

# ATOVS and AVHRR Pre-Processor - Second Generation (AAPP-SG)

## Version 1.0.0 Release Notes

28 May 2026

## 1. Introduction

The ATOVS and AVHRR Pre-Processor - Second Generation (AAPP-SG) is a software package designed to process sounder data from the MWS and IASI-NG instruments on the Metop-SG satellite series. See [https://space.oscar.wmo.int/satelliteprogrammes/view/eps\\_sg](https://space.oscar.wmo.int/satelliteprogrammes/view/eps_sg).

AAPP-SG version 1.0.0 is the first major release. It is compatible with the EUMETSAT pre-launch simulated test data in netCDF format, available at <https://user.eumetsat.int/resources/user-guides/metop-sg-test-data>. In particular the "MWS test data version 3" and the "IASI-NG test data L1C and L1D version 2.1". It is also compatible with the MWS test data in BUFR format linked from the same web page. However, the IASI-NG L1C and L1D BUFR sequences are still not finalised; AAPP-SG reflects EUMETSAT's current plans, but some further changes are anticipated before data dissemination starts in mid-2026.

The Digital Object Identifier (DOI) of the package is: 10.15770/EUM\_SEC\_CLM\_1012

## 2. Reference Documents

The AAPP-SG documents are listed as follows:

Doc reference	Title	Version	year	Status
NWPSAF-MO-UD-064	AAPP-SG User Manual	1.0	2026	New
NWPSAF-MO-DS-057	AAPP-SG Product Specification	1.0	2025	New
NWPSAF-MO-DS-056	AAPP-SG Top Level Design	1.0	2025	New

**Note:** The User Manual is the main document that users should refer to as it includes details of how to install the software, how to run the software, and the scientific principles.

The documents can be accessed from the [NWP SAF web site](#).

## 3. Package Files

The AAPP-SG package files are listed in the table below. Users have the choice of building the package from source or using the supplied Red Hat 9 executables, if their system is compatible. See the User Manual for further information about compatibility.

<b>File name</b>	<b>Purpose</b>
AAPP-SG_v1.0.0.tar.gz	Source code
AAPP-SG_v1.0.0-exec.tar.gz	Executables
AAPP-SG-test_cases-v1.tar.gz	Use test cases: supplementary examples demonstrating how to use the software

The source and executable files can be accessed via the "software downloads" tab on the NWP SAF web site (user registration is required). The test cases are accessible from: [https://nwp-saf.eumetsat.int/downloads/AAPP-SG\\_testcases/](https://nwp-saf.eumetsat.int/downloads/AAPP-SG_testcases/)

## 4. License

To use this software, users need to have agreed to the terms of the NWP SAF License Agreement. The License Agreement is displayed when a user is logged into the NWP SAF web site and chooses to change software preferences. It can also be viewed here: <https://nwp-saf.eumetsat.int/site/software/licence-agreement/>

## 5. System Requirements

AAPP-SG has been tested on systems compatible with 64-bit CentOS7 and CentOS9. It would be expected to work on other Linux distributions, provided support for the dependency libraries exists.

The dependency libraries include:

- ecCodes, distributed by ECMWF
- netCDF (Fortran and C interfaces)
- hdf5 (with Fortran enabled)

For building AAPP-SG from source, a Fortran90 compiler is required. The recommended F90 compilers are `gfortran` and `ifort`.

The supplied test case scripts are based on Bash shell. Standard Unix utilities (including `gmake`, `ar`, `tar`) are used.

AAPP-SG and its dependency libraries take up approximately 200MB of disk space, once they have been built.

The test cases include a README file that gives typical run times on a system with 16 GB of memory and 4 processor cores. This could be considered a minimum configuration.

## 6. Installing AAPP-SG

For instructions on installing AAPP-SG, please see section 2 of the AAPP-SG User Manual. If you are building AAPP-SG from source, two scripts are supplied to assist the process:

- `install_dependencies.sh` - downloads the necessary dependency libraries and builds them
- `configure_aapp-sg.sh` - prepares the necessary makefiles, ready for the user to run

`make` and `make install`

For details on using these scripts, see the User Manual.

## 7. Running the Test Cases

The test cases are documented in section 4 of the User Manual and are distributed as a single gzipped tar file.

The availability of new test cases will be communicated to users via the AAPP-SG web page and NWP SAF news announcements.

## 8. Version Control

Contents of the `version.yaml` file released as part of AAPP-SG v1.0.0:

```
Name: AAPP-SG
Version: 1.0.0
Release date: 2026-05-28 18:46:54 +0000 (Thu, 28 May 2026)
```

## 9. User Feedback

If you encounter a problem, or have suggestions for improvements, please use the [NWP SAF Helpdesk](#).