# Spinning Temperature Out of Control

## 1. The Strategy: "The social construction of a quasi-reality"

The following extracts from a Tyndall Centre working paper provide an interesting insight into the work carried out from the public purse, to promote global warming in the public perception. It is revealing that that the authors highlight the uncertainty and contention surrounding climate change and yet the public presentation is that there is scientific consensus and no longer any doubt. This approach, coupled with extensive "feeding" of the media, is obviously effective.

The Tyndal Centre was established in 2000. It comprises nine UK research institutions and is core funded by NERC, ESRC & EPSRC, with additional support from the DTI. Executive Director is Professor Mike Hulme, from University of East Anglia. He is a senior advisor to the government on climate matters.

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- 9 from business (including one from an SME and one from the media sector)
- 7 from academia
- 3 from the public sector
- 3 from NGOs (including one from Greenpeace)

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Working paper 58 (below), is particularly pertinent but also have a look at:
**"Does tomorrow ever come? Disaster narrative and public perceptions of climate change"**
Thomas Lowe, Katrina Brown, Suraje Dessai, Miguel de Franca Doria, Kat Haynes, and Katharine Vincent, Tyndall Centre Working Paper 72, March 2005

This specifically researches the impact on public perception of the disaster movie, "The Day After Tomorrow". http://www.tyndall.ac.uk/publications/working_papers/wp72_summary.shtml

A taster:

- Adopting a mix of social science methods to explore this issue, over 300 respondents in Norwich (UK) completed a two-part questionnaire in a cinema foyer, directly before and after seeing the film, shortly after its release in May 2004. Respondents were then invited to participate in 3 focus groups one month after watching the film, to explore their perceptions and views in greater depth.

- Following the film, many viewers expressed strong motivation to act on climate change; more so than prior to seeing the film. A very small proportion (less than 5 %) of our sample believed that there was no point in taking action on climate change. However, our analysis shows that although strongly motivated, people require specific guidance on what to do in order to mitigate climate change.

- Although the film may have sensitised viewers and perhaps motivated them to act on climate change, our findings indicate that the public do not have access to information on what action they can take to mitigate climate change. In addition, our focus groups showed that any increase in concern appeared short-lived, with most viewers seeing the film as purely entertainment.

- We argue that this has implications for climate policy and provision of public information.

**Working Paper 58**

**The Social Simulation of the Public Perception of Weather Events and their Effect upon the Development of Belief in Anthropogenic Climate Change**

Dennis Bray and Simon Shackley, September 2004. Tyndall Centre for Climate Change Research

Here are a few pertinent extracts, *(My emphases)*

- This paper….. presents a quantitative dynamic simulation model of the *social construction of a quasi-reality.* By quasi-reality we mean a reality that thus far is defined by expert knowledge and is surrounded by uncertainty.
- Global warming (or climate change) is, without elaboration, *a much debated and contested issue.* Not only is it *contested among scientists*, but also among all those with vested interests.
- We suggest that, in the realm of the public, forces act to maintain or denounce a *perceived reality which has already been constructed.* That is, an issue introduced by science (or media for that matter) *needs continual expression of confirmation if it is to be maintained as an issue.*
- Science, of course, has framed the issue of climate change/global warming.
- In this paper, we explore under what conditions belief in global warming or climate change, as identified and defined by experience, science and the media, *can be maintained in the public's perception.*
- Science in the last few decades has *popularized* the issue of climate change and/or global warming. The issue itself has the potential of significant ramification not only in the expression of weather events but also in *changes in socio-economic policy* concerning either or both of adaptation and mitigation strategies.
- *As the science itself is contested*, needless to say, so are the potential policy changes. So how then do people make sense or construct a reality of something that they can never experience in its totality (climate) and *a reality that has not yet manifest (i.e. climate change)?*
- Yet people are asked to accept some construction of reality when it comes to accepting or participating in the construction of climate change policy.
- To endorse policy change people must *'believe'* that global warming will *become* a reality some time in the future.
- *Only the experience of positive temperature anomalies will be registered as indication of change if the issue is framed as* ***global warming****.*
- *Both positive and negative temperature anomalies will be registered in experience as indication of change if the issue is framed as* ***climate change****.* (Hence cold weather can be blamed on CO2).
- *We propose* that in those countries where climate change has become the predominant popular term for the phenomenon, *unseasonably cold* temperatures, for example, are also *interpreted* to *reflect climate change/global warming.*

The continual emphasis on record temperatures is part of the affirmation process and the following pages show examples of positive reinforcement in the reports and press releases from the Met Office and Hadley Centre. To show how easily it can be done, I have applied the same techniques to historical temperatures from the Central England Temperature series, (CET), in the section "The Day before Yesterday". Finally I have included some analysis of absolute temperature data from the last century, which shows a distinct lack of co-operation between CO2 levels and UK temperatures.

