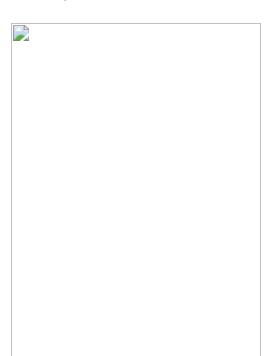
# Audit of global warming data finds it riddled with errors and lies designed to benefit Silicon Valley stock ownerships

**Anthony Watts** /



Just ahead of a new report from the IPCC, dubbed SR#15 about to be released today, we have this bombshell- a detailed audit shows the surface temperature data is unfit for purpose. The first ever audit of the world's most important temperature data set (HadCRUT4) has found it to be so riddled with errors and "freakishly improbable data" that it is effectively useless.

From the IPCC:

Global Warming of 1.5 °C, an IPCC special report on the impacts of global warming of 1.5 °C above preindustrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.

This is what consensus science brings you – groupthink with no quality control.

HadCRUT4 is the primary global temperature dataset used by the Intergovernmental Panel on Climate Change (IPCC) to make its dramatic claims about "man-made global warming". It's also the dataset at the center of "ClimateGate" from 2009, managed by the Climate Research Unit (CRU) at East Anglia University.

The audit finds more than 70 areas of concern about data quality and accuracy.

But according to an analysis by Australian researcher John McLean it's far too sloppy to be taken seriously even by climate scientists, let alone a body as influential as the IPCC or by the governments of the world.

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# **Main points:**

- The Hadley data is one of the most cited, most important databases for climate modeling, and thus for policies involving billions of dollars.
- McLean found freakishly improbable data, and systematic adjustment errors, large gaps where there is no data, location errors, Fahrenheit temperatures reported as Celsius, and spelling errors.
- Almost no quality control checks have been done: outliers that are obvious mistakes have not been corrected one town in Columbia spent three months in 1978 at an average daily temperature of over 80 degrees C. One town in Romania stepped out from summer in 1953 straight into a month of Spring at minus 46°C. These are supposedly "average" temperatures for a full month at a time. St Kitts, a Caribbean island, was recorded at 0°C for a whole month, and twice!
- Temperatures for the entire Southern Hemisphere in 1850 and for the next three years are calculated from just one site in Indonesia and some random ships.
- Sea surface temperatures represent 70% of the Earth's surface, but some measurements come from ships which are logged at locations 100km inland. Others are in harbors which are hardly representative of the open ocean.
- When a thermometer is relocated to a new site, the adjustment assumes that the old site was always built up and "heated" by concrete and buildings. In reality, the artificial warming probably crept in slowly. By correcting for buildings that likely didn't exist in 1880, old records are artificially cooled.

Adjustments for a few site changes can create a whole century of artificial warming trends.

### Details of the worst outliers

- For April, June and July of 1978 Apto Uto (Colombia, ID:800890) had an average monthly temperature of 81.5°C, 83.4°C and 83.4°C respectively.
- The monthly mean temperature in September 1953 at Paltinis, Romania is reported as -46.4 °C (in other years the September average was about 11.5 °C).
- At Golden Rock Airport, on the island of St Kitts in the Caribbean, mean monthly temperatures for December in 1981 and 1984 are reported as 0.0°C. But from 1971 to 1990 the average in all the other years was 26.0°C.

### More at Jo Nova

# The report:

Unfortunately, the report is paywalled. The good news is that it's a mere \$8.

The researcher, John McLean, did all the work on his own, so it is a way to get compensated for all the time and effort put into it. He writes:

This report is based on a thesis for my PhD, which was awarded in December 2017 by James Cook University, Townsville, Australia. The thesis1 was based on the HadCRUT4 dataset and associated files as they were in late January 2016. The thesis identified 27 issues of concern about the dataset.

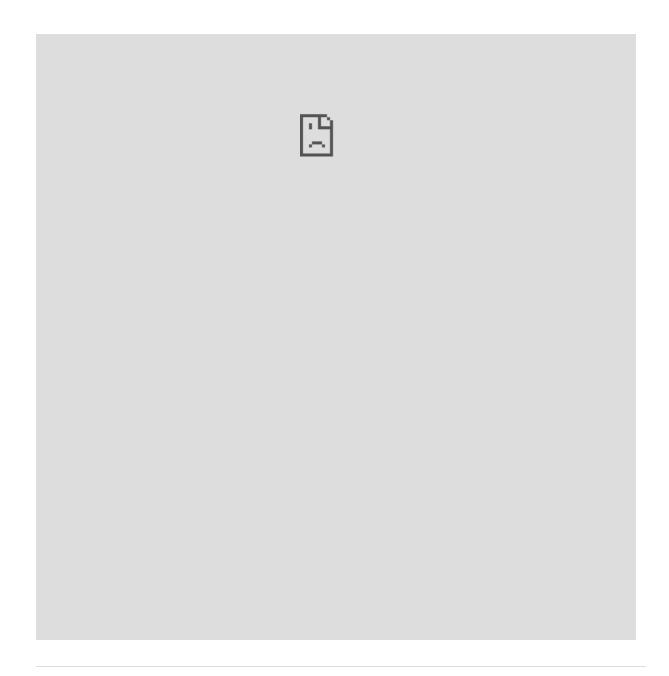
The January 2018 versions of the files contained not just updates for the intervening 24 months, but also additional observation stations and consequent changes in the monthly global average temperature anomaly right back to the start of data in 1850.

