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PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 10-20...AMENDED
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
240 PM EDT WED JUN 30 2010

TO: SUBSCRIBERS:
-FAMILY OF SERVICES
-NOAA WEATHER WIRE SERVICE
-EMERGENCY MANAGERS WEATHER INFORMATION NETWORK
-NOAAPORT
-OTHER NWS PARTNERS...USERS AND EMPLOYEES

FROM: TIM MCCLUNG
SCIENCE PLANS BRANCH CHIEF
OFFICE OF SCIENCE AND TECHNOLOGY

SUBJECT: AMENDED: CHANGES TO SHORT-RANGE AND EXTENDED-RANGE
GLOBAL FORECAST SYSTEM /GFS/-BASED MOS BUFR PRODUCTS:
POSTPONED TO AUGUST 3 2010

AMENDED TO POSTPONE EFFECTIVE DATE FOR CHANGES TO GFS-BASED MOS BUFR PRODUCTS
FROM JULY 13 2010 TO AUGUST 3 2010.

ATTENTION USERS OF THE MODEL OUTPUT STATISTICS /MOS/ GUIDANCE:

ON TUESDAY AUGUST 3 2010...BEGINNING WITH THE 1200 COORDINATED UNIVERSAL TIME
/UTC/ RUN...THE NWS METEOROLOGICAL DEVELOPMENT LABORATORY /MDL/ WILL MAKE THE
FOLLOWING CHANGES TO THE SHORT-RANGE /MAV/ AND EXTENDED-RANGE /MEX/ MOS BUFR
PRODUCTS:

1. TOTAL SKY COVER WILL BE REPLACED WITH OPAQUE SKY COVER IN THE MAV BUFR
MESSAGE. THIS CHANGE WAS IMPLEMENTED IN 2007 FOR ALL PUBLIC MOS PRODUCTS EXCEPT
FOR THE BUFR MESSAGES. REFER TO TECHNICAL IMPLEMENTATION NOTICE /TIN/ 07-34
TRANSMITTED ON MAY 8 2007 FOR INFORMATION REGARDING THE REPLACEMENT OF THE GFS-
BASED MOS TOTAL SKY COVER GUIDANCE WITH OPAQUE SKY COVER. THIS CHANGE TO THE MAV
BUFR MESSAGE WILL BE TRANSPARENT TO USERS WITH NO CHANGES TO DESCRIPTORS IN THE
BUFR FILE.

2. FORECASTS FOR PROJECTIONS OUT TO 264 HOURS /DAY 11/ WILL BE ADDED TO THE MEX
MOS BUFR MESSAGE FOR THE FOLLOWING ELEMENTS:

2-METER TEMPERATURE
2-METER DEWPOINT TEMPERATURE
DAYTIME MAXIMUM AND NIGHTTIME MINIMUM TEMPERATURE
WIND SPEED
WIND DIRECTION
PROBABILITY OF PRECIPITATION /12 HOUR/

3. GUIDANCE FOR OPAQUE SKY COVER AND CONDITIONAL PRECIPITATION TYPE WILL BE
ADDED TO THE MEX MOS BUFR MESSAGE FOR PROJECTIONS EVERY 3 HOURS OUT TO 192
HOURS. PREVIOUSLY THE PRECIPITATION TYPE GUIDANCE IN THE MEX BUFR MESSAGE WAS

POPULATED WITH MISSING VALUES. EFFECTIVE ON AUGUST 3 2010...CONDITIONAL PROBABILITIES OF FREEZING...FROZEN AND LIQUID PRECIPITATION TYPES WILL NOW BE AVAILABLE IN THE MEX BUFR MESSAGE OUT TO 192 HOURS. THE ADDITION OF OPAQUE SKY COVER AND PRECIPITATION TYPE WILL REQUIRE CHANGES TO DESCRIPTORS IN THE MEX BUFR FILE. SEE TABLE 1 FOR A LISTING OF THE DESCRIPTORS THAT WILL BE CHANGED.

