

Assimilation of IR Cloudy Radiance in NCEP NAMRR

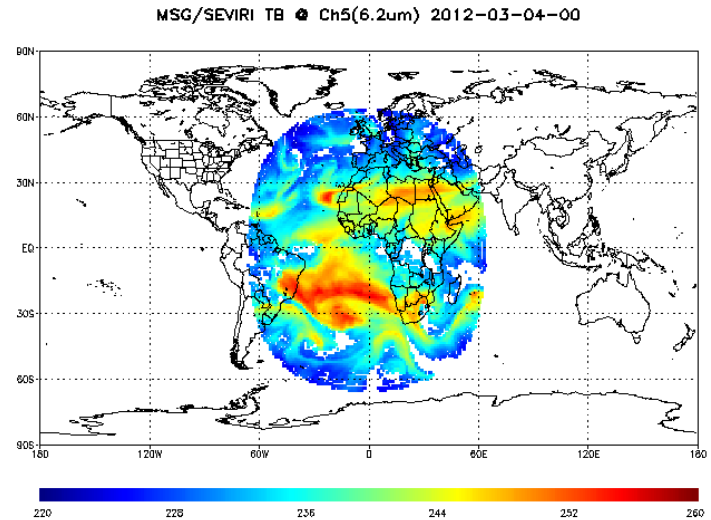
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- **Develop and test of the ability to assimilate cloudy radiances from GOES-R to improve the prediction of high impact weather with NCEP NDAS and NMMB model**
- **Select EUMESAT Meteosat Second Generation (MSG) Geostationary Satellite SEVIRI as the proxy data before GOES-R launch, since SEVIRI has the similar channels, resolutions as GOSE-R ABI**

Experiment Configuration

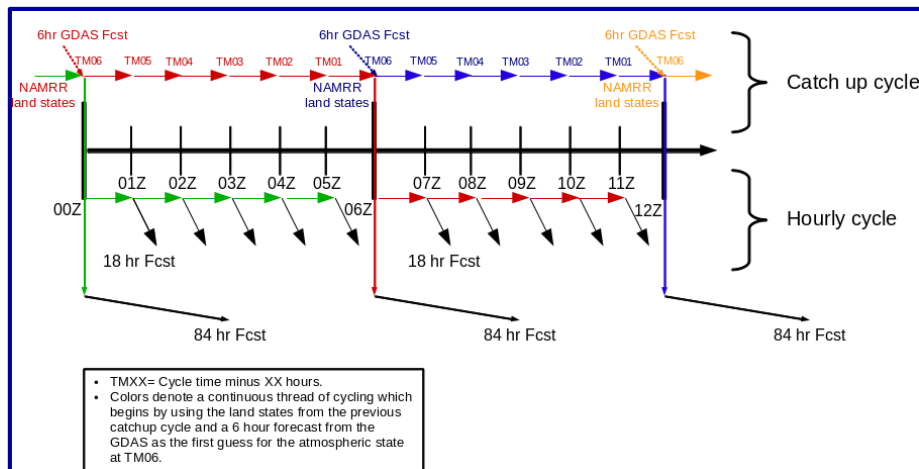
- ❖ Hourly-updated NAM (12/4-km), known as NAM Rapid Refresh (NAMRR), was placed over SEVIRI's coverage area (i.e. the Atlantic Ocean, Europe and Africa) to get the most complete use of SEVIRI.
- ❖ All satellite and conventional observation as well as SEVIRI data will be assimilated hourly.

SEVIRI full-disk coverage

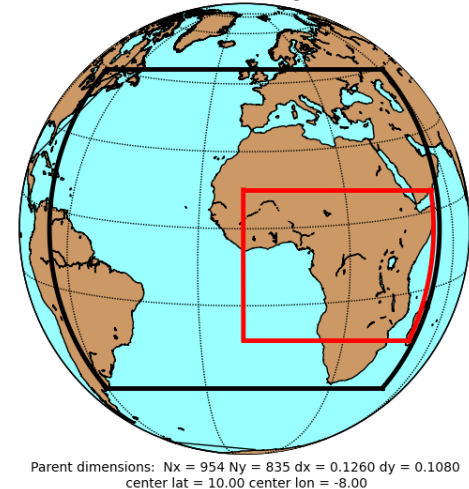


Configuration of NAMRR over Africa

NAMRR Flow Chart

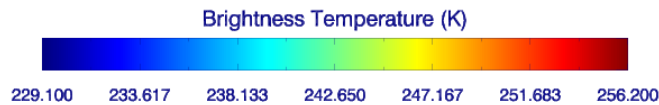
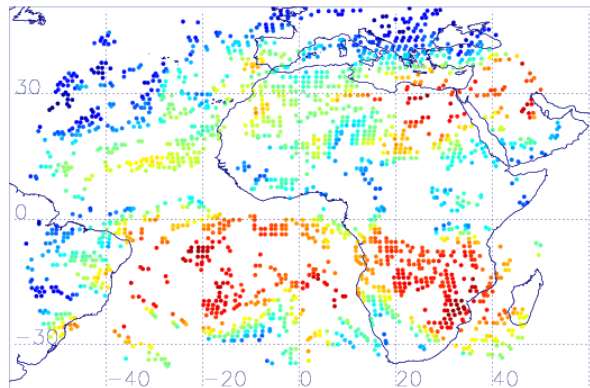


NMMB Domain Configuration



Assimilated SEVIRI All-Sky Radiance

Clear-sky Brightness Temperature



Cloudy Brightness Temperature

