

**Warwick Hughes,
1 / 33 Madden Avenue,
Carnegie,
Vic 3163
Phone 9571 1686**

30th, August, 2000

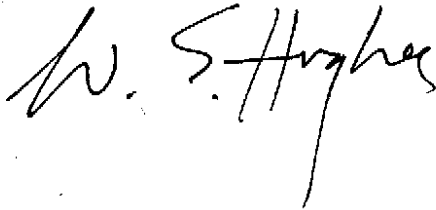
**The Secretary,
Joint Standing Committee on Treaties,
Australian Parliament House,
Canberra.**

Dear Secretary,

Please find attached submission to your Committee, where I argue against any ratification or further Australian involvement at this time in the Kyoto process.

Let me know if you have any questions or if there is any further information I can help you with.

Yours sincerely,

A handwritten signature in black ink that reads "W. S. Hughes". The signature is written in a cursive style with a long, sweeping tail on the letter "h".

wsh@unite.com.au

Submission to Joint Parliamentary Committee on Treaties

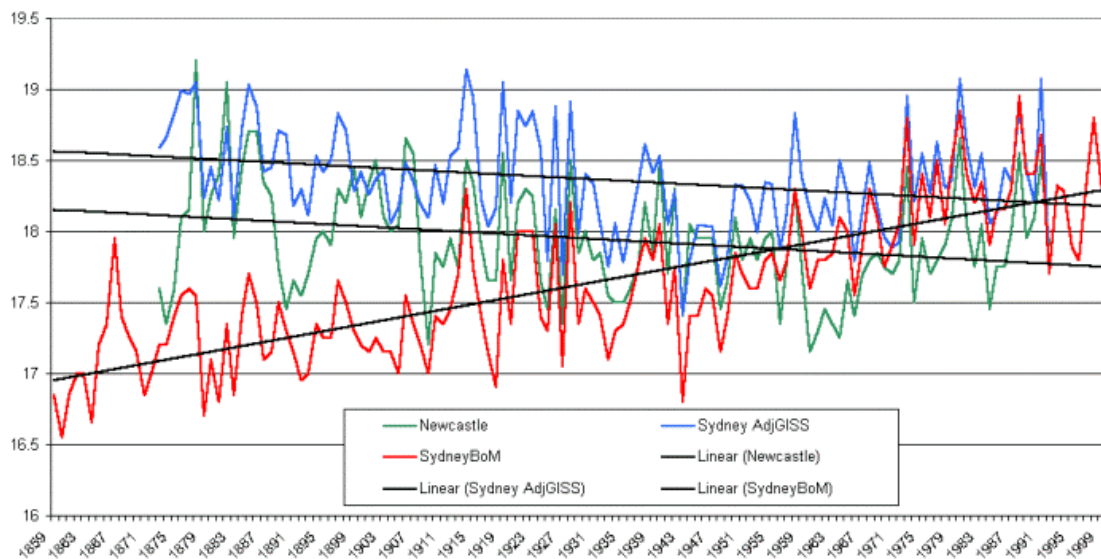
By Warwick Hughes

Since 1991 I have been researching Australian and global land temperature records, investigating for trends compatible with IPCC, Houghton 1990, 1995, claimed global warming from the impact of greenhouse gases on thermal properties of the earth's atmosphere.

What I have found is that while planetary temperatures have certainly rebounded from Little Ice Age conditions of a few hundred years ago Hughes 2000, De Bilt page, there is little evidence of significant warming from rural sites globally over the last 120 years or so. John Daly's web site, Daly 2000 features many examples from around the globe of rural stations showing little trend. An example from closer to home is that many Australian long term records extending back to say 1870 often show little trend and these would be among the oldest rural and small town records in this hemisphere. As an example of this, Figure 1 shows the regular Sydney temperature record reflecting a century of urbanization compared to the more rural Newcastle Signal Station. Note that some urban warming is probably present in Newcastle post WWII. Also shown in Figure 1 is Sydney adjusted for urban warming by Dr Jim Hansen of NASA's Goddard Institute of Space Studies (GISS 2000), which shows a close agreement with Newcastle considering the GISS team is in New York.

Fig 1

Sydney warming at 1.3 degrees while Newcastle Signal Station and Sydney NASA adjusted, cool slightly over a century.



