

Report to WGOMD of ocean modeling at GFDL Sept2008-May2009
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GFDL aims to contribute four coupled climate models to CMIP5 in support of the IPCC AR5. In brief, these four models consist of the following configurations.

EM2M: This coupled model uses the same atmosphere and sea ice model from the AR4 CM2.1 configuration. The ocean is updated to the MOM4p1 code base with modified physical and numerical settings. In addition, this model employs an interactive ocean, land, and atmosphere biogeochemistry.

EM2G: This coupled model is the same as ESM2M, but uses an isopycnal coordinate ocean model.

CM3: This coupled model uses an ocean and sea ice configuration very close to the CM2.1 model from AR4, but with significantly updated atmospheric dynamics, chemistry, and physics. In particular, this model employs interactive aerosols.

CM2.5: This model uses a 1/4 mercator projection of MOM4p1 coupled to a 1/2 degree atmosphere. The main aim for this model is to contribute to the decadal prediction element of AR5.

Model development for these configurations will continue into late 2009, at which point the CMIP5 experiments will start in full.