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PNSWSH

Service Change Notice 17-130 Updated
National Weather Service Headquarters Washington DC
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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: Updated: Changes to North American Mesoscale Model
(NAM)-based Model Output Statistics (MOS) Guidance,
effective on or about January 23, 2018

Updated to change the implementation date from Tuesday,
January 30, 2018, to Tuesday, January 23, 2018 and to correct
the location of available parallel data

Effective on or about Tuesday, January 23, 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

Please note that should the implementation date be declared a
Critical Weather Day (CWD) due to the occurrence or forecast of
significant weather, implementation of these changes will be
delayed until the 1200 UTC model run on the next weekday not
declared a CWD.

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. As such, tests at MDL suggest that
users can anticipate noticeable improvements in forecast skill.
Given that the NAM itself is now frozen, we also anticipate that
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

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 slight delay (about 5 minutes) 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.

As part of NCEP's standard 30-day parallel test, 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/com/nam/para>

Sample NOAPORT/SBN data may be found in real time at:

http://para.nomads.ncep.noaa.gov/pub/data/nccf/noaaport/nam_mos

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 Service Change Notices are online at:

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

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