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Interactive Comment

Interactive comment on "Characterisation of episodic aerosol types over the Australian continent" by Y. Qin and R. M. Mitchell

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I am reading with great interest your recent ACP-D paper on Australian aerosols. Of particular interest are the Class 3 super absorbers. I was curious enough to start poking around on some of the event days. On 3 August 2002 (near the Aeronet site Jabiru), there is a distinct but diffuse smoke plume seen by both MODIS and MISR over Jabiru. Upwind there are a few relatively large fires in NT, east and southeast of Jabiru. The plumes coming off these fires on this and prior dates makes me wonder if these apparently large, energetic fires might be the source of the reported low single scatter albedo. The plumes might well be breaking into the free troposphere, so trajectories a little higher than those shown in the paper might also be appropriate. MISR stereo heights could help to constrain plume altitude.





Have you looked at GMS or MTSAT images to see if you can follow plume evolution and transport toward some of your events?

This paper stimulated my interest because of some of the curious plumes coming off fires in Australia we've studied in regard to pyrocumulonimbus. Some of these events appear to coincide with extremely dark smoke plumes (e.g. 23 October 2002 in Top End; and 6 Feb 2005 in eastern Western Australia. So I look forward to learning what you determine as to the source of your super absorber events.

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 18803, 2008.

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