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PNSWSH

Technical Implementation Notice 15-50
National Weather Service Headquarters Washington DC
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To: Subscribers:
 -Family of Services
 -NOAA Weather Wire Service
 -Emergency Managers Weather Information Network
 -NOAAPort
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From: Tim McClung, Portfolio Manager
 Office of Science and Technology Integration

Subject: Implementation of experimental National Blend of Models Guidance
for the CONUS: Effective December 15, 2015

On or about Tuesday, December 15, 2015, beginning with the 1200
Coordinated Universal Time (UTC) model run, the NWS Meteorological
Development Laboratory (MDL) will implement experimental National Blend of
Models (NBM) guidance for the continental U.S. (CONUS). Guidance will
include blends of deterministic and ensemble mean-based model grids for
the following weather elements:

Sky cover (3-hourly)
10-m wind direction (3-hourly)
10-m wind speed (3-hourly)
2-m temperature (3-hourly)
2-m dewpoint temperature (3-hourly)
Daytime maximum temperature
Nighttime minimum temperature
2-m relative humidity (3-hourly)
2-m apparent temperature (3-hourly)
10-m wind gust (3-hourly)

These products will be produced on a 2.5-km Lambert Conformal grid over
the CONUS with dimensions NX=2145 and NY=1597. This change represents an
expansion to the north by 220 grid lengths compared to the current
National Digital Forecast Database (NDFD) CONUS grid to provide coverage
for the entire Northwest River Forecast Center basin. Guidance will be
available for the 0000 and 1200 UTC model cycles for projections from six
hours to 192 hours in advance. These products will be disseminated on the
Satellite Broadcast Network (SBN), NOAAPort and the NWS file transfer
protocol (ftp) server in gridded binary version two (GRIB2) format.

These NBM products for the CONUS will be available in GRIB2 format on or
about Tuesday, December 15, 2015, in the experimental area of the National
Digital Guidance Database (NDGD) on the NWS ftp server at:

<ftp://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.blend/AR.conus/>

This directory will contain subdirectories for each valid period as follows:

```
VP.001/      Day 1
VP.002/      Day 2
VP.003/      Day 3
VP.004/      Day 4
VP.005-007   Days 5-7
VP.008-450   Days 8 and beyond
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Each element-specific GRIB2 file will reside in the appropriate valid period subdirectory and contain a World Meteorological Organization (WMO) superheader and individual headers. A listing of the GRIB2 file names for each element is given in Table 1 below. WMO super headers for the NBM CONUS products are given in Table 2.

Table 1: GRIB2 Filenames for the NBM Elements

These files will reside in the appropriate valid period subdirectory on tgftp.

GRIB2 File Name	Element
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ds.skymean.bin	Sky cover
ds.wdirmean.bin	Wind direction
ds.wspdmean.bin	Wind speed
ds.tempmean.bin	2-m temperature
ds.tdmean.bin	2-m dewpoint temperature
ds.maxtmean.bin	Daytime maximum temperature
ds.mintmean.bin	Nighttime minimum temperature
ds.rhmean.bin	2-m relative humidity
ds.apptmean.bin	2-m apparent temperature
ds.wgustmean.bin	Wind gust

Table 2: WMO Super Headers for each CONUS NBM Element

Listed below are representations of the super headers where ii=98 for day 1, ii=97 for day 2, ii=96 for day 3, ii=95 for day 4, ii=94 for days 5-7, and ii=93 for days 8 and beyond.

WMO Super Header	Element
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LAAZii KWEA	Sky cover
LBAZii KWEA	Wind direction
LCAZii KWEA	Wind speed
LEAZii KWEA	2-m temperature
LFAZii KWEA	2-m dewpoint temperature
LGAZii KWEA	Daytime maximum temperature
LHAZii KWEA	Nighttime minimum temperature
LRAZii KWEA	2-m relative humidity
LTAZii KWEA	2-m apparent temperature
LWAZii KWEA	Wind gust

Beginning approximately one month prior to the implementation date, users may find parallel data for download on the Operational Model Archive and Distribution System (NOMADS) at:

<http://para.nomads.ncep.noaa.gov/pub/data/nccf/noaaport/blend/>

For questions regarding the implementation of NBM guidance for the CONUS, please contact:

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National Technical Implementation Notices are online at:

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

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