(2018-12-04) RCS telecon #16

Goals

- Status on RCS works

Date

04 déc. 2018

Attendees

- [Xavier Bonnin](#)
- Jean-Yves Brochot
- Thomas Chust
- Erik Johansson
- Bruno Katra
- Yuri Khotyaintsev
- Matthieu Kretzchmar (apologies)
- Milan Maksimovic (apologies)
- Lorenzo Matteini
- Rodrigue Piberne
- Quynh Nhu Nguyen
- David Pisa
- Jan Soucek
- Andris Vaivads (apologies)

Agenda

1. ROC pipelines software, data products and documentation status
2. RCS software, data products and documentation status
   a. TDS
   b. BIAS
   c. LFR
   d. SCM
   e. THR
3. Discussion on science verification/validation
   a. QUALITY_BITMASK/FLAG : Lessons from MMS by Yuri
   b. Proposed implementation for RPW (TBC)
4. Ancillary parameters in RPW CDF files
5. RPW Data Product Description Document (DPDD)
6. Planning
7. Next RCS telecon
8. AOB

Discussion items

Item	Notes	Action-items

1.	- RPW mission data pipeline (RODP): - Demo instance of the RODP will be deployed within few days to test the generation of L1/HK CDF from a first set of "fake" MOC DDS format files (https://rpw.lesia.obspm.fr/roc/data/private/users/roc_rodp/data/devtest/dds/simulated/). Files contain TM data from ground calibration campaigns. - Tests should be run during the RSS3VC planned December 17 to 21, 2018. - After verification, resulting L1/HK CDF will be available from the ROC Web site (private area). Can be used as samples to provide test data (TBC). - Integration tests of RCS software into the ROC pipelines will start on spring 2019. Each team will be contacted individually. The integration should be done in the following order (TBC) : - THR_CALBAR - TDS_CALBA - LFR_CALBUT - SCMCAL - BICAS - A specific pipeline instance will be deployed on the roc-dev server by ROC to test the RCS interface compliance. This instance will be available for teams. The ROC will provide an up-to-date issue of the associated use manual on January 2019. - Reminder: - RCS "ready-for-flight" software versions (full processing+RCS ICD compliance) are supposed to be ready by end of April 2019. - RCS-related products delivery processes are described in https://confluence-lesia.obspm.fr/download/attachments/3113240/ROC-GEN-SYS-NTT-00019-LES_Issue02_Rev01%28Engineering_Guidelines_For_External_Users%29.Draft.pdf?version=2&modificationDate=1518604081083&api=v2 - ROC pipelines - RCS interface is described in https://confluence-lesia.obspm.fr/download/attachments/3113240/ROC-PRO-PIP-ICD-00037-LES_Iss01_Rev02%28RPW_Calibration_Software_ICD%29.Draft.pdf?version=1&modificationDate=1518597522869&api=v2 - RODP-related input data delivered by RCS teams (Test data, RCT) will be moved by ROC into https://rpw.lesia.obspm.fr/roc/data/private/users/roc_rodp/data/rcs/. (Contains also a copy of the ROC DataPool Git repo. with RODP CDF skeletons in /ROADS/RODP/CDF folder.) - ROC-SGSE data pipeline: - Priority is given to the RODP now. Nevertheless, the ROC also wants to test the RCS integration and run into the pipeline (for ROC-SGSE, RCS execution is the same expect that the descriptor and CDF skeletons are different). - ROC-SGSE will be also used during the SolO mission to perform operations tests and anomaly investigation with LESIA GSE (EM1 or EM2) on-ground. - ROCSGSE-related input data delivered by RCS teams (Test data, RCT) will be moved by ROC into https://rpw.lesia.obspm.fr/roc/data/private/users/roc_sgse/data/rcs/. (Contains also a copy of the ROC DataPool Git repo. with RODP CDF skeletons in /GSE/ROC-SGSE/CDF folder.)	ROC-RCS16-01: Produce and make available first examples of RODP L1/HK files – by end of 2018 – Action Xavier ⚠ ROCDATPRO-92 - Jira project doesn't exist or you don't have permission to view it.
2.	- RCS delivery status overview is available here: RCS Delivery Status & Action-Items - Info and status about data products is now reported in: RPW Data Products - Please take a look and report any error/obsolote info.	ROC-RCS16-02: Check RCS delivery and data products status on Confluence and report any error/inconsistency – before next RCS telecon – Action RCS teams ⚠ ROCDATPRO-93 - Jira project doesn't exist or you don't have permission to view it.

| 2.a | • TDS_CALBA data inputs
  ○ RCT skeleton and CDF files Delivered for LFM and SWF. No other RCT file is expected for TDS.
  ○ Missing CDF RODP/ROC-SGSE dataset skeletons (see list for TDS_CALBA in RPW Data Products)
  ○ Test data to be defined
• TDS_CALBA processing status
  ○ Processing L1R/L2 OK, expect for E HF
  ○ ANT PA HF calibration not implemented (we need ANT PA RCT from THR team).
• Related documentation (SRS/SUM) | • ROC-RCS16-03: Deliver missing CDF RODP/ROC-SGSE dataset skeletons to ROC – by end of 2018 – Action David

  ⚠ ROCDATPRO-94 - Jira project doesn't exist or you don't have permission to view it.

