

Interactive comment on “Automatic True North detection during absolute magnetic declination measurement” by Alexandre Gonsette et al.

Alexandre Gonsette et al.

agonsett@meteo.be

Received and published: 8 August 2017

1.) Title: Would it not be good to mention already in the title, that a fiber optic gyroscope (FOG) is used? The current title could suggest at a first glance, that the true north is to be determined by absolute magnet measurement. Mentioning the method FOG could perhaps attract more interested persons.

The method is not limited to the FOG technology. RLG, HRG and Mems could also be used (if they are accurate enough and available for non military users). However, it is true that "FOG based" in the title could be attractive. The title could be adapted as follow: "FOG-based automatic True North detection for absolute magnetic declination measurement".

C1

2.)Page 3, line 5. Do you really need to bother the central limit theorem? The central limit theorem (CLT) establishes that, when independent random variables are added, their sum tends toward a normal distribution even if the original variables themselves are not normally distributed. Perhaps: "The previous equation suggests increasing the sampling time, in order to increase the realizations of phi measurements for a statistically firmer result."

Maybe just: "The previous equation suggests to increase the sampling time in order to reduce the white noise. However, the bias is subject to ..."

Interactive comment on Geosci. Instrum. Method. Data Syst. Discuss.,
https://doi.org/10.5194/gi-2017-18, 2017.

C2