

NOUS41 KWBC 121435 AAA  
PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 08-91 AMENDED  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
935 AM EST FRI DEC 12 2008

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

FROM: JASON TUELL  
CHIEF...SCIENCE PLANS BRANCH  
OFFICE OF SCIENCE AND TECHNOLOGY

SUBJECT: AMENDED: UPGRADE TO SHORT RANGE ENSEMBLE MODELING SYSTEM:  
EFFECTIVE JULY 6 2009

AMENDED TO POSTPONE THE EFFECTIVE DATE FROM DECEMBER 9 2008 TO JULY 6 2009  
DUE TO SCRIPT INSTABILITIES THAT DEVELOPED IN THE PARALLEL VERSION OF THE  
SREF. THERE WAS NOT ENOUGH TIME FOR AN ABBREVIATED TEST AND EVALUATION  
PERIOD BEFORE THE START OF THE NCEP MORATORIUM.

EFFECTIVE TUESDAY JULY 6 2009...AT 1500 COORDINATED UNIVERSAL TIME  
/UTC/...THE NATIONAL CENTERS FOR ENVIRONMENTAL PREDICTION /NCEP/ WILL  
UPGRADE THE SHORT RANGE ENSEMBLE MODELING SYSTEM /SREF/.

MODELING SYSTEM CHANGES INCLUDE:

- THREE OF THE FOUR MODELS USED IN THE SREF /NMM...ARW AND RSM/ WILL BE  
UPGRADED IN MODEL VERSION /WRF FROM V2.0 TO V2.2...RSM FROM V2003 TO  
V2008/ AND INCREASED FROM 40/45KM TO 32KM IN HORIZONTAL RESOLUTION. THE  
APPLICATION OF THE PROCEDURE IMPROVES SIGNIFICANTLY THE PERFORMANCE OF  
EACH INDIVIDUAL MEMBER SUCH AS THE REDUCTION OF STRONG COLD BIAS FOR  
LOWER-LEVEL TEMPERATURE IN NMM MEMBERS AND MORE DETAILED SPATIAL  
STRUCTURE. AS A RESULT OF THIS...BETTER BEHAVED PROBABILITIES ARE ALSO  
ACHIEVED BY INCREASING FORECAST SHARPNESS.
- INCREASE OF WRF MEMBERSHIP /NMM FROM THREE TO FIVE...ARW FROM THREE TO  
FIVE/ AND REDUCTION OF ETA MEMBERSHIP /FROM 10 TO SIX...MEMBERS  
N3...N4...P3 AND P4 ARE REMOVED/.
- MORE PHYSICS DIVERSITY BY SWITCHING FROM ZHOU CLOUD SCHEME TO FERRIER  
CLOUD SCHEME IN THREE OUT OF FIVE RSM MEMBERS.
- FORECAST OUTPUT /GRIB/ FREQUENCY WILL INCREASE FROM 3-HOURLY TO HOURLY  
FOR THE FIRST 39 HOURS.
- FOUR NEW AVIATION PRODUCTS WILL BE ADDED TO ENSEMBLE PRODUCTS /MEAN AND  
PROBABILITY/:

ICING  
CLEAR AIR TURBULENCE  
LOW LEVEL CEILING

FLIGHT RESTRICTION

- INDIVIDUAL SREF MEMBERS BINARY UNIVERSAL FORM FOR THE REPRESENTATION OF METEOROLOGICAL DATA /BUFR/ OUTPUT WILL BE BROKEN OUT INTO INDIVIDUAL STATIONS.

PARALLEL DATA SETS FOR THE CURRENT PRODUCTS AND UPGRADED PRODUCTS ARE AVAILABLE ON THE NCEP FILE TRANSFER PROTOCOL /FTP/ SERVER AT THE LINK BELOW. NCEP ENCOURAGES ALL USERS TO EVALUATE THESE DATA SETS TO ENSURE THAT THEIR SYSTEMS ARE PREPARED FOR THE UPCOMING CHANGE /USE LOWER CASE/:

[FTP://FTPFRD.NCEP.NOAA.GOV/PUB/DATA/NCCF/COM/SREF/PARA/SREF.YYYYMMDD/HH](ftp://FTPFRD.NCEP.NOAA.GOV/PUB/DATA/NCCF/COM/SREF/PARA/SREF.YYYYMMDD/HH)

THE ENVIRONMENTAL MODELING CENTER /EMC/ HAS A PUBLICLY AVAILABLE WEBSITE WHICH CAN PROVIDE USERS MORE INFORMATION CONCERNING THE SREF MODELING SYSTEM AS WELL AS ALL OTHER NCEP MODELING SYSTEMS /USE LOWER CASE/:

[HTTP://WWW.EMC.NCEP.NOAA.GOV](http://WWW.EMC.NCEP.NOAA.GOV)

DATA DELIVERY TIMING/VOLUME/CONTENT CHANGES:

NOAAPORT DATA:

- AT THE CURRENT TIME...THE FOLLOWING DOMAINS ARE DISSEMINATED TO NOAAPORT/ADVANCED WEATHER INTERACTIVE PROCESSING SYSTEM /AWIPS/ USERS: CONTIGUOUS U.S. /CONUS/...ALASKA AND EASTERN PACIFIC.

