CMAQv5.2 Operational Guidance Document

This manual is an operational guidance document for users of the Community Multiscale Air Quality (CMAQ) modeling system, and is designed to support the installation, configuration, and execution of CMAQ on Linux systems. CMAQ users should be comfortable with Linux scripting conventions and have some familiarity with the Fortran programming language. Users should also have some familiarity with atmospheric structure, and the physical and chemical processes that occur in the atmosphere.

The following sections are included in this manual:

Quick Start Guide. Abbreviated description of how to get up and running with CMAQ.

Chapter 1 (Background). CMAQ background, goals, and terminology.

Chapter 2 (Overview). Overview of the CMAQ system and programs.

Chapter 3 (Features). CMAQ features for application users and developers; includes links to new features by version.

Chapter 4 (Science). Explanation of the science used in CMAQ.

Chapter 5 (Installation). CMAQ installation instructions.

Chapter 6 (Libraries). Description of the 3rd party libraries required by CMAQ.

Chapter 7 (Programs). Detailed descriptions of the CMAQ programs.

Chapter 8 (Files). Descriptions of the CMAQ input and output files.

Chapter 9 (Model Configuration). How to specify new modeling grids, vertical layers, and chemical mechanisms in CMAQ.

Chapter 10 (New Simulations). Describes how to set up CMAQ for new simulations.

Chapter 11 (Code Management). Provides CMAQ code management and development guidelines.

Chapter 12 (Analysis). Describes analysis options for CMAQ output.

Chapter 13 (Support). How to get technical support for CMAQ.

Tables and Figures. List of Tables and Figures

Appendix A. Describes the CMAQ Chemical Mechanisms and Species.

Acronyms. List of Acronyms Used in CMAQ OGD

Glossary. List of technical terms and their definitions. ***