

CVCWG Update & Plans

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CESM1.3 High Resolution Suite

(1/4° atm/Ind coupled to 1° ocn/ice, periods of high-frequency output)

- 1850 PI control (200 years)
- 20th Century (3 members, 1850-2005)
- RCP2.6 (3 members, 2006-2100)
- RCP4.5 (1 member, 2006-2100)
- RCP6.0 (1 member, 2006-2100)
- RCP8.5 (3 members, 2006-2100)
- 1% CO2 (140 years)
- 4xCO2 (140 years)



Pacemaker Simulations (1 degree, LENS tag)

(relax SST to idealized +/- states)

- North Atlantic (10 members, 1920-2005) – relaxed to obs
- Equatorial Pacific (10 members, 1920-2005) – relaxed to obs
- IOD Historical and RCP8.5 (10 members, 1920-2017) – relaxed to obs
- Idealized IPO pre-industrial (10 members, 30 years each)
- Southern Ocean Historical (1 member, 1920-2005) – relaxed to obs



CESM1.1 (LENS tag) single forcing simulations (all-but-one)

- 1920-2005, 2006-2080 following RCP8.5

All forcings except GHGs, anthropogenic aerosols, biomass burning, land use/land cover

High Resolution CESM1.2 (0.25° atm/lnl x 0.1° ocn/ice)

- Impact of Ocean Coupling

Atmospheric River Tracking Method Intercomparison (ARTMIP) catalogues (Christine Shields)

- 6 available with all Tier 1 open for community soon



CLIVAR Large Ensemble Working Group (Flavio Lehner)

- Data repository from 7 LEs, published on CDG (https://www.earthsystemgrid.org/dataset/ucar.cgd.cesm4.CLIVAR_LE.html) and Cheyenne (/glade/collections/cdg/data/CLIVAR_LE)
- Please provide feedback and variable desires (flehner@ucar.edu)
- Revision of repository planned later this summer
- Summer workshop on Large Ensembles (July 24-26 2019 at NCAR); over-subscribed, but live webcast will be available



- CMIP6 with CESM2
 - Flux Anomaly MIP (FAFMIP)
 - Detection/Attribution MIP (DAMIP)
 - Scenario MIP
 - Polar Amplification MIP (PAMIP)
- CESM2 Large Ensemble (IBS Center for Climate Physics in Busan, South Korea)
 - 100 members (1850-2100)
 - Some with high frequency output and COSP (cloud simulator)
 - Your input on: initialization, future scenario, output



- CVCWG Website
http://www.cesm.ucar.edu/working_groups/CVC/
- CVCWG published simulations
http://www.cesm.ucar.edu/working_groups/CVC/simulations/cvcwg-simulations-finished-and-published.html
- Climate Variability Diagnostics Package (CVDP)
http://www.cesm.ucar.edu/working_groups/CVC/cvdp/
- Climate Data Guide
<http://www.climatedataguide.ucar.edu>



Input from you!

Questions / Comments?



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What is the niche for CESM?

What should CESM focus on for the next 5 years?

What are your needs?

