

Supplementary Material for the ACP Manuscript, “Microphysical and radiative effects of aerosols on warm clouds during the Amazon biomass burning season as observed by MODIS: impacts of water vapor and land cover”

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S.1 The number of retrievals included in each bin of each plot in Figure 3. Bin 1 corresponds to the leftmost bin and bin 8 corresponds to the rightmost bin.

Panel	Variable	Bin Number							
		1	2	3	4	5	6	7	8
a	Column Water Vapor	46666	23499	6433	6489	4464	4692	4456	3687
a	Cloud Fraction	33570	16363	3857	3866	2664	3293	3603	2924
b	Aerosol Optical Depth	46679	23522	6512	6515	4645	5198	5063	4341

S.2 Frequency distributions of variables shown in Table 1 for both forest and pasture. The generally lower frequencies for the pasture reflect the smaller area of pasture in our study region (see Figure 1). A two-sample Kolmogorov-Smirnov goodness of fit test was performed on each variable to examine if forest and pasture data were sampled from the same underlying distribution. The test makes no assumption about the underlying distribution of the data. We find that for all variables, the forest and pasture data are not sampled from the same underlying distribution at the 99% confidence interval according to a two-tailed test, thus suggesting the forest and pasture distributions are statistically different for each variable.



