

# RPW Consortium Meeting #21

## Solar Orbiter Status

*M. Maksimovic*

04-05 June 2018,  
Dresden

## Solar Orbiter – Overall progress

- ❑ Spacecraft harness: adequate configuration control of harness and electrical ICDs
- ❑ All internal spacecraft units already integrated – including Deep Space Transponder (DST) and Remote Interface Unit (RIU)
- ❑ 2<sup>nd</sup> mating of core structure to -Y and +Y STM panels – done
- ❑ 2<sup>nd</sup> alignment measurement campaign – done
- ❑ Instruments electrical integration – done Feb 2018
- ❑ Instruments short functional dry-run tests – done Apr 2018
- ❑ Heat shield – delivered, but particles found
- ❑ I-Boom & baffles – delivered April 2018
- ❑ LGA's & MGA – delivered
- ❑ AOCS sub-system CDR – March 2018

Contamination will be a long lasting issue

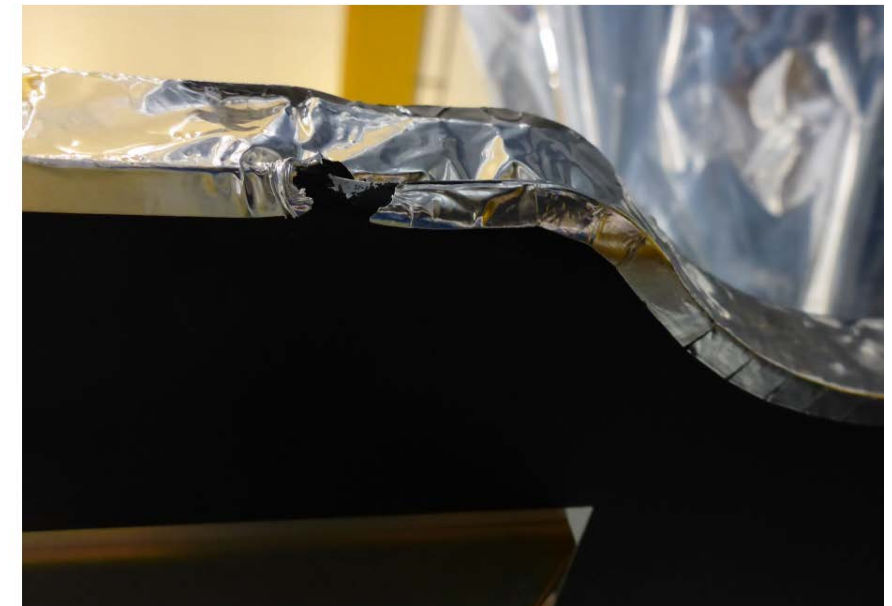


First mechanical mating

Thomas Zürbruchen, NASA Assistant Administrator for Science will visit Stevenage with Häisinger on 12 June



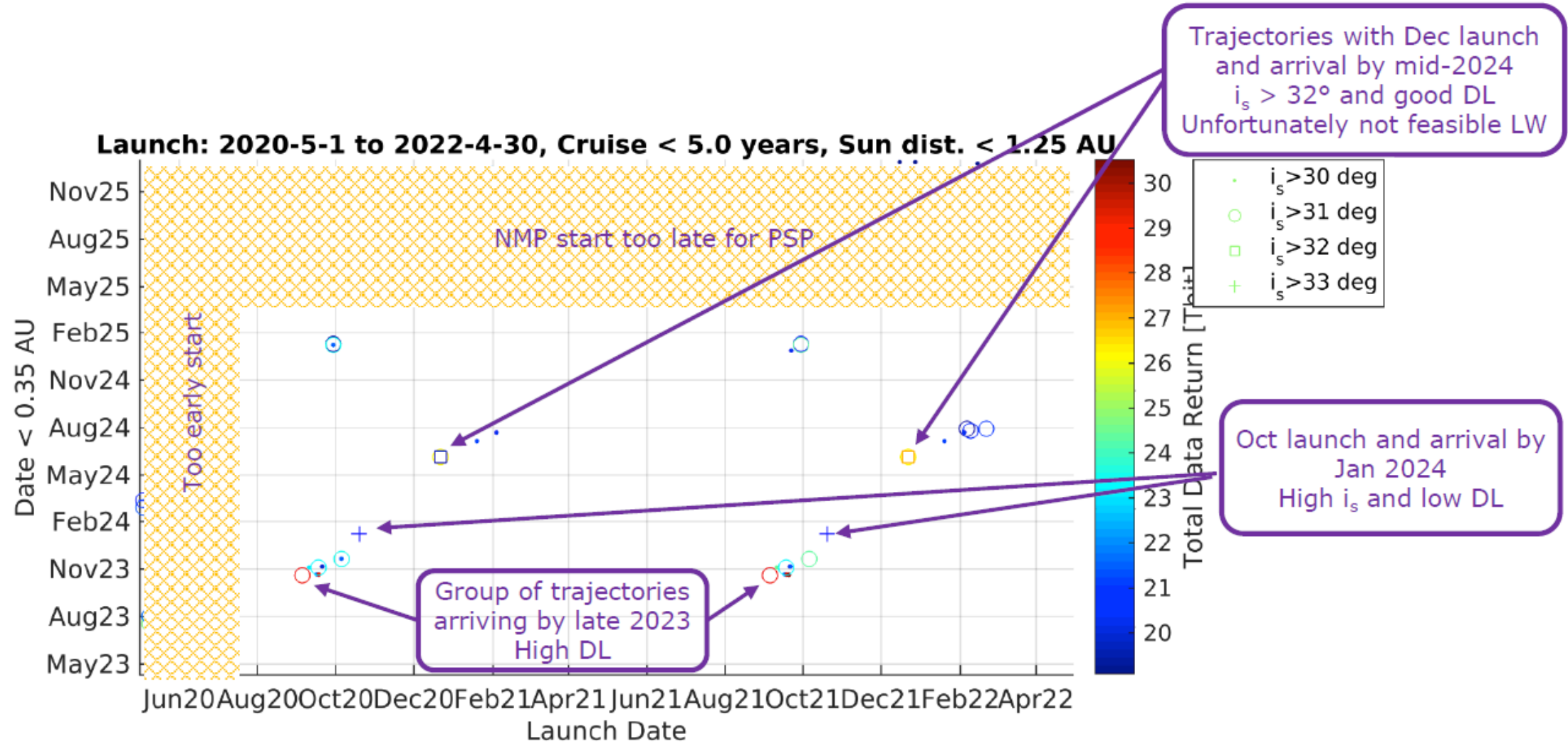
- All Hardware delivered except RPW Antenna
- Many activities on the Y Panel, including *accidents (damages on EUI baffle under investigations)*



