Coupled Simulation Roadmap
EPICS

- v0.1 high resolution baseline - Mark Taylor
- v0.1 low resolution baseline – Dave Bader
- Publications – Dave Bader
- Complete document with plans for the 3-year three major experimental campaigns 4/30/15 – Bill Collins
- Identify Coupled Simulation Workflow requirements – Peter Caldwell
- Construct and document coupled testing framework for model developments – Andy Salinger
- Maintain Computer Resource usage and availability information - Renata McCoy
v0.1 high and low resolution baselines

• Long run
• 3 member late 20th Century ensemble of 40 years each

Publications

• T85 Coupled Model Initialization Study
• CCSM4/ACME v0 high resolution comparisons
v0.1 Baseline Runs Elements

- perform coupled simulation workflow on all runs;
- perform analysis through diagnostics and metrics\(^1\).
  - provenance,
  - move data,
  - publish to ESGF,
  - create climatologies,
  - create diagnostics,
  - move them to common place for analysis, produce metrics)
Priority Metrics

• For each metric – Define full provenance
  – Suggested reference data set
  – Model output
  – Algorithm

• Climatology and trends of zonal precipitation
• Climatology and trends of zonal top-of-atmosphere incoming and outgoing radiation
• Climatology and trends of the timing of sea ice extent and thickness
• Climatology and trends of two-dimensional SST fields
Priority Metrics (cont)

• Climatology and trends of zonal ocean heat content for these depth ranges: surface-700 m, surface-2000 m, and surface-bottom, computed globally and per ocean basin

• Climatology and trends of northward annual zonal ocean heat transport by basin

• Nino 3.4