

Met Office Hadley Centre observations datasets

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HadCRUT4

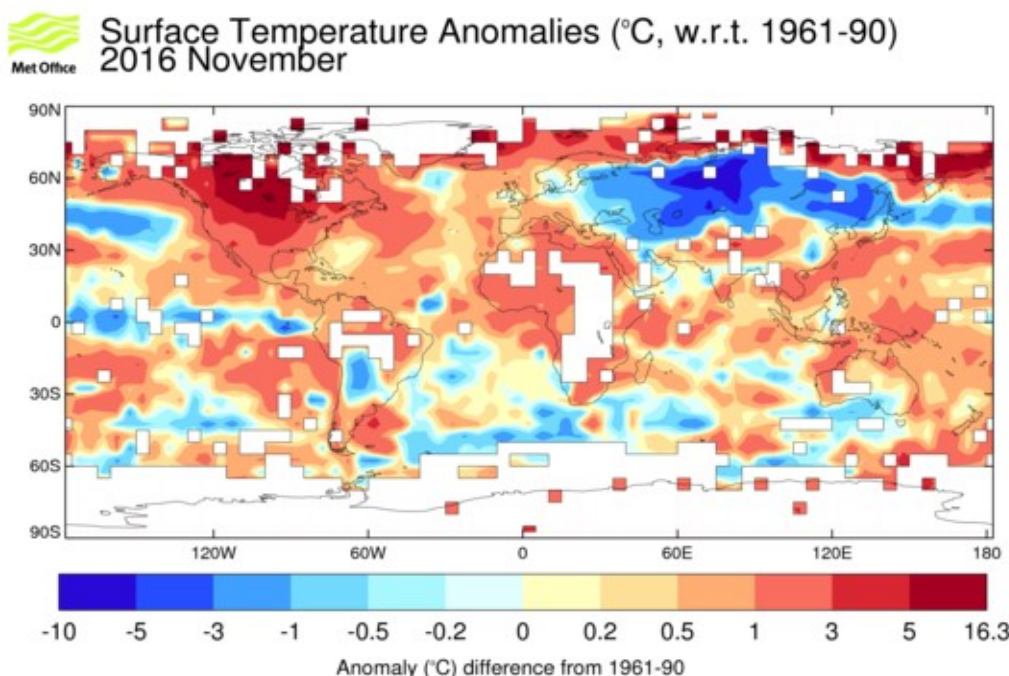
Update: Version HadCRUT.4.5.0.0 is now available. Release notes for this version can be found [here](#).

HadCRUT4 is a gridded dataset of global historical surface temperature anomalies relative to a 1961-1990 reference period. Data are available for each month since January 1850, on a 5 degree grid. The dataset is a collaborative product of the Met Office Hadley Centre and the [Climatic Research Unit at the University of East Anglia](#).

Brief description of the data

The gridded data are a blend of the [CRUTEM4](#) land-surface air temperature dataset and the [HadSST3](#) sea-surface temperature (SST) dataset. The dataset is presented as an ensemble of 100 dataset realisations that sample the distribution of uncertainty in the global temperature record given current understanding of non-climatic factors affecting near-surface temperature observations. This ensemble approach allows characterisation of spatially and temporally correlated uncertainty structure in the gridded data, for example arising from uncertainties in methods used to account for changes in SST measurement practices, homogenisation of land station records and the potential impacts of urbanisation.

The HadCRUT4 data are neither interpolated nor variance adjusted.



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References

When using the data set in a paper, the following is the correct citation to use:

Morice, C. P., J. J. Kennedy, N. A. Rayner, and P. D. Jones (2012), [Quantifying uncertainties in global and regional temperature change using an ensemble of observational estimates: The HadCRUT4 dataset](#), *J. Geophys. Res.*, 117, D08101, doi:10.1029/2011JD017187.

Other information

[Global and regional time series](#)

[Diagrams from the paper](#)

[Frequently asked questions \(FAQ\)](#)

[Dataset version information and previous versions](#)

Dataset produced in collaboration with:



Maintained by: [Colin Morice](#)

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