

NOUS41 KWBC 252052  
PNSWSH

Technical Implementation Notice 15-02  
National Weather Service Headquarters Washington DC  
355 PM EST Wed Jan 28 2015

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From: Tim McClung  
Chief, NWS Science Plans Branch  
Office of Science and Technology

Subject: Updated NDFD-forced late run (GLWN) of the Great Lakes  
Wave Model system (GLW) model grid data will be provided  
over the Satellite Broadcast Network (SBN) and NOAAPORT  
effective April 28, 2015

Effective on or around Tuesday, April 28, 2015, updated GLWN  
model grid data will be added to the SBN and NOAAPORT. The wave  
model grids are being upgraded from a regular rectilinear 4 km  
mesh to a 2.5 km Lambert Conformal grid. The hourly grids will be  
disseminated in GRIB2 format.

The GRIB2 files contain 16 wave model parameters:

WIND Wind Speed  
WDIR Wind Direction  
U GRD U-wind component  
V GRD V-wind component  
HTSGW Total significant wave height  
PERPW Period of Spectral Peak of the Ocean Waves  
DIRPW Direction of Spectral Peak of the Ocean Waves  
WVHGT Height of significant Wind Waves  
WVPER Mean Period of Wind Waves  
WVDIR Mean Direction of Wind Waves  
SWELL Height of significant Swell Waves, Order Seq. Of Data 1  
SWELL Height of significant Swell Waves, Order Seq. Of Data 2  
SWDIR Mean Direction of Swell Waves, Order Seq. Of Data 1  
SWDIR Mean Direction of Swell Waves, Order Seq. Of Data 2  
SWPER Mean Period of Swell Waves, Order Seq. Of Data 1  
SWPER Mean Period of Swell Waves, Order Seq. Of Data 2

The GLW model runs at 03z, 09z, 15z and 21z.

The average total data volume will be approximately 480 MB per  
day, with 120 MB per four cycles.

The WMO Headers for these products are:

EQKA88 KWBJ  
ERKA88 KWBJ  
EAKA88 KWBJ  
EBKA88 KWBJ  
ECKA88 KWBJ  
EJKA88 KWBJ  
EKKA88 KWBJ  
ELKA88 KWBJ  
EMKA88 KWBJ  
ENKA88 KWBJ  
EOKA88 KWBJ  
EOKA88 KWBJ  
EPKA88 KWBJ  
EPKA88 KWBJ  
EYKA88 KWBJ  
EYKA88 KWBJ

WMO Header template will follow: T1 T2 A1 A2 ii cccc

T1 = E

T2 specifies parameter as follows:

Q - Wind Speed

R - Wind Direction

A - U-Wind component

B - V-Wind component

C - Total Significant wave height

J - Period of Spectral Peak of the Ocean Waves

K - Direction of Spectral Peak of the Ocean Waves

L - Height of significant Wind Waves

M - Mean Period of Wind Waves

N - Mean Direction of Wind Waves

O - Height of significant Swell Waves

P - Mean Direction of Swell Waves

Y - Mean Period of Swell Waves

A1 = K (Lambert Conformal - Great Lake Wave Model 2.5 km grid)

A2 specifies the forecast hour as follows: A=00; B=01,02,03;

C=04,05,06; D=07,08,09; E=10,11,12; F=13,14,15; G=16,17,18;

H=19,20,21,22,23; I=24,25,26,27,28,29; J=30,31,32,33,34,35;

K=36,37,38,39,40,41; L=42,43,44,45,46,47;

M=48,49,50,51,52,53,54,55,56,57,58,59;

N=60,61,62,63,64,65,66,67,68,69,70,71; O=72,73,74,75,76,77,78,79

,80,81,82,83; P=84,85,86,87,88,89,90,91,92,93,94,95;

Q=96,97,98,99,100,101,102,103,104,105,106,107,108,109,110,111,112

,113,114,115,116,117,118,119;

R=120,121,122,123,124,125,126,127,128,129,130,131;

S=132,133,134,145,136,137,138,139,140,141,142,143;

T=144,145\*,146\*,147\*

\*indicates new forecast hours

ii = 88 (Land/Water properties at the surface of earth or  
Ocean)

cccc is KWBJ

Sample GLWN products will be available at:

<ftp.ncep.noaa.gov/pub/data1/nccf/com/glw>

Details about the NCEP Wave Models are found online at:

<http://polar.ncep.noaa.gov/waves/index2.shtml>

For additional information regarding GRIB2 files, visit:

<http://www.nco.ncep.noaa.gov/pmb/docs/grib2/>

For questions pertaining to GLWN data, please contact:

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National TINs are online at:

<http://www.weather.gov/os/notif.htm>

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