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PNSWSH

Service Change Notice 18-36
National Weather Service Headquarters Silver Spring MD
735 AM EDT Thu Apr 5 2018

To: Subscribers:
          -NOAA Weather Wire Service
          -Emergency Managers Weather Information Network
          -NOAAPort
          Other NWS Partners, Users and Employees

From: Stephan Smith
          NWS Office of Science and Technology Integration
          Meteorological Development Laboratory

Subject: Probabilistic Tropical Cyclone Storm Surge (P-Surge)
         Model Upgrades: Effective May 7, 2018

Effective on or about May 7, 2018, starting with the 1200
Coordinated Universal Time (UTC) cycle, the National Centers for
Environmental Prediction (NCEP) will upgrade the Probabilistic
Hurricane Storm Surge model (P-Surge) to version 2.7.

P-Surge is based on an ensemble of Sea, Lake, and Overland Surge
from Hurricanes (SLOSH) model runs derived from the National
Hurricane Center (NHC) official advisory along with historical
errors in its track, size, and intensity. P-Surge is run when
hurricane watches and/or warnings are in effect for the Atlantic
and Gulf Coasts of the continental United States and on a case
by case basis for tropical storms.

P-Surge version 2.7 includes the following updates:
- NOAAPort/SBN major WMO header changes
- National Digital Graphic Database Web directory changes
- Removal of some probability of surge + tide products
- New exceedance products
- Updated climatological error statistics

NOAAPort/SBN Changes:

Begin disseminating extended forecast hours from hour 78 to 102
for the CONUS grid over NOAAPORT.

Change every P-Surge WMO header to mimic the Probabilistic
Extra-Tropical Storm Surge (P-ETSS) structure.

A complete list of all new WMO Headers for all products can be
found here:
http://slosh.nws.noaa.gov/psurgeDocs/P-Surge-2.7-Headers.pdf

Web Product Changes:

The NWS National Digital Graphical Database (NDGD)
Web Service -
http://tgftp.nws.noaa.gov/SL.us008001/ST.opnl/DF.gr2/DC.ndgd/
ftp://tgftp.nws.noaa.gov/SL.us008001/ST.opnl/DF.gr2/DC.ndgd/

The NCEP NOMADS Web Service -
http://nomads.ncep.noaa.gov/pub/data/nccf/com/psurge
ftp://ftp.ncep.noaa.gov/pub/data/nccf/com/psurge

1. NWS NDGD directory structure changes
   A. Adding "Cycle" sub-directories
   B. Change directory from "slosh" to "psurge"
NDGD Web Services: /DC.ndgd/GT.psurge/AR.conus/CYC/
Where CYC is the cycle run time

2. Generate new 90% exceedance products
   A. 6 hourly to hour 102, cumulative above ground level
      NDGD File: VD.agl/ds.psurgeexcd90cum.bin
      NCEP File:
psurge.tDATEz.IDYYYY_e90_cum_agl.hFFF.conus_625m.grib2
   B. 6 hourly to hour 102, incremental above ground level
      NDGD File: VD.agl/ds.psurgeexcd90inc.bin
      NCEP File:
psurge.tDATEz.IDYYYY_e90_inc_agl.hFFF.conus_625m.grib2
   C. 1 hourly to hour 102, incremental above NAVD-88 (datum)
      NDGD File: ds.psurgeexcd90inc.bin
      NCEP File:
psurge.tDATEz.IDYYYY_e90_inc_dat.hFFF.conus_625m.grib2
Where DATE is Year, Month, Day, Cycle; where ID is Storm
Identification; where YYYY is year; and where FFF is forecast
hour

3. Discontinue producing probability of surge + tide greater
than 20 feet above NAVD-88 (cumulative grouping)
      Remove NDGD File: ds.psurgeabvPP.bin
      Remove NCEP File:
psurge.tDATEz.IDYYYY_gtPP_cum_dat.hFFF.conus_625m.grib2
Where PP is the respective probability (21, 22, 23, 24, 25) for
0-80 hours and 0-102 hours

4. The output time of the meta file has changed to disseminate
at the end of the operational portion of the P-Surge run,
allowing it to be used as a trigger for downstream applications
by users.
      NDGD File: ds.psurge.txt
      NCEP File: psurge_DATE_IDYYYY.meta

A sample set of parallel data is available on the NCEP server
via the following URL:
http://para.nomads.ncep.noaa.gov

Graphical versions as well as ESRI shape files of the products
will be posted online at:
   http://slosh.nws.noaa.gov/psurge2.0

NCEP urges all users to ensure their decoders can handle changes
in WMO headers and volume changes. These elements may change
with future NCEP model implementations. NCEP will make every
attempt to alert users to these changes before implementation.

Any questions, comments or requests regarding this
implementation should be directed to the contacts below.
We will review any feedback and decide whether to proceed.

For questions regarding this notice, please contact

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For questions regarding the data flow aspects, please contact:

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National Service Change Notices are online at:

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

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