

The Independent Climate Change Email Review 2010

A submission from an independent Australian Scientist

by: Geoffrey H Sherrington

For Sir Muir Russell, KCB FRSE.

OPENING QUOTATION: Theme and Variations.

"[We] have to offer up scary scenarios, make simplified dramatic statements and make little mention of any doubts we may have. Each of us has to decide what the right balance is between being effective and being honest." - Dr. Stephen Schneider. Quoted by Dixy Lee Ray in "Trashing the Planet" (1990).

PREAMBLE:

This submission covers the time span from 1991 to 2010.

It deals with this term of reference paragraph:

1.1 Examine the hacked e-mail exchanges, other relevant e-mail exchanges and any other information held at CRU to determine whether there is any evidence of the manipulation or suppression of data which is at odds with acceptable scientific practice and may therefore call into question any of the research outcomes.

It shows some long-term research outcomes that are extremely detrimental to the discipline of Science.

In summary, a biased selection of temperature data from larger sets by Professor P D Jones ("PDJ") was a part of the birth of Global Warming and the consequent global alarmism it created.

The biased selection procedure is known as "cherry picking".

DECLARATION OF INTEREST:

My only motivation is the conduct and promotion of good science. This necessarily involves identification of bad science. I have no contract or causal association with any Party that could influence me, or me them, beyond normal media and blogging processes.

STANDING.

In 1991 I was a senior earth scientist, chemistry major, part of the management team for some 40 graduates whose professional success was world class as measured by results. As well, I managed government relations for the parent company of about 4,000 employees, reporting to the CEO.

About monthly, representing my employer, I would attend meetings of the Tasman Institute, a private think tank in Melbourne, Australia. There, I would contribute to identification and funding of scientific projects of collective merit.

Late in 1991, Mr. Warwick Hughes (“WSH”), a geologist, attended a meeting at Tasman and gave a paper showing that there were estimates of global temperature being made at University of East Anglia, UK. My immediate interest was with the operational consequences of ambient temperature changes on work in remote places.

Besides, climate scientists use aspects of Science also used in earth sciences such as my employer used. There was overlap of topics such as statistics, tree growth, extreme weather for ship safety, geodesy, cartography, navigation, etc. It was natural for one with my background to continue interest in climate science.

The demonization of Global Warming for the health of the world was in its infancy. There was confidence that adaptation was easily possible.

This year 1991 was my first exposure to the cherry picking of PDJ, which is henceforth taken as a “given” because of the overwhelming number of examples then and now. Some of the examples have been hard to authenticate, because PDJ refused to release raw data. This was particularly galling, because in most instances PDJ acquired the data from other countries, whose citizens had contributed to its cost.

Since 1991 I have retired but I follow the subject closely in a scientific audit function, which was my main function in my last years of permanent employment. I have also been involved in corporate governance development and policy; in taking action to bring a Minister of the Federal Government before the Full bench of the High Court of Australia on an environmental matter; in data analysis of climate measurements; in making submissions to Inquiries; and in corresponding with mathematicians and other scientists about related topics.

SOME EARLY PDJ PAPERS: SETTING THE BASIS OF THE PROBLEM.

Here, I discuss one paper to provide examples. It dealt with Urban Heat Island effects in East Australia, China and parts of Russia.

Reference: Jones, P.D., Groisman, P.Ya., Coughlan, M., Plummer, N., Wang, W-C. and Karl, T.R., 1990 “*Assessment of urbanization effects in time series of surface air temperature over land.*” Nature 347, 169-172.

In later years, such early CRU work has been found to be troublesome.

Some of the confusion about the **Australian** part is described below as a main part of this submission.

Controversy has arisen about the **Chinese** part, with direct allegations of data fabrication, for example at <http://climateaudit.org/2007/06/18/did-jones-et-al-1990-fabricate-its-quality-control-claims/>

The **Russian** part has been questioned also, e.g. in the Newspaper “*Kommersant*” of 16th December 2009. <http://en.rian.ru/papers/20091216/157260660.html>

“Climategate has already affected Russia. On Tuesday, the Moscow-based Institute of Economic Analysis (IEA) issued a report claiming that the Hadley Center for Climate Change based at the headquarters of the British Meteorological Office in Exeter (Devon, England) had probably tampered with Russian-climate data. The IEA believes that Russian meteorological-station data did not substantiate the anthropogenic global-warming theory. These examples from each country align with the present Terms of Reference, notably being “..... at odds with acceptable scientific practice and may therefore call into question any of the research outcomes.”

