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Interactive comment on "ARCTAS-A ground-based observational campaign and meteorological context, interior Alaska, April 2008" by D. E. Atkinson et al.

Anonymous Referee #2

Received and published: 29 June 2011

This manuscript uses lidar data, chemical data from a DRUM sampler, and size distribution data from SMPS and OPC to describe changes in air masses over Fairbanks in April 2008. The manuscript reads like it was rushed to meet a deadline. It is poorly organized, repetitive, incomplete (what is the upper panel in figure 2, where is the legend in figure 9, the legend I figure 21 is not readable, the methods are poorly defined with nothing to assure us that they are meaningful), and grammatically challenged. Did the co-authors read this manuscript?

Scientifically the paper tries to identify distinct layers of aerosols with a lidar and then define these layers with ground based chemical measurements. This makes no sense

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to me at all. The limited SMPS data are used to describe two "components". Is there any statistical bases for this? Are the number size distributions below 3450m really different?

There may be a manuscript in this data set but it is not clear to me from what is presented here.

Interactive comment on Atmos. Chem. Phys. Discuss., 11, 16499, 2011.