

CLIMATEGATE

1

Climategate: A failure of governance

Sinclair Davidson

Sometime between 12 and 17 November 2009 a hacker gained access to the University of East Anglia's Climatic Research Unit (CRU) web server and obtained several thousand documents and email files. These documents were subsequently republished on the internet.¹ This incident and the subsequent fallout quickly become known as 'Climategate'.

There is more to this story than the 'ho hum, nothing to see here' attitude being displayed by those who believe in global warming.

THE EMAIL CONTROVERSY

Early Climategate discussion centred on the contents of the emails. The authors of the emails have confirmed the emails are authentic and have attempted to explain what the emails 'really' meant. Some have argued that the emails are being taken out of context, and that the scientific jargon employed in the emails is different to the plain language meaning that laypersons might otherwise attribute to them. Yet it is difficult to explain away all the information that is contained in the emails by employing these arguments.

At face value, the emails suggest a sustained pattern of very poor behaviour; this includes attempts to subvert the peer-review process, refusal to make data available to journals, attempts to manipulate the editorial stance of journals, attempts to avoid releasing data following Freedom of Information requests, tax evasion, rejoicing at the deaths of opponents, manipulation of results, apparent misappropriation of grant money, and threats to physically assault rivals. Some of this behaviour may be illegal. To be sure, this behaviour does not automatically mean that the results of some of the authors' scientific work itself are wrong or have been fabricated. Nonetheless, it does suggest that greater caution

needs to be applied when translating the ‘scientific consensus’ to public policy.

Table 1.1: Selected quotes from Climategate emails

Quote	Author	Date
‘I’ve just completed Mike’s <i>Nature</i> trick of adding in the real temps to each series for the last 20 years (i.e. from 1981 onwards) and from 1961 for Keith’s to hide the decline.’	Phil Jones	November 16, 1999
‘I can’t see either of these papers being in the next IPCC report. Kevin and I will keep them out somehow—even if we have to redefine what the peer-review literature is!’	Phil Jones	July 8, 2004
‘If they ever hear there is a Freedom of Information Act now in the UK, I think I’ll delete the file rather than send to anyone.’	Phil Jones	February 2, 2005
‘The scientific community would come down on me in no uncertain terms if I said the world had cooled from 1998. OK it has but it is only seven years of data and it isn’t statistically significant ... As you know, I’m not political. If anything, I would like to see the climate change happen, so the science could be proved right, regardless of the consequences. This isn’t being political, it is being selfish.’	Phil Jones	July 5, 2005
‘I’ll maybe cut the last few points off the filtered curve before I give the talk again as that’s trending down as a result of the end effects and the recent cold-ish years.’	Mike Kelly	October 26, 2008
‘Next time I see Pat Michaels at a scientific meeting, I’ll be tempted to beat the crap out of him. Very tempted.’	Ben Santer	October 9, 2009
‘When the FOI requests began here, the FOI person said we had to abide by the requests ... Once they became aware of the types of people we were dealing with, everyone at UEA (in the registry and in the Environmental Sciences school—the head of school and a few others) became very supportive.’	Phil Jones	December 3, 2008

Source: All Climategate emails are available at <http://www.eastangliaemails.com/>

ACADEMIC FREEDOM AND PEER-REVIEW

In a society characterised by the division of labour and specialisation, mechanisms must be developed or evolved that facilitate trade. This is the classic ‘lemons problem’ in economics; how does anyone know that the person they are trading with is any good? The same problem applies to academic research; how can anyone know that any piece of work is competent and high-quality research? The mechanism that has evolved in academic circles is the peer-review process. Academic freedom, combined with the peer-review process, is an evolved mechanism that ensures that research produces, over time, scientific results that are more likely to have eliminated error and falsehood.

George Stigler has described academic freedom as being the argument for ‘free speech and free inquiry’.² If an argument is trivially true, then having that argument challenged causes no harm.

