Interactive comment on "The Magnetic Observatory on Tatuoca, Belém, Brazil: History and Recent Developments" *by* Achim Morschhauser et al.

Achim Morschhauser et al.

mors@gfz-potsdam.de

Received and published: 9 June 2017

Thank you for your detailed review. Below, you will find our comments in response to the issues raised in your review.

Please not that I also have added some comments on the recent work after the lightning strike.

Best regards, Achim Morschhauser

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Page 1, line 13: I did not understand the reference (195, 1955). Since that article was

published on JGR under "Notes", I think it should be cited as (AGU, 1955).

- The first reviewer raised the same point, and I will follow your suggestion.

Page 1, line 15: the observatory of Kourou was installed in 1995, definitive data are available starting 1/1/1996.

- Corrected.

Page 3, line 7: if I'm not wrong, the start of the operations of Tatuoca observatory is related to the activities of the International Geophysical Year. I suggest to add some information on this point, for instance it is in the list presented in the Annals of the International Geophysical Year volume VIII, Geographical Distribution of the International Geophysical Year Stations, eds. M. Nicolet and P. Doyen, 1969.

- Possibly some funding was available due to IGY, but except for the publication you mentioned, I did not find any other source of information on IGY and Tatuoca. Still, I have added the suggested reference and mentioned IGY in the text.

Page 4, lines 2-3: I suggest to use the past tense to describe the instruments that are not anymore present in the variometer house. This will help avoiding confusions between what was the instrumentation before and after the upgrades.

- Changed as suggested.

Page 4, line 7: also in the case of the EDA fluxgate installed on the theodolite, I suggest to use the past tense.

- Changed as suggested.

Page 5, line 6: remove an unnecessary "and" in the sentence, to make it clear.

- Changed as suggested.

Page 8, line 12: is the continuous transmission to a remote server a real-time stream or are the data sent in packets at regular time-intervals?

- The data are sent in packets every 15 mins, but we plan to implement real-time stream data transfer in the future. This information has been added to the manuscript.

Page 10, lines 4-10: In the discussion about absolute measurements near the magnetic equator, it would be effective to provide and clear indication on the recommended way to operate when the magnetic equator crosses the observatory: should the operators keep following the routine set of telescope positions, or should they keep care of the instantaneous magnetic field direction to know if the observatory is in the North or South hemisphere?

- We have added a sentence with the recommendation to follow the normal procedure which can be corrected during the calculation of baselines.

Page 10, lines 11-13: is the determination of the geographic North included in the routine of the absolute measurements? If not, I suggest to move this remark elsewhere in the text, since the whole section 5 is devoted to routine absolute measurements.

- They are not included in regular absolute measurements. Still, I kept this paragraph in section 5, but moved it to the end of the text and tried to relate it to absolute measurements.

Page 13, line 24: in the conclusion it is mentioned the need of stabilising the temperature of the sensors electronics, it would have been useful to discuss this point also in the text, when describing the variometer house.

- I have added a short comment in the section of the variometer house and shortened the comment in section 7. Also note that a more careful inspection of temperature variations revealed a max. daily variation of 3K in 2016.

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss., https://doi.org/10.5194/gi-2017-19, 2017.