Interactive comment on “Evaluation of CALIOP 532 nm AOD over opaque water clouds” by Z. Liu et al.

O. Torres

omar.o.torres@nasa.gov

Received and published: 21 October 2014

Pg. 23585 line 23 The authors seem unaware of recent significant progress on the use of passive sensors for the quantification of aerosols above clouds. Jethva et al [2014] published a comparative analysis of the performance of passive [POLDER, OMI, MODIS] and active [CALIOP] sensors in the retrieval of AOD of aerosol above clouds.

Pg. 23609 lines 10-14 The failure of detecting the full extent of the aerosol layer is not limited to the case of aerosols above clouds. As shown by recent publications [Kacenelenbogen et al., 2011; Torres et al. 2013] CALIOP’s 532 nm measurements miss a significant fraction of smoke layers under cloud free conditions. No under-detection is apparent for dust layers. Also as noted by Torres et al [2013], the CALIOP
under-detection problem of carbonaceous aerosols does not affect the 1064 nm measurements.

References


Interactive comment on Atmos. Chem. Phys. Discuss., 14, 23583, 2014.