SolO/EUI timeline



EUI consortium meeting 2019-09-12

- Sept 14: EUI list of launch visitors submitted (84!)
- Sept 12: Not all Cal maps will be uploaded
- Sept 10: EUI paper submitted to AA
- Sept 6: EUI interface teleconf, including CEB mitigation activities

It is confirmed that the average CE temperature is approximately -20°C, with decontamination heater on AND SORA heater on full.
For each CE, the temperatures are actually:

- EUI CE 1 = -24°C
- EUI CE 2 = -18°C

The above temperatures include 7°C modelling uncertainty subtracted from the raw values.

- Aug 6: SVT-1b, data return was limited to 58 HRI_EUV images as LowLatency packet store was used…, ‘both gains’ bug
- Aug 1: At PI-teleconference, Tim Horbury said that EUI permanently on in safe mode is probably not an EMC issue
- Mid-June: decision not to replace the CEB.

CEB

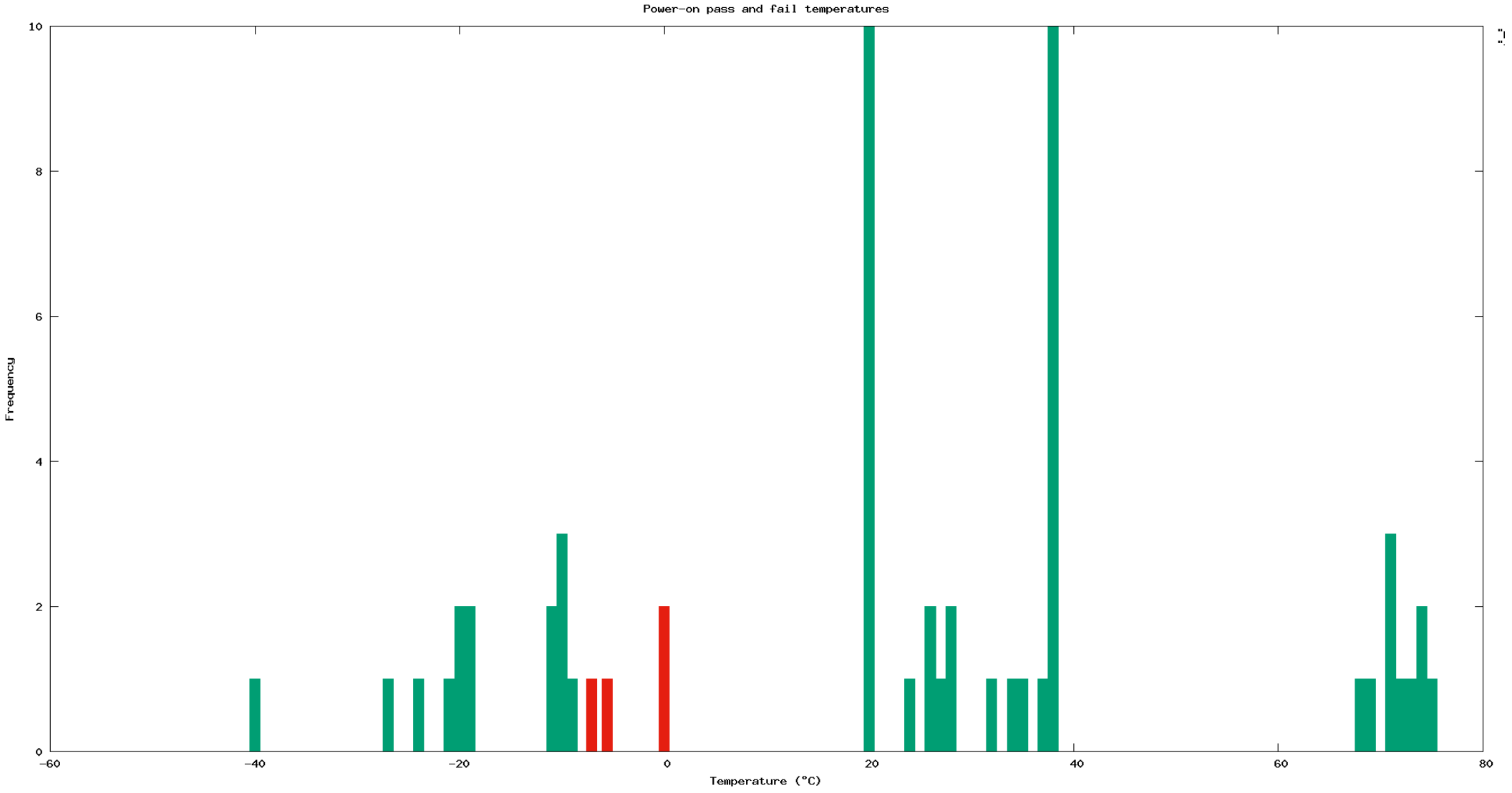
Conclusion: risk assessment (after mitigation)

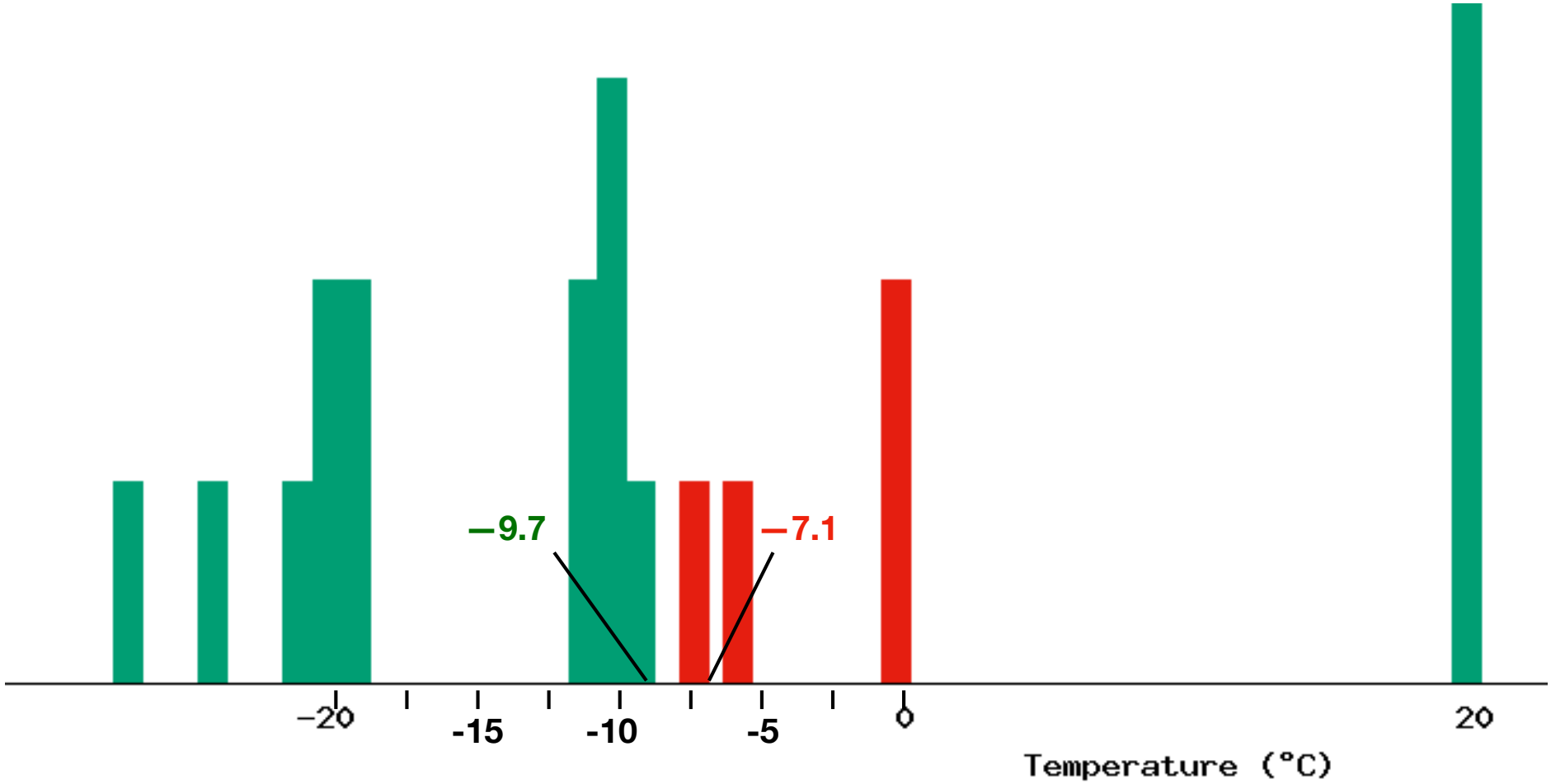
Risk	Use-as-is		Key-hole		Open-chest	
	Probability	Severity	Probability	Severity	Probability	Severity
EUI malfunction (1)	Low	Very high	Very low	Very high	Very low	Very high
UI acceptance (1)	None	None	Very low	High	Very low	High
UI delivery schedule	None	None	Very high	Medium	Low	Very high
/C (2) damage	None	None	Medium	High	Medium	Very high
/C acceptance	None	None	Low	High	Medium	Very high
/C schedule (Feb 2020) (3)	None	None	Low	Very high	Very high	Very high
ost		Very low		Low		Very high

Note (1): At EUI instrument level only

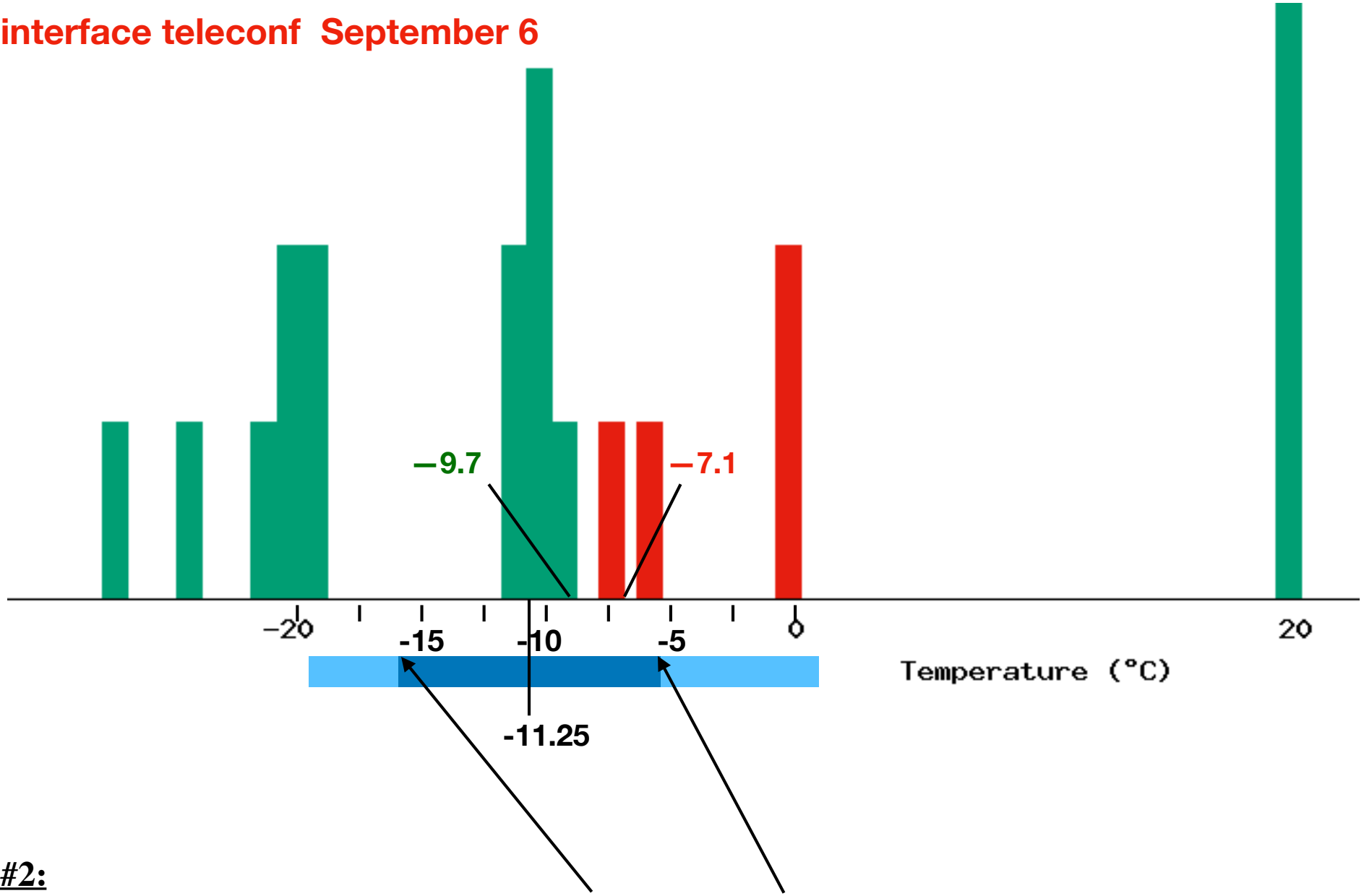
Note (2): "S/C" includes platform and all instruments

