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PNSWSH

Service Change Notice 22-53
National Weather Service Headquarters Silver Spring MD
500 PM EDT Mon Jun 13 2022

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From: Ajay Mehta
 Director, NWS Office of Observations

Subject: Change to GOES-R Legacy Vertical Temperature and Moisture
Profiles on the Satellite Broadcast Network on or about July 13, 2022

On or about July 13, 2022, the Legacy Vertical Temperature and Moisture
Profiles from the Geostationary Orbiting Environmental Satellite (GOES)-
East and GOES-West satellites on the Satellite Broadcast Network (SBN)
will be reduced from 101 vertical pressure levels to 34 levels.

The reduced-levels profiles will INCLUDE the following 34 levels:
1014*, 986.1, 958.6, 931.5*, 904.9, 878.6, 852.8*, 827.4, 802.4, 777.8,
753.6, 729.9, 706.6*, 683.7, 661.2, 617.5, 596.3, 575.5, 555.2, 535.2,
496.6*, 459.7, 407.5*, 359.0, 300.0*, 247.4*, 201.0*, 151.3*, 103.0*,
71.5*, 51.53*, 29.12*, 20.92*, and 9.51* hPa

Note: These pressure levels are listed in the transmitted netCDF
products, and the levels marked with an asterisk (*) are near the
Mandatory Levels defined by the American Meteorological Society:

https://glossary.ametsoc.org/wiki/Mandatory_level

The reduced-levels profiles will OMIT the following 67 levels:
1100, 1071, 1042, 639.1, 515.7, 478.0, 441.9, 424.5, 390.9, 374.7, 343.6,
328.7, 314.1, 286.3, 272.9, 260.0, 235.2, 223.4, 212.0, 190.3, 180.0,
170.1, 160.5, 142.4, 133.8, 125.6, 117.8, 110.2, 96.1, 89.52, 83.23,
77.24, 66.13, 60.99, 56.13, 47.19, 43.10, 39.26, 35.65, 32.27, 26.18,
23.45, 18.58, 16.43, 14.46, 12.65, 11.00, 8.17, 6.96, 5.88, 4.92, 4.08,
3.34, 2.70, 2.15, 1.69, 1.30, 0.98, 0.71, 0.51, 0.35, 0.22, 0.14, 0.08,
0.04, 0.02, and 0.01 hPa

The reduced-levels profiles will remain on the SBN EXP channel (Port
1208, PID 106) using the same World Meteorological Organization (WMO)
headers:

IXTP99 KNES - Legacy Vertical Moisture Profiles (GOES-East)
IXTQ99 KNES - Legacy Vertical Temperature Profiles (GOES-East)
IXTP89 KNES - Legacy Vertical Moisture Profiles (GOES-West)
IXTQ89 KNES - Legacy Vertical Temperature Profiles (GOES-West)

However, the reduced-levels profiles will list slightly different identifiers in their "dataset_name" metadata attribute. In the current (101 levels) product, these identifiers begin as follows:

```
"OR_ABI-L2-LVMPC-M..."  
"OR_ABI-L2-LVTPC-M..."
```

In the reduced-levels profiles, these "dataset_name" entries will instead begin as follows:

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"OR_ABI-L2-LVMPC-M..."  
"OR_ABI-L2-LVTPC-M..."
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Baseline configurations for AWIPS EDEX do not accommodate this metadata change. To ensure that EDEX continues to ingest and display GOES-R profile products, Advanced Weather Interactive Processing System (AWIPS) administrators should install the TOWER-S RPM v22 bundle of configurations, available from the AWIPS Network Control Facility. The TOWER-S RPM v22 package may be installed immediately, as it supports both the current and the new reduced-levels profiles.

Additional details about the reduced-levels profiles are in the announcement from NOAA's Office of Satellite Product Operations, at:

<https://www.ospo.noaa.gov/data/messages/2021/MSG295192403.html>

Scientific details on the GOES-R profile products may be found in the Algorithm Theoretical Basis Document, at:

https://www.star.nesdis.noaa.gov/goesr/documents/ATBDs/Baseline/ATBD_GOES-R_Sounding_LAP_v3.0_July2012.pdf

Critical weather or other factors may delay this change.

For questions pertaining to this change, please contact:

NOAA/NWS Office of Observations
Silver Spring, MD
Email: 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:

Environmental Satellite Processing Center (ESPC) Help Desk
Suitland, MD
Phone: 301-817-3880
Email: espcoperations@noaa.gov

National Service Change Notices are online at:

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

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