



New Generation Meteorological Satellite Imager Aviation Decision Support Applications for Detection of Convection, Turbulence, and Volcanic Ash

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A suite of aviation related decision support products have been in development to meet GOES-R science requirements since 2008 and are being evaluated to assess meteorological hazards to aircraft in flight derived from the current generation of European Spinning Enhanced Visible and Infrared Imager (SEVIRI) imager data. This presentation will focus on GOES-R Advanced Baseline Imager (ABI) measurement requirements relating to satellite-based aviation convective, turbulence, and volcanic ash/SO₂ products that can be applied globally on next generation geostationary imagers including the Japanese Himawari, South Korean COMS (AMI), and European Metop-SG imagers. These new methodologies have relevance on current generation GOES and SEVIRI imagers, and overview will include discussion on how product utility has been improved through satellite GOES-R/JPSS Proving Ground NOAA testbed activities. Satellite-based decision support for aviation context toward improvement of future air transportation route planning and warning for the general public with emphasis on successfully bridging research to operations will also be discussed with anticipated October 2016 launch of GOES-R.