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Comment

Interactive comment on “Ocean colour products from geostationary platforms, opportunities with Meteosat Second and Third Generation” by E. J. Kwiatkowska et al.

Anonymous Referee #1

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The manuscript provides a good overview of the SEVIRI and FCI instruments onboard geostationary satellites with regard to applicability for ocean color studies. User requirements as well as technical limitations are listed.

Although the title says 'Ocean colour products from geostationary platforms' and the introduction claims 'This paper describes the ongoing effort to develop operational ocean colour products' not a single novel ocean color product is presented, only a small scale figure adopted from another publication. Review of requirements and limitations is indeed important but the title should not mislead readers. In my opinion a fair title would be 'Review of the user requirements and actual possibilities of ocean color products

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from Meteosat Second and Third Generation satellites’

The user requirements are listed at a very high level and don’t match the list of limitations given at a low technical / scientific level. Which requirements can actually be met if any? It is possible to give answer to this question based on the available knowledge and such an answer is the main thing worth publishing. However it remains unclear. A proper qualitative analysis of limitations with respect to all requirements is absolutely needed and can be summarized as an additional column in table 3: ‘Feasibility’. For example, fig. 3. indicate that lowest error in water leaving reflectance in the North Sea in the best conditions cannot be below 50%. Does it automatically indicate that almost all products from table 3 become non feasible since they require accuracy in the order of 5% (OCCCG reports) ?

It is very hard to judge which group of users is represented in the given requirements. Details of surveys are not given. Number of interviewees, their scientific and technical level, background and field of work is not specified. In this context the list of the required products seems to be rather arbitrary. It is recommended to extend this list to include all common products currently derivable from polar orbiting satellites and, as suggested above, tentatively indicate ‘realistic accuracy’ or ‘feasibility’ for each of them to clearly illustrate potential of ocean color from geostationary satellites.

I find these two phrases "EUMETSAT’s Meteosat Third Generation (MTG) Imaging satellites, with the first of the series planned for launch in 2020" and "The main goal of the MSFD is to achieve Good Environmental Status of EU marine waters by 2020." compromising the entire idea of the manuscript. Why to mention FCI at all if its resolution is too low for WFD and it is launched after MSFD? There should also be other serious reasons (climate change is definitely being one of them) to employ FCI which are worth elaborating.

Interactive comment on Ocean Sci. Discuss., 12, 3143, 2015.

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