Note (3): includes also the risk of launcher and launch site availability


Power-on pass and fail temperatures
Frequency
Temperature (°C)
0
2
4
6
8
10
-60
-40
-20
0
20
40
60
80


−9.7
−7.1
−20
-15
-10
-5
0
20
Temperature (°C)

EUI interface teleconf September 6



AI#2:

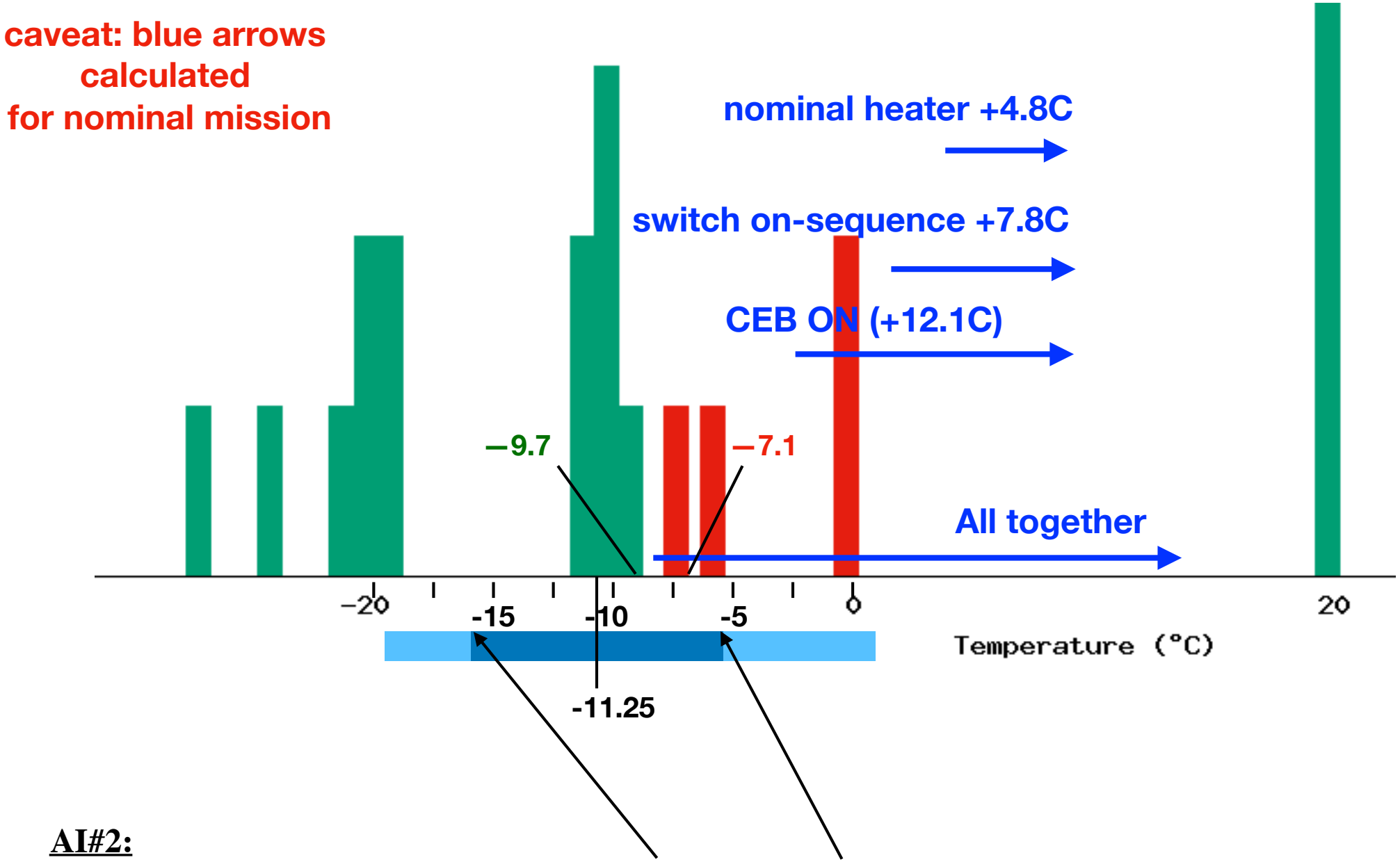
The EUI CEB temperature will be between -16.5°C and -6°C during commissioning.
This accounts for +7°C/-3°C modelling uncertainty.

Switch-On Mitigation:

- Regulating the CEB temperature at switch-on reduces the possibility of a failed power-on
- Various Thermal solutions have been studied to increase the CEB temperature:
  1. Use of Nominal Heater (ΔT~ +4.8degC)
  2. Switch-on sequence powering up other RS instruments first (ΔT~ +7.8 degC)
  3. Power on CEB and increase temperature by its own dissipation also in case of failed switch-on (ΔT~ +12.1 degC)

At commissioning, Switch-On will be performed in ground visibility and it will be possible to assess the best strategy based on CEB temperature.

Later in the mission a dedicated OBCP can be created by MOC to include conditional steps at switch-on.

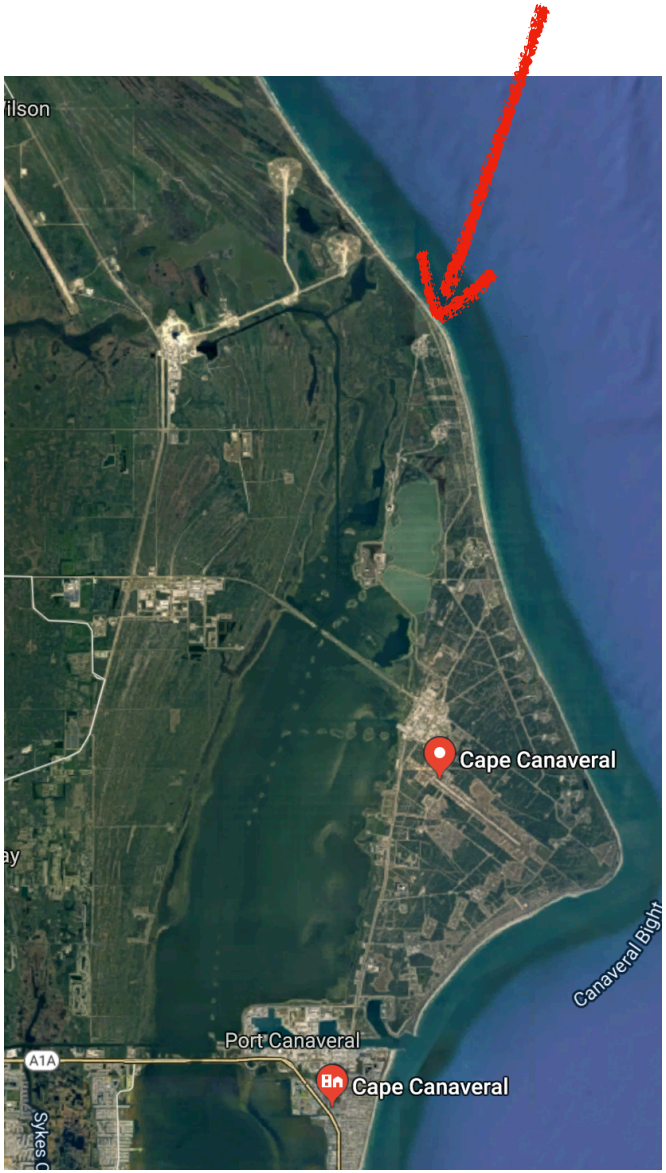


AI#2:

The EUI CEB temperature will be between -16.5°C and -6°C during commissioning.
This accounts for +7°C/-3°C modelling uncertainty.

- Sept 25-26 sept 2019, FSW + maps upload
    - Oct 15 QAR Spacecraft Review, ESTEC
    - Oct 16-17, SWT25 ESTEC:
      Nominal Mission Level Planning July - Dec 2020 (no RCSW)
    - Oct 18 Ottobrun Media event, spacecraft shipped
- Dec 09-13, AGU, San Francisco
- Jan 1, PI switch
- Jan 21-23, SOWG15, Madrid
  LTP02 July - Dec 2020 (no RCSW)
    - early Feb, trip to launch site & SWT26
      Mission Level Planning for LTP03
    - Feb 6, launch (Feb 5 evening Florida time)

