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Service Change Notice 18-87
National Weather Service Headquarters Silver Spring, MD
720 AM EDT Fri Aug 31 2018

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From: Joseph Pica
 Director, NWS Office of Observations

Subject: Testing of GOES-17 Advanced Baseline Imager (ABI)
 Mode 6 Imagery on the Satellite Broadcast Network
 (SBN or NOAAPort), effective September 10-21, 2018

Beginning on or after Monday, September 10, 2018, at approximately 1500 UTC, and extending to on or after Friday, September 21, 2018, at approximately 1500 UTC, Geostationary Operational Environmental Satellite-17 (GOES-17) ABI Mode 6 Sectorized Cloud and Moisture Imagery (SCMI) will be tested on the SBN (also known as NOAAPort). In addition, a limited set of GOES-17 derived products will be temporarily disseminated during this test, as described below.

The GOES-17 ABI imagery will be in a pre-operational validation and testing phase through at least early November 2018. NOAA's GOES-17 satellite has not been declared operational, and its data are preliminary and undergoing testing. Users receiving these data through any dissemination means assume all risk related to their use of GOES-17 data and NOAA disclaims any and all warranties, whether express or implied, including (without limitation) any implied warranties of merchantability or fitness for a particular purpose.

NOSAA does not recommend using this preliminary imagery in operational forecast processes, especially during the initial months of this validation/test period. Any downstream postings of these data should clearly convey their preliminary, non-operational and in-testing nature. Furthermore, this data stream may be subject to temporary unannounced data outages during this validation and testing period.

This preliminary Mode 6 imagery is being disseminated to enable the testing of networks and systems with actual GOES-17 imagery at the Mode 6 refresh cadence, and to allow users to evaluate the imagery during this validation/test period.

Note 1: Refer to Service Change Notice (SCN) 18-85, which introduced GOES-17 SCMI to the SBN:

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

Prior to this test, the GOES-17 ABI is expected to operate in Mode 3, which is sometimes referred to as flex mode. ABI Mode 3 yields full disk, CONUS and meso sectors (see Note 1). ABI Mode 6 will yield these same sectors, but with one notable difference: the Mode 3 full-disk refresh rate is 4/hour as compared to the Mode 6 full-disk refresh rate of 6/hour. The Mode 3 and 6 refresh rates for the CONUS and meso sectors are essentially identical. The ABI Mode of operation affects not only the refresh rates of the SCMI full-disk imagery but also the refresh rates of GOES products that are derived from the ABI full disk sectors

At the conclusion of this test, the GOES-17 ABI operating modes will revert to Mode 3 and the full-disk scan mode (i.e., Mode 4). These are the same operating modes in which the GOES-16 ABI has been operating. However, it is probable that Mode 6 will eventually replace Mode 3 as a primary ABI operating mode for the GOES-R Series. If it is decided that Mode 6 will replace Mode 3, NWS will provide advance notice to communicate the timing of that transition for GOES-16 and GOES-17.

During this test, the SBN's GOES-R West channel (PID 107) will be used to disseminate the GOES-17 ABI Mode 6 imagery. This test will not affect the operational GOES-East (GOES-16) and GOES-West (GOES-15) data on the SBN.

The WMO headers for the GOES-17 ABI Mode 6 SCMI will be identical to those of the ABI Mode 3 imagery. The SCN referenced in Note 1, above, describes those headers.

Metadata features (within the SCMI products) that distinguish ABI Mode 6 from other modes of operation include:

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abi_mode
product_name = "EFD-020-B12-M6C16"
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During this test, abi_mode will have a value of 6 and M6 signifies Mode 6 in the product_name.

Approximate hourly product counts and volumes for the GOES-17 ABI Mode 6 test stream of SCMI are as follows (volumes vary during the course of the day):

ABI Sector	ABI Mode	Hourly Count	Hourly Volume
Center Full Disk	3	64/hour	75 Mbytes/hour
Center Full Disk	6	96/hour	113 Mbytes/hour

The Mode 3 count and volume are shown above for comparative purposes only, to show the relative counts/volumes of this test's Mode 6 data relative to the Mode 3 data. During this

test, only GOES-17 ABI SCMI Mode 6 data (and not GOES-17 ABI SCMI Mode 3 data) will be disseminated on the SBN.

The GOES-17 ABI Mode 6 SCMI will conform to the fixed-grid projection. For information about the ABI Fixed Grid, please refer to the GOES-R Product Definition and Users' Guide:

<http://www.goes-r.gov/users/docs/PUG-L1b-vol3.pdf>

As noted above, ABI Mode 6 (like Mode 3) includes relocatable meso sectors. The targeting (relocation) of these sectors will be evaluated during this Mode 6 test. Users of the GOES-17 ABI meso sectors should therefore note that the locations of these sectors will change during the course of the test.

As a secondary element of this test, the following GOES-17 ABI-based derived products will temporarily be sent on the SBN's experimental channel (PID 106) for the full-disk sector only:

GOES-17 Product	WMO Header	Size
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Derived Motion Winds (Chan 14)	IXTU99 KNES	67 MB/Hour
Fire Hot Spot	IXTJ99 KNES	23 MB/Hour
Cloud Particle Size Dist.	IXTW01 KNES	360 MB/Hour

These three derived products will be sent for the ABI Mode 6 test period only.

All test products (i.e., Mode 6 SCMI and the derived products) will be in netCDF4 format.

GOES-17 is currently at its checkout and validation station over 89.5 degrees west longitude. It is expected to remain there during this test. GOES-17 has not yet been designated GOES East or West. The GOES-17 spacecraft will eventually be repositioned to its final operational station.

Future notices will be issued for other GOES-17 products as they are added to the SBN and for tests that will take place during this validation/test period.

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

Additional information about the GOES-17 activation and transition to operations can be found at the following website:

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

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

Brian Gockel
NOAA/NWS Office of Observations

Silver Spring, MD 20910
Email: Brian.Gockel@noaa.gov

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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