2. **The Process: Positive affirmations** - excerpts from Hadley Centre annual reports and Met Office summaries since 1997. http://www.metoffice.gov.uk/research/hadleycentre/index.html

The statements below relate to a mixture of global satellite temperature anomalies, surface air temperatures and Central England Temperature, CET. My own comments and charts relate entirely to the Central England Temperature series, but any perceived global warming should be reflected in this record also. Temperatures are usually quoted as anomalies of the long-term average, currently 1961-1990. This is merely a convention of the World Meteorological Organisation, set in the 1960's at the time of "global cooling".

- **Spinning: "Out of Control"**

**1997**
Global temperatures are already some **0.6 °C higher** than they were at the end of the last century, and observations so far this year indicate that 1997 will be one of the **warmest** years **since records began.**

**1998**
The global mean surface temperature in 1998 is likely to exceed that in 1997 and be the **highest since** global instrumental **records began**.
*Published CET was 0.19deg C lower than 1997.*

**1999**
Partly because sea-surface temperatures in the tropical Pacific have moved into a cool La Niña phase, the annual global mean surface temperature in 1999 will, as expected, be substantially cooler than the record year of 1998, although it is still likely to be **one of the highest ten on record**.
*1999 CET was 0.29 deg c higher than 1998*.

**2000**
The average global mean surface air temperature in the year 2000 was some **0.6 °C higher** than temperatures at the end of the 19th century. The year was cooler than 1999, with temperatures being influenced by the long-lasting (1998–2001) La Niña.

**However**, 2000 was still the **seventh warmest year in the record** reaching back to 1860. Eight of the **warmest years** have been since 1990. *CET was down 0.31 deg C from 1999.*

**2001** - *They don't say much about it……. But UK CE temperature was 0.38°C cooler than 2000, and 0.7 deg cooler than the high of 1990.*

**2002**
The global average surface temperature in the year 2002 was approximately **0.8 °C above** the average temperature at the end of the 19th century, making it the **second warmest year** in the 142-year global instrumental temperature record.

**2003**
The average land temperature was almost **1.2 °C above** that at the end of the 19th century.
Global land temperatures in 2003 were about **1 °C above** the end of the 19th century, making it the **third warmest year on record**. It was also third in terms of **land and sea temperatures together**, now about 0.8 °C above the late 19th century. (*this is a new departure, to obfuscate even more)*

**2004**
The global surface temperature anomaly for 2004, with respect to 1961-1990, to the end of November has been +0.44°C. The current 2004 values for the Globe and the Northern Hemisphere would make them the **fourth warmest on record**. The last 10 years (1995-2004), with the exception of 1996, are among **the warmest 10 years on record**.

**23 December 2005**
Early figures coming into the Met Office for December are pointing to 2005 being a **very warm**, quite dry and sunny year, although there are regional variations. One thing is clear, this year will go down as **another very warm one**, both for the UK and for the whole planet.

*However last winter, ( December 04-February 05) was 1 deg C cooler than the winter of 1990, 1.6 deg cooler than 1974 and 1.96 degrees cooler than 1733. Summer was 1.13 deg cooler than the "heat wave year", 2003.*

**2005**
The UK has seen **another warm year** with the mean Central England Temperature (CET) for 2005 likely to be in the top **10 warmest years** in the 347 year record with a current anomaly, from 1961-90, of 1.07°C to 12th December. *There are 13 warmer years with 5 of them in the ten years from 1996-2005.*

October was **unusually warm** and the mean and minimum CET for October were both the **second warmest on record**.

The minimum temperature of 15.2º C on 12th October 2005 was the **warmest in October since records** of minimum temperature **began** in 1878. The autumn mean CET (SON) at **11.60º C** is currently the **warmest Autumn** since 1818.

