

Development of a GOES-R IR Clear-Sky and All-Sky Radiance Products for NCEP



Supports NOAA Weather Ready Nation Goal by improving NOAA forecasts. Specifically, this project provides NCEP access to GOES-16 ABI radiances into the GSI for radiance data assimilation.

- To reduce the volume of GOES-R radiance data for data assimilation, NCEP has expressed a desire to assimilate reduced resolution radiance products similar to the All-sky Radiance (ASR) products from EUMETSAT.
- STAR/ASPB and CIMSS will develop ASR from the NOAA operational radiance and cloud products.
- STAR/ASPB will also develop a channel-specific cloud mask to maximize the amount of clear-day in each channel.
- STAR/ASSISTT will develop the BUFR tools to ingest these ASR data into the GSI.
- NCEP (funded under NGGPS) will work with STAR&CIMSS to optimize the ASR data (spatial and temporal resolution) to ensure maximal impact of GOES-16 for NCEP's radiance assimilation needs.



HIMAWARI-8 AHI All-sky Radiance Product. NOAA Enterprise Cloud Height (a). AHI 6.2 mm brightness temperatures for all-sky (b), high-level clouds (c) and low-level clouds (d).