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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
-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 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 THREE
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
/WFOS/ IN THE GREAT LAKES.

A PARTITIONING ALGORITHM IS USED TO PROPERLY PARTITION THE ENERGY SPECTRA.
FIELD OUTPUT WILL BE PROVIDED IN GRIDDED BINARY VERSION TWO /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 SAVINGS 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 WORLD METEOROLOGICAL ORGANIZATION /WMO/ HEADINGS FOR THESE PRODUCTS WILL IN THE FOLLOWING FORM:

T1: DATA FORMAT OF GRIB2 /E/
T2: PARAMETER CODE /ONE OF ABCJKLMNOPYR/
A1: GRID CODE /I/
A2: FORECAST TIME /ONE OF ABCDEFGHIJKLMNOPQRST/
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/GLWN.PDF](http://www.weather.gov/os/notification/resources/glwn.pdf)

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

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FOR QUESTIONS ABOUT NOAAPORT ACTIVATION...PLEASE CONTACT:

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NATIONAL TECHNICAL IMPLEMENTATION NOTICES ARE ONLINE AT /USE LOWER CASE/:

[HTTPS://WWW.WEATHER.GOV/NOTIFICATION/ARCHIVE](https://www.weather.gov/notification/archive)

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