

XMM-Newton CCF Release Note

XMM-CCF-REL-341

RGS HK Temperatures

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1 CCF components

Name of CCF	VALDATE	EVALDATE	List of Blocks changed	XSCS flag
RGS1_HKPARMINT_0015	2002-11-14T20:10:00		HKPARMINT	NO
RGS2_HKPARMINT_0014	2002-11-13T22:00:00		HKPARMINT	NO

2 Changes

There have been some slight temperature violations of the limits imposed by the parameters reflecting the temperature sensors T2007, T2015 and T2023 on the RGS1 chain and T2031, T2039 and T2047 on the RGS2 chain. The current limits, set early in the mission, are $T = [18, 22]$ deg in all cases. Some of the temperatures have been occasionally above those temperatures by few tenths of a degree. Those violations are meaningless and do not affect the data quality. Therefore we took the decision to increase slightly the upper limit to 22.5 degrees.

The CCF files RGS1_HKPARMINT_0015 and RGS2_HKPARMINT_0013 are identical to the CCFs RGS1_HKPARMINT_0013 and RGS2_HKPARMINT_0012, except for the upper limit of the mentioned parameters, set now by 22.5 degrees.

3 Scientific Impact of this Update

It will be possible to derive valid GTIs using HKG TIGEN for RGS1 and RGS2 data in the periods when the RGS temperature sensors were slightly above 22.0 degrees.



4 Estimated Scientific Quality

Not applicable.

5 Test procedures

General checks:

- use FV (or a different FITS viewer) for files inspection.
- use *fdiff* for establishing that the only differences between RGS1_HKPARMINT_0013 and RGS1_HKPARMINT_0015, as well as between RGS2_HKPARMINT_0012 and RGS2_HKPARMINT_0014 respectively, are just the upper limits of the temperature sensors, now set to 22.5 degrees.

Further checks:

Derive GTIs for data showing the slightly high temperatures. Check the GTIs produced.

6 Test results

Following tests were performed:

- *fv* inspection succesful
- *fdiff* used and results as expected
- *hkgtigen* ran on RGS1 and RGS2 data (ODF 07906001) which could not be correctly processed due to the RGS sensor temperatures slightly above 22.0 degrees. GTIs produced with the new CCFs are OK, while the derivation with just the public ccf yields empty event lists.

7 Expected updates

Not foreseen.