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cnrs

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RPW

RPW Consortium Meeting #24

M. Maksimovic

26/06/2020,
Zoom

- **Mission Commissioning Review held yesterday and declared successful**
- **Project is transferred to ESAC (Luis Sanchez new PM)**

Review objective #2

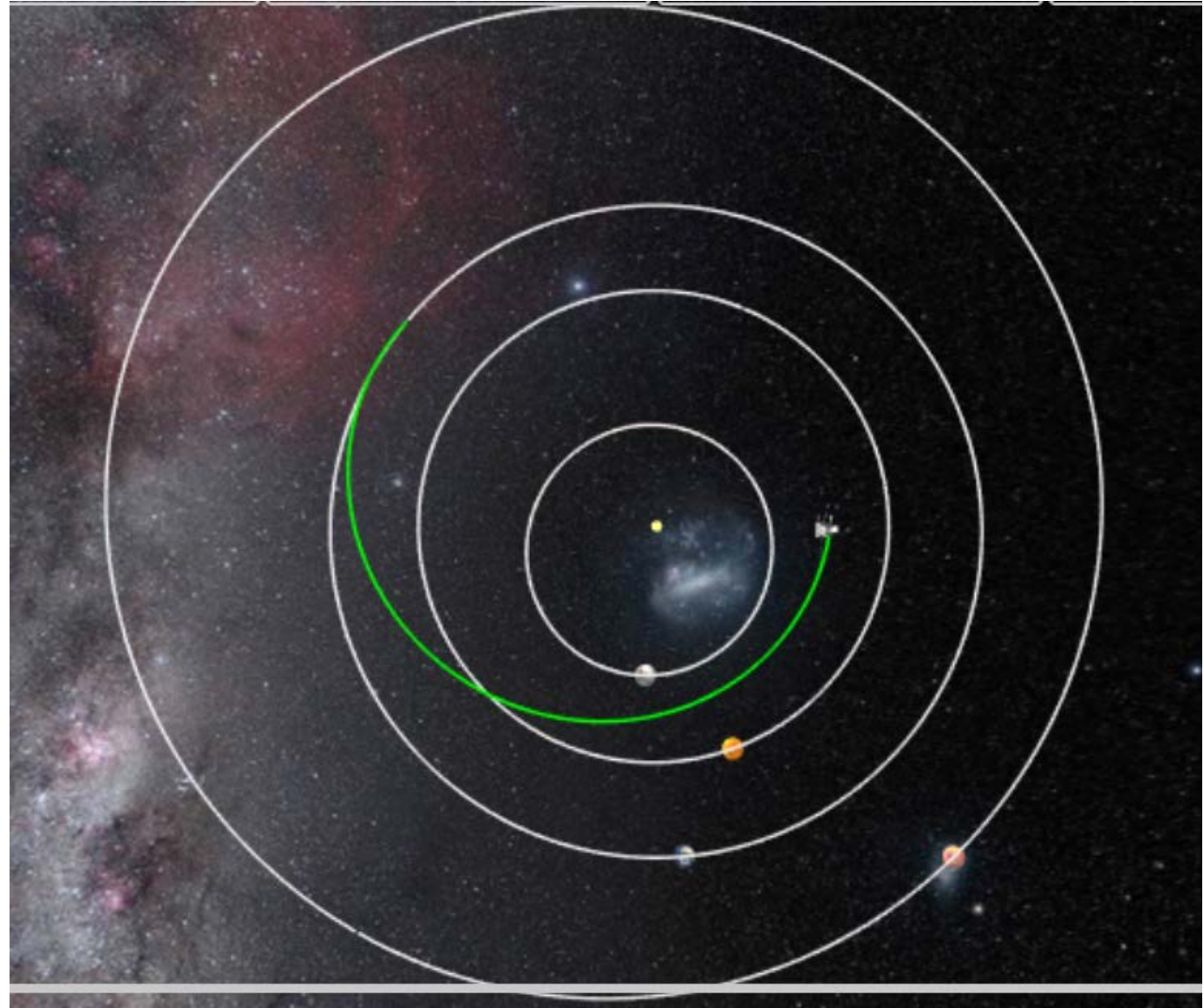
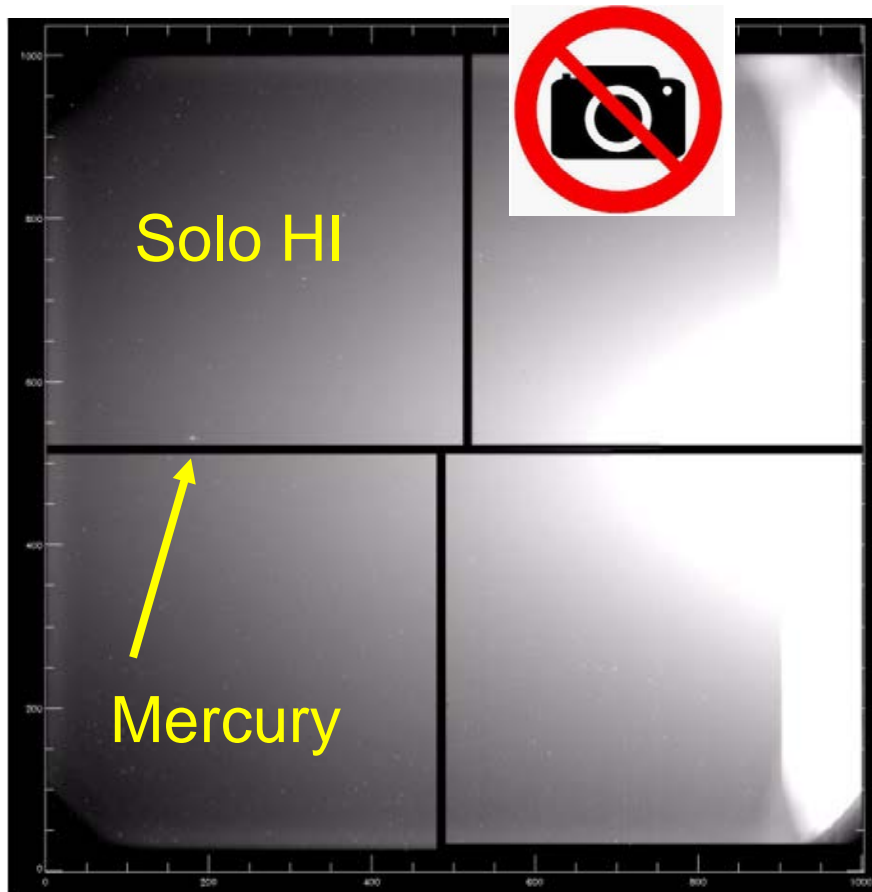


