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PNSWSH

Service Change Notice 17-133
National Weather Service Headquarters Silver Spring, MD
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To: Subscribers:
 -NOAA Weather Wire Service
 -Emergency Managers Weather Information Network
 -NOAAPORT
 Other NWS Partners and NWS Employees

From: Joseph Pica
 Director, NWS Office of Observations

Subject: Changes to Satellite Broadcast Network (SBN or
 NOAAPORT) Products Associated with GOES East
 Transition, Effective December 14, 2017 through
 January 3, 2018

Between Thursday December 14, 2017, and Wednesday, January 3, 2018, there will be changes to the suite of Geostationary Operational Environmental Satellite (GOES) products on the SBN. These changes are associated with the GOES East transition. This transition involves the phase-out of GOES-13 and the phase-in of GOES-16 as GOES East.

The GOES-16 drift to 75.2 degrees West longitude completed successfully on December 11, 2017. On or shortly after Thursday, December 14, 2017 at 1530UTC, it is anticipated that dissemination of GOES-16 products will resume on the SBN. In general, the GOES-16 product flows will resume with the same formats, cadence and headings that were in use during testing throughout much of 2017, but there will be a few minor changes (e.g., heading changes), as described herein, reflecting the new location of GOES-16 and its imminent promotion to GOES East.

1. GOES-16 Advanced Baseline Imager (ABI) Sectorized Cloud and Moisture Imagery (SCMI) will resume flowing on the SBN's GOES-R East channel (PID 108) on or after Thursday, December 14, 2017, 1530UTC. Refer to prior Service Change Notice (SCN) 17-24 which first introduced actual GOES-16 SCMI to the SBN and which more fully describes these products. The WMO headers follow these patterns:

TIREii KNES - for East CONUS sectors (previously GOES-16
 CONUS sectors were distributed under the
 TIRCii KNES, for "center CONUS")
TIRPii KNES - for Puerto Rico Regional sectors
TIRSii KNES - for East Full Disk sectors
TISjii KNES - for Mesoscale sectors

where j is the meso sector ID as defined in SCN 17-24, ii

is the ABI channel number (01 - 16); between the ii and KNES is a space, and KNES signifies that NESDIS is the creating data center.

Product metadata will reflect the new location of GOES-16, now on station, about to become GOES East. The following specific product_name global attribute metadata changes will take effect with the resumption of the GOES-16 SCMI:

- TMESO becomes EMESO
- TCONUS becomes ECONUS
- TFD becomes EFD
- (PRREGI will not change)

The format of the GOES-16 SCMI imagery will remain netCDF4. The geographical coverage of the imagery will be similar to that broadcast previously, except for changes due the satellite's relocation to 75.2 degrees West. The mapping of this imagery will be consistent with that of the imagery disseminated on this channel between March and November 2017. Although alternately-mapped "fixed-grid" GOES-16 imagery was evaluated on the SBN during late 2017 (on a different SBN channel, see SCN 17-95), the transition of GOES-16 SCMI to the fixed-grid will take place later, during 2018, well after the GOES East transition. NWS will disseminate a Service Change Notice (SCN) describing the SCMI fixed-grid transition before it takes place.

The GOES-16 ABI imagery has been evaluated and validated, and is considered generally suitable for operational use. However, validation efforts will continue through at least early 2018.

2. GOES-16 Advanced Baseline Imager (ABI) Level 2 Derived Products will resume flowing on the SBN's Experimental channel (PID 106) on or after Thursday, December 14, 2017, 1530UTC. The same set of GOES-16 derived products that were flowing on the SBN's Experimental channel between June and November 2017 will resume flowing there on or after December 14, 2017. Refer to SCNs 17-61 and 17-73 which further describe these products:

- Aerosol Detection (Smoke and Dust)
- Aerosol Optical Depth
- Cloud Top Phase
- Cloud Top Height
- Cloud Top Pressure
- Cloud Top Temperature
- Derived Stability Indices
- Total Precipitable Water
- Clear Sky Mask
- Fire/Hot Spot Characterization
- Land Surface (Skin) Temperature
- Cloud Optical Depth

Cloud Particle Size Distribution
Derived Motion Winds

The basic formats and headers of these products will not change during the GOES East transition. However, there will be product-specific metadata changes within some of these files that reflect the new location of GOES-16 and its imminent transition to GOES East.

These GOES-16 derived products have been only partially validated, and these products remain in a pre-operational stage. Validation efforts will continue well into 2018.

