

The revised paper by Zhang et al. has largely improved. All my comments to the previous version have been considered. I only have a few remaining comments to the paper, which are listed below.

Specific Comments:

1. It seems that all results are essentially based on a cloud-free subset of the data. This should be mentioned in abstract and conclusions.
2. l. 99:
'..., which is from MERSI ...'
This sentence is unclear. You probably mean that the same on-ground calibration as for MERSI has been done for MERSI-II; in addition, on-board (in-flight?) calibration was used. Please clarify / reformulate.
3. l. 108:
'For the NIR channels, typically with a small aerosol optical thickness that can be ignored, ...'
Do you assume that aerosol optical thickness is small? Please clarify / justify.
4. l. 114–115: 'a reflectance between 850 and 1250 nm changes approximately linearly with the wavelength'
This is a very crude approximation, especially when considering absorption. Maybe you refer here to specific bands? Please clarify / reformulate.
5. The PWV map in Fig. 3 shows very low values in the tropics compared e.g. to MODIS data for the same month. Is there a filter applied to these data, e.g. is this a cloud-free subset, or is there a saturation issue in the measurements preventing to derive high PWV amounts? Please clarify.

Technical Corrections:

1. Abstract:
Please add explanation of MB in abstract.
2. l. 78:
'Integrated Global Radiosonde Archive' → 'The Integrated Global Radiosonde Archive'
3. l. 185:
'radiosonde site' → 'radiosonde sites'
4. l. 272:
'the great MRB' → 'the large MRB'
5. l. 276:
'Figure 4c' → 'Figure 5c'