

NOUS41 KWBC 211130  
PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 07-59  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
730 AM EDT TUE AUG 21 2007

TO: FAMILY OF SERVICES /FOS/ SUBSCRIBERS...NOAA WEATHER  
WIRE SERVICE /NWWS/ SUBSCRIBERS...EMERGENCY MANAGERS  
WEATHER INFORMATION NETWORK /EMWIN/SUBSCRIBERS...  
OTHER NATIONAL WEATHER SERVICE /NWS/ USERS AND  
OTHER PARTNERS...NWS EMPLOYEES

FROM: PAUL HIRSCHBERG  
CHIEF...SCIENCE PLANS BRANCH  
OFFICE OF SCIENCE AND TECHNOLOGY /OST/

SUBJECT: UPGRADE TO NCEP GLOBAL FORECAST SYSTEM /GFS/:  
EFFECTIVE SEPTEMBER 25 2007

EFFECTIVE TUESDAY SEPTEMBER 25 2007...WITH THE 1200 COORDINATED  
UNIVERSAL TIME /UTC/ RUN...THE NATIONAL CENTERS FOR ENVIRONMENTAL  
PREDICTION /NCEP/ WILL UPGRADE THE GFS POST PROCESSOR.

THE PRIMARY EFFORT BEHIND THIS UPGRADE WILL BE TO UNIFY THE POST  
PROCESSING CODE FOR THE NORTH AMERICAN MESOSCALE /NAM/ MODEL AND  
THE GFS INTO THE NEW NCEP POST. AFTER THE UPGRADE...BOTH THE NAM  
AND GFS MODELS WILL BE ABLE TO GENERATE FIELDS ORIGINALLY CREATED  
FOR EACH UNIQUE MODEL.

THE PRIMARY IMPACT TO CUSTOMERS RECEIVING THE GFS WILL BE THAT  
THE DEFAULT PRECIPITATION TYPE ALGORITHM WILL CHANGE FROM THE  
BALDWIN METHOD TO THE DOMINANT PRECIPITATION TYPE. THE DOMINANT  
PRECIPITATION TYPE IS DETERMINED BY TAKING THE PREDICTED  
TEMPERATURE AND MOISTURE PROFILES AND RUNNING THEM THROUGH FIVE  
ALGORITHMS: BALDWIN /NCEP/...REVISED NCEP...RAMER...BOURGOIN  
...AND AN EXPLICIT MICROPHYSICS ALGORITHM. AT EACH POINT...THE  
CODE DETERMINES WHICH PRECIPITATION TYPE WAS PREDICTED BY THE  
MAJORITY OF THE ALGORITHMS AND USES THAT AS THE DOMINANT TYPE.  
TIES ARE BROKEN IN FAVOR OF THE MORE DANGEROUS WEATHER  
/ZR>SN>IP>RA/.

IN ADDITION THE SAME ALGORITHMS WILL BE USED TO DERIVE MOST  
FIELDS FOR THE TWO MODELS.

THE PRODUCTS/GRIDS WHICH ARE DISSEMINATED TO NOAAPORT AND/OR THE  
SATELLITE BROADCAST NETWORK /SBN/ WILL NOT BE CHANGED IN VOLUME  
OR CONTENT.

NCEP CENTRAL OPERATIONS IS CURRENTLY RUNNING A REAL-TIME  
PARALLEL. RESULTS FROM THESE PARALLEL RUNS CAN BE VIEWED AT /USE  
LOWER CASE LETTERS/:

[HTTP://WWW.NCO.NCEP.NOAA.GOV/PMB/NWPARA/ANALYSIS/](http://www.nco.ncep.noaa.gov/pmb/nwpara/analysis/)

IF YOU HAVE ANY QUESTIONS CONCERNING THESE CHANGES...PLEASE  
CONTACT:

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THIS AND OTHER NWS TECHNICAL IMPLEMENTATION NOTICES ARE AVAILABLE  
ONLINE AT /USE LOWER CASE LETTERS/:

[HTTP://WWW.NWS.NOAA.GOV/OM/NOTIF.HTM](http://www.nws.noaa.gov/om/notif.htm)

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