Day of Year

Day 56 (2/25/19)

Status Summary:

All spacecraft subsystems are green. All payloads are nominal. OCAMS and OTES are powered on. A DSN outage is planned for tomorrow (Tuesday 26 February, DOY 57), during which we will update our local FEDS.

We are now in the transition week between Orbital A and Detailed Survey. All OCAMS, OTES, and OLA data from the past several days have been received on the ground; the partitions are empty.

An unusually large gap was noted in yesterday's retransmit report. All images have been received, so the gap is believed to be a system issue rather than a real instance of missing data. A similar gap was seen on Friday. We are working with the DDS team to resolve the issue.

Bashar Rizk presented MapCam (10 cm/pixel) and PolyCam (2 to 2.5 cm/pixel) images of particle event radiants acquired over the weekend. The images show pits lacking crater-style rims, pebbles resting on top of boulders, boulders apparently composed of monodisperse (~5 cm) pebbles in a Styrofoam-like texture, and linear striations on boulders. Two issues are currently under analysis: anomalous charge-smear activity and nominally "bright" images that are dark (the latter may be related to slewing).

Becky Masterson reported on the Earth-pointed part of the REXIS L+30 calibration activities. The CCD1 node returned some higher event rates, so the REXIS team has decided not to enable it for the upcoming Crab Cal. A total of five nodes will be enabled, two of which will have raised thresholds to limit the event rate (this will make these nodes unusable for oxygen measurements, but we can get that information from the other nodes). The "good" mask performed well; the "bad" mask performed poorly but in a different way than expected.

Looking ahead: Our HGA pass tomorrow will only be about 50 minutes, so some data will remain onboard the spacecraft. We expect to empty the partitions by the end of the longer pass on Wednesday (27 February, DOY 58), which will be at the higher data rate. Orbital Imaging will continue for the next few days, followed by OpNavs for the rest of the week as we move

into the Detailed Survey Baseball Diamond trajectory. The M0D and M1D maneuvers will shorten the time available for science data downlink on DOY 59 and 61, respectively.

Upcoming meetings: The first Site Selection Board meeting will be held tomorrow. Downlink tag-ups will continue on a Monday-Wednesday-Friday cadence through Detailed Survey Baseball Diamond.

Day 58 (2/27/19)

Status Summary:

All spacecraft subsystems and payloads are green. OCAMS, OLA, and OTES are powered on. OD102 is onboard the spacecraft.

Today is the last day of (pre-)Detailed Survey Orbital Imaging (data coming down tomorrow).

A small fraction of OCAMS data currently remains onboard the spacecraft owing to yesterday's short HGA pass. The partitions should be close to empty by the end of tomorrow's pass, depending on the extent to which the M0D maneuver cuts into the downlink time. NavCam, OLA, and OTES data are on the ground (although we cannot confirm that we have all of the OLA and OTES data until they complete processing).

Mike Nolan gave a reminder that recent images have known pointing issues. Reconstructed pointing appears to be in effect for images through 25 February (DOY 56).

The FEDS upgrade at the SPOC was successfully completed yesterday.

Looking ahead: The rest of this week will be OpNavs and maneuvers only as we prepare for Detailed Survey Baseball Diamond Flyby 1 next week. We will collect NavCam OpNavs tomorrow (Thursday 28 February, DOY 59), followed by NavCam and MapCam OpNavs on subsequent days. Additional long-exposure images for particle monitoring will begin next week. M0D and M1D will respectively occur on Thursday (DOY 59) and Saturday (2 March, DOY 61).

Upcoming meetings: There will be a Science Weekly meeting tomorrow.

Day 60 (3/1/19)

Status Summary:

All spacecraft subsystems and payloads are green. OCAMS and OTES are powered on. OD103 is onboard the spacecraft.

We have now formally transitioned to the Site Selection Campaign and Detailed Survey. M0D executed yesterday. A Network glitch occurred shortly before, but a fix was pushed through in time to uplink the late update. The maneuver performance was nominal. We will perform two burns per week throughout Detailed Survey.

All data from the last day of (pre–)Detailed Survey Orbital Imaging have been received on the ground. The partitions are empty.

The previously reported issue of bogus gap reports is still being worked.

Looking ahead: We will collect only OpNavs for the rest of this week. NavCam and MapCam will collect paired OpNav images. Additional long-exposure images for particle monitoring will begin next week. M1D will take place on Saturday (2 March, DOY 61). Baseball Diamond Flyby 1 will occur on Thursday (7 March, DOY 66).