

Interactive comment on “Fluorescent Biological Aerosol Particle Measurements at a Tropical High Altitude Site in Southern India during Southwest Monsoon Season” by A. E. Valsan et al.

Anonymous Referee #2

Received and published: 9 May 2016

The manuscript presents measurements of Fluorescent Biological Aerosol Particles (FBAP) made using an Ultraviolet Aerodynamic Particle Sizer (UV-APS) at a high-altitude tropical site in southern India over a period covering the southwest monsoon season.

A thorough background research, set of measurements and description of these has been presented and is potentially worthy of publication. However, I do feel some improvements could be made to the current manuscript as detailed below.

Although I'm sure any new field measurements using a UVAPS or similar qualify as valid research, it is difficult to see the real contribution of this work to the field, other than to validate previous similar measurements at a new location. I believe the infor-

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mation is there, but is swamped in meticulous depiction and description of all measurements. Perhaps the manuscript could be streamlined and given more structure to emphasize this. The properties of the new site and results specific to this should be highlighted, with an eye on how it will be useful for future research and how the presented measurements will support that research.

The technical content of the paper appears good and accurate. Figures have been chosen well to depict and compare the measurements (haven't seen the supplementary figures, which do not appear to be with the manuscript). Work in the field I was aware of, and much more besides has been appropriately cited. Some suggested alterations below.

Pg 10: The inlet system is described here. Could the effects of the inlet system be assessed by a comparison of measurements of a range of particle sizes under controlled conditions both with and without the inlet tubing in place?

Line 445: Should read "Basically the UV-APS measures the particle number and aerodynamic size; the average mass of size-resolved particles can"

Lines 445-447: Can this statement be backed-up by a reference?

Line 457 and few lines preceding: Were all the compared measurements made using the same density value?

Lines 709-716: Description is confusing; maybe a mistake in the period references in the figure has been made? Here and everywhere else the three named focus periods are mentioned, the period names should perhaps be written within inverted commas or in italics to make reading easier.

Figure 2: The shadowed blocks representing the focus periods don't seem to be visible on my copy of the manuscript.

Finally grammar details. While the document is largely well written, there are numerous grammar mistakes that, at times, make it quite difficult to read. These often consist

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of a missing 'a' or 'the'. Although too numerous for individual attention, I have indicated some instances below and suggest that one of the authors go through the whole manuscript again and tidy this up.

Line 27: Missing 'a' between 'constitute' and 'large'. Line 55: Should read "selected areas. These measurement results confirm the fact that the fraction of PBAP to TAP is". Line 56: Missing 'a' between 'constitute' and 'significant'. Line 172: Missing 'the' between 'including' and 'Arabian'. Line 173: Should read "movement of the ITCZ reaching up to the equator is associated with the NE monsoon, which is also marked".

[Interactive comment on Atmos. Chem. Phys. Discuss., doi:10.5194/acp-2016-265, 2016.](#)

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