STEREO MOC Status Report
Time Period: 2020:300 – 2020:306

STEREO Ahead (STA) Status:

1. The following Ground System anomalies/events occurred during this reporting period:

- On day 300, the MOC conducted L3VPN SLE Portal Bind testing with JPL from 1430z to 1700z. The telemetry binds were completed with SLE OPS Portals slegp3 and slegp4; and SLE TEST Portals testslegp2, testslegp3 and testslegp4. The L3VPN SLE TLM Portal testing was successful and SLE telemetry bind testing is complete. Going forward, the MOC will continue to test the L3VPN Command network IP addresses and report the results after testing is complete. Instead of scheduling test tracks with each ground station, the command testing will continue in the background using the current DSN schedule.

- On day 301, during the DSS-63 support, the transmitter tripped offline and aborted the command system bind at 1310z. This anomaly resulted in the loss of 14 minutes of SSR data between 1326z and 1340z, when the receiver transitioned from two-way to one-way downlink mode and during the subsequent uplink resweep activity. MOPs canceled the planned momentum dump and rescheduled for Thursday (10/29) at 303:1500z. See DR #M112771 for more information.

- On day 302, during the DSS-84 (ESA Malargue) support, turbo decoder lock was lost briefly at 1920z, due to a glitch in the TTCP demodulator. This anomaly resulted in the loss of five frames of SSR data. The MOC reported to ESA that the problem is occurring when the uplink sweep starts at BOT +5 minutes. ESA engineers have discovered the problem and they are working to correct the issue.

- On day 303, during the DSS-83 (ESA Cebreros) support, turbo decoder lock was lost briefly at 1250z, due to a glitch in the TTCP demodulator. This anomaly resulted in the loss of five frames of SSR data. The MOC reported to ESA that the problem is occurring when the uplink sweep starts at BOT +5 minutes. ESA engineers have discovered the problem and they are working to correct the issue.

- On day 304, during the DSS-14 support, the command modulation toggled offline for five seconds and aborted the command system bind at 0024z. This anomaly had no impact on operations and the command bind was reestablished at 0249z. See DR #G121448 for more information.

2. The following spacecraft/instrument events occurred during this week. The Ahead observatory operated nominally during this week.

- On day 303, the 132nd momentum dump was executed successfully at 1500z, which imparted an estimated delta V of 0.070 m/sec. This was the 51th momentum dump conducted without gyro use. After thruster operations completed, there was a 0.3 degree of roll angle error. Fine pointing stabilized 2.4 minutes after completion of the momentum dump.

- As of day 306, all PLASTIC systems are behaving well, except there is a high background count rate, which the team is continuing to monitor.

- The average daily science data return for Ahead was 6.4 Gbits during this week.