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Project E-20-E04

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Project director Russell Armistead

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Title Demonstrate Coupled Modeling Capabilities

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E20-E04
Project Report and
Deliverables Report

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As part of the Los Alamos-funded project, we advanced the multiscale version of the CIT photochemical air quality model, now called URM (Urban-to-Regional Multiscale) including an aerosol dynamics routine for use in simulating particulate matter. In addition, we developed the associated emissions inventory for use by the model. The model and the emissions inventory were delivered (electronically) to Dr. Laurie McNair of Los Alamos during the project. In addition to the code, along with the aerosol module, a number of post- and pre-processing routines were also delivered to Dr. McNair, along with instructions on their use. Those routines included: MAPS (a air quality model performance evaluation program), the URM-to-MAPS processor, emissions interpolation software and URM-to-netCDF processor for use in post processing and visualizing results. Again, these routines and files were delivered electronically (using ftp) to Los Alamos.

These codes are complex, and along with transmitting them to Los Alamos National Laboratory (LANL), Dr. Laurie McNair, was trained in their use. We also developed a nested domain grid for use in modeling of their Mexico domain. Further, we also brought up PAVE, a visualization package, on the LANL system.