*I think this is inaccurate, their own figures for September-November, (15.2, 13.1 and 6.2 respectively), only average 11.5 deg. thus making autumn 2005* ***cooler*** *than 1949 and 1959 as well as 1818. This figure fits with their average for the year of 10.44 deg, whereas 11.6 would push it to 10.47 deg. Of course there were hotter autumns before then, 1729-31 for example, but they omit data that doesn't fit the theory.*

Using our method for forecasting global temperature anomalies, we forecast **2006 to be slightly cooler than 2005** at 0.45C+-0.12C. The forecast of slightly cooler conditions depends on forecasts of weakly cool conditions in the tropical Pacific associated with the La Nina phenomenon being correct.

All the temperature values have uncertainties, which arise mainly from gaps in data coverage.
**The sizes of the uncertainties are such that the global average temperature for 2005 is statistically indistinguishable from, and could be anywhere between, the first and the eighth warmest year in the record.**

Similar analyses in the United States rank the year as **warmest on record** (GISS) and **second warmest** (NCDC). However, NCDC also note that uncertainties arising from sparse observations or measurement biases make 2005 statistically indistinguishable from the warmest year, 1998, as well as from other recent years such as 2002 and 2003. *So why claim it's the warmest then?*

*And James Hansen (NASA)* ***thinks*** *it was the hottest year ever.*
"A surprising Arctic warm spell is responsible for a 2005 that was *likely* the warmest year since instrument recordings began in the late 1800s", added Hansen, who nevertheless admitted that the analysis had to *estimate* temperatures in the Arctic from nearby weather stations because *no direct data were available*.

As a result, he said, "*we couldn't say with 100 percent certainty* that it's the warmest year, but I'm *reasonably* confident that it was". Hansen and other researchers wrote in the analysis that "the inclusion of *estimated* Arctic temperatures is the *primary reason* for our rank of 2005 as the warmest year." (Mercosur News Agency, 27/01/06*). (My emphases).*

There is an interesting FAQ about Surface Air Temperature (SAT), on the NASA web site.

I have included a couple of points, but the whole list can be read here:
http://data.giss.nasa.gov/gistemp/abs_temp.html

- To measure SAT we have to agree on what it is and, as far as I know, no such standard has been suggested or generally adopted.
- For the global mean, the most trusted models produce a value of roughly 14 Celsius, i.e. 57.2 F, but it may easily be anywhere between 56 and 58 F and regionally, let alone locally, the situation is even worse.
  (Responsible NASA Official: James E. Hansen, 2005-07-12)

3. **Spinning Backwards: "The Day Before Yesterday"**
(Historical Central England Temperatures as they might have been presented by the Hadley Centre.)

**1729-1731**
There were three successive hot autumns, 11.6 deg, 11.8deg, and 11.8deg. respectively. **September** of **1729**, with **16.6** deg, was the **hottest** such month in the **whole of the 347 year record,** (to 2005).

**1733**
The UK has **heated** by a **massive 3.2 degrees** over the last **4 decades**, to the present **10.47** deg C. (**2005** average CET was **10.45** Deg C)

**1779**
If the **warming** trends of the last **40 years** continue, the UK could have a Mediterranean climate in the early years of the next millennium.
The **warming** of **0.89deg C per decade** to the present **10.40 deg C** is without precedent **since records began.**

**1800**
The average UK temperature in the year 1800 was **0.65°C higher** than temperatures at the end of the 17th century

**1834**
The **warming trend** over the last half-century has now taken UK temperatures to their **highest level (10.48 deg C), since records began**.

**1898**
UK temperature for the year **exceeds** that of 1897 by **0.64 deg C**. It is amongst the **12th warmest in the record** reaching back to 1659.

Temperatures are **already some 2.18 deg C warmer** than they were at the end of the last century, making 1898 the **2nd warmest on record**. (compared to 1841-1870).

**1899**
This year had the **warmest summer in 53 years** and the **third hottest** summer since 1659.

**1902**
The average UK temperature in the year 1902 was **0.94°C higher** than temperatures at the end of the 18th century.

**1903**
The UK temperature has **warmed** by some **1.43°C** since the end of the 18th century.

**1921**
This year ranks as joint **second highest** UK temperature in the history of the CET record with a temperature of **10.47**, The **warming trend** now stands at an **unsustainable 0.76** deg. C per decade over the last four decades.

**1949**
An **exceptionally hot** year and the **warmest on record** at **10.62 deg** C. giving a **significant warming** of **0.71 deg C per decade** over the last 3 decades.

**1986**
**Since 1949** average UK CET has **declined** by **1.88** deg C

4. **The Present Day:** what is really happening right now?

