Review of the manuscript "Fast and simple model for atmospheric radiative transfer" by F. C. Seidel et al. submitted for publication in AMT

This is a very nicely written paper describing yet another radiative transfer approximation. It's easy to follow and I enjoyed reading it, though from the point of view of radiative transfer theory, I didn't find much of originality. However, the accuracy analysis is new and I am sure the paper will be well cited by the atmospheric radiative transfer community, especially if the code will become publicly available. To the best of my knowledge, I didn't find any inconsistency or misprints in the text. The literature review is complete: I don't know of any essential papers on clear sky radiative transfer not mentioned in the manuscript. I recommend the manuscript for publication in AMT after addressing the minor comments and suggestions listed below.

Minor comments, questions and suggestions

- What was the spectral resolution for plots errors vs. wavelength? Is it correct to assume, that the only difference between different wavelengths was changing Rayleigh and aerosol optical depths as well as aerosol asymmetry factor and single scattering albedo?

- The examples provided in the manuscript are all for black surface. The accuracy of the model needs to be discussed also for bright surface. In other words, the accuracy of parameterization for spherical albedo is not discussed; in this case, Eq. (14) is irrelevant here.

- Equation (11) is valid for any viewing angles; though the results are shown for only nadir directions. How does the model behave for μ different from 1?

- I am confused with the "numerical artifact" shown in Fig. 3. I would recommend to illustrate other SZAs smaller than 10 or to remove it.

- pg. 2237, Sect. 3.1.3. Replace 'Figs. 4, 5 and 6' by 'Figs. 7, 8 and 9'.

- pg. 2240, Sect. 4. I would delete the last sentence: the number '5500 times' is irrelevant. One cannot compare the computational efficiency speed of 6S with a method that calculates only single scattering.

- Fig. 5. Please explain why for some SZAs, the relative error increases with AOD while for others decreases. The thicker AOD the stronger the contribution from multiple scattering is. I thought that SMART would underestimate the reflectance function for thicker AOD. However, this is true only for SZA=60. Why?

- Fig. 13. I got confused here. Please clarify.