

NOUS41 KWBC 171500
PNSWSH

Public Information Statement 26-32
National Weather Service Headquarters Silver Spring MD
1100 AM EDT Fri Apr 17 2026

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

From: Mark Willis
 Chief, Weather Information Applications Division
 Meteorological Development Laboratory
 NWS Office of Science and Technology Integration

Subject: Soliciting Comments on Proposed Changes to the Probabilistic
Extra-Tropical Storm Surge (P-ETSS) Model through May 17, 2026

The NWS Meteorological Development Laboratory (MDL) is proposing to upgrade the Probabilistic Extra-Tropical Storm Surge (P-ETSS) model for the 2026-2027 winter season. NWS is seeking comments on the proposed changes through May 17, 2026. If approved, a Service Change Notice (SCN) will be issued at least 30 days prior to the implementation of these changes with more detailed information.

The proposed changes to P-ETSS include:

A. Replace five (5) computational domains for south FL covering from Cape Canaveral to Fort Myers with two (2) higher resolution computational domains. This will improve the spatial resolution, improve the timeliness of the underlying bathymetry and topography, and be consistent with the basins used within the Probabilistic tropical storm Surge (P-Surge) model.

B. Upgrade the computational domain used for Puerto Rico. The current domain, built in 2010, has a spatial resolution of approximately 1.5 km near the coastline of San Juan. The newer domain, built in 2025, has a spatial resolution of about 650 m near the coastline of San Juan.

C. Enhance the P-ETSS methodology used to estimate the spread of the 10 to 90% uncertainty range at stations. This will be done by adding the absolute value of the two (2) day average anomaly (Observation - Surge - Tide) to the 10% exceedance level while also subtracting it from the 90% exceedance level. The intent is to expand the range so it better represents the uncertainty.

D. Develop an initial blended storm surge capability. The method used for v1.5 will be to average model results derived from using (a) the Global Forecast System (GFS), (b) the control member of the Global Ensemble Forecast System (GEFS), and (c) the control member of Canada's

Global Ensemble Prediction System (GEPS) as forcing for the P-ETSS hydrodynamic model.

E. Provide Standard Hydrometeorological Exchange Format (SHEF) output above Mean Higher High Water (MHHW) in addition to the current SHEF data in Mean Lower Low Water (MLLW). Amongst other benefits, this will support the Alaska Region with their messaging efforts.

F. Discontinue P-ETSS gridded output on 2.5 km Contiguous United States (CONUS) grids, since the same data is provided on higher resolution 625 m CONUS grids.

G. Disseminate Puerto Rico and U.S. Virgin Islands gridded (via Gridded Binary - GRIB2) and station (via SHEF) products over the Satellite Broadcast Network (SBN). We currently generate GRIB2 products for that region, but they are only available via NOAA's Operational Model Archive and Distribution System (NOMADS).

H. Various station changes which at the time of this PNS include: (a) adding one (1) station for Puerto Rico and the U.S. Virgin Islands and one (1) station for Alaska, (b) adding SHEF support for fifteen (15) stations for Puerto Rico and the U.S. Virgin Islands and nine (9) stations for Alaska, (c) improving the tidal constituents for fourteen (14) stations, and (d) updating the datum information for ten (10) stations. Additionally a number of stations with observations are being added along the east coast, with the exact number in flux.

I. Discontinue P-ETSS' GFS forced storm surge model (aka Extra-Tropical Storm Surge (ETSS)) results at stations provided in a model-specific text format. Those files, containing storm surge only guidance, have been superseded by SHEF formatted files which contain either storm surge + tide + anomaly (i.e., bias adjustment) guidance when observations are available, or storm surge + tide guidance. Storm surge only guidance is available within the comma-separated value (CSV) files which are posted to NOMADS.

The expected benefits of this upgrade include:

- A. Improved model guidance in South FL and Puerto Rico,
- B. Improved uncertainty coverage at stations,
- C. Experimental best guess guidance,
- D. SHEF encoded station guidance above MHHW,
- E. Support for Puerto Rico and the US Virgin Islands guidance over the SBN, and
- F. Improved model guidance at various stations.

For additional details on the expected benefits of this upgrade, please see the user evaluation slides here:

https://vlab.noaa.gov/documents/6609493/7858383/P-ETSS_v1_5_DraftScienceBriefing.pdf/1f35d712-d931-a0c2-d344-dfe4a314bd50?t=1776352583095

For visualization of the upgraded guidance, see:

- P-ETSS (NAEFS): <https://slosh.nws.noaa.gov/para/petss/>
- P-ETSS (GEFS): https://slosh.nws.noaa.gov/para/petss_gefs/

P-ETSS (GFS): <https://slosh.nws.noaa.gov/para/etss/>

For providing comments on the proposal, please use the feedback form which can be accessed via this link:

<https://forms.gle/my3EFpMvDvsSMQzY8>

Alternatively, you can provide questions, comments, or requests by sending an email before May 17, 2026 with a subject of "P-ETSS v1.5 feedback" to:

Arthur Taylor
Meteorological Development Laboratory
E-Mail: arthur.taylor@noaa.gov

Huiqing Liu
Meteorological Development Laboratory
E-Mail: huiqing.liu@noaa.gov

Mark Willis
Meteorological Development Laboratory
E-Mail: mark.willis@noaa.gov

National Public Information Statements are online at:

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

NNNN