Geosci. Instrum. Method. Data Syst. Discuss., doi:10.5194/gi-2017-8-AC1, 2017 © Author(s) 2017. CC-BY 3.0 License.





Interactive comment

Interactive comment on "Stability analysis of geomagnetic baseline data obtained at Cheongyang observatory in Korea" by Shakirah M. Amran et al.

Shakirah M. Amran et al.

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Received and published: 6 May 2017

The authors thank to the Peer Reviewers for his/her valuable comments to the manuscript. All changes done in the light of the reviewer's comment are highlighted in the revised version.

GENERAL COMMENTS

1. The paper presents the method of baseline correction. However there is no solid evidence, that correction is appropriate for all elements (H,D,Z). Comparison D from CYG and D from IGRF is only partial evidence It is not understandable that no analog information is given on H and Z elements although they have greater baseline jumps.

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I think a good evidence would be a comparison with neighboring observatories (e.g. KAK, KNY, MMB).

Author's response: The authors have made a comparison with KAK data. The KAK data show that there are no similar jumps in all baseline components. Fig. 4 was added to show the KAK baselines for comparison. A brief explanation to the figure was added too.

SPECIFIC COMMENT

2. Most items listed in the section "References" are not referred in the text of the paper. That is completely unacceptable.

Author's response: All the references are cited in the text.

3. Page 1, line 28 The word "easier" should be rather replaced with "more accurate" or similar.

Author's response: Corrected as reviewer suggested.

4. Page 4, line 9 The word "immediately" should be rather replaced with other word e.g. "permanently".

Author's response: Corrected as reviewer suggested.

5. Page 2, line 10 Now is "is used for control room". Should be rather "is used as a control room".

Author's response: Corrected as reviewer suggested.

6. Page 3, lines 2&3, lines 22@23 In my opinion there is contradiction between the following sentences: "The first step with magnitude of approximately 5.2 nT was found in H on 1 July 2014." (lines 2&3) and "Small step of approximately 0.3 arcmin in magn-titude can be observed in D on 1 July 2014 but it does not show a similar trend with H and Z." (lines 22@23).

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Author's response: We wanted to explain that the first step can be found in DHZ components on 1 July 2014. But after July 2014, no more steps can be seen in D baselines compared to the H and Z baselines, in which two more steps happened on 23 Oct 2014 and 4 Jun 2015. We have rephrased the sentences to provide better explanation. We have also made a correction on the date of first step which is 7 July 2014 and not 1 July 2014.

TYPING ERRORS and TECHNICAL CORRECTIONS

7. Page 2, line 7 Now is "form". Should be "from"

Author's response: Corrected as reviewer suggested.

8. Page 3, line 22 magnitude instead of magntitude

Author's response: Corrected as reviewer suggested.

Please also note the supplement to this comment: http://www.geosci-instrum-method-data-syst-discuss.net/gi-2017-8/gi-2017-8-AC1supplement.pdf

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