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"The authors main goal was to determine whether it was feasible to obtain a meaningful calibration of a sun radiometer in a less than optimal locale for performing Langley calibrations. Langley calibrations allow one to estimate the TOA response of a sun radiometer, but are best performed on a high mountain top above the boundary layer. To this end they compared aerosol optical depths obtain from an MFRSR with the CIMEL radiometer operated using the AERONET protocol. The CIMEL calibration is derived from comparison to instruments calibrated at Mauna Loa Observatory. The RMSE, which they define as a deviation from the AERONET results, was 0.025 and within the uncertainties of the two instruments. I find that the results of the paper are based on scientifically sound reasoning and should be acceptable for publication."

Authors general comments: We are glad that the manuscript content was appreciated and we would like to thank the referee for the interesting points highlighted. We have tried to address the points raised. Below we provide answers to each of your comments.

Legend:
Q#<number> - Referee questions and suggestion
R#<number> - Authors reply and comments

Q#01:" Should the authors be so inclined, I am curious whether the results would change if some other estimate of Vo's such at the median or the method used in Michalsky et al. (2001) had been used to obtain Vo's."

R#01: We used median to estimate Vo's for both years 2012 and 2015 (Tables below). The results agree within ~1% for all wavelengths. In general, medians presented slightly higher values, except for 500 and 610 nm in 2012.

Year 2012	415 nm	500 nm	610 nm	670 nm
Mean	1.586 ±0.015 (1%)	1,839±0.015 (0.8%)	1.545±0.015 (0.7%)	1.416±0.015 (0.7%)
Median	1.586	1.829	1.537	1.405
Median–Mean (%)	0.001 (0.1%)	-0.010 (0.6%)	-0.008 (0.5%)	-0.011 (0.7%)

Year 2015	415 nm	500 nm	610 nm	670 nm
Mean	1.579±0.017 (%1.1)	1.870±0.015 (0.8%)	1.572±0.011(0.7%)	1.433±0.008 (0.6%)
Median	1.582	1.890	1.592	1.443
Median-Mean	0.0035 (0.2%)	0.020(1.1%)	0.019(1.2%)	0.010(0.7%)

Q#02:" Could the authors explain why 2013 and 2014 data were not included?"
R#02: As we set the focus of the manuscript on the question whether it is possible to obtain accurate calibration constants derived from on site measurements applying the Langley plot method in Central Amazonia, we evaluated that two independent years would be adequate to support our findings concerning the question. That is the main reason why we present only 2012 and 2015. We selected 2012 and 2015 because of the temporal distance between them, which would allow us to detect a scenario of potential filter degradations. Now that we evaluated that consistent AOD retrievals, derived from local successful calibration constants, can be obtained, there is an ongoing study focusing on a multi-year analysis of AOD. We plan to include a broad discussion in terms of source contributions and atmospheric processes and also a time series of the calibration constant applied to obtain the correspondent MFRSR AOD values.

Q#03:" A plot of Vo's might be helpful in demonstrating the stability of the Langley results in most of the filters with the 870-nm filter an exception. It would also perhaps demonstrate the lack of a seasonal dependence seen in other MFRSRs since the temperature of the central Amazon is rather stable throughout the year."

R#03: A challenge that we faced in the attempt to evaluate the lack of a seasonal dependence is that during the wet season, when Amazon is too cloudy, we were not able to obtain a significant number of Langley plot, most of the Langley plot are at the beginning and in the middle of the dry season.

Q#04:" There are a few grammatical and spelling errors, but none so egregious as to make the text misunderstood"

R#04: We went throughout the text and tried to identify and correct all remaining grammatical and spelling errors.