

THE EUMETSAT AAPP DEVELOPMENT – STATUS AS OF JULY 1999

This Paper discusses the status of the EUMETSAT ATOVS and AVHRR Processing Package (AAPP) Software Development for locally received direct readout HRPT data from the NOAA-K, L, M spacecraft. The AAPP V1.3 is now available to the user community. Extended testing with a selected group of users was started in 1998 and subsequently the testing community was extended to world wide users. AAPP can process TOVS and ATOVS data. The current version includes corrections for the AMSU-B interference problem. Retrieval software developments of several institutions are based on the AAPP. A distribution policy was agreed for global, unlimited use in time for non-commercial users and also for redistributors. Further information is available on the EUMETSAT Home Page:<http://www.eumetsat.de/en/area4>.

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The development of the processing software for locally received HRPT based AVHRR and ATOVS data from the NOAA-K, L, M spacecraft under the co-ordination of the EUMETSAT Secretariat has achieved its goal: a package is available to Users world-wide for the ingest and pre-processing of TOVS and ATOVS data.

The development and integration of the code for Ingest and pre-processing has been consolidated through 1998 with participation from Météo-France (CMS in Lannion), UK-Met Office, ECMWF, KNMI, LMD and DWD. Three technical meetings have been held in 1998 at Darmstadt, where development and test issues have been addressed and test results have been discussed within the development group.

The integration phase was taken over by EUMETSAT in 1998 and a first integrated version of the AVHRR and ATOVS Processing Package (AAPP) which performs Ingest, Navigation, Calibration and pre-processing was made available, for testing, first, to a selected group of testers from the ITSC (International TOVS Study Conference) community. Subsequently the membership of the testing group was extended to all interested Users from the ITSC community.

After the launch of NOAA-K, now NOAA-15, subsequent versions of AAPP were issued via the EUMETSAT ftp-server: ftp.eumetsat.de. The AAPP version 1.3 now available comprises:

- Ingest code for HRPT, for TOVS and ATOVS instruments;
- Navigation code for TOVS and ATOVS instruments;
- Calibration code for TOVS and ATOVS instruments;
- Mapping code for the TOVS and ATOVS instruments;
- AVHRR cloud mask processing, including mapping to the HIRS FOV
- pre-processing code for TOVS and ATOVS instruments.
- AMSU-B interference correction code.

With the release of the versions subsequent to AAPP 1.0, the update mechanism via the AAPP homepage and the EUMETSAT ftp-server had been successfully tested. An electronic user forum was established where information and feedback could be exchanged. On the EUMETSAT server, after more than one year of testing, an extensive list of known bugs and fixes is available. All these bugs are fixed in the subsequent releases. The distribution mechanism via the home page (<http://www.eumetsat.de/en/area4>) and registration against a signed licence form works well. Currently

- 97 users from 40 countries have obtained V1.2; they include the agreed beta-testers and the members of the Development Group;
- 33 more have registered, but have not yet signed a license.

The versions 1.2 and 1.3 of AAPP include a correction for the AMSU-B interference problem, provided by the UKMO. Since the AMSU-B bias is drifting, updates of the corrections need to be done every two months.

NESDIS have announced that they plan to switch the NOAA-HRPT frequency from 1698.0 MHz to 1702.5 MHz. This is expected to provide a consistent HRPT data stream and should end the

variable biases that have contaminated the AMSU-B instrument data. After this change a new correction scheme for AMSU-B will be needed.

A Licence Agreement between EUMETSAT and the AAPP Development Partners has been signed, allowing EUMETSAT to distribute the AAPP free of charge to all interested Users and to persons, organisations and companies who wish to redistribute the AAPP alone or as an integrated part of their other products.

A EUMETSAT AAPP Home Page exists on the EUMETSAT Web server where more detailed information can be sought.