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SWARM accelerometer signal disturbances

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The Swarm triple satellite mission is mounted with microaccelerometers on each satellite which measure the non-gravitational forces acting on the satellites. 1 Hz accelerometer data is analyzed over a year long period. There are strong temperature effects and jumps in accelerometer data are observed. Although heater spikes and orbit maneuvers correlate to some of these jumps, there exist still a large proportion of jumps for which the reasons are yet to be clearly known and these errors to be modelled. In this regard, the jumps in the accelerometer data are clearly identified and classified. And these are corrected by means of removing the bias. The corrected acceleration is also verified using GPS data and non-gravitational force models. Details are given and the early results are discussed in this contribution.