Of course, the difficulty is that many arguments (and perhaps facts) are often uncertain. Stigler tells us that having the argument challenged helps to remove error, or helps to improve understanding of the initial argument. This is the common understanding of academic freedom and the peer-review process.

It is apparent, however, that the scientists involved in the Climategate scandal had a very different understanding of academic freedom and peer-review. When they did not agree with a particular author or work they would describe it as being ‘crap science’. An email between Tom Wigley and Timothy Carter (copied to Phil Jones and Mike Hulme) contained this extraordinary comment:

Hans von Storch is partly to blame—he encourages the publication of crap science ‘in order to stimulate debate’. One approach is to go direct to the publishers and point out the fact that their journal is perceived as being a medium for disseminating misinformation under the guise of refereed work ... Mike’s idea to get editorial board members to resign will probably not work—must get rid of von Storch too, otherwise holes will eventually fill up with people like Legates, Balling, Lindzen, Michaels, Singer, etc.³

But these are serious scientists. David Legates is an Associate Professor in climatology at the University of Delaware. Robert C. Balling is a Professor at Arizona State University. Richard Lindzen is a Professor of Meteorology at the Massachusetts Institute of Technology. Patrick J.

Michaels is a Distinguished Senior Fellow at George Mason University and a past president of the American Association of State Climatologists. Fred Singer is a Professor Emeritus of environment science at the University of Virginia.

Furthermore, stimulating debate is precisely what academic journals are meant to do. It is simply astonishing that a scientist could imagine that he was publishing the last word in any topic and that any disagreements were ‘crap science’ and that the editor needed to be removed and the editorial board be stacked with sympathetic voices—as opposed to unsympathetic voices. We see this in an email from Phil Jones:

I will be emailing the journal to tell them I’m having nothing more to do with it until they rid themselves of this troublesome editor. A CRU person is on the editorial board, but papers get dealt with by the editor assigned by Hans von Storch.⁴

Phil Jones is the head of the CRU; in other words he wants to have his own work and that of his colleagues refereed by one of his own subordinates.

It is a comment in an email between Phil Jones and Michael Mann that has generated much media coverage: ‘Kevin and I will keep them out somehow—even if we have to redefine what the peer-review literature is!’⁵ This email refers to the corruption of the IPCC process. Those same academics who are attempting to undermine the position of journal editors and editorial boards are in turn involved in establishing what the peer-reviewed literature is for external consumption and they arbitrarily exclude some or other papers of which they do not approve.

THE SCIENCE IS SETTLED

It is quite apparent from the emails that those lobbying for acceptance of the belief in human-induced global warming has worked very hard to create the appearance of a greater consensus than otherwise may have been the case. This has allowed the *political slogan* ‘the science is settled’ to gain substantial credence. Of course, it is very well-known that science itself is never settled. After all, if that were the case, the learned journals would all close down and scientists would cease their work and simply teach the history of science. Ludwig von Mises wrote on this very point.

There is no such thing as perfection in human knowledge, nor for that matter in any other human achievement. Omniscience is denied to man. The most elaborate theory that seems to satisfy completely our thirst for knowledge may one day be amended or supplanted by a new theory. Science does not give us absolute and final certainty. It only gives us assurance within the limits of our mental abilities and the prevailing state of scientific thought. A scientific system is but one station in an endlessly progressing search for knowledge. It is necessarily affected by the insufficiency inherent in every human effort.⁶

The global warming lobby was not omniscient; they were extraordinarily arrogant. Not content with subverting the peer-review process, they peddled the notion that their view of the world was ‘absolute’ with a ‘final certainty’. Now it is true that the scientists involved probably did not use the term ‘the science is settled’ themselves. More likely others used the term, perhaps even without permission; nonetheless, the scientists themselves never corrected the usage of the term and their behaviour is consistent with them holding this belief themselves.

We now know from the emails—as recently as 12 October 2009—that the global warming lobby scientists themselves did *not* believe the science to be settled.

