

NOUS41 KWBC 141325 AAD
PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 07-51...AMENDED
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC
825 AM EST WED NOV 14 2007

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

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

SUBJECT: AMENDED: UPGRADE TO NOAA WAVE WATCH III MODEL IS
DELAYED UNTIL NOVEMBER 27 2007

REFER TO: TECHNICAL IMPLEMENTATION NOTICE /TIN/ 07-51
TRANSMITTED ON AUG 2 2007
AMENDED TIN 07-51 TRANSMITTED ON SEP 17 2007
AMENDED TIN 07-51 TRANSMITTED ON SEP 18 2007
AMENDED TIN 07-51 TRANSMITTED ON SEP 25 2007

AMENDED TO POSTPONE THE IMPLEMENTATION DATE TO NOVEMBER 27 2007.

EFFECTIVE TUESDAY NOVEMBER 27 2007...WITH THE 1200 COORDINATED
UNIVERSAL TIME /UTC/ RUN...THE NATIONAL CENTERS FOR ENVIRONMENTAL
PREDICTION /NCEP/ WILL UPGRADE THE NOAA WAVE WATCH III /NWW3/
MODEL.

EXPECTED DATA DELIVERY TIMING/VOLUME/CONTENT CHANGES:

NOAAPORT DATA:

- AT THE CURRENT TIME...GRIDDED DATA SETS FOR THE FOLLOWING
DOMAINS ARE DISSEMINATED TO NOAAPORT/AWIPS USERS:
GLOBAL...EASTERN NORTH PACIFIC...WESTERN NORTH ATLANTIC/GULF OF
MEXICO...NORTH ATLANTIC HURRICANE...NORTH PACIFIC HURRICANE AND
ALASKA. ALSO BUOY BULLETIN DATA IS DISSEMINATED FOR THE SAME
DOMAINS.
- ALL OF THESE PRODUCTS WILL BE OUTPUT BY THE NEW MODELING
SYSTEM...BUT THE ONLY RESULTANT CHANGE WILL BE IN THE FORECAST
QUALITY DUE TO THE IMPROVED RESOLUTION OF THE MODEL WHICH
PRODUCES THE DATA SET.
- IN THE COOK INLET REGION OF ALASKA...VALID GRID POINT
INFORMATION WILL REPLACE SOME OF THE MISSING VALUES WHICH
CURRENTLY POPULATE GRID POINTS IN THAT REGION.

- NO CHANGE IS EXPECTED IN THE CONTENT DELIVERY TIME.
- NO SIGNIFICANT CHANGES IN DATA VOLUMES ARE EXPECTED.
- NO CHANGE IN PDS CONTENT IS EXPECTED.
- AT SOME FUTURE DATE...ANOTHER NWS TIN WILL BE ISSUED TO ALERT USERS THAT THE HIGHER RESOLUTION DATA WILL BECOME AVAILABLE ON NOAAPORT.

NCEP/NWS FTP SERVERS:

- ALL OF THESE PRODUCTS WILL BE OUTPUT BY THE NEW MODELING SYSTEM...BUT THE ONLY RESULTANT CHANGE WILL BE IN THE FORECAST QUALITY DUE TO THE IMPROVED RESOLUTION OF THE MODEL WHICH PRODUCES THE DATA SET.
- IN THE COOK INLET REGION OF ALASKA...VALID GRID POINT INFORMATION WILL REPLACE SOME OF THE MISSING VALUES WHICH CURRENTLY POPULATE GRID POINTS IN THAT REGION.
- NO CHANGE IS EXPECTED IN THE CONTENT DELIVERY TIME.
- NO SIGNIFICANT CHANGES IN DATA VOLUMES ARE EXPECTED.
- NO CHANGE IN PDS CONTENT IS EXPECTED.
- NEW HIGHER RESOLUTION DATA SETS WILL BECOME AVAILABLE ON THE NCEP FTP SERVER.

NCEP ENCOURAGES ALL USERS TO ENSURE THEIR DECODERS ARE FLEXIBLE AND ARE ABLE TO ADEQUATELY HANDLE CHANGES IN CONTENT ORDER...PARAMETER FIELDS CHANGING ORDER...CHANGES IN THE SCALING FACTOR COMPONENT WITHIN THE PDS OF THE GRIB FILES AND ANY VOLUME CHANGES THAT MAY BE FORTHCOMING. THESE ELEMENTS MAY CHANGE WITH FUTURE NCEP MODEL IMPLEMENTATIONS. NCEP WILL MAKE EVERY ATTEMPT TO ALERT USERS TO THESE CHANGES PRIOR TO ANY IMPLEMENTATIONS.

