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PNSWSH

Service Change Notice 24-34 Updated
National Weather Service Headquarters Silver Spring MD
430 PM EDT Wed Apr 17 2024

To: Subscribers:
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From: Ajay Mehta
 Director, NWS Office of Observations

Subject: Updated: NOAA-21 NUCAPS Soundings to be Added to the Satellite
Broadcast Network (SBN) on Near April 29, 2024

Updated for implementation date moved from April 29 to May 9, 2024.

On or near May 9, 2024, NOAA-Unique Combined Atmospheric Processing System (NUCAPS) soundings from the NOAA-21 polar-orbiting satellite will be added to the Satellite Broadcast Network (SBN).

NUCAPS estimates atmospheric temperature and moisture at 100 pressure levels between the earth's surface and the upper atmosphere, about an hour after local solar noon in each location. NOAA-21 NUCAPS soundings provide insight into the early-afternoon pre-convective environment, complementing the mid-morning soundings of the Metop-C satellite.

Each NOAA-21 NUCAPS file (granule) spans about 30 seconds of time (about 200 granules per orbit) and samples an area roughly 2100km by 200km with a grid of 30 x 4 = 120 atmospheric soundings. Each of these soundings estimates the following atmospheric parameters at 100 vertical levels:

Parameter	Units
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Pressure	mb
Air temperature	K
Liquid water mixing ratio	g/g
Water vapor mixing ratio	g/g
Ozone mixing ratio	ppb
Sulfur dioxide mixing ratio	ppb

NOAA-21 NUCAPS soundings on SBN will amount to 1,800 files/day and 0.38 GB/day. They will be broadcast via the SBN NMC3 channel (Port 1205, PID 105) using the following WMO header codes:

IUTN11 KNES	IUTN14 KNES	IUTN17 KNES
IUTN12 KNES	IUTN15 KNES	IUTN18 KNES
IUTN13 KNES	IUTN16 KNES	IUTN19 KNES

These codes are also used for NOAA-21 NUCAPS. They correspond to the geographic regions previously detailed in SCN19-59 (https://www.weather.gov/media/notification/pdf2/scn19-59nucaps_soundings.pdf)

Additional details on NUCAPS soundings from NOAA-21 and other satellites are available on the NOAA VLab at <https://vlab.noaa.gov/web/towr-s/jpss-nucaps>.

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

For questions pertaining to these changes, 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:

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National Service Change Notices are online at:

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

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