

## Major Issues

*- I agree with Referee #2 that Section 3 is not necessary to convey the message of the paper. It should be omitted; particularly as no optical profiles are presented for this measurement period. Just illustrating the capability of joint measurements does not warrant publication.*

As requested, we changed the structure of manuscript. Section 3 is removed. Instead, we added a sub-section to

Section 2 which describes the meteorological conditions during the measurements and inserted there fig.1-4. We have added also Fig.5, showing the correlation of profiles of extinction and water vapor.

To the plots describing results on 29 March and 10 April we have added profiles of water vapor (for 13 March vapor measurements are not available).

*- The discussion on page 15, lines 11-21 is not clear. Why are results of  $3b+2a$  more trustworthy than those of  $3b+2a+1d$ ? This is an important issue that should be discussed in more detail, even if you already addressed it elsewhere. In the latter case a review of key findings will do.*  
We made revision of this paragraph, now it should be more clear.

*- Please improve the quality of your figures.*

*\* I suggest to use two sub-figures instead of insets in Figures 6, 7, 12, and 16.*

We have done it for fig.6, 7, 16 but for fig.12 we believe the sub-figure should be kept as an insert for clarity. Please notice that we have added one new figure (fig.5) and removed one (fig.15), so the numeration of figures is shifted.

*\* Add error bars to all points in Figures 6 and 7.*

Done

*\* Use another color for the blue line in Figures 8, 10, and 13 since blue is unrecognizable over water.*

Done

*Also add symbols for the time intervals to the trajectories in the upper part of the figures.*

This information is in the bottom of the plots and included in the caption to the figures.

*\* Use the same color for lines and error bars in Figures 9, 11, and 14.*

Done

Minor Issues

- *Make sure that your answers to points 14, 18, 19 and 27 of Referee #1 are also mentioned in the manuscript.*

Added

- *Don't use  $R$  as symbol for the lidar ratio as it might be confused with the backscatter ratio (and you also use  $LR$  in the text).*

Corrected for LR

- *Use the terms backscatter coefficient and extinction coefficient instead of just backscatter and extinction (also in Figures).*

Corrected

*Always provide the wavelengths pair for the Angstroem exponent (also in Figures).*

There is not enough space in figures to show wavelengths, so we do it in captions to the figures.

- *When discussion the complex refractive index measured during SAMUM you should refer to T. Mueller et al. (2009): Spectral absorption coefficients and imaginary parts of refractive indices of Saharan dust during SAMUM-1, Tellus B, 10.1111/j.1600-0889.2008.00399.x*

Reference is added

- *mention the availability of AERONET measurements already in Section 2*

Done

- *Figure 15 and its discussion are unnecessary and could be omitted.*

Removed