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TECHNICAL IMPLEMENTATION NOTICE 07-42 AMENDED NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC 825 AM EDT FRI AUG 27 2007

- TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS NOAA WEATHER WIRE SERVICE /NWWS/ SUBSCRIBERS EMERGENCY MANAGERS WEATHER INFORMATION NETWORK /EMWIN/ SUBSCRIBERS NOAAPORT SUBSCRIBERS OTHER NWS PARTNERS...USERS AND EMPLOYEES
- FROM: PAUL HIRSCHBERG CHIEF...SCIENCE PLANS BRANCH OFFICE OF SCIENCE AND TECHNOLOGY

SUBJECT: AMENDED: CHANGES TO GFS-BASED MOS AND LAMP PRODUCTS: EFFECTIVE SEPTEMBER 11 2007

AMENDED TO SAY THE 12-HOUR MEAN TOTAL SKY COVER GUIDANCE WILL NOT BE REPLACED.

THE ORIGINAL VERSION OF THIS TECHNICAL IMPLEMENTATION NOTICE /TIN/...TRANSMITTED JUNE 21 2007...STATED THE REPLACEMENT OF THE 12-HOUR MEAN TOTAL SKY COVER GUIDANCE IN THE EXTENDED-RANGE GLOBAL FORECAST SYSTEM /GFS/ MODEL OUTPUT STATISTICS /MOS/ TEXT PRODUCT WITH 12-HOUR MEAN OPAQUE SKY COVER DERIVED FROM THE HOURLY OPAQUE CLOUD GUIDANCE. DURING TESTING...IT WAS DETERMINED THAT THE POST-PROCESSING TECHNIQUE USED TO DERIVE THE 12-HOUR MEAN OPAQUE SKY COVER GUIDANCE PRODUCED LESS SKILLFUL GUIDANCE THAN THE 12-HOUR MEAN TOTAL SKY COVER GUIDANCE CURRENTLY BEING DISSEMINATED. AS A RESULT...WE WILL NOT REPLACE THE EXISTING 12-HOUR SKY COVER GUIDANCE UNTIL SUCH TIME AS A FULL REDEVELOPMENT OF THE GUIDANCE CAN BE DONE. A NEW TIN WILL BE ISSUED WHEN THE REPLACEMENT DOES OCCUR.

EFFECTIVE TUESDAY SEPTEMBER 11 2007...BEGINNING WITH THE 1200 COORDINATED UNIVERSAL TIME /UTC/ CYCLE...THE NWS WILL MAKE TWO CHANGES TO THE GFS-BASED MOS SYSTEM. ONE OF THESE CHANGES IS TO THE GFS-BASED LOCALIZED AVIATION MOS PROGRAM /LAMP/ PRODUCTS.

CHANGE 1:

STATIONS WILL BE ADDED TO THE GFS-BASED MOS VISIBILITY...OBSTRUCTION TO VISION AND PROBABILITY OF PRECIPITATION CHARACTERISTIC GUIDANCE FOR THE 0000...0600...1200 AND 1800 UTC CYCLES. THIS WILL BRING THE NUMBER OF STATIONS WITH GUIDANCE FOR THESE ELEMENTS TO 1593. A LIST OF THE STATIONS AVAILABLE IN THE MOS GUIDANCE IS AVAILABLE AT /USE LOWER CASE/:

HTTP://WWW.NWS.NOAA.GOV/MDL/SYNOP/STADRG.HTML

GFS-LAMP WILL BEGIN PRODUCING VISIBILITY...CONDITIONAL VISIBILITY AND OBSTRUCTION TO VISION GUIDANCE AT THESE STATIONS FOR THE 0000...0600...1200 AND 1800 UTC CYCLES...AND PRECIPITATION CHARACTERISTIC GUIDANCE FOR ALL EIGHT CYCLES. A FULL DESCRIPTION OF THIS CHANGE IS AVAILABLE AT /USE LOWER CASE/:

HTTP://WWW.NWS.NOAA.GOV/MDL/LAMP/GFSLAMP/DOCS/CHANGE NOTICE 06202007.SHTML

THESE CHANGES WILL SLIGHTLY ALTER THE FORMAT OF THE MAV AND LAV TEXT PRODUCTS BECAUSE NEW LINES CONTAINING THIS GUIDANCE WILL BE ADDED TO THE EXISTING BULLETINS TO ACCOMMODATE THESE CHANGES. THE COMMUNICATION IDENTIFIERS FOR THE TEXT AND BINARY UNIVERSAL FORM FOR THE REPRESENTATION OF METEOROLOGICAL DATA /BUFR/ PRODUCTS AFFECTED BY THIS CHANGE ARE SHOWN IN TABLE 1 BELOW.

