Goals of the workshop

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Main topics for presentations

- Model development updates

- New simulations and science

- Near-term (1-year) development

- CESM2 proposal and timeline

- Diagnostics and model evaluation

CESM2 timeline (from SSC)

- Jan 2014-Jan 2015: Component model developments continue. Coupled simulations are performed regularly with new component developments to assess incremental coupled model performance.

- Early 2015: CAM5+ model version finalized, subject to tuning modifications, for use in the WACCM, BGC/chemistry, and CISM configurations.

- July 2015: Component models for CESM2 are nearly final, subject to modification (tuning) based on coupled model performance.

- July-Dec, 2015: Coupled model simulations with finalized components for different supported configurations are performed; Tuning/modification of component models will occur as needed to maximize coupled simulation quality

- Jan 2016: CESM2 supported configurations are finalized, including final parameter settings, etc. for different component models

- Jan-June 2016: PI control runs and 20th century runs performed for supported CESM2 configurations

- June 2016: CESM2 Model release; To include PI control run, 20th century run, AMIP runs for supported configurations (at a minimum)

- Post-June 2016: CESM2 scenario runs (and others) performed

Proposed CESM2 development and targets

➢ Purpose: Release CESM2, with a number of supported configurations, in June 2016. Supported configurations will include pre-industrial control simulations and 20th century runs.

- Model configuration targets:
  - "Bleeding edge" physical climate model version (with CAM6)
  - Physical climate model with WACCM
  - Carbon cycle/BGC model version with enhanced atmospheric chemistry coupling
  - Coupled ice sheet integrations

CAM5+

- Scientifically-supported BGC/chemistry, WACCM, and ice sheet configurations would use older atmospheric model version (CAM5+ updates if available);
- Staggered development would occur between "bleeding edge" physical climate model version and other supported configurations. As such, CESM2.X for example, may include a supported BGC/chemistry model version with the CESM2 "bleeding edge" physical climate model components.
- Note that additional research options will also be available within CESM2

What should we discuss?

- What development can we provide in 1-2 years?
- What do we want from CESM2?
  - Should we support both high top and low top?
  - What horizontal resolution? 1-degree?
  - Which chemistry as our workhorse for CMIP and other activities and interesting science?
  - Which aerosol scheme? MAM3? MAM4?