Speak loudly and carry a busted hockey stick

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The average temperature for the Earth, or any region or even any specific place is very difficult to determine with any accuracy. At any given time surface air temperatures around the world range over about 100°C. Even in the same place they can vary by nearly that much seasonally and as much as 30°C or more in a day. Weather stations are relatively few and located very irregularly. Well maintained stations with good records going back a century or more can be counted on one's fingers. Even then only maximum and minimum temperatures or ones at a few particular times of day are usually available. Maintenance, siting, and surrounding land use also all have influences on the temperatures recorded.

The purported 0.7°C of average global warming over the past century is highly uncertain. It is in fact less than the margin of error in our ability to determine the average temperature anywhere, much less globally. What portion of any such warming might be due to due to anthropogenic CO₂ emissions is even less certain. There are, however, numerous phenomena which are affected by temperature and which can provide good evidence of relative warming or cooling and, in some cases, even actual temperatures. These include growth rings in trees, corals and stalactites, borehole temperature profiles and the isotopic and biologic signatures in core samples from sediments or glaciers. In addition, historical accounts of crops grown, harvest times, freezes, sea ice, river levels, glacial advances or retreats and other such records provide clear indication of warming and cooling.

Recent Warming Nothing Unusual

The temperature record everywhere shows evidence of warming and cooling in accord with cycles on many different time scales from daily to annual, decadal, centennial, millennial and even longer. Many of these seem to correlate with various cycles of solar activity and the Earth's own orbital mechanics. The temperature record is also marked by seemingly random events which appear to follow no discernable pattern.

Over the past 3000 years there is evidence from hundreds of independent proxy studies, as well as historical records, for a Minoan Warm period around 1000 BC, a Roman Warm Period about 2000 years ago, a Medieval Warm Period (WMP) about 1000 years ago and a Modern Warm Period now developing. In between were markedly colder periods in the Dark Ages and another between the 16th and 19th centuries which is now known as the Little Ice Age (LIA). The warmer periods were times of bountiful crops, increasing population and a general flourishing of human societies. The cold periods were times of droughts, famines, epidemics, wars and population declines. Clearly life has been much better in the times of

warmer climate, and there is nothing to indicate that the apparent mild warming of the past century is anything other than a return of this millennial scale warming cycle.

Good News Unwelcome to Alarmists

This rather good news about a possibly warmer climate has not met with hopeful interest from those who purport to be so concerned about the possibly dangerous effects of anthropogenic global warming (AGW). On the contrary, their reaction has overwhelmingly been a strong rejection of any beneficial possibility. It is apparent that their deepest commitment is to the threat itself and not to any rational assessment of real world probabilities or the broader consequences of any of their proposed remedies.

Fabricating a Hockey Stick from Hot Air

This blanket rejection of any possibility other than the hypothetical threat of AGW has led to some strange behaviour for people who modestly proclaim themselves to be the world's top climate scientists. Not only have they ignored and dismissed the hundreds of studies indicating the global existence of a Medieval Warm Period and the Little Ice Age, they have set out to fabricate an alternate reality in the form of a graph purporting to represent the global temperature for the past thousand years. It portrays a near straight line wiggling up and down only a fraction of a degree for centuries until it begins an exponential rise gradually starting at the beginning of the 20th century and then shooting steeply up in the latter part of that century. This hockey stick-shaped graph was then heavily promoted as the icon of AGW. It appeared on the cover of the third climate assessment report of the IPCC published in 2003 and was reproduced at various places in the report itself.

Among the emails between leading climate researchers released in the Climategate affair were a number which revealed a concerted effort to come up with some means to deny the existence of the MWP. The implement chosen to do this became known as the Hockey Stick Graph.

The methodology used to construct the graph involved the use of estimates of temperatures from a very small sample of tree growth rings from the Yamal Peninsula in far northern Siberia and ancient stunted pine trees from near the tree line in the High Sierras of California. This data was then subjected to a statistical treatment later shown by critics to produce a hockey stick form of graph even when random numbers were used as raw input data. To make matters even worse, the same tree ring data also indicated a significant decline in temperature for the 20th century, but this was hidden by burying it in a much larger number of data points from instrument measurements. The resulting study was published in the prestigious scientific journal, *Nature* in 1998. Remarkably, this very small, highly selected and deceptively manipulated graph was proclaimed to be an accurate representation of global temperatures and the extensive body of contrary evidence was simply ignored.