- NO DATA CONTENT CHANGES ARE EXPECTED.
- NO CHANGE IS EXPECTED IN THE CONTENT DELIVERY TIME.
- NO SIGNIFICANT CHANGES IN DATA VOLUMES ARE EXPECTED.
- NO CHANGE IN PRODUCT DESCRIPTION SECTION /PDS/ CONTENT IS EXPECTED.

NWS FTP SERVER /USE LOWER CASE EXCEPT FOR THE SL...ST...MT AND CY. THE HH REFERS TO THE CYCLE: 03...09...15...21. THE YYYYMMDD REFERS TO THE CURRENT DATE/:

[FTP://TGFTP.NWS.NOAA.GOV/SL.US008001/ST.OPNL/MT.SREF CY.YY/RD.YYYYMMDD](ftp://TGFTP.NWS.NOAA.GOV/SL.US008001/ST.OPNL/MT.SREF CY.YY/RD.YYYYMMDD)

- THE CONUS DOMAIN IS CURRENTLY DISSEMINATED.
- NO DATA CONTENT CHANGES ARE EXPECTED.
- NO CHANGE IS EXPECTED IN THE CONTENT DELIVERY TIME.
- NO SIGNIFICANT CHANGES IN DATA VOLUMES ARE EXPECTED.
- NO CHANGE IN PDS CONTENT IS EXPECTED.

NCEP FTP SERVER: /USE LOWER CASE/:

- AT THE CURRENT TIME...THE FOLLOWING DOMAINS ARE DISSEMINATED:

[FTP://FTPFRD.NCEP.NOAA.GOV/PUB/DATA/NCCF/COM/SREF/PROD](ftp://FTPFRD.NCEP.NOAA.GOV/PUB/DATA/NCCF/COM/SREF/PROD)

NCEP FTP SERVER USERS: CONUS...ALASKA...EASTERN PACIFIC AND NWS FTP SERVERS USERS: CONUS:

- NO CHANGE IS EXPECTED IN THE CONTENT DELIVERY TIME.
- NO CHANGE IN PDS CONTENT IS EXPECTED FOR THE CURRENT DATA SETS WHICH ARE DELIVERED.
- NO SIGNIFICANT CHANGES IN DATA VOLUMES ARE EXPECTED FOR THE DATA SETS CURRENTLY DELIVERED.
- NO DIRECTORY STRUCTURE CHANGE IS EXPECTED.
- MEMBERSHIP CHANGE IS EXPECTED: ETA/S N3...P3...N4...P4 FOUR MEMBERS WILL

BE GONE...NMM N2...P2 AND EM N2...P2 FOUR MEMBERS WILL BE ADDED.

NCEP ENCOURAGES USERS TO ENSURE THEIR DECODERS ARE FLEXIBLE AND ARE ABLE TO ADEQUATELY HANDLE CHANGES IN CONTENT ORDER...PARAMETER FIELDS CHANGING ORDER...CHANGES IN THE SCALING FACTOR COMPONENT WITHIN THE PDS OF THE GRIDDED BINARY /GRIB/ FILES AND ANY VOLUME CHANGES THAT MAY BE FORTHCOMING. THESE ELEMENTS MAY CHANGE WITH FUTURE NCEP MODEL IMPLEMENTATIONS. NCEP WILL MAKE EVERY ATTEMPT TO ALERT USERS TO THESE CHANGES BEFORE IMPLEMENTATION.

FOR QUESTIONS REGARDING THE SCIENTIFIC CONTENT OF THE MODELING SYSTEM...PLEASE CONTACT:

GEOFF DIMEGO  
NCEP/EMC  
CAMP SPRINGS MARYLAND  
PHONE: 301-763-8000 X 7221  
EMAIL: [GEOFF.DIMEGO@NOAA.GOV](mailto:GEOFF.DIMEGO@NOAA.GOV)

FOR QUESTIONS REGARDING THE DATAFLOW ASPECTS OF THESE DATA SETS...PLEASE CONTACT THE NCEP/NCO/PMB DATAFLOW HELP DESK EMAIL ADDRESS BELOW /USE LOWER CASE/:

EMAIL: [NCEP.PMB.DATAFLOW@NOAA.GOV](mailto:NCEP.PMB.DATAFLOW@NOAA.GOV)

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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