There are certainly serious warming trends to be found in much global warming data because most recording stations are in cities of varying sizes and urban data is generally contaminated by the Urban Heat island (UHI) effect, see Sydney in Figure 1 and many examples in Hughes 2000. Yes, Sydney is used to compile "global warming". The UHI is due mainly to man made structures absorbing more

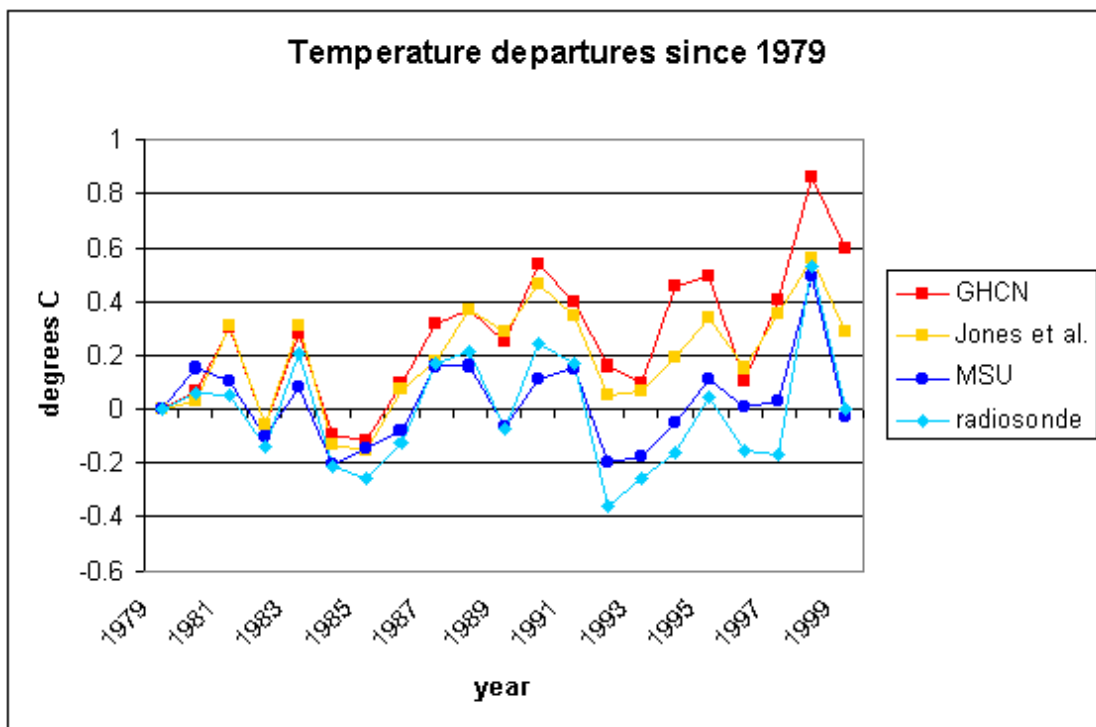
solar radiation than natural landscapes & vegetation and the absorbed heat can be radiated at night, leading to most built up areas on calm nights being up to 5 to 10 degrees warmer than surrounding countryside.

Your members may think this is all so obvious that the climatologists such as Jones et al 1986, 1991, 1994, who compiled the "global warming" trend would have allowed in some way for the UHI. The facts are that in the relevant published papers they certainly claim that "few cities" are included, or that corrections have been made and any residual UHI warming is thought to be less than 0.05 degrees per century. However when the databases are examined closely these claims of minimal UHI residuals are found to be false. It must be remembered here that in the mid 1980's when these global compilations were published, few researchers had access to the computing facilities needed to process those data. With the increase in PC power, software improvements and data availability via the internet, anybody with scientific training and the interest could investigate global temperature data. Now however, the policy cart has broken free of the science horse and the IPCC together with public & media attention is on what actions to take about greenhouse, not questioning whether or not it is happening and if the science is sound.

Satellite Temperature Trends

In the early 1990's NASA started publishing temperature data from several layers in the atmosphere collected from microwave sounding units (MSU) in satellites. The series commence in 1978 and the NASA research team demonstrated in several published papers that there was a high correlation between their lower troposphere data and surface data below on a monthly basis. A major advantage of the satellites is that they sample a layer higher than urban effects and that every month thousands of readings are distributed evenly around the earth, over land and sea.

