

Interactive comment on “CLARA-A1: the CM SAF cloud, albedo and radiation dataset from 28 yr of global AVHRR data” by K.-G. Karlsson et al.

Anonymous Referee #1

Received and published: 8 April 2013

Here the manuscript by Karlsson et al. is reviewed. Only major comments will be provided. This paper attempts to describe a new long term satellite product and summarize some of the characteristics of this data set.

1. Use fewer acronyms. As someone who's reasonably familiar with satellite data sets and common terminology used in this community it is quite formidable to read through the manuscript without flipping back and forth to find out what a particular acronym really means. This has to be changed. The title of this paper is a perfect example: CLARA-A1 and CM SAF only impedes the comprehension of this title while AVHRR is perfectly fine because most people in the community recognize this. Numerous acronyms are scattered in the manuscript, making it quite hard for readers to follow. 2. Discussions are at times too qualitative for this manuscript. To my understanding, this

C1100

manuscript is describing a long-term data sets and documenting its properties, hoping that this product will be a useful addition to our knowledge. As such, future studies will refer to this paper in various angles. However, many of the discussions in the current form are quite qualitative. For example, on page 943 the authors write ‘...observe quite good agreement...’. Apparently, we are expected to use only our eyes to judge the level of agreement here. At the very least, some kind of spatial correlation and its statistics should be shown. It would also be a common practice to show difference plots between this product and other data sets. These steps will serve a good purpose for future studies. 3. When large differences are found, the authors do not provide helpful discussions/explanations. One example is on pages 946 and 947 when the LWP retrievals are discussed. LWP differs up to 20% between different products while the authors didn't provide good explanation this. Also, the numbers on line 4-5 of page 947 come out without any mentioning of how they are calculated. 4. As a technical document for a data product, some of the descriptions on the methodology and assumptions could be better. In the a few pages that actually describe the product the authors go through a few products with relatively light reference to the actual algorithms used in this and other data products. The paper will be better if this aspect of presentation is improved. 5. Less discussion and speculations please. The lengthy discussions after the actual presentation of the data are overblown in my opinion. Many of these should be either trimmed out or severely reduced in length.

Interactive comment on Atmos. Chem. Phys. Discuss., 13, 935, 2013.

C1101