

The authors have responded to the majority of outstanding issues. The paper is substantively approved and in my view suitable for publication after minor amendments. Other issues I had the authors have responded to and I see no value in persisting on these in general and do not wish to be 'that reviewer' in this regard.

General reply to the reviewer:

Dear reviewer,

you have re-listed the items of the second round of review in which we had either a different view or were out of scope, but without an explicit request for changes, so we were not sure if you are pressing us to do any further changes or not.

However, given that the status is "accepted after minor review" it seems that we are still expected to change even the last points in which we have justified a different view in order to receive an acceptance for publication from your side.

Hence, we have gone again through the remaining list and tried to satisfy further your comments. Please see below.

Best wishes,

Vera Thiemig on behalf of all co-authors

Reviewer comment 1:

I would remain of the view that the table of sources is of sufficient importance that it should reside in the main text and not in an annex and would invite the editor to make a decision on this.

Response from authors:

Even though our view remains that the list of providers table is well placed in the appendix, we have decided to move this table to the main text.

Change to the manuscript:

Moved Table A1 as Table 1, renumbered the remaining tables.

Reviewer comment 2:

I remain of the opinion that the data availability section is too short and does not provide the reader with sufficient detail as to the level of user support involved. I think the authors here are too close to their system and are effectively taking for granted that the reader will know the level of user support that is standing behind this product. My fear is that very many of them won't. Would it really hurt to add a paragraph that describes what being in the data catalogue of JRC means in terms of 24/7 user support, up time, help desk, long-term product support, version control, documentation etc? You want users to read this and go "that's a product I can use with certainty that it is well maintained, well supported, operationally available, and therefore I can be certain of being available today, tomorrow, next year and 5 years hence to support my application so i can build my application around it with confidence". I think the authors are doing themselves and their product a very

substantial dis-service not documenting this better. It would only take an additional paragraph but might mean the difference between a reader deciding to use this product or not.

Response from authors:

Based on the previous comments of the reviewer we have added a data availability section (initially it was missing), created a readme file with detailed product specifications and included a brief summary of product specifications directly to the manuscript (see Table 5).

With regards to product support, version control and documentation we have clarified during the last round of review the following:

EMO-5 being a Copernicus product, the general Copernicus user support service will be providing or coordinating user support. In addition, there is a contact person outlined in the JRC Data Catalogue under the link provided in the manuscript.

The version control of EMO-5 will be aligned with the EFAS version control. Documentation on the EFAS version control can be accessed publically on the CEMS wiki: <https://confluence.ecmwf.int/display/COPSRV/EFAS+versioning+system>

In addition the readme file of EMO-5 will be kept updated.

To satisfy the reviewer request we have added the above information to the README file.

Change to the README file:

added the following fields:

- D15. Version control: The version control of EMO-5 will be aligned with the EFAS version control. Documentation on the EFAS version control can be accessed publically on the CEMS wiki: <https://confluence.ecmwf.int/display/COPSRV/EFAS+versioning+system>
- A04. User support service: contact person outlined in the JRC Data Catalogue OR contact the general Copernicus user support service (support@copernicus.eu)

Reviewer comment 3:

The reference in line 377 to 2019 is inconsistent with elsewhere where NRT is assured.

Response from authors:

The reviewer confuses EMO-5 version 1 with the operational grids. The difference between those versions are mentioned in a consistent manner throughout the manuscript:

- abstract (lines 23ff): “EMO-5 (version 1) covers the time period from 1990 to 2019, with a near real-time release of the latest gridded observations foreseen with version 2.”
- introduction (lines 56ff): “While the service produces daily updated grids (EMO-5 operational grids), we have re-run our archive from 1990-2019 to produce a new long-term dataset, which we refer to as version 1 of the EMO-5.”
- input data section (lines 136ff): “For each of the seven EMO-5 meteorological variables, the location (and hence density) of the input data, as well as the record length per station and the number of input stations over time (1990-2019), are shown in Fig. 1 to 3 respectively.”
- data creation section (l 376): “The EMO-5 (version 1) dataset has been produced for the time period from 1990 till 2019.”

- in README file:
 - D04. Temporal coverage: 1990-01-01 till 2019-12-31
 - D11. Update frequency: not foreseen for version 1

With this clarification, we regard this issue as closed unless the reviewer disagrees.

Reviewer comment 4:

I will not insist for this paper but I would very strongly urge for future work moving all plotting etc. software as quickly as possible to use colour-blind friendly schema. This is a pervasive and insidious case of able-ism that disenfranchises a not inconsiderable proportion of the population and for which copious software and tools exist to assure outputs that are not inadvertently discriminatory. I fully accept that there is no intent involved. However, when the tools exist it is behoven on those of us who are not colour blind to duly consider accessibility to our products to those who are

Response from authors:

Replied to extensively during the last round of review. Thank you for regarding this issue as closed for this manuscript.