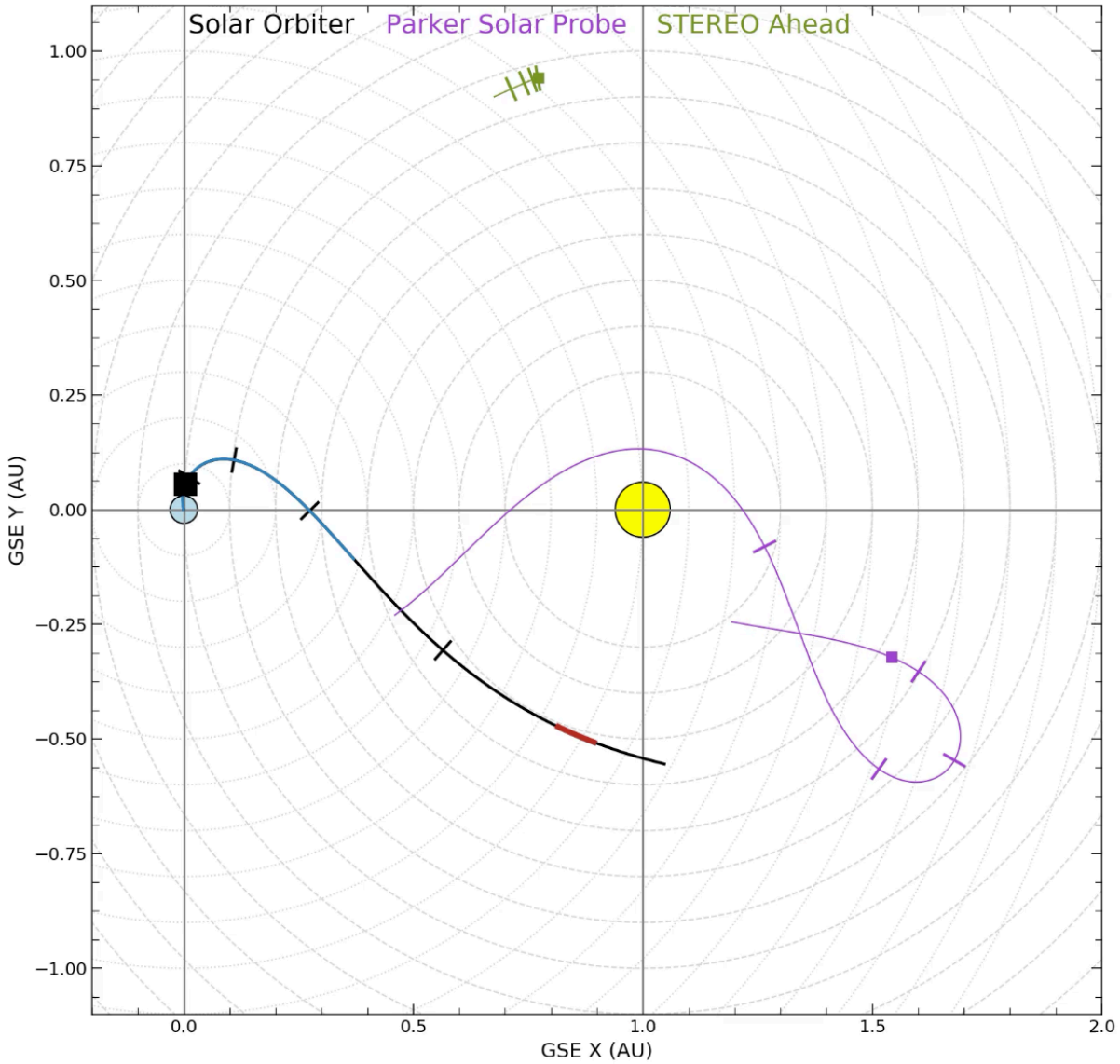
2020 Feb 6 (late Feb 5 Florida time)

