The processing system of Infrared Atmospheric Sounding Interferometer (IASI) radiances developed at Korea Institute of Atmospheric Prediction Systems (KIAPS) is introduced and its preliminary results are described here.

Brightness temperature (TB) observed for one month in November, 2012 is extracted from IASI Level1d BUFR data using ECMWF BUFR decoder. The background TB is simulated by RTTOV version 10.2 using UM 6-hour forecast data.

We adopt NWP SAF cloud detecting algorithm (McNally and Watts, 2003) to remove cloud contamination in observed TB for each IASI channel.

And also we remove bias of observed TB for each IASI channel and scan position. We assumed that the bias of background TB is negligible compared to that of observed TB.

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Fig. 1. The predictors for air-mass correction.

Fig. 2. IASI scan position. (Top) AMGUA-32 scan position. In level 1d data, 1 pixel in it is chosen by using AVHRR data. The selected pixel is the most warmest and homogeneous field of view.

Fig. 3. AMSU and IASI scan position (120 scan positions). In KIAPS, 120 scan positions are used. In Met Office, 30 scan positions are used.

Fig. 4. IASI scan bias of KIAPS (a, b) and Met Office (c). In KIAPS, 120 scan positions are used to calculate scan bias. The scan bias is calculated for each IASI channel. The scan biases are totally different between KIAPS and Met Office. The variations along with scan positions are larger in KIAPS for temperature channels, on the other hands the variations are smaller in Met Office for water vapor channels.