# Minutes Of Meeting

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| **Meeting date:** | 2017/01/17 | **Meeting place:** | LESIA (Meudon) |
| **Subject:** | **RPW Calibration Software (RCS) responsibilities** | | |
| **Participants:** | - M.Pulupa (FIELDS/SPP)<br>- J.Soucek (TDS)<br>- D.Pisa (TDS)<br>- Y.Khotyaintsev (Bias)<br>- E.Johansson (Bias)<br>- T.Chust (LFR)<br>- B.Katra (LFR)<br>- R.Piberne (LFR) | - J.Y.Brochot (SCM)<br>- G.Cassam-Chenaï (SCM)-<br>- M.Maksimovic (RPW PI, ROC, THR)<br>- Y.de Conchy (ROC)<br>- Q.N.Nguyen (ROC, THR)<br>- A.Vecchio (ROC, THR)<br>- S.Lion (ROC)<br>- X.Bonnin (ROC) | |
| **Agenda:** | **1. Point#1**<br>**2. Point#2**<br>**3. Point#3**<br>**4. Point#4** | | |

| **Prepared by:** | **Function:** | **Signature:** | **Date:** |
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| Xavier Bonnin | RPW Ground Segment Deputy Project Manager | | 18/01/2017 |
| **Approved by:** | **Function:** | **Signature:** | **Date:** |
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| **Authorized by:** | **Function:** | **Signature:** | **Date:** |
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| MINUTES OF MEETING | N°<br>Actioneer<br>Due date |
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| **<u>Point#1</u> FIELDS/SPP**<br><br>- FIELDS: Daily CDF files available on the SSL server in directories <data_type>/<level>/<YYYY>/<MM>/.<br>RPW: ROC will see if the same approach could be done at LESIA for RPW data.<br><br>- FIELDS : L1 CDF file format close to the packet definition, and L2 and higher may differ<br>RPW: It has been decided prior to the ground calibrations to have as much as possible the same structure in the L1 and L2 CDF.<br><br>- FIELDS: WF data products might be organized with 1 CDF record (i.e., 1 Epoch) per sample.<br>RPW: it is planned to have 1 CDF record per sample for the CWF products and 1 CDF record per snapshot for the SWF products<br><br>- ROC should host a local archive at LESIA of the FIELDS SSL data, and vice-versa | XB: Check to see what it is planned at Solar Orbiter level in terms of data distribution. [*Before end of February*]<br><br>XB: Send to the FIELDS team the current list of RPW data products and the corresponding CDF skeletons for information. [*Before end of February*] |
| **<u>Point#2</u> L1 --> L2 versus L1 --> L2R --> L2 RCS path**<br><br>- **All does agree that the L1-->L2R-->L2 path issue only concerns the magnetic (B) and electrical (E) low freq. (LF) waveform products.**<br>**All L2 other data products (spectral, BP, STATS, etc.) will be generated by the receiver teams from the corresponding L1 data products delivered by the ROC. Furthermore, the TDS L2 E High Freq. (HF) WF products, which does not concern the BIAS, will be produced by the TDS team too.**<br><br>- Opinion of the ROC team is there is no problem with the L1-->L2R-->L2 path. as long as both config. give the same L2 data (cf. Milan's analogy with A->B->C and A->C paths must give the same C result)<br><br>- THR team is not concerned by this issue, but the way the TNR B data will be generated by its software is not clear yet<br><br>- LFR team warns that the L1-->L2R-->L2 path is not a "neutral operation" from the frequency response point of view. It can introduce a "windowing" issue and then it is better to | - THR team to clarify the way the TNR B data product(s) will be generated by its software (Will it be a specific data set? What will be the responsibilities?) [*Before the end of February*]<br><br>- XB to send a draft of the software user manual to each team [*Before the end of January*]<br><br>- Teams to send a first draft of its software manual to the ROC. [*Before mid-March*] |

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| perform calibration “in a unique place at the end of the data flow processing”. LFR team suggests to deliver a dedicated support data file to help the BIAS and SCM teams to produce the L2 files. The path of this support file could be written in a global attribute of the L1 CDFs.<br><br>- ROC team indicates that the L1 CDFs are low level data produced from the TM, and should be not contain calibration information<br><br>- BIAS team warns that the E LF calibration at L2 is plasma dependent and requires a fine expertise<br><br>- SCM team is ok to implement the L1-->L2 path in its software under conditions (interfaces with receiver teams are clear in terms of calibration inputs and doc., problem of human resource at the LPC2E)<br><br>- TDS team highlights that the L1-->L2R-->L2 path offers a clean division of responsibilities, but what transfer function to use? The L1-->L2 path is simpler, but the sharing of responsibilities is more complex. Additionally, Jan specifies that the TDS L1 data are not fully de-commutated, and might make difficult the L1-->L2 path.<br><br>- TDS team suggests to replace the L2R by a “L1R” (convention to TBC) containing L1 data + extra information that allows the BIAS and SCM teams to produce L2 calibrated WF data products.<br><br>- **After discussions it has been decided to choose the “L1R” solution, which has the triple advantages to perform the L2 end calibration at the sensor site, keeping the sharing of calibration responsibilities and the associated expertise clearer. And keeping the ROC-RCS interface as much as possible as initially planned in terms of design and responsibilities.**<br><br>- The content of this “L1R” level will have to be clearly described in the software user manual of the RCS team in charge of producing this level. | |
| **<u>Point#3</u> BIAS sweeping calibration products**<br><br>**-** The definition of the L2 (TBC) bias sweeping calibration data product is not clear | - XB will organize a dedicated telecon between the ROC and the BIAS team to clarify the L2 bias sweeping data products [*before end of february*] |

| **Point#4** | |
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