

CAB/SSC/WG Co-Chair Joint Meeting

09:00-09:15 Welcome (Jim Hurrell)

- ✓ Introductions
- ✓ Objectives and Adoption of Agenda

09:15-09:30 Current activities (Jim Hurrell)

- ✓ Update on release of CMIP5 simulations
- ✓ Update on J. Climate and IJHPC special collection articles
- ✓ Update on 2011 CESM tutorial plans

09:30-10:30 Assessment of CESM: Is the project meeting the needs of NSF/DOE?

Anjuli Bamzai (NSF)
Renu Joseph (DOE)
Dave Bader (DOE – CSSEF)
Isaac Held (Chair, CAB)

10:30-10:45 Break

10:45-11:00 CISM Development and Experiment Update (Bill Lipscomb)

11:00-11:15 Ocean Model Development: New Directions/Challenges (Phil Jones)

11:15-12:00 Societal Dimensions of Earth System Modeling: Workshop Outcomes/Recommendations

Jeff Kiehl (NCAR), Brian O'Neill (NCAR), Andrea Ray (NOAA)

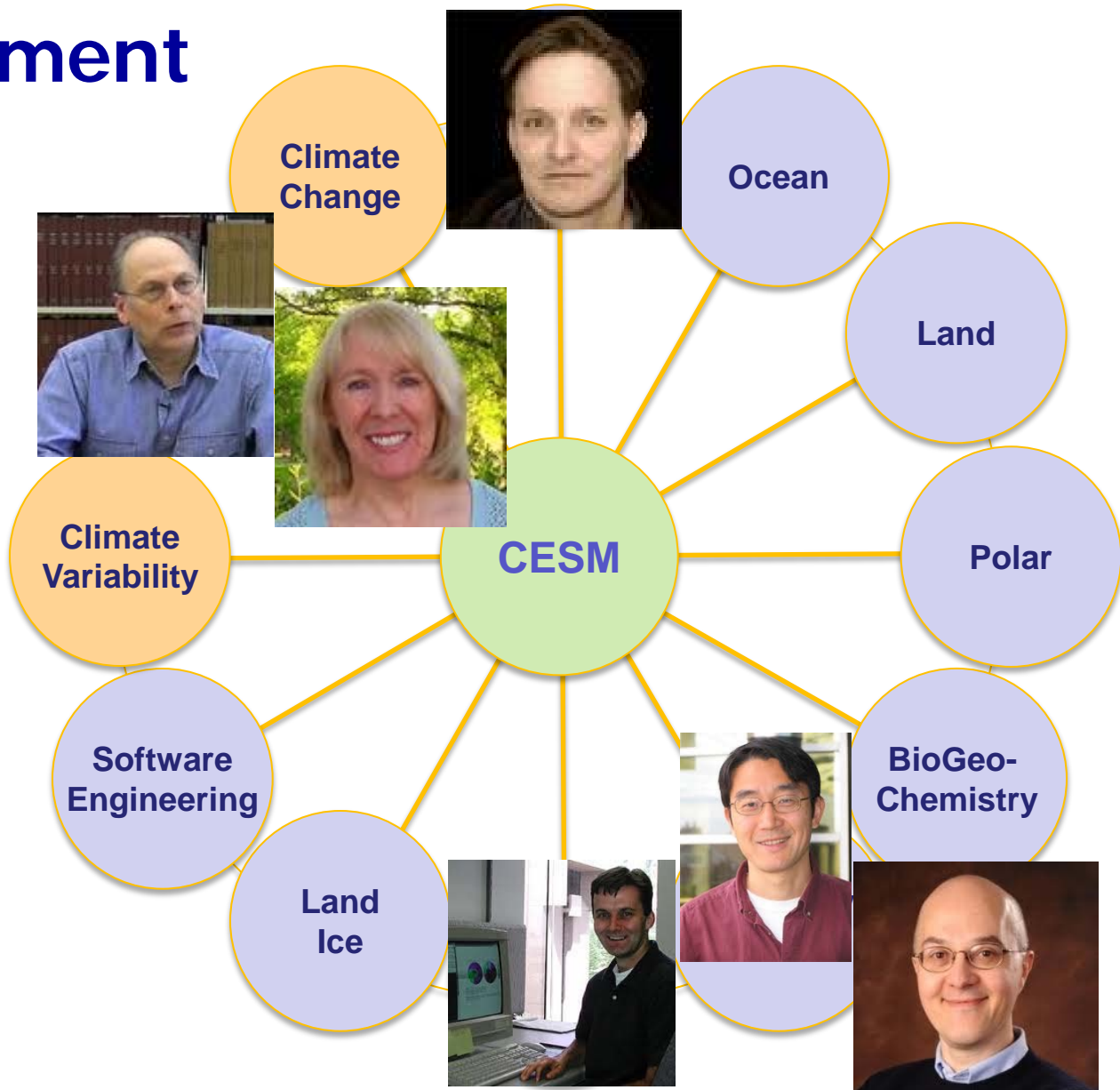


CESM Management

CESM Advisory Board



CESM Scientific Steering Committee



<http://www.cesm.ucar.edu/management>

CMIP-5 Simulations

- Major contribution of CESM and its partners to IPCC AR5 through simulations performed with both CCSM4.0 and CESM1.0
