

NOUS41 KWBC 261600
PNSWSH

PUBLIC INFORMATION STATEMENT...TECHNICAL IMPLEMENTATION NOTICE 01-31
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
1100 AM EST TUE NOV 26 2001

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

FROM: PAUL NIPKO
ACTING CHAIR...COMMITTEE ON ANALYSIS AND FORECAST
TECHNIQUE IMPLEMENTATION /CAFTI/

SUBJECT: CHANGES IMPLEMENTED IN THE NATIONAL CENTERS FOR ENVIRONMENTAL
PREDICTION /NCEP/ OPERATIONAL MESO ETA MODEL SYSTEM...EFFECTIVE NOVEMBER
26 2001 AT 1200 UTC

AT 1200 COORDINATED UNIVERSAL TIME /UTC/ NOVEMBER 27 2001...THE FOLLOWING
CHANGES TO THE OPERATIONAL MESO ETA MODEL WILL BE IMPLEMENTED:

- THE RESOLUTION OF THE MESO ETA MODEL IS BEING INCREASED FROM 22 KM / 50
LEVELS TO 12 KM / 60 LEVELS.

- THE ETA 3-DIMENSIONAL VARIATIONAL ANALYSIS /3DVAR/ HAS BEEN MODIFIED TO
ALLOW FOR THE USE OF NOAA-16 RADIANCES AND ADVANCED MICROWAVE SOUNDING
UNIT /AMSU/-B MOISTURE CHANNELS FROM NOAA-15 AND NOAA-16.

- A NEW GRID-SCALE CLOUD MICROPHYSICS SCHEME HAS BEEN PUT INTO THE MESO
ETA MODEL...WHICH ALLOWS FOR HIGHER FORECAST RELATIVE HUMIDITY /DUE TO
HIGHER CONDENSATION THRESHOLD/...REDUCES OVERPREDICTION OF LIGHT
PRECIPITATION AMOUNTS...INCLUDES TURBULENT MIXING OF CONDENSATE /TO REDUCE
LIGHT PRECIPITATION IN THE EASTERN PACIFIC/...IMPROVES UPPER-LEVEL CLOUD
PREDICTION...REDUCES GRID-SCALE PRECIPITATION "BULL-EYES"...IMPROVES
FORECASTS OF PRECIPITATION TYPE...AND ELIMINATES SPURIOUS VERTICAL
VELOCITY FIELDS IN REGIONS OF HEAVY GRID-SCALE PRECIPITATION.

- THE SCHEME WHICH ASSIMILATES HOURLY ANALYSES OF OBSERVED PRECIPITATION
DURING THE ETA DATA ASSIMILATION SYSTEM /EDAS/ RUN HAS BEEN REVAMPED TO
MAKE IT COMPATIBLE WITH THE NEW CLOUD SCHEME.

THIS CHANGE WAS APPROVED AT THE NOVEMBER 7 2001 MEETING OF THE COMMITTEE
ON APPLIED FORECASTING TECHNIQUES AND IMPLEMENTATION. A COPY OF THE
PRESENTATION MADE AT THAT MEETING IS AVAILABLE ONLINE AT /USE LOWER CASE/:

[FTP://FTP.NCEP.NOAA.GOV/PUB/EMC/WD20ER/CAFTI12KM/V3 DOCUMENT.HTM](ftp://ftp.ncep.noaa.gov/pub/emc/wd20er/cafti12km/v3_document.htm)

VERIFICATION STATISTICS FOR THE REAL-TIME PARALLEL TESTS OF THE FULL CHANGE PACKAGE CAN BE FOUND AT /USE LOWER CASE/:

[HTTP://WWW.EMC.NCEP.NOAA.GOV/MB/MBPLL/ETA12STATS.NEWCLOUD/](http://www.emc.ncep.noaa.gov/mb/mbpll/eta12stats.newcloud/)

MORE DETAILS CAN BE FOUND IN NWS TECHNICAL PROCEDURES BULLETIN NUMBER 488 AT /USE LOWER CASE/:

[HTTP://WWW.EMC.NCEP.NOAA.GOV/MB/MBPLL/ETA12TPB/](http://www.emc.ncep.noaa.gov/mb/mbpll/eta12tpb/)

NO CHANGES TO ANY OF THE STANDARD ETA MODEL GRIDS OR PRODUCTS AVAILABLE FROM THE FAMILY OF SERVICES...THE ADVANCED WEATHER INTERACTIVE PROCESSING SYSTEM /AWIPS/ SATELLITE BROADCAST NETWORK OR FROM THE OOS SERVER WILL BE MADE WITH THIS IMPLEMENTATION.

IF YOU HAVE ANY QUESTIONS ABOUT THESE CHANGES TO THE ETA MODEL...PLEASE CONTACT:

ERIC ROGERS
PHONE: 301-763-8000 EXT. 7227
EMAIL: ERIC.ROGERS@NOAA.GOV

OR

GEOFF DIMEGO
PHONE: 301-763-8000 EXT. 7221
EMAIL: GEOFF.DIMEGO@NOAA.GOV

NATIONAL TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE](https://www.weather.gov/notification/archive)

END
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