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

- 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?