Figure 2



Satellite data trends are supported by those from weather balloons (radio sondes), available since about 1958 but the balloon network is obviously more limited in geographic scope than that taken from space.

Satellite and balloon data have never shown the warming trends so well known in the global compilations promulgated by the IPCC. At first the IPCC approach to the satellite data was to dismiss it saying it was too short term, then later in the 1990's the scientific basis of the data and processing came under attack by IPCC funded scientists. However, with the NASA team now having withstood all the attacks, the divergence between surface and satellite data is becoming a big issue in climatology. NASA has recently commenced a public information web site titled "Contrary Thermometers" to explain and address the issue, see NASA 2000. No climatologists are proposing that there can be serious divergence between surface (see Peterson et al 1997 & Jones et al 1986, 91, 94) and lower troposphere temperatures except in local circumstances, say under inversions.

In other words both data sets can not be correct !

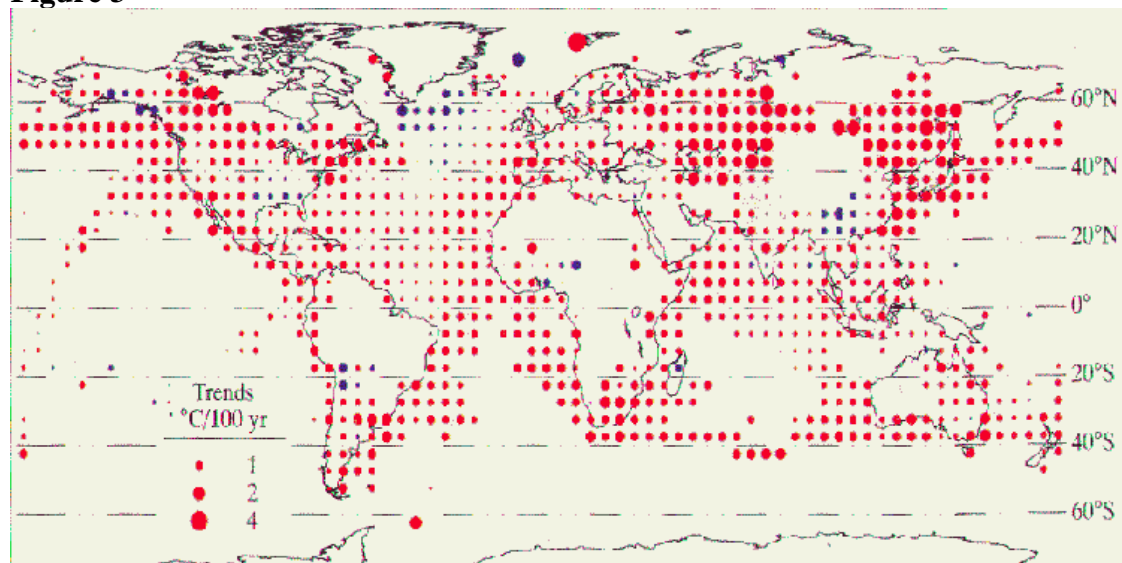
This is an absolutely critical issue for the IPCC because the entire greenhouse paradigm is about Global Warming. To the extent that the much publicised IPCC warming of ~0.6 degrees per century is due to UHI warming and errant data, then governments should require that the issues be clarified before signing on to a regime of mandatory emission controls.

Hughes 2000 illustrates many cases where urban warming and errant records contaminate the surface data, station by station and case by case. Committee members can ask about any cases on my web site.

Distribution of IPCC Claimed Global Warming

The map below, from a 1998 IPCC book, plots 1901 to 1996 temperature anomalies for 5 degree grid points and clearly indicates that high magnitude warming of ~2 degrees per century is restricted to a couple of dozen grid box areas. Prominent among these are a dozen or more in the area of the old USSR.

