

This is the second round of comments for the manuscript Shumko et al., submitted to GRL. The authors have addressed some of my concerns from the previous review, but I find that, overall, the manuscript is still very difficult to read and in need of major improvement before publication. Many of the fundamental problems with the writing style still persist. *I suspect that the first author doesn't fully appreciate the degree to which this can/will detract from an otherwise fine result that is worthy of GRL publication. I really can't emphasize this enough, especially for an early-career scientist.* For this reason, I recommend that this be rejected, but encourage resubmission after an extensive rewrite. One suggestion is to rewrite each paragraph a number of times until you're sure you're stating exactly what you intend to state in an efficient manner.

As I did in the first review, I'll point out some (but not all) instances where improvements need to be made, and some cases give recommendations. It really is difficult to provide a complete review when the paper's in this shape without essentially rewriting it myself. Some of my comments are to be taken merely as suggestions as there's no need to conform to my particular writing style.

The line numbers referenced are from the tracked-changes file.

L17 → Does large mean large spatial scale or large amplitude?

L34 → Coulomb scattering only facilitates loss at very low L, like $L < 1.5$. In this context it seems like it's competing with the other listed processes.

L37 → consistency: both hiss and chorus are whistler mode

L42 → These two sentences can be simplified: "Some of these electrons may be impulsively scattered into the loss cone, where they result in short-duration (~100 ms) enhancements in precipitating flux [citations]."

L51 → Is there a newer reference than Millan02? Second, sentence is not well written. Maybe try "...[Millan et al., 2002]. This may be due to relatively weaker pitch angle scattering of relativistic electrons by chorus [Lee12]."

L55 → Note that SAMPEX also observes microbursts in their >150 keV

L60 → ...and have been directly linked observationally [Breneman]

L87 → and at the magnetic equator

L104 → also state the low energy range here

L116 → I don't understand how you can be at the eastern edge of the bounce loss cone since the bounce loss cone, unlike the DLC, exists everywhere. I really think you mean at the eastern edge of the DLC, within the BLC.

L147 → This is an example of the kind of sentence that makes this manuscript difficult to read. "two issues with the spacecraft timing and position" --> I read this as meaning that there were two issues with the timing and two issues with the position. Here's a version that's precise and reads better: "At the beginning of the FB mission, two issues prevented the proper analysis of blah blah: the spacecraft clocks were not synchronized, and their relative positions were not accurately known".

L150 → The next two sentences can also be much improved. One example might be: "The relative clock drift was determined with a cross-correlation time lag analysis on uniquely-identified trains of microbursts that hit both spacecraft simultaneously. Four time periods with...."

L162 → Sentence doesn't make sense.

L172 → “their velocity” → the satellite velocity
L173 → what are "Keplarian elements"?
L174 → was, → was
L177 → who released this? Why is it important that it was released?
L183 → which implies
L191 → a map of what?
L200 → Very weirdly phrased. Is this just a statement that electrons drift azimuthally? You make it sound as if the electrons only just started drifting as they were turned into microbursts.
L238 → I understand what you're saying here, but the way it's stated is not at all clear upon first read.
L238 → Discuss what exactly this hints to. i.e., there's a particular underlying (falling?) spectrum that's smeared out by the broad energy channels. Because of dispersion, this causes a skewing....
L241 → upper? Don't you mean the horizontal scale?
L266 → This is odd how you've broken up the comparisons to past results into the two sentences.
L281 → Wide Band Data
L288 → Perhaps true, but what about in the proceeding and following hours? There must be some indication of whether chorus was present in this sector around this time.
L290 → I don't like this statement. It's better to say that past results have indicated that microbursts in this region are likely created by chorus.