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PNSWSH

Technical Implementation Notice 15-01 Amended
National Weather Service Headquarters Washington DC
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To: Subscribers:
           -Family of Services
           -NOAA Weather Wire Service
           -Emergency Managers Weather Information Network
           -NOAAPort
           Other NWS Partners, Users and Employees

From: Tim McClung, Portfolio Manager
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Subject: Amended: Nearshore Wave Prediction System (NWPS) Data Will be
Provided over the Satellite Broadcast Network (SBN) and NOAAPort on or
about January 5, 2016, for WFOs MFL and BOX and to the remaining Eastern
and Southern Region Coastal WFOs by February 9, 2016

Amended date of data activation to January 5, 2016, for Weather Forecast
Offices (WFOs) MFL and BOX and to the remaining Eastern Region and
Southern Region coastal WFOs by February 9, 2016.

Effective on or about Tuesday, January 5, 2016, NWPS data will be added to
the SBN and NOAAPort. The NWPS is run two to four times per day or on
demand, depending on the WFO. There are 37 coastal WFOs. Initially, the
NWPS will be available to WFOs Miami (MFL) and Boston (BOX), and then to
the 23 coastal Eastern and Southern Region WFOs in February 2016.

Over the next one to two years, data for the remaining coastal WFOs will
be available. The 3-hourly grids will be disseminated in gridded binary
version two (GRIB2) format. Grid resolutions will be dependent upon
individual coastal WFOs.

The parameters associated with the messages at these resolutions are:

Q - Wind Speed
R - Wind Direction
Z - Current speed
Z - Current direction
Z - Water level
C - Wave Height
D - Water Depth
J - Peak Frequency/Period
K - Peak Direction
Z - Wave Length
O - Wave height of swell waves
O - Partitioned swell wave height
Y - Partitioned swell peak period
P - Partitioned swell mean direction

Data volume will vary, depending on coastal WFO. The average total data volume is approximately 65 MB per cycle, two times per day, for each of the 23 coastal WFOs.

CG grids are described as follows:

CG0 grid - partition output on overall computational domain (low-resolution), for a given WFO
CG1 grid - integral output on overall computational grid, for a given WFO
CG2 grid - integral output on first nested grid, where applicable
CG3 grid - integral output on second nested grid, where applicable
CG4 grid - integral output on third nested grid, where applicable
CG5 grid - integral output on fourth nested grid, where applicable

Note: Each WFO may produce up to five grids. Not all WFOs are producing all five grids for their County Warning Area (CWA).

The sizes of the CG0 grid messages are approximately eight MB per WFO. The total volume (23 coastal WFOs) is 176 MB per cycle, two times per day.

The sizes of the CG1 grid messages are approximately 29 MB per WFO. The total volume is 638 MB per cycle, two times per day.

The sizes of the CG2 grid messages are approximately 24 MB per WFO. The total volume is 528 MB per cycle, two times per day.

The sizes of the CG3 grid messages are approximately three MB per WFO. The total volume is 66 MB per cycle, two times per day.

The sizes of the CG4 grid messages are approximately one MB per WFO. The total volume is 22 per cycle, two times per day.

The sizes of the CG5 grid messages are three MB per WFO. The total volume is 66 MB per cycle, two times per day.

The total volume (23 coastal WFOs) for all resolution files is approximately 1.5 GB per cycle, two times per day.

The following summarizes the generic World Meteorological Organization (WMO) Headers for the NWPS data:

T1T2A1A2iiCCCC, where
T1 = E
T2 specifies the parameters (stated above)
A1 = A for CG0 grid; B for CG1 grid; C for CG2 grid; D for CG3 grid; E for CG4 grid, and F for CG5 grid
A2 specifies forecast hours: A=00, B=03, C=06, D=09, E=12, F=15, G=18, H=21, I=24 and 27, J=30 and 33, K= 36 and 39, L=42 and 45, M=48 and 51, X=54 and 57, N=60 and 63, Y=66 and 69, O=72, 75, 78 and 81, P=84, 87, 90 and 93, Q=96, 99, 102
ii = 88 (specifies surface)
CCCC corresponds to K, appended by the three-letter Advanced Weather Interactive Processing System (AWIPS) code for the generating 23 coastal WFOs:

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BRO - Brownsville, Texas
CRP - Corpus Christi, Texas
HGX - Houston/Galveston, Texas
LCH - Lake Charles, Louisiana
LIX - New Orleans/Baton Rouge, Louisiana
MOB - Mobile/Pensacola, Alabama/Florida
TAE - Tallahassee, Florida
TBW - Tampa Bay, Florida
MFL - Miami-South Florida
KEY - Key West, Florida
MLB - Melbourne, Florida
JAX - Jacksonville, Florida
SJU - San Juan, Puerto Rico
CAR - Caribou, Maine
GYX - Gray/Maine, Maine
BOX - Boston, Massachusetts
OKX - New York, New York
PHI - Mt. Holly, New Jersey
LWX - Baltimore/Washington, Maryland/Virginia
AKQ - Wakefield, Virginia
MHX - Morehead City, North Carolina
ILM - Wilmington, North Carolina
CHS - Charleston, South Carolina
```

Output Data:

In addition to NOAAPort, data will be available through the National
Centers for Environmental Prediction (NCEP) ftp/http services:

http://nomads.ncep.noaa.gov
ftp://ftp.ncep.noaa.gov

On implementation day, there will be directory changes for the following:

/pub/data/nccf/nonoperational/com/nwps/para/ -->
/pub/data/nccf/com/nwps/prod

Parallel data is at the following locations:

NOAAPort/SBN feed:
http://para.nomads.ncep.noaa.gov/pub/data/nccf/noaaport/

NCEP ftp/http:
http://nomads.ncep.noaa.gov/pub/data/nccf/nonoperational/com/nwps/para/

The file format is as follows: For each of the 3-character WFO codes
listed above (in lower case), the GRIB2 files are listed under date
(YYYYMMDD), run cycle (CC) and model domain (CG = CG1, CG2, CG3, CG4, CG5;
or CG0). The run cycle always corresponds to the analysis time of the run
(HH). All output variables pertaining to the run domain are stored in a
single GRIB2 file. Note that since the runs are on demand, not all CC
cycles will be produced during a given YYYYMMDD.

WFO.YYYYMMDD/CC/CG/WFO_nwps_CG_YYYYMMDD_HHMM.grib2

WFO.YYYYMMDD/CC/CG0/WFO_nwps_CG0_Trkng_YYYYMMDD_HHMM.grib2

The NWPS website is located at:

http://polar.ncep.noaa.gov/nwps/

For additional information regarding GRIB2 files, visit:

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

For questions pertaining to NWPS data, please contact:

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National Technical Implementation Notices are online at:

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

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