Figure 3

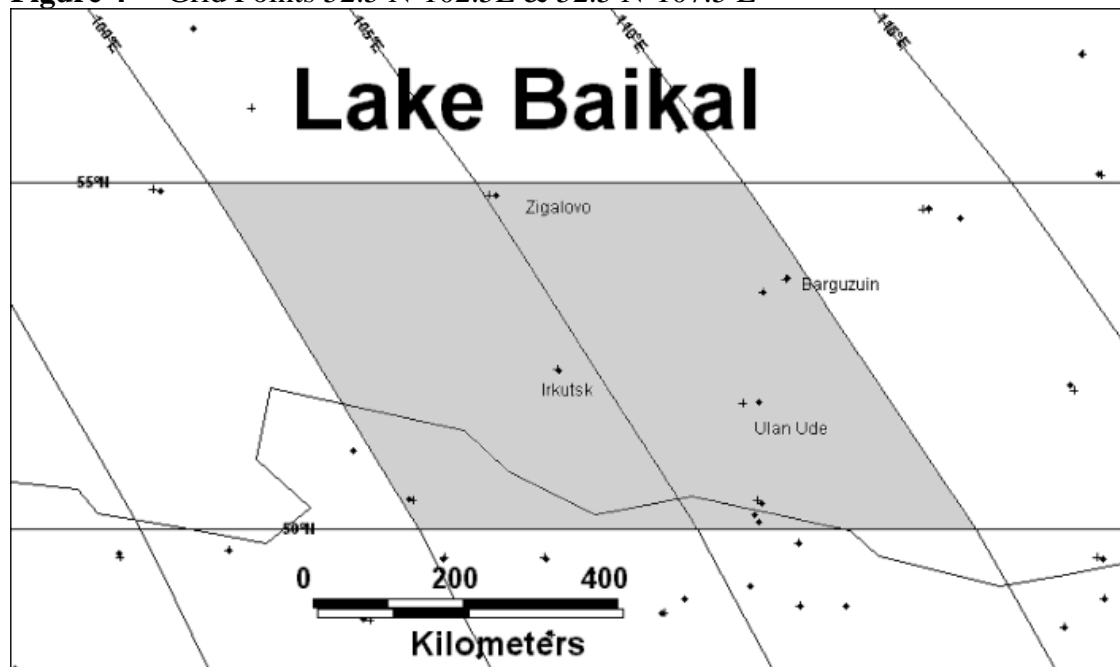


Given the limited time available, examples of spurious high magnitude warming from two grid boxes in the Lake Baikal area of the ex USSR are shown below. These Lake Baikal grid points shown in detail below in Figure 4, are just above and on right of the blank area that represents Mongolia in Figure 3.

USSR Data Lake Baikal Region.

Two adjoining grid boxes warming at ~ 2 degrees contain the cities of Irkutsk and Ulan Ude, populations 550,000 and 300,000 respectively, see Fig 4. This review compares the two cities with the small town of Zigalovo (pop 10,000) and the rural Barguzuin.

