

Introduction

- KMA had started to produce NOAA ATOVS BUFR data at KMA HQ since August 2006.
- KMA and JMA officially have exchanged ATOVS BUFR data since September 2006.
- Receiving station of NOAA series was moved to NMSC(National Meteorological Satellite Center) located in Jincheon on December 2008.

HRPT	Coordinates	Operator	Availability
Jincheon	36.99N, 127.43E, 154m	KMA	Operational
Seoul	37.48N, 126.92E, 31m	KMA	Replaced by Jincheon

Table 1. KMA RARS Site

- NMSC processing ATOVS L1C, L1D data and disseminated them through GTS.

SAT.	LEV.	Level 1A,B,C			Level 1d	
NOAA-18	AMSU-A	HIRS	MHS		HIRS	
NOAA-19	AMSU-A	HIRS	MHS		HIRS	
MetOp-A	AMSU-A	HIRS	MHS	IASI (test)	HIRS	IASI (test)
MetOp-B	AMSU-A	HIRS	MHS	IASI (test)	HIRS	IASI (test)
NPP (test)		CrIS	ATMS		CrIS	ATMS

Table 2. List of Satellite Sounding Data received and processed by NMSC

ATOVS Data Operation For RARS

Current Status

- AAPP(ATOVS and AVHRR Processing Package) V7.5 was installed in November 4 2013.
- Period of data acquisition : 4 times a day for each satellite(max).
- Data format : Compressed BUFR
- Data Process Duration
 - Reception : less than 15min.
 - AAPP Processing : less than 5 min.
- ATOVS data process tool
 - Level 0 : Metopizer (cadu_to_ccsds, ccsds_to_l0) provided by EUMETSAT
 - Level 1c, 1d : AAPP
- * Metopizer was upgraded from V3.42 to V3.47 in April 2013.

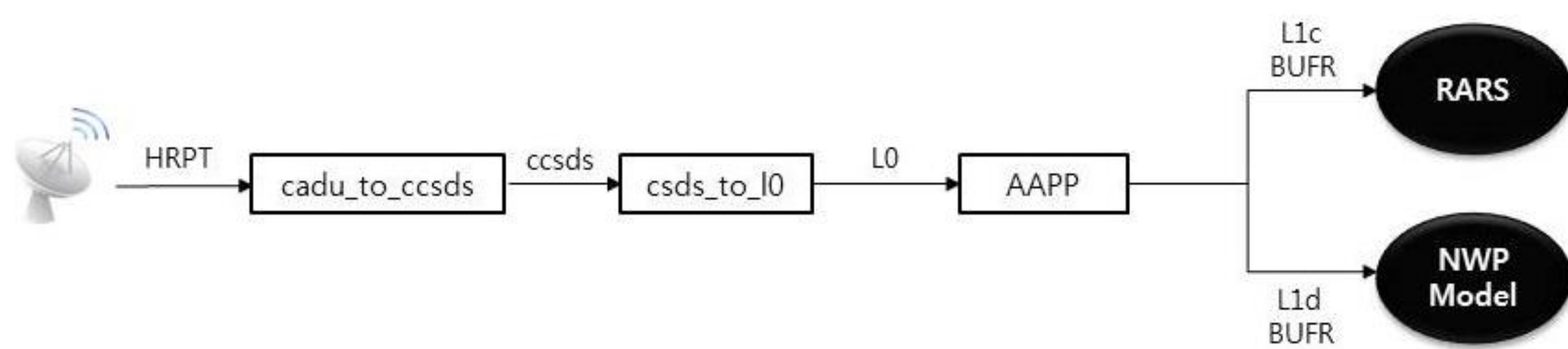


Figure 1. NOAA, MetOp ATOVS Processing Flow Chart

NOAA

- Currently ATOVS data of NOAA-18&19 are being processed and utilized operationally for forecasters, NWP, researches, etc.