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.⁷

There has been some debate as to the meaning of this comment. It could be a complaint that funding constraints have led to a decline in the quality of observational data, or it could mean that the underlying scientific understanding is inadequate. Either of these explanations, however, is inconsistent with the idea that the ‘science is settled’. If the science were settled, scientists would be able to ‘account for the lack of warming’. The implicit bias in that statement (by Kevin Trenberth, a climate scientist at the American National Center for Atmospheric Research) is worth noting, when confronted by a divergence between the data and the computer modelling, he chooses the modelling. Of course, what makes this statement suspicious is a somewhat similar comment by Phil Jones in 2005.

The scientific community would come down on me in no uncertain terms if I said the world had cooled from 1998. OK it has but it is only seven years of data and it isn't statistically significant.⁸

Professor Tim Flannery, interviewed on the Australian Broadcasting Corporation's *Lateline* program in November 2009, made this comment after the Climategate scandal had broken.

These people work with models, computer modelling, when the computer modelling and the real world data disagrees you have a problem, that's when science gets engaged. What Kevin Trenberth, one of the most respected climate scientist in the world, is saying is, 'We have to get on our horses and find out what we don't know about the system, we have to understand why the cooling is occurring, because the current modelling doesn't reflect it'. And that's the way science progresses, we can't pretend to have perfect knowledge, we don't. We have to go forward and formulate policy on the basis of what we know now.⁹

Not only is this statement inconsistent with a 'the science is settled' argument, it is also inconsistent with Flannery's statement on the same program in June 2005.

Well, you can't predict the future; that's one of the things that you learn fairly early on, but if I could just say, the general patterns that we're seeing in the global circulation models—and these are very sophisticated computer tools, really, for looking at climate shift—are saying the same sort of thing that we're actually seeing on the ground. So when the models start confirming what you're observing on the ground, then there's some fairly strong basis for believing that we're understanding what's causing these weather shifts and these rainfall declines, and they do seem to be of a permanent nature. I don't think it's just a cycle.¹⁰

The emails do not contain a silver bullet that would kill off the global warming hypothesis. At the time of writing, computer programmers are in the process of examining the codes and data that were hacked at the same time as the emails. If it is shown that the data have been manipulated to show a warning trend, that would escalate what is already a scandal into a major scientific fraud.

THE FALLOUT

In the first instance the integrity of the peer-review process has been challenged. *Herald Sun* columnist Andrew Bolt asked ‘Is that the truth, or were you peer-reviewed?’ after yet another study predicted the disappearance of the Arctic ice cap.¹¹ Mark Steyn had an entire column in the *Washington Times* on peer-review. It is worth quoting at length.

The more frantically they talked up ‘peer review’ as the only legitimate basis for criticism, the more assiduously they turned the process into what James Lewis calls the Chicago machine politics of international science. The headline in the *Wall Street Journal Europe* is unimprovable: ‘How To Forge A Consensus.’ Pressuring publishers, firing editors, blacklisting scientists: That’s ‘peer review,’ climate-style.

The more their echo chamber shriveled, the more Mr. Mann and Mr. Jones insisted they and only they represent the ‘peer-reviewed’ ‘consensus’ ... ‘Quis custodiet ipsos custodes?’ wondered Juvenal: Who watches the watchmen? But the beauty of the climate-change tree-ring circus is that you never need to ask ‘Who peer reviews the peer reviewers?’ Mr. Mann peer reviewed Mr. Jones, and Mr. Jones peer reviewed Mr. Mann, and anyone who questioned their theories got exiled to the unwarmed wastes of Siberia.¹²

James Delingpole, writing in the *Telegraph*, is far more expansive:

It’s perhaps the single most important fact to emerge from the Climategate scandal. Peer-review is dead. Meaningless. Utterly void of credibility. More irredeemably defunct than a Norwegian Blue...