There is no contained inference that these are the only relevant examples in this submission.

In the fullness of time and disclosure, they might be found to have explanations. At present, it is not possible to judge. In part, this is because the first public release of CRU temperature data was made partially by the UK Meteorological Office at Hadley on or about 8th December 2009 with more on 4th February 2010.

<http://www.metoffice.gov.uk/climatechange/news/latest/data.html>

There has been inadequate time for detailed CRU/Hadley data study. Also, these data are named “value added” by Hadley, because they have been adjusted from raw values. The raw values appear still to be unobtainable; but earlier graphical data and selected tables have ample evidence of selective data use.

MR WARWICK HUGHES' BLOG AND THE TASMAN INSTITUTE.

There is a reconstructed time line of events and publications on the Web page of WSH at <http://www.warwickhughes.com/blog/?paged=3>

This is under the section named Some rare balance on the taxpayer funded ABC for a change dated 11th December 2009. Shortened parts from the WSH web page are reproduced below - the abbreviation "BOM" is the Australian Bureau of Meteorology based in Melbourne:

- *1986 – Jones et al papers compiling hemispheric temperature trends, truly the birth of IPCC global warming. Note each journal paper was backed by the non peer reviewed "phone book" sized TR022 and TR027 station documentation and description of project methodology books published by the US Dept of Energy (now out of print).*
- *1988 – Dr Fred Wood published in the Elsevier journal his critique of Jones et al 1986 – online with the Wigley & Jones team reply.*
- *1990 – The Australian BoM assembled their paper "Trends in Australian Temperature Records". This paper found evidence of UHI bias in Australian city temperature records yet the BoM failed to Comment on Jones et al 1986 in the journals.*
- *1991 – I started researching Australian temperature data at the Tasman Institute in Melbourne. By the end of 1991 I had three draft papers that were all circulated to the BoM and others for comments.*
 1. *"The Australian Record on "Global Warming" (TARGW), a 20 page review of the Australian component of Jones et al 1986.*
 2. *"The Introduction of the Stevenson Screen and the phasing out of Open Thermometer Stands", in Australian Meteorology, published in the International Journal of Climatology in 1995.*
 3. *"Heat Islands in Country Towns – South Eastern Australia". WSH has the text but graphics have not survived – it would be a big job to reconstruct.*
 4. *1992 – The Balling, Idso and Hughes paper, "Long-Term and Recent Anomalous Temperature Changes in Australia" published in Geophysical Research Letters. This was attacked by the BoM who ended up failing to get their Comment into GRL.*
- *1993-1995 The unpublished paper by Hughes and Balling, "Eastern Australia temperature variations 1930-1992" (available on request). Arguably, this is still the best attempt to compile a rural temperature trend for Eastern Australia. It highlighted warming bias in the Australian component of the key IPCC paper – Jones PD, Groisman PY, Coughlan M, Plummer N, Wang WC, Karl TR (1990) Assessment of urbanization effects in time series of surface air temperatures over land. Nature 347:169-172.*

- 1996 – Warwick S. Hughes and Robert C. Balling, Jr. “Urban Influences on South African Temperature Trends.” *International Journal of Climatology*, Vol. 16, No. 8, pp. 935-940. (End of quote of material from WSH).

The initial Tasman-WSH meeting in 1991 discussed graphs prepared by the UEA and published by PDJ, sometimes with others, some shown below.

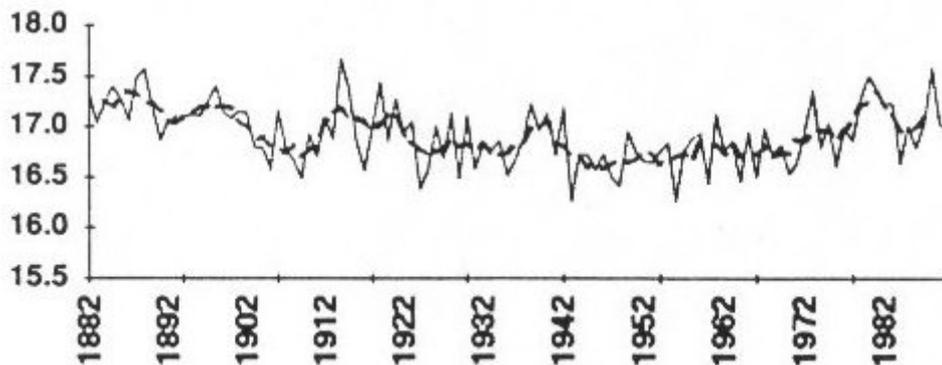
Generally, whereas cities with large populations showed increases in annual average temperatures, while small rural towns showed a decrease or a small increase. Noise was a factor obscuring the true interpretation, but it could not be quantified because PDJ refused to supply raw data.