## CHANGE 2:

THE CLIMATOLOGICAL MAXIMUM AND MINIMUM TEMPERATURE VALUES CURRENTLY INCLUDED IN THE GFS-BASED MOS EXTENDED-RANGE MEX TEXT PRODUCTS WILL BE REPLACED WITH CLIMATOLOGICAL VALUES DERIVED FROM THE GRIDDED PARAMETER-ELEVATION REGRESSIONS ON INDEPENDENT SLOPES MODEL /PRISM/ NORMALS. THIS DATA IS AVAILABLE COURTESY OF A COOPERATIVE VENTURE BETWEEN OREGON STATE UNIVERSITY AND THE UNITED STATES DEPARTMENT OF AGRICULTURE-NATURAL RESOURCES CONSERVATION SERVICE. THE PRISM NORMALS ARE CREATED USING DATA FROM 1971 TO 2000. CLIMATOLOGICAL MAXIMUM AND MINIMUM TEMPERATURES WILL BE AVAILABLE FOR ALL SITES IN THE MEX TEXT PRODUCT THAT ARE LOCATED IN THE CONTIGUOUS UNITED STATES AND ALASKA. THE COMMUNICATION IDENTIFIERS FOR THE MEX TEXT PRODUCTS ARE SHOWN IN TABLE 2 BELOW.

TABLE 1. COMMUNICATION IDENTIFIERS FOR THE GFS-BASED MOS AND LAMP TEXT AND BUFR PRODUCTS AFFECTED BY STATION UPDATES. NOTE THAT THE 69 NEW STATIONS ARE CURRENTLY IN THE BUFR PRODUCTS. THE ONLY CHANGE WILL BE THAT THE GUIDANCE VALUES FOR THE ELEMENTS LISTED ABOVE WILL NO LONGER BE SET TO MISSING.

WMO HEADING

WMO HEADING AWIPS ID MOS TEXT PRODUCTS \_\_\_\_\_ \_\_\_\_ FOUS21 KWNO MAVNE1 FOUS22 KWNO MAVSE1 FOUS23 KWNO MAVNC1 MAVSC1 FOUS24 KWNO FOUS25 KWNO MAVRM1 FOUS26 KWNO MAVWCO MAVAJK FOAK37 KWNO

LAMP TEXT PRODUCT FOUS11 KWNO LAVUSA JSML31 KWNO JSML32 KWNO JSML33 KWNO JSML34 KWNO JSML35 KWNO JSML36 KWNO JSML37 KWNO LAMP BUFR PRODUCTS JSMF11 KWNO JSMF12 KWNO JSMF13 KWNO

MOS BUFR PRODUCTS

JSMF14 KWNO JSMF15 KWNO JSMF16 KWNO JSMF17 KWNO TABLE 2. COMMUNICATION IDENTIFIERS FOR THE GFS-BASED MOS MEX EXTENDED-RANGE PUBLIC WEATHER TEXT PRODUCTS AFFECTED BY THESE CHANGES

WMO HEADING AWIPS ID \_\_\_\_\_ \_\_\_\_\_ FEPA20 KWNO MEXPAO FEUS21 KWNO MEXNE1 FEUS22 KWNO MEXSE1 FEUS23 KWNO MEXNC1 FEUS24 KWNO MEXSC1 FEUS25 KWNO MEXRM1 FEUS26 KWNO MEXWCO FEAK37 KWNO MEXAJK FEAK38 KWNO MEXAFC FEAK39 KWNO MEXAFG

IF YOU HAVE QUESTIONS ABOUT THE MOS GUIDANCE...PLEASE CONTACT:

REBECCA COSGROVE MDL/SILVER SPRING MARYLAND PHONE: 301-713-0023 EXT. 124 EMAIL: REBECCA.COSGROVE@NOAA.GOV

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

HTTP://WWW.NWS.NOAA.GOV/MDL/SYNOP

IF YOU HAVE ANY QUESTIONS ABOUT THE LAMP GUIDANCE...PLEASE CONTACT:

JUDY GHIRARDELLI MDL/SILVER SPRING MARYLAND PHONE: 301-713-0056 EXT. 194 EMAIL: JUDY.GHIRARDELLI@NOAA.GOV

LINKS TO THE GFS-LAMP PRODUCTS...ALONG WITH DESCRIPTIONS...CAN BE FOUND AT /USE LOWER CASE/:

HTTP://WWW.NWS.NOAA.GOV/MDL/LAMP

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

HTTPS://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE

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