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PNSWSH

Service Change Notice 25-74  
National Weather Service Headquarters Silver Spring MD  
1030 AM EDT Tue Sep 23 2025

To:       Subscribers:  
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From:     Stephen W. Bieda III, Ph.D., Chief  
          Severe, Fire, Public, and Winter Weather Services  
          Branch

Subject: Operational Implementation of Enhancements to the Probabilistic  
Winter Storm Severity Index on October 23, 2025

The National Weather Service (NWS) will implement enhancements to the Probabilistic Winter Storm Severity Index (WSSI-P) on or about October 23, 2025. Those enhancements include:

- Both the Snow Amount and Ice Accumulation algorithms for each day will include the preceding 12-hour accumulations.
- The tree type and land cover datasets have been updated.
- The Snow Load algorithms will account for pre-existing snow totals.
- The Blowing Snow algorithm will account for duration-based impacts. In addition, ground blizzard science will be added to the "Blowing Snow" component.
- A wind factor will be included in both the Snow Load and Ice Accumulation algorithms.
- Population density and average traffic count data will be included in the algorithms for Snow Amount and Ice Accumulation.
- The "Snow Rate" component will be removed to match the deterministic Winter Storm Severity Index (WSSI) components.
- The deterministic WSSI will be an additional member of the model ensemble for the first 78 hours of the WSSI-P forecast output.

The purpose of the WSSI-P is to provide NWS forecasters, partners, and the public with probabilities of the severity of winter weather hazards and the potential for related societal impacts. The WSSI-P does not depict official warnings and should always be used in context with official NWS forecasts and warnings.

The WSSI-P is updated at approximately 0200, 0600, 1400 and 1800 UTC. No communication system changes are required to view this web-based information.

Additional information is provided in the Product Description Document (PDD) located at the link below:

[https://nsdesk.servicenowservices.com/api/g\\_noa/nwspc/res2/77ac6f991b87a6900d690f67624bcb74](https://nsdesk.servicenowservices.com/api/g_noa/nwspc/res2/77ac6f991b87a6900d690f67624bcb74)

The WSSI-P website is available here:

[https://www.wpc.ncep.noaa.gov/wwd/wssi/prob\\_wssi.php](https://www.wpc.ncep.noaa.gov/wwd/wssi/prob_wssi.php)

Questions on these enhancements to the WSSI-P are welcome by sending an email to:

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National Service Change Notices are online at:

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

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