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Comment

Interactive comment on “An initial investigation of the long-term trends in the fluxgate magnetometer (FGM) calibration parameters on the four Cluster spacecraft” by L. N. S. Alconcel et al.

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The authors would like to thank the reviewer for this insightful comment. We have modified Sections 2.6 and 3 of the article in response. We would like to re-emphasize that the article is a primarily descriptive account of the calibration parameter survey. We have not attempted to quantify the uncertainty in the FGM parameters post-calibration, nor incorporate them into a comprehensive error analysis of the instrument. Hypothetically, this could be done. For example, simulated data could be created and a calibration error added. This data could be fed to the solar wind and/or Fourier anal-

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ysis routines to attempt to recover the error. This could be done for different cases (e.g. noisy data, limited data, data gaps) to build a statistical picture of the resulting uncertainty. However, this would constitute a non-trivial piece of work and is beyond the scope of this article.

The variability of the standard deviations in Tables 2 through 5 has been reduced by correction of the calibration parameters (and subsequent re-delivery of the FGM data to the CAA). In particular, the standard deviation of the azimuthal angle in the spin-axis coordinate of C3 has been reduced to 1.0820 degrees or less. We have added a statement to Section 3.2.1 stating that the standard deviations should be viewed as a measure of calibration error and not of the physical variability in the sensor itself.

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