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Supplement of

Calibration of global MODIS cloud amount using CALIOP cloud profiles

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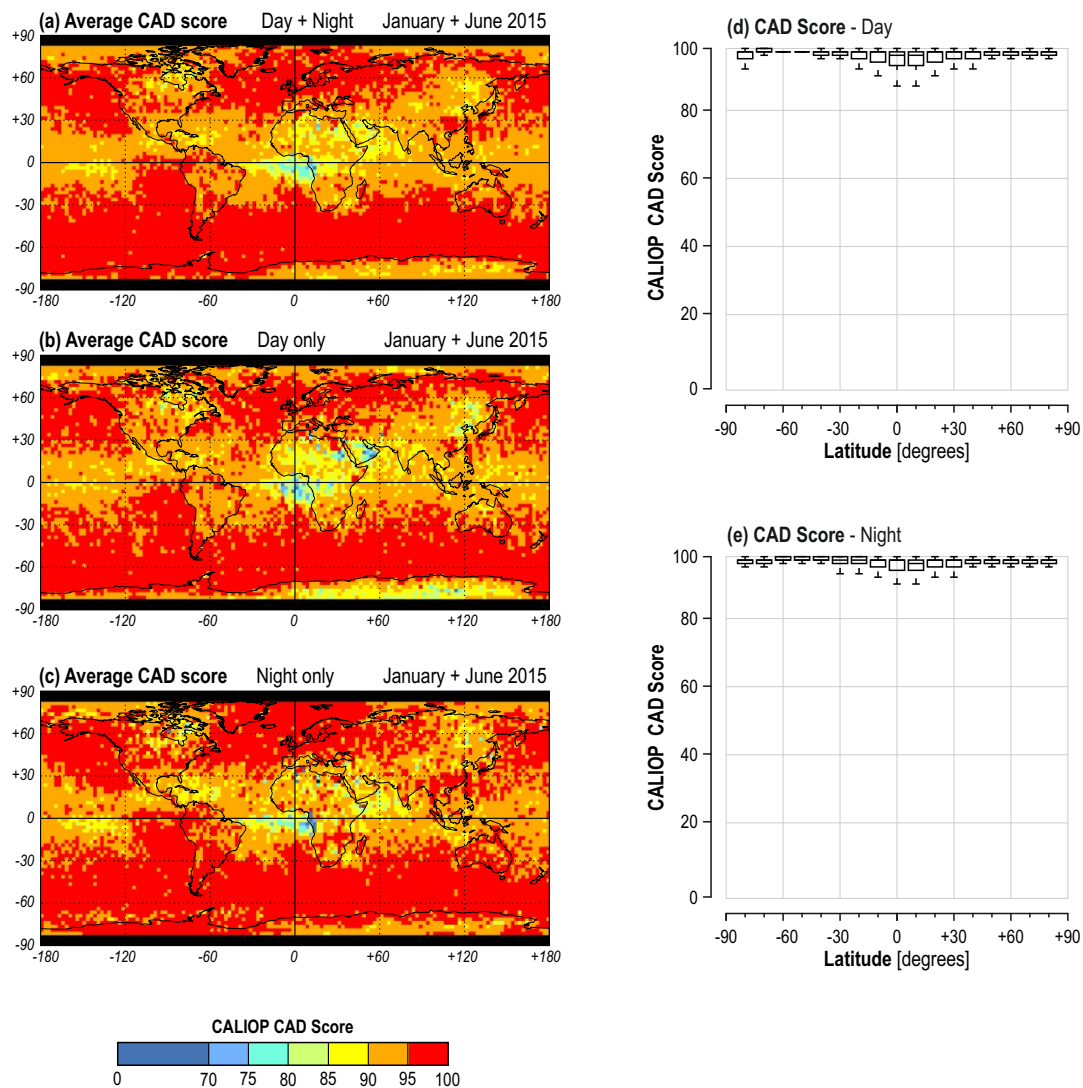


Figure S1. Overall accuracy of MODIS cloud detection as a function of the temporal (a, c) and spatial (b, d) separation of MODIS and CALIOP IFOVs. Top plots show the frequency of observations for individual time (a) and distance (b) ranges, while bottom plots report accuracy for these ranges. MODIS detections are validated using CALIOP cloud profiles as a reference. Accuracy is defined as the ratio of MODIS true detections (true positive and true negative) to all MODIS observations (see Table 1 in the main text for details).

