Day of Year

Day 140 (5/20/19)

Status Summary:

All spacecraft subsystems are green; all payloads are nominal. OCAMS, OTES, and OVIRS are powered on.

Over the weekend (Saturday 18 May, DOY 138), we experienced downlink issues caused by an interrupted connection between the DSN and Data Control at JPL. A replay filled in all but two of the missing images (one NavCam, one MapCam) from DOY 137. Because these were criticality-5 images, the OpNav team has confirmed that a retransmit is not necessary.

Our HGA pass today was split by planned downtime for the Madrid station, which reduced the downlink duration by about three hours. However, we were able to empty the partitions of the expected OpNav and particle monitoring images. We may be missing two of the images (one NavCam, one MapCam) taken yesterday (DOY 139), and an additional NavCam image is failing its checksum. These are criticality-5 images; a retransmit request is not anticipated.

Amy Simon noted that OVIRS SP=2 data from last week's 10:00 AM Equatorial Station look good so far. The pipeline crashed over the weekend (believed to be related to the pipeline getting ahead of the telemetry) but is expected to back online soon to process the rest of the data.

Vicky Hamilton reported that OTES collected just under 3000 on-body spectra during the 10:00 AM observations, of which about 850 exhibit the phase inversion issue (as expected given the observing conditions). Methods for identifying the bad spectra have been distributed to the team.

Dathon Golish reported that a handful of a bright areas on the surface of Bennu are saturated in the OCAMS images from the 10:00 AM Equatorial Station. As a result, we may not be able to have a photometric function for the very brightest parts of the asteroid. However, this problem affects only single-digit numbers of pixels within a given image of a bright area.

Looking ahead: Tomorrow we will execute M24D to put the spacecraft on track for the 6:00 AM Equatorial Station observations on Thursday (23 May, DOY 143). These will be followed by M25D on Saturday (25 May, DOY 145) and Thermal Emission Phase Function zigzag scans on Sunday (26 May, DOY 146). We will continue the OpNav and particle monitoring cadence throughout the week.

Memorial Day (Monday 27 May, DOY 147) will be charts-only, no downlink tag-up.

Day 144 (5/24/19)

Status Summary:

All spacecraft subsystems are green; all payloads are nominal. OCAMS, OTES, and OVIRS are powered on. OD140 is onboard the spacecraft.

All expected OpNavs and particle monitoring images have been received on the ground. All spectrometer data from yesterday's 6:00 AM Equatorial Station observations are also down. The OCAMS partition is expected to empty by the end of tomorrow's HGA pass.

Waiver 9881 has been approved; this needed to occur before the command conference next week to be able to upload the R42 library.

Looking ahead: Tomorrow we will execute M25D, which will be followed by Thermal Emission Phase Function zigzag scans on Sunday (26 May, DOY 146). We will continue the OpNav and particle monitoring cadence throughout the weekend and next week (with criticality-3 OpNavs Monday 27 May, DOY 147). The 8:40 AM Equatorial Station observations will take place next Thursday (30 May, DOY 150).

Memorial Day will be charts-only, no downlink tag-up.