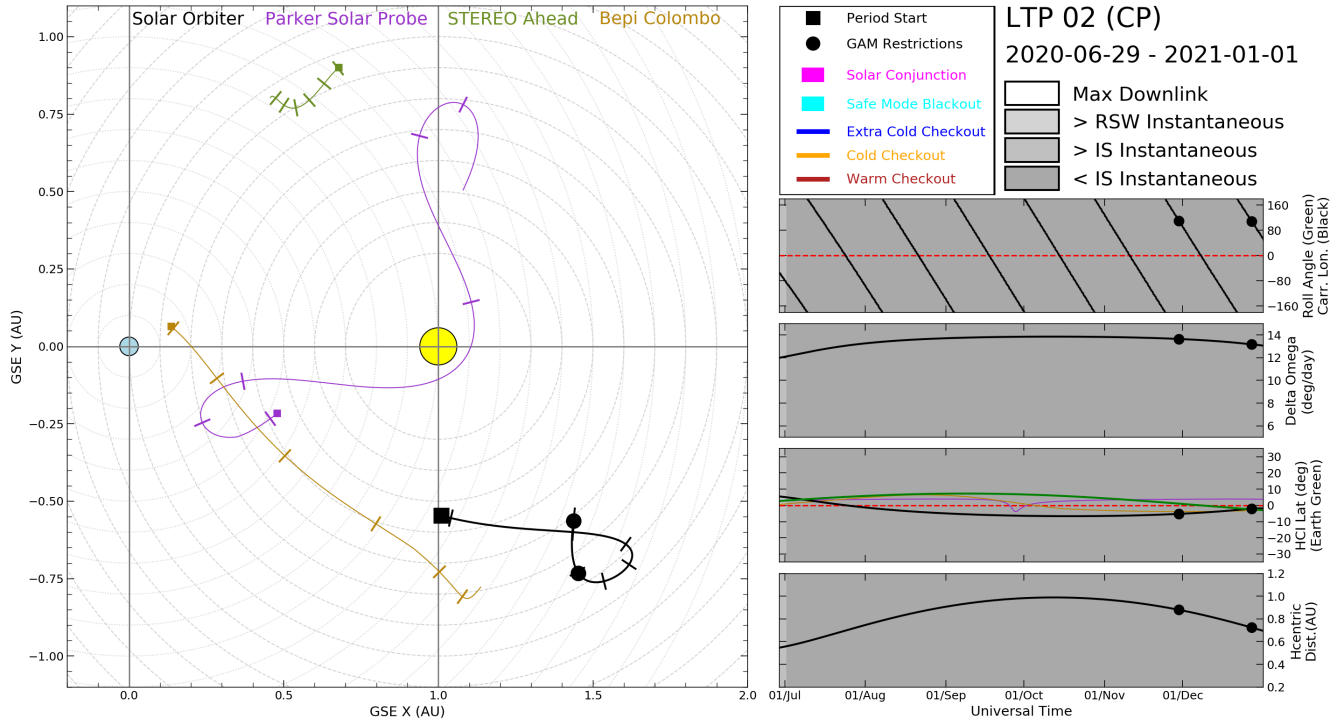


LTP02 July 2020-Dec 2020

Orbital context

Plots are in GSE (geocentric solar ecliptic) coordinates, so Earth is at [0,0], the Sun is at [1,0]. The plot is the projection of the orbit on the ecliptic plane.



Animated Version: [Orbit_LTP02.mp4](#)

New definition for the grey shading representing downlink rates:

- white = maximum downlink rate at which you can empty the SSMM in ~10 days
- light-grey = SSMM fill state decreases with everyone operating at EID-A rates
- mid-grey = SSMM fill state increases within RSW (10 instruments operating) and decreases outside RSW (IS-only breakeven rate < downlink rate < inside-RSW breakeven rate)
- dark-grey = SSMM fill state increases with just IS operating (downlink rate < IS-only breakeven rate)

RS checkout window placement

Period	Window /GAM	EXT Start	Start	End	Heliocentric Distance Range	Heliographic Latitude Range	SC-Sun-Earth Angle	Conjunction	Safe Mode Comms Blackout	Largest Comms Roll	GAM Restrictions
LTP 02	N/A									0 (TBC)	

GAMs and conjunctions

- Venus GAM on 2020-12-27, GAM restriction period expected to run from 2020-11-29 to 2021-01-03.

Science and calibration planning

IS science only: (updated at SOWG#14)

- IS modes: As the spacecraft is moving rapidly away from Earth, IS observation modes have to be switched to low rates modes around mid August 2020 the latest. Mid Dec 2020 they can be switched again to normal science modes. At SOWG#14 (after MAG proposal at SWT#14) it was decided to support PSP perihelion on 27 Sep 2020 by reintroducing ~4 weeks of IS normal modes around that time. To compensate, the low-rate period has been updated to start ~2 weeks early and end ~2 weeks later.
- **MAG calibration roll:** to be scheduled in July 2020 (heliocentric distance between 0.55 and 0.77 AU)

- RS payload is IDLE or OFF (to be confirmed, currently modelled as IDLE)

Coordinated campaigns:

- IS operations coordinated with PSP to support its 6th perihelion passage - see above.

SOOP Kitchen plan

- Status after SOWG#14: https://solarorbiter.esac.esa.int/soopkitchen/#/planning/plan/LTP02_Jun2020-Dec2020/15 (= indicative only, as the final event files will only become available after launch)
- Final plan: update after both FECS & PTEL were received (3 June) : https://solarorbiter.esac.esa.int/soopkitchen/#/planning/plan/LTP02_Jun2020-Dec2020_PostLaunch (planID 021A)
LTP2 output data (EFECs, TMCs and JSON timelines) have been delivered to the instrument teams by GFTS on 9 June 2020.
- Plan now contains updated EFECs including events during NAV window. LTP2 has been extended to run through to 2021-01-01.