

STEREO MOC Status Report
Time Period: 2021:109 - 2021:115

STEREO Ahead (STA) Status:

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

- On day 109, during the DSS-63 support, the antenna downlink was declared red, due to the HEMT-X LNA overheating. This anomaly resulted in the loss of 3.2 hours of real-time telemetry and SSR playback activities. Since the uplink activities were green, the MOPs team responded to the MOC to stop the SSR playback and repositioned the SSR pointers to recover the science data on the next day. See DR #M113462 for more information.
- On day 110, during the DSS-63 support, the antenna downlink was declared red, due to the HEMT-X LNA overheating and a line leakage. However, due to a strong signal strength and low System Noise Temp (range 40-50K); the station locked the downlink and provided telemetry. The transmitter tripped off due to a "Waveguide ARC" interlock at 1923z. This anomaly resulted in the loss of 1738 frames of SSR data during the downlink receiver transition from 2-way to 1-way mode. See DRs #M113474 and #M113475 for more information.
- On day 113, during the DSS-43 support, the antenna was declared red to repair a hydraulic leak. This anomaly resulted in the loss of three hours of real-time telemetry, commanding, ranging, and SSR data. The MOPs team repositioned the SSR pointers on the subsequent DSS-63 support and recovered all the affected data. See DR #C115667 for more information.

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

- On day 110, after completing the SSR playback activities during the DSS-63 track, the final SSR data loss was approximately 24 hours at different time periods for each instrument and spacecraft housekeeping between day 108-1107z to 109-2011z.

- As of day 115, 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 5.6 Gbits during this week.