

Interactive comment on "The Berkeley Earth Land/Ocean Temperature Record" by Robert A. Rohde and Zeke Hausfather

Anonymous Referee #2

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Review of "The Berkeley Earth Land/Ocean Temperature Record" by Robert A. Rohde and Zeke Hausfather

This paper describes the construction of the Berkeley Earth global temperature dataset, and is suitable for publication in this journal. I am happy to recommend publication and make some comments below.

Major comments:

1) As one of the other reviewers comments, the use of HadSST3 rather than HadSST4 is not ideal, although I appreciate that the HadSST3 version has been available for some time. I suspect the authors will also want to use HadSST4 (and will have to soon), but as long as the methods don't change when swapping for HadSST4 then this

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paper sufficiently describes the approach to creating the overall dataset.

2) I also agree with one of the other reviewers when they question the use of a version of the dataset that uses SSTs under ice. Is this appropriate as a measure of global temperature change? But, if the authors want to include it then that should be their choice.

Minor comments:

- 1) Abstract: 'agrees quite well' is not very precise and could be expanded.
- 2) l23 there are more observations of MATs than SSTs before around 1900 so this sentence could be edited slightly. There is a new NMAT dataset Cornes et al. (in press) for example.
- 3) I338 typo 'ot' -> 'to'
- 4) Is it worth adding ERA5 to the post-1979 trends?

Interactive comment on Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2019-259, 2020.