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TECHNICAL IMPLEMENTATION NOTICE 07-57
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
11:03 AM EDT MON AUG 20 2007

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...NOAA WEATHER
WIRE SERVICE /NWS/ SUBSCRIBERS...EMERGENCY MANAGERS
WEATHER INFORMATION NETWORK /EMWIN/ SUBSCRIBERS...
NOAAPORT SUBSCRIBERS...OTHER NATIONAL WEATHER SERVICE
/NWS/ PARTNERS AND OTHER USERS...NWS EMPLOYEES

FROM: PAUL HIRSCHBERG
CHIEF...SCIENCE PLANS BRANCH
OFFICE OF SCIENCE AND TECHNOLOGY /OST/

SUBJECT: UPGRADE OF THE NCEP AIR QUALITY FORECAST /CMAQ/ SYSTEM:
EFFECTIVE SEPTEMBER 18 2007

EFFECTIVE TUESDAY SEPTEMBER 18 2007...AT 1200 COORDINATED
UNIVERSAL TIME /UTC/...THE NATIONAL CENTERS FOR ENVIRONMENTAL
PREDICTION /NCEP/ WILL UPGRADE THE CMAQ MODEL RUN IN ITS
OPERATIONAL PRODUCTION SUITE. THIS UPGRADE WILL PROVIDE THE
FOLLOWING CHANGES TO THIS SYSTEM:

- THE OPERATIONAL CMAQ DOMAIN WILL BE EXPANDED TO COVER THE
ENTIRE CONTINENTAL U.S.
- IMPLEMENT THE COMMON NONHYDROSTATIC MESOSCALE MODEL /NMM/
VERTICAL COORDINATE INTO CMAQ
- UPDATE NATIONAL EMISSION INVENTORY FOR CALIFORNIA WITH 2002
ESTIMATES
- UPDATE ALL OTHER POINT... AREA AND MOBILE SOURCE EMISSIONS
USING THE DEPARTMENT OF ENERGY ANNUAL ENERGY OUTLOOK FOR 2007
- IMPLEMENT THE ASYMMETRIC CONVECTIVE MODEL DEEP CONVECTIVE
MIXING INTO CMAQ TO REDUCE INTRUSION OF STRATOSPHERIC AIR
INTO THE TROPOSPHERE FROM DEEP CONVECTION
- IMPLEMENT THE ASYMMETRIC CONVECTIVE MODEL-2 BOUNDARY LAYER
MIXING SCHEME INTO CMAQ
- REMOVE THE USE OF GFS OZONE PREDICTION FOR CMAQ TOP LATERAL
BOUNDARY CONDITIONS /THIS WILL BE REIMPLEMENTED AT A LATER
DATE ONCE THE OVER PREDICTION BIAS CAUSED BY THESE
SPECIFICATIONS IS CORRECTED/

ONCE OPERATIONAL THE OUTPUT FROM THIS ENHANCED PROCESSING WILL BE
AVAILABLE FROM THE NWS...NATIONAL DIGITAL GUIDANCE DATABASE
/NDGD/ SERVER LOCATED AT.../USE LOWER CASE LETTERS EXCEPT FOR
SL...ST...DF...DC AND AR/:

WEATHER.NOAA.GOV/PUB/SL.US008001/ST.OPNL/DF.GR2/DC.NDGD/AR.CONUS/

OUTPUT FROM THE NEW CMAQ MODEL SYSTEM IS CURRENTLY BEING
GENERATED DAILY AT NCEP. THESE DATA CAN BE OBTAINED FROM THE

EXPERIMENTAL NDGD SERVER LOCATED AT.../USE LOWER CASE LETTERS
EXCEPT FOR SL...ST...DF...DC AND AR/:

WEATHER.NOAA.GOV/PUB/SL.US008001/ST.EXPR/DF.GR2/DC.NDGD/AR.CONUS/

MORE INFORMATION ON NCEP MODEL CHANGES CAN BE FOUND AT THE LINK
BELOW.../USE LOWER CASE LETTERS/:

[HTTP://WWW.NCO.NCEP.NOAA.GOV/PMB/CHANGES](http://www.nco.ncep.noaa.gov/pmb/changes)

IF YOU HAVE ANY QUESTIONS...PLEASE CONTACT:

JOE CARR
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CAMP SPRINGS MARYLAND
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THIS NOTICE AND OTHER TECHNICAL IMPLEMENTATION NOTICES ARE
AVAILABLE ONLINE AT /USE LOWER CASE LETTERS/:

[HTTP://WWW.NWS.NOAA.GOV/OM/NOTIF.HTM](http://www.nws.noaa.gov/om/notif.htm)

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