MetOp

- The new HRPT antenna was established to receive MetOp-A data at NMSC in December 2007 and then normal operation has started on April 2011.
- Currently ATOVS data of MetOp-A&B are being processed and utilized operationally.
- The MetOp-B ATOVS data processing has begun since April 2013.

Future Plan

- Enhance ATOVS monitoring by adding function of monitoring the each path coverage and number of observations.
- Additional process of NPP CrIS·ATMS data formatting into Compressed BUFR and its official release to RARS until June 2014.
- Verification of local MetOp-A-B IASI data by global IASI data and its official release to RARS until June 2014.

Web-based Monitoring of Operational Processing

NMSC RARS Web site

- Web Address : <http://nmsc.kma.go.kr/html/homepage/en/testoperate/rarsInfo.do>
- Main Info. (Activities>RARS>RARS Information)
- TBB Monitoring (Activities>RARS>TBB Monitor)

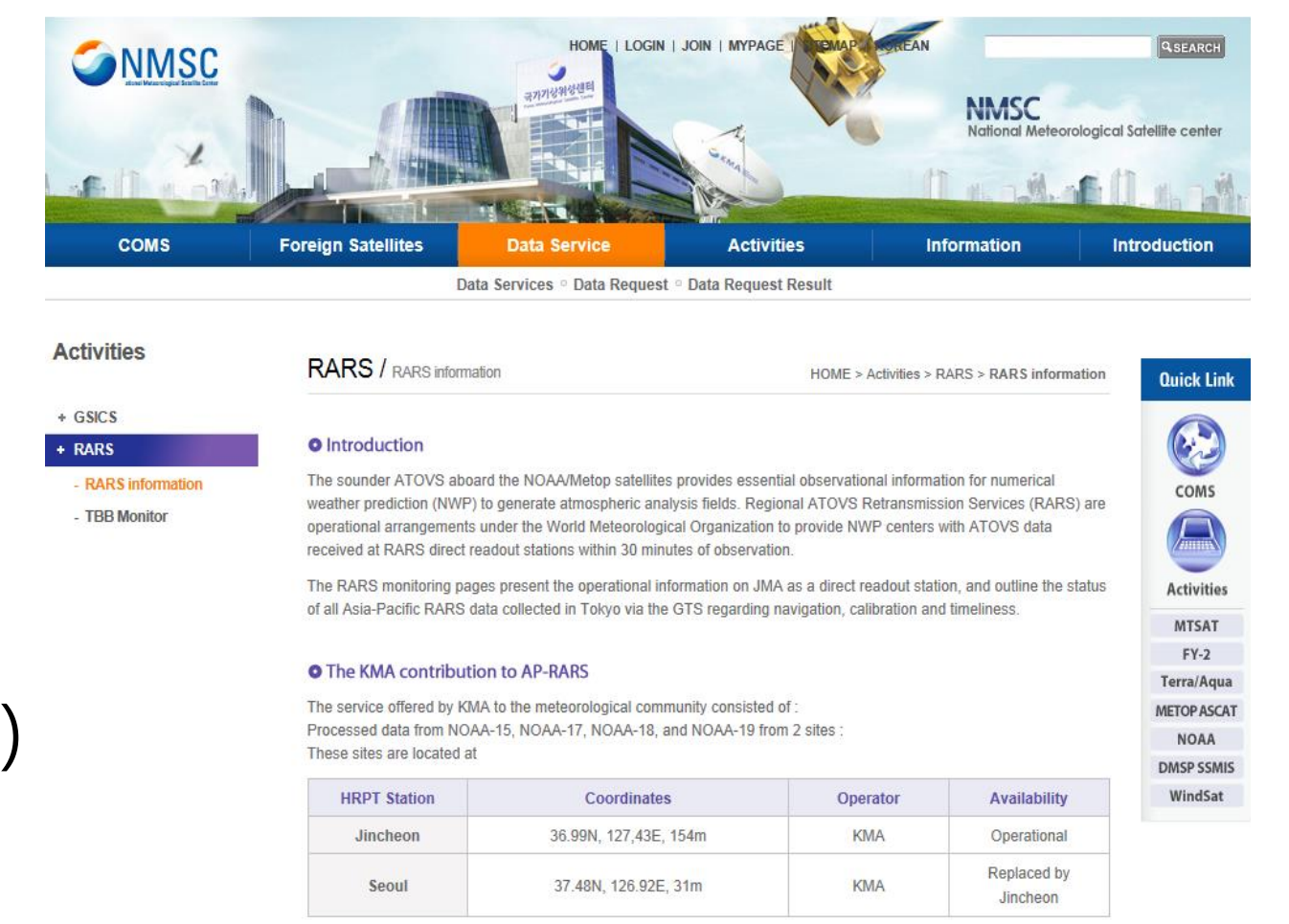


Figure 2. RARS Web Page (RARS Information)

ATOVS TBB Monitoring by RARS Website (Example : 17th Mar. 2014)