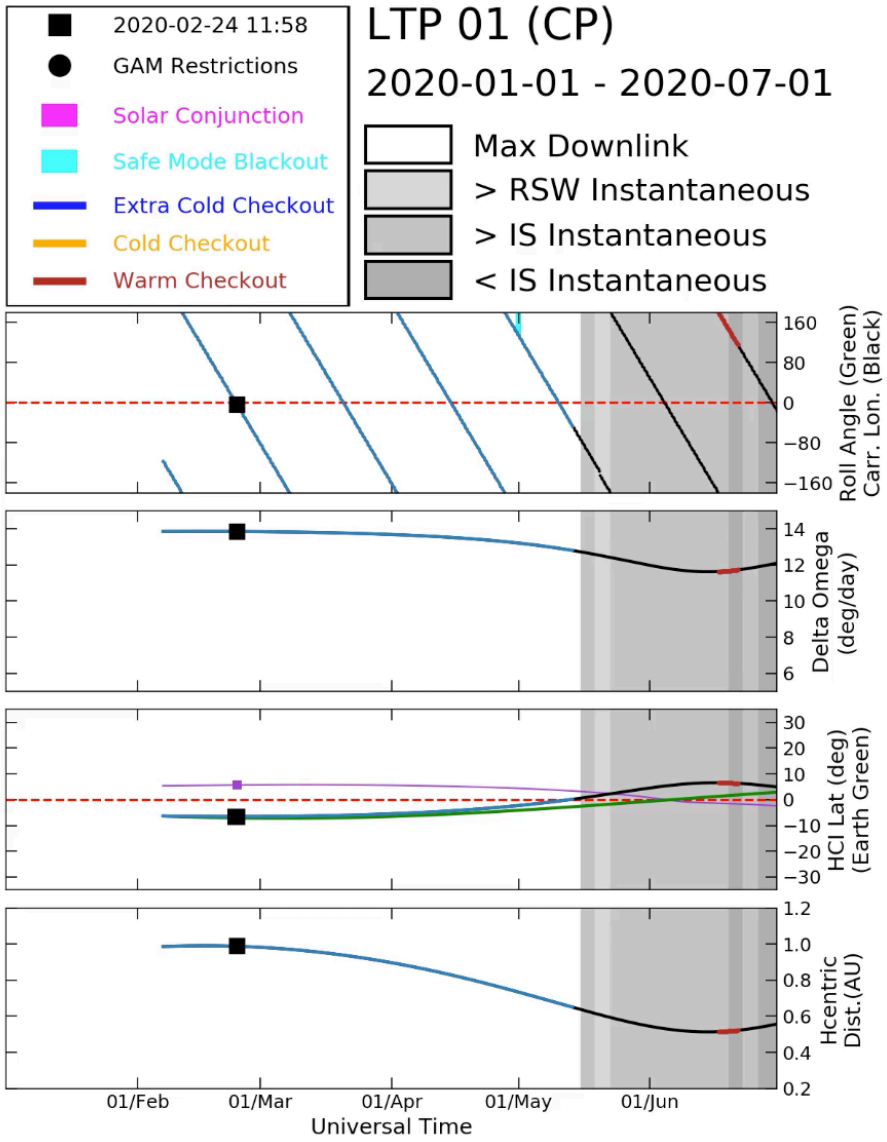


GOES-R launch with Atlas V from LC 41

2020 Feb 24

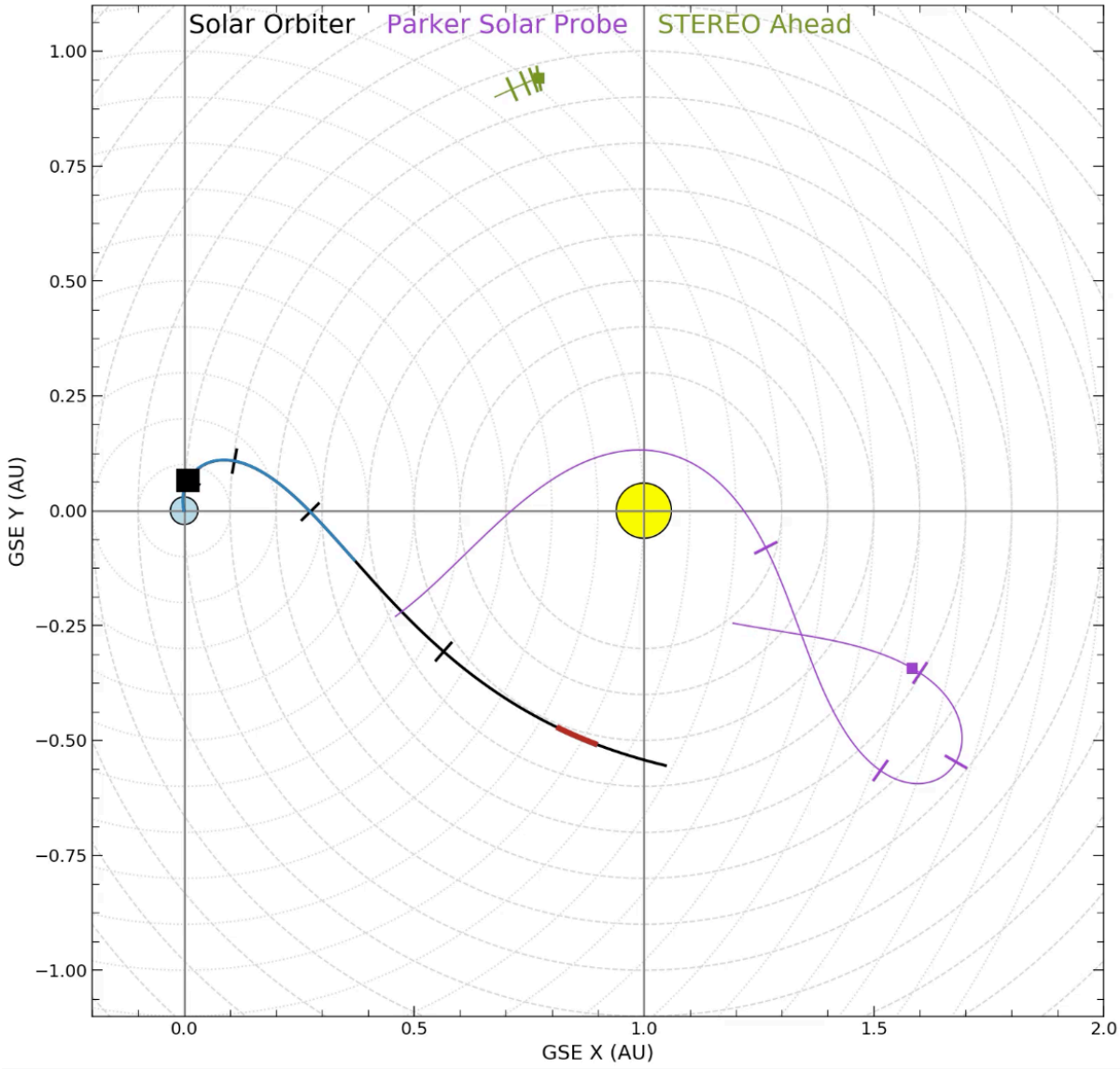
EUI-2: boot CEB

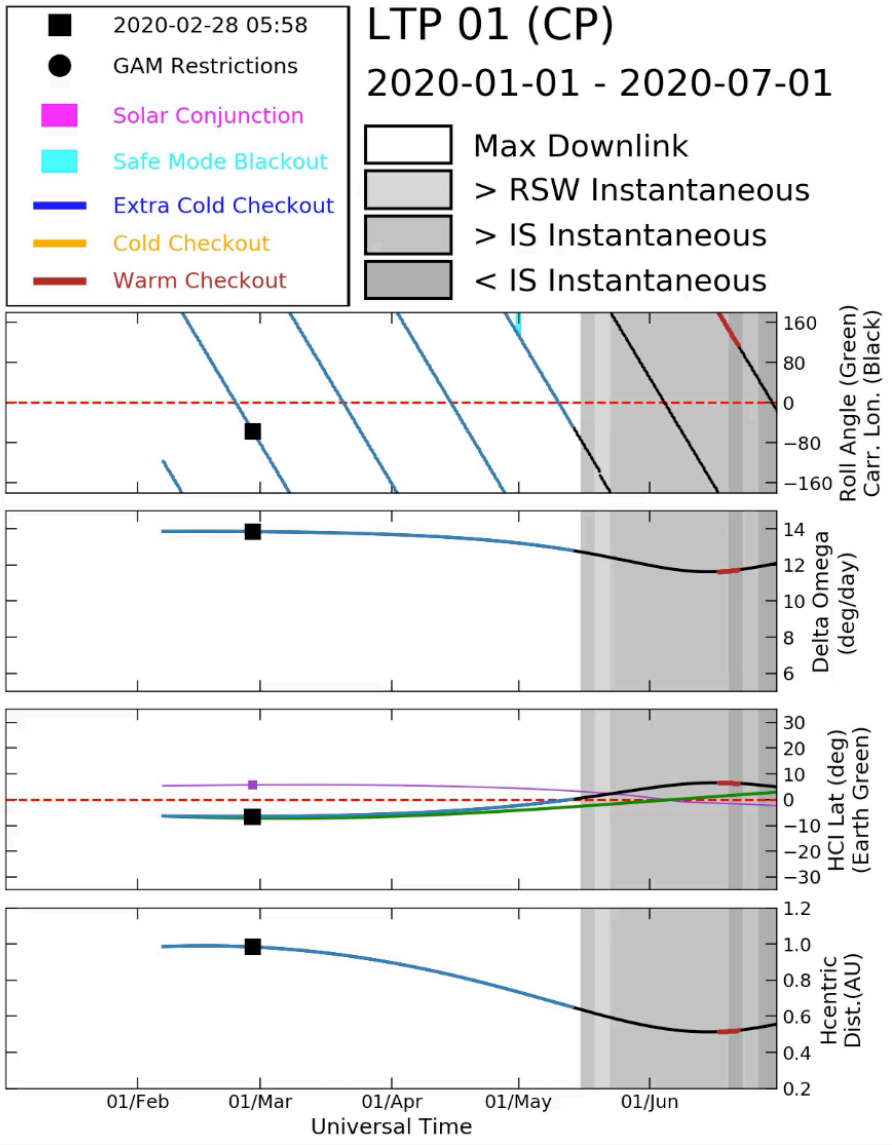




2020 Feb 28

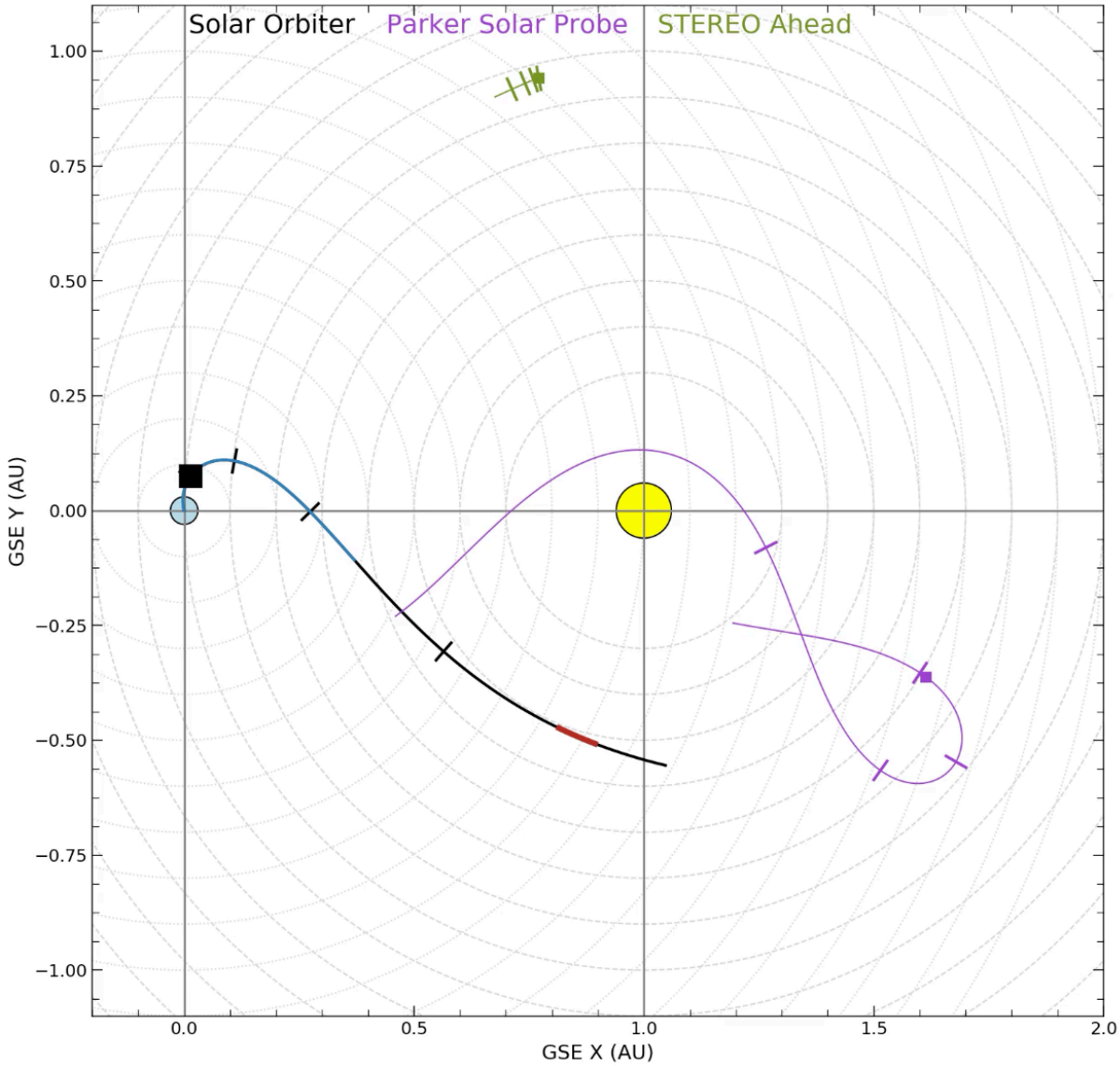
EUI-3: cameras