• ROC-RCS16-04: Deliver latest version of TDS_CALBA on the dedicated ROC Git repos. (if possible tagged version on master branch, otherwise at least dev. version on a "dev branch"). – by mid-december 2018 – Action TDS team

  ⚠ ROCDATPRO-95 - Jira project doesn't exist or you don't have permission to view it. |
| 2.b | • BICAS data inputs
  ○ RCT - First version delivered for ROC-SGSE - To be done for RODP (same file than ROC-SGSE but different file name and possible metadata)
  ○ Missing CDF RODP/ROC-SGSE dataset skeletons (see list for BICAS in RPW Data Products)
  ○ Test data to be defined
• BICAS processing status
  ○ LFR L2-E preliminary - OK
  ○ TDS L2-E products missing
• Related documentation (SRS/SUM) | • ROC-RCS16-05: Deliver missing RODP CDF RCT skeleton to ROC – before next RCS telecon – Action Erik

  ⚠ ROCDATPRO-96 - Jira project doesn't exist or you don't have permission to view it.

• ROC-RCS16-06: Deliver missing CDF RODP/ROC-SGSE dataset skeletons to ROC – before next RCS telecon – Action Erik

  ⚠ ROCDATPRO-97 - Jira project doesn't exist or you don't have permission to view it.

• ROC-RCS16-07: Re-check BICAS SUM delivered by Erik. Should be issue 1.0 instead of draft – before next RCS telecon – Action Xavier

  ⚠ ROCDATPRO-98 - Jira project doesn't exist or you don't have permission to view it.

• ROC-RCS16-08: Deliver latest version of BICAS on the dedicated ROC Git repos. (if possible tagged version on master branch, otherwise at least dev. version on a "dev branch") – by mid-december 2018 – Action Bias team

  ⚠ ROCDATPRO-99 - Jira project doesn't exist or you don't have permission to view it. |

2.c	- LFR_CALBUT data inputs - RCT - First version delivered - Missing RODP/ROC-SGSE dataset CDF skeletons (see list for LFR_CALBUT in RPW Data Products) - Test data to be defined - LFR_CALBUT processing status - Processing calibration ASM - Processing BP1/BP2 (L1 files to be processed by ROC - first samples on 01/2019 can use Python code inside LFR_CALBUT) - Related documentation (SRS/SUM) - Deliver on mid-December 2018 to CNES for PTF	- ROC-RCS16-09: Rename SOLO RPW LFR RCT CDF for RODP (see name convention in §4.3.3 of [ROC-PRO-DAT-NTT-00006]) – By end of 2018 – Action Rodrigue ⚠ ROCDATPRO-100 - Jira project doesn't exist or you don't have permission to view it. - ROC-RCS16-10: Deliver latest version of LFR_CALBUT on the dedicated ROC Git repos. (if possible tagged version on master branch, otherwise at least dev. version on a "dev branch") – by mid-december 2018 – Action LFR team ⚠ ROCDATPRO-101 - Jira project doesn't exist or you don't have permission to view it.
2.d	- SCMCAL data inputs - RCT - First version delivered - RODP/ROC-SGSE dataset CDF skeletons are delivered (see list for SCMCAL in RPW Data Products) - Test data to be defined - SCMCAL processing status - Deliver new version 0.7 - compute all ROC-SGSE datasets and one dataset RODP (with SCM status, LFM status) - Need to implemented missing RODP datasets - Only able to process from L1R. Required L1R CDF generated by other teams. - Related documentation (SRS/SUM)	ROC-RCS16-11: Deliver latest version of SCMCAL on the dedicated ROC Git repos. (if possible tagged version on master branch, otherwise at least dev. version on a "dev branch"). – by mid-december 2018 – Action SCM team (already done on 19/11/2018) ⚠ ROCDATPRO-102 - Jira project doesn't exist or you don't have permission to view it.
2.e	- THR_CALBAR data inputs - RCT - Skeleton and CDF not delivered - Missing RODP/ROC-SGSE dataset CDF skeletons (see list for THR_CLABAR in RPW Data Products) - Test data to be defined - THR_CALBAR processing status - B-component calibration to be implemented - Related documentation (SRS/SUM)	- ROC-RCS16-12: Deliver latest version of THR_CALBAR on the dedicated ROC Git repos. (if possible tagged version on master branch, otherwise at least dev. version on a "dev branch"). – by mid-december 2018 – Action THR team ⚠ ROCDATPRO-103 - Jira project doesn't exist or you don't have permission to view it. - ROC-RCS16-13: Clarify the situation concerning the expected inputs (RCT and dataset) and deliver to ROC what has been already generated – by end of 2018 – Action THR team ⚠ ROCDATPRO-104 - Jira project doesn't exist or you don't have permission to view it.

