

STEREO MOC Status Report

Time Period: 2023:359 (Dec 25) - 2023:365 (Dec 31)

STEREO Ahead (STA) Status:

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

- On day 360 (Dec 26), during the DSS-53 support, turbo decoder lock was lost briefly at 0527z. This anomaly resulted in the loss of 76 frames of SSR data. The MOPs team repositioned the SSR pointers during the support and recovered all the affected data.
- On day 360 (Dec 26), during the DSS-43 support, the transmitter was declared red, due to a hardware problem. This anomaly resulted in the loss of 2.6 hours of real-time commanding and 2-way tracking data. Also, the beginning of track was delayed 18 minutes until 1533z, due to a hardware configuration issue. This anomaly resulted in the loss of 18 minutes of real-time telemetry, tracking, and SSR data. The MOPs team repositioned the SSR pointers during the subsequent DSS-25 track and recovered all the affected data, except for the loss of 57 minutes of SECCHI data for day 360-0550z thru 0647z. See DRs #C117656 and #C117657 for more information.

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

- On day 359 (Dec 25), the star tracker reset at 04:19:18z. Fault protection immediately promoted the star tracker back to AAD mode at 04:19:42z. The diagnostic data indicated that the reset cause was due to a CPU Error, same as previous resets. The anomaly resulted in a momentary loss of fine pointing with a 0.28 degree of roll angle error. This was the eleventh star tracker reset on the Ahead observatory.
- As of day 365 (Dec 31), all PLASTIC systems are behaving well, except there is a moderate background count rate, which the team is continuing to monitor.
- The average daily science data return for Ahead was 6.7 Gbits during this week.