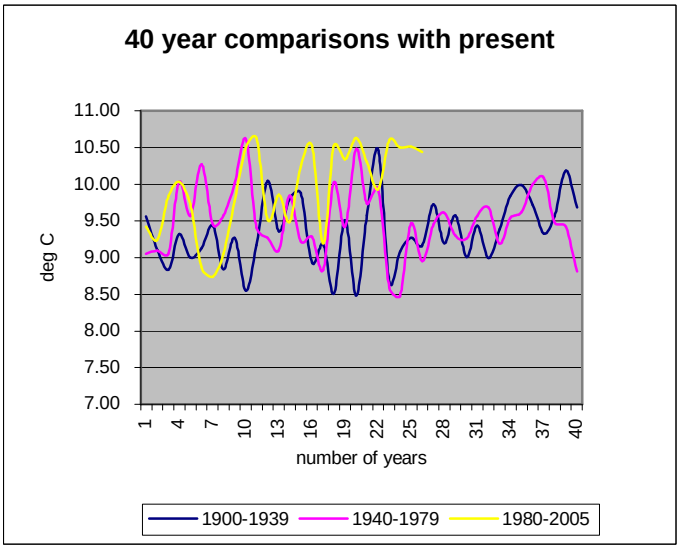
**2005**

UK CET has **decreased** by **0.19** deg C from the high point of **10.63** in **1990**. Although temperatures have fluctuated there has been **no increase above 1990** levels in the last 15 years.

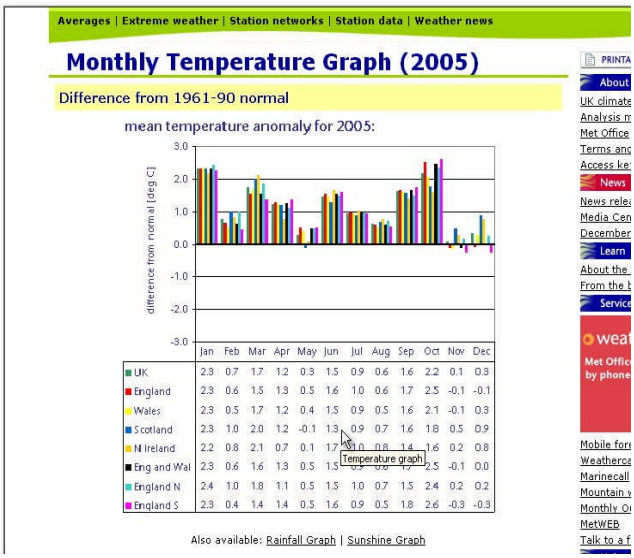
This is not the way it is looked at by the Met office:
"One thing is clear; this year will go down as **another very warm one**, both for the UK and for the whole planet".

Every year is the warmest yet, or hottest on record, depending on which record is used, but this is guaranteed as long as they are using anomalies compared to 1961-1990. A comparison of 40 year periods from 1900 shows just how low temperatures dropped in previous years and shows how anomalies compared to 1961-90 will always give dramatic results.

Hot and cold – where to next?

