RPW data access & tools

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RPW data access: current state

Science data files accessibility:

- Main portal to retrieve RPW public data is https://www.cosmos.esa.int/web/soar/home
- LESIA also provides an access to its RPW data collection (https://rpw.lesia.obspm.fr/rpw-data/data-availability/)
- Some RPW data products also available from the NASA CDAWeb site (https://cdaweb.gsfc.nasa.gov/)

Summary plots:

- Summary plot of RPW L1/L2 data are available from https://rpw.lesia.obspm.fr/rpw-data/daily-summary-plots/
- More summary plots will be added in the future (L3 data)

Documentation:

- https://s2e2.cosmos.esa.int/confluence/display/SOSP/Archive+Support+Data
- Also available from https://rpw.lesia.obspm.fr/rpw-data/data-description/

Ancillary data:

- Solar Orbiter SPICE kernels: https://www.cosmos.esa.int/web/spice/solar-orbiter
- LESIA does not generate/provide ancillary data for RPW

SBM science data access: current state

Data accessibility:

- SBM1/SBM2 science data are not public for the moment
- L2 CDF files are stored “as is” in the RPW private data server at LESIA*

Summary plots:

- Summary plots for SBM science data provided “as is” are available from https://rpw.lesia.obspm.fr/rpw-data/daily-summary-plots/
- Summary plots for SBM1 “HK” data also available in https://rpw.lesia.obspm.fr/rpw-data/sbm-summary-plots/ (mainly used for the selection of event data to downlink)

Documentation:

- There is no specific documentation (needed?)

** https://rpw.lesia.obspm.fr/roc/data/private/solo/rpw/data/L2/*

RPW data tools

Existing online tools:

- https://space.irfu.se/soloql/
- https://parker.gsfc.nasa.gov/crocs.html
- https://secchirh.obspm.fr/ (RPW TNR-HFR data implementation in progress)
- https://cdaweb.gsfc.nasa.gov (but not really adapted for some RPW data products)
- Others?

Existing programming language tools:

- MASER4IDL (IDL readers for TNR-HFR data)
- MASER4PY (Python readers for LFR and TNR-HFR data. See presentation by Lucas Grosset)
- Sunpy (Python reader for TNR-HFR in radiospectra code)
- pyspedas (Python reader for TNR-HFR)
- Others?

Works in progress to improve RPW data user support

In a short/medium term

- Complete data quality traceability in CDF
- New L3 data releases
- Support to projects as MASER
- RPW data users manuals

In the longer term

- New RPW Web portal hosted at LESIA, centered on data (including SBM data catalogues, more information about the RPW configurations and on-board activities, etc.)
- New tutorials available from the RPW Web portal at LESIA (https://rpw.lesia.obspm.fr/rpw-data/data-reading/)

About MASER

Centralized & standardized readers/plotters for low frequency radio data

- https://maser.lesia.obspm.fr/?lang=en
- See presentation by Lucas Grosset