Interactive comment on “High-resolution daily gridded datasets of air temperature and wind speed for Europe” by S. Brinckmann et al.

Anonymous Referee #1

Received and published: 13 October 2015

Journal: ESSD Title: High-resolution daily gridded datasets of air temperature and wind speed for Europe Author(s): S. Brinckmann et al. MS No.: essd-2015-18 MS Type: Review article

General comments: The authors present a new gridded 5km daily air temperature and wind speed for Europe, which currently extends from 2001-2010. It should be noted that they plan to increase the length of the record in future releases. As regional climate modeling simulations go to ever-higher resolutions such datasets will prove invaluable resources for evaluation and validation. The techniques applied here are a two-stage regression Kriging interpolation to station data from the SYNOP network and ECA&D data. As with all such approaches regions with sparse coverage suffer from the largest uncertainties. The presentation is thorough and the techniques are described and defended in detail. The accuracy of the resulting dataset appears to be adequate. A longer record however will be needed before robust statistics can be calculated. As a general comment it would be extremely useful for the authors to add a few sentences in the conclusions, which provide some guidance to potential users of this dataset. For example, are their regions/sub-regions for which the accuracy is not acceptable and should be treated with caution? Are there best practices, which the authors would recommend to users of the dataset? Generally users of these datasets are advanced but this is not always the case. Often users take these gridded interpolated datasets as “ground truth” without regard for the errors, which stem from small-scale variability, methodology, measurement/station inaccuracies, etc. The authors address many these issues in the text but do not put them into context. Doing so would be a great service to the community. The manuscript is in nearly publishable form. However, the text should be checked for grammar and spelling. Other than the modest suggestion above there are no serious shortcomings to address. I recommend publish with (very) minor revisions.