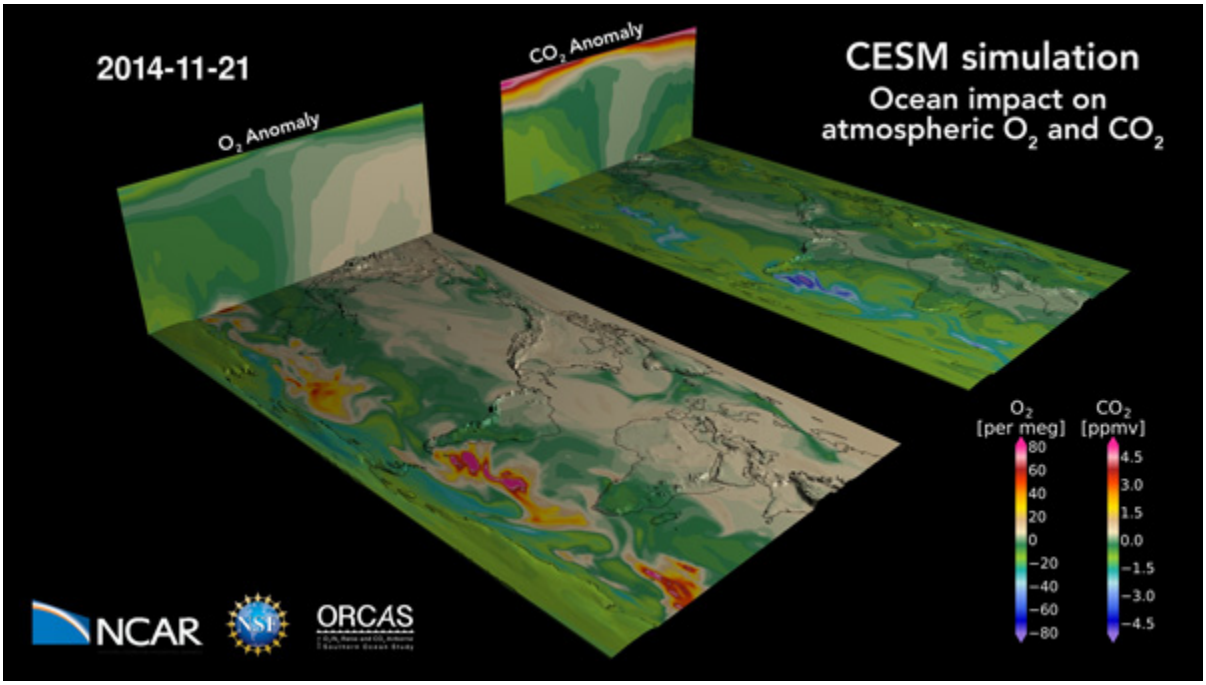
Community models

The models described below are available for use on NCAR computers that CISL manages.



Please contact the NCAR Research Computing help desk if you need assistance.

- Community Earth System Model (CESM) – A fully coupled, global climate model developed at NCAR. CESM (formerly CCSM) provides state-of-the-art computer simulations of the Earth's past, present, and future climate states. The CESM simulation image above is from the CISL Visualization Gallery.
- Weather Research & Forecasting (WRF) model – A next-generation mesoscale, numerical weather-prediction system designed to serve both operational forecasting and atmospheric research needs.
- Whole Atmosphere Community Climate Model (WACCM) – A comprehensive numerical model spanning the range of altitude from the Earth's surface to the thermosphere, developed by a collaboration of NCAR's High Altitude Observatory, Atmospheric Chemistry Observations & Modeling, and Climate and Global Dynamics division.
- Atmospheric chemistry models – NCAR's Atmospheric Chemistry Observations & Modeling builds, critically evaluates, and applies process, regional- and global-scale models that address atmospheric chemistry research questions, with a focus on couplings between different components of the Earth system.
- Thermospheric General Circulation Models (TGCMs) – The High Altitude Observatory (HAO) at NCAR has developed a series of numeric simulation models – such as TIEGCM and TIME-GCM – of the Earth's upper atmosphere, including the upper stratosphere, mesosphere, and thermosphere.
- Data Assimilation Research Testbed (DART) – A community facility for ensemble data assimilation developed and maintained by NCAR's Data Assimilation Research Section (DAReS).