LFR ground segment SW design, data products, organization and management

Laboratoire de Physique des Plasmas

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LFR ground segment team

Team configurations :

Main scientist: Thomas Chust (LFR lead Co-I)

Engineers: Rodrigue Piberne (shared with Cluster activities)
Bruno Katra (shared with Bepi-Colombo activities)

** *We also benefit Olivier Lecontel help & expertise for SCM related issues.*

LFR ground segment activities (according to CNES convention)

LPP responsibilities (as defined with ROC and other teams)

❖ **Waveforms products (CWF and SWF) :**

LPP is responsible for **L1 to L1r levels**

+ provides LFR internal transfer functions to BIAS and SCM teams.

❖ **Spectral products (ASM and Basic Parameters) :**

LPP is responsible for **L1 to L2 levels** using transfer functions provided by BIAS and SCM teams.

LFR ground segment activities (according to CNES convention)

Waveforms products (CWF, SWF) : CDF

❖ **L1 CDF** skeletons/masters definition : several iterations since July 2015 with the ROC and other teams (BIAS, SCM and TDS).
➔L1 datasets are OK and validated (blank test + PFM thermal test + delta cal) : currently in V03.

➔ **L1R CDF** skeletons/masters definition : new products defined after January 2017 keypoint with the ROC and other teams (BIAS, SCM and TDS). **Operational since October 2017.**

➔ *Good convergence and agreements with sensors and TDS (CWF/SWF layouts)*

Waveforms products (CWF, SWF) : SW (CalBUT)

❖ **L1 to L1R SW** : ROC pipeline compliant software (+JSON desc, I/O formats,..)

LFR ground segment activities (according to CNES convention)

Spectral products (ASM, Basic parameters) : CDF

❖ **L1 CDF** skeletons/masters definition : **~OK (partial validation after blank tests)**

❖ **L2 CDF** skeletons/masters definition : **L2 datasets are ~OK (formerly L2R/S). Will be delivered soon.**

Spectral products (ASM, Basic parameters) : SW

❖ **L1 to L2 SW** : **1st preliminary version will be ready in begining of december and delivered to ROC according to CNES convention.**

In june 2017, ROC requested to integrate eventually the decoding of the basic parameters (tricky bits arrangement) at their L0 to L1 level.
In september , as ROC planning was not compatible with this task to allow a delivery of LPP software for december, it has been decided to process this decoding temporarily at LPP (L1 to L2).

Thank you

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