

## ***Interactive comment on “Geopotential field anomalies and regional tectonic features – two case studies: southern Africa and Germany” by Monika Korte and Mioara Mandea***

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The subject of this paper is the use of the study of geopotential (geomagnetic and gravimetric) anomalies to infer properties of the crust and upper mantle. The authors describe two case studies that show some differences because of their different tectonics: southern Africa and Germany. The paper is well organized and written, and requires only some minor revision, before its publication.

Main concerns

- In lines 90-91, the authors affirm that the elimination of short-period external field variations in the repeat station data is made “from a nearby variometer or nearest ge-

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omagnetic observatory”. However, in lines 139-140 the authors say that the data were reduced by using a variometer and then Niemegk Observatory. For the last reduction, why not using the closest observatory, given the presence of 4 observatories in Germany?

- Fig.1. There are some questions that merit some mention:

- For instance there is a repeat station (n.10) where the correction of the magnetospheric field provides much worse standard deviation in Y,Z, and F. There could it be any reason?

- The F of repeat station n.24 seems not having the black point. Is it overlapped by the red one?

Minor corrections

Line 49. Please delete “a year to”.

Line 51. Please correct “Barraclough and Santis, 2011” in “Barraclough and De Santis, 2011”

Line 93. Please correct “Santis, 2011” in “De Santis, 2011”

Line 94. Please correct “constand” in “constant”.

Line 126. Please correct “magnetosperic” in “magnetospheric”

Line 156. Please correct “hemisphere” in “hemispheres”

Line 241. Please write “in turn, allow us to reach a better definition”

Line 243. Please correct “wheire” in “where”.

Line 250. Please correct “tow” in “two”.

Line 364. Please correct “suggest” in “suggested”.

Line 494. Please correct “Santis, A. D.” in “De Santis, A.”

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Caption of Table S1. Please write "Observatory and Repeat station . . ." as in Table S2.

Caption of Table S5. Please write "Observatory and Repeat station . . ." as in Table S2.

Caption of Table S6. Please write "Observatory and Repeat station . . ." as in Table S2.

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