What the CRU’s hacked emails convincingly demonstrate is that climate scientists in the AGW camp have corrupted the peer-review process. In true Gramscian style they marched on the institutions—capturing the magazines (*Science*, *Scientific American*, *Nature*, etc), the seats of learning (Climate Research Institute; Hadley Centre), the NGO’s (Greenpeace, WWF, etc), the political bases (especially the EU), the newspapers (pretty much the whole of the MSM I’m ashamed, as a print journalist, to say)—and made sure that the only point of view deemed academically and intellectually acceptable was their one.¹³

Both Delingpole and Steyn suggest there are fundamental problems with climate science and the peer-review process. Both of these individuals, however, are well-known to be climate change sceptics. George Monbiot, however, is decidedly not a climate change sceptic. Rather he is an global warming activist and columnist for *The Guardian*. In a column on 23 November 2009 he wrote,

It's no use pretending that this isn't a major blow. The emails extracted by a hacker from the climatic research unit at the University of East Anglia could scarcely be more damaging. I am now convinced that they are genuine, and I'm dismayed and deeply shaken by them... I believe that the head of the unit, Phil Jones, should now resign. Some of the data discussed in the emails should be re-analysed.¹⁴

Monbiot does not believe that the emails undermine the totality of evidence in support of the global warming hypothesis, but does believe that the emails are evidence of inappropriate behaviour. Indeed, he went on to apologise to his readers.

I apologise. I was too trusting of some of those who provided the evidence I championed. I would have been a better journalist if I had investigated their claims more closely.¹⁵

Writing in his *The Guardian* blog on 25 November, Monbiot again calls for the resignation of Phil Jones and expands on his earlier argument.

Some people say that I am romanticising science, that it is never as open and honest as the Popperian ideal. Perhaps. But I know that opaqueness and secrecy are the enemies of science. There is a word for the apparent repeated attempts to prevent disclosure revealed in these emails: unscientific.¹⁶

This is, of course, the core problem identified by the Climategate leaks. The global warming lobby research is tainted by allegations that it is unscientific. This is precisely the charge the global warming lobby has been making for years against its own opponents.

The University of East Anglia, host of the Climatic Research Unit, has announced an inquiry into the whole affair. Similarly, Penn State University has announced an investigation into Professor Michael Mann—an employee who features very prominently in the emails.¹⁷ (Unfortunately, the university press release begins by praising his work on the now notorious hockey stick. Quite possibly this will not be a

serious investigation.) Senator James Inhofe, the ranking Republican on the US Senate Committee on Environment and Public Works, has begun an investigation into the affair.¹⁸ While this is an American body, it will still have some jurisdiction in the matter—the CRU has accepted substantial funding from American government agencies. Senator Inhofe has written to the American academics and American government agencies that have been named in the emails and advised them that he will be conducting an investigation into the affair and that they will need to retain all records. This inquiry is likely to have greater impact than will the internal university investigations.

Donald Kennedy, emeritus president of Stanford University, has written a book entitled *Academic Duty*; one such duty he identifies is ‘to tell the truth’. He writes:

... the most interesting fact about research misconduct is that it tends to occur in places where the pace of activity, the size of the group, and the scope of work make personal accountability difficult. A terse but perhaps not terribly useful conclusion would be that fraud occurs when the right people aren’t paying enough attention.¹⁹

In his 1966 classic, *The Organization of Inquiry*, Gordon Tullock made much the same point: ‘It is not that scientists are more honest than other men; it is that they are more carefully watched.’²⁰ It is clear that there is a governance failure at the heart of Climategate.

In the first instance, the publishers of the academic journals should have asked harder questions. Is it appropriate that individual academics can blackmail academic publishers into sacking editors and editorial boards? The publishers should have made a full and frank disclosure at the time these events occurred. We know that the CRU was able to avoid, delay or obfuscate on Freedom of Information requests with the full cooperation of those individuals at the University of East Anglia whose jobs it was to ensure compliance. Furthermore, we know that journalists did not investigate global warming claims as carefully as they should have.

