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

# Ocean surface currents

## ECV Product: Ekman currents

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| --- | --- | --- | --- | --- | --- |
| **Name** | Ekman currents | | | | |
| **Definition** | Ocean vector motion occurring over the depth of the Ekman layer as a result of the combined action of surface winds and coriolis force. | | | | |
| **Unit** | m/s | | | | |
| **Note** |  | | | | |
| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | 10 |  |
| B | 20 |  |
| T | 25 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** | hour |  | G | 1 |  |
| B |  |  |
| T | 6 |  |
| **Timeliness** | hour |  | G | 1 |  |
| B |  |  |
| T | 3 |  |
| **Required Measurement Uncertainty** | m/s |  | G |  |  |
| B |  |  |
| T |  |  |
| **Stability** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **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 in Table below | |

|  |  |  |  |  |  |
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| **Unit** | m/s | | | | |
| **Note** |  | | | | |
| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | 10 |  |
| B | 20 |  |
| T | 25 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** | hour |  | G | 1 |  |
| B |  |  |
| T | 6 |  |
| **Timeliness** | hour |  | G | 1 |  |
| B |  |  |
| T | 3 |  |
| **Required Measurement Uncertainty** | m/s |  | G |  |  |
| B |  |  |
| T | 0.1 |  |
| **Stability** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Standards and References** |  | | | | |
| **Adaptation and Extremes** | | | | | |
|  | Relevant? (Yes/No) | Sugg. Req. sufficient? (Yes/No) | Explanation | | |
| **Adaptation[2]** |  |  |  | | |
| **Extremes[3]** |  |  |  | | |

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## ECV Product: Surface geostrophic current

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | Surface geostrophic current | | | | |
| **Definition** | Ocean vector motion measured at or near the surface (at stated depth) | | | | |
| **Unit** | m/s | | | | |
| **Note** |  | | | | |
| **Requirements** | | | | | |
| **Item needed** | **Unit** | **Metric** | **[1]** | **Value** | **Derivation and References and Standards** |
| **Horizontal Resolution** | km |  | G | 10 |  |
| B | 20 |  |
| T | 100 |  |
| **Vertical Resolution** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Temporal Resolution** |  |  | G | 6 hourly |  |
| B | daily |  |
| T | weekly |  |
| **Timeliness** |  |  | G |  |  |
| B |  |  |
| T | daily |  |
| **Required Measurement Uncertainty** | m/s |  | G | 0.02 |  |
| B |  |  |
| T | 0.1 |  |
| **Stability** |  |  | G |  |  |
| B |  |  |
| T |  |  |
| **Standards and References** |    Villas Bôas et al. (2019) Integrated Observations of Global Surface Winds, Currents, and Waves: Requirements and Challenges for the Next Decade. Front. Mar.Sci. 6:425. doi: 10.3389/fmars.2019.00425     <http://globcurrent.ifremer.fr/products-data> | | | | |
| **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?

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### Comment 1

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| Author: ECMWF | Email: ecresgcosreqs@gmail.com |
| No changes from us | |