Figure 4 Grid Points 52.5 N-102.5E & 52.5 N-107.5 E

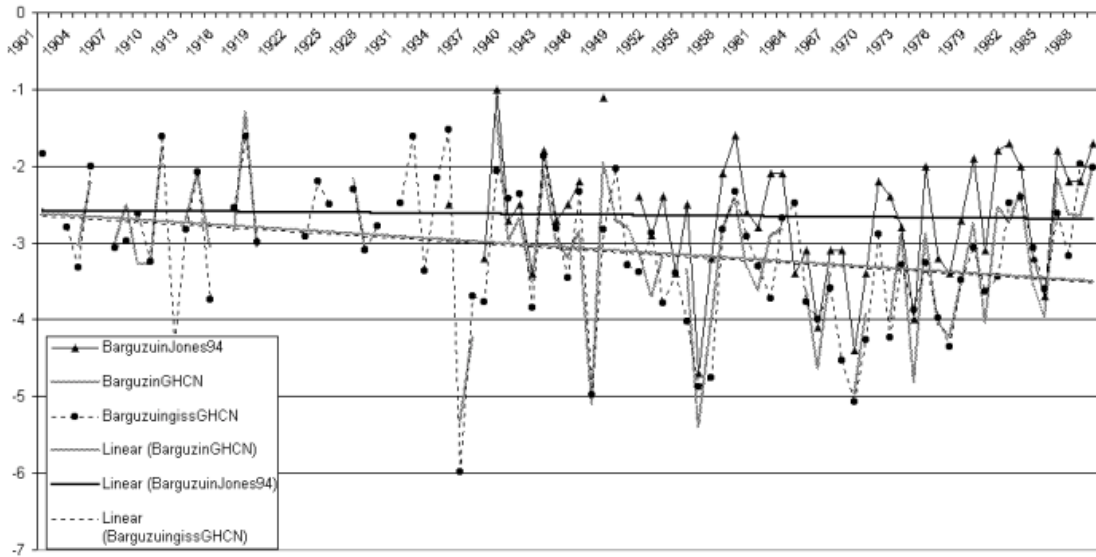


Barguzuin also has a sister station just to the east with a shorter record. Another station with GHCN adjusted data is Kjahta SSW of Ulan Ude which has insufficient data to be of much use.

Zigalovo and Barguzuin make a sufficiently homogenous group with which to compare the two cities and data are available from the Jones 1994, GHCN and GISS. Figure 5 compares records from Barguzuin and while the Jones 1994 trend is neutral, both GHCN and GISS opt for cooling of about 1 degree over the 90 years.

Figure 5

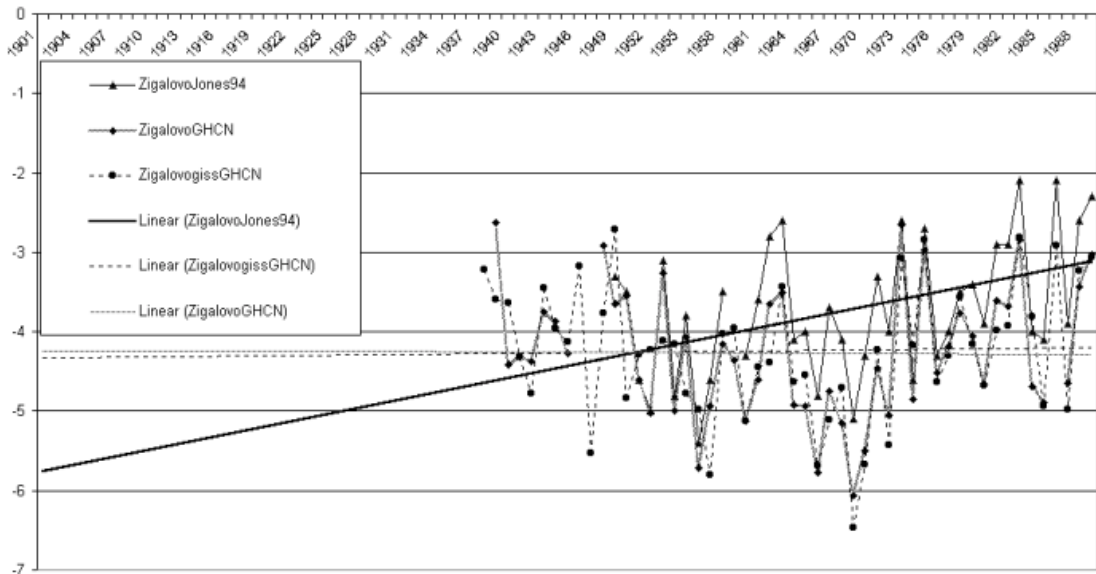
**Barguzin, rural site, with 90 years of records, comparison of Jones 1994 with
GHCN and GISS data.**



Turning now to Zigalovo in Figure 6, both GHCN and GISS find no trend over the 50 years but Jones 1994 uses only 40 years of data which has a warming trend of ~1.3 degrees over that time. This is not the first time in these reviews that Jones 1994 data is truncated relative to GHCN and GISS with an increased warming trend as the result. Clearly Zigalovo would show the cooling trend seen in Barguzin Fig 5, if longer term data were available.