CONCLUSION

Irrespective of whether Climategate develops into an even greater scandal than it already is, we know that the mechanisms to ensure that research results are more likely to be accurate and correct have been tainted.

But we can have no confidence in the observations that temperature has increased due to human activity because the mechanisms of science have been subverted. This is not rare in academia. As George Stigler has noted, in a different context:

It has gradually become evident that this community imposes sharp limits on the range of respectable opinion within its ranks.²¹

None of this would matter much, but for the politicisation of climate science. Poor scientific behaviour has become the basis of economic policy making that is likely to have very large repercussions on the world economy and the Australian economy in particular. It is important that economic policy is formulated on a sound empirical basis. Climategate has damaged and perhaps undermined the claims of the global warming lobby.

The great economics writer, Adam Smith, believed that cartels and conspiracies against the public were unstable and would ultimately fall apart. Without the actions of an anonymous hacker (perhaps an internal whistleblower) we might never have discovered the full extent of the machinations of the scientists involved in Climategate.

2

Climategate's Australian connection

Alan Moran

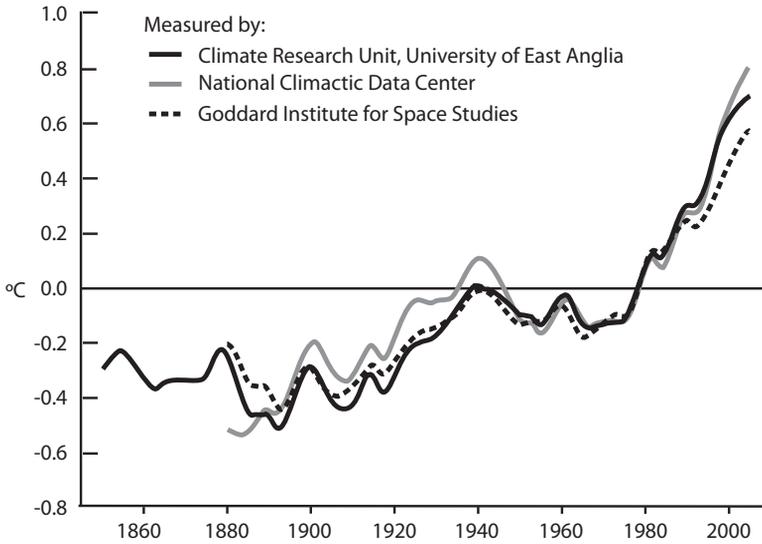
The leaking of emails from the University of East Anglia's Climatic Research Unit (CRU) in November 2009, dubbed 'Climategate', occurred while this book was being prepared. The emails comprise correspondence between the CRU and researchers and their associates, including journalists, throughout the world.

Headed by Phil Jones, the CRU is one of three interlinked global research centres, the others being the New York-based Goddard Institute for Space Studies (GISS) directed by James Hansen and the National Climatic Data Center (NCDC) in North Carolina directed by Thomas Karl. These three centres led the examination of the science and data collection on global temperature trends that has underpinned the credibility of reports by the United Nations Intergovernmental Panel on Climate Change (IPCC). The IPCC reports assembled scientific and empirical evidence that has led to the conclusion of the 2007 Fourth Assessment Report: 'Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level.'¹

Figure 2.1 shows the temperature reconstructions of the three premier research agencies used in the IPCC report. This visually-appealing uptick seems to demonstrate support for a significant warming.