- CSL, NCAR and DOE computer resources decisive
- CMIP-5 Experimental Design (Taylor et al. 2009):

A set of coordinated climate model experiments to:

- ✓ address outstanding scientific questions from AR4
- ✓ improve understanding of climate variability/change
- ✓ provide estimates of future climate change



CISL
Computational & Information Systems Laboratory



- CMIP-5 is a 5-year experimental design, but a significant fraction of the experiments will be done in time to be included in AR5
 - ✓ Initialized decadal prediction and long-term climate change
 - ✓ CCSM4.0 and CESM (CAM5, CAM-CHEM, WACCM, BGC) and paleoclimate (>600 Tb history output)
 - ✓ All Core, and most Tier 1 and 2, experiments complete & available (ESG)
 - ✓ Beginning to format and release to formal CMIP-5 data base too

CESM Experiments and Diagnostics

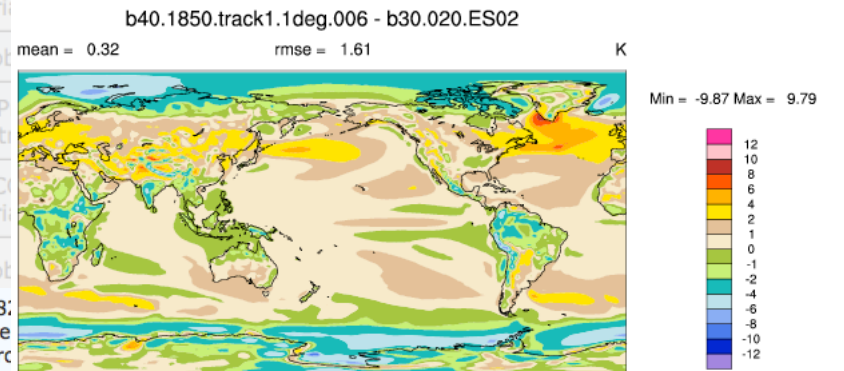
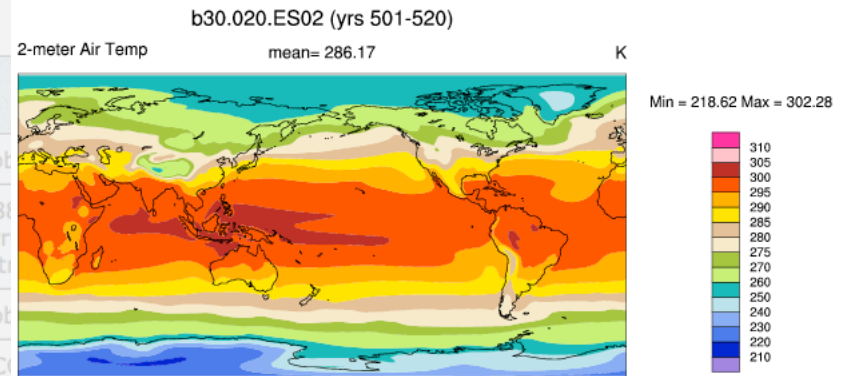
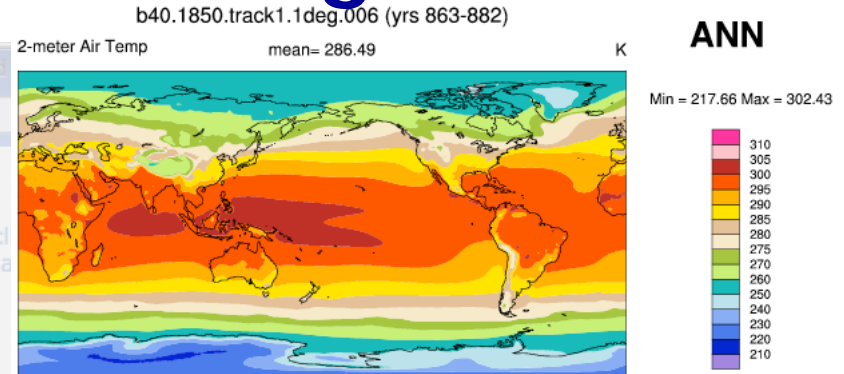
CESM1.0 Experiments and Diagnostics

