

NOUS41 KWBC 131530  
PNSWSH

Service Change Notice 25-03  
National Weather Service Headquarters Silver Spring MD  
1030 AM EST Mon Jan 13 2025

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

From:        William Burnett, PhD  
              Acting Director, NWS Office of Observations

Subject: Activation of Advected Layer Precipitable Water (ALPW) on the  
Satellite Broadcast Network on or about March 28, 2025

Effective on or about March 28, 2025, the Advected Layer Precipitable  
Water (ALPW) product, derived from Microwave Integrated Retrieval System  
(MiRS) retrievals of temperature and moisture, will become available on  
the NWS Satellite Broadcast Network (SBN).

ALPW maps water vapor in millimeters at four vertical pressure levels:  
surface (SFC) to 850mb, 850-700mb, 700-500mb, and 500-300mb. Data is  
parsed in clear and cloudy conditions at 16km horizontal resolution.  
Imagery is refreshed from a composite of multiple Low Earth Orbit  
satellites, including the Joint Polar Satellite System (JPSS)  
constellation. ALPW data will be produced hourly with file sizes of  
~30MB.

ALPW complements, rather than replaces, Total Precipitable Water and  
other comparable products. Depths of moisture as seen in ALPW are  
crucial for observing atmospheric rivers, forecasting flood events, and  
tropical waves.

Until activation on the SBN, ALPW is available from the National  
Environmental Satellite, Data, and Information Service (NESDIS) via the  
operational PDA (Product Distribution and Access) and over regional Local  
Data Manager (LDM), as well as from the Cooperative Institute for  
Research in the Atmosphere (CIARA). For NWS users, configurations to  
visualize these files in the Advanced Weather Interactive Processing  
System (AWIPS) will be included in TOWRpro version 25. This NESDIS  
product will be available under the World Meteorological Organization  
(WMO) Header KNES TICY70.

Further details on the ALPW product may be found from the National  
Centers for Environmental Prediction (NCEP) at:

[https://www.wpc.ncep.noaa.gov/international/QuickGuide\\_LPW\\_Advected\\_20180223.pdf](https://www.wpc.ncep.noaa.gov/international/QuickGuide_LPW_Advected_20180223.pdf)

Training for this product can be found at:

[https://rammb2.cira.colostate.edu/trainings/visit/training\\_sessions/advanced\\_layer\\_precipitable\\_water\\_product/](https://rammb2.cira.colostate.edu/trainings/visit/training_sessions/advanced_layer_precipitable_water_product/)

Critical weather or other factors may affect the timing of this change.

For questions pertaining to this change, please contact:

NOAA/NWS Office of Observations  
Silver Spring, MD  
Email: [nws-obs-satellites@noaa.gov](mailto:nws-obs-satellites@noaa.gov)

or

AWIPS Network Control Facility (NCF) Help Desk  
NOAA/NWS Office of Central Processing  
Silver Spring, MD  
Phone: 888-808-8624

For questions regarding the content or distribution of the products listed here, please contact:

NESDIS User Services  
Email: [spsd.userservices@noaa.gov](mailto:spsd.userservices@noaa.gov)

National Service Change Notices are online at:

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

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