

Interactive comment on “Global maps of Forel-Ule index, hue angle and Secchi disk depth derived from twenty-one years of monthly ESA-OC-CCI data” by Jaime Pitarch et al.

Anonymous Referee #2

Received and published: 17 December 2020

Interactive comment on “Global maps of Forel-Ule index, hue angle and Secchi disk depth derived from twenty-one years of monthly ESA-OC-CCI data” by Jaime Pitarch et al.

This study provides a new, open access dataset that consists of global maps of the Forel-Ule index, hue angle and Secchi disk depth and can be conveniently downloaded from PANGAEA. A merged multi-sensor data (OC-CCI) was used as the source data and the algorithms can be traced from other documents. Generally, this is meaningful work and facilitates the research of other scientists in the water color remote sensing community. I suggest making the following minor revisions before the publication of this

C1

study:

L26: “easier to handle” should be “easier-to-handle”

L49: delete “the” before “water surface”, delete “is” before “tracked”

L50: delete “,” before “(Wernand, 2010)”

L72: better to change “so far” to “thus far”, “them” should be “their”

L95: delete “the” before “deep bule”

L133: As daily OC-CCI products are also available and can be used to match with in-situ data, why are daily variables not included in this new dataset? Or as an alternative, if possible, the authors could publish their code on GitHub, perhaps a function that makes Rrs the input and FU index and other variables the output.

L143: delete “and” before “without”

L155: The minimum “exact” z_SD in these three experiments is set to 8.0 m, which limits the verification to case 1 waters. But it is obvious that the nearshore seawater will be much more turbid; therefore, is the dataset provided by this research still reliable in turbid water (for example FU>10)?

Table 2: The “exact value” of FU index in EX.2 does not match that in Fig. 1, please check it. And please change “A(°)” to “ α (°)” to keep it consistent with Fig. 1.

L189: “RMS=22.8%”, do you mean “relative RMS=22.8%”?

L195: How is this “~32%” calculated, “22.8%”+“10%”?

L290: “variation” should be “variations”

Interactive comment on Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2020-316, 2020.

C2