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Interactive comment on "High-Dynamic-Range Imaging for Cloud Segmentation" *by* Soumyabrata Dev et al.

Anonymous Referee #1

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In the manuscript "High-Dynamic-Range Imaging for Cloud Segmentation" Soumyabrata et al., present HDR method for separation of cloud and clear-sky pixels detected by whole-sky cameras at different exposure time. This method is alternative for whole sky camera which used the moving arm to block the direct solar radiation and part of solar aureole. Although authors cited the Long et al., 2006, there is no discussion about this method in the manuscript. Such technique is used in the whole sky cameras developed by Yankee company (http://www.yesinc.com/products/data/tsi880/tsi-880ds.pdf) to reduce the direct solar radiation measured by the CCD sensors. Presented method in this manuscript can be useful for cloud and aerosol community. For example measurements of aerosol optical depth required clear sky condition close to sun. Detection of thick clouds is

not a problem but cloud screening of the thin cirrus or cirrus subvisiual is not trivial. Therefore discussed of different sky condition (thick and thin clouds) is very important for this kind of the algorithm. I would like to see how the algorithm works with thin cirrus close to sun aureole. In my opinion, the manuscript can be publishing in AMT after minor revision.

Specific comments: 1. Some references to the first part of the introduction in needed (e.g. IPCC, 2013, Stephens et al., 2012 NATURE GEOSCIENCE | VOL 5 | OCTOBER 2012 |) 2. Line 13: instead of "meteorological centers" -> WMO (World Meteorological Organization) stations 3. Line 20: Could you add reference to sky camera at UCSD in San Diego?

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