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Interactive comment on "Over 10 million seawater temperature records for the United Kingdom Continental Shelf between 1880 and 2014 from 17 Cefas (United Kingdom Government) marine data systems" *by* David Morris et al.

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This documentation of ocean data over an extended region centered on the UK is useful for showing the potential for better resolution of North Atlantic variations. Since the data are newly available, they can also be incorporated into global data sets, which welcome new data when they become available. The documentation covers most aspects of the new data, but I believe that the new data could be more valuable to others if a few additional questions and comments are addressed.

1. There are no bias estimates between the individual data sources. Is there a plan to address that? For long-term data sets small biases between instruments can cause

problems, since over long periods the climate-change signal is also small. Therefore relative instrument bias should be estimated and if possible, corrected.

2. The North Atlantic is a densely-sampled region, so it is not clear how much additional information these new data bring to the region. It would be useful to compare a field such as SST from ICOADS and from a combination of ICOADS and the new data to see how resolution of the field is improved for a few decades. It may also be useful to evaluate a subsurface field compared to an existing subsurface data set. If clear improvements can be shown, that would better justify the use of these data and also justify a project to incorporate the new data into existing larger data sets such as ICOADS.

3. Are the authors in contact with any organizations producing long-term ocean data sets, such as ICOADS or the Met Office? Much of the new data could be incorporated and has the potential to improve resolution of the North Atlantic.

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