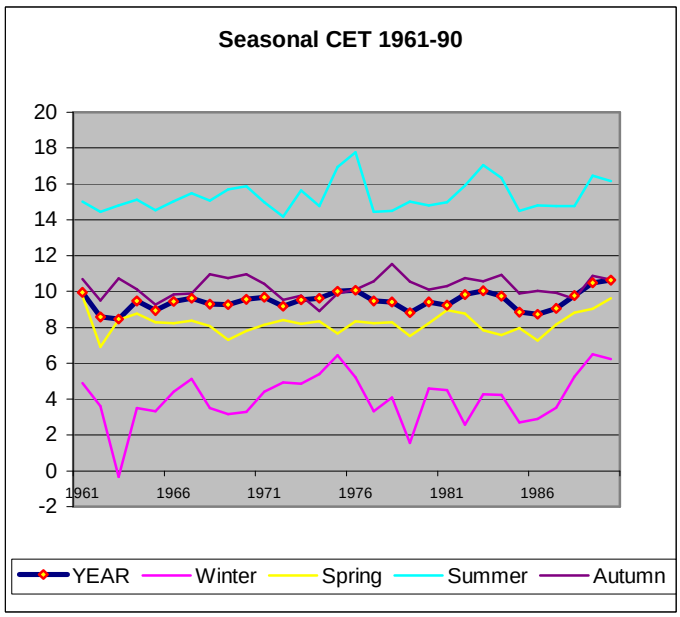



Hot, hot, hot! – Met Office

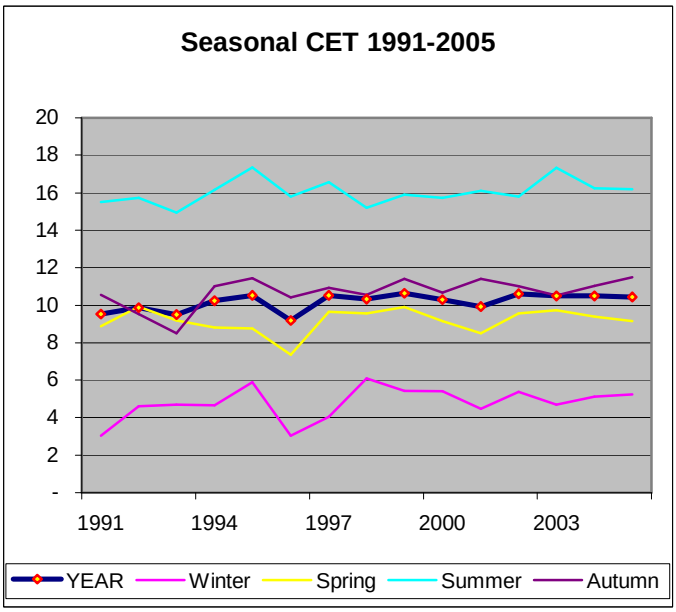



Hadley Centre does not quote seasonal temperatures from the Central England Temperature monthly series, so I have compiled my own summaries, using the convention of the Met. Office, in their England and Wales series, namely- Seasons: Winter=Dec-Feb, Spring=Mar-May, Summer=June-Aug, Autumn=Sept-Nov. http://www.metoffice.gov.uk/climate/uk/seriesstatistics/ewtemp.txt.

Normal?




Out of Control?

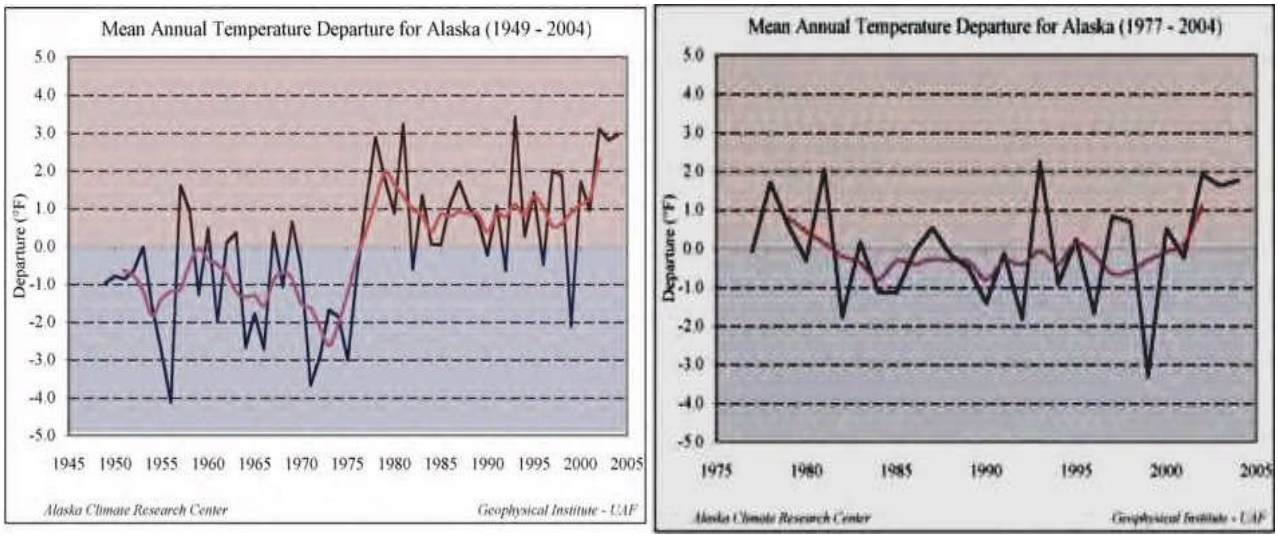



http://www.metoffice.gov.uk/research/hadleycentre/CR_data/Daily/HadCET_act.txt

Sustained recovery from the 61-90 period began in 1987, and 1988 was when Global Warming took off. Since then the spectre of melting Polar Ice Caps has dominated the headlines. However, the Alaska Climate Research website shows that there is a noticeable phase change in the temperature record due to climatic systems, http://climate.gi.alaska.edu/ClimTrends/Change/4904Change.html

"The period 1949 to 1975 was substantially colder than the period from 1977 to 2004, however since 1977, *little additional warming has occurred in Alaska* with the exception of Barrow and a few other locations. In 1976, a stepwise shift appears in the temperature data, which corresponds to a phase shift of the Pacific Decadal Oscillation from a negative phase to a positive phase."

