Hydrology and Earth System Sciences Discussions

Interactive comment on "Combining ground-based and airborne EM through Artificial Neural Networks for modelling hydrogeological units under saline groundwater conditions" *by* J. L. Gunnink et al.

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The application of ANN for the interpretation of airborne geophysical data represents a very interesting topic. This paper represents one of the few successful case studies reported so far. However we expect a large potential for the future. Therefore this paper is very relevant. I have just 2 comments:

From the description of the data processing routines it seems that SKYTEM data was

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much more sensitive to noise then HEM. Is this observation correct or is it just because the chapters were written by different authors pinpointing different aspects?

The authors describe the successful application of ANN to derive the location of the till layer. However they do not compare the ANN results to those directly derived from the constraint inversion of the EM data. It would be very interesting to see to what degree the location of the till was more accurate when applying the ANN detection.

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