

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 /NWS/ 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: 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...BOURGOVIN 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/:

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

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

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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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