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PNSWSH

Technical Implementation Notice 15-24  
National Weather Service Headquarters Washington DC  
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To:           Subscribers:  
              -Family of Services  
              -NOAA Weather Wire Service  
              -Emergency Managers Weather Information Network  
              -NOAAPort  
              Other NWS Partners, Users and Employees

From:        Tim McClung, Chief Operating Officer  
              NWS Office of Science and Technology Integration

Subject: Add Simulated Geostationary Operational Environmental Satellites  
- R Series (GOES-R) Imagery to the Satellite Broadcast Network (SBN or  
NOAAPort): Effective May 7, 2015

Effective on or after Thursday, May 7, 2015, simulated GOES-R Advanced  
Baseline Imager (ABI) imagery will be added to the SBN and NOAAPort. The  
simulated GOES-R ABI imagery is intended only to test networks and  
systems. This simulated imagery should not be used for weather forecasts  
and analyses.

The GOES-R satellite is scheduled to launch in March 2016. NWS plans call  
for SBN/NOAAPort dissemination of a subset of GOES-R products. To begin  
testing and evaluation of NWS systems, and to facilitate testing and  
evaluation of partner systems, a series of pre-launch tests is being  
planned from May 2015 to February 2016.

Among the GOES-R products planned for SBN distribution, ABI imagery is  
expected to be the most voluminous. The initial focus of GOES-R-related  
SBN testing will therefore be on GOES-R imagery. Simulated GOES-R imagery  
will gradually be added to the SBN on or after May 7, 2015. The simulated  
imagery will be added progressively, initially restricted to limited data  
distributions, only within normal business hours, Monday-Friday, 8 am-5 pm  
EDT. For the first several weeks, there will be deliberate pauses in  
testing. Therefore, further details about these tests (e.g., specific  
test segment start and end times) will be communicated via NOAAPort  
Bulletins with message headers NOUS72 KNCF and ADMNCF.

Beginning approximately July 2015, NWS plans to disseminate variable  
representative sets of simulated imagery on a quasi- continuous basis for  
the duration of these tests. These tests of simulated GOES-R imagery are  
expected to extend through 2015, possibly into early 2016. Simulated  
GOES-R non-imagery products may also be added to the SBN during 2015.

The simulated GOES-R imagery will be separated and distinguished from the SBN's operational traffic in two ways:

- The simulated data will be broadcast on distinct channels (Port IDs (PIDs) 107 and 108), and thus separated from the SBN's operational data. PID 107 corresponds to the SBN's GOES-R West channel and PID 108 corresponds to the SBN's GOES-R East channel.
- The simulated data will have World Meteorological Organization (WMO) Headers (described below) that are expressly for the simulated imagery, i.e., different from those of the SBN operational products.

The WMO headers have been assigned to distinguish the simulated GOES-R imagery from other SBN products and to differentiate between GOES spacecraft stations (i.e., GOES East versus GOES West), geographical sectors (e.g., Hawaii Regional versus Alaska Regional) and Advanced Baseline Imager (ABI) channels, i.e., 1-16. The headers 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

= S for mesoscale sectors

A2 Where A1 = R, for large-scale (non-mesoscale) sectors, A2 corresponds to geographical sectors as follows:

= A for the Alaska Regional sector (PID 107)

= E for the East CONUS sector (PID 108)

= H for the Hawaii Regional sector (PID 107)

= P for the Puerto Rico Regional sector (PID 108)

= S for the East Full Disk (PID 108)

= T for the West Full Disk (PID 107)

= W for the West CONUS sector (PID 107)

Where A1 = S, for mesoscale sectors, A2 values corresponds to geographical latitude/longitude areas as follows:

= A for 45 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 <= 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." Mesoscale sectors from GOES West will be disseminated on SBN PID 107 and mesoscale sectors from GOES East will be disseminated on SBN PID 108.

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

CCCC = KNES (signifies that National Environmental Satellite, Data and Information Service (NESDIS) is the creating data center).

Although the WMO header scheme above is for simulated imagery, it is anticipated that these headers will be applied similarly to the actual GOES-R imagery products scheduled for SBN addition during 2016.

The file format for these products will be netCDF4. Additional information about this new data stream (including headers, file-format descriptions, sector definitions, sample files and further test information) will be posted at the following website during May 2015, with updates thereafter:

<http://www.nws.noaa.gov/noaaport/html/noaaport.shtml>

Again, the simulated GOES-R imagery to be added to the SBN is for system testing. These products should not be used for weather forecasts or scientific analyses.

For questions pertaining to this change or upcoming plans for the addition of GOES-R products onto NOAAPort, please contact:

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National Technical Implementation Notices are online at:

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

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