3.	- See yuri slide (bitmask_quality.pdf) - quality flag excellent level (higher level) never used on Cluster - By default always best level, then reduced depending on the bitmask values - Propagate the quality flag from level to another and adjust if needed - First action is to list the factors that can impact the data quality (see Excel spreadsheets sent by Xavier at each team)	- ROC-RCS16-14: Complete if required "rpw_dataset_bitmask_definition_v01.xlsx" Excel spreadsheet with expected content for BIAS – before end of 2018 – Action Bias team ⚠ ROCDATPRO-105 - Jira project doesn't exist or you don't have permission to view it. - ROC-RCS16-15: Complete if required "rpw_dataset_bitmask_definition_v01.xlsx" Excel spreadsheet with expected content for TDS – before end of 2018 – Action TDS team ⚠ ROCDATPRO-106 - Jira project doesn't exist or you don't have permission to view it. - ROC-RCS16-16: Complete if required "rpw_dataset_bitmask_definition_v01.xlsx" Excel spreadsheet with expected content for LFR – before end of 2018 – Action LFR team ⚠ ROCDATPRO-107 - Jira project doesn't exist or you don't have permission to view it. - ROC-RCS16-17: Complete if required "rpw_dataset_bitmask_definition_v01.xlsx" Excel spreadsheet with expected content for SCM – before end of 2018 – Action SCM team ⚠ ROCDATPRO-108 - Jira project doesn't exist or you don't have permission to view it. - ROC-RCS16-18: Complete if required "rpw_dataset_bitmask_definition_v01.xlsx" Excel spreadsheet with expected content for THR– before end of 2018 – Action THR team ⚠ ROCDATPRO-109 - Jira project doesn't exist or you don't have permission to view it.

4.	- See Solar Orbiter data convention has changed : see SOL-SGS-TN-0009 issue 2.3 in https://issues.cosmos.esa.int/solarorbiterwiki/display/SOSP/SOC+Documents. Especially, no recommandation is planned concerning the Solar Orbiter spacecraft position inside CDF. - Xavier proposes to not include any ancillary data related to the Solar Orbiter spacecraft position, at least into L1 and L2 RPW data CDF files. Ancillary data will be provided by the SOC as both SPICE kernel and CDF format files. (CDF will contain "digest" orbit data.) - Nevertheless, the question concerning the reference frame for instrument coordinates zVariables is still open. At minimum the L2 should include spacecraft - centric RTN coordinates in a Cartesian representation as recommanded in the Solar Orbiter metadata definition document (SOL-SGS-TN-0009). This has to be concluded and expected zVariables added into the SOLO RPW L2 CDF.	
5.	- Xavier is finishing a first draft of the DPDD for RPW. - This first draft is expected to be provided to the SOC team, prior to the next SOWG on January 2019. - The draft will be sent to the teams for verifications before the end of the year 2018.	ROC-RCS16-19: Send a first draft of the DPDD to the teams for verification – by end of 2018 – Action Xavier ⚠ ROCDATPRO-110 - Jira project doesn't exist or you don't have permission to view it.
6.	- Next main milestone for RCS to keep in mind is the start of the integration test into the ROC pipelines. It is expected to start around Feb/March 2019 with the receiver then sensor teams. - The next main delivery will be the RCS "ready-for-flight" version still planned by end of April 2019.	
7.	Next RCS telecon is planned on 29 janv. 2019 at 2pm.	
8.		

Action items

Open issues

key	summary	type	created	updated	due	assignee	reporter	priority	status	resolution

⚠ Jira project doesn't exist or you don't have permission to view it.

View these issues in Jira

Closed issues

key	summary	type	created	updated	due	assignee	reporter	priority	status	resolution

⚠ Jira project doesn't exist or you don't have permission to view it.

View these issues in Jira

Attached items