# Launch backup solutions under study



## Trajectory candidates - NMP start date



## Conclusions

Possible conflict with Mars 2020

- 2020/2021 Sep launch options – shall be looked as same as 2019/2020 Feb
  - Exactly same excellent data downlink. Small penalty in Sun ranges and inclinations
  - Launching in 2021 avoids the 1 year longer cruise
- 2020 July A & B give about the same inclination increase rate as 2020 Feb
- 2020/2021 October by Langevin goes the fastest into high inclinations ( $>34^\circ$ )
  - Performance for data downlink is poor Requested by the SWT to be studied in more details
- 2020/2021 Oct B gives high final inclination ( $>34^\circ$ ) with fair data downlink
- All trajectories give at least 3 perihelion passes from start of the NMP until the nominal PSP mission end

## Future meetings:

- SOWG #12: 9-11 July 2018, ESAC, Madrid.
- MADAWG, 26-28 September 2018, Athens.
- SWT #23: 15-16 November 2018, FHNW, Windisch (POC: Säm Krucker).
- SWT #24 in Arcetri or Florence, April 2019 (POC: METIS team), if possible the week before or after the EGU General Assembly (7-12 April 2019).
- SWT #25 in Kiel, Sep 2019 (POC: R. Wimmer-Schweingruber).
- Science Workshop #8 + SWT in Ireland, September 2020 (POC: T. Horbury/C. Owen/L. Harra).
- Science Workshop #9 in France (date TBC, POC: M. Maksimovic).
- Science Workshop #10 in Göttingen, Germany (date TBC, POC: S. Solanki).



start time	duration	topic	Presenter
<b>Monday 04 June 2018</b>			
09:30	00:10	Welcome	Plettemeir
09:40	00:30	Science presentation <i>New results on Solar Radio Emissions</i>	Maksimovic
10:10	00:20	Solar Orbiter Status (including launch backup options)	Maksimovic
10:30	00:30	RPW General status	Bellouard
11:00	00:30	<i>Coffee break</i>	
11:30	00:00	Teams Updates (including budget & technical support until commissioning)	
11:30	00:30	<i>LFR (including snapshot synchronization anomaly)</i>	Jeandet, Chust TBC
12:00	00:30	<i>TDS</i>	Soucek TBC
12:30	00:30	<i>TNR-HFR (including PA-HAF transfer function)</i>	Matteini
13:00	01:00	<i>Lunch break at the Hotel</i>	
14:00	00:30	<i>BIAS</i>	Vaivads, Johansson TBC
14:30	00:30	<i>SCM (including FS calibration)</i>	Kretschmar
15:00	00:40	Update on FM system level performances	Maksimovic

15:40	01:20	<p>ROC general status (including coffee break @ 16:00)</p> <ul style="list-style-type: none"> <li>- <i>Instrument scientist nomination</i></li> <li>- <i>News, Planning &amp; Software status</i></li> <li>- <i>ROC pipelines and interfaces</i></li> <li>- <i>RPW Calibration Software</i></li> <li>- <i>Operations tools and interfaces</i></li> <li>- <i>Documentation status (ROC requirements, DPDD)</i></li> </ul>	<p>Maksimovic Bonnin all</p>
17:00	00:00	<b>end of day 1</b>	
17:30		<i>Guided city walk and joint Consortium Dinner at the Buelow Hotel</i>	

<b>Tuesday 05 June 2018</b>			
09:15	00:30	Additional ROC discussions (if necessary)	General discussion
09:45	01:30	<p>RPW Operations status</p> <ul style="list-style-type: none"> <li>- <i>Commissioning</i></li> <li>- <i>Cruise phase</i></li> <li>- <i>Test/validation activities</i></li> </ul>	<p>Bonnin General discussion</p>
11:15	00:30	<i>coffee break</i>	
11:45	00:20	Instrument paper	Maksimovic, all
12:05	00:55	<p>science organization</p> <ul style="list-style-type: none"> <li>- <i>specific RPW science workshops ?</i></li> <li>- <i>publication rules</i></li> <li>- <i>AOB</i></li> </ul>	general discussion
13:00	01:00	<i>Lunch break at the Hotel</i>	
14:00		<p><i>splinters</i></p> <ul style="list-style-type: none"> <li>* <i>Antennas</i></li> <li>* <i>Document on data description</i></li> <li>* <i>...</i></li> </ul> <p><i>End of meeting</i></p>	