

NOUS41 KWBC 191305
PNSWSH

Service Change Notice 18-106
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, Users and 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 Coordinated Universal Time (UTC), the Geostationary Operational Environmental Satellite-17 (GOES-17) Advanced Baseline Imager (ABI) Sectorized Cloud and Moisture Imagery (SCMI) was added to the Satellite Broadcast Network (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 issue 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 (product identifier (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 World Meteorological Organization (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 contiguous U.S. (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 (Lat.)/longitude (Lon.) areas as follows:

= A for 45 degrees (deg.) N \leq Lat. < 60 deg. N and 120 deg. W < Long. \leq 135 deg W

= B for 45 deg. N \leq Lat. < 60 deg. N and 105 deg. W < Long. \leq 120 deg. W

= C for 45 deg. N \leq Lat. < 60 deg. N and 90 deg. W < Long. \leq 105 deg. W

= D for 45 deg. N \leq Lat. < 60 deg. N and 75 deg. W < Long. \leq 90 deg. W

= E for 45 deg. N \leq Lat. < 60 deg. N and 60 deg. W < Long. \leq 75 deg. W

= F for 30 deg. N \leq Lat. < 45 deg. N and 120 deg. W < Long. \leq 135 deg. W

= G for 30 deg. N \leq Lat. < 45 deg. N and 105 deg. W < Long. \leq 120 deg. W

= H for 30 deg. N \leq Lat. < 45 deg. N and 90 deg. W < Long. \leq 105 deg. W

= I for 30 deg. N \leq Lat. < 45 deg. N and 75 deg. W < Long. \leq 90 deg. W

= J for 30 deg. N \leq Lat. < 45 deg. N and 60 deg. W < Long. \leq 75 deg. W

= K for 15 deg. N \leq Lat. < 30 deg. N and 120 deg. W < Long. \leq 135 deg. W

= L for 15 deg. N \leq Lat. < 30 deg. N and 105 deg. W < Long. \leq 120 deg. W

= M for 15 deg. N \leq Lat. < 30 deg. N and 90 deg. W < Long. \leq 105 deg. W

= N for 15 deg. N \leq Lat. < 30 deg. N and 75 deg. W < Long. \leq 90 deg. W

= O for 15 deg. N \leq Lat. < 30 deg. N and 60 deg. W < Long. \leq 75 deg. W

= P for 0 deg. N \leq Lat. < 15 deg. N and 90 deg. W < Long. \leq 135 deg. W

= Q for 0 deg. N \leq Lat. < 15 deg. N and 60 deg. W < Long. \leq 90 deg. W

= R for 45 deg. N \leq Lat. < 90 deg. N and 135 deg. W < Long. \leq 180 deg. W

= S for 0 deg. N \leq Lat. < 45 deg. N and 135 deg. W < Long. \leq 180 deg. W

= T for 60 deg. N \leq Lat. < 90 deg. N and 90 deg. E < Long. \leq 135 deg. W

= U for 0 deg. N \leq Lat. < 60 deg. N and 90 deg. E < Long. \leq 60 deg. W

= V for 0 deg. N \leq Lat. < 90 deg. N and 180 deg. W < Long. \leq 90 deg. E

= W and X are reserved for future use

= Y for 90 deg. S \leq Lat. < 0 deg. S and 105 deg. W < Long. \leq 90 deg. E

= Z for 90 deg. S \leq Lat. < 0 deg. S and 90 deg. E < Long. \leq 105 deg. W

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

degrees 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 the National Environmental Satellite, Data and Information Service (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 | 2,000 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 | 1,500 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/scn17-24goes-16.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/scn18-66goes-16_imagery_transition.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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Silver Spring, MD
Email: brian.gockel@noaa.gov

and

AWIPS Network Control Facility (NCF) Help Desk
NOAA/NWS Office of Central Processing
Silver Spring, MD
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, MD
Phone: 301-817-3880
Email: espcoperations@noaa.gov

National Service Change Notices are online at:

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

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