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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
CHIEF...SCIENCE PLANS BRANCH
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
BINARY UNIVERSAL FORM FOR THE REPRESENTATION OF METEOROLOGICAL DATA /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 THREE 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-HOUR SNOWFALL AMOUNT WILL BE ADDED TO THE MEX BUFR
 MESSAGE FOR THE 150- AND 162-HOUR PROJECTIONS. THIS CHANGE INCLUDES THE
 FOLLOWING 24-HOUR SNOWFALL VARIABLES:

PROBABILITY SNOW AMOUNT GREATER THAN TRACE
 PROBABILITY SNOW AMOUNT GREATER THAN OR EQUAL TO TWO INCHES
 PROBABILITY SNOW AMOUNT GREATER THAN OR EQUAL TO FOUR INCHES
 PROBABILITY SNOW AMOUNT GREATER THAN OR EQUAL TO SIX INCHES
 PROBABILITY SNOW AMOUNT GREATER THAN OR EQUAL TO EIGHT 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 LOWER CASE/:

[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/
PROBABILITY OF CLEAR /CLR/	0 60 181	0 60 100
PROBABILITY OF FEW	0 60 182	0 60 108
PROBABILITY OF SCATTERED /SCT/	0 60 183	0 60 109
PROBABILITY OF BROKEN /BKN/	0 60 184	0 60 103
PROBABILITY OF OVERCAST /OVC/	0 60 186	0 60 104
CATEGORICAL SKY COVER	0 60 192	0 20 11
CONDITIONAL PROBABILITY FROZEN /FRZ/	0 60 172	0 60 20
CONDITIONAL PROBABILITY SNOW	0 60 174	0 60 21
CONDITIONAL PROBABILITY LIQUID /LIQ/	0 60 176	0 60 22
CONDITIONAL PROBABILITY ICE PELLETS /IP/	0 60 173	/REMOVED - OBSOLETE/
CONDITIONAL PROBABILITY MIXED /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
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:

JOSEPH MALONEY
MDL/SILVER SPRING MARYLAND
301-713-0024 EXT. 151
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LINKS TO THE MOS PRODUCTS...ALONG WITH DESCRIPTIONS...CAN BE FOUND AT /USE
LOWER CASE/:

[HTTP://WWW.NWS.NOAA.GOV/MDL/SYNOP](http://WWW.NWS.NOAA.GOV/MDL/SYNOP)

NATIONAL TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE](https://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE)

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