



## ***Interactive comment on “Cloud particle size distributions measured with an airborne digital in-line holographic instrument” by J. P. Fugal and R. A. Shaw***

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Review of paper: Cloud Particle Size Distributions Measured with an Airborne Digital In-line Holographic Instrument Author(s): J.P. Fugal and R.A. Shaw MS No.: amt-2009-9

This paper presents interesting results obtained with the holographic technique on ice shattering. The paper is concise and convincing. Although it is preliminary, it provides some insights on how to correct data collected with common instruments.

I only have a few technical comments, listed hereafter

C7

P660, l5, abstract: use “two-dimensional image of ice particles” instead of profile because profile is currently interpreted as vertical profile.

P662, l6: “size range from about  $25\mu\text{m}$  to around 1 mm”

P662, l23-24: the manuscript I have jump to the next line in the middle of the sentence

P666, l16: I don’t think it is necessary to mention here that the frames shall not overlap while today they are still separated by 7 m

P667, l16: same as above: “from  $23\mu\text{m}$  to  $100\mu\text{m}$ ”

P668, l6: explain here what you mean by “good holograms” rather than in line 21

P668, l9-10: express the length in term of distance flown by the aircraft rather than in minutes

P668, l27: the term qualitative is not fully justified since you use the Nevezorov to compare quantitatively. I would just remove the word “qualitative”

P671, l2: put here the ref to Isaac et al. instead of p672, l9

P671, l25: I don’t understand the terms “reconstruct to appear”

P674, l14: same as above “2-D images”

P675, l10: is it correct in English to say “absent shattered particle contamination” I would say “no shattered particle contamination”

Fig. 1: the top panel with the frame is not very useful. The pdf is enough

Best regards Jean-Louis