# CCSM Atmosphere Model Working Group Meeting

# 10 - 12 February 2010

# National Center for Atmospheric Research - Boulder, Colorado

# WEDNESDAY, 10 February:

- 2:00 <u>Co-chairs</u> Welcome, Logistics, and Introductory Remarks
- 2:15 Phil Rasch / Rich Neale Overview of Where we are with CAM-Track 5
- 2:30 Cecile Hannay CAM-only Development Simulations
- 2:50 Rich Neale Current State of CCSM Track 5 Coupled Control Simulations

### CAM / Track 5 Configuration Updates (3:45PM – 5:30PM)

- 3:45 Sungsu Park Macrophysics, PBL, Shallow Convection
- 4:00 Andrew Gettelman Microphysics
- 4:15 <u>Andrew Conley</u> RRTM / Radiative Processes in CAM
- 4:30 <u>Xiaohong Liu</u> Modal Aerosol Model in CAM
- 4:45 <u>Peter Lauritzen</u> FV Dynamical Core and Filtering
- 5:00 Discussion lead by Minghua Zhang

## THURSDAY, 11 February:

#### Joint AMWG - CCWG Meeting (9AM - 12:15PM)

- 9:00 <u>Jean-Francois Lamarque</u> Chemistry for AR5: Configurations, Emission, and Simulations
- 9:20 Xiaohong Liu Aerosols and Radiative Properties in Track 5
- 9:35 Andrew Conley A Radiative Transfer Tool for Offline Calculations
- 9:50 Discussion

## <u>Update from Other Working Groups / CCSM4 – Mean Simulations (10:45AM – 12:15PM)</u>

- 10:45 <u>Dave Lawrence</u> Update on Land Model Working Group Activities
- 11:00 Dave Bailey Update on Polar Climate Working Group Activities
- 11:15 Gokhan Danabasoglu Update on Ocean Model Working Group Activities
- 11:30 <u>Keith Lindsay</u> Update on Biogeochemistry Working Group Activities
- 11:45 Mark Taylor AMIP Simulations with HOMME

#### CCSM4 Track 1 / Track 5 Comparison and Development Studies (1:15PM – 3:00 PM)

- 1:15 <u>Cecile Hannay</u> Evaluating Parameterized Variables in CAM along the GCSS Pacific Cross-section
- 1:30 <u>Kevin Raeder</u> An Update on Data Assimilation Research Testbed (DART) Capabilities in CAM
- 1:45 Steve Klein Resolution Dependencies of CAM Simulations
- 2:00 Phil Rasch Results from an Increased Vertical Resolution Version of CAM
- 2:15 Julio Bacmeister High-resolution Hurricane Forecast and Climate Simulations in CAM
- 2:30 <u>Bill Gutowski</u> Implementation of a Non-hydrostatic, Adaptive-grid Dynamics Core in CAM
- 2:45 <u>Joe Klemp / Bill Skamarock</u> An MPAS Dynamical Core for CAM

#### Climate and Climate Sensitivity in CAM (3:30 PM – 5:30PM)

- 3:30 <u>Joe Tribbia</u> Decadal Climate Prediction using CCSM4
- 3:45 <u>Minghua Zhang</u> Seasonal Variability of Low Clouds in CAM
- 4:00 Brian Medeiros Analyzing Climate Sensitivity in Aqua-planet CAM
- 4:15 Jen Kay Mean Arctic Climate and Climate Changes under GHG / Aerosol Forcing
- 4:30 Sungsu Park The Role of the Cloud Response in Climate Sensitivity
- 4:45 Rich Neale / Andrew Gettelman Climate Sensitivity in SOM Experiments
- 5:00 Discussion led by Phil Rasch

### FRIDAY, 12 February:

#### General Contributions 9:00AM – 10:15PM

- 9:00 <u>Charles Jackson</u> Updated Targets and Results for Estimates of CAM Parametric Uncertainties
  - <u>Don Lucas / Curt Covey</u> LLNL Climate UQ Project
- 9:15 <u>David Mitchell</u> Satellite Remote Sensing of Liquid Water in Cold Clouds for CAM Validation
- 9:30 Brian Mapes The Multiple Plume Approach to Convection using the UW Shallow Convection Scheme
- 9:45 David Neelin Precipitation and Humidity Relationships in Observations and Models
- 10:00 Discussion

#### Ideas / Plans for Model Development beyond CCSM4 / CESM1 (10:45AM - 3:00 PM)

- 10:45 Andrew Gettelman / Rich Neale Strategic Plan Priorities / Science Goals
- 11:15 Discussion
- 1:00 Component Requirements and Plans (10 minute outline talks + open discussion)
  - 1:00 <u>Sungsu Park</u> Unifying Convection

- 1:25 Andrew Gettelman Microphysics and Sub-column Generators
- 1:50 Xioahong Liu Prescribed MAM Aerosol, Flexible Radiative Interface Plans
- 2:15 <u>Peter Lauritzen</u> Dynamical Core Development
- 2:40 <u>Julio Bacmeister</u> High Resolution and Gravity Wave Parameterization

# 3:30 Discussion led by Rich Neale

- Final Configuration of Track 5
- Release Timelines
- Special Issue Papers
- Development and Release Plans beyond CCSM4 / CESM1
- 5:00 Programmatic Issues, Working Group Configuration, Wrap-up