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Interactive comment on "Correcting for Static Shift of Magnetotelluric Data with Airborne Electromagnetic Measurements: A Case Study from Rathlin Basin, Northern Ireland" *by* Robert Delhaye et al.

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Dear authors, dear editor, I like the manuscript which successfully treats the static shift problem of the Rathlin Base MT data. You were lucky to have access to the AEM data which are the basis for the correction algorithm. The algorithm is straightforward and well described. It does not discover new structures but leads to a more plausible model than without correction for static shift. It is not clear to me to what extent the choice of the grid strike (cf line 269) would influence the modeling results, thus your assessment might be "biased" by the selection of the strike direction and thus it would

be helpful and interesting to compare your results to those of another strike direction. Another issue touches the comparison of your results with those of Sternberg et al.. As the distribution of the static shift values strongly depends on very different "input" variables such as reference data base for the near surface resistivity distribution, spatial distribution of the sites and geological situation, the comparison is rather user defined than yielding an objective causal relationship. Thus I recommend skipping Fig. 10 and shorten the paragraph. You find some more remarks annotated in the pdf. Best regards, Andreas

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/se-2016-168/se-2016-168-RC1-supplement.pdf

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