

## ROC activities for ground calibrations

- ROC-SGSE software and L1/HK data products status (Xavier)
- RCS software and L2R/L2S data products status (Teams)
- Ground calibration-related ROC planning

## ROC activities for RPW science data processing during SOLO mission

- RODP software and L1/HK data products status (Xavier)
- Auxiliary data products (Xavier)
- RCS software and L1R/L2 data products status (Teams)
- New versions of the RCS ICD and guidelines (Xavier, all)
- New planning proposal

AOB

Next telecon

## Software

- New release V2.1.0 of the software has been deployed at LESIA for processing delta-calibrations data
  - Leap seconds included in Epoch
  - SWF missing packet data correctly processed
  - New E-GSE time format available (i.e., microsec /10)
  - Bug in WF time resolution? (cf. Jan Soucek)

## L1/HK CDF data products

- Data have been already processed during the delta-calibrations.
- Full data package has been sent by CNES team yesterday. It will be re-processed at ROC and distributed to the teams before end of June.
- **Production of ROC-SGSE L1/HK V03 CDF data files from all calibration campaigns (EM2/PFM/DELTA) data is planned at LESIA (see planning slide after)**

## Software

- RCS dev. status?
- RCS ICD compliance tests stopped. Validation tools need updates
- Only 1 draft of RCS SUM received

## Data

- L2R/L2S data processing status?

## Software delivery

- ROC: ROC-SGSE V2.1.z released on Sept. 1, 2017 (minor bugs to fix)
- TEAMS: « ROC-SGSE » instances of the RCS (i.e., without full RCS ICD compliance and ROC-SGSE L1 data processing only) to be delivered to ROC before Sept. 30, 2017 (TBC)

## Data delivery

- ROC: Final ROC-SGSE V3 L1/HK CDF files released in Sept. 2017
- TEAMS: Final RCS L2R/L2S V3 CDF files released on Oct. 31, 2017 (TBC)

## Documentation delivery

- TEAMS: RCS SUM Issue 1, to be delivered on Sept. 30, 2017 (TBC). *Note that the RCS UM template will be slightly updated to include sections for the descriptions of calibration methods and data processing algorithms.*
- TEAMS: RCS Specification Document might be also required for reviews (TBC).

## Ground calibration archiving

- ROC still want to identify data/doc from standalone calibrations relevant to be archived at LESIA.

## Software

- The dev. of the ROC Operations and Data Pipeline (RODP) is in progress
  - First migration from the ROC-SGSE source code has been done
  - RODP database needs to be updated/defined for mission
  - RCS integration needs to be continued (see after)
  - An additional ROC developer is needed to carry-on the pipeline dev. (discussions in progress with CNES)

## SOLO/RPW data products

- First list of RPW datasets available in the new RODP-RCS spreadsheet (<https://docs.google.com/spreadsheets/d/1awoWBj4la6YgLcuktOFq5L9178lvbUCOeIMETTBqqiQ/edit#gid=1700168470>)
- The ROC team has started to upgrade the content of the L1/HK datasets to be compliant with the mission spec. [SOL-SGS-TN-0009]
- Same work must be done with the teams support for the RCS L2 data products
- Still to be discussed:
  - L1R datasets list and expected content
  - L3/L4 datasets first list and expected content. Not planned to be produced at the ROC, but might be archived (TBC)
  - Quicklooks
  - Auxiliary data (see next slide)

Delivered by the SOC in 2 formats:

- SPICE Kernel format files
- CDF format files

RODP will use SPICE kernels for operations and data processing (i.e., OBT-UTC time conversion, orbit/attitude)

Producing auxiliary CDF files at ROC might be not necessary since SOC will do (TBC). But:

- Orbit/attitude data are required to produce some L2/L3 data files
- Required for visualization tools (ROC data monitoring tool will include orbit/attitude plotting)
- **Exact needs for RPW must be listed**

[https://issues.cosmos.esa.int/solarorbiterwiki/display/SOSP/SOWG+%239+Agenda+and+Presentations?preview=/18515118/18515930/SOWG9\\_Ancillary\\_Data\\_Walsh.pptx](https://issues.cosmos.esa.int/solarorbiterwiki/display/SOSP/SOWG+%239+Agenda+and+Presentations?preview=/18515118/18515930/SOWG9_Ancillary_Data_Walsh.pptx)

## RCS ICD

- Upgrades are required to be consistent with the RODP architecture
  - Outputs handling
  - Exception handling
  - Log file convention
  - Testing section

## Guidelines

- Use of Git for software and CDF skeleton delivery
- One descriptor file per RCS « instance » (ROC-SGSE versus RODP)

**Any feedback is welcome!**



## Software delivery

- ROC: RODP « demo » version delivered on Dec. 31, 2017 (CNES, Lot6 evt 3). To be ready for ROC TRR, Jan. 2018 (TBC)
- TEAMS: First version of RCS « mission » instance (i.e., RCS ICD fully compliant, partial L1R/L2 data processing and testing data) delivered with the RODP « demo » version. Delivery includes full doc. and L1R/L2 skeletons.
- ROC+TEAMS: « Ready-for-flight » instances of RODP and RCS delivered on June 30, 2018 (CNES, Lot6 evt 4).

## RCS software testing

- ROC: RCS ICD validation tool on roc-dev + doc — To be upgraded before the end of Sept. 2017.
- ROC+TEAMS: RCS integration tests performed between November and mid-December 2017. ROC will schedule separated testing campaign with each team. Test specification need TBD (interface compliance + E2E test).

## Data products

- ROC+TEAMS: Full list of RPW data products (including auxiliary, quicklooks and eventually a first set of L3/L4 data) — Sept. 30, 2017
- ROC+TEAMS: SOLO-RPW L1/HK/L1R/L2 CDF skeletons ready — Oct. 31, 2017

## Documentation

- RCS SUM Issue 2, (including L1R/L2 data processing) to be delivered on Dec. 31, 2017

- ROC Collaboration tools
  - Confluence
  - Git
  - New mailing list for RCS activities?
- Other points to discuss?