To verify that the overall mission performances at the end of the Near Earth Commissioning Phase (NECP) meet the mission requirements

PARTIALLY ACHIEVED.

- ❑ Operational performances are met.
- ❑ Pointing performance:
 - Excellent RS instrument performance, thus S/C RPE is now the weakest link in high-resolution performance
 - Main pointing disturbances due to thermal effects have been fixed
 - Investigation continues on shorter timescale effects (AOCS and other thermal effects) with good confidence that these can be improved in the coming weeks
- ❑ EMC and magnetic characterisation aspects are work in progress with good cooperation between ESA, the instrument teams and the Prime contractor.







- We passed the first perihelion on ~14 June (~0.5AU)
- Start of the cruise phase on june 15
- First Vgam on 27/12/2020



Next Milestones

- **SOWG on 7-8-9 September**
- **SWT in October**
- **First public data release in September ? Not sure we can be ready. We should probably request a delay**

Index of /roc/data/private/solo/rpw/data/L2/2020

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 02/	2020-03-03 13:24	-	
 03/	2020-04-27 10:45	-	
 04/	2020-05-20 15:25	-	
 05/	2020-06-04 10:08	-	
 06/	2020-06-23 06:41	-	

Apache/2.4.10 (Debian) Server at rpw.lesia.obspm.fr Port 443

Now

Index of /roc/data/private/solo/rpw/data/L2/2020/06/19

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 solo_L2_rpw-lfr-surv-asm-cdag_20200619_V01.cdf	2020-06-23 06:42	387K	
 solo_L2_rpw-lfr-surv-bp2-cdag_20200619_V01.cdf	2020-06-23 06:42	7.3M	
 solo_L2_rpw-lfr-surv-cwf-b-cdag_20200619_V01.cdf	2020-06-23 06:43	6.8M	
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 solo_L2_rpw-lfr-surv-swf-b-cdag_20200619_V01.cdf	2020-06-23 06:43	5.0M	
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 solo_L2_rpw-tnr-surv-cdag_20200619_V01.cdf	2020-06-23 06:43	7.0M	