Figure 6

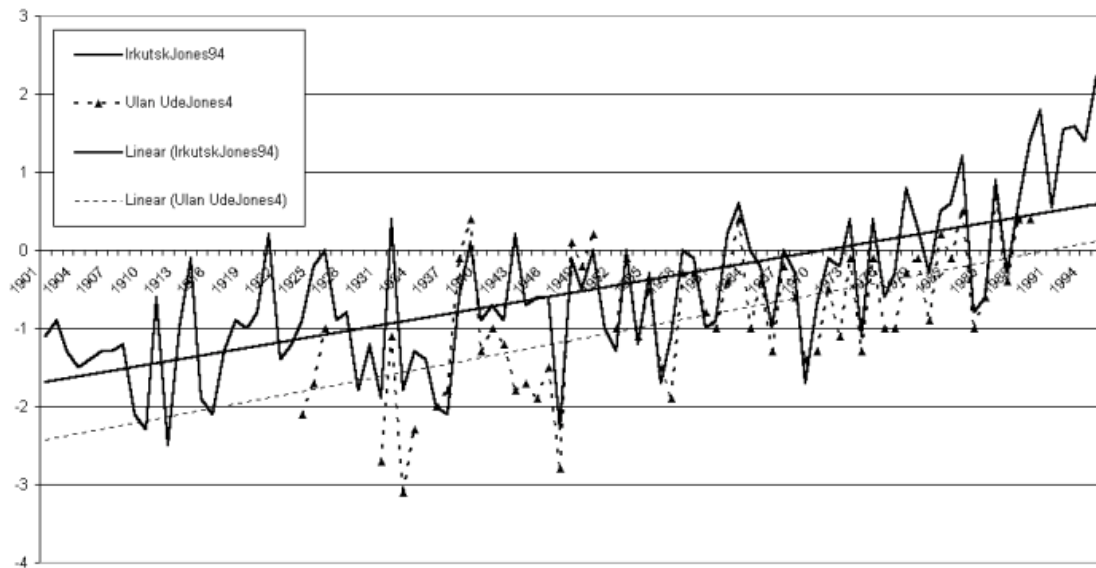
Zigalovo, population 10,000, trends compared from Jones 1994, GHCN and GISS.



The two cities are shown in Figure 13, both from Jones 1994 and we can at once see where comes the warming in these grid boxes.

Figure 7

Cities of Irkutsk and Ulan Ude warming at 2.5 degrees for the 1901 to 1996 period



The writer can only state that with all that is known about the effect of urban heat islands on temperature trends, the continued use of data such as is shown in Fig 7 to generate large area trends has to be scientifically indefensible. Yet the power of the IPCC is such that these biased data continue to be promulgated to policymakers, the media and the public by the IPCC.

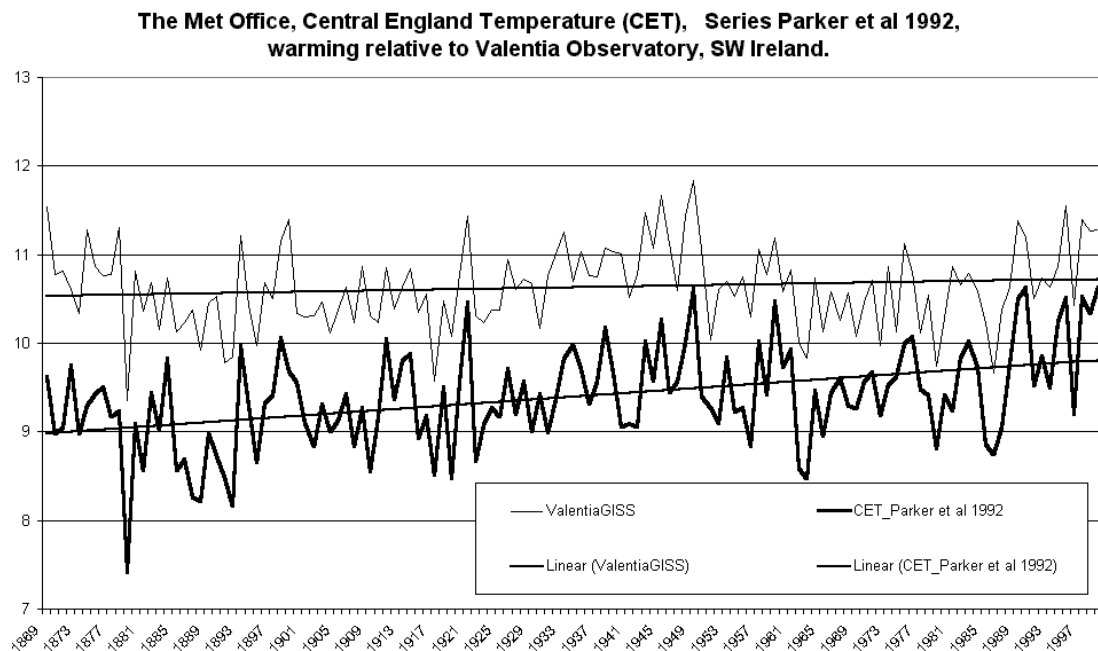
This Lake Baikal study is another case of the rural stations telling a very different and cooler story than the cities and also the Jones 1994 data reporting warmer trends than the GHCN and GISS, usually because of data truncation, see Figures 5 & 6.

