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Discussions

Interactive comment on "The importance of Atmospheric Correction for Airborne Hyperspectral Remote Sensing of Shallow Waters. Application to Depth Estimation" *by* Elena Castillo-López et al.

Elena Castillo-López et al.

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Dear Anonymous Referee #3,

I am writing to thank you for the comments and suggestions you provided me about the manuscript titled "The importance of Atmospheric Correction for Airborne Hyperspectral Remote Sensing of Shallow Waters. Application to Depth Estimation". I would like to thank the time you devoted to the revision of the document.

In relation with the aspect that you pointed me, "to assess the best atmospheric cor-

rection method", I have expanded this point, error values results between 3 methods (SC, SC-B34 and C1) because correction C2 offer a better dynamic range but increase the standard deviation larger than the original image. (Page 7, lines 21 to 25, Tables 1 and 2, Figures 10 and 11).

In relation with the geometry of the sun position, viewing direction and observation point, I have expanded the description as you can see in Page 4, lines 1 to 10.

This manuscript is a research article with significant advances in remote sensing using in situ and laboratory measurement techniques with detailed error analysis. Information retrieval for gases, aerosols, and clouds are an important part of this article for atmospheric correction of the imagery (Page 4, line 11 to 31) and for depth estimation in shallow waters because the accuracy in bathymetric information is highly dependent on the atmospheric correction made to the imagery. The reduction of effects such as glint and cross track illumination in homogeneous shallow-water areas improves the results of the depth estimations.

I have made all corrections you posed me in the specific comments and I have corrected an error in the document regarding the acronym NNDD that refers to the digital number (DN). The main document has been modified in this sense.

I remain at your disposal for any further comments or suggestions about it.

Yours faithfully,

Elena Castillo-Lopez

Please also note the supplement to this comment:
http://www.atmos-meas-tech-discuss.net/amt-2017-37/amt-2017-37-AC1-supplement.pdf

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