

Interactive comment on “Aerosol lidar observations and model calculations of the planetary boundary layer evolution over Greece, during the March 2006 total solar eclipse” by V. Amiridis et al.

Anonymous Referee #1

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Review of manuscript "Aerosol Lidar observations and model calculations of the Planetary Boundary Layer evolution over Greece, during the March 2006 Total Solar Eclipse", by V. Amiridis et al., manuscript number acpd-2007-0346

The manuscript is very interesting and deserves publication after a few details are clarified. In particular, it is mentioned that there is previous work on the PBL development during solar eclipses, and that even lidar measurements were made before. The material available in the literature is named important. However, there is no discussion or conclusion on what is even more important or new in the work presented. This could be

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that more experimental material is available, that modelling was performed in addition to the measurements, that the measurement sites are different from a meteorological point of view or that two stations were intercompared (which could deserve a few more words). I did not have the time to read the publications cited for a more specific recommendation. A few minor details should be considered or corrected: 1. Abstract, line 4: Delete "(Lidars)"; lidar is already mentioned. 2. Abstract, line 5: change to "mixing layer". 3. Abstract, line 6: change to "northern" and "southern". 4. Abstract, line 11: change to "above the ground". 5. Abstract, line 16: Change to "Model-diagnosed". 6. P. 13541, line 6: Remove the second: "simultaneously". 7. P. 13544, line 8: Change to "can be found in (Gerasopoulos et al., 2007)".

Figure captions:

The numbers in Figs. 5 and 6 are very small indeed and cannot be properly read in the printed version. What does (e.g.) 12Z mean?

Interactive comment on Atmos. Chem. Phys. Discuss., 7, 13537, 2007.

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