

NOUS41 KWBC 281520
PNSWSH

Technical Implementation Notice 12-09
National Weather Service Headquarters Washington DC
1020 AM EST Tue FEB 28 2012

To: Subscribers:
-Family of Services
-NOAA Weather Wire Service
-Emergency Managers Weather Information Network
-NOAAPORT
-Other NWS Partners, Users and Employees

From: Tim McClung
Science Plans Branch Chief
Office of Science and Technology

Subject: Addition of Experimental 2.5-km GFS-based
Gridded MOS Guidance for CONUS

Effective immediately, NWS is producing experimental Global Forecast System (GFS)-based gridded MOS guidance for the CONUS at 2.5-km resolution. These products are now available on the NWS FTP server in GRIB2 format. GRIB2 file names for each gridded MOS element are listed in Table 1 below. On a future date to be announced, these products will be disseminated across the Satellite Broadcast Network (SBN) and NOAAPORT.

These gridded MOS products contain guidance on a 2.5 km Lambert Conformal grid covering the same expanse as the National Digital Forecast Database (NDFD) CONUS grid. Grids are being generated from the 0000 and 1200 Universal Coordinated Time (UTC) model runs at projections of 1 to 7 days in advance. Guidance is available for the following elements:

- Daytime Maximum and Nighttime Minimum Temperature
- 2-Meter Temperature
- 2-Meter Dewpoint Temperature
- Relative Humidity
- Wind Direction
- Wind Speed
- Wind Gusts
- Probability of Precipitation /6-h and 12-h/
- Probability of a Thunderstorm /3-, 6-, and 12-h/
- Quantitative Precipitation Amount /6-h and 12-h/
- Total Sky Cover
- 24-h Snowfall Amount

On a date to be announced, NWS will replace the 2.5-km gridded MOS probability of precipitation (PoP) and quantitative precipitation forecasts (QPF) with an enhanced-resolution PoP and QPF product (HRMOS QPF). The improved QPF forecasts are

developed from archived stage IV national mosaic precipitation data and incorporate high resolution topographic and climatological interactive predictors. The following link provides details about the enhanced-resolution PoP and QPF:

<http://www.nws.noaa.gov/mdl/hrqpf/>

A Web page providing more information regarding grid specifications, GRIB2 encoding and elements for which guidance is available is referenced below.

These GRIB2 products are now available in the experimental area of the National Digital Guidance Database (NDGD) on the NWS ftp server. Forecast guidance for days 1 through 3 is available at:

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.mosgfs/AR.conus/VP.001-003/>

Forecast guidance for days 4 through 7 are available at:

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.mosgfs/AR.conus/VP.004-007/>

Table 1: GRIB2 file names for each experimental 2.5-km GFS-based Gridded MOS element

FILE NAME	ELEMENT
ds.sky.bin	Total Sky Cover
ds.wdir.bin	Wind Direction
ds.wspd.bin	Wind Speed
ds.pop12.bin	12-Hour Probability of Precipitation
ds.temp.bin	2-Meter Temperature
ds.td.bin	2-Meter Dew Point Temperature
ds.maxt.bin	Daytime Maximum Temperature
ds.mint.bin	Nighttime Minimum Temperature
ds.qpf06.bin	6-h Quantitative Precipitation Amount
ds.pts06.bin	6-h Probability of a Thunderstorm
ds.rhm.bin	Relative Humidity
ds.snw24.bin	24-h Snowfall Amount
ds.pop06.bin	6-Hour Probability of Precipitation
ds.gpf12.bin	12-h Quantitative Precipitation Amount
ds.wgust.bin	Wind Gusts
ds.pts12.bin	12-h Probability of a Thunderstorm
ds.pts03.bin	3-h Probability of a Thunderstorm

The experimental 2.5 km products are an addition to the gridded MOS suite, not a replacement for the current 5 km gridded MOS guidance. Customers who use the 5 km guidance over the CONUS can

continue to use these products without disruption until all customers and systems are able to use the higher resolution guidance.

A Web page outlining the gridded MOS guidance and the FTP server structure can be found at:

<http://www.nws.noaa.gov/mdl/synop/gmos.php>

For questions regarding the experimental 2.5 km gridded MOS guidance for the CONUS please contact:

Kathryn Gilbert
MDL/Silver Spring, Maryland
301-713-0023, Ext. 130
Kathryn.Gilbert@noaa.gov

Links to the gridded MOS products and descriptions are at:

<http://www.nws.noaa.gov/mdl/synop>

NWS national TINs are online at:

<http://www.weather.gov/os/notif.htm>

\$\$