

NOUS41 KWBC 262120  
PNSWSH

Service Change Notice 23-94  
National Weather Service Headquarters Silver Spring MD  
520 PM EDT Tue Sep 26 2023

To:           Subscribers:  
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From:         Judy Ghirardelli  
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              Meteorological Development Laboratory

Subject: Probabilistic Extra-Tropical Storm Surge (P-ETSS) Model Station  
Post-processing Updates: Effective September 27, 2023

Effective on or about September 27, 2023, starting with the 1200 Coordinated Universal Time (UTC) cycle, the NWS Meteorological Development Laboratory (MDL) will implement an update to the Probabilistic Extra-Tropical Storm Surge (P-ETSS) model station post-processing. As described below, this will:

- Correct a Standard Hydrometeorological Exchange Format (SHEF) encoding error that intermittently impacted a minority of stations for a subset of the SHEF products,
- Correct a bug that caused the station plot for Red Dog Dock, AK to be missing,
- Adjust the vertical datums for Tununak, AK, and
- Correct the storm surge guidance grid cell chosen for Naknek, AK.

In the event that the implementation date is declared a Critical Weather Day (CWD) or significant weather is occurring or is anticipated to occur, implementation of this change will occur at 1200 UTC on the next weekday not declared a CWD and when no significant weather is occurring.

#### 1. Model Changes

When the Fast Fourier Transform post-processing step is activated at a station, a bug in the P-ETSS post-processing system corrupts the 10% and 90% SHEF messages for that station. This model update will remove that bug.

The post-processing stage which generates station plots for <https://slosh.nws.noaa.gov/petss> inadvertently skipped generating a plot for Red Dog Dock, AK. This update will correct that mistake and create a plot there.

The vertical datums at Tununak, AK have been corrected to better reflect the station.

The storm surge grid cell associated with Naknek, AK was moved closer to the mouth of the river to better reflect the anticipated storm surge at Naknek.

## 2. Timing Changes

None.

## 3. New Products on NCEP WEB Services

None.

## 4. NOAAPort/Satellite Broadcast Network (SBN) Changes

None.

## 5. Products on NWS WEB Services

There are no changes to the data locations, formats or naming conventions. The only changes will be the removal of corrupted SHEF messages for the 10% and 90% exceedances, and in the values stored in the station SHEF messages and comma-separated values (CSV) files associated with Tununak, AK.

As a reminder:

At this time, no changes are being made to the data on the NWS website (TGFTP) in the NWS National Digital Gridded Database (NDGD) area for ETSS and P-ETSS. NWS plans to remove the NDGD/TGFTP data with the next implementation (tentatively planned for 2024). Users are strongly encouraged to migrate to the identical data hosted on the NOAA Operational Model Archive and Distribution System (NOMADS).

Preferred NOMADS location:

<https://nomads.ncep.noaa.gov/pub/data/nccf/com/petss/prod/>

Output (until 2024) will be available 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 Gridded Binary version two (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.mrpfg/>

This data will also be removed with the next major implementation, 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 implementation 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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National Service Change Notices are online at:

<https://www.weather.gov/notification/>

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