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PNSWSH

TECHNICAL IMPLEMENTATION NOTICE 08-62  
NATIONAL WEATHER SERVICE HEADQUARTERS WASHINGTON DC  
100 PM EDT WED AUG 6 2008

TO: SUBSCRIBERS:  
-FAMILY OF SERVICES  
-NOAA WEATHER WIRE SERVICE  
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OTHER NWS PARTNERS...USERS AND EMPLOYEES

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

SUBJECT: ADDITION OF GREAT LAKES WAVE MODEL GRIDS TO NOAAPORT:  
EFFECTIVE OCTOBER 21 2008

EFFECTIVE TUESDAY OCTOBER 21 2008...WITH THE 1200 COORDINATED  
UNIVERSAL TIME /UTC/ RUN... THE NATIONAL CENTERS FOR  
ENVIRONMENTAL PREDICTION /NCEP/ WILL ADD A NEW WAVE MODEL FOR THE  
GREAT LAKES TO NOAAPORT. THE GREAT LAKES WAVE MODEL WILL BE BASED  
IN PART ON THE NATIONAL DIGITAL FORECAST DATABASE /NDFD/ WINDS  
AND TEMPERATURES. THIS MODEL IS REFERRED TO AS THE GLWN  
/N INDICATES THE USE OF NDFD WINDS AND TEMPERATURES/.

GLWN WILL USE THE THIRD GENERATION WIND WAVE MODEL WAVEWATCH III  
CURRENTLY USED TO DRIVE THE MULTI GRID GLOBAL WAVE FORECAST  
MODEL. THE GLWN WILL CONSIST OF A SINGLE GRID FOR THE GREAT LAKES  
AT A RESOLUTION OF 3 MINUTES IN LONGITUDE AND 2.1 MINUTES IN  
LATITUDE.

THE GLWN WILL USE THREE HOURLY FORECASTED TEMPERATURES...WIND  
SPEEDS AND DIRECTIONS OUT TO 144 HOURS PRODUCED BY THE WEATHER  
FORECAST OFFICES /WFO/ IN THE GREAT LAKES.

A PARTITIONING ALGORITHM IS USED TO PROPERLY PARTITION THE ENERGY  
SPECTRA. FIELD OUTPUT WILL BE PROVIDED IN GRIB2 FORMAT ON A  
HOURLY TEMPORAL RESOLUTION OUT TO 144 HOURS AND WILL INCLUDE THE  
FOLLOWING FIELDS:

1. WIND SPEED AND DIRECTION
2. WIND VELOCITY /U AND V/
3. SIGNIFICANT WAVE HEIGHT
4. MEAN WAVE DIRECTION
5. PEAK PERIOD
6. PEAK PERIOD...WAVE DIRECTION AND SIGNIFICANT WAVE HEIGHT  
OF PARTITIONED SPECTRA. SPECTRA ARE CURRENTLY  
PARTITIONED INTO A WIND WAVE COMPONENT...A PRIMARY SWELL  
COMPONENT AND A SECONDARY SWELL COMPONENT. MORE  
PARTITIONED FIELD COMPONENTS CAN BE ADDED TO THE OUTPUT

PARAMETERS.

GLWN WILL RUN AT 02...08...14...20 UTC EXCEPT DURING DAYLIGHT SAVING TIME 01...07...13...19 UTC. NOAAPORT DELIVERY TIMING WILL BE APPROXIMATELY 30 MINUTES AFTER THE MODEL RUN TIME.

DATA VOLUME FOR EACH MODEL RUN WILL BE APPROXIMATELY 44 MEGABYTES /MB/ OR APPROXIMATELY 176 MB PER DAY.

THE WMO HEADINGS FOR THESE PRODUCTS WILL IN THE FOLLOWING FORM:

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

A COMPLETE DESCRIPTION AND LIST OF WMO HEADINGS IS ONLINE AT:

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

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

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

OR

JOHN F. KUHN  
NWS OFFICE OF SCIENCE AND TECHNOLOGY  
SILVER SPRING MARYLAND  
PHONE: 301 713 3557 X184  
EMAIL: JOHN.F.KUHN@NOAA.GOV

FOR QUESTIONS ABOUT NOAAPORT ACTIVATION...PLEASE CONTACT:

DAVE NIVER  
NWS OFFICE OF SCIENCE AND TECHNOLOGY  
SILVER SPRING MARYLAND  
PHONE: 301 713 0211 X180  
EMAIL: DAVE.NIVER@NOAA.GOV

NWS TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT:

[HTTP://WWW.WEATHER.GOV/OS/NOTIF.HTM](http://www.weather.gov/os/notif.htm)

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