"The last two complete phases of the PDO were 1947-1976 (–ve PDO) and 1977-1996 (+ve PDO). Temperatures are cooler than normal during –ve PDO and warmer than normal during +ve PDO. These anomalies are not for the most part large, but considering they are for periods of 30 and 20 years respectively, they are significant". Papineau, http://pafc.arh.noaa.gov/climvar/climate-paper.html.




(charts from http://climate.gi.alaska.edu/ClimTrends/Change/4904Change.html)

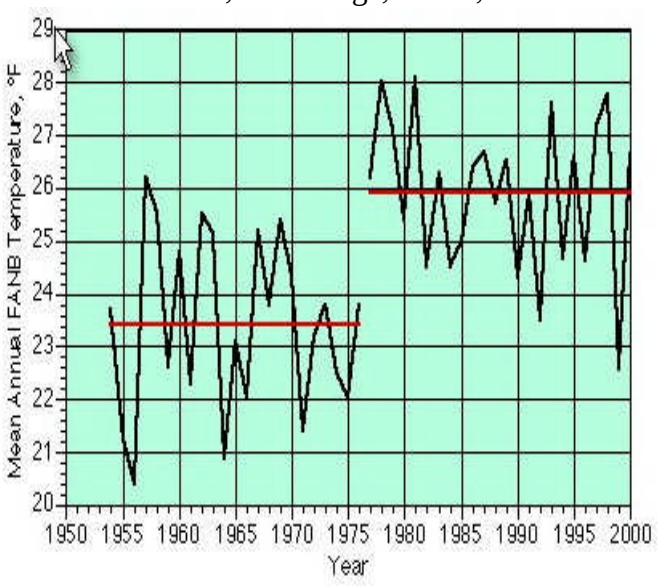
Bowling took this a step further in the chart, Fairbanks, Anchorage, Nome, Barrow, (FANB). (Sue Ann Bowling Ph.D. Assistant Professor of Physics (retired) http://climate.gi.alaska.edu/Bowling/.)

For comparison purposes, I have used a similar style for my chart of CET from 1965-2005, (a similar period length), in which we see a phase shift in 1988.

Simply removing the single temperature value for 1988 to break the continuity, shows quite clearly that there are no advancing temperatures in the early phase, despite linear increases in atmospheric CO2.

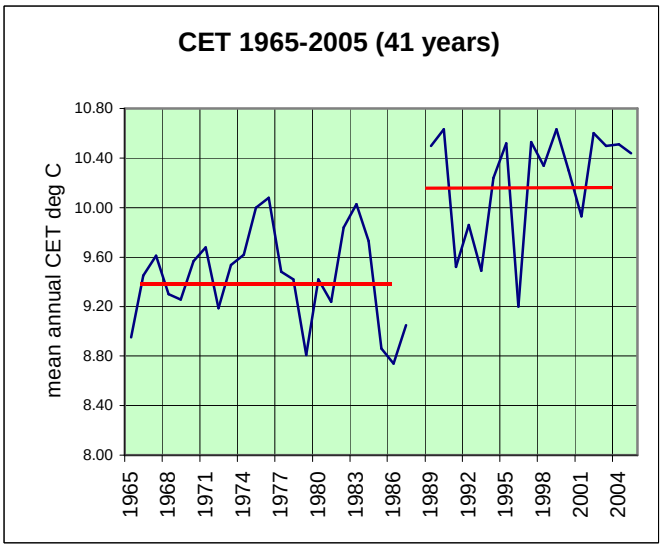
In fact the long-term trend was downwards but since 1989, temperature has fluctuated, although we are now seeing the emergence of much colder weather.

