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## **Current Status of the Satellite Data Assimilation in KMA**

This paper reports the recent progress of the satellite data assimilation in the numerical weather prediction at KMA.

## Current Status of the Satellite Data Assimilation in KMA

### 1. Assimilation of MTSAT-1R AMV data for KWRP

AMV (Atmospheric Motion Vector) data from MTSAT-1R were assimilated in 10 km resolution KMA Weather and Research Forecasting (KWRP) model. MTSAT-1R AMV data had been used for Global Data Assimilation System (GDAPS) since 2007, but they were not being used for KWRP domain (Fig. 1) and performance especially in the ocean area.

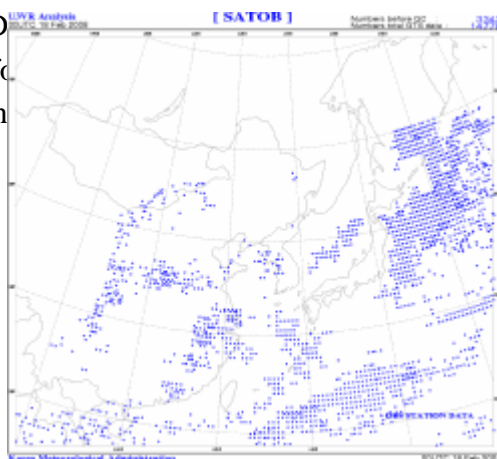


Fig 1. Data coverage of MTSAT-1R AMV data in KWRP domain  
Most of the ocean area was covered after data assimilation of MTSAT-1R data.

### 2. Future plan to improve numerical weather prediction

KMA established a new strategy on data assimilation, which focus on the introduction of UK met office model by 2010, to improve significantly the performance of numerical weather prediction. UK met office model is the unified model that can be used for both global and regional domain and is connected with 4 Dimensional VARIational (4DVAR) data assimilation method. Employment of UK 4DVAR will improve greatly the application of satellite data. Currently UK model version 6.3 is installed and is being operated in semi-operational suite with UK initial field.

It is important to procure satellite data as much as possible in order to maximize the impact of high quality data assimilation (4DVAR). Therefore, the various efforts are being tried to get more satellite data. The possibility for the diverse routes for satellite data acquisition is being investigated and the program to reinforce the international cooperation with the institutes that produce the satellite data is organized and will be endeavored.