

STEREO MOC Status Report

Time Period: 2023:135 (May 15) - 2023:141 (May 21)

STEREO Ahead (STA) Status:

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

- On day 135 (May 15), during the DSS-14 support, turbo decoder lock was lost briefly at 0303z, due to an elevation tracking error caused by a faulty tachometer. This anomaly resulted in the loss of 102 frames of real-time data. All the affected data was recovered during the subsequent DSS-63 track. See DR #G123720 for more information.
- On day 136 (May 16), during the DSS-25 support, the station dropped telemetry briefly at 2053z, due to a short disconnection from the data server. This anomaly resulted in the loss of two minutes of real-time and SSR data. See DR #G123721 for more information.
- On day 138 (May 18), during the DSS-14 support, turbo decoder lock was lost intermittently between 0324z and 0327z, due to an elevation tracking error caused by a faulty tachometer. This anomaly resulted in the loss of 121 frames of real-time and SSR data. The MOPs team repositioned the SSR pointers during the subsequent DSS-63 track and recovered all the affected data. See DR #G123719 for more information.
- On days 137-139 (May 17-19), DSN conducted a Madrid Complex maintenance from 1030z through 1430z each day. The maintenance activity did not impact the MOC and the Madrid tracks were successful each day.

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

- On day 135 (May 15), the 156th momentum dump was executed successfully at 2100z, which imparted an estimated delta V of 0.055 m/sec. This was the 75th momentum dump conducted without gyro use. After thruster operations completed, there was a 0.18 degree of roll angle error. Fine pointing stabilized 3.3 minutes after completion of the momentum dump.
- As of day 141 (May 21), 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 6.4 Gbits during this week.