

Interactive comment on “Investigation of a low-cost magneto-inductive magnetometer for space science applications” by Leonardo H. Regoli et al.

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First of all, we want to thank the reviewer for taking the time to read the paper and provide useful feedback. Please find below our replies to the comments:

- Added reference to papers related to occurrence of ULF waves in day- and nightside. The specific characteristics of different ULF waves is a very broad subject of study. Since our paper only presents an instrument capable of measuring those waves, we feel that referring the reader to the relevant literature is the appropriate way to keep the paper focused.

C1

- We refer to the length of the magnetic field lines because, under a closed field line configuration, the frequency of the waves is correlated to this parameter.

- The power consumption and weight of a couple of fluxgate magnetometers are listed in Table 3. We did not include comparison with any helium magnetometer, but these parameters are similar to those of a fluxgate.

- Added specific mention to size and weight when referring to miniaturization of fluxgate magnetometers.

- SWAP+C refers to reduced size, weight, power and costs, as explained in the text before the acronym.

- Changed "internal parameters" to "software parameters" to make it clear that we mean software, and not hardware, modifications.

- The coils are difficult to see because their color is similar to that of the board. I tried increasing the brightness of the image and decreasing the contrast a bit. Please let me know if that is better.

- Measured value of interference introduced by CommBoard now indicated.

- "k" is the conversion factor of the coil (how much field is generated given a current flow). This has been added to the text for clarification.

Please also note the supplement to this comment:

<https://www.geosci-instrum-method-data-syst-discuss.net/gi-2017-53/gi-2017-53-AC2-supplement.pdf>

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss.,
<https://doi.org/10.5194/gi-2017-53, 2017>.

C2