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PNSWSH

Technical Implementation Notice 12-28
National Weather Service Headquarters Washington DC
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 -NOAA Weather Wire Service
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 -NOAAPort
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From: Matthew Peroutka
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 Office of Science and Technology

Subject: Implementation of Ensemble Kernel Density Model Output
Statistics: Effective May 29, 2012

Effective on or about Tuesday, May 29, 2012, beginning at 1200 Coordinated Universal Time (UTC), Ensemble Kernel Density Model Output Statistics (EKDMOS) will be implemented on NOAA's Central Computing System. EKDMOS uses output from the North American Ensemble Forecast System (NAEFS) to produce probability distributions of sensible weather elements. The EKDMOS contiguous U.S. (CONUS) (Alaska) products contain guidance on a 2.5 km Lambert Conformal (3.0 km Polar Stereographic) grid. These grids cover the same expanse as the corresponding National Digital Forecast Database (NDFD) grids. Grids will be generated twice daily, based on the 0000 and 1200 UTC runs of the NAEFS. To express the probability distribution, grids will be produced for the ensemble mean and for these 11 non-exceedance probability levels:

.05, .10, .20, .30, .40, .50, .60, .70, .80, .90 and .95

The following surface weather elements and time projections will be available initially:

- 2-m temperature guidance every three hours for days 1 to 8, then every six hours for days 8 to 10 for the ensemble mean and 11 non-exceedance probability levels.
- 2-m dewpoint guidance every three hours for days 1 to 8, then every six hours for days 8 to 10 for the ensemble mean and 11 non-exceedance probability levels.
- Daytime maximum temperature guidance for days 1 to 14 for the ensemble mean and 11 non-exceedance probability levels.
- Nighttime minimum temperature guidance for days 1 to 14 for the ensemble mean and 11 non-exceedance probability levels.

Additional weather elements will be added in the future.

A webpage outlining the EKDMOS products and the NWS server directory and file structure can be found online at:

http://www.mdl.nws.noaa.gov/~naefs_ekdmos

The gridded binary version 2 (GRIB2) products will be provided as part of the National Digital Guidance Database (NDGD). These products will initially be available on the NWS ftp server at:

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

and:

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

On a date to be announced, these products will be disseminated across the Satellite Broadcast Network (SBN) and NOAAPort.

Table 1: Communication Identifiers for the EKDMOS GRIB2 Products for CONUS

WMO Heading	Element
LEXXXX KMDL	2-Meter Temperature
LFXXXX KMDL	2-Meter Dew Point Temperature
LGXXXX KMDL	Daytime Maximum Temperature
LHXXXX KMDL	Nighttime Minimum Temperature

Table 2: Communication Identifiers for the EKDMOS GRIB2 Products for Alaska

WMO Heading	Element
MEXXXX KMDL	2-Meter Temperature
MFXXXX KMDL	2-Meter Dew Point Temperature
MGXXXX KMDL	Daytime Maximum Temperature
MHXXXX KMDL	Nighttime Minimum Temperature

Each GRIB2 element and probability has a unique World Meteorological Organization (WMO) header. The table above lists representations of the WMO headers. A complete list of EKDMOS WMO headers is available at:

http://www.mdl.nws.noaa.gov/~naefs_ekdmos/EKDMOS_WMO_Headers.pdf

A webpage outlining the EKDMOS guidance and the ftp server structure can be found online at:

http://www.mdl.nws.noaa.gov/~naefs_ekdmos/

For questions regarding the new EKDMOS guidance, please contact:

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National Technical Implementation Notices are online at:

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

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