FairBanks, Anchorage, Nome, Barrow



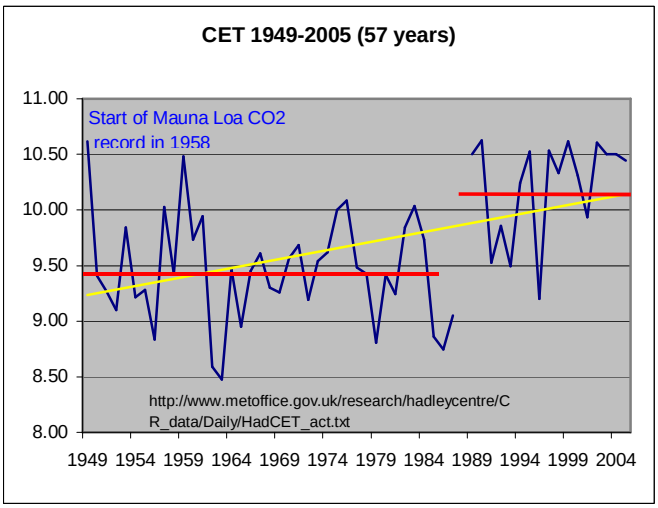

http://climate.gi.alaska.edu/Bowling/FANB.html

Central England Temperature

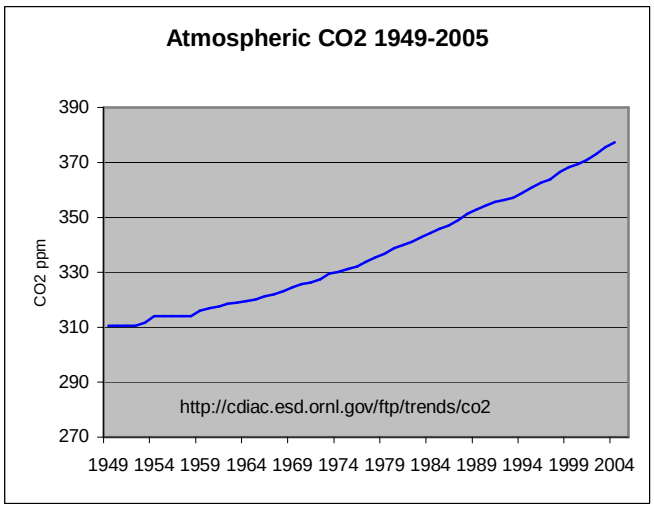



http://www.metoffice.gov.uk/research/hadleycentre/CR_data/Daily/HadCET_act.txt

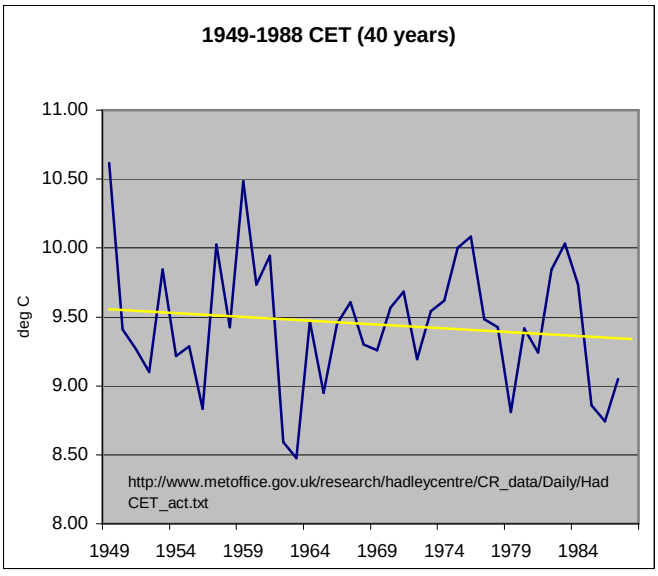
The long-term linear trend in CET 1949-2005 below, (yellow line), shows a dramatic rise and such trend lines help the reinforcement of global warming. Except of course when they show a decrease over 40 years as in the chart CET 1949-88. This was the period of post-war industrialisation with ever-increasing CO2 emissions, but temperatures showed a particular reluctance to co-operate.

