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PNSWSH

Service Change Notice 18-106
National Weather Service Headquarters Silver Spring, MD
805 AM EST Mon Nov 19 2018

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 GOES-17 Imagery on the Satellite Broadcast Network (SBN or NOAAPORT) Leading to the GOES West Transition effective November 15, 2018

Effective Thursday, November 15, 2018, at approximately 1700 UTC, the Geostationary Operational Environmental Satellite–17 (GOES-17) Advanced Baseline Imager (ABI) Sectorized Cloud and Moisture Imagery (SCMI) was added to the SBN, also known as NOAAPORT. This notice provides information about that activation and other upcoming related activities associated with the transition of GOES-17 to GOES West, scheduled for December 10, 2018.

The SBN's GOES-17 ABI imagery will continue to be in a pre-operational validation and/or testing phase through approximately December 10, 2018. Prior to December 10, 2018, NWS does not recommended using GOES-17 ABI imagery on the SBN in operational forecast processes. Any downstream postings of the GOES-17 imagery prior to December 10, 2018, should convey its pre-operational nature. Furthermore, as described below, from November 15 through December 10, 2018, there will likely be several tests of various ABI modes of operation. For example, between November 27 and November 30, 2018, an ABI Mode-6 test is planned. This test is being conducted in part to determine whether Mode 6 will replace Mode 3 as the primary mode of ABI operation for one or both GOES-R Series satellites, i.e., GOES-16 and -17.

In the future, the SBN will carry additional GOES-17 products.

This notice concerns only the addition of GOES-17 ABI imagery. NWS will issues notices for other GOES-17 products to be added to the SBN at a later date.

GOES-17 has arrived at its GOES West duty station of 137.2 degrees west longitude, where it is expected to remain for the foreseeable future. All sectors of GOES-17 SCMI on the SBN are mapped to a fixed grid. GOES-17 is expected to be designated GOES West on December 10, 2018. Through at least May 2019, GOES-15 will continue to operate normally from its new duty station of 128 degrees west longitude with its products flowing on the SBN.

The SBN's GOES-R West channel (PID 107) will be used to disseminate the GOES-17 ABI imagery. For the foreseeable future and until further notice, the operational GOES-East (GOES-16) and GOES-West (GOES-15) data will remain unchanged on SBN.

The WMO headers for the GOES-17 SCMI are as follows, with references to the 11 character template:

Template: T1 T2 A1 A2 ii CCCC

T1 = T
T2 = I
A1 = R for large-scale (non-mesoscale) sectors
= U for mesoscale sectors

A2 Where A1=R, for large-scale (non-mesoscale) sectors, A2 corresponds to geographical sectors as follows:
= W for the West CONUS sector
= T for the West Full Disk sector
= A for the Alaska sector
= H for the Hawaii sector

Where A1=U, for mesoscale sectors, A2 values corresponds to geographical latitude/longitude areas as follows:
= A for 45 deg. N <= Lat. < 60 deg. N and
120 deg. W < Long. <= 135 deg W
= B for 45 deg. N <= Lat. < 60 deg. N and
105 deg. W < Long. <= 120 deg. W
= C for 45 deg. N <= Lat. < 60 deg. N and
90 deg. W < Long. <= 105 deg. W
= D for 45 deg. N <= Lat. < 60 deg. N and
75 deg. W < Long. <= 90 deg. W

