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PNSWSH

Service Change Notice 25-57
National Weather Service Headquarters Silver Spring, MD
1030 AM EST Wed Jul 30, 2025

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

From: Mark Willis
NWS Office of Science and Technology Integration
Meteorological Development Laboratory

Subject: Probabilistic Extra-Tropical Storm Surge (P-ETSS) model upgrade: Effective September 2, 2025

Effective on or about September 2, 2025, starting with the 1200 Coordinated Universal Time (UTC) cycle, the NWS Meteorological Development Laboratory (MDL) will upgrade the Probabilistic Extra-Tropical Storm Surge (P-ETSS) model to version 1.4. In the event that the implementation date is declared a Critical Weather Day (CWD), an Enhanced Caution Event (ECE), or other significant weather is occurring or is anticipated to occur, implementation of this change will take place at 1200 UTC on the next weekday not declared a CWD or ECE and when no significant weather is occurring.

1. MODEL CHANGES

- Add higher resolution computational domains for Seattle, WA and San Francisco, CA to nest within the existing coarse resolution computational domain for the west coast of the contiguous U.S. Output will be on the NDFD CONUS grid, but at 625-m (vs the canonical 2.5 km)
- Add higher resolution computational domains for Puerto Rico and the U.S. Virgin Islands to nest within the coarse resolution computational domain for the U.S. East Coast. Please note that the P-ETSS guidance for Puerto Rico and the U.S. Virgin Islands will not include wave set-up
- Upgrade the computational domain used for Fort Myers, FL to match the one used within the Probabilistic tropical cyclone storm Surge (P-Surge) model
- Improve the computation domain used for Kotzebue, AK. Also remove the erroneous influence of a neighboring basin on the station guidance at Kotzebue
- Utilize 37 tidal constituents from the Eastern North Pacific Advanced Circulation model tidal database from 2015 (ENPAC15) for the West Coast instead of 13 constituents from a global tide model
- Correct a bug which caused an observation from the wrong time to be used in the P-ETSS 6-hour projection guidance.
- Correct a 1-hour shift in the tide calculation at the 74 secondary tidal stations

- Various station changes including (a) correcting the National Weather Service Location Identifier for Naples, FL, (b) adding stations at: Bogue Sound on Emerald Isle, NC; Pamlico River at Washington, NC; Ponce Inlet, FL; and Ft Pierce Inlet, FL, (c) removing four temporary stations in favor of permanent stations at Kwigillingok, AK; Nelson Lagoon, AK; Seavey Island, ME; and Tangier Island, VA, and (d) removing station-based P-ETSS guidance at 12 National Data Buoy Center (NDBC) buoy station locations off the west coast and Gulf of Alaska
- Remove all Extra-Tropical Storm Surge (ETSS) and P-ETSS data in the National Digital Guidance Database. This is following up on SCN 23-80 (July 7, 2023) which stated that "NWS Plans to remove the NDGD/TGFTP data with the next implementation."

2. TIMING CHANGES

The model changes will delay the release of P-ETSS final products by 20 minutes and the release of ETSS final products by 15 minutes.

3. NEW PRODUCTS ON NCEP WEB SERVICES

- ETSS:

a)The gridded products for Puerto Rico areas are being provided as GRIB2 files labeled:
'etss.tCCz.stormtide.pr625m.grib2',
'etss.tCCz.stormsurge.pr625m.grib2',
'etss.tCCz.max.stormtide.pr625m.grib2', where CC is the cycle hour.
b)The station products for Puerto Rico areas are being provided as text bulletins and Standard Hydrometeorological Exchange Format (SHEF) files labeled:
'etss.tCCz.stormtide.prvi.txt',
'etss.tCCz.stormsurge.prvi.txt',
'shef.etss.tCCz.totalwater.prvi', where CC is the cycle hour.
c)The original station products are changing as follows:
'mdlsurge.CCa' -> 'etss.tCCz.mdlsurge.a',
'mdlsurge.CCe' -> 'etss.tCCz.mdlsurge.e',
'mdlsurge.CCg' -> 'etss.tCCz.mdlsurge.g',
'mdlsurge.CCk' -> 'etss.tCCz.mdlsurge.k',
'mdlsurge.CCw' -> 'etss.tCCz.mdlsurge.w',
'mdlsurge.CCz' -> 'etss.tCCz.mdlsurge.z',

- P-ETSS:

a)The gridded products for Puerto Rico areas are being provided as GRIB2 files labeled:
'petss.tCCz.*.pr625m.grib2', where CC is the cycle hour.
b)The station products for the Puerto Rico are being provided as text bulletins and SHEF labeled:
'petss.tCCz.*.prvi.txt',
'shef.petss.tCCz.*.totalwater.prvi', where CC is the cycle

- P-ETSS and ETSS:

a) The area acronyms are changed in the station model specific text files, and bias corrected SHEF files:
petss.tCCz.*.AREA.txt, shef.petss.tCCz.*.totalwater.AREA,
etss.tCCz.*.AREA.txt, shef.etss.tCCz.totalwater.AREA
where AREA changes as follows:
ber -> nwak, goa -> goak, wst -> west, gam -> goam,
est -> east

After this change is implemented, the current P-ETSS and ETSS products will be available here:
https://nomads.ncep.noaa.gov/pub/data/nccf/com/petss/prod/
ftp://ftp.ncep.noaa.gov/data/nccf/com/petss/prod/

As part of the National Centers for Environmental Prediction's (NCEP) standard 30 day parallel testing, the updated products will be available here beginning at least 30 days prior to implementation:
https://nomads.ncep.noaa.gov/pub/data/nccf/com/petss/para/
ftp://ftp.ncep.noaa.gov/data/nccf/com/petss/para/

4. NOAAPORT/SBN CHANGES

At this time, no changes are being made to the data on the NOAAPORT/SBN area for ETSS and P-ETSS.

As part of the NCEP's standard 30 day parallel testing, samples of the WMO headed products will be available here beginning at least 30 days prior to implementation:
https://para.nomads.ncep.noaa.gov/pub/data/nccf/noaaport/petss/
https://para.nomads.ncep.noaa.gov/pub/data/nccf/noaaport/etss/

5. PRODUCTS ON NWS WEB SERVICES

As part of this model upgrade, NWS will remove the NDGD/TGFTP data. Users are strongly encouraged to migrate to the identical data hosted on NOMADS.

The P-ETSS/ETSS data will not be available any longer at the following locations:

https://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.petss/

https://tgftp.nws.noaa.gov/SL.us008001/ST.expr/DF.gr2/DC.ndgd/GT.etss/

A full description of the GRIB2 directory/file structure on TGFTP is available here:

https://www.nco.ncep.noaa.gov/pmb/changes/docs/NDGD-PETSS.pdf

Additionally, some duplicate text data for Alaska is being sent to a specific, non-NDGD, area for ETSS. That data can be found in the following location:

https://tgftp.nws.noaa.gov/SL.us008001/DF.c5/DC.etss/DS.mrpfq/

This data will also be removed as part of this model upgrade, so again, please migrate to the identical data hosted on NOMADS.

NCEP encourages users to ensure their decoders are flexible and are able to adequately handle changes in content order, changes in the scaling factor component within the product definition section (PDS) of the GRIB files, and any volume changes which may be forthcoming. These elements may change with future NCEP model implementations. NCEP will make every attempt to alert users to these changes prior to any implementations.

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

For questions regarding these model changes, please contact:

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For questions regarding the data flow aspects, please contact:

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NWS Service Change Notices are available here:
https://www.weather.gov/notification/

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