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Technical Implementation Notice 12-09 Amended National Weather Service Headquarters Washington DC 215 PM EDT Thu Nov 1 2012

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From: Tim McClung

Science Plans Branch Chief

Office of Science and Technology

Subject: Amended: Addition of Experimental 2.5-km GFS-based Gridded MOS Guidance for the CONUS to SBN and NOAAPort: Effective on or about November 15, 2012

Amended to announce dissemination of experimental 2.5-km Global Forecast System (GFS)-based gridded MOS guidance for the CONUS across the Satellite Broadcast Network (SBN) and NOAAPort.

On or about Thursday November 15, 2012, beginning with the 1200 Universal Coordinated Time (UTC) model run, the NWS Meteorological Development Laboratory will disseminate experimental GFS-based 2.5-km gridded MOS guidance for the CONUS across the SBN and NOAAPort. The experimental 2.5-km guidance will continue to be available on the NWS FTP server in GRIB2 format. GRIB2 file names for each gridded MOS element are listed in Table 1 below. New World Meteorological Organization (WMO) communication identifiers for these products are shown in Table 2 below.

These 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 UTC model runs at projections of one to seven 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-hour and 12-hour/
Probability of a Thunderstorm /3-, 6-, and 12-hour/
Quantitative Precipitation Amount /6-hour and 12-hour/
Total Sky Cover
24-hour Snowfall Amount

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

These GRIB2 products are already 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.c
onus/VP.001-003/

Forecast guidance for days four through seven is available at:

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

Table 1: GRIB2 Filenames for Each Experimental 2.5-km GFS-Based Gridded MOS Element:

```
File Name
             Element
_____
              _____
              Total Sky Cover
ds.sky.bin
ds.wdir.bin
             Wind Direction
             Wind Speed
ds.wspd.bin
ds.pop12.bin
              12-Hour Probability of Precipitation
ds.temp.bin
             2-Meter Temperature
              2-Meter Dew Point Temperature
ds.td.bin
ds.maxt.bin
             Daytime Maximum Temperature
             Nighttime Minimum Temperature
ds.mint.bin
ds.qpf06.bin 6-hour Quantitative Precipitation Amount
ds.pts06.bin 6-hour Probability of a Thunderstorm
              Relative Humidity
ds.rhm.bin
ds.snw24.bin
             24-hour Snowfall Amount
ds.pop06.bin 6-Hour Probability of Precipitation
ds.qpf12.bin
              12-hour Quantitative Precipitation Amount
              Wind Gusts
ds.wgust.bin
ds.pts12.bin
              12-hour Probability of a Thunderstorm
              3-hour Probability of a Thunderstorm
ds.pts03.bin
```

Table 2: Communication Identifiers for the Experimental GFS-Based 2.5-km Gridded MOS GRIB2 Products. Each GRIB2 Product has a Unique WMO Header. Listed below are Representations of the WMO Headers for each Element. A complete list of the WMO Headers is available at:

http://www.nws.noaa.gov/mdl/synop/gmos/gmos2p5headers.pdf

WMO Header	Element
YAUXXX KWBQ	Total Sky Cover
YBUXXX KWBQ	Wind Direction
YCUXXX KWBQ	Wind Speed
YDUXXX KWBQ	12-hour Probability of Precipitation
YEUXXX KWBQ	2-Meter Temperature
YFUXXX KWBQ	2-Meter Dew Point Temperature

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YGUXXX KWBQ
              Daytime Maximum Temperature
YHUXXX KWBQ
             Nighttime Minimum Temperature
             6-hour Quantitative Precipitation Amount
YIUXXX KWBQ
YJUXXX KWBQ
             6-hour Probability of a Thunderstorm
YRUXXX KWBQ
             Relative Humidity
YSUXXX KWBQ
             24-hour Snowfall Amount
YUUXXX KWBQ
             6-hour Probability of Precipitation
YVUXXX KWBQ
             12-hour Quantitative Precipitation Amount
             Wind Gusts
YWUXXX KWBQ
YXUXXX KWBQ
              12-hour Probability of a Thunderstorm
YYUXXX KWBQ
              3-hour 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 Webpage 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:

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Links to all MOS products and descriptions are at:

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

National Technical Implementation Notices are online at:

https://www.weather.gov/notification/archive

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