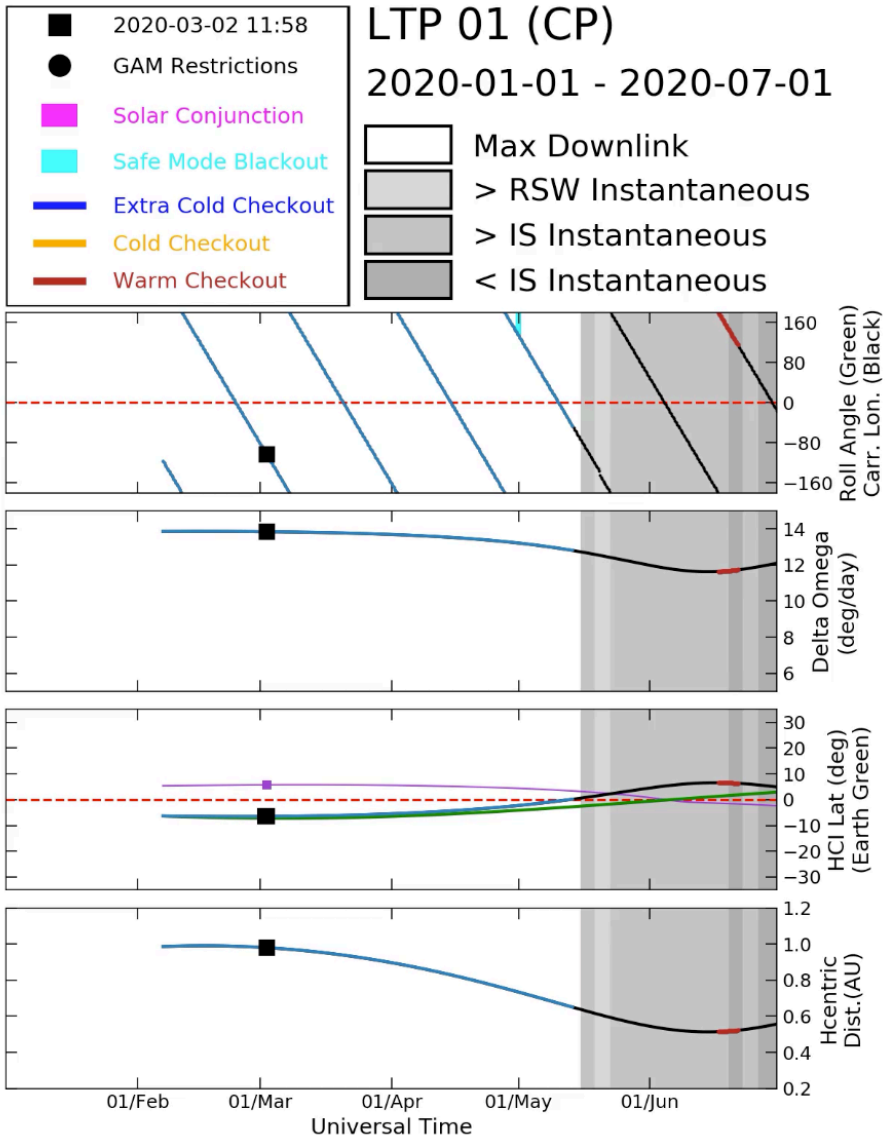




2020 March 02

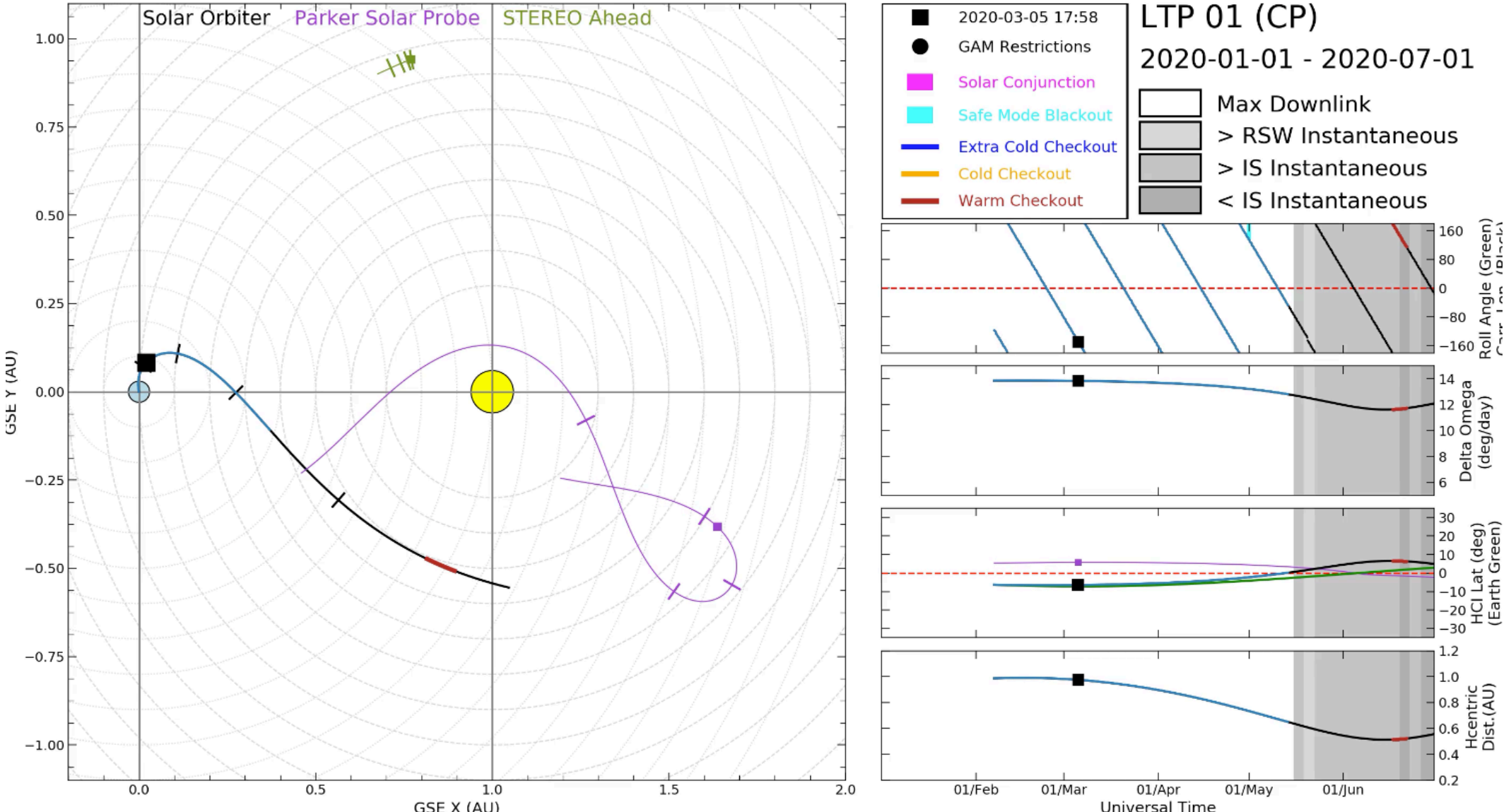
EUI-6_2 Heat Shield doors open





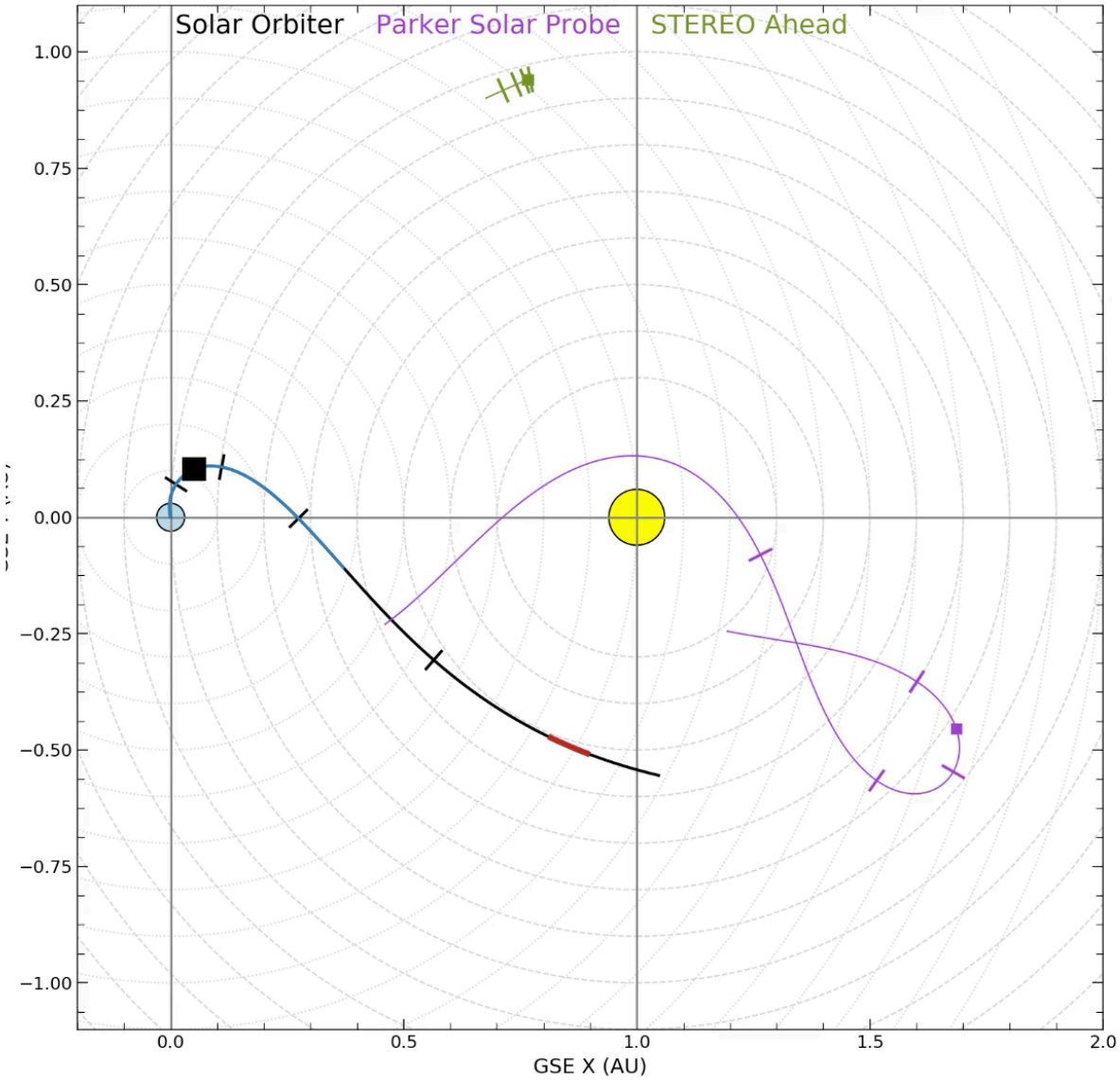
2020 March 05

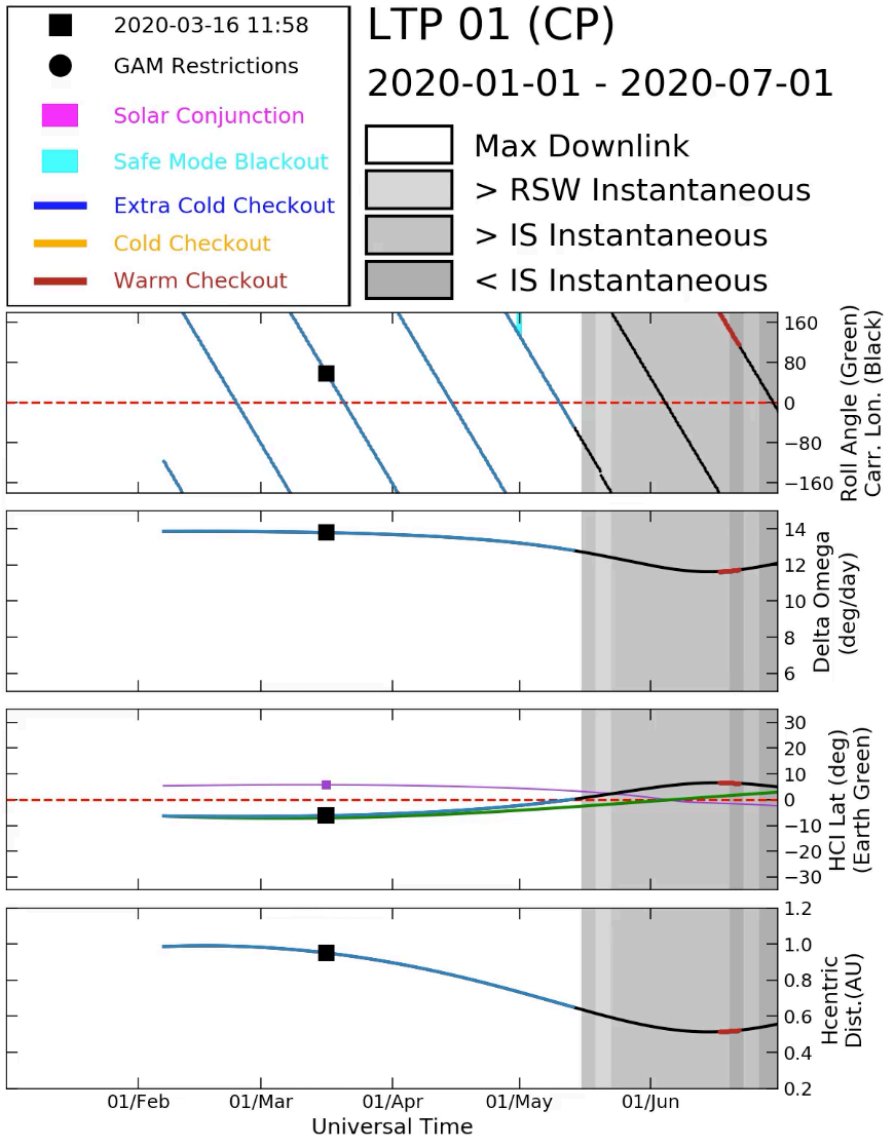
EUI-4: first images (dark & LED)