Apache/2.4.10 (Debian) Server at rpw.lesia.obspm.fr Port 443

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dfb_ac_bpf/	31-Jan-2020 18:49	-	-
dfb_ac_spec/	01-Feb-2020 01:33	-	-
dfb_ac_xspec/	06-Dec-2019 17:00	-	-
dfb_dbm_dvac/	29-Jan-2020 15:34	-	-
dfb_dbm_scm/	08-Feb-2020 03:01	-	-
dfb_dc_bpf/	31-Jan-2020 18:49	-	-
dfb_dc_spec/	01-Feb-2020 01:16	-	-
dfb_dc_xspec/	08-Apr-2020 18:23	-	-
dfb_wf_dvdc/	05-Feb-2020 16:34	-	-
dfb_wf_scm/	12-Feb-2020 18:18	-	-
dfb_wf_vdc/	05-Feb-2020 17:28	-	-
f2_100bps/	03-Jan-2020 12:40	-	-
mag_RTN/	16-Jan-2020 16:56	-	-
mag_RTN_1_min/	24-Oct-2019 16:41	-	-
mag_RTN_1min/	16-Jan-2020 16:57	-	-
mag_RTN_4_Sa_per_Cyc/	16-Jan-2020 16:57	-	-
mag_SC/	16-Jan-2020 16:56	-	-
mag_SC_1_min/	24-Oct-2019 16:40	-	-
mag_SC_1min/	16-Jan-2020 16:56	-	-
mag_SC_4_Sa_per_Cyc/	16-Jan-2020 16:57	-	-
mag_VSO/	29-Dec-2019 14:56	-	-
rfs_hfr/	15-Aug-2019 17:41	-	-
rfs_lfr/	15-Aug-2019 17:41	-	-
rfs_lfr_ne/	10-Mar-2020 02:30	-	-

Index of /data/spp/data/sci/fields/staging/l2/rfs_lfr

Name	Last modified	Size	Description
Parent Directory	-	-	-
2018/	23-Oct-2019 15:49	-	-
2019/	15-Aug-2019 17:38	-	-
2020/	15-Aug-2019 18:05	-	-

Apache/2.2.15 (Red Hat) Server at research.ssl.berkeley.edu Port 80

Use the same architecture as FIELDS in the future ?

Remaining commissioning activities

- **EMC (Milan as coordinator)**
 - *Analyse EMC campaign data*
 - *Finalize the EMC commissioning document*
- **Calibration rolls (Antonio as coordinator)**
 - *Analyze the data*
 - *Include in Eric's doc*
 - *Ask for another campaign (first earth flyby)*
- **SBM detection algorithms (Xavier as coordinator)**
 - *Analyze IIC data and first triggers*
 - *Include in Eric's doc*
- **MAG/SCM timing and calibration (Matthieu as coordinator)**
 - *Analyze the ETB data*
 - *Ask possibly for another campaign (first earth flyby)*
 - *Produce a report*

Remaining commissioning activities from Eric's document section 9



- FSW UPGRADES (Eric until end of 2020)
- SCM CALIBRATION and noise characterization (*see previous slide*)
- SELECTED BURST MODES (*see previous slide*)
- HGA INDUCED PERTURBATION ANALYSIS (Eric until end of 2020)
- SPICE HEATSHIELD DOOR OPEN (Eric until end of 2020)
- HFR LIST MODE (*Antonio*)
- LFR K-COEFFICIENT SETTING (*Thomas*)
- SBM MODES (*see previous slide*)
- BACK UP MODE VERIFICATIONS, LF TDS mode (Jan)

- Produce noise levels (space and ground) data as cdf files and archive them

- **For science discussions**
 - *Merge `rpw.consortium` and `rpw.science` in a new `rpw.consortium` list*
 - *Keep `rpw.cois` and `roc-sci-ops`, etc as is for more technical discussions*
- **Data access**
 - *Right now only CoIs have access our data*
 - *a subset of Solar Orbiter people (Calibration Data Access Group - CDAG) too*
 - *I am inclined to give access to more people, especially post-doc, students, to be discussed*
 - *I am receiving more and more requests for data access. How should I deal with them ?*
- **Public data delivery (officially around Sept. 20)**
 - *Which data to deliver among the ~30 data products ?*
 - *We are probably not ready to do it ?*
 - ***We need to send a waiver to ESA. What do we ask for ? Shall we send one minute averages as MAG is planning to do ?***

- **There are discussions for the possibility of having 4 papers in Science or Nature like journal.**
- **There will be a special issue of Astronomy & Astrophysics for Solar Orbiter first results (linked to the data delivery) deadline should be december/january.**
- **ESA has proposed an agreement among IS teams for a core list of authors from all instruments (about 4-5 authors on average).**

- **For RPW we should have a list of people who are co-authors of all RPW first results papers (and possibly for a longer term)**
- **I have started to compile a list of studies/papers**

Proposal for SolO Working Groups

Kinetic processes
(applicable to many WG)
Reconnection missing
Alexandra Alexandrova

Shocks and ICMEs
Large scales ?
Andrew Dimmock

Energetic ptcls and radio,
X rays, UV
Vratislav Krupar

Turbulence
Olga Alexandrova
(adding discontinuities and
vortices)

Comet studies

Small-scale SW
structures, current
sheets, discontinuities

SW sources
and expansion

Heavy-ion
processes

Dust (RPW & MAG)
Is this too small for a
WG?

- Pb : The WG as described are fixing processes and objects
- Electron physics is missing ?
- Waves working group ?

Venus fly-by