Subject: Addition of GOES-17 Imagery to the Satellite Broadcast Network effective August 28, 2018

Effective on or after Tuesday, August 28, 2018, at approximately 1700 UTC, the Geostationary Operational Environmental Satellite-17 (GOES) Advanced Baseline Imager (ABI) Sectorized Cloud and Moisture Imagery (SCMI) will be added to the Satellite Broadcast Network (SBN, also known as NOAAPort).

The GOES-17 ABI imagery will be in a pre-operational validation and testing phase through at least early November 2018, during which time there may be one or more data outages. NOAA's GOES-17 satellite has not been declared operational; 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.

The GOES-17 ABI bands perform differently during the day and during certain seasons. Channel availability and quality will fluctuate seasonally depending on the amount of solar radiation absorbed by the instrument. During the instrument’s cool seasons (near the summer and winter solstices), all channels are expected to be available 24 hours per day. During the instrument's warm seasons (before and after the vernal and autumnal equinoxes), experts estimate 7 channels (bands 1-7) will be available 24 hours per day and the other 9 channels (bands 8-16) will be saturated and images will be degraded or unusable 2-6 hours per night. These estimates are preliminary and are still being refined. The warmest part of the season is coming up in early September; performance estimates will need to be confirmed through observation during that time.

Additional, more technical information can be found at the following website:
This preliminary imagery is being disseminated to enable the testing of networks and systems with actual GOES-17 imagery so users will be able to evaluate the imagery during this validation/test period.

NOAA does not recommended this preliminary imagery be used 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. One or more follow-on notices will provide information on the progress and conclusion of the validation period.

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


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


The GOES-17 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

In the future, the SBN will carry additional GOES-17 products. This notice concerns only the addition of GOES-17 ABI imagery. Future notices will be issued for other GOES-17 products that will be added to the SBN at a later date and for tests that will take place during this validation/test period.

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

The SBN's GOES-R West channel (PID 107) will be used to disseminate the GOES-17 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 will be 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:
    = C for the Center CONUS sector
    = U for the Center Full Disk
    Note that the large scale sectors (and hence the A2
    values) are expected to change after GOES-17 satellite is
    drifted to its operational station. A notice describing
    this change will be disseminated in advance.

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
        135 deg. W < Long. <= 180 deg. W
    = Q for 0 deg. N <= Lat. < 15 deg. N and
        90 deg. W < Long. <= 135 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
fixed grid test stream are as follows (volumes vary during the
course of the day):

<table>
<thead>
<tr>
<th>ABI Sector</th>
<th>Hourly Count</th>
<th>Hourly Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center CONUS</td>
<td>192/hour</td>
<td>160 MBytes/hour</td>
</tr>
<tr>
<td>Center Full Disk</td>
<td>64/hour</td>
<td>75 Mbytes/hour</td>
</tr>
<tr>
<td>Mesoscale</td>
<td>1920/hour</td>
<td>1640 Mbytes/hour</td>
</tr>
</tbody>
</table>

The file format for these products is netCDF4.

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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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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