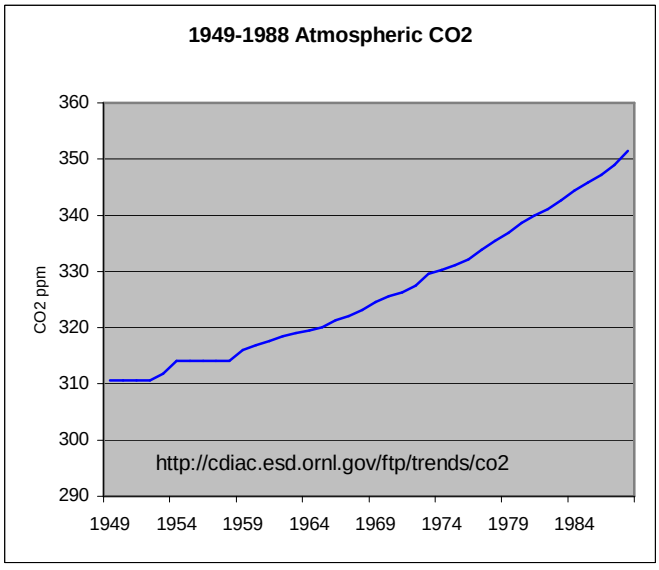



The red lines are averages for 1949-88 & 1989-2005




Pre 1958 data from CDIAC Law Dome, post 58 from CDIAC Mauna Loa



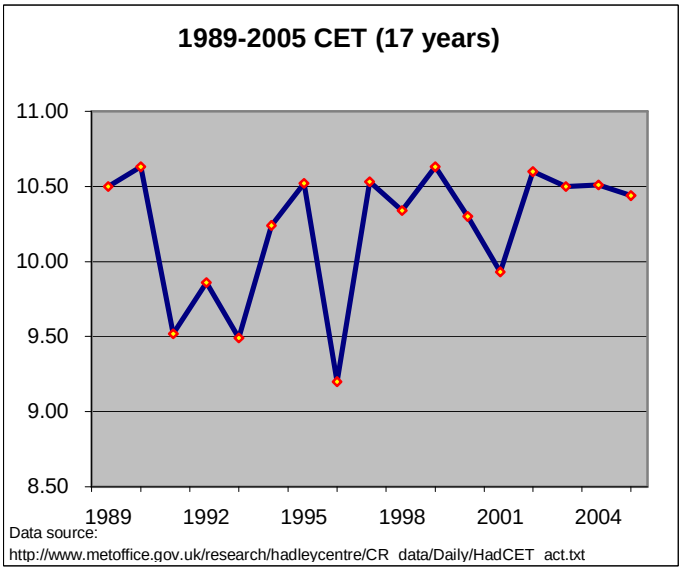



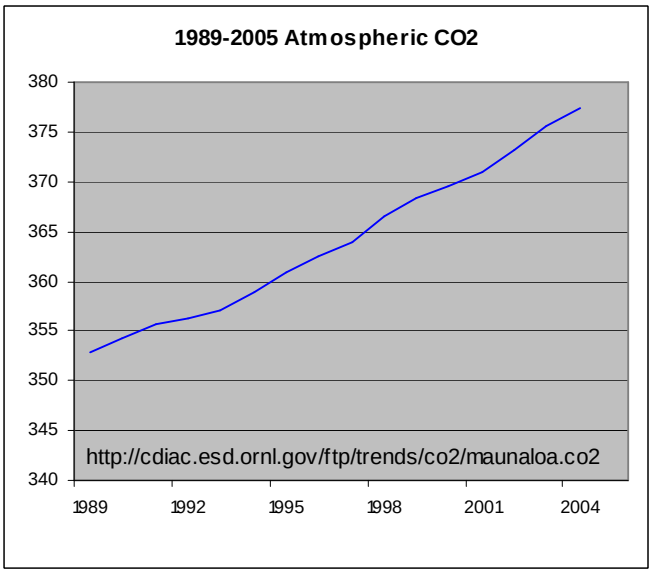
Pre 1958 data from CDIAC Law Dome, post 58 from CDIAC Mauna Loa.

Interestingly, the following comments from Professor Mike Hulme at the *ECLAT-2 Workshop, Helsinki, 14-16 April 1999*, seem quite appropriate to the Bowling approach. http://www.cru.uea.ac.uk/eclat/

*"The climate system, as a **complex non-linear dynamic system**, is also indeterminate (Shukla, 1998) and even with perfect models and unlimited computing power, for a given forcing scenario a range of future climates will always be simulated."*

As an interested observer I merely ask the question, if CO2 is unremittingly driving temperature upwards, why isn't it happening in the UK. Temperature has not risen above 1990 levels in the last 15 years and is currently declining. Hadley have forecast 2006 to be cooler than 2005 and early signs suggest they could be backing a winner. In another 15 years time anomalies will be negative when compared to the current period of measurement and we will be back to global cooling. By then of course it will be firmly established in the public psyche that it is the result of anthropogenic global warming and the circle will have been squared.




Dennis Ambler, February 2006