MODELING SYSTEM CHANGES:

1. A MULTI-GRID GLOBAL MODEL THAT PROVIDES FORECAST PRODUCTS ON SEVERAL DIFFERENT GRIDS. ALL THE GRIDS HAVE INTERNAL TWO-WAY COUPLING AND EXCHANGE INFORMATION DURING THE COMPUTATION CYCLE. THE NEW GRIDS ARE:
 - A. A 30 MINUTE RESOLUTION GLOBAL GRID
 - B. THREE 10 MINUTE RESOLUTION REGIONAL GRIDS COVERING THE UNITED STATES /US/ EAST/WEST COASTS AND EASTERN PACIFIC ISLANDS INCLUDING HAWAII
 - C. AN ALASKA REGIONAL GRID WITH A 15 MINUTE RESOLUTION IN LONGITUDE AND A 10 MINUTE RESOLUTION IN LATITUDE
 - D. TWO 4 MINUTE RESOLUTION COASTAL GRIDS FOR THE US EAST/WEST COASTS. THE US WEST COAST GRID ALSO INCLUDES THE COASTAL WATERS OF THE HAWAIIAN ISLANDS

- E. AN ALASKAN COASTAL GRID WITH A RESOLUTION OF 8 MINUTES IN LONGITUDE AND 4 MINUTES IN LATITUDE
2. FIELD OUTPUT WILL BE AVAILABLE IN GRIB2 FORMAT.
3. THE ENERGY SPECTRUM WILL BE PROPERLY PARTITIONED. THE FOLLOWING ADDITIONAL OUTPUT GRIDS WILL BE AVAILABLE:
 - A. PARTITIONED WAVE HEIGHT DATA FOR WIND SEAS-KPDS ID=102
PRIMARY SWELLS-KPDS ID=105-LEVEL 1
SECONDARY SWELLS-KPDS ID=105-LEVEL 2
 - B. PARTITIONED PEAK PERIOD DATA FOR WIND SEAS-KPDS ID=103
PRIMARY SWELLS-KPDS ID=106-LEVEL 1
SECONDARY SWELLS-KPDS ID=106-LEVEL 2
 - C. PARTITIONED MEAN DIRECTION FOR WIND SEAS-KPDS ID=101
PRIMARY SWELLS-KPDS ID=104-LEVEL 1
SECONDARY SWELLS-KPDS ID=104-LEVEL 2
4. MINOR CHANGES TO THE PHYSICS INCLUDING:
 - A. LINEAR WAVE GROWTH TERM TO IMPROVE INITIAL WAVE GROWTH RESULTS
 - B. A SURF ZONE BREAKING TERM TO PROVIDE MORE REALISTIC ESTIMATES OF WAVE HEIGHT FOR LAND FALLING TROPICAL SYSTEMS
5. THE FORECAST RUN WILL NOW START 9 FORECAST HOURS BEFORE THE ORIGINATING TIME OF THE CYCLE AS OPPOSED TO 6 HOURS BEFORE ALLOWING FOR THREE ADDITIONAL HOURS OF ASSIMILATION. FORECAST OUTPUT CONTINUES OUT TO 180 HOURS.

ON TUESDAY NOVEMBER 27 2007...PARALLEL DATA SETS FOR THE CURRENT PRODUCTS AND NEW HIGHER RESOLUTION PRODUCTS ARE EXPECTED TO BE AVAILABLE ON THE NCEP FTP SERVER AT THE LINK BELOW. NCEP ENCOURAGES ALL USERS TO EVALUATE THESE DATA SETS TO ENSURE THAT THEIR SYSTEMS ARE PREPARED FOR THE UPCOMING CHANGE.

/PLEASE USE LOWERCASE LETTERS/

[FTP://FTPFRD.NCEP.NOAA.GOV/PUB/DATA/NCCF/COM/WAVE/PARA](ftp://ftpprd.ncep.noaa.gov/pub/data/nccf/com/wave/para)

THE ENVIRONMENTAL MODELING CENTER /EMC/ HAS A PUBLICLY AVAILABLE WEB SITE WHICH CAN PROVIDE USERS MORE INFORMATION CONCERNING ALL NCEP MODELING SYSTEMS. /PLEASE USE LOWERCASE LETTERS/

[HTTP://WWW.EMC.NCEP.NOAA.GOV](http://www.emc.ncep.noaa.gov)

SPECIFIC INFORMATION REGARDING THE NEW WAVE MODEL IMPLEMENTATION CAN BE FOUND AT THE LINK BELOW: /PLEASE USE LOWERCASE LETTERS/

[HTTP://POLAR.NCEP.NOAA.GOV/NEW.WAVES/WELCOME.HTML](http://polar.ncep.noaa.gov/new.waves/welcome.html)

FOR QUESTIONS CONCERNING THE SCIENTIFIC CHANGES WITHIN THE MODELING SYSTEM...PLEASE CONTACT:

HENDRIK TOLMAN
NCEP/EMC...CHIEF MARINE MODELING BRANCH
CAMP SPRINGS MARYLAND
PHONE: 301 763 8000 X7253
EMAIL: HENDRIK.TOLMAN@NOAA.GOV

FOR QUESTIONS CONCERNING THE DATAFLOW ASPECTS OF THIS
IMPLEMENTATION...EMAIL THE NCEP/NCO/PMB DATAFLOW HELPDESK: /USE
UPPERCASE LETTERS FOR THE NCEP.PMB.D PORTION OF EMAIL ADDRESS AND
LOWERCASE LETTERS FOR THE REMAINDER/

NCEP.PMB.DATAFLOW@NOAA.GOV

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)

\$\$
NNNN