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PNSWSH

PUBLIC INFORMATION STATEMENT...TECHNICAL IMPLEMENTATION NOTICE 02-12
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
315 PM EDT THU JUL 11 2002

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

FROM: HUA-LU PAN
CHIEF...GLOBAL CLIMATE AND WEATHER MODELING BRANCH
ENVIRONMENTAL MODELING CENTER
NATIONAL CENTERS FOR ENVIRONMENTAL PREDICTION

SUBJECT: CHANGES TO THE HORIZONTAL AND VERTICAL RESOLUTIONS OF THE NCEP
GLOBAL FORECAST SYSTEM...EFFECTIVE AUGUST 13 2002 AT 1200 UTC

NOTE: THE FOLLOWING CHANGES HAVE NO IMPACT ON NOAA WEATHER WIRE
SUBSCRIBERS.

ON AUGUST 13 2002 AT 1200 COORDINATED UNIVERSAL TIME /UTC/...THE NATIONAL
CENTERS FOR ENVIRONMENTAL PREDICTION /NCEP/ WILL CHANGE THE HORIZONTAL AND
VERTICAL RESOLUTIONS OF THE ANALYSIS AND FORECAST SUITES IN ITS GLOBAL
FORECAST SYSTEM /GFS/. THE CHANGE IN RESOLUTION IS THE FINAL STEP IN A
CONSOLIDATION OF GLOBAL MODEL JOBS...WHICH PREVIOUSLY INCLUDED ELIMINATION
OF THE MEDIUM RANGE FORECAST /MRF/ RUN...ON APRIL 24 2002...AND THE
GENERATION OF THE FOUR PER DAY GFS /FORMERLY KNOWN AS THE AVN/ RUNS OUT TO
16 DAYS...ON MARCH 5 2002.

THE GFS WILL INCREASE ITS USE OF SATELLITE DATA...AND WILL CHANGE ITS
CURRENT T170...42-LAYER /T170L42/ RESOLUTION TO T254L64...HORIZONTAL
RESOLUTION CHANGES FROM 75 KM TO 55 KM...VERTICAL RESOLUTION CHANGES
PRIMARILY IN THE STRATOSPHERE...WITH MODEL TOP RAISED FROM 2 HPA to 0.2
HPA.

FORECAST MODEL SUITE...CURRENTLY T170L42 /0-180 HOURS/ AND T62L28 /180-384
HOURS/...WILL BECOME A DOWNWARD CASCADE OF RESOLUTIONS FOR SHORT MEDIUM
AND LONG RANGE FORECASTS...T254L64 /0-84 HOURS/...T170L42 /84-180 HOURS/
AND T126L28 /180-384 HOURS/.

USERS CAN EXPECT TO SEE SLIGHT IMPROVEMENTS IN MOST FORECASTS. THE
TROPICS MAY BE SLIGHTLY MORE NOISY. MODEL BIASES AND OTHER
CHARACTERISTICS WILL REMAIN LARGELY UNCHANGED. IT IS ANTICIPATED THAT THE
HIGHER RESOLUTION DURING THE FIRST 84 HOURS OF THE FORECAST WILL IMPROVE
MODELED DETAILS OF FRONTS...JET STREAMS...PRECIPITATION AND TROPICAL
STORMS...WHILE THE HIGHER RESOLUTION BEYOND 180 HOURS WILL IMPROVE
FORECASTS OF TRANSIENTS...THEREBY IMPROVING PREDICTIONS OF REGIME CHANGES.

THE IMPACT OF THIS CHANGE ON THE NCEP PRODUCTION SCHEDULE WILL BE AS
FOLLOWS:

- GFS 120 HOUR PRODUCTS DELAYED 21 MINUTES
- GFS 384 HOUR PRODUCTS DELAYED 21 MINUTES
- GEOPHYSICAL FLUID DYNAMICS LABORATORY /GFDL/ HURRICANE MODEL DELAYED 21
MINUTES
- WAVE MODEL PRODUCTS DELAYED 19 MINUTES
- AVN MODEL OUTPUT STATISTICS /MOS/ PRODUCTS DELAYED 21 MINUTES
- 1200 UTC GLOBAL ENSEMBLE PRODUCTS DELAYED 28 MINUTES

WHEN THE NEXT CENTRAL COMPUTER SYSTEM BECOMES OPERATIONAL BY THE THIRD
QUARTER /APRIL...MAY AND JUNE/ OF FISCAL YEAR 2003...THE NCEP PRODUCTION
SCHEDULE WOULD RETURN TO ITS CURRENT CONFIGURATION.

IF YOU HAVE ANY QUESTIONS ABOUT THESE CHANGES TO THE NCEP GLOBAL FORECAST
SYSTEM...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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