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PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 08-23  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
1210 PM EDT THU MAR 20 2008

TO: SUBSCRIBERS:  
-FAMILY OF SERVICES  
-NOAA WEATHER WIRE SERVICE  
-EMERGENCY MANAGERS WEATHER INFORMATION NETWORK  
-NOAAPORT  
OTHER NWS PARTNERS...USERS AND EMPLOYEES

FROM: JASON TUELL  
CHIEF...SCIENCE PLANS BRANCH  
OFFICE OF SCIENCE AND TECHNOLOGY

SUBJECT: ADDITION OF NOAA WAVEWATCH III MODEL GRIDS TO SBN/NOAAPORT:  
EFFECTIVE APRIL 29 2008

EFFECTIVE TUESDAY APRIL 29 2008...WITH THE 1200 COORDINATED UNIVERSAL TIME /UTC/ RUN...NEW WAVEWATCH III /NWW3/ MODEL GRIDS PRODUCED BY THE NATIONAL CENTERS FOR ENVIRONMENTAL PREDICTION /NCEP/ WILL BE ADDED TO THE NOAAPORT TG2 CHANNEL. THESE NEW GRIDS WILL BE DISSEMINATED IN GRIDDED BINARY VERSION TWO /GRIB2/ FORMAT. THE LEGACY GRIB1 NWW3 GRIDS WILL CONTINUE TO BE AVAILABLE OVER NOAAPORT.

CHARACTERISTICS OF THE NEW GRIB2 GRIDS INCLUDE:

1. 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 /U.S./...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 U.S. EAST/WEST COASTS. THE U.S. WEST COAST GRID ALSO INCLUDES THE COASTAL WATERS OF THE HAWAIIAN ISLANDS.
- E. AN ALASKAN COASTAL GRID WITH A RESOLUTION OF EIGHT MINUTES IN LONGITUDE AND FOUR MINUTES IN LATITUDE.

2. DOMAIN OF THE GLOBAL GRID IS EXTENDED FROM 78 N TO 90 N. FOR NOW...THE DATA IN THE ADDITIONAL GRID POINTS WILL BE MARKED AS UNDEFINED. THE GRID POINTS WILL BE POPULATED WITH DATA IN A LATER NWW3 UPDATE.

3. THE ENERGY SPECTRUM IS NOW PROPERLY PARTITIONED. ASSOCIATED WITH THIS ARE ADDITIONAL OUTPUT FIELDS IN THE GRIB FILES INCLUDING:

- A. PARTITIONED WAVE HEIGHT DATA FOR WIND SEAS...PRIMARY SWELLS AND SECONDARY SWELLS.
- B. PARTITIONED PEAK PERIOD DATA FROM WIND SEAS...PRIMARY SWELLS AND

SECONDARY SWELLS.

C. PARTITIONED MEAN DIRECTION FOR WIND SEAS...PRIMARY SWELLS AND SECONDARY SWELLS.

THESE NEW FIELDS REPLACE THE EARLIER MEAN WAVE PERIOD...MEAN WAVE DIRECTION...PEAK FREQUENCY...PEAK DIRECTION AND WIND SEA PEAK FREQUENCY AND WIND SEA DIRECTION.

4. THE MODEL PHYSICS INCLUDES A LINEAR WAVE GROWTH TERM TO IMPROVE INITIAL WAVE GROWTH RESULTS AND A SURF ZONE BREAKING TERM TO PROVIDE MORE REALISTIC ESTIMATES OF WAVE HEIGHTS FOR LANDFALLING HURRICANES.

5. THE FORECAST INTERVAL FOR 0 TO 72 HOURS WILL BE THREE HOURS. FORECAST INTERVAL FROM 72 TO 180 HOURS WILL BE SIX HOURS.

THERE WILL BE FOUR MODEL DISTRIBUTIONS DAILY CORRESPONDING TO THE 0000...0600...1200 AND 1800 UTC MODEL RUNS. THE TIMING OF THE DELIVERY ON NOAAPORT WILL BE APPROXIMATELY FIVE HOURS AFTER THE FOUR MODEL RUN TIMES.

THE PER CYCLE DATA VOLUME WILL BE APPROXIMATELY 275 MEGABYTES /MB/ OR APPROXIMATELY 1.1 GIGABYTES /GB/ PER DAY.

THE WORLD METEOROLOGICAL ORGANIZATION /WMO/ HEADINGS FOR THESE PRODUCTS WILL BE OF THE FORM:

T1: DATA FORMAT OF GRIB2 /E/  
T2: PARAMETER CODE /ONE OF ABCJKLMNOPYR/  
A1: GRID CODE /ONE OF ABCDEFGH/  
A2: FORECAST TIME /ONE OF ABCDEFGHIJKLMNOPQRSTUVWXYZ/  
II: LAYER OR LEVEL /88/  
CCCC: KWBJ

A COMPLETE DESCRIPTION AND LIST OF WMO HEADINGS IS ONLINE AT /USE LOWER CASE/:

[HTTP://WWW.WEATHER.GOV/OS/NOTIFICATION/RESOURCES/WMO HEADINGS.PDF](http://www.weather.gov/os/notification/resources/wmo_headings.pdf)

FOR QUESTIONS RELATED TO MODEL CHANGES...PLEASE CONTACT:

HENDRIK TOLMAN  
NCEP/EMC...CHIEF...MARINE MODELING BRANCH  
CAMP SPRINGS MARYLAND  
PHONE: 301-763-8000 X 7253  
EMAIL: [HENDRIK.TOLMAN@NOAA.GOV](mailto:HENDRIK.TOLMAN@NOAA.GOV)

FOR QUESTIONS ABOUT NOAAPORT ACTIVATION...PLEASE CONTACT:

JOHN F. KUHN  
NWS OFFICE OF SCIENCE AND TECHNOLOGY  
SILVER SPRING MARYLAND  
PHONE: 301-713-3557 X 184  
EMAIL: [JOHN.F.KUHN@NOAA.GOV](mailto:JOHN.F.KUHN@NOAA.GOV)

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