

NOUS41 KWBC 111815
PNSWSH

Service Change Notification 25-32
National Weather Service Headquarters Silver Spring MD
215 PM EDT Apr 11 2025

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From: Patrick T. Marsh
 Chief, Science and Support
 NWS/Storm Prediction Center

Subject: Upgrade to SPC post processing for NCEP models,
Effective May 15, 2025

On or about May 15, 2025, beginning with the 1200 Universal Coordinated Time (UTC) model run, the National Centers for Environmental Prediction (NCEP) will upgrade SPC_POST, SPC's postprocessing package for the NCEP model suite, to v2.1.

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 and when no significant weather is occurring.

Changes with this upgrade include:

The output of GEF5-MLP was changed to be more consistent with the other calibrated guidance in SPC_POST. Previously, the data in the GEF5-MLP files were given as a fractional probability between 0 and 1. However, with this update, the output is changed to be a percentage between 0 and 100.

In order to facilitate dry thunderstorm forecasting, SPC_POST v2.1 adds calibrated lightning density guidance from the HREF. This guidance uses machine learning and outputs the probability of 25, 50, 100, and 200 cloud-to-ground lightning flashes over a 4-hour period. The naming convention for these files is

ltgdensity/spc_post.tCCz.hrefld_4hr.fFFF.grib2

where CC is the HREF cycle (00 or 12) and FFF is the 3-digit forecast hour. These files will be available at:

https://nomads.ncep.noaa.gov/pub/data/nccf/com/spc_post/prod/
https://ftpprd.ncep.noaa.gov/data/nccf/com/spc_post/prod/
ftp://ftpprd.ncep.noaa.gov/data/nccf/com/spc_post/prod/

NCEP urges all users to ensure their decoders can handle changes in content order 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. As part of NCEP's standard 30-day parallel testing, the new output products will be available here:

https://nomads.ncep.noaa.gov/pub/data/nccf/com/spc_post/para/
https://ftpprd.ncep.noaa.gov/data/nccf/com/spc_post/para/
ftp://ftpprd.ncep.noaa.gov/data/nccf/com/spc_post/para/

For questions regarding this change, please contact:

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National Service Change Notices are online at:

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

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