The following is from the WSH submission to Tasman Institute, 1991:

“The following graphs compare the average temperature trend for the 25 regional and remote Australian stations, for which data was available over the years since 1882, with the average temperatures for the six Australian capital cities. The East Anglia study used five Australian capital cities out of its 13 long term stations.

GRAPH 1

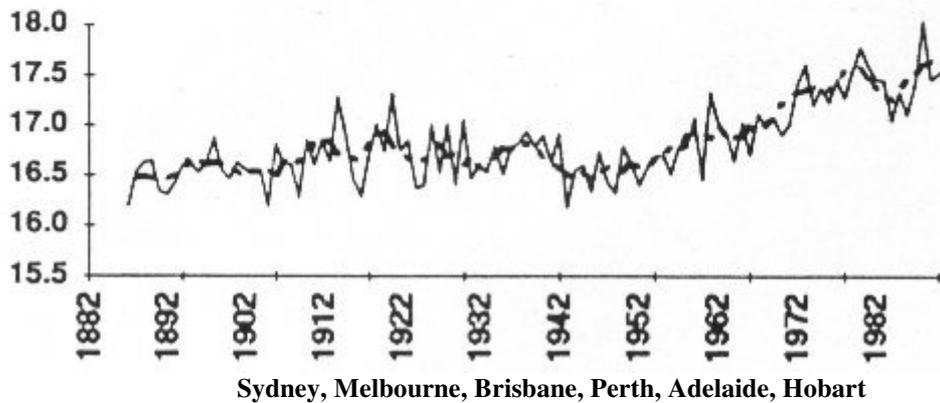
Average of 25 Regional and Remote Stations.



Geraldton, Narrabri, Hay, Albany, Rottneest Island Lighthouse, Walgett, Deniliquin, Bourke, Cape Naturaliste Lighthouse, Coonabarabran, Echuca, Cooma, Darwin, Moruya Heads Pilot Station, Omeo, Dubbo, Alice Springs, Gabo Island Lighthouse, Bathurst, Strathalbyn, Mt. Gambier, Yamba, Wilsons Promontory Lighthouse, Newcastle Signal Station, Cape Otway Lighthouse.

GRAPH 2

Average Temperatures for the 6 Capital Cities.



The East Anglia study contains other data with the potential to cause bias, notably truncation of data in many stations, so that they covered only the most recent 30 years. During those 30 years, some warming undoubtedly occurred following a general cooling period up to the 1940's, a phenomenon which can be observed in Graph 1 above."

(End of WSH quote).

One can infer from these early graphs that the capital cities could be showing an Urban Heat Island Effect ("UHI"). In selecting a network of stations for derivation of a spatial composite temperature, the effect of the UHI will of course vary according to the choice of data.

SOME EMAILS BEFORE THE CRU PUBLIC DISCLOSURE.

A sequence of emails between Geoffrey H Sherrington (blue), the BOM (brown), PDJ (red), WSH (green), years 2006-7, is now reproduced, again shortened for relevance. The full emails are, of course, available on request.

AUS 24/03/2006 23:31
Geoff Sherrington to Phil Jones

I was working on early Australian temperature records going back to the 1880s when the first global (UHI) models were being constructed. There were over 100 weather stations available, but in the first model(s) only about 10 were used from Australia, most in large cities.

Today, there is a most unscientific trend to ignore the raw data and to apply statistical algorithms to improve the data. This has the danger of generating artefacts and I have no doubt that it does. In particular, heat island effects continue to cause problems and the maths I have read for their correction are highly suspect.

From: Phil Jones
To: Geoff Sherrington
Sent: Monday, March 27, 2006 8:57 PM

We've not rejected any Australian stations. The ones we use from BoM though start around the 1900 period. All of those we had in the early 1980s we still use. We have adjusted some, but these adjustments cancel. The trend of Australian temperatures though has not changed in its overall character. In the mid-1980s the extra data (above the 40 or so) were not available to us.

