Recent upgrades of satellite data assimilation at JMA

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1. Outline of NWP systems at JMA
   - Global Spectral Model & Analysis (GSM, GA)
   - Global Ensemble Prediction System (GEPS)
   - Meso-scale Model & Analysis (MSM, MA)
   - Local Forecast Model & Analysis (LFM, LA)

2. List of Upgrades
   - Clear sky radiance and soil moisture content (LA. Jan. 2017)
   - Suomi-NPP/ATMS (GA, Mar. 2017) (presented in 4p.02 by Y. Hirahara)
   - Suomi-NPP/CrIS (GA, Mar. 2017) (presented in 9.02 by N. Kamekawa)
   - DMSP/SSMIS/183GHz (GA, Mar. 2017) (presented in 4p.03 by Y. Murakami)

3. Evaluation of DBNet data impact on Early Analysis (data cutoff time 2h20m)

4. Future plans
   - Introduction of inter-channel and spatial error correlations
   - Development of an all-sky assimilation of microwave imager and sounder radiances (presented in 5.04 by M. Kazumori)
   - Development of an all-sky assimilation of infrared radiances of Himawari-8 (presented in 5p.04 by K. Okamoto)

Coverage map of DBNet

as of 2017/08/18
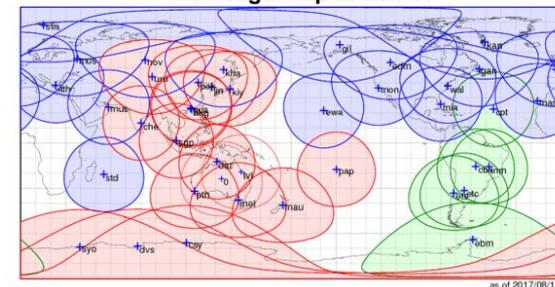
DBNet data denial experiment

FG Departure

Radiosonde [T]

[hPa]

Change in STDDEV [%]