Central England Temperature Series

Also demonstrated is urbanization contamination on a scale with "global warming" in the Central England Temperature (CET) series, a composite temperature record developed by The Met Office from several temperature data sets in the London to Manchester region. The CET extends from 1659 to the present, the longest instrument record in the world and is quoted by The Met Office as an "Index" of climate change.

However, long term rural data is scarce in the UK and the CET in recent decades includes data from growing UHI affected sites such as Manchester airport. It has to be a concern that a prestige organization such as The Met Office, with strong IPCC links, has promulgated these faulty data for nearly a decade as representative of Central England Temperature trends as free from urban warming as possible. The comparison below with Valentia Observatory on the SW tip of Ireland clearly demonstrates non climatic warming in the CET of the magnitude of global warming. Clearly there would be additional urban effects in the CET prior to the start of the Valentia data in 1869.

Figure 8



Clearly the CET is measuring some sort of average modest UHI growth from a variety of smaller towns. Remembering the close links between The Met Office and the IPCC, policymakers should look at Figure 8 and ask, "...how is it that experienced Met Office people do not see this warming in their own CET".

While discussing urbanization in UK temperature data, note the use of the rapidly warming Gatwick Airport as presented in Hughes 2000.

Late Addition NASA has just started a website titled "Culprits of Climate Change", ref below, which explains Dr Jim Hansen's change of direction.

Conclusions At a time when NASA seems to be re-thinking attitudes to critical climate change issues every month, there are too many uncertainties and examples of plain bad science in the IPCC case trying to justify international action to reduce carbon emissions.

Australia, with its important coal industry can not risk economic dislocation on such unsatisfactory evidence.

References

Daly, J.D. 2000 www.vision.net.au/~daly "Still Waiting for Greenhouse"

Goddard Institute for Space Studies (GISS), (2000) Surface Temperature: Station Data. http://www.giss.nasa.gov/data/update/gistemp/station_data

Houghton JT, Jenkins JG, Ephraums JJ (1990) Climate change, the IPCC scientific assessment. Cambridge University Press.

Cambridge

Houghton JT., Meira Filho LG, Callander BA, Harris N, A. Kattenberg A, Maskell K , (1996), Climate Change 1995 : The science of climate change, Cambridge University Press. Cambridge.

Hughes, W.S.. 2000, www.ozemail.com.au/~hughesw7 Reviews of IPCC & global warming science.

Jones PD , Raper SCB, Bradley RS, Diaz HF, Kelly PM, Wigley TML. (1986) Northern Hemisphere surface air temperature variations 1851-1984. J. Clim Appl Met. 25:161-179

Jones PD , Raper SCB, Cherry BSG, Goodess CM, Wigley TML, Santer B, Kelly PM, Bradley RS, Diaz HF, . (1991) An Updated Global Grid Point Surface Air Temperature Anomaly Data Set: 1851-1990. Carbon Dioxide Research Program, Environmental Sciences Division, US Department of Energy.

Jones PD, (1994) Hemispheric surface air temperature variations: a reanalysis and an update to 1993. J Clim 7:1794-1802

NASA. 2000, "Contrary Thermometers"
http://spacescience.com/headlines/y2000/ast21jul_1m.htm?list

NASA 2000 "Culprits of Climate Change"
http://science.nasa.gov/headlines/y2000/ast29aug_1.htm?list

Peterson TC, Vose RS (1997) An overview of the Global Historical Climatology Network temperature database. Bull Amer Met Society 78: 2837-2849

Warwick S. Hughes, 30, August, 2000