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Service Change Notice 24-14 National Weather Service Headquarters Silver Spring MD 1030 AM EST Wed Feb 7 2024

To: Subscribers:

-NOAA Weather Wire Service

-Emergency Managers Weather Information Network

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From: Ajay Mehta, Director

NWS Office of Observations

Subject: Metop-C NUCAPS Soundings to be Added to the Satellite Broadcast Network on or near March 8, 2024

On or near March 8, 2024, NOAA-Unique Combined Atmospheric Processing System (NUCAPS) soundings from the European Metop-C polar-orbiting satellite will be added to the Satellite Broadcast Network (SBN).

Metop-C NUCAPS soundings estimate atmospheric temperature and moisture, around the globe, about three hours before local solar noon and midnight in each location. They provide insight into the morning pre-convective environment, complementing the early-afternoon soundings of the NOAA-20 and NOAA-21 satellites.

Metop-C NUCAPS soundings will add 300 files/day (0.25GB/day) to the SBN. Each file (or "granule") spans about 1/34 of an orbit (3 minutes of time) and samples an area roughly $1,100\,\mathrm{km} \times 2,100\,\mathrm{km}$ with a grid of 30x22 or 30x23 atmospheric soundings. These soundings estimate the following parameters at 100 vertical levels between the Earth's surface and the upper atmosphere:

Parameter	Units	
Air 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	

The Metop-C NUCAPS data will be broadcast via the SBN NMC3 channel (Port 1205, PID 105) using the following nine World Meteorological Organization (WMO) header codes:

IUTN01	KNES	IUTN04	KNES	IUTN07	KNES
IUTN02	KNES	IUTN05	KNES	IUTN08	KNES
IUTN03	KNES	IUTN06	KNES	IUTN09	KNES

These codes correspond to the geographic regions previously detailed in Technical Implementation Notice (TIN) 14-03 for S-NPP NUCAPS (retired in 2021). They correspond to the geographic regions previously detailed in TIN 14-03 ($\frac{\text{https://www.weather.gov/media/notification/tins/tin14-03nucaps.pdf})$. They were previously used for S-NPP NUCAPS (retired in 2021).

Additional details on NUCAPS products from Metop-C and other satellites are available on the NOAA Virtual Laboratory (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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