1 INTRODUCTION

The IAIS-NG L1D test data set is generated by the IASI-NG L1D In-House Prototype Processor using 1C test data and auxiliary data as input. The L1C data provides the geolocated real spectrum and the auxiliary data contains the IASI-NG eigenvectors and the static parameters to configurate the Principal Component Compression.

The IASI-NG Level 1D output file contains in netcdf format the same information of the L1C but the radiance is compressed using the Principal Component technique. The L1D data follows the format specifications provided in the following documents, which are available together with this release package.

- EPS-SG IASI-NG L1D Product Format Specification (V4A)
- EPS-SG Generic Product Format Specifications (V4)

Full resolution, original L1C radiances of any outlier spectra are stored in the output auxiliary data. The mean and standard deviation of the compression residuals computed over all non-outlier spectra of the output product is also stored in the output auxiliary, which is also released together with this package.

- EPS-SG - IASI-NG Level 1D Auxiliary Data Specification (V4A)

2 CONTENTS OF THE TEST DATA PACKAGE

2.1 Metop-SG orbit and attitude definition

For EPS-SG, 126 simulated granules from five different orbits are available:

- Orbit 1: 2007.09.12_08:43.29 to 2007.09.12_10:21.34 (38 granules)
- Orbit 2: 2007.09.12_10:21.38 to 2007.09.12_12:02.03 (39 granules)
- Orbit 3: 2008.02.23_08:46.29 to 2008.02.23_10:27.41 (39 granules)
- Orbit 4: 2012.08.18_08:58.29 to 2012.08.18_09:10.52 (5 granules)
- Orbit 5: 2010.05.06_11:52.50 to 2010.05.06_12:05.44 (5 granules)

They cover a variety of scene type for testing purposes (clear, cloudy, land, sea, snow/ice, day etc.).

2.2 Test Scenarios Description

This version of Test Data delivery encompasses a nominal Near Real Time global processing scenario.

The L1D product contains the same information of L1C but the radiance is compressed by using the principal component. The auxiliary data contains the spectra for which the PC compression results in residual RMS, which is higher than expected, and granule statistics of the residuals are stored.

Appendix: Known issue

There is an inconsistency in the values of the attributes “Valid_min” and “Valid_max” for the following variables in the test data file and the PFS.

/status/satellite/inclination
/status/satellite/eccentricity