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PNSWSH

Technical Implementation Notice 15-33 Amended  
National Weather Service Headquarters Washington DC  
1240 PM EST Tue Jan 5 2016

To:           Subscribers:  
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              -NOAAPort  
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From:         Tim McClung, Chief Operating Officer  
              NWS Office of Science and Technology Integration

Subject: Amended: Changes to North American Mesoscale Model (NAM)-based  
Model Output Statistics (MOS) Guidance: Effective on Wednesday, January  
13, 2016

Amended to change the implementation date from a date to be determined to  
Wednesday, January 13, 2016.

Updates to the NAM-based MOS guidance by the NWS Meteorological  
Development Laboratory (MDL), which were originally scheduled for Tuesday,  
October 6, 2015, and postponed due to requirements for additional  
evaluation and coordination, are now scheduled to be implemented on or  
about Wednesday, January 13, 2016, beginning with the 1200 Coordinated  
Universal Time (UTC) model run.

The updates will include new equations for forecasts of snowfall amount  
for 6- and 12-hour thunderstorm probability, and for 6- and 12-hour  
probability of severe weather. Implementation of the new equations will  
remove any remaining influence of data collected from the older eta-  
coordinate model on Model Output Statistics (MOS) forecasts for these  
elements. In addition, MDL will introduce new NAM MOS probabilistic and  
categorical guidance for cool-season precipitation type.

Before the implementation date, users may find parallel data for download  
on NOAA's Operational Model Archive and Distribution System (NOMADS) at  
the following link (files will reside in nam\_mos.YYYYMMDD, where YYYYMMDD  
is the year, month, day):

<http://para.nomads.ncep.noaa.gov/pub/data/nccf/com/nam/para/>

The addition of precipitation type will increase the length of the cool-  
season NAM MOS messages by three lines in the body of text for each  
station contained in the MOS alphanumeric (MET) bulletin, and by three  
records for each station in the Binary Universal Form for the  
Representation of meteorological data (BUFR) messages. These added lines  
will contain probabilistic forecasts for the occurrence of freezing  
precipitation and snow (labeled POZ, POS), as well as a categorical  
forecast of the most likely precipitation type (labeled TYP). Due to

changes in reporting frequencies, sufficient data were not available for development of new precipitation type equations at 14 sites currently in the NAM MOS system. Therefore, precipitation type guidance will not be produced and no additional information will appear in the MET and BUFR messages for these sites. These sites are listed in Table 1 below.

NAM MOS messages for Alaskan sites also will contain an additional two lines for the new 6- and 12-hour thunderstorm probability forecasts (labeled T06 and T12) during the convective season, May 1 through September 30; however, since the observed frequency of severe convective weather events over Alaska is quite low, it was not possible to obtain stable statistical relationships for the severe weather probabilities at those sites. Therefore, all Alaska severe weather probability forecasts will be coded as missing (99) at their respective positions within the NAM MOS messages.

Users should take the necessary steps for ingest of this additional information. Following implementation of these changes, the format of the cool-season NAM MOS messages will be identical to those being generated for the companion short-range GFS MOS text (MAV) and BUFR products.

Table 1: Sites for which NAM MOS Precipitation Type Guidance Will Not be Available

ID	Station	Latitude	Longitude
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K3A6	Newhall, CA	34.37N	118.57W
K47A	Cherokee County Airport, GA	34.31N	84.42W
K48I	Sutton/Braxton County Airport, WV	38.69N	80.65W
K4BL	Blanding, UT	37.62N	109.47W
K4HV	Hanksville, UT	38.37N	110.72W
KHMS	Hanford, WA	46.57N	119.60W
KNHZ	Brunswick Naval Air Station, ME	43.89N	69.94W
KPFN	Panama City, FL	30.20N	85.80W
KRZZ	Roanoke Rapids, NC	36.44N	77.71W
KTDO	Toledo, WA	46.48N	122.80W
PADT	Slana Airport, AK	62.70N	143.98W
PALV	Big River Lake, AK	60.82N	152.30W
PASP	Sheep Mountain, AK	61.82N	147.51W
PAWR	Whittier, AK	60.77N	148.68W

The following public weather alphanumeric messages and BUFR products are affected by the above changes:

Table 2: Communication Identifiers for the NAM-based MOS Public Weather Text Products

WMO Heading	AWIPS ID
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FOAK47 KWNO	METAJK
FOAK48 KWNO	METAFC
FOAK49 KWNO	METAFG
FOPA40 KWNO	METPA0
FOUS44 KWNO	METNE1

FOUS45	KWNO	METSE1
FOUS46	KWNO	METNC1
FOUS47	KWNO	METSC1
FOUS48	KWNO	METRM1
FOUS49	KWNO	METWC1

Table 3: Communication Identifiers for the NAM-based MOS BUFR Messages

WMO Heading

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JSML10	KWNO
JSML11	KWNO
JSML12	KWNO
JSML13	KWNO
JSML14	KWNO
JSML15	KWNO
JSML16	KWNO
JSML17	KWNO

For questions regarding the updates to the NAM MOS guidance and associated message changes, please contact:

Mark Antolik  
MDL/Silver Spring, MD  
301-427-9480  
[mark.antolik@noaa.gov](mailto:mark.antolik@noaa.gov)

or

Matthew Peroutka  
MDL/Silver Spring, MD  
301-427-9483  
[matthew.peroutka@noaa.gov](mailto:matthew.peroutka@noaa.gov)

Links to the MOS products and descriptions are online 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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