

Delores

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Poster

We present a collection of anecdotal reports and statistical information related to satellite operations in the Low Earth Environment (LEO) during the 10-14 May 2024 storm. Several High LEO operators (altitudes > 650 km) reported challenges with pointing and altitude maintenance. In mid-LEO (400-600 km) where neutral density increased by a factor 5 above background values, autonomous orbit maneuvers by thousands of satellites occurred during the peak of the storm, vs the October 2003 storm during which the bulk of orbit maneuvering was in the post-storm phase. In Very Low Earth Orbit (VLEO < 400 km) reports show that active and inactive ‘cubesats’ met an early orbit demise. Many space operators paused normal activities or noted that data products had to be reprocessed because of storm. Although not comprehensive, we believe this collection of reports is illustrative of future storm-time operations and challenges in the statistically more ‘active’ declining phase of odd-numbered solar cycles.

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