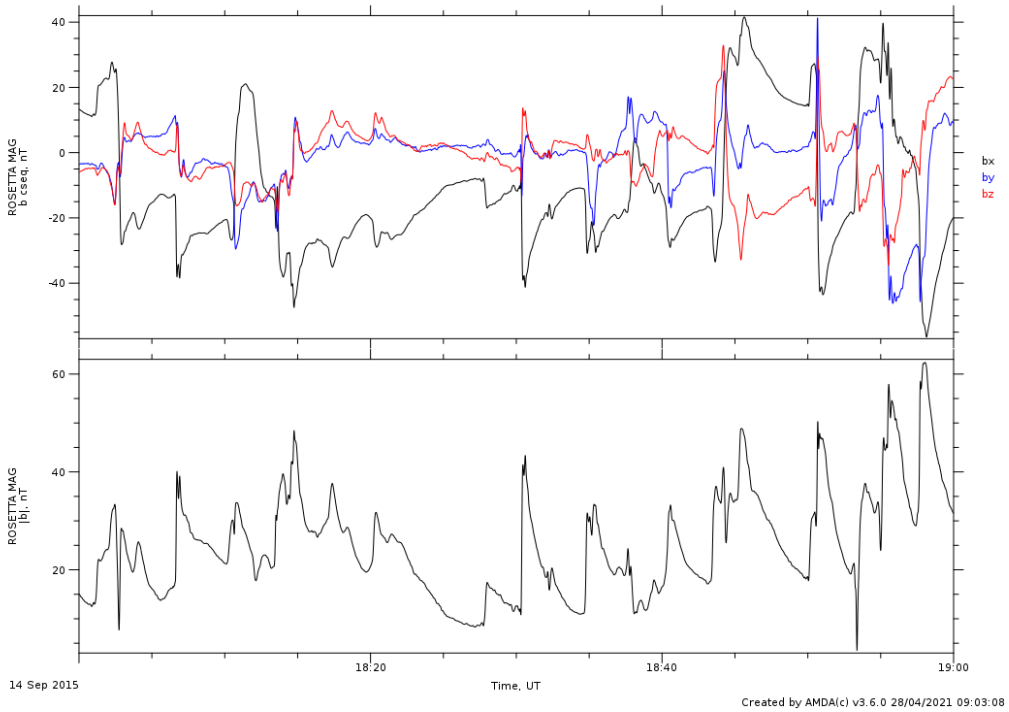
Referee Report Ostaszewski et al.

I thank the authors for the extensive answers they have given to the comments by (both) referees.

After reading through the revised paper, there are still a few things that need to be cleared up.

- I would completely take out the word "event" it is too confusing, with all the mixed versions of describing the steepened waves.
  Maybe it would be good to use an abbreviation, stw, for steepened waves? It gets very confusing with "steepened wave", "wave event", "wave", etc.
- What I am missing is what the steepened waves look like in all three components of the magnetic field. This is also not present in the first paper, where the events were sought. Here is an example (from AMDA) of the waves shown in Fig. 5 (top left). It gives the reader at least an impression of what these steepened waves look like in the components.



- Line 219: The authors give here as one explanation for the tableau in Fig. 3a that “the observed stagnation may be caused by underestimating the local mass-loading”. I do not quite see how this can be a solution. Do the authors mean that adding the mass loading of the other masses will completely re-arrange all bars in the histogram, and thereby removing the plateau?
- Line 232: “sharp increases coincide” → “sharp increases in the inter-wave time coincide”
- Line 236: “Shortly before” here I think the authors are using a euphemism because “shortly” here is 40(!) and 16 hours.
- Line 244: “a time span of multiple hours” this should then be “a time span of dozens of hours” regarding the previous point.
- Line 256: “However, adjacent to HCSs are very high plasma densities” I do not understand why the high plasma density is “adjacent” of the HCS, while the latter should have the highest density, or am I missing something?

- Line 302: “unfiltered data” -- is "unfiltered" just hi-res data? filtering the data has not been mentioned before.
- Line 309: “For the following analysis …” Start a new paragraph here. And add a short sentence that here “the individual steepened waves are fitted” and then that you only use fits with an R greater then 0.7
- Line 321: “the footpoin in the magnetic field data” How do the authors determine the “footpoint” for example in the cases with “whistler waves” present such as in Fig. 7b?
- Line 330: “the waves are highly non-linear” I would say “can be”, because 0.4 is not really “highly non-linear”.
- Line 348: Why is there an upper limit for the eigenvalue ratio of 40?
- Line 409: The compressional nature of these waves – and the mainly strongly oblique propagation direction
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