

Interactive comment on “Quantifying the value of redundant measurements at GRUAN sites” by F. Madonna et al.

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The authors have undertaken a valuable analysis that should be published. I won't add to the technical reviews already received but do offer a few suggestions.

I agree with reviewer #2 (I think) that although scientifically 'redundant' is the correct term that the optics of this word with connotations of 'not needed' to many, and most importantly funders, may be terrible. Would synergistic / synergy be a viable alternative? Synergistic has more positive connotations to it than redundant.

I would add to the list on pp.6330-6331 "To aid site scientists, managers, and funders in making informed decisions on new instrument procurements to maximize the scientific return on the capital expenditure"

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p.6334 ln16-21 gives the impression (mistakenly) that GRUAN will only ever undertake processing and uncertainty quantification on radiosondes. This potential interpretation should be easily ameliorated by some editing to make clear that eventually GRUAN will develop processing and uncertainty quantification for a broad range of instruments.

p. 6335 ln6-20 Has thought been given to sensitivity to this time match? In terms of column wv would it be fairer to compare say 30 minutes after launch when the balloon is approx. in the mid-troposphere? Regardless, it may be nice either in this or in follow up work to consider the sensitivity to a reasonable range of this in combination with the work detailed in Fasso et al?

In Figure 2 the left hand panel x-axis was not clear to me what it meant from the caption or the text. Are the samples regular sequential? What date range do they cover? This made it hard to know whether I was looking at a real temporal series (a time series) or rather a series of samples. If it is the latter then maybe use sampling series to avoid conflation with a temporal series?

Interactive comment on Atmos. Meas. Tech. Discuss., 7, 6327, 2014.

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