

NOUS41 KWBC DDHHMM  
PNSWSH

PUBLIC INFORMATION STATEMENT...TECHNICAL INFORMATION 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 /NWWS/ SUBSCRIBERS...EMERGENCY MANAGERS  
WEATHER INFORMATION NETWORK /EMWIN/ SUBSCRIBERS...  
OTHER NATIONAL WEATHER SERVICE /NWS/ CUSTOMERS AND  
PARTNERS...NWS EMPLOYEES

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

SUBJECT: CHANGES TO THE HORIZONTAL AND VERTICAL RESOLUTIONS OF  
THE NCEP GLOBAL FORECAST SYSTEM...EFFECTIVE AUG 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 4 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  
GFDL HURRICANE MODEL DELAYED 21 MINUTES  
WAVE MODEL PRODUCTS DELAYED 19 MINUTES  
AVN 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:

HUA-LU PAN  
PHONE: 301-763-8000 EXT. 7234  
E-MAIL: HUALU.PAN@NOAA.GOV

THIS AND OTHER NWS TECHNICAL IMPLEMENTATION NOTICES ARE AVAILABLE  
ON THE INTERNET AT /USE LOWER CASE/:

[HTTP://WWW.NWS.NOAA.GOV/OM/NOTIF.HTM](http://WWW.NWS.NOAA.GOV/OM/NOTIF.HTM)

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