

RPW & ROC status

*RPW consortium meeting
Sept. 4, 2020*



solar orbiter



RPW instrument and its sub-systems show a nominal functional behavior in-flight

Main anomalies *(see Diane's presentation)*

- Bias sweep too short
- SURVEY_BURST mode versus synchronized snapshots
- SBM buffer overflow
- TDS data compression inefficiency

On-going activities:

- June 2-3 EMC campaign data analysis
([EMC Teleconf 02092020 RPW Status.pdf](#))
- IIC campaign data analysis *([SOL-SGS-TR-0079-NECP-IS-IIC-1-0.pdf](#))*

RPW operation facilities:

- Instrument commanding facilities are operational
- Operation planning facilities - OPERA Web calendar tool in development (only accessible from LESIA Intranet)
- Instrument monitoring facilities - PRESTO tool to be deployed
- SBM tuning and data event selection facilities - Planned to be implemented during cruise phase
- GSE facilities
 - MEB EM1 well delivered to ADS
 - MEB EM2 received at LESIA on Sept 1 (detailed inspection and test will be performed next week)

RPW data processing facilities:

- RPW data pipeline is operational in overall. Still few open issues, improvements and new features to implement (*see slide #6*)
- RPW "CDAG" data sharing at LESIA
 - New L2 data tree is available in the RPW private Web site
 - Old L2 data tree will be deleted on Sept. 30
- RPW L2 data delivery to Solar Archive (SOAR) at ESAC
 - June 15 to July 15 data published in one shot on Sept. 30, 2020. Data will be then published after a 90-days proprietary period
 - First version V01 delivered will be tagged as "*Known problems, use at your own risk*" (=1) or "*Survey data, possibly not publication-quality*" (=2) QUALITY_FLAG and with appropriate caveats
 - RPW data documentation and production software also delivered
 - Copies of RPW public data will be available in the RPW public Web site
 - RPW commissioning data will not be public
- Access to Solar Orbiter Low Latency data is now open at ESAC (see here)



RCS STATUS

All mission data have been (re)processed with :

- BICAS version 3.1.0
- LFR_CALBUT version 1.2.0
- SCMCAL version 0.12.0
- TDS_CALBA version 0.9.5
- THR_CALBAR version 2.2.2

To be improved :

- LFR_CALBUT mode « lfr_surv_bp1_l2 » : **It takes > 1h30**

QUALITY_FLAG needs to be set (if it is not done yet) :
before/for September 10, 2020

RPW Data Processing Status

Main anomalies

- RPW TM gap (RODP-47)
- Bias sweep too short (RODP-59)
- RPW TDS histogram data (RODP-58)

On-going activities

- Finalize the compliance with the SoIO data standards (i.e. set SOOP_TYPE and OBS_ID global attributes in L1 CDF)
- Implement the full workflow to tag the science data quality (e.g., set QUALITY_BITMASK/QUALITY_FLAG in L1/L2 CDF)
- Run SBM data production in autonomous way
- Run L3 summary plots production at LESIA in autonomous way
- Supply visualization tools at LESIA to RPW data users (*see Sonny 's presentation*)

To be done

- HFR LIST mode data processing
- Run LL01 (backup) data production at LESIA in autonomous way
- Prepare the delivery of the L3 data products

ROC activity road map

Activity transfer from CNES to LESIA

June 2020

ROC V5 Release ("RSS5")

June 30, 2020

SOWG #16

Sept. 8-10, 2020

Re-processing of all RPW science data

Sept. 11, 2020

First RPW public L0/L1 data delivered to ESAC

Sept 15, 2020

First RPW public L2 data delivered to ESAC

Sept. 30, 2020

ROC V5.1 Release ("RSS5.1")

Sept. 30, 2020