

P14 Application of WRF for regional climate modeling at 12-km grid spacing over most of North America

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The U.S. EPA Office of Research and Development is testing the use of external High-Performance Computing (HPC) facilities for the production of very large climate downscaling data sets. A test application of WRF is underway at NASA's National Center for Climate Simulation (NCCS) where GISS Model-E2 outputs are being dynamically downscaled to 12-km resolution using 108/36/12-km grid nesting with feedback. The 12-km domain covers nearly all of North America and surrounding ocean waters and over 500 processors are being used. An analysis of the effect of the 12-km grid and its feedback to the 36-km parent domain will be shown along with results regarding the efficiency of the MPI processing.