

Day of Year

Day 301 (10/28/19)

Status Summary:

Payloads have been powered off for the end of Recon A, except OCAMS, which remains on to support OpNavs with MapCam. OD196 is on board. Current DSN issues do not impact OREX. M11R executed nominally yesterday, transitioning the spacecraft out of the final Recon A flyover.

All OCAMS and OTES data from the weekend's Nightingale flyover activity (including the prime site and context) have been received on the ground. The anticipated OpNav and particle monitoring images are also down. OVIRS data from the Nightingale activity are expected to be down by the end of the pass on Wednesday (30 October, DOY 303).

Bashar Rizk showed example OCAMS images from the Nightingale flyover, including what looks like a bright coating (infall? inclusions?) on a dark boulder; a very smooth, fine-grained boulder; a "bacon"-textured (wavy) rock; and blocky buried boulders for which it may be possible to make a stereo pair.

Looking ahead: This week, we will collect OpNavs with ride-along particle images only. The spacecraft will perform maneuvers to enter the Orbital R phase: M12R tomorrow (Tuesday 29 October, DOY 302) and M13R Thursday (31 October, DOY 304). Criticality-2 OpNavs are expected to come down Wednesday. On Friday (1 November, DOY 305), the partition priority order will revert such that spectrometer data come down immediately after OpNavs, and OCAMS data come down after spectrometer data.

We will kick off WOY 49 and 50 in SOPG tomorrow; next week's SOPG may be canceled owing to the STM and Asteroid Science workshop. Downlink tag-ups will revert to a MWF cadence next week.

Day 302 (10/29/19)

Status Summary:

OCAMS is powered on. OD197 is on board. M12R executed nominally during today's pass.

All prime and context observation data from the Nightingale flyover are now on the ground, including OVIRS (ahead of schedule), except as noted below. OpNavs and particle images have also been received. The partitions are empty.

A gap of 9000 frames was reported in the OTES data from DOY 299 (Nightingale flyover). The cause is not yet clear. A retransmit request will be submitted.

Looking ahead: We will continue to collect OpNavs with ride-along particle monitoring images throughout this week. Criticality-2 OpNavs are expected to come down tomorrow ahead of the M13R maneuver on Thursday (31 October, DOY 304).

Day 303 (10/30/19)

Status Summary:

OCAMS is powered on. OD197 is on board. Today's criticality-2 OpNavs and particle monitoring images have been received on the ground. The partitions are empty.

The OTES data gap from DOY 299, noted at yesterday's tag-up, has been resolved. The data had been transmitted from the spacecraft but not received. Replays initiated by the SPOC filled the gap. An investigation into this showed that the DSN had the OTES data, but the automatic SLE replays were not queued because the start SCET of the gap was outside the allowable tolerance for the replay. This tolerance limit prevents older data from being replayed unnecessarily. A manual initiation of the replay was able to complete the push of the data from the DSN to the MSA and on to SPOC.

The OVIRS team showed their total coverage for Recon A.

Looking ahead: M13R will execute tomorrow (Thursday 31 October, DOY 304). Tomorrow's downlink tag-up is canceled. We will continue to collect OpNavs with ride-along particle monitoring for the rest of the week.

Day 305 (11/1/19)

Status Summary:

OCAMS is powered on. OD198 is on board. M13R executed yesterday, continuing the spacecraft's transition into the Orbital R frozen orbit. All expected OpNav and particle monitoring data have been received. The partitions are empty and are expected to empty again tomorrow.

Looking ahead: Next week, OpNavs with ride-along particle monitoring will continue. We will also perform the OVIRS solar calibration and the OCAMS absolute color and nonlinearity calibrations.

Downlink tag-ups will return to a MWF cadence.