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KMA ACTIVITIES FOR THE ASIA-PACIFIC RARS

This document reports the status of receiving, processing, utilizing of AOTVS in KMA, and the data exchanging in the Asia-Pacific RARS (Regional ATOVS Re-transmission Services) program.

KMA Activities for the Asia-Pacific RARS

1. Current status of ATOVS data receiving and processing at the KMA

ATOVS data in terms of receiving, processing and utilizing in KMA are as follows;

- (1) Receiving station : KMA Headquarters, Seoul, Republic of Korea
(37.48 N, 126.92 E, altitude 31 m)
- (2) Data acquisition and processing
 - HRPT data from NOAA-17 & 18 are directly received and processed using AAPP version 5.3 and IAPP version 2.1.
- (3) Coverage : Fig. 1 shows the coverage of data available during a month.

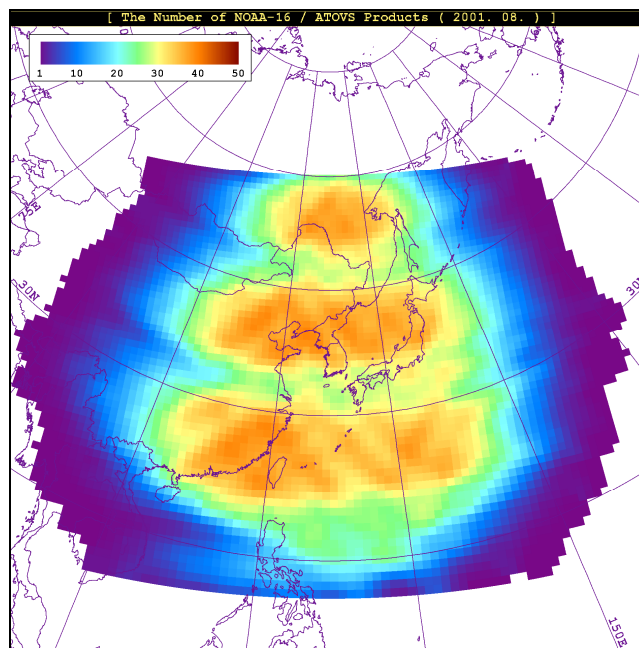


Figure 1. Coverage of ATOVS data available during a month

- (4) Frequency of acquisition : 2 satellites x max 4 times = up to 8 times a day
- (5) Processing sensors and data level

From NOAA-17

	Processing	Level	Resolution
AMSU-A	AAPP	1a,1b,1c,1d	50 km
AMSU-B	AAPP	1a,1b,1c,1d	17 km
HIRS/3	AAPP	1a,1b,1c,1d	18.3 & 20.3 km

From NOAA-18

	Processing	Level	Resolution
AMSU-A	AAPP	1a,1b,1c,1d	50 km
MHS	AAPP	1a,1b,1c,1d	17 km
HIRS/4	AAPP	1a,1b,1c,1d	10 km

(6) Processing time

- Reception : less than 15 min
- AAPP Processing : within 5 min
- IAPP Processing : within 3 min

(7) File size for exchange

Sensor	L1c
AMSU-A	0.3 Mb
AMSU-B	1.7 Mb
HIRS	0.8 Mb
MHS	2.1 Mb

(8) ATOVS utilization

- ATOVS data are currently used for NWP models as well as weather analysis.
- SATEM (satellite temperature and humidity sounding) data achieved via GTS are used operationally for Global Spectral Model, as well.

2. Status for ATOVS Data exchange between KMA and JMA

(1) Background and History

- Discussion of ATOVS data exchange among the Asia-Pacific countries was commenced at the APSDEU-6 meeting in 2005.
- Tokyo and Beijing were selected as the intra-regional data centres.
- KMA discussed the details to implement RARS system with JMA in May 2006.
- KMA prepared the encoding and decoding program for ATOVS BUFR data in June 2006 and will start exchange of ATOVS BUFR data with JMA in September 2006.

(2) Current Status

- ATOVS AAPP L1C (HIRS, AMSU-A, AMSU-B, MHS) data are exchanged between KMA and JMA in compressed BUFR format through GTS (16kbps)
- KMA generates to send ATOVS data to JMA and receives data from one Japanese and three Chinese HRPT stations.

- KMA upgraded ATOVS BUFR data generation system to exchange data with JMA more efficiently.

(3) Future Plan

- MetOp HRPT data receiving system will be installed at Jincheon (36° 59' 18"N, 127° 25' 57" E), 70 km southeast of Seoul in December 2007.
- AAPP v6.3 will be used for the generation of MetOp ATOVS Level 1c data by in December 2007.
- NOAA receiving system is scheduled to move to Jincheon in June 2008.