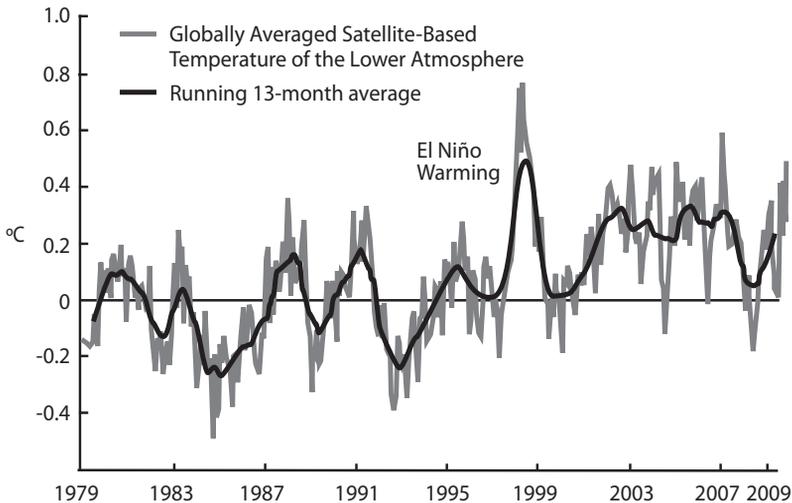
Yet the recent history presents a far less convincing picture of the case for a human impact on global climate when examined using the satellite data (as shown in Figure 2.2) which is available only since 1978.

**Figure 2.1: Global land-surface air temperature (°C), 1850–2005
(historical anomaly from 1961–1990 average)**



Source: Intergovernmental Panel on Climate Change, *Fourth Assessment Report* (2007)

**Figure 2.2: Global satellite-based temperature (°C), 1979–1998
(historical anomaly from 1979–1998 average)**



Source: Roy Spencer, *Latest Global Temperatures* (accessed January 2010); available from <http://www.drroyspencer.com/latest-global-temperatures/>

The Climategate emails reveal:

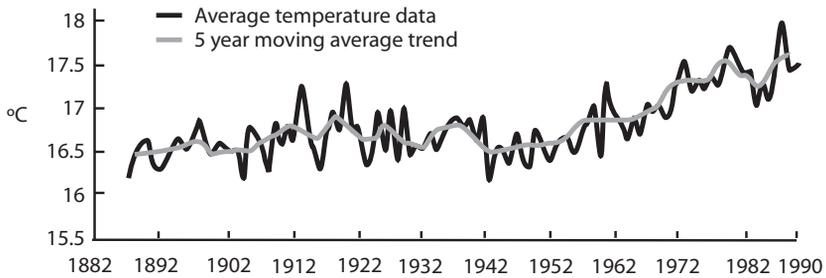
- the orchestrated vilification of ‘sceptic’ scientists;
- deliberate attempts to exclude any such work being published (including organising the dismissal of editors who allowed its publication); and
- insights into how data had been manipulated to ‘prove’ a warming effect to coincide with industrialisation, while preventing the raw data from being made available to those outside the inner circle.

While the ethics of the scientists concerned are indefensible, what is now coming under scrutiny is the accuracy of their data. The unraveling of Climategate and the refusal of the scientists concerned to allow independent scrutiny of their data first became apparent with the famous ‘hockey stick’ examination.

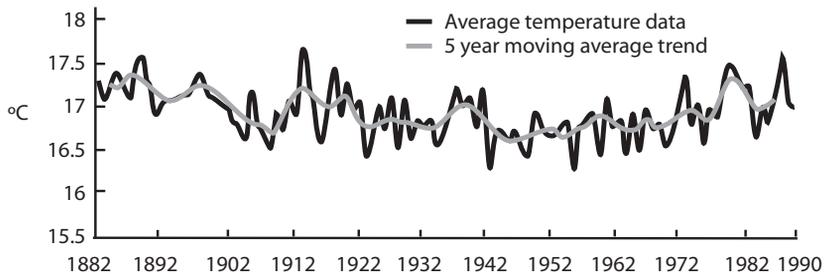
The case in support of climate change resulting from human activity is strengthened if it could be shown that current temperatures are higher than those experienced in recent history. This was seemingly demonstrated with the hockey stick graph, which was a central feature of the IPCC 2001 Third Assessment Report and its popularisations by Al Gore and others.²

In spite of strenuous efforts to prevent the hockey stick data being scrutinised, Steve McIntyre and Ross McKittrick demonstrated that the ‘hockey stick’ was a fictitious depiction of the climate trends over the past millennium—they showed the apparent anomalously rising temperature during the twentieth century was the outcome of the hockey stick model itself and that the same result emerged even when random data were fed into the model.³

The secretive nature in which the CRU data was held first became apparent almost four years ago when an Australian scientist, Warwick Hughes, could not understand what the adjustments were that the CRU had made to arrive at their conclusions that warming occurred in the twentieth century. The response of Phil Jones was, ‘Why should I make the data available to you, when your aim is to try and find something wrong with it.’⁴ Of course, this is inimical to the whole notion of scientific discovery whereby findings are subject to constant review.

