Milestones completed in FY2008

Between October 1, 2007 and September 30, 2008, GFDL completed the milestones listed in the following table. These milestones were submitted to GFDL's Line Office (Oceanic and Atmospheric Research) and the NOAA Programs in which GFDL participates: Climate Research and Modeling (CRM) and the Environmental Modeling Program (MOD). Milestones internal to GFDL are in gray text – all others were used in Program or Line Office Annual Operating Plans.

Milestone	Program	Quarter Due
Deliver the 2nd Draft of CCSP SAP3.2 for public review	CRM	1
Begin simulations with new parameterization of aerosol-cloud interactive radiative and climate effects, and the consequence for quantifying the role of aerosol in 20th century regional climate change	CRM	1
Deliver the Final Draft of CCSP SAP3.2 for public review	CRM	2
Report on reanalysis of observed ocean data using the Coupled Model Ensemble Kalman Filter assimilation technique	CRM	2
Finalize CCSP3.1 on the Uses and Limitations of Climate Models.	CRM	2
Complete 1000 years of perturbation experiments with equilibrium climate model for assessment of climate sensitivity to uncertainties in terrestrial CO2 dynamics	CRM	3
Report on the effects of global warming on Atlantic hurricane season, and on the dynamical mechanisms underlying the trends in hurricane indices in the past 25 years, using regional simulations of Atlantic hurricane season	CRM	3
Complete GFDL contribution to NARCCAP by documenting behavior of 50km time-slice simulations for N. American climate change at 50km resolution	CRM	3
Report on a synthesis of estimates of intercontinental source-receptor relationships for ozone pollution from 21 global chemical transport models (including the GFDL MOZART model) that participated in the model intercomparison organized by the Task Force on Hemispheric Transport of Air Pollution.	CRM	4
Report on interannual variability and long-tern trends of the climate over East Asia and subtropical western North Pacific	CRM	4
Complete 50 year climate simulation using new high resolution coupled model (CM2.4)	MOD	1
Complete initial experimental seasonal hurricane predictions with new global nonhydrostatic model at resolutions from 15 to 30 km as a test of the new unified climate/weather modeling framework	MOD	1
Complete 1000 years of ESM integration of coupled carbon-climate development towards initialization and calculation of heat flux adjustments for equilibrium climate model with dynamic terrestrial biosphere	MOD	2
Complete 100 year climate simulation using a prototype of the CM3 coupled model with advanced physics	MOD	2
Complete coupled model simulations delineating the contributions by the different forcing agents to the 20th century climate change	MOD	2
Begin coupled model simulations involving interactive dust aerosols in the climate system	MOD	2

Milestone	Program	Quarter Due
Develop a realistic 1/8º global ocean model configuration, and run it for 5 years, as a significant step toward developing a prototype global backbone ocean model	MOD	2
Complete retrospective twelve month forecasts using the Coupled Data Assimilation initialization for the period of 1980-2006, for every month, ten member ensembles	MOD	3
Complete simulation of circulation features in the Asian-Australian monsoon region using high-resolution climate models	MOD	3
Begin simulations with full tropospheric and stratospheric chemistry	MOD	3
Begin simulations with new parameterization for bounday layer and low clouds	MOD	3
Complete multi-decadal integration of new high resolution coupled model (CM2.4) on DOE machines	MOD	4
Release infrastructure needed to support AM3, LM3, OM3 and CM3 coupled model	MOD	4
Generalize new FRE as a successful example of Curator model building	MOD	4
Begin high-resolution AM3 simulations to determine the regional radiative forcings	MOD	4
Complete comparison of GOLD-based and MOM-based ocean model solutions in multi-century coupled simulations to guide the selection of the primary ocean component for GFDL's CM3 coupled climate model	MOD	4
Complete initial multi-year tests of high resolution atmospheric models using cubed-sphere hydrostatic code, at 50 and 25 km resolution, using GFDL and DOE computational resources	MOD	4
Complete initial runs of global non-hydrostatic global model at 5-10km resolution using DOE computational resources	MOD	4