Comment on amt-2021-71

Anonymous Referee #2

Referee comment on "Introducing the MISR level 2 near real-time aerosol product" by
Marcin L. Witek et al., Atmos. Meas. Tech. Discuss.,
https://doi.org/10.5194/amt-2021-71-RC2, 2021

The **Standard** MISR aerosol optical depth data product is a well established data set
which has been used for multiple reanalyses and investigations related to aerosol forcing
of climate and air quality research. The recently availability of the NRT MISR aerosol
product has open the door for time sensitive applications such as air-quality foercasting
and monitoring. Therefore, a peer reviewed publication documenting the strengths and
weaknesses of the algorithm is not only welcome but necessary for proper use of the data.
Therefore, I strongly support its publication.

The paper is well written and for the most part documents the shortcoming of the NRT
product, primary due to the absence of upstream datasets that impact the cloud screening
process. Currently, there are 3 MISR aerosol products: 1) the NRT product being
documeted here, 2) a FIRST LOOK product that has similarities to the NRT product, and 3)
the final, refined **Standard** product that is availablewith 3-6 months latency. While the
MISR Final Product in 3) is the golden standard among all their products, it is curious that
the authors chose the FIRST LOOK product, which suffers from many of the same
limitations , as a reference. I strongly encourage the team to redo the calculations using
the MISR Standard product as reference.

Please see in-line comments in the attached document for additional suggestions for
improving the manuscript.

Please also note the supplement to this comment:
https://amt.copernicus.org/preprints/amt-2021-71/amt-2021-71-RC2-supplement.pdf