DIRECT BROADCASTING PROCESSING PACKAGES FOR IASI/AVHRR

This paper provides a summary of the status of the processing of direct readout data for IASI/AVHRR for Metop.

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1   INTRODUCTION

At CGMS-XXIX the issue of advanced preparation of processing packages for high spectral resolution infrared sounders was discussed in WG II. It was noted that the communications with the ITWG remain most useful. In conclusion Action 29.29 requested that:

EUMETSAT and USA report on their plans for developing and supporting Direct Broadcast processing packages for IASI/AVHRR/AMSU and CrIS/VIIRS/ATMS, respectively, at ITWG (March 2002) and CGMS XXX (October 2002).

2   ITSC-XII

The issue was brought to the attention of the 12th International TOVS Study Conference (ITSC), which was held at Lorne, Australia, from 26 February – 7 March 2002.

ITSC expressed strong support and reaffirmed the importance of the availability of "ingest" code (code to process raw data to level 1b (c) data) and pre-processing code (code to process from level 1b to a point suitable for retrieval or assimilation) to all users who intend to receive and process the raw data, for all advanced sounders. Instrument combinations for which this will be required include in particular Metop with the IASI+AMSU-A+MHS+AVHRR instruments.
The International TOVS Working Group (ITWG) recommended "that responsible agencies establish focal points to ensure that ingest and pre-processing code for future advanced sounders (and their complementary imagers) is provided in a form suitable for use with locally received data and yielding output consistent with global data, and to ensure that activities are undertaken to integrate this code into processing packages available for international distribution."

3   IASI LEVEL 1 DIRECT BROADCAST DEVELOPMENT

The development of a direct readout package for IASI and the adaptation of the existing ATOVS and AVHRR Processing Package (AAPP) package, which is maintained by the Satellite Application Facility on Numerical Weather Prediction (NWP SAF), is part of the current plans of the NWP SAF.

Relevant software development will be initiated by EUMETSAT, when the prototype software for global EPS processing has been delivered by contractors and EUMETSAT parties. Such development will also address other instruments, like ASCAT at the request of EUMETSAT users.

It has been identified, that there is a need to adapt the decommutation part of the existing package AAPP to the Metop interface, since the space to ground interface is following CCSDS (Consultative Committee for Space Data Systems) packet standards.

4   CONCLUSION

The development of direct readout software for EPS processing is being addressed and planned by EUMETSAT.