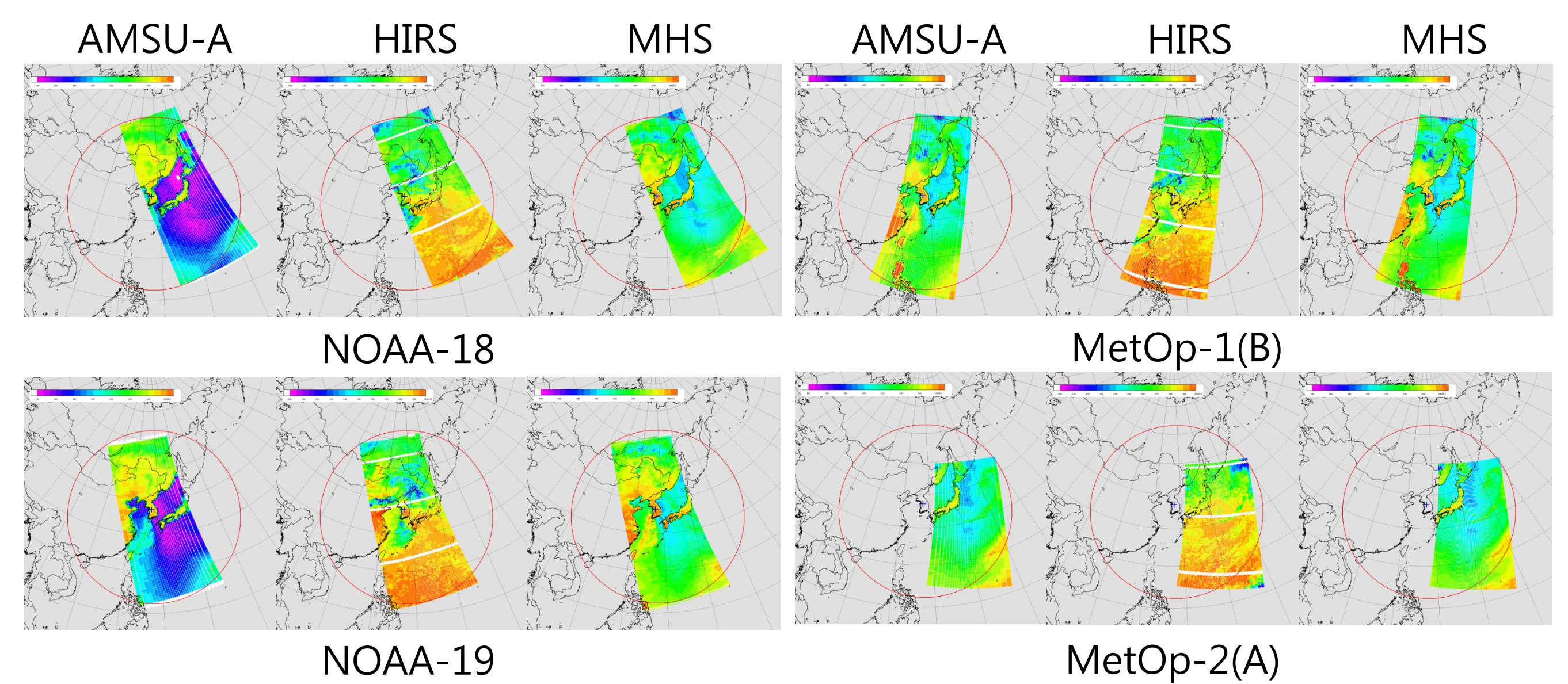


Figure 3. ATOVS Data TBB Monitoring (CH1)

New Sounding Data Preparation For RARS

CrIS, ATMS on NPP

- NMSC has started to receive NPP data via antenna since August 13 2012.