Figure 2.3: Average temperature for Australian capital cities

Source: Warwick Hughes, 'The Australian Record on Global Warming'
(Tasman Institute, December 1991)

Figure 2.4: Average of 25 Australian regional and remote stations

Source: Warwick Hughes, 'The Australian Record on Global Warming'
(Tasman Institute, December 1991)

Warwick Hughes himself has a record of temperature reviewing going back to 1991. He was critical of the original Phil Jones choice of sites for Australia as being likely to be contaminated by local heat island effects. Phil Jones used thirteen long-term sites, all of which were official Bureau of Meteorology sites, and five of which were capital cities. Hughes noted that the official data for the state capitals showed an upward trend, while data for twenty-five remote stations he identified as not having had an urbanisation overlay showed no trend. These two data sets are graphed in figures 2.3 and 2.4.

A later paper by Hughes wrote with Robert Balling and Sherwood Idso was published in December 1992 in *Geophysical Research Letters* (GRL).⁵ It examined temperature trends in Australia in the eight decades to 1991 using forty-three stations with continuous records. It showed a net cooling in the years to 1978 and a warming in the years 1979–90.

These findings were originally contested by the Bureau of Meteorology (BOM) and three researchers led by Dr Neville Nicholls, (who became a lead author of the IPCC 2007 Fourth Assessment Report) who sought to have GRL publish a 'comment' attacking the data adjustments that had been made. Eventually the BOM acknowledged that their attempted rebuttal had only marginal merit and GRL declined to publish it.⁶

At the time, William Kininmonth was the head of the National Climate Centre at the BOM. He has since written:

In the late 80s and early 90s there was an effort to establish a reasonable temperature record for Australia. Many problems were found!

The urban heat island is one problem and I do not know of any way to correct for it. But the instruments and methods of observation are another. We established the Reference Climate Network, which was a set of stations with long observing records, away from urban effects and with unchanged instruments and observing methodologies. Many stations were lighthouses, agricultural research stations and small town post offices. But shortly after we had identified and designated the network, the Commonwealth began closing lighthouses and giving the sites back to the States; also the Post Office was corporatized and did not see taking meteorological observations as part of the duties of staff unless the Bureau of Meteorology was prepared to recompense them, so there was a shift to automatic weather stations at regional aerodromes. In addition State Governments closed or downgraded staffing at the agricultural research stations.

All this severely impaired the reference climate network especially from the late 80s and early 90s.

The Jones site selection aggravated this potential inaccuracy problem. To get updated information he is restricted to sites that BOM exchanges monthly across the international network. He only includes Bureau staffed stations, mostly at major aerodromes. This throws up particular problems including Melbourne being moved initially from its city site.⁷

The Climategate emails and their related files puncture any myths about the integrity of the Australian data. In the working notes of the CRU's climate model programmer, we read: 'Confidence in the fidelity of the

Australian station[s] in the database drastically reduced. Likelihood of invalid merging of Australian stations high.' The programmer's frustration was summarised in the statement, 'getting seriously fed up with the state of the Australian data. so many new stations have been introduced, so many false references ... so many changes that aren't documented.'⁸

The empirical data on temperature increases has been the key supportive feature of the theory that global warming is both serious and attributable largely to human activities. The Climategate emails may suggest that, in addition to inappropriate statistical analysis, the data itself may have been manipulated or subjected to highly dubious assumptions.