= E for 45 deg. N <= Lat. < 60 deg. N and
60 deg. W < Long. <= 75 deg. W
= F for 30 deg. N <= Lat. < 45 deg. N and
120 deg. W < Long. <= 135 deg. W
= G for 30 deg. N <= Lat. < 45 deg. N and
105 deg. W < Long. <= 120 deg. W
= H for 30 deg. N <= Lat. < 45 deg. N and
90 deg. W < Long. <= 105 deg. W
= I for 30 deg. N <= Lat. < 45 deg. N and
75 deg. W < Long. <= 90 deg. W
= J for 30 deg. N <= Lat. < 45 deg. N and
60 deg. W < Long. <= 75 deg. W
= K for 15 deg. N <= Lat. < 30 deg. N and
120 deg. W < Long. <= 135 deg. W
= L for 15 deg. N <= Lat. < 30 deg. N and
105 deg. W < Long. <= 120 deg. W
= M for 15 deg. N <= Lat. < 30 deg. N and
90 deg. W < Long. <= 105 deg. W
= N for 15 deg. N <= Lat. < 30 deg. N and
75 deg. W < Long. <= 90 deg. W
= O for 15 deg. N <= Lat. < 30 deg. N and
60 deg. W < Long. <= 75 deg. W
= P for 0 deg. N <= Lat. < 15 deg. N and
90 deg. W < Long. <= 135 deg. W
= Q for 0 deg. N <= Lat. < 15 deg. N and
60 deg. W < Long. <= 90 deg. W
= R for 45 deg. N <= Lat. < 90 deg. N and
135 deg. W < Long. <= 180 deg. W
= S for 0 deg. N <= Lat. < 45 deg. N and
135 deg. W < Long. <= 180 deg. W
= T for 60 deg. N <= Lat. < 90 deg. N and
90 deg. E < Long. <= 135 deg. W
= U for 0 deg. N <= Lat. < 60 deg. N and
90 deg. E < Long. <= 60 deg. W
= V for 0 deg. N <= Lat. < 90 deg. N and
180 deg. W < Long. <= 90 deg. E
= W and X are reserved for future use
= Y for 90 deg. S <= Lat. < 0 deg. S and
105 deg. W < Long. <= 90 deg. E
= Z for 90 deg. S <= Lat. < 0 deg. S and
90 deg. E < Long. <= 105 deg. W

Where mesoscale boxes T, U and Z extend across the prime meridian (0 deg. longitude) and boxes V and Y extend across the International Dateline (180 deg. longitude). Sector boundaries

of 0 deg. N or 0 deg. S refer to the equator. The "<=" symbols refer to "less than or equal to." Note that some of the regions above are out of range from GOES-17 at its current location, but these regions could be within range of existing or future GOES-R series satellites, such as GOES-16.

ii = ABI channel number (01 - 16); between the ii and CCCC is a space

CCCC = KNES (signifies products originated by NESDIS)

Approximate hourly product counts and volumes for the GOES-17 SCMI test stream are as follows:

ABI Sector	Hourly Count	Hourly Volume
West CONUS	192/hour	2000 MBytes/hour
West Full Disk	64/hour	250 Mbytes/hour
Alaska	64/hour	200 MBytes/hour
Hawaii	64/hour	200 MBytes/hour
Mesoscale	1920/hour	1500 Mbytes/hour

Counts and hourly volumes above, assume ABI Mode 3. Some counts and volumes vary depending upon ABI mode. Counts reflect full-scene counts. Each full-scene is disseminated as multiple netCDF4 tile files. Volumes will vary during the course of the day and will generally be lower than shown above when the scenes are less than fully illuminated, e.g., during the night.

More information about the GOES West transition is online at:

https://www.goes-r.gov/users/transitionToOperations17.html

Refer to Service Change Notice 18-85 which has further background information about the SBN's GOES-17 ABI imagery, some of which was transmitted across the SBN, in a test mode, between August 28, 2018, and October 24, 2018:

https://www.weather.gov/media/notification/pdfs/scn18-85goes_scmi.pdf

Refer to Service Change Notice 17-24, which introduced similar GOES-16 SCMI to the SBN:

https://www.weather.gov/media/notification/pdfs/scn17-24goes16.pdf

and to Service Change Notice 18-66, which introduced the ABI fixed-grid mapping for the SCMI on the SBN:

https://www.weather.gov/media/notification/pdfs/scn18-66goes16imagerytransition.pdf

Critical weather or other factors could affect the timing of this activation.

For questions pertaining to this test or upcoming plans for the addition of GOES-17 products onto NOAAPORT, 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 NOAAPORT-disseminated GOES-17 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:

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

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