Comments from Public Consultation on ECV Requirements 13/01 – 13/03 2020 for:

# Ocean colour

## ECV Product: Water leaving radiance

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | Water leaving radiance | | | | |
| **Definition** | Amount of light emanating from within the ocean | | | | |
| **Unit** | µg l-1 | | | | |
| **Note** | Ocean colour is the radiance emanating from the ocean normalized by the irradiance illuminating the ocean. Products derived from ocean colour remote sensing (OCRS) contain information on the ocean albedo and information on the constituents of the seawater, in particular, phytoplankton pigments such as chlorophyll-a. | | | | |
| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | 4 |  |
| B |  |  |
| T | 4 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** | day |  | G | 7 |  |
| B |  |  |
| T | 7 |  |
| **Timeliness** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Required Measurement Uncertainty** | % |  | G | 30 |  |
| B |  |  |
| T | 30 |  |
| **Stability** | % |  | G | 3 |  |
| B |  |  |
| T | 3 |  |
| **Standards and References** |  | | | | |
| **Adaptation and Extremes** | | | | | |
|  | Relevant? (Yes/No) | Sugg. Req. sufficient? (Yes/No) | Explanation | | |
| **Adaptation[2]** |  |  |  | | |
| **Extremes[3]** |  |  |  | | |

[1]Goal (G); Breakthrough (B)(not mandatory, more as one possible); Threshold (T), for definitions see [Guidelines](http://tiny.cc/ecv-review)

[2] Is the ECV Product directly relevant to support Climate Adaptation?

[3] Can the ECV Product be used to monitor climate extremes or aspects of extremes?

### Comment 1

|  |  |
| --- | --- |
| Author: ECMWF | Email: ecresgcosreqs@gmail.com |
| See below table | |

|  |  |  |  |  |  |
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| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | 4 |  |
| B |  |  |
| T | 4 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** | day |  | G | 1 |  |
| B |  |  |
| T | 7 |  |
| **Timeliness** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Required Measurement Uncertainty** | % |  | G | 30 |  |
| B |  |  |
| T | 30 |  |
| **Stability** | % |  | G | 3 |  |
| B |  |  |
| T | 3 |  |
| **Standards and References** |  | | | | |
| **Adaptation and Extremes** | | | | | |
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| **Adaptation[2]** |  |  |  | | |
| **Extremes[3]** |  |  |  | | |

- afficher le texte des messages précédents -

### Comment 2

|  |  |
| --- | --- |
| Author: David Ford | Email: daf.obgc@gmail.com |
| I assume the name/definition should refer to chlorophyll-a concentration rather than water-leaving radiance here.  The goal values for horizontal and temporal resolution could be higher. For coastal applications, 1 km spatial resolution might be appropriate. For many applications at least daily resolution is required, and perhaps sub-daily - for instance studies looking at diurnal cycling, or First Guess at Appropriate Time data assimilation schemes. | |

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| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | 4 |  |
| B |  |  |
| T | 4 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** | day |  | G | 1 |  |
| B |  |  |
| T | 1 |  |
| **Timeliness** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Required Measurement Uncertainty** | % |  | G | 5 | Uncertainty specified for blue and green wavelengths. |
| B |  |  |
| T | 5 | Uncertainty specified for blue and green wavelengths. |
| **Stability** | % |  | G | 0.5 |  |
| B |  |  |
| T | 0.5 |  |
| **Standards and References** |  | | | | |
| **Adaptation and Extremes** | | | | | |
|  | Relevant? (Yes/No) | Sugg. Req. sufficient? (Yes/No) | Explanation | | |
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NO COMMENT