The report uses January 2018 data and revises and extends the analysis performed in the original thesis, sometimes omitting minor issues, sometimes splitting major issues and sometimes analysing new areas and reporting on those findings.

The thesis was examined by experts external to the university, revised in accordance with their comments and then accepted by the university. This process was at least equivalent to "peer review" as conducted by scientific journals.

I've purchased a copy, and I've reproduced the executive summary below. I urge readers to buy a copy and support this work.

Get it here:		



## **EXECUTIVE SUMMARY**

As far as can be ascertained, this is the first audit of the HadCRUT4 dataset, the main temperature dataset used in climate assessment reports from the Intergovernmental Panel on Climate Change (IPCC). Governments and the United Nations Framework Convention on Climate Change (UNFCCC)

rely heavily on the IPCC reports so ultimately the temperature data needs to be accurate and reliable.

This audit shows that it is neither of those things.

More than 70 issues are identified, covering the entire process from the measurement of temperatures to the dataset's creation, to data derived from it (such as averages) and to its eventual publication. The findings (shown in consolidated form Appendix 6) even include simple issues of obviously erroneous data, glossed-over sparsity of data, significant but questionable assumptions and temperature data that has been incorrectly adjusted in a way that exaggerates warming.

It finds, for example, an observation station reporting average monthly temperatures above 80°C, two instances of a station in the Caribbean reporting December average temperatures of 0°C and a Romanian station reporting a September average temperature of -45°C when the typical average in that month is 10°C. On top of that, some ships that measured sea temperatures reported their locations as more than 80km inland.

It appears that the suppliers of the land and sea temperature data failed to check for basic errors and the people who create the HadCRUT dataset didn't find them and raise questions either.

The processing that creates the dataset does remove some errors but it uses a threshold set from two values calculated from part of the data but errors weren't removed from that part before the two values were calculated.

Data sparsity is a real problem. The dataset starts in 1850 but for just over two years at the start of the record the only land-based data for the entire Southern Hemisphere came from a single observation station in Indonesia. At the end of five years just three stations reported data in that hemisphere. Global averages are calculated from the averages for each of the two hemispheres, so these few stations have a large influence on what's supposedly "global". Related to the amount of data is the percentage of the world (or hemisphere) that the data covers. According to the method of calculating coverage for the dataset, 50% global coverage wasn't reached until 1906 and 50% of the Southern Hemisphere wasn't reached until about 1950.

In May 1861 global coverage was a mere 12% – that's less than one-eighth. In much of the 1860s and 1870s most of the supposedly global coverage was from Europe and its trade sea routes and ports, covering only about 13% of the Earth's surface. To calculate averages from this data and refer to them as "global averages" is stretching credulity.

Another important finding of this audit is that many temperatures have been incorrectly adjusted. The adjustment of data aims to create a temperature record that would have resulted if the current observation stations and equipment had always measured the local temperature. Adjustments are typically made when station is relocated or its instruments or their housing replaced.

The typical method of adjusting data is to alter all previous values by the same amount. Applying this to situations that changed gradually (such as a growing city increasingly distorting the true temperature) is very wrong and it leaves the earlier data adjusted by more than it should have been. Observation stations might be relocated multiple times and with all previous data adjusted each time the very earliest data might be far below its correct value and the complete data record show an exaggerated warming trend.

The overall conclusion (see chapter 10) is that the data is not fit for global studies. Data prior to 1950 suffers from poor coverage and very likely multiple incorrect adjustments of station data. Data since that year has better coverage but still has the problem of data adjustments and a host of other issues mentioned in the audit.

Calculating the correct temperatures would require a huge amount of detailed data, time and effort, which is beyond the scope of this audit and perhaps even impossible. The primary conclusion of the audit is however that the dataset shows exaggerated warming and that global averages are far less certain than have been claimed.

One implication of the audit is that climate models have been tuned to match incorrect data, which would render incorrect their predictions of future temperatures and estimates of the human influence of temperatures.

Another implication is that the proposal that the Paris Climate Agreement adopt 1850-1899 averages as "indicative" of pre-industrial temperatures is fatally flawed. During that period global coverage is low – it averages 30% across that time – and many land-based temperatures are very likely to be excessively adjusted and therefore incorrect.

A third implication is that even if the IPCC's claim that mankind has caused the majority of warming since 1950 is correct then the amount of such warming over what is almost 70 years could well be negligible. The question then arises as to whether the effort and cost of addressing it make any sense.

Ultimately it is the opinion of this author that the HadCRUT4 data, and any reports or claims based on it, do not form a credible basis for government policy on climate or for international agreements about supposed causes of climate change.

Full report here