4. FORECASTS OF 24-H SNOWFALL AMOUNT WILL BE ADDED TO THE MEX BUFR MESSAGE FOR THE 150- AND 162-H PROJECTIONS. THIS CHANGE INCLUDES THE FOLLOWING 24-H SNOWFALL VARIABLES:

- PROB SNOW AMOUNT greater than TRACE
- PROB SNOW AMOUNT greater than= 2 INCHES
- PROB SNOW AMOUNT greater than= 4 INCHES
- PROB SNOW AMOUNT greater than= 6 INCHES
- PROB SNOW AMOUNT greater than= 8 INCHES
- CATEGORICAL SNOWFALL AMOUNT

THE COMMUNICATION IDENTIFIERS AFFECTED BY THE ABOVE CHANGES ARE SHOWN IN TABLE 2. ADDITIONAL DETAILS ABOUT THE UPCOMING CHANGES TO THE GFS-BASED MOS BUFR PRODUCTS ARE AVAILABLE ONLINE AT /USE LOWERCASE/:

[HTTP://WWW.WEATHER.GOV/MDL/SYNOP/BUFR.PHP](http://www.weather.gov/mdl/synop/bufr.php)

TABLE 1. DESCRIPTORS TO BE CHANGED IN THE MEX MOS BUFR MESSAGE.

| ELEMENT | DESCRIPTOR /OLD/ | DESCRIPTOR /NEW/ |
|----------------|---------------------|----------------------|
| PROB OF CLR | 0 60 181 | 0 60 100 |
| PROB OF FEW | 0 60 182 | 0 60 108 |
| PROB OF SCT | 0 60 183 | 0 60 109 |
| PROB OF BKN | 0 60 184 | 0 60 103 |
| PROB OF OVER | 0 60 186 | 0 60 104 |
| CAT SKY COVER | 0 60 192 | 0 20 11 |
| COND PROB FRZ | 0 60 172 | 0 60 20 |
| COND PROB SNOW | 0 60 174 | 0 60 21 |
| COND PROB LIQ | 0 60 176 | 0 60 22 |
| COND PROB IP | 0 60 173 | (REMOVED - OBSOLETE) |
| COND PROB MIX | 0 60 175 | (REMOVED - OBSOLETE) |

TABLE 2. COMMUNICATION IDENTIFIERS FOR THE MAV AND MEX MOS BUFR PRODUCTS THAT ARE AFFECTED BY THE CHANGES.

| WMO HEADING /SHORT RANGE/ | WMO HEADING /EXTENDED RANGE/ | REGION |
|------------------------------|---------------------------------|----------------------|
| JSML30 KWNO | JSMT30 KWNO | PACIFIC REGION |
| JSML31 KWNO | JSMT31 KWNO | NORTHEAST CONUS |
| JSML32 KWNO | JSMT32 KWNO | SOUTHEAST CONUS |
| JSML33 KWNO | JSMT33 KWNO | NORTH CENTRAL CONUS |
| JSML34 KWNO | JSMT34 KWNO | SOUTH CENTRAL CONUS |
| JSML35 KWNO | JSMT35 KWNO | ROCKY MOUNTAIN CONUS |
| JSML36 KWNO | JSMT36 KWNO | WEST COAST CONUS |

JSML37 KWNO JSMT37 KWNO ALASKA
JSML38 KWNO WESTERN PACIFIC ISLANDS

FOR QUESTIONS REGARDING THE CHANGES TO THE GFS-BASED MOS BUFR PRODUCTS...PLEASE CONTACT:

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LINKS TO THE MOS PRODUCTS...ALONG WITH DESCRIPTIONS...CAN BE FOUND AT /USE LOWERCASE/:

[HTTP://WWW.NWS.NOAA.GOV/MDL/SYNOP](http://www.nws.noaa.gov/mdl/synop)

NWS NATIONAL TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT /USE LOWERCASE/:

[HTTP://WWW.WEATHER.GOV/OS/NOTIF.HTM](http://www.weather.gov/os/notif.htm)

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