 – 1455 The northern-hemisphere extratropical oceans and climate.
P. Rhines, School of Oceanography and Dept of Atmospheric Sciences, University of
Washington, USA, and
R. Dickson, The Centre for Environment, Fisheries and Aquaculture Science, UK
- 1455 – 1515 The role of extratropical southern hemisphere oceans in the Earth's climate system.
S. Rintoul, CSIRO Marine Research & Antarctic Climate and Ecosystems, Australia, and
A. Gordon, Lamont-Doherty Earth Observatory of Columbia University, USA, with
D. Olbers, and *K. Speer*
- 1515 – 1700 Posters/Refreshments
1900 – 2130 Conference Dinner (Baltimore National Aquarium)

Thursday, 24 June 2004

Session 6: Human influence on climate

- 0830 – 0915 Assessing climate change: A current perspective on progress and directions in the IPCC Working
Group I.
S. Solomon, NOAA Aeronomy Lab, USA, and
D. Qin, China - Co-chairs of IPCC Working Group I
- 0915 – 0935 Climate change detection and attribution: Beyond mean temperature signals.
G. Hegerl, Nicholas School for the Environment and Earth Sciences, USA
T. Karl, NOAA, National Climatic Data Center, USA
M. Allen, Climate Dynamics Group, University of Oxford, UK
N. Bindoff, Antarctic CRC, University of Tasmania, Australia
D. Karoly, School of Meteorology, University of Oklahoma, USA
N. Gillett, School of Earth and Ocean Sciences, University of Victoria, Canada, and
F. Zwiers, Canadian Center for Climate Modelling and Analysis, Canada

- 0935 – 0955 Climate change prediction.
J. Mitchell, Hadley Centre, Exeter, UK, and
E. Roeckner, Max-Planck Institut für Meteorologie, Germany
- 1000 – 1200 Posters/Refreshments
- 1200 – 1330 Lunch
- Session 7: Application of CLIVAR science to society**
- 1330 – 1350 The Integration of Seasonal Climate Forecasts in the Development of Epidemic Early Warning Systems for Africa: Malaria and Meningococcal Meningitis
M. Thomson, Int'l Research Institute for Climate Prediction, USA, with
A. Ben Mohamed, *S.J. Mason*, *L.E. Cuevas*, *T.B. Phindela*, *M.N. Ward*, *T.N. Palmer*, *A.P. Morse*, and *S.J. Connor*
- 1350 – 1410 The Global Energy and Water Cycle EXperiment (GEWEX) - contributions to climate research.
S. Sorooshian, University of California, Irvine, USA
- 1410 – 1430 CLIVAR Science: Application to energy
A. Moura, Instituto Nacional de Meteorologia, Brazil, with *L.C.B. Molion*
- 1430 – 1450 Application of CLIVAR Science to Agriculture and Land Ecosystems.
S. Gadgil, Centre for Atmospheric and Oceanic Sciences Indian Institute of Science, India
G. Hammer, Queensland Dept. of Primary Industries, Australia
M.V. Sivakumar, Chief, Agricultural Meteorology Division, WMO, and
J. Hansen, Int'l Research Institute for Climate Prediction, USA
- 1450 – 1510 Climate variability, fish and fisheries.
P. Lehodey, Oceanic Fisheries Programme, New Caledonia, with
J. Alheit, *M. Barange*, *T. Baumgartner*, *G. Beaugrand*, *K. Drinkwater*, *Jean-Marc Fromentin*,
S. Hare, *G. Ottersen*, *I.R. Perry*, *C. Roy*, *C. Van der Linger*, and *F. Werner*
- 1510 – 1700 Posters/Refreshments
- 1700 – 1745 Discussion: Energy, agriculture, and health: links to IPCC.
C. Rosenzweig, NASA Goddard Institute for Space Studies, USA, and
H. Grassl, Max-Planck Institut für Meteorologie, Germany

Friday, 25 June 2004

Session 8: CLIVAR – Future challenges

- 0830 – 0900 Monitoring and prediction of the Earth's climate.
K. Trenberth, Nat'l Center for Atmospheric Research, USA
B. Moore, University of New Hampshire, USA
T. Karl, NOAA, National Climatic Data Center, USA, and
C. Nobre, Centro de Previsão de Tempo e Estudos Climáticos, Instituto Nacional de Pesquisas Espaciais, Brazil
- 0900 – 0930 Atmospheric observations and data assimilation for climate monitoring and prediction
A. Simmons, European Centre for Medium-Range Weather Forecasts, UK, and
J. Derber, NOAA/NWS/National Centers for Environmental Prediction, USA, with
A. Hollingsworth, *E. Kalnay*, *A. Lorenc*, *M. Manton*, and *K. Onogi*
- 0930 – 1000 Observations and data assimilation (oceans) – A future perspective.
D. Stammer, Universität Hamburg, Zentrum für Meeres und Klimaforschung, Germany
M. Rienecker, NASA/Goddard Space Flight Center, USA, and
N. Smith, Bureau of Meteorology Research Centre, Australia, with
E. Harrison, and *D. Roemmich*

- 1000 – 1030 Integrated earth system modeling and very high resolution atmosphere/ocean modeling—Challenges with the Earth Simulator
T. Matsuno, Frontier Research System for Global Change, Japan, with
M. Kawamiya, *M. Satoh* and *Yukio Tanaka*
- 1030 – 1100 Refreshments (Remove posters)
- 1100 – 1200 Discussion.
P. Lemke, Alfred-Wegener Institute for Polar and Marine Research, Bremerhaven,
Chair WCRP-JSC, Germany
G. Brasseur, Co-chair IGBP, Deutsches Klimarechenzentrum, Germany, and
D. Carson, World Climate Research Programme, Switzerland
- 1200 – 1245 Conference wrap-up.
L. Bengtsson, Max-Planck Institute für Meteorologie, Germany and Chair-Scientific
Organizing Committee, and
D. Legler, Director U.S. CLIVAR Project Office, USA and Chair-Local Organizing Committee
- 1300 Conference ends (Remove posters)