



## **Comparison of long timeseries SST reanalyses using the GHRSSST multi-product ensemble (GMPE) system**

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Reanalyses of Sea Surface Temperature (SST) are useful for a variety of applications, including as boundary conditions in atmospheric models and for long-term SST monitoring. It is well known that there can be variations between different SST datasets. As part of the ESA CCI (European Space Agency Climate Change Initiative) project, included in the ESA contribution to GHRSSST CDR activities, six long-term L4 (global, gap-free, gridded) SST analyses with data back to at least 1991 have been inter-compared: ESA SST CCI, MyOcean OSTIA Reanalysis v1.0, Canadian Meteorological Center, AVHRR-only version of the Daily OI, HadISST2, and Japan Meteorological Agency's MGDSST. The GMPE (GHRSSST multi-product ensemble) system has been used to generate a seventh long-term SST product, an ensemble median of all six analyses, which has been made freely available. Results will be shown from assessments of global and regional accuracies for all seven products using independent near-surface data from Argo floats. Deviations from the ensemble median are also used to assess the contributing SST analyses. This method is shown to be useful for assessing those periods when independent in situ data are not available to use as a reference. Results from an assessment of long-term stability for each analysis using data from the GTMBA (Global Tropical Moored Buoy Array) will also be presented.