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TECHNICAL IMPLEMENTATION NOTICE 07-51...AMENDED  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
938 AM EDT THU SEP 27 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/ CUSTOMERS AND  
PARTNERS...NWS EMPLOYEES

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

SUBJECT: AMENDED: UPGRADE TO NOAA WAVEWATCH III MODEL: EFFECTIVE  
NOVEMBER 20 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

THIS TIN HAS BEEN AMENDED A THIRD TIME IN ORDER TO RE-SCHEDULE  
THIS IMPLEMENTATION ON NOVEMBER 20 2007. IT IS EXPECTED THAT  
THERE WILL BE NO CHANGE TO THE DELIVERY TIMES OF ALL PRODUCTS  
ONCE THIS CHANGE BECOMES EFFECTIVE.

EFFECTIVE TUESDAY NOVEMBER 20 2007...WITH THE 1200 COORDINATED  
UNIVERSAL TIME /UTC/ RUN...THE NATIONAL CENTERS FOR ENVIRONMENTAL  
PREDICTION /NCEP/ WILL UPGRADE THE NOAA WAVEWATCH III /NWW3/  
MODEL.

THE FOLLOWING CHANGES BELOW WILL BE INCORPORATED INTO THE NWW3  
MODEL SYSTEM:

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 NINE FORECAST HOURS PRIOR TO THE ORIGINATING TIME OF THE CYCLE AS OPPOSED TO SIX HOURS PRIOR ALLOWING FOR THREE ADDITIONAL HOURS OF ASSIMILATION. FORECAST OUTPUT CONTINUES OUT TO 180 HOURS.

THIS UPGRADED FORECAST SYSTEM WILL BE USED TO REPLACE THE CURRENT GRIDDED OUTPUT OF THE NOAA WAVEWATCH III MODELING SYSTEM. THE FOLLOWING GRIDS...WHICH ARE AVAILABLE ON NOAAPORT...WILL BE IMPACTED BY THE UPGRADE MODELING SYSTEM:

EASTERN NORTH PACIFIC /ENP/  
WESTERN NORTH ATLANTIC /WNA/  
ALASKAN WATERS /AKW/

THE PRODUCTS/GRIDS WHICH ARE DISSEMINATED TO NOAAPORT AND/OR THE SATELLITE BROADCAST NETWORK /SBN/ WILL NOT BE CHANGED IN VOLUME OR CONTENT.

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

HENDRIK TOLMAN  
NCEP/EMC...CHIEF MARINE MODELING BRANCH  
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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)

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