Interactive comment on “Synoptic Ozone, Cloud Reflectivity, and Erythemal Irradiance from Sunrise to Sunset for the Whole Earth as viewed by the DSCOVR spacecraft from Lagrange-1” by Jay Herman et al.

Anonymous Referee #3

Received and published: 23 October 2017

General comments The objective of the paper is to provide a description of the unique Earth atmosphere observations of the EPIC camera on the DSCOVR spacecraft operating since mid-June 2015 at the Lagrange-1 point. The originality of these observations is to provide sun illuminated Earth images of the full disk every 68-110 minutes from a one million miles distance of the Earth and therefore totally different of what can be seen by a Low Earth Orbit (LEO) or Geostationary (GEO) satellites. Asides from technical details of the instrument and retrieval processes, shown in the paper are various scenes images of, LER (Lambert Equivalent Reflectivity), ozone total columns
comparisons with MEERA model and Pandora GB measurements, cloud, Erythemal irradiances, and some illustration of possible use of those data for studying longitudinal and diurnal variations of ozone and others parameters. Among those, most impressive plots are the unique Erythermal UV maps showing how useful could be those data for exploring health effect of UV radiation in the future.

Recommendation The paper is well written and easy to follow. The writing has been carefully checked. I couldn’t find any remaining mistake. However, since I’m not sure that everybody knows the meaning of Lagrange-1, the only suggestion I have is to change a little the title for something like “Synoptic Ozone, Cloud reflectivity and Erythermal Irradiance for the whole Earth as viewed by the DSCOVR spacecraft from Lagrange-1 orbit at 1.5 million km from the Earth” Otherwise, since it appears to me an excellent paper which matches very well AMT editor’s acceptance criteria, my recommendation is to accept Âż as it is Âž.