2020 March 16

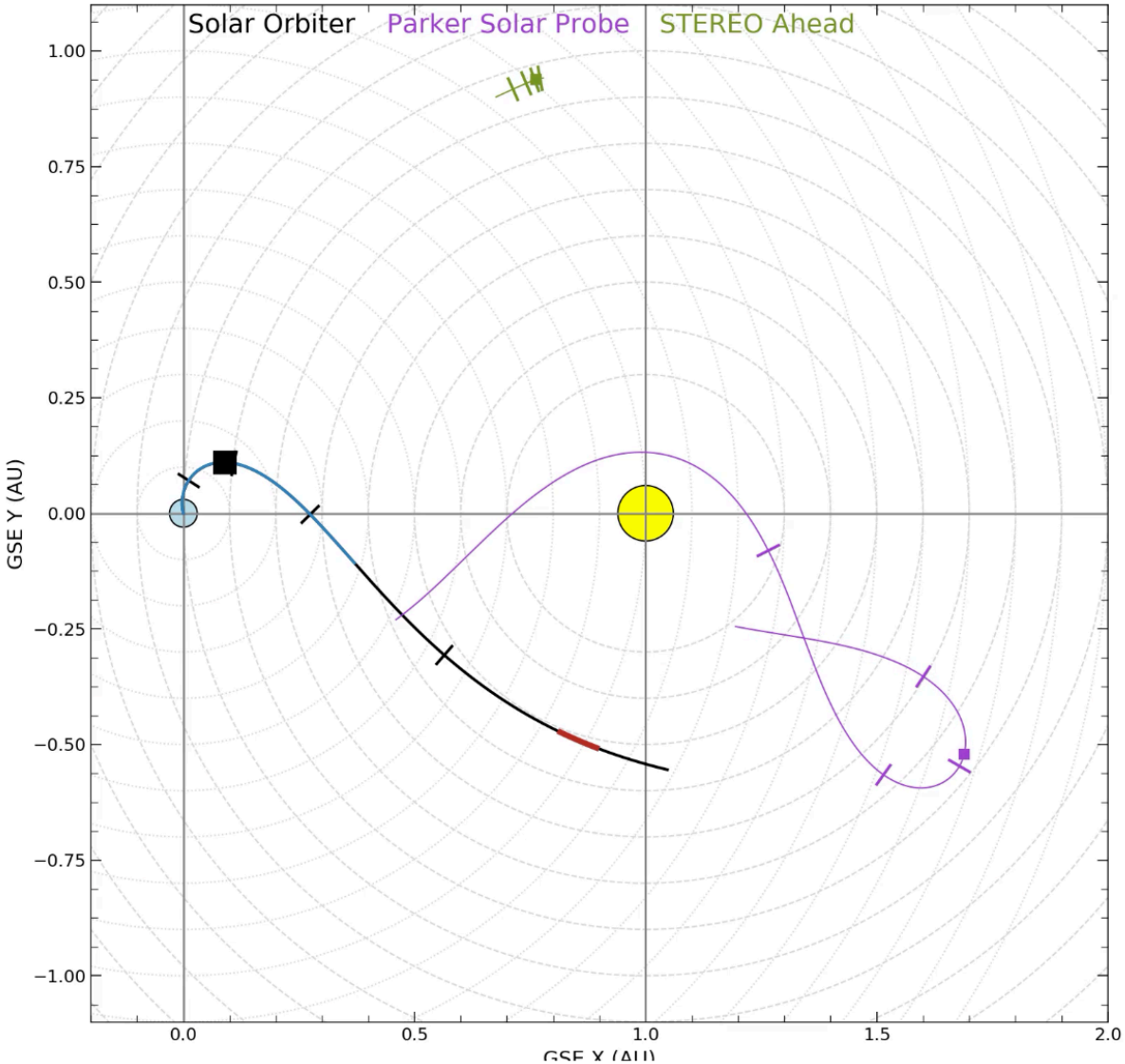
EUI-6_5 EUI doors open

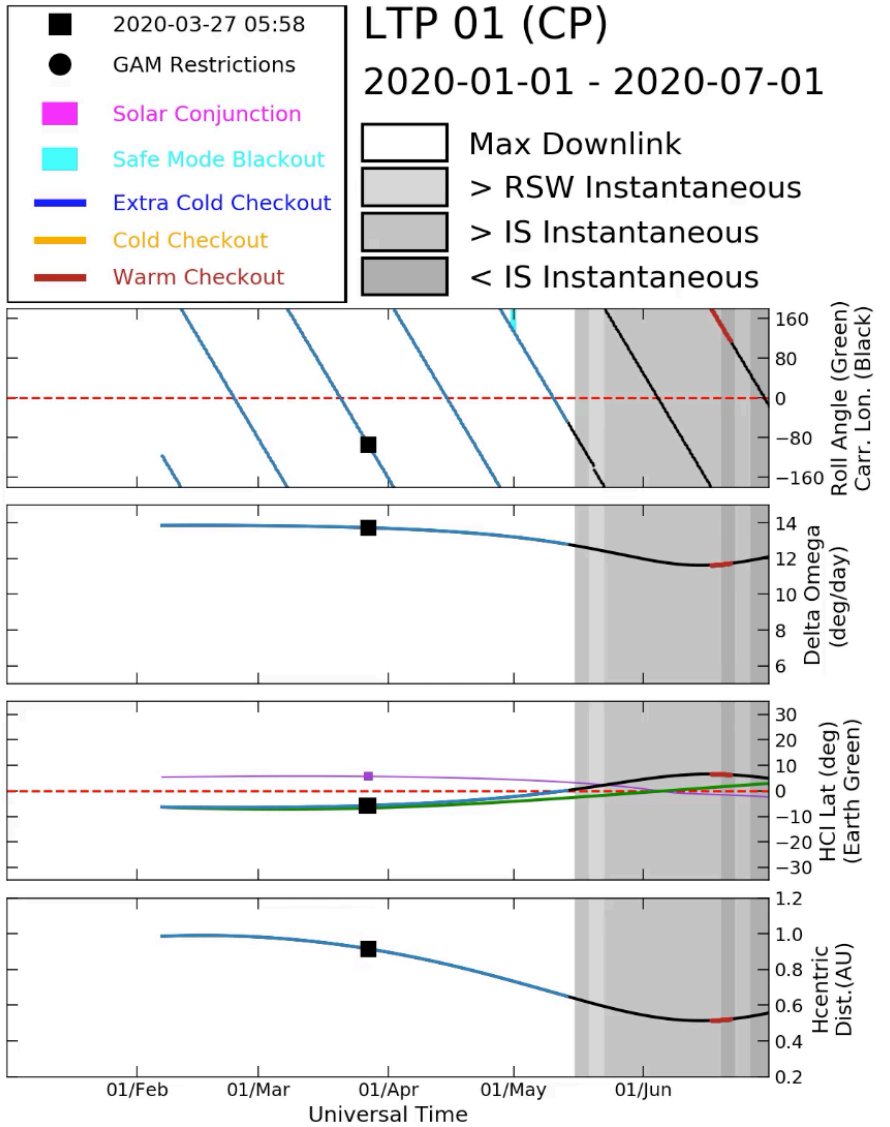




2020 March 27

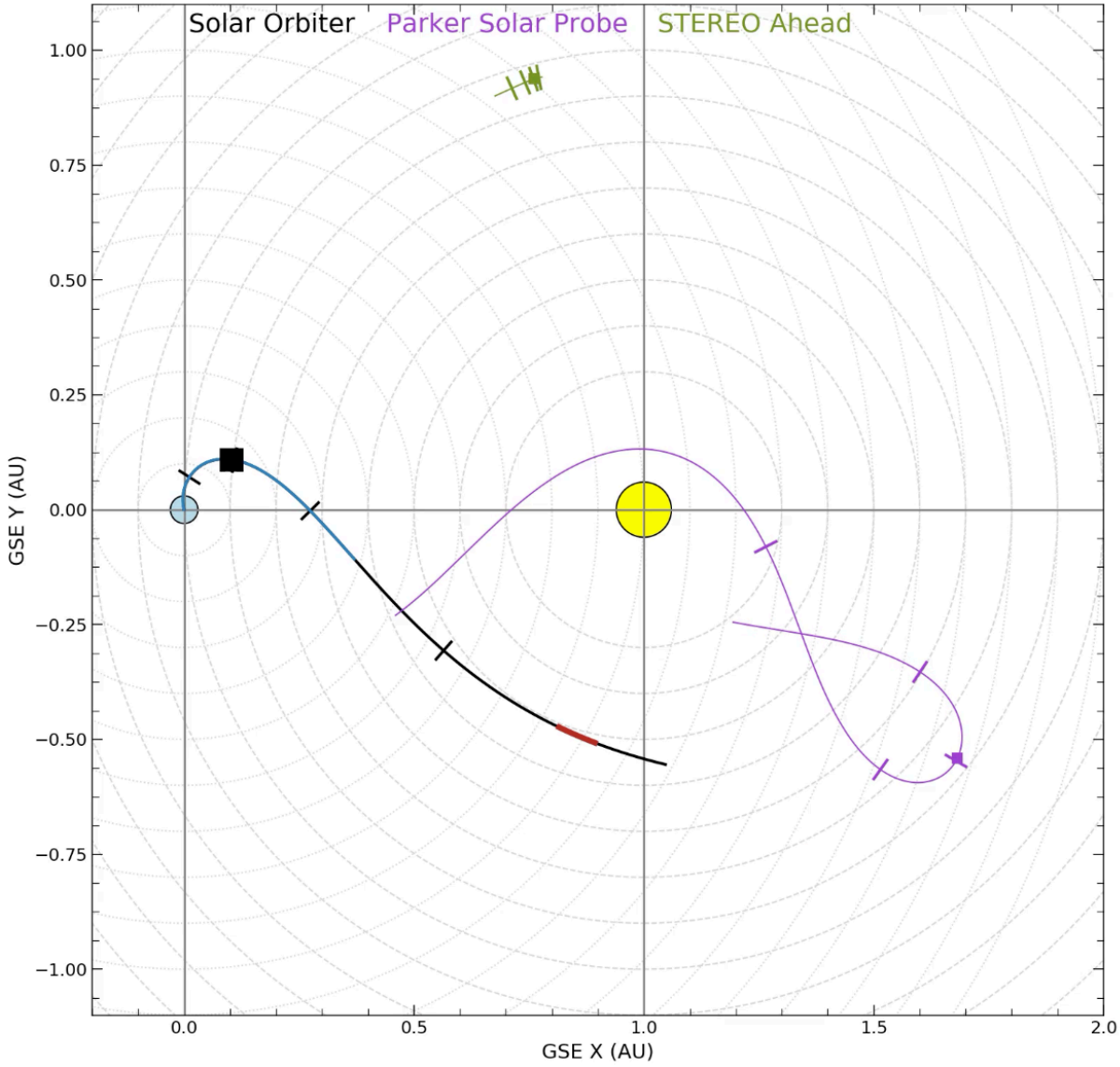
EUI-5 software upload

