REPLY TO REFEREE #1 – Add on

After reading the comments from Referee #2 we modified to shorten Section 3.1. Thus, one of our reply to Referee #1 is changed slightly as follows.

Specific comments:

P8/l31: in this and the following sentence you use twice “underestimate” which does not seem to make sense. Please check.

Agreed. We checked and confirm that “underestimate” is correct in both sentences. However, to make it more clear we modified the text as follows:

“For the satellite (down-looking) case, these effects tend to compensate due to a warmer background (e.g. overestimated optical depths cause more emission from the atmosphere but less contribution from the relative warmer background)”.