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PNSWSH

Technical Implementation Notice 15-02
National Weather Service Headquarters Washington DC
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From: Tim McClung
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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 four km mesh to a 2.5 km Lambert Conformal grid. The hourly grids will be disseminated in gridded binary version two (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 03, 09, 15 and 21 UTC.

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

The World Meteorological Organization (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 Technical Implementation Notices are online at:

https://www.weather.gov/notification/archive

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