National Climatic Data Center

DATA DOCUMENTATION

FOR

DATASET 6438 (DSI-6438)

AIR QUALITY FORECAST GUIDANCE

February 10, 2004

National Climatic Data Center
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1. Abstract:

These files are forecast guidance of one-hour and eight-hour averaged ground-level (surface) ozone concentration. The guidance will be produced twice-a-day, for hourly intervals through midnight on the following day (48 model hours), seven days a week, beginning in the summer 2004, for the northeastern US initially, then gradually will include the entire US by 2009. The data will be provided by the National Oceanic and Atmospheric Administration's National Weather Service (NOAA/NWS) in Silver Spring, Maryland. These data provide ground-level ozone forecast guidance for state and local air quality forecasters, and help the public limit adverse effects from poor air quality. This forecast guidance will help meet a Congressionally directed national air quality forecast capability.

These data will have received a high measure of quality control through computer and manual edits. The user may routinely receive these values via ftp transfer or on magnetic tape, but copies of original manuscript records can be furnished on demand.

2. Element Names and Definitions:

a. Element Names

(1) 1-Hour Averaged Categorical Ozone Concentration

(2) 8-Hour Averaged Categorical Ozone Concentration

(3) 1-Hour Forward Average (parts per billion or ppb)

(4) 8-Hour Forward Average (ppb)

b. Directory and File Naming Structure: Below is the directory and file structure for the model data. Following the directory and file naming structure is the description of the individual elements that adheres to the basic principles described above.

1-Hour Averaged Categorical Ozone Concentration
SL.us008002/ST.expr/MT.cmaq_CY.hh/RD.yyyymmdd/PT.grid_DF.bb/fh.hhhh_tl.o1hac

8-Hour Averaged Categorical Ozone Concentration
SL.us008002/ST.expr/MT.cmaq_CY.hh/RD.yyyymmdd/PT.grid_DF.bb/fh.hhhh_tl.o8hac

1-Hour Forward Average
SL.us008002/ST.expr/MT.cmaq_CY.hh/RD.yyyymmdd/PT.grid_DF.bb/fh.hhhh_tl.o1hfa

8-Hour Forward Average
SL.us008002/ST.expr/MT.cmaq_CY.hh/RD.yyyymmdd/PT.grid_DF.bb/fh.hhhh_tl.o8hfa

c. Element ID and Element Information

SL.us008002 – The "SL" represents the server location. The "us008002" is the element information that identifies the country, U.S, the center (008), RTH Washington, and the sub-center (002), a password protected ftp server.

ST.expr – The "ST" represents the status of files. In this case, the status

is experimental.

MT.cmaq_CY.hh – The element type "MT" is representative of the type of model. The element type "CY.hh" indicates the cycle run, which can be represented in hours. The data is available for the 6Z and 12Z run.

RD.yyyymmdd - This is the indicator for the information element "reference date", which represents the year, month, and day. The data is retained for 48 hours or 2 days then the oldest data set is overwritten with the new incoming dataset. There will always be 2 days worth of data on the server.

PT.grid_DF.bb – The "PT.grid" indicates the product type, in this case, is a gridded product. The "DF.bb" indicates the data format, which in this case is in binary format.

fh.hhhh_tl.tttt – The "fh.hhhh" and the "tl.tttt" indicate the forecast hour and the type of level or layer. The "tl.tttt" element makes the file name in this directory structure unique. In this case, the "tttt" is defined as follows:

ttttt = o1hac ==> 1-hour averaged categorical ozone concentration
ttttt = o8hac ==> 8-hour averaged categorical ozone concentration
ttttt = o1hba ==> 1-hour forward average
ttttt = o8hba ==> 8-hour forward average

3. Start Date: 20040601

4. Stop Date: Ongoing

5. Coverage (for IOC in September 2004)

a. Southernmost Latitude: 32N

b. Northernmost Latitude: 48N

c. Westernmost Longitude: 90W

d. Easternmost Longitude: 69W

The area of coverage will expand south and west to cover the entire CONUS, plus Alaska, and Hawaii, by 2009.

6. How to Order Data

Ask NCDC's Climate Services about costs of obtaining this dataset.

Phone: 828-271-4800
Fax: 828-271-4876
E-mail: **NCDC.Orders@noaa.gov**

7. Archiving Data Center

a. Name: National Climatic Data Center/NCDC
Address: Federal Building
151 Patton Ave.
Asheville, NC 28801-5001
Voice Telephone: 828-271-4800

8. Technical Contact

a. Name: Ms. Sharon Abbas

b. Address: National Weather Service/CIO
1315 East-West Highway
Silver Spring, MD 20910

c. Voice Telephone: 301-713-0864, ext 143
Facsimile Telephone: 301-713-1409
Electronic Mail Address: Sharon.Abbas@noaa.gov

9. Known Uncorrected Problems

There are no known uncorrected data problems.

10. Quality Statement

Disclaimer: While every effort has been made to ensure that these data are accurate and reliable within the limits of the current state of the art, NOAA cannot assume liability for any damages caused by any errors or omissions in the data, nor as a result of the failure of the data to function on a particular system. NOAA makes no warranty, expressed or implied, nor does the distribution of data constitute such a warranty. This dataset has undergone extensive quality checks on all parameters, including range checks and elimination of reporting sites with extensive missing data.

11. Essential Companion Datasets

This dataset does not require a companion dataset.

12. References

a. Davidson, Paula M., Seaman, N., Schere, K. Schere, Wayland, R. A., Hayes, J. L., and Carey, K. F.: National Air Quality Forecasting Capability: First Steps toward Implementation, January 2004, 6th Atmospheric Chemistry Conference, AMS Annual Meeting, Seattle, Washington

b. Ryan, William F., Davidson, P., Stokols, P., and Carey, K.F.: Evaluation of the National Air Quality Forecast System (NAQFS): Summary of the Air Quality Forecasters Focus Group Workshop, January 2004, 6th Atmospheric Chemistry Conference, AMS Annual Meeting, Seattle, Washington

c. McQueen, Jeffery, Lee, P., Tsidulko, M., DiMego, G., Otte, T., Pleim, J., Young J., Seaman, N., and Davidson, P.: Development and Evaluation of the NOAA/EPA Prototype Air Quality Model Prediction System, January 2004, 6th Atmospheric Chemistry Conference, AMS Annual Meeting, Seattle, Washington