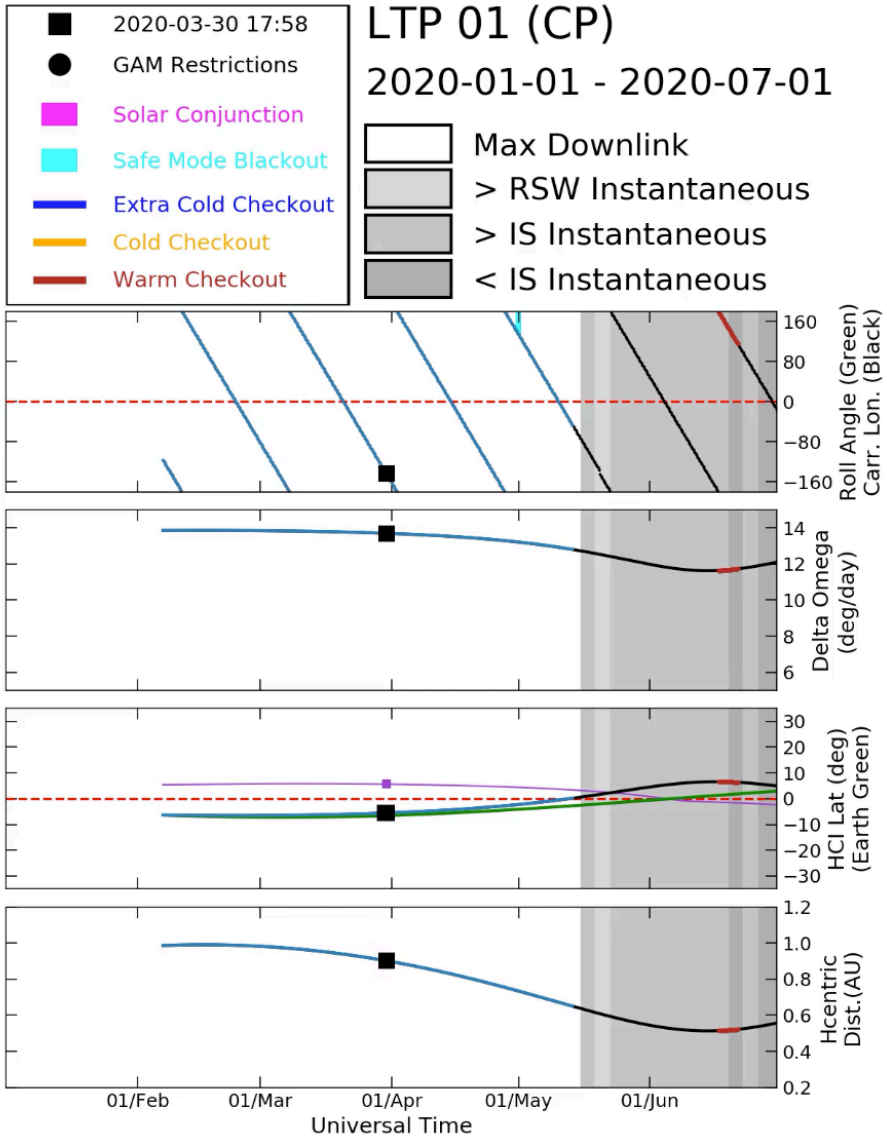




2020 March 30

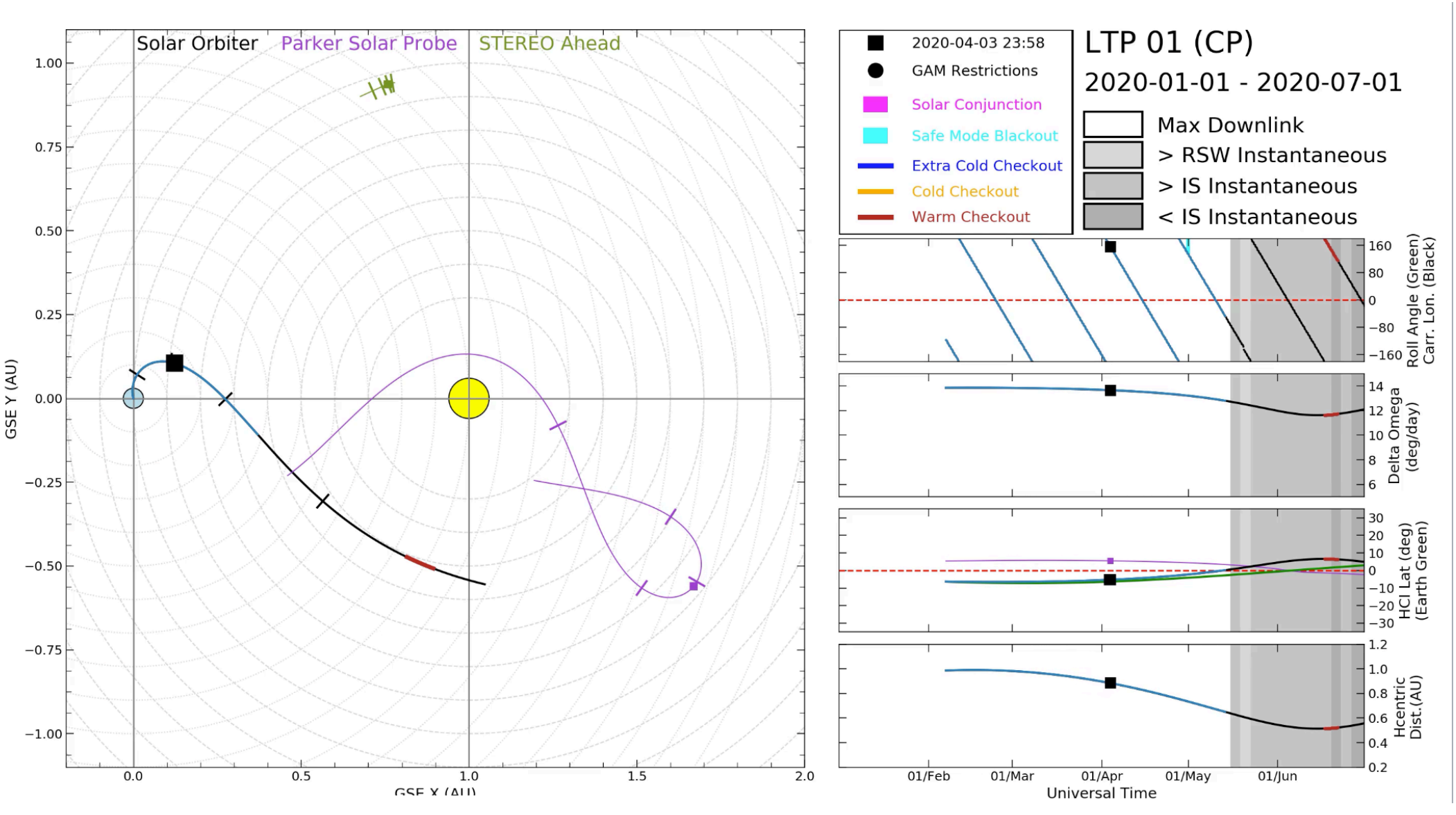
EUI-7: post launch heaters switched off





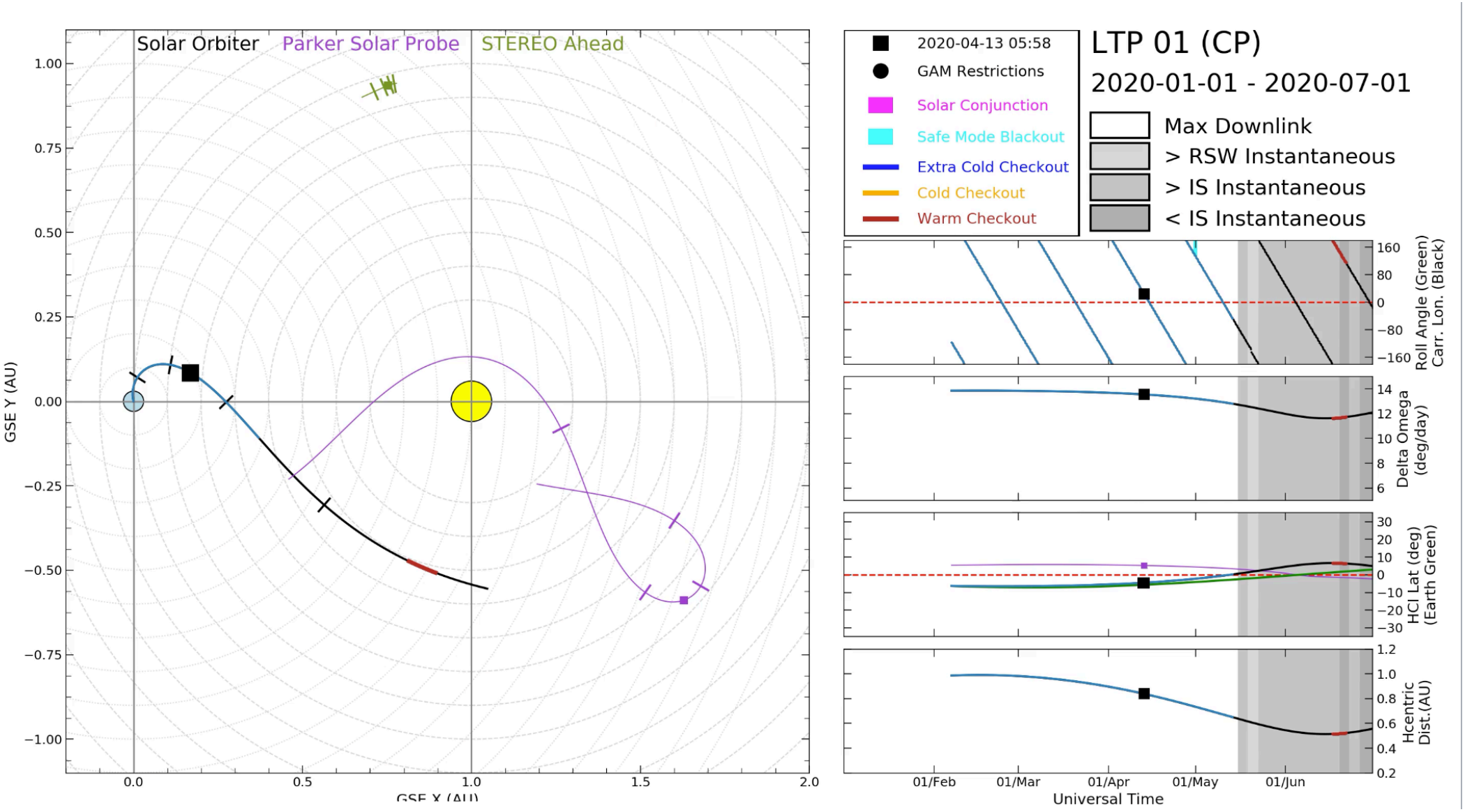
2020 April 3

EUI-8 lots of images (darks and LEDs)