- The system for CrIS, ATMS bufr (L1c, L1d) processing was established in March 2014.
- Software : CSPP V1.3, AAPP V7.5

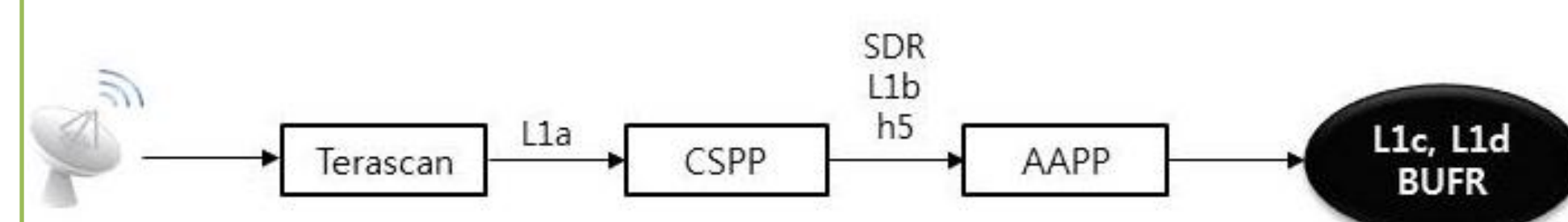
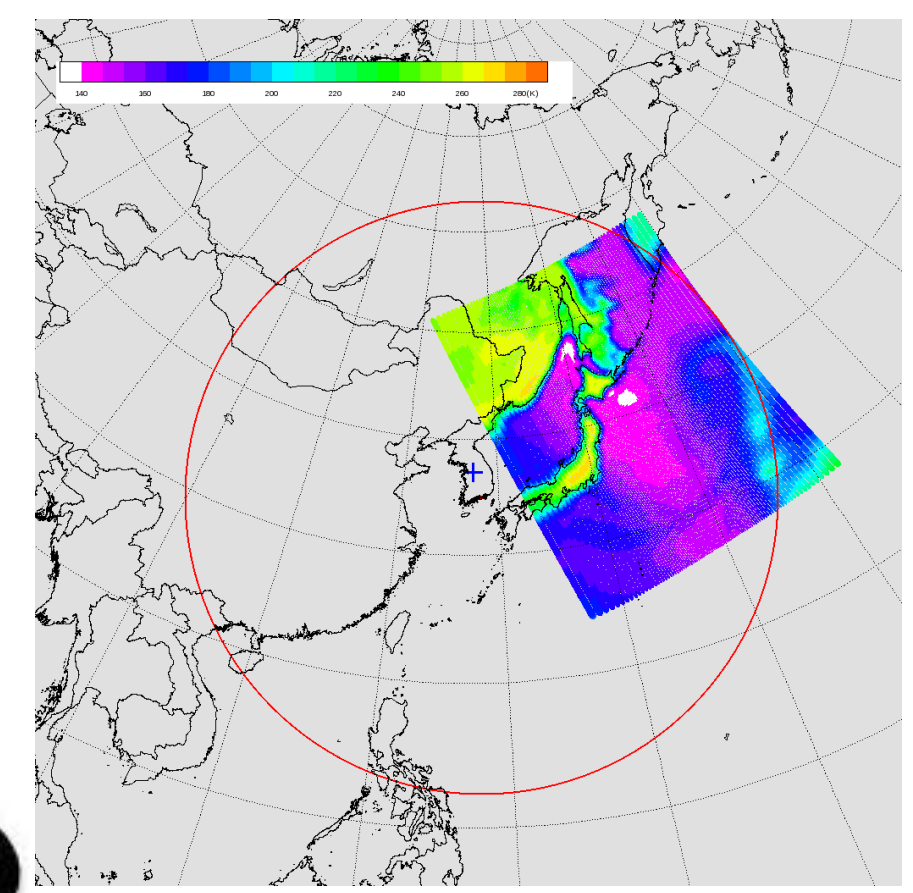


