Geosci. Instrum. Method. Data Syst. Discuss., doi:10.5194/gi-2016-30-RC1, 2016

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Interactive comment

Interactive comment on "Analysis of the technical biases of meteor video cameras used in the CILBO system" by Thomas Albin et al.

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This paper presents a very thorough review of the CILBO camera system and the various error sources encountered in reducing the imagery's meteor tracks to photometric measures and trajectory parameters.

Minor Technical Issues: 1) Section 2, paragraph 5: The discussion on observing geometry is confusing as it mixes east, west, and also mentions north. The "north" may be a type for west? 2) Section 2, paragraph 6: Please elaborate on the geometric vs physical biases, what is the detection system bias - how is it different than physical biases. 3) Section 3.2, paragraph 8: Photometric calibration is only done when the pointing has changed? This calibration should be done more often. Have you seen any change in photometric calibration with time? 4) Section 3.3.2, paragraph labeled

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(b): Use the term vignetting to describe the drop-off in brightness towards the FOV edges. 5) Section 3.3.2, paragraph labeled (d): Preferable to say "the noise statistics are estimated from a sequence of dark frames (no light entering the sensor system)". 6) Section 3.3.3, paragraph labeled (c): One should determine or state positively, if 3rd order is good enough for the given lens and FOV. Rather than use the term "may" which leaves open what order is necessary. 7) Section 3.3.3, paragraph labeled (d): On the last sentence, doesn't the astrometric measurements affect the quality of the fit and not vice versa. Or is it because you adjust the fit and spacing that you are making this statement. Or are you referring to the fit parameters which are the solved-for astrometric parameters (not measurements). Please clarify. 8) Section 3.3.4, paragraph 1: Clarify "random scatter". Caused by what ? 9) Section 5, paragraph 6 (after Figure 18): Have you removed shower meteors, Toroidal meteors, and Helion meteors from the analysis as it pertains to the conclusion drawn 10) Section 6, paragraph 2: Have you seen seasonal changes - e.g. from long term average temperature swings ?

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