

NOUS41 KWBC 061405  
PNSWSH

Service Change Notice 17-130  
National Weather Service Headquarters Washington DC  
1005 AM EST Wed Dec 6 2017

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

From:         David Myrick  
              NWS Office of Science and Technology Integration

Subject:      Changes to North American Mesoscale Model  
              (NAM)-based Model Output Statistics (MOS) Guidance,  
              effective on or about January 30, 2018

Effective on or about Tuesday, January 30, 2018, beginning with the 1200 Coordinated Universal Time (UTC) model run, the Meteorological Development Laboratory (MDL) will implement changes to the NAM MOS station-based guidance. These changes will include new cool- and warm-season equations for the following elements contained in the short-range NAM MOS text (MET) and BUFR messages for the 0000 UTC and 1200 UTC cycles:

Ceiling height  
Opaque sky cover (NAM MOS text products only)  
Visibility  
Obstruction to vision  
6-/12-h probability of precipitation  
6-/12-h categorical precipitation amount

These changes are intended to bring the NAM MOS system more in line with recent operational versions of the underlying model. Implementation of the new equations will remove any remaining influence of data collected from the older Eta model on MOS forecasts for these elements. MDL tests suggest users can expect noticeable improvements in forecast skill. Given that the NAM itself is now frozen, we also anticipate this will be the last such set of changes to the operational NAM MOS system.

In addition to the updated equations, we will be changing the set of sites for which NAM MOS guidance messages are produced, due to changes in station reporting habits and data availability that have occurred since the last revision to the NAM MOS guidance. Accordingly, we will unify the set of sites for which text and BUFR forecast messages are generated in the NAM MOS and GFS MOS systems.

Following implementation of these changes, the set of sites for which NAM MOS CONUS (MET) and marine (MME) guidance messages are

available will be identical to that available for the short-range GFS MOS text and BUFR products. A list of sites affected by these changes may be found at the following link:

[https://sats.nws.noaa.gov/~mos/mos/nammos\\_eval/refresh2018/nammos2018.php](https://sats.nws.noaa.gov/~mos/mos/nammos_eval/refresh2018/nammos2018.php)

Given that a substantially greater number of stations are being added to the NAM MOS messages than are being removed, the overall length of the complete NAM MOS text bulletins and BUFR messages will increase somewhat. Users also should be aware that these changes will result in a 5- to 7-minute delay in the dissemination time of NAM MOS products as compared to present norms. This delay is due to increased processing requirements for the revised MOS jobstream and its migration to a new operational computing platform. Users should take the necessary steps for ingest of the expanded station messages and BUFR files and to accommodate the later NAM MOS dissemination times.

Approximately 1 month prior to 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):

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

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

Table 1. Communication identifiers for the NAM-based MOS Public weather text products.

WMO HEADING	AWIPS ID
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
FQPA40 KWNO	MMEHI1
FQUS41 KWNO	MMENE1
FQUS42 KWNO	MMESE1
FQUS43 KWNO	MMEGL1
FQUS44 KWNO	MMEGF1
FQUS45 KWNO	MMENW1
FQUS46 KWNO	MMESW1
FQAK47 KWNO	MMEAK1

Table 2. Communication identifiers for the NAM-based MOS BUFR

messages.

WMO HEADING

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

For questions regarding the new NAM MOS guidance and associated message changes please contact:

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For questions related to data flow, please contact:

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Links to the MOS products and descriptions are online at:

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

NWS National Technical Implementation Notices are online at:

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

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