

The Key Product Parameter: Imagery from the Advanced Baseline Imager (ABI) on GOES-R

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The GOES-14 Imager was operated by NOAA in an experimental rapid scan 1-minute mode during parts of 2012, 2013 and 2014. This scan mode was called Super Rapid Scan Operations for GOES-R (SRSOR) and have been showcased in a number of national centers and testbeds. More information can be found at: http://cimss.ssec.wisc.edu/goes/srsor2014/GOES-14_SRSOR.html. These special scans emulated the high temporal resolution sampling of the mesoscale images from the Advanced Baseline Imager (ABI) included on the next generation GOES-R series. The ABI is a 16-channel imaging radiometer that provides significantly increased capabilities over the current operational GOES Imager (more channels, higher spatial resolutions, and faster image repetition rates). The improved spectral, spatial and temporal capabilities of the ABI will provide much improved products. For example, the number of bands increase from 5 to 16, the spatial resolution improves a factor of 4, and the coverage rate improves a factor of five. The additional spectral bands allow for new (SO₂ detection) or improved (Atmospheric Motion Vectors) derived products. The improved spatial resolution allows for better monitoring of small-scale features (such as wildfires) and the faster coverage rate allows for better monitoring of rapidly changing phenomena (i.e., convection). The imagery is the basis for many derived level 2 products. The calibrated, geo-located information will be used to produce a wide variety of weather, oceanographic and environmental data products.