Continuing the Game With a Busted Stick

When serious shortcomings of the hockey stick study began to be exposed and questioned the climate alarmists closed ranks and proclaimed their preeminent authority and expertise but refused to engage in any genuine scientific debate with their critics. Instead, they appealed to a supposed consensus of experts, peer review, and personal denigration of any who dared to disagree.

All of the name calling, pissing contests over credentials and abstruse statistical manipulations made it difficult for the general public to come to any conclusion. Regardless of various provable errors and conflicting evidence, the alarmists could and did simply ignore it all and claim the HS graph as gospel truth.

Then came Climategate. Obvious scams, lies and connivance are something that doesn't require a computer model or a PhD to recognise. In the Climategate emails discussion of things like "...Mike's *Nature* trick...,", manipulations to "...hide the decline", requests to destroy correspondence, efforts to supress publication of conflicting studies, vilification of critics, and abuse of peer review were matters anyone could see were not ethical. Certainly they were not the kind of behaviour we should expect from high level scientists whose advice we are being asked to accept in policies that could be expected to have major effects on the prosperity of our entire society.

The loss of public trust and credibility resulting from Climategate was immense and has been compounded by additional ongoing exposures of misconduct, repeated failures of alarmist predictions and the slow motion economic train wreck of green energy initiatives.

Although one might rationally expect that the obvious collapse of alarmist momentum would have them reassessing their approach and perhaps even the validity of their earlier assumptions, it seems that the idea that they may have been wrong in any respect must be be inconceivable to them. Instead, their response to conflicting reality and declining credibility has been only to declare still greater certainty and ratchet up the alarm to an even less believable level of hype.

If at First You Don't Succeed, Repeat the Failure

Introduction of the carbon tax in Australia was supposed to lead the world along the path of righteousness toward cheap renewable energy and environmental correctness. Unfortunately for the current government both economic reality and climate itself have not co-operated. The intended good example is becoming one of an obvious foolishness to be avoided and nobody is following. Ongoing exposure of scientific misconduct by alarmist researchers and repeated failure of their predictions haven't helped either. The alarmist community is in disarray and becoming increasingly shrill in the tone of their pronouncements. The need for strong new scientific evidence to reinforce the shredded remnants of their discredited claims is becoming desperate.

CSIRO has tried to help with a series of increasingly dire predictions but having become a heavily bureaucratised and politicised institution they have been careful to cover their backsides with qualifiers and disclaimers which dull the sharp edge of hype, certainty and urgency needed by government. However, through generous grants government has also bought and paid for reliable cadres of university based academics whose funding and even whole careers are now based on research into Catastrophic Anthropogenic Global Warming (CAGW). Although science may aspire to value free objectivity, it is observable fact that when generous funding is provided to study a purported problem, one thing is certain. It will never be found that there really wasn't one.

In early June this year a new research report announced the finding of a distinct hockey stick shaped graph for Australian climate over the past millennium. If correct, this would be of great value in supporting the faltering case for CAGW. As the original HS graph was based

entirely on data from the northern hemisphere, finding the same pattern from the Southern Hemisphere would bolster the claim that the recent warming is indeed global and unprecedented. Based on different much more extensive data and free of the inappropriate statistical treatment of the original HS study, this new one would also greatly bolster the tattered credibility of the original study.

The new study appeared in *Journal of Climate* under the title, "*Evidence of unusual late 20th century warming from an Australasian temperature reconstruction spanning the last millennium*". It was authored by Joelle Gergis, Raphael Neukom, Ailie Gallant, Steven Phipps and David Karoly. In mid-May 2012 it was made available online in preprint form, having been peer reviewed and accepted for print publication in an upcoming issue of the journal. In a number of key aspects what followed has been a rerun of the original HS story. Shortly after the online preprint appeared, the Canadian statistician Steve McIntyre pointed out that a statistical procedure which was stated in the Gergis *et al.* study to have been applied had not in fact been used.

Not coincidentally, it was McIntyre who exposed the statistical shortcomings in the original HS study.

