ROC status

RPW consortium meeting
June 26, 2020

ROC status overview

- Critical functions have been ensured by the ROC in support to the commissioning activities
- No major issue to report, but several bugs and needs for upgrades have been raised (see next slides)
- Engineering activities performed by the CNES are now progressively transferred to the LESIA, which will drive the exploitation of the instrument
- More details can be found in the "ROC Commissioning Report" (ROC-GEN-OTH-RPT-00120) - Draft available in https://confluence-lesia.obspm.fr/display/ROC/NECP+Activities+Documents
- Developments/improvements will continue during cruise phase

Instrument operation infrastructure status

- ROC infrastructure in support to the instrument commanding is close to nominal
- Instrument monitoring capabilities are progressively transferred from CNES to LESIA
- Developments will continue during cruise phase to:
  - Improve the visibility of the *a priori/a posteriori* operation planning in order to support the ROB in its decisions (Web GUI in preparation)
  - Optimize the software equipment in support to the monitoring of the instrument, the command tracking and the HK data visualization
  - Prepare with SOC and other IS PI Teams the selective downlink capability

RPW Data Processing Status

- RPW data processing at LESIA works well in overall
- However …
  - Processing of SBM and LL01 (backup) data is not fully automated yet
  - Anomalies have been reported: data gap, TNR timing issue, Bias sweep too short
  - Upgrades/implementation are requested/required: process HFR LIST mode, set QUALITY_BITMASK/QUALITY_FLAG, SOOP_TYPE, OBS_ID in L1 CD, new BIAS current file naming, new content in BIAS current/sweep L1 CDF
- See ROC-GEN-OTH-RPT-00120 for details

RPW Data Processing Status

- Infrastructure to share RPW preliminary data at LESIA is up-and-running (but request to change folder tree)
- A first set of RPW L2 CDAG* data has been delivered to ESAC (http://soar.esac.esa.int/soar/)
- Delivering RPW public data to Solar Orbiter archive (http://soar.esac.esa.int/soar/) is expected to start on Sept. 2020 (TBC)
- Developments will continue during cruise phase to:
  - Optimize the monitoring of the data processing
  - Finalize summary plot production
  - Implement L3 data processing
  - Provide tools in support to RPW data users

** Calibration Data Access Group*

ROC (engineering) staff at LESIA

- X.Bonnin - ROC manager, raw data retrieval and L1/HK data production
- S.Lion - ROC operation tool, test/validation
- D.Bérard - RPW operations
- Q.-N. Nguyen - L1R/L2 data production, THR calibration software
- N.Fuller - TM rate/stats tools
- **F.Henry - Database, monitoring and visualization tools**
- **R.Romagnan - Monitoring and visualization tools**

ROC Activity Road Map

- Activitiy transfer from CNES to LESIA — June 2020
- ROC V5 Release ("RSS5") — June 30, 2020
- ROC V5.1 Release ("RSS5.1") — Aug. 31, 2020
- Re-processing of all RPW science data — Sept. 2020 (TBC)
- First RPW public data delivered to ESAC — Sept. 2020
- ROC V6 final release ("RSS6") — Nov. 30, 2021