

Interactive comment on “A long-term record of blended satellite and in situ sea surface temperature for climate monitoring, modeling and environmental studies” by V. Banzon et al.

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The paper is not an analysis paper so no methodological description will be provided. Here is the proposed text to replace page 6, paragraph beginning with line 20:

In terms of feature resolution, i.e., the ability of an analysis to reproduce mesoscale ocean features, Reynolds et al. (2007) showed that dOISST performs well. While some SST analysis products use higher resolution grids than dOISST, Reynolds and Chelton (2010) have demonstrated that a higher grid resolution does not necessarily mean that more higher-resolution SST features are captured in the analysis. To illustrate this point, the power spectral densities of three SST analysis datasets are shown in Figure 4. These datasets are three of those examined by Reynolds and Chelton (2010),

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but the latest versions of the datasets (from the first 2 months of 2016) are used in the plot presented here. The spectra are smoother because they are the average of several areas rather than a single area, in order to provide a global representation of each dataset. The three products differ in inputs and methodologies but the main focus here is that they differ in grid resolutions: dOISST is on a 1/4 degree grid; the Operational SST and Sea Ice Analysis (OSTIA) is on a 1/20 deg grid (Donlon et al., 2012), and the Remote Sensing Systems (RSS) analysis is computed on a 1/11 deg grid (http://podaac.jpl.nasa.gov/dataset/MW_IR_OI-REMSS-L4-GLOB-v4.0). The figure shows that the SST feature resolution is very similar between dOISST and OSTIA even if the latter uses a finer grid size.

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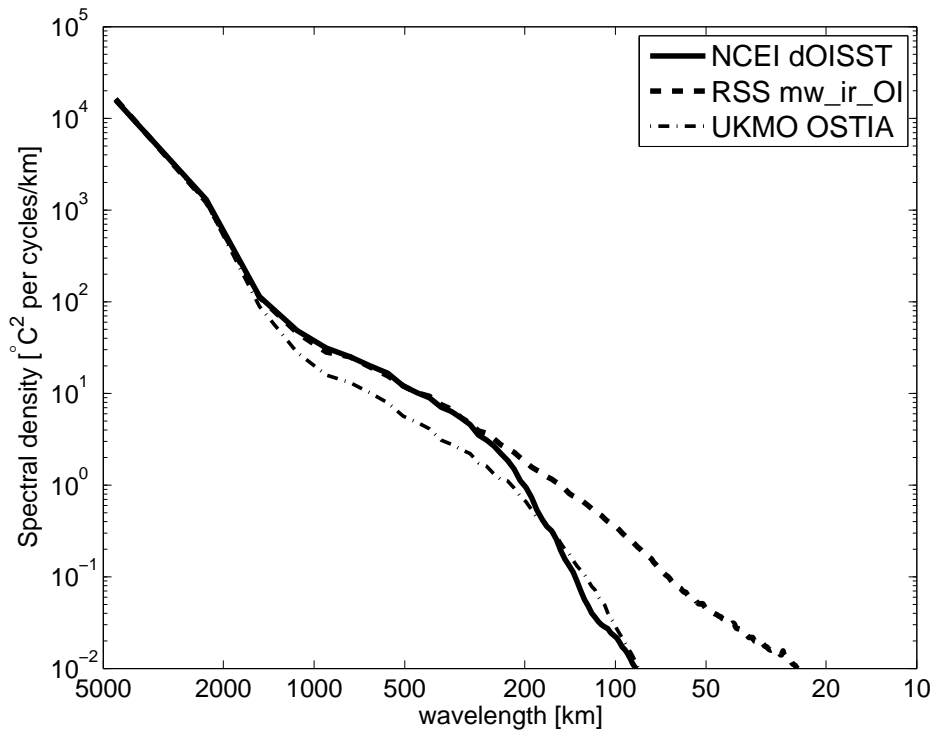


Fig. 1. Power spectra of various analyzed SST fields from the first two months of 2016. All spectra indicate some large scale (and perhaps seasonal) SST patterns (wavelengths larger than 1500 km) identically.