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Public Information Statement 24-14
National Weather Service Headquarters Silver Spring MD
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From: Jason Levit, Chief
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Subject: Soliciting Comments on the Removal of Certain Products from the Air Quality Model (AQM) Version 7 through March 28, 2024

The National Weather Service (NWS) is seeking comments until March 28, 2024 on the removal of certain products from the Air Quality Model (AQM) v7.

The Environmental Modeling Center (EMC) at the National Centers for Environmental Prediction (NCEP), in partnership with both the Air Resource Laboratory (ARL) and the Earth System Research Laboratory (ESRL) under NOAA's Oceanic and Atmospheric Research (OAR), is proposing to upgrade the National Air Quality Forecast Capability (NAQFC) to the Air Quality Modeling (AQM) system version 7.0. AQM version 7.0 will be NCEP's first regional air quality prediction system built upon the Unified Forecast System (UFS) to become operational. This system integrates an up-to-date version of NCEP's atmospheric model based on the Finite-Volume Cubed-Sphere Dynamical Core (FV3) and the Common Community Physics Package (CCPP) – and an air quality component generating atmospheric chemistry predictions through the embedded U.S. Environmental Protection Agency (EPA) Community Multiscale Air Quality Model (CMAQ) version 5.2.1. The atmospheric and air quality components are coupled online for a more accurate representation of the impact of meteorology on atmospheric chemistry.

The proposed upgrade will include the following product changes:

- Products on the Lambert Conformal 12km grid (148) will no longer be available. They consist of CONUS files labeled as:

- aqm.t{CC}z.pm25.f{HH}.148.grib2
- aqm.t{CC}z.pm25_bc.f{HH}.148.grib2 where:
CC = 00, 06, 12, 18 Coordinated Universal Time (UTC) cycle;
HH = 01-06 forecast hours for 00 and 18 UTC cycles; HH = 01-72 forecast hours for 06 and 12 UTC cycles

- Hourly averages will no longer be disseminated for UTC cycles 00 and 18:

- aqm.t{CC}z.ave_1hr_{VARB}.227.grib2

- aqm.t{CC}z.ave_1hr_{VARB}_bc.227.grib2 where:

CC = 00, 18 UTC cycle;

VARB = pm2.5 or o3 for fine particulate matter and ozone, respectively

Product files that contain World Meteorological Organization (WMO) headers, on the G227 for CONUS, G196 for HI, and G198 for AK are disseminated through the tgftp site below:

<https://tgftp.nws.noaa.gov/SL.us008001/ST.opnl/DF.gr2/DC.ndgd/GT.aq/>

In preparation for the operational implementation of AQM v7.0, EMC is currently running a real-time parallel. Products including daily maximum 8-hour average surface ozone and 24-hour average surface PM2.5 concentrations and hourly averaged ozone and PM2.5 concentrations up to 72 hours of forecast can be found at:

<https://ftp.emc.ncep.noaa.gov/mmb/aq/for NDGD 5x expr/>

The real-time data will be available at best effort and with variable timing of output availability.

Please submit comments, questions, or requests on the proposed upgrade to:

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For questions regarding dataflow, please contact:

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National Public Information Statements are online at:

<https://www.weather.gov/notification/>

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