BOM Blair Trewin to Sherrington April 2006

At last count there were 74 stations which have at least some digital temperature data (mostly monthly) available in 1890 (GHS comment – this must be a typo meaning 1980), plus a handful of stations which had opened and closed before then. The data from these stations should be publicly available (and I can't see any reason why any data that was available in the mid 1980's would not be now – in fact the reverse would be true). It is likely that a number of other stations (possibly about 100) took at least some pre-1890 temperatures, but most of these records were probably short and of doubtful quality.

I think Phil Jones may have digitised some monthly data himself for the 1986 data set – I know this is true for Alice Springs as we only digitised the 1879-1924 data from there in the last couple of years.”

Sherrington to PDJ 01:11 28/03/2006

Dear Phil, I continue to assert that there were well over 100 long-term surface weather site records from Australia available to the public in Australia because I have been in touch with a scientist who compiled some of it into a paper. The data frequently extend back to the 1880s.

In Jones et al 1986, I have quickly counted the actual Australian stations used and found 34 or so.

Two graphs derived from this 1985-1990 period follow. They show the potential for wrong results through selectivity and the potential for artefacts from population use of energy near weather stations (heat islands). Of the 25 stations in graph 1, only Darwin was in Jones et al 1986. That means that 24 plausible data sets were excluded.

CHANGEOVER FROM EMAILS TO WEB LOGS, 2006-2007.

By now, much correspondence moved from emails (many of which have attachments lost) to the Web log arena, including ClimateAudit.org

Posted by WSH May 11, 2007 at 11:46 AM

<http://climateaudit.org/2007/05/09/more-phil-jones-correspondence/>

There is no need for Phil Jones to find any Australian data, he can simply read his own 1986 TR027 book.

There you find Appendix A lists: Station History Information and Homogeneity Assessment Details. That list had about 85 Australian stations.

Then Appendix B lists: Stations used in the gridding algorithm. This list has about 40 Australian stations.

So clearly, in between Jones et al “Homogeneity Assessment” process and their “gridding” process Jones et al 1986 have omitted about 45 Australian stations / series. I think Phil Jones inadvertently misled Geoff Sherrington in that March 25 email last year. Warwick.

Posted by PDJ May 14, 2007 at 11:48 AM

<http://climateaudit.org/2007/05/09/more-phil-jones-correspondence/>

Warwick

Here is a quick reply, which you can send on to Climate Audit if you wish. I have just checked TR027 and a quick count indicated that we had 83 stations in that 1986 report. 44 were used. The reason the other 39 were not used has nothing to do with homogeneity. They were not used because they didn't have sufficient data for the base period we were then using (1951-80). Some had just some data for a few years in the 19th century, while some had data only for the 1950s or the 1960s (i.e. not enough years for the then 1951-80 base period).

Phil

EXTRACTS FROM SOME CRU DISCLOSED EMAILS.

1255095172.txt

According to the Web site for East Anglia's research unit, "Data storage availability in the 1980s meant that we were not able to keep the multiple sources for some sites, only the station series after adjustment for homogeneity issues. We, therefore, do not hold the original raw data but only the value-added (i.e. quality controlled and homogenized) data."

Combined with the preceding emails, this is evidence of suppression of data.

1255496484.txt

Kevin Trenberth wrote: The fact is that we can't account for the lack of warming at the moment and it is a travesty that we can't. The CERES data published in the August BAMS 09 supplement on 2008 shows there should be even more warming: but the data are surely wrong. Our observing system is inadequate.

Shortly after and strangely, the uncertainty lessened and firm impressions were reported in IPCC documents. This is at Odds with accepted scientific practice.

1168022320.txt

The full email discusses the origin of a graph. The graph is rather important, because it is either actually, or close to, one adopted with prominence by the IPCC. It shows the global temperature of the past 1,000 years or so. In the vicinity of this paragraph 6, there is discussion of modification of results, such as rotation of an existing graph. This is at odds with accepted scientific practice.