<http://www.cesm.ucar.edu/experiments/cesm1.0/>

Jump To: [Control Simulations](#) | [20th Century All-Forcings Simulations](#) | [20th Century Single-Forcings Simulations](#) | [RCP Simulations](#) | [CO2 Simulations](#) | [Paleocl Simulations](#)

CONTROL SIMULATIONS

Brief Description	Case Details
CCSM4 1° Pre-Industrial Control Case Name: b40.1850.track1.1deg.006 Data Location: ESG	863-892 w/ob 863-892 - CCSM3 T85 Pre-Industrial Control Details
CCSM4 2° Pre-Industrial Control Case Name: b40.1850.track1.2deg.003 Data Location: ESG	501-530 w/ob 501-520 - CCSM3 T42 Pre-Industrial Control Details
CCSM4 T31 Pre-Industrial Control Case Name: b40.t31x3.037 Data Location: ESG (451-500)	451-500 w/ob 451-500 - 2° Pre-Industrial Control 451-500 - CCSM3 T85 Pre-Industrial Control Details
CESM1 (BGC) Prognostic CO2 1° Case Name: b40.1850.track1.1deg.006 Data Location: ESG	863-888 863-888 - CCSM3 T85 Pre-Industrial Control Details
CCSM4 2° Pre-Industrial Control Case Name: b40.1850.track1.2deg.003 Data Location: ESG	501-530 w/observations 501-520 - CCSM3 T42 Pre-Industrial Control Details



20 June 2011

The Community Earth System Model:
Joint CAB/SSC/WG Co-Chair Meeting

Jim Hurrell
jhurrell@ucar.edu



Special Journal Collections

- *J. Climate*

- ✓ 36 papers on CCSM4.0; 33 papers on CESM1.0

- ✓ > 400 authors and 26 papers with non-NCAR scientists as lead authors

- ✓ All papers submitted by Fall 2011

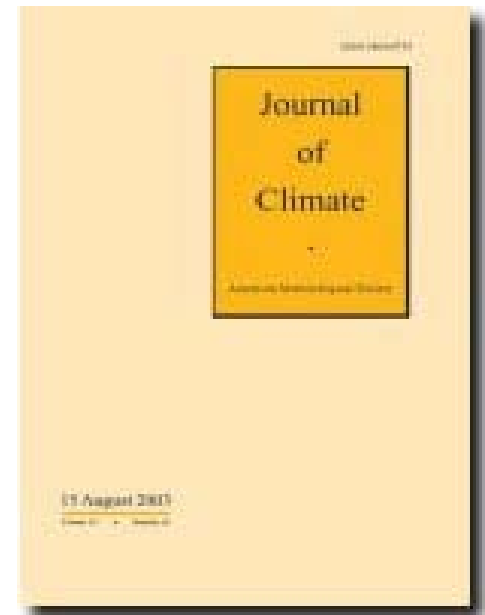
- ✓ IPCC AR5

- ❖ March 2013: papers must be accepted, in press or published

- ❖ September 2013: Final WG I plenary

- Special issue in *IJHPCA* to document SE advances

- ✓ 7 papers with 30 authors (17 non-NCAR)



Many New Results and Capabilities

Special Collection J. Climate Papers:

<http://www.cesm.ucar.edu/publications/pub.info.html>

or at AMS:

<http://journals.ametsoc.org/page/CCSM4/CESM1>



CESM Tutorial: August 1-5, 2011

NCAR, Boulder, CO

- 13 Lectures on simulating the Earth's climate system
- 5 Practical sessions on running CESM, modifying components, and analyzing data
- Funding support from NSF and DOE
- 2010: 40 full students, 32 auditors (~190 applicants)
 - Videos and PDFs of lectures and practical sessions are freely available online at <http://www.cesm.ucar.edu/events/tutorials/>
- 2011: 80 full students (~175 applicants)
 - Acceptance criteria:
 - Mainly early career graduate students, though aim for a mix of graduate students, postdocs, and early career research scientists and faculty
 - Project descriptions and fit with broader CESM goals and activities
 - Balance attendees across institutions and Working Groups
- Questions should be directed to Dave Lawrence (dlawren@ucar.edu)