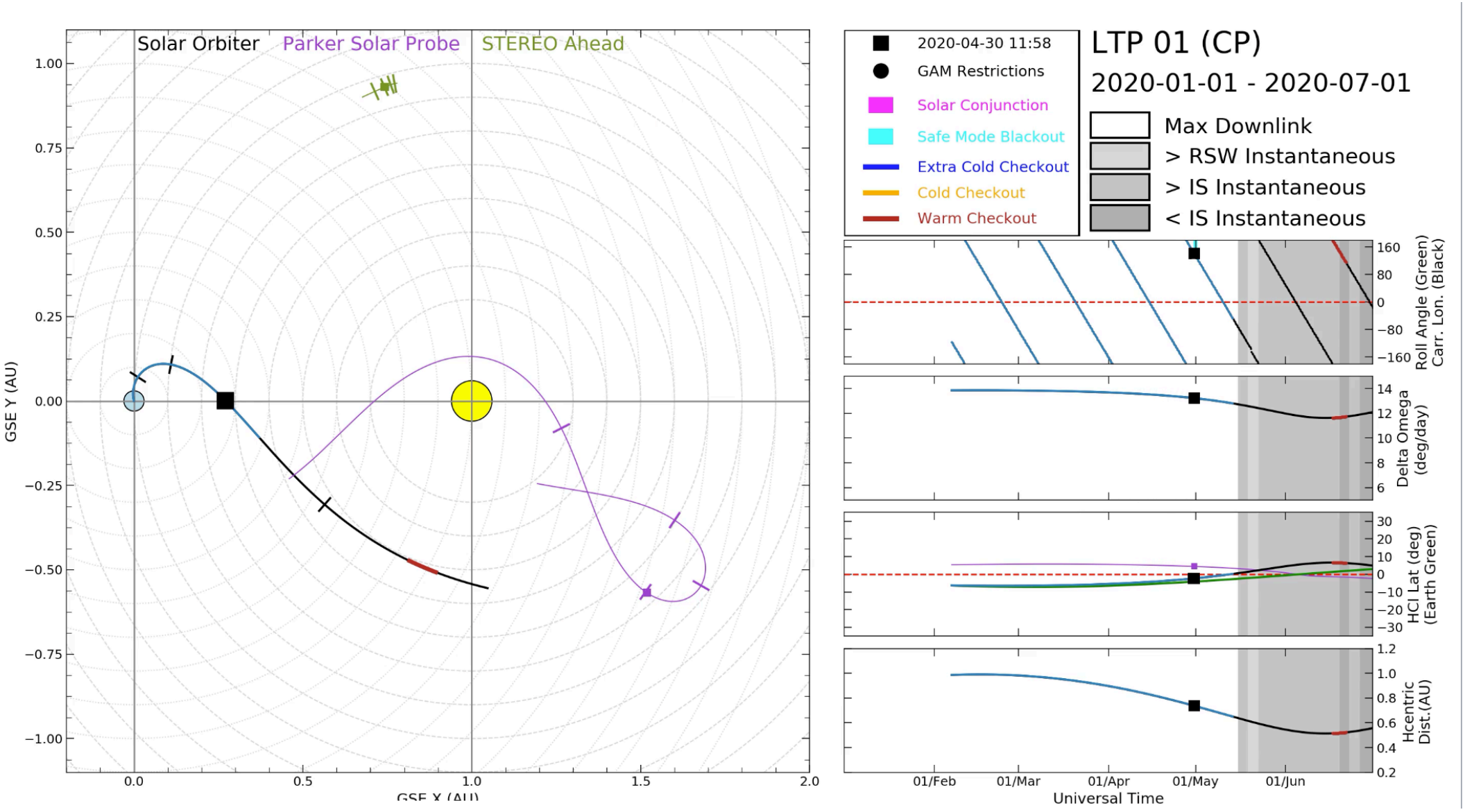
2020 April 13

EUI-9 EUI first light



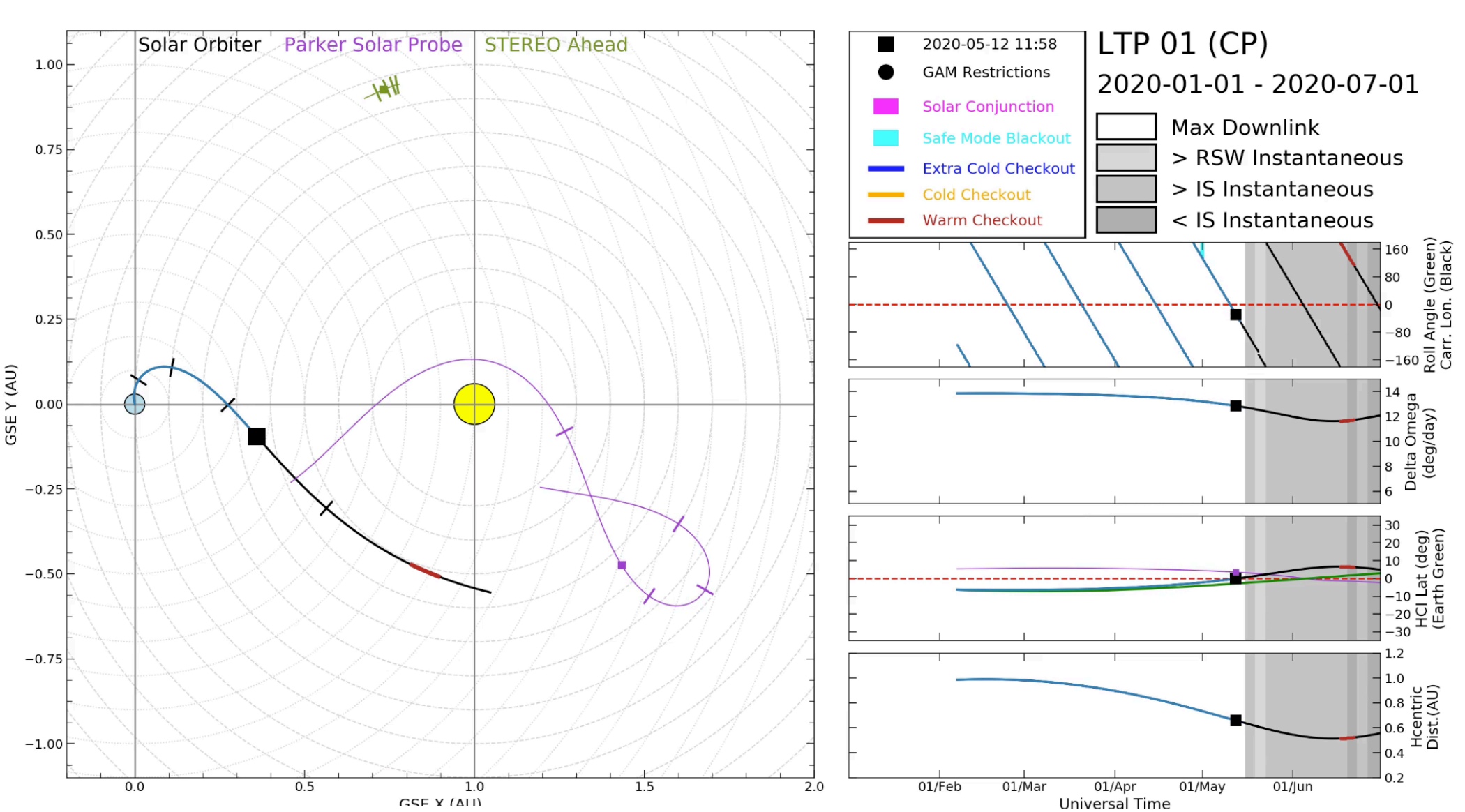
2020 April 30

EUI-10: Performance testing with doors open
Crossing Sun-Earth line at 0.7AU

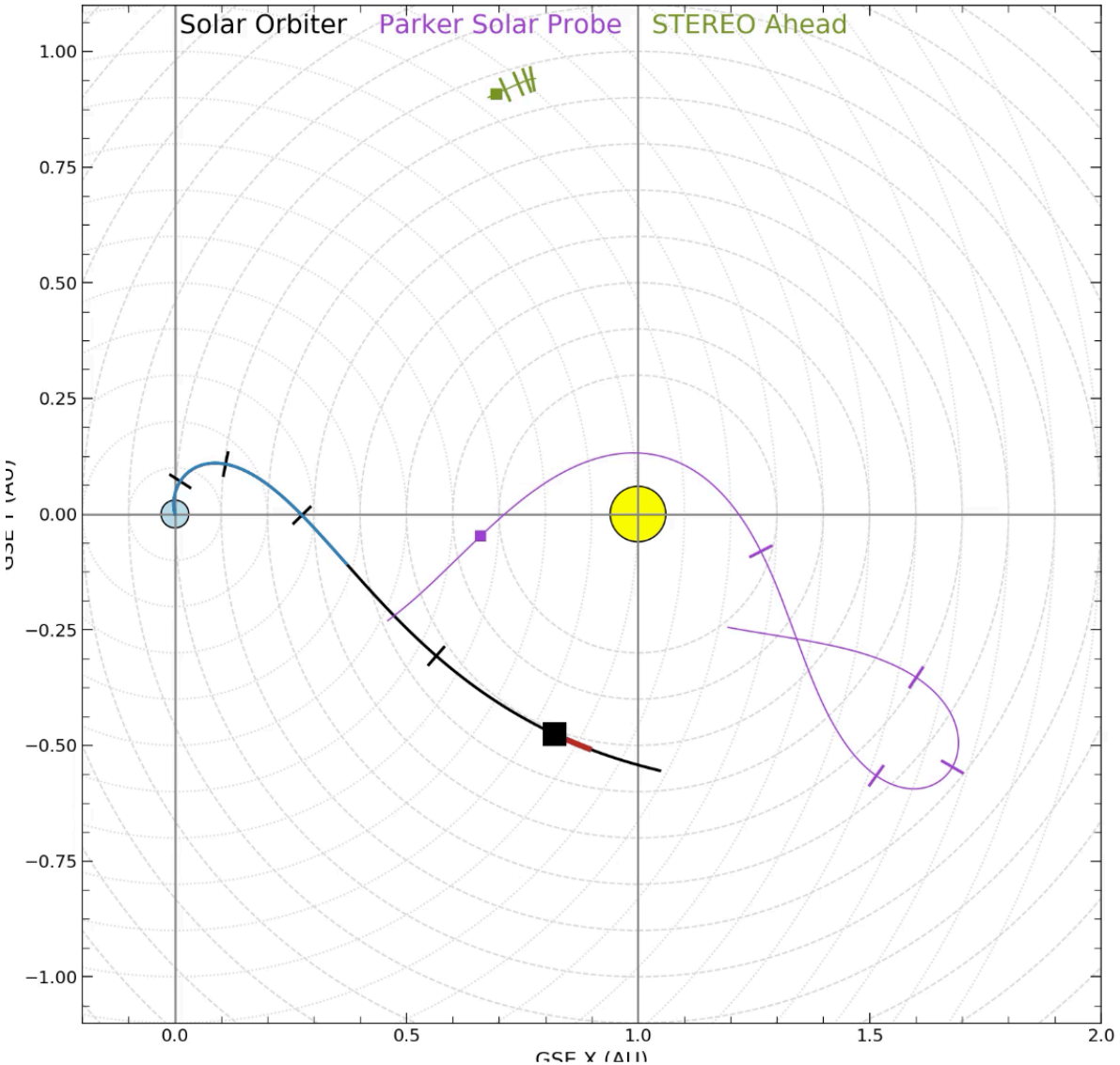


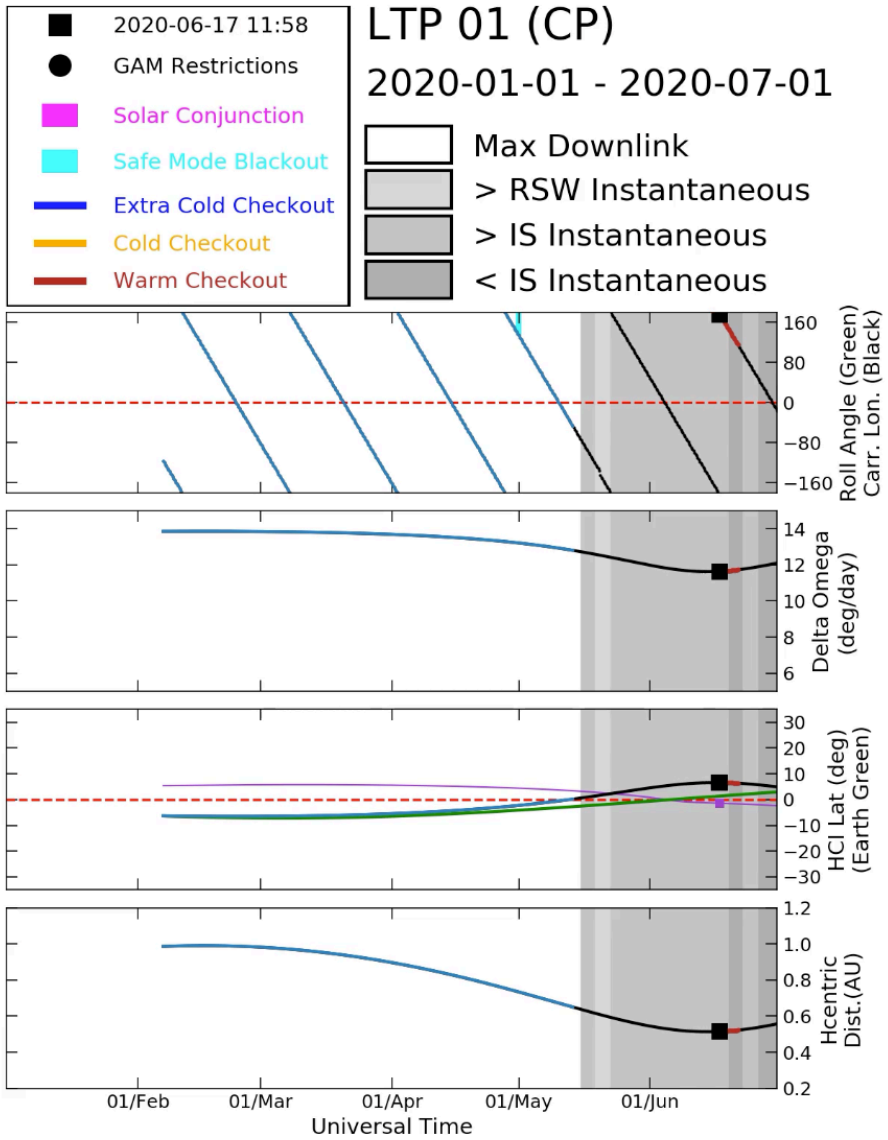
2020 May 12

EUI-11 software upload



2020 June 17-22: RSCW1 (star, alignment, flat-field)





Period	Window/ GAM	EXT Start	Start	End	Heliocentric Distance Range [AU]		
LTP 01	**RSCW1** (warm)	n/a	2020-06-17T00:00:00	2020-06-22T00:00:00	0.514	0.517	0.523

- How do we maintain communication in the consortium during these busy times?

- Are consortium meetings still the best format? Do we need more or less of them?