

NOUS41 KWBC 132045 AAA
PNSWSH

Service Change Notice 17-130 Updated
National Weather Service Headquarters Silver Spring MD
345 PM EST Wed Dec 13 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: 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 Binary Universal Form for the Representation of Meteorological Data
(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-hour probability of precipitation
6-/12-hour 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 five 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 NOAAPort/Satellite Broadcast Network (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:

Mark Antolik
MDL/Silver Spring, MD
301-427-9480
mark.antolik@noaa.gov

or

Jeffrey Craven
MDL/Silver Spring, MD
301-427-9475
jeffrey.craven@noaa.gov

For questions related to data flow, please contact:

Carissa Klemmer
NCEP Central Operations Dataflow Team
301-683-0567
ncep.list.pmb-dataflow@noaa.gov

Links to the MOS products and descriptions are online at:

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

National Service Change Notices are online at:

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

NNNN