

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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