Figure 4. NPP CrIS-ATMS Processing Flow Chart

Figure 5. NPP ATMS TBB Image (17th March 2014)

IASI on MetOp-A·B

- Process Phase
 - step 1 : MetOp ATOVS data processing by AAPP
 - step 2 : IASI L1c, L1d processing by OPS-LRS
- Operationally, 314 channels are selected for KMA NWP Model.
- Software : AAPP V 7.5, OPS-LRS V7.0

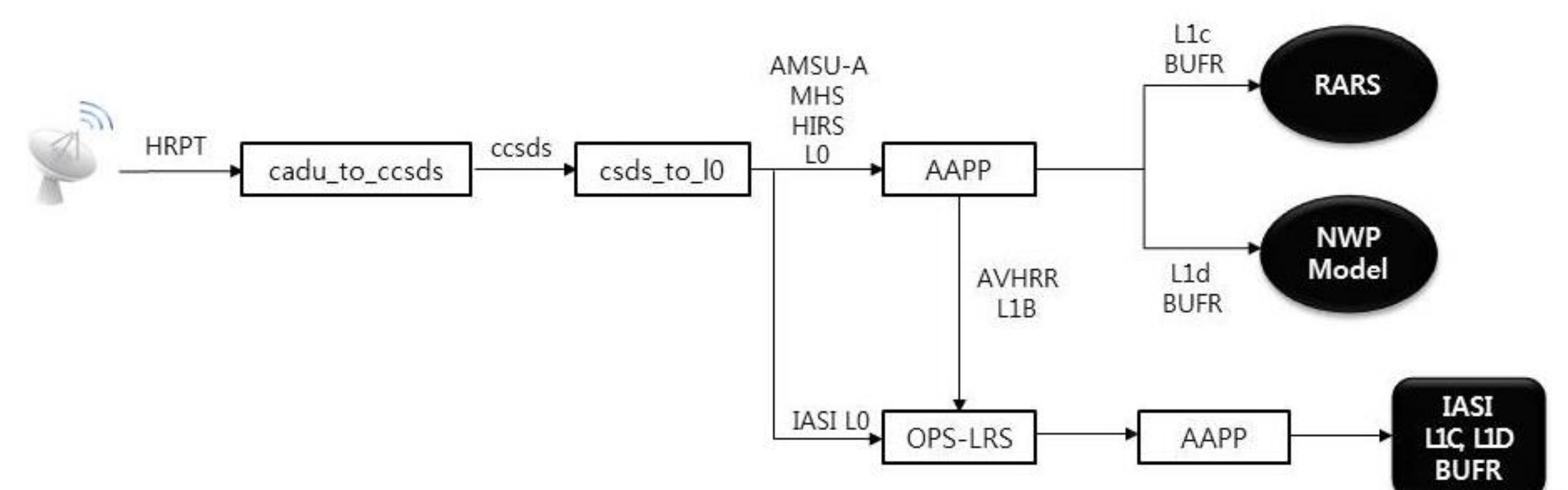


Figure 6. MetOp-A-B Processing Flow Chart