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Global Extremes Analyses from new Datasets: HadEX2 and HadISD

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A number of new datasets will appear during the course of this year designed for the study of extreme events and their change over time. We will present results derived from two of these. HadEX2 is an update to the HadEX gridded dataset developed using the 27 ETCCDI indices for extremes of temperature and rainfall. The dataset covers the period 1951-2011 with an increased number of stations contributing data and a number of minor improvements in the index calculation and gridding, as well as an assessment of the uncertainties in the final product. We will present the first results from this dataset.

HadISD is a sub-daily dataset derived from the ISD using an automated quality control suite. It contains over 6000 stations with near-surface temperature, dewpoint and sea-level pressure data, along with cloud cover, wind speed and direction. We will present some of the applications of this dataset to the study of recent extremes at high time resolution, for example the cold weather in Alaska in 1989, and the trend in the upper and lower percentiles of temperature of the span of the dataset.