These GOES-16 derived product flows are experimental. Several of these products are likely to be discontinued after an evaluation period. Others in this product set will eventually be moved to other SBN channels and possibly modified. It is envisioned that these changes will begin during the first half of 2018. NWS will disseminate a Service Change Notice (SCN) describing these changes before they occur.

3. Between Thursday, December 14 and Wednesday, December 20, 2017, NOAA will declare GOES-16 to be "GOES East," replacing GOES-13. Please refer to the NESDIS GOES East transition page for updates:

<https://www.goes-r.gov/users/transitionToOperations.html>

During this transition period, GOES-13 products will continue dissemination on the SBN, but only until on or shortly after Wednesday, January 3, 2018, 15UTC. On that date, all remaining GOES-13 products on the SBN will be discontinued, as described in the bullets below.

4. Effective on or after 15UTC Wednesday, January 3, 2018, there will be changes to the GOES Automated Surface Observing System (ASOS) Satellite Cloud Products (SCPs) on the SBN, as described in SCN 17-127:

http://www.nws.noaa.gov/os/notification/scn17-127goes_cloud.htm

5. Effective on or after 15UTC Wednesday, January 3, 2018, dissemination of GOES-13 GINI-format imagery will cease on the SBN's legacy-GOES channel (PID 102). The affected headers are:

- TIGEii KNES - East CONUS Sector, where ii = 01, 02, 04, 05, 06
- TIGPii KNES - Puerto Rico Regional Mercator, where ii = 01, 02, 04, 05, 06
- TIGQii KNES - Puerto Rico National Polar Stereo where ii = 01, 02 and 05

where ii corresponds to legacy imager channel, between the ii and KNES is a space, and KNES signifies that NESDIS is

the creating data center. The GOES-16 ABI SCMI products, described in item 1, above, are replacements for these products.

6. Effective on or after 15UTC Wednesday, January 3, 2018, GOES-13 (legacy East satellite) imagery will be removed from the following SBN legacy-GOES satellite composites:

- TIGNii KNES - Supernational Two-GOES Composites, where where ii = 01, 02 and 05
- TIGFii KNES - Northern Hemisphere Two-GOES Composites, where ii = 01, 02 and 05
- TICFii KNES - Multi-satellite Composites where ii = 01, 02 and 04

and where ii corresponds to imager channel, between the ii and KNES is a space, and KNES signifies that NESDIS is the creating data center.

7. Effective on or after 15UTC Wednesday, January 3, 2018, dissemination of GOES-13 High-Density Winds will cease on the SBN's NMC/NWSTG channel (PID 101). Potentially-affected headers include:

- JACXii KNES
- JBCXii KNES
- JCCXii KNES
- JECXii KNES
- JGCXii KNES
- JHCXii KNES
- JICXii KNES
- JJCXii KNES
- JLCXii KNES
- JMCXii KNES
- JPCXii KNES
- JQCXii KNES
- JRCXii KNES

where ii = 01, 11, 21, 31, etc. and with most GOES-13 data messages being stored in products whose headers include ii values of 11, 21, 31 and 41. Products with many of these headers will continue to flow with GOES-15 (West) High Density Winds. Replacements for GOES-13 winds include the GOES-16 Derived Motion Winds on the SBN's experimental channel (see item 2, above).

8. Effective on or after 15UTC Wednesday, January 3, 2018, the basis for GOES East data in the NESDIS Global Hydro-estimator Satellite Rainfall Estimates (on the SBN's NMC/NWSTG channel, PID 101) will change from GOES-13 to GOES-16. Affected headers include:

- ZETA96 KNES - six-hour total product
- ZETA97 KNES - three-hour total product
- ZETA98 KNES - one-hour total product
- ZETA99 KNES - fifteen-minute instantaneous product

Beyond this GOES East transition, additional GOES-16 products are planned for SBN addition in early 2018. Furthermore, GOES-S is scheduled for launch by NOAA in March 2018, and products from that satellite are planned for SBN addition beginning around May 2018. Subsequent SCNs will describe these SBN product additions in advance.

For questions pertaining to this change or other NOAA/PORT product changes associated with the GOES East transition, please contact:

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and

AWIPS Network Control Facility (NCF) Help Desk
NOAA/NWS Office of Central Processing
Silver Spring, MD 20910
Email: nws.ncf.supervisors@noaa.gov

For questions regarding the scientific or technical content of the NOAA/PORT-disseminated GOES-16 products please contact:

Environmental Satellite Processing Center (ESPC) Help Desk
Suitland, Maryland 20746
Phone: 301-817-3880
Email: ESPCOperations@noaa.gov

National Service Change Notices are online at:

<http://www.weather.gov/os/notif.htm>

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