6. So who put to together? Do we blame Ray? Is it a whim of his excellent imagination? I know we will all likely agree with Ray that it is based on absolutely nothing. Tom Crowley thinks it might be based on Lamb and sent the final figure. Now all of those who are or were in CRU know, you should be very careful with Lamb diagrams! This one does not stand any scrutiny and there are several more recent papers by Tom Wigley, Astrid Ogilvie and Graham Farmer that have shown that this final diagram is irreproducible and it was much cooler in the 11-13th centuries. It is also England and summer only. The galling thing is, it does look like the IPCC Figure!!!!!! When Tom sent the figure, he added this text (see below). The figure looks like Figure 30 (I've not scanned this one), but will, from his 1982 (reprinted in 1985 and 1995) called Climate History and the Modern World. This figure has series for the year, JJA and DJF. Someone tell me it isn't based on a Lamb diagram, please.... Phil

DEDUCTIONS:

There are inescapable conclusions that:

- (a) PDJ cherry picked Australian temperature data for comparison of urban versus rural sites; and**
- (b) PDJ became confused about which sites he had used and how many, from time to time; and**
- (c) PDJ now expresses confusion about the origins of the data he used; and**
- (d) PDJ underestimated the UHI effect, thus leading to an impression of global warming; and**
- (e) PDJ was aware of data manipulation for the IPCC.**

It is able to be derived, on closer reading of the literature cited, that PDJ embarked on a program of deception and diversion, starting at least from interactions with him and WSH, me and others in or before 1991. In one message, early data are lost. In another, they are not.

It was essentially impossible to access the data that PDJ used in his important global temperatures. He simply refused to divulge the data. WSH was the recipient of the infamous PDJ quote *“We have 25 or so years invested in the work. Why should I make the data available to you, when your aim is to try and find something wrong with it. There is IPR to consider.”*

[The following is submitted as hearsay: PDJ advised GHS by 2006-7 email (deleted some time ago) that the relevant early Australian data were lost.]

TERM AFTER DISCLOSED CRU EMAILS

PDJ in BBC News media interview, 2010
<http://news.bbc.co.uk/2/hi/science/nature/8511701.stm>

Phil Jones, the professor behind the "Climategate" affair, has admitted some of his decades-old weather data was not well enough organised. He said this contributed to his refusal to share raw data with critics - a decision he says he regretted.

SOME CONSEQUENCES.

Many rural land recording sites in Australia (and elsewhere) show essentially no temperature warming in the last 100 years. Others show warming. The warming might be real or it might be an artifact of measurement.

The most usual conclusion by climate scientists and other scientists is that there has been slight warming of the globe (including the oceans), of the order of 0.7 degrees C in 100 years.

However, the “perceived wisdom” of this warming has to be questioned. The advent of satellite measurements in 1989 has allowed comparison with CRU measurements from then to now. Taking this into account, PDJ stated in a BBC interview with prepared questions and answers, on 10th February 2010:

Q: Do you agree that from 1995 to the present there has been no statistically-significant global warming?

PDJ: Yes, but only just. I also calculated the trend for the period 1995 to 2009. This trend (0.12C per decade) is positive, but not significant at the 95% significance level. The positive trend is quite close to the significance level. Achieving statistical significance in scientific terms is much more likely for longer periods, and much less likely for shorter periods.

Reference: <http://news.bbc.co.uk/2/hi/science/nature/8511670.stm>

This leaves open the question of whether there was significant distinguishable global warming in the instrumented period, say 1850 to this 1995 date. Note that many “proxy” temperature estimates, like tree ring patterns, are calibrated against records like those from CRU; and if the latter are wrong, so are the proxies.

In other words, is there hard evidence for the whole global warming hypothesis?

CONCLUSIONS.

In addressing the Terms of Reference paragraph 1.1, this submission has:

- (a) Examined the hacked e-mail exchanges, other relevant e-mail exchanges and any other information held at CRU**
- (b) Found and reported evidence of the manipulation or suppression of data**
- (c) Explained data which is at odds with acceptable scientific practice**
- (d) Described difficulty to call into question any of the research outcomes.**

In particular, the statement by Professor Jones that *“We have 25 or so years invested in the work. Why should I make the data available to you, when your aim is to try and find something wrong with it. There is IPR to consider”* is one of the most anti-science statements by a prominent scientist in my lifetime. It surpasses the opening quotation of this submission.

Taken together with other evidence of unlawful attempts to avoid FOI law and copyright law, expressed in other disclosed CRU emails, there should be a high level police investigation on the general basis of fraud, including the uncertainty of whether the emails were “hacked” or “divulged”.

End.

Geoffrey H Sherrington

Melbourne, Australia.

17th February 2010.