

THE NATIONAL ACADEMIES

Advisers to the Nation on Science, Engineering, and Medicine

Joint Meeting of the
Board on Atmospheric Sciences and Climate
and the
Climate Research Committee

PUBLIC AGENDA
Thursday, May 17, 2007

National Academy of Sciences Building
Auditorium, 2100 C St. NW, Washington, DC

Please note that food and beverages are not allowed in the NAS Auditorium

9:00 A.M. Welcome and introductions F. Sherwood Rowland, BASC Chair
Antonio Busalacchi, Jr., CRC Chair

NRC Report Briefings

9:15 A.M. *Earth Science and Applications from Space:
National Imperatives for the Next Decade
and Beyond* Berrien Moore, UNH
Anthony Janetos, JGCRI

10:00 A.M. New Panel on Options to Ensure the Climate Antonio Busalacchi, Jr.
Record from the NPOESS and GOES-R Spacecraft

10:15 A.M. *Analysis of Global Change Assessments:
Lessons Learned* Mack McFarland, DuPont
Chris Elfring, BASC Director

10:45 A.M. **Break**

IPCC AR4: Key Outstanding Questions and High-Priority Research Needs

Topics/questions to be addressed include:

1. What are the key outstanding questions and high-priority research needs emerging from the WGI, WGII, and WGIII contributions to the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC AR4)?
2. How can WGI research better inform WGII and WGIII?
3. What kind of research program would help improve the reliability of regional-scale results from coupled global climate models in order to increase confidence in future projections?
4. What can NAS/BASC/CRC do to help progress in these areas?

11:00 A.M. Overview of key outstanding questions V. Ramaswamy
NOAA / GFDL

11:30 A.M. Key questions and topics in cryospheric research Richard Alley
Penn State

12:00 A.M. Questions and topics emerging from attribution and Gabriele Hegerl,
sensitivity studies CRC Member

12:30 P.M.	Lunch break (Cash-only lunch service available in the NAS refectory; ATM available on-site)	
1:30 P.M.	Regional modeling, key processes, and uncertainties	Isaac Held, NOAA / GFDL
2:00 P.M.	Metrics for evaluating regional climate projections	Karl Taylor, LLNL / PCMDI
2:30 P.M.	Future scenario development	Richard Moss, United Nations Foundation
3:00 P.M.	Coordinated experiments to address stabilization/mitigation with the emerging next generation earth system models	Gerald Meehl, CRC Member
3:30 P.M.	Break	

Forum on Seamless Prediction and “Year of Tropical Convection”

References/handouts:

- White Paper on Seamless Prediction. J. Hurrell, D. Bader, T. Delworth, B. Kirtman, J. Meehl, H.-L. Pan, and B. Wielicki. Draft: 20 August 2006.
- Draft Prospectus for a Proposed Joint WCRP–THORPEX Research Activity: Year of Tropical Convection (YOTC) or TROPical Observations and Predictions for Improving Convective System Simulation (TROPICSS). Version 0.6 Draft: October 2006.

Topics/questions to be addressed include:

1. What is missing from these two documents? Are contrary opinions properly represented?
2. Does seamless prediction require unified modeling, and if so is “one size fits all” the best way to allocate resources?
3. Fundamental science questions:
 - a) What are the most crucial elements of the large-scale circulation that influence the development, organization and maintenance of tropical convection?
 - b) Under what circumstances and with what mechanisms are energy and momentum transferred from the convective scale to the mesoscale, from the mesoscale to the synoptic scale, and from the synoptic scale to the planetary scale?
 - c) How does organized tropical convection interact with the extra-tropics?

3:45 P.M.	Session goals	Clara Deser, CRC Member (moderator)
3:50 P.M.	Overview: white paper on seamless prediction	Jim Hurrell, NCAR
4:05 P.M.	Seamless prediction panelists:	Steven Lord, NCEP Lee Branscome, CRC Member
4:55 P.M.	Overview: YoTC/TROPICSS proposal	Duane Waliser, JPL/Caltech
5:10 P.M.	YoTC/TROPICSS panelists:	Isaac Held, NOAA/GFDL Kerry Emanuel, BASC Member
6:00 P.M.	Adjourn	