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Interactive comment on "A Dark Target research aerosol algorithm for MODIS observations over eastern China: Increasing coverage while maintaining accuracy at high aerosol loading" *by* Yingxi R. Shi et al.

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This is a nice piece of work showcasing the use of MODIS data for aerosol applications. My question is related to the NDSI metric that relies on the reflectance from the 1.24 micron channel of MODIS. In the case of Terra MODIS, this channel has experienced significant degradation in its radiometric quality due to the electronic crosstalk and optical leak from the LWIR bands, especially after the Feb, 2016 safe-hold event. Recent investigations and subsequent improvements are expected to mitigate these artifacts in the next version of MODIS L1B (Collection 7). It is not entirely clear whether Terra

or Aqua MODIS is used for 2013 case as well as 2018 case. If Terra MODIS data from 1.24 micron was indeed used in this analysis, it would be interesting to see whether the radiometric artifacts mentioned above contribute towards misclassification of the pixels classified as snow, melting snow, or contaminated snow around the edges.

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