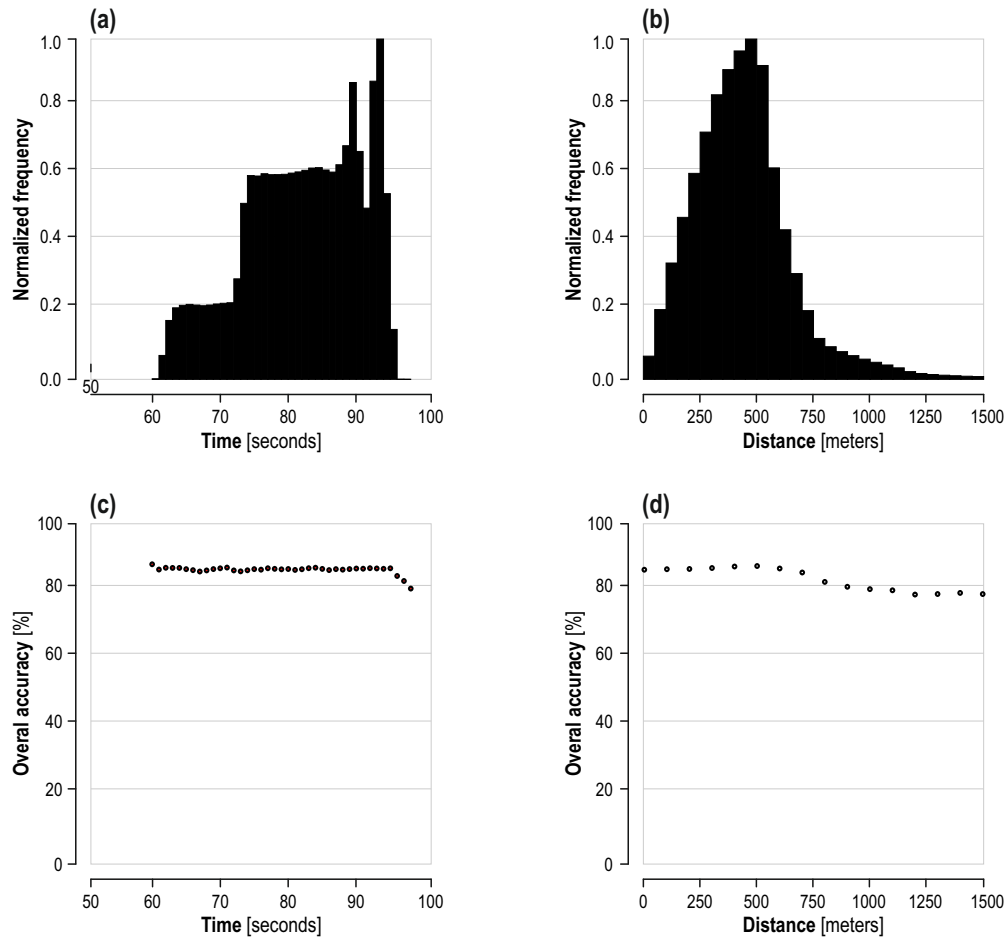


Figure S2. The average cloud-aerosol discrimination (CAD) score for CALIOP cloud data used in the study. Maps show spatial variation in the CAD score during the day (b), at night (c), and regardless of the time of the day (a). These plots demonstrate the high stability of CAD scores at various latitudes during the day (d) and at night (e).