

Dear referee,

Thank you very much for your patience while commenting my paper. Your comprehensive comments are very helpful for me to improve the paper. I went through your comments one by one. Here are my responses:

I agree that the paper is rather long. But it is difficult to make it shorter. Please consider that the observatory exists since almost 100 years and worked over a lot of topics, exceeding the poor ordinary tasks of a geomagnetic observatory, I do not want to delete details, which are important to a number of readers. To make the reading easier, I structured the text as good as possible and put some information into tables. But I will try to follow your suggestions of putting details into appendixes.

I am not a native English speaker. Therefore, a language improvement is necessary. I expect, Copernicus will ask an expert for this task – as my experience shows it from the edition process of parts 1 and 2.

“The very well-known and outstanding scientists for geomagnetism, Max Eschenhagen, Adolf Schmidt, Julius Bartels, Gerhard Fanselau and Horst Wiese directed among others, in historical sequence, the three observatories.” I took over this phrase completely, thank you for it.

“...and is currently still in operation, acting as the German reference observatory for geomagnetism.” I only took over the first part of the sentence. The second part is rather arrogant with respect to the merits of the Fürstfeldbruck observatory.

I followed your advise to extend the introduction. You may read the new version in the upgraded paper.

It would be very much time consuming to include comparison graphics of Seddin and Niemeck. The photographic recordings are available, but the Niemeck ones of 1931 are fragmentary, the same is the case for Seddin beginning with 1932. Further more the not published data are not available in digital form. The procedure of processing is very time consuming. I am afraid to miss the deadline of submitting the revised paper, therefore, I decided to omit your suggestion in this regard. I hope on your understanding.

I do not agree to shift parts of chapters 2.2.1 and 2.2.2. Each spans over 3 or 4 pages and to detach parts destroys the context. But I will follow your suggestion including functional descriptions of the instruments in an appendix.

I further exceeded parts of chapter 2.3 (new notation), which do not belong to the ordinary observatory duties and put them into an appendix.

I enlarged Fig. 1-4 hoping to improve the readability adequately.

The difference of Fig. 15 and 16 is the number of buildings. At page 6, 16 can be found the explanation:

“Further buildings were constructed at different times for different purposes. Finally 26 buildings existed on the observatory compound. Fig. 15 shows the ground plan of 2003. One of the 26 buildings did not any more exist at this time. Three more buildings, which were not any more in use, were removed in 2004. Fig. 16 shows the present ground plan of the observatory compound.”

Fig. 24: In the text is written:

A van “Phänomen Granit 30 K” (Fig. 24 shows a photo of it) was in use for all expeditions. The van was completely equipped with any necessary instruments.

The photo was taken at the observatory compound. I did not consider this to be important to be mentioned.

Do you consider to extend this?

I followed all your further comments. I did not each modification in detail, because the revision is rather comprehensive, following your advises, Especially the shifting of a number of details from the normal text into appendixes changed the format of the paper extremely, but for my opinion it improved the paper. Thank you very much.

Dear referee,

Thank you very much for your patience while commenting my paper. Your comprehensive comments are very helpful for me to improve the paper. I went through your comments one by one. Here are my responses:

I considered social and scientific aspects already from the beginning, for instance the construction problem of the variation house, the situation at the end of World War II and the problems of the German reunification on the personal. Maybe this is not sufficient in your opinion, but I do not know what is missing.

I am not a native English speaker. Therefore, a language improvement is necessary. I expect, Copernicus will ask an expert for this task – as my experience shows it from the edition process of parts 1 and 2.

Following the comments of referee1 I reformatted the paper completely. I very hope, that you can agree in the new structure.

I extended the information regarding the take over of the Kp index service following your comment.