Although advanced statistical analysis is widely used in science, very few researchers have a thorough mathematical understanding of what they are doing in this regard. Most are simply following a recipe. However, there is little risk of having to justify the validity of anything as their peers are not statisticians either. McIntyre has an unfair advantage in this. He is a genuine expert in statistics critiquing the work of researchers who are really not very skilled in his discipline.

What ensued in subsequent critical discussion on the Internet and in emails between the authors, their colleagues and the journal editors was a litany of shifting denial, obfuscation, excuses, trivialisation and denigration that could have been borrowed from the original HS script. Without going into the tedious and tawdry details (readily available on the net), the key points of the story are that in response to McIntyre's finding of the statistical problem the authors announced they had already discovered it themselves the day before McIntyre pointed it out, and that it was really just an oversight in the data processing routine which could quickly be corrected and would have no effect on the overall findings of the study. The journal editors accepted this and gave the authors a deadline with sufficient time to rerun the data routine and make any necessary corrections to the MS.

After much speculation in the blogosphere and varying opinion among the authors and their supporters about what to do and how it might affect the outcome, the deadline passed without a corrected MS being received by the journal. The editors then asked for the study to be withdrawn. Such a request is the scientific equivalent of *hara-kiri*, a dishonour so great that the only honourable atonement is what amounts to ritual scientific suicide.

If, as publically maintained, all that was involved was a data processing error which could easily be corrected and would have no important effect on the outcome, surely the correction would have been made. However, email correspondence between the authors (which became available through an FOI request) revealed a concern that if properly applied the omitted data processing routine would not result in the desired HS graph or, if it did so, would at best yield only highly uncertain results.

The direct cost of this fiasco to taxpayers is reported to have totalled some \$950,000 in research grants from 2009 to 2012. To further this failed work the latest Australian Research Council grants announcement also lists another \$350,000 in funding to the lead author approved for 2013 – 2015. The climate gravy train can provide a sumptuous ride for those whose work shows promise of producing what the government wants.

Climatology - Science or Ideology?

Climatology is no longer recognisable as a science but has morphed into a fundamentalist ideology of a millenarian nature. Science only serves it to enhance claims of authority and certainty. Scientific ethics and evidence are employed selectively in accord with the noble cause of saving the planet from the corruptions of humanity and capitalism. Any conflicting reason or evidence is never sufficient for doubt but is only a test of faith to be overcome. Any opposing argument is not simply incorrect but driven by wilful evil, in league with big business if not Satan himself.

For third rate academics CAGW has much to offer. One doesn't need to be particularly capable to speculate about some dire consequence of warming, receive widespread publicity and be treated as an important expert. Unlike in real science, no colleagues will dispute them and the few sceptics willing to question anything will generally be ignored and denigrated by all their peers. The news media will describe them as experts and provide the public attention they know they deserve but somehow had never been recognised by anyone else until they climbed onto the climate bandwagon. Grants then flow and jetting off to attend important conferences in attractive places with all expenses paid provides frequent welcome breaks from the tedium of academia. Perhaps best of all, is a delicious feeling of importance and moral superiority over all of the high achievers striving so hard to discover something of consequence about the real world. The only personal cost is to one's own scientific integrity and that's not worth much if one is just another unrecognised minor league academic no one had ever heard of before they joined into the climate alarm. In any case, saving the planet is the noblest of all causes and absolves any tinge of guilt in such regard.

Uncertainty and a Duty of Care

Recently an Italian court sentenced several scientists to jail terms in connection with a failed prediction regarding an earthquake. The court decision provoked widespread condemnation from the global scientific community because earthquakes are beyond the ability of current science to predict. However, the legal basis of their culpability was not in failing to predict the quake but in falsely asserting certainty in their own prediction. In this instance the scientists assured the local population that there was little risk of a dangerous event and that they should all go home, have a nice bottle of wine and not worry. A strong quake took place and several hundred people were killed.

The situation was perhaps exacerbated by a conflicting opinion from an independent researcher who had detected a sharp rise in radon gas in the air and felt this was evidence of an impending temblor. The government experts disagreed and assured everyone they were the experts and they were confident there was little or no risk.

If scientists are going to claim high levels of expert authority they have a duty of care to make clear the level of uncertainty in their predictions. This is especially so where there are potentially major detrimental consequences from following their advice should it prove to be

incorrect. The essential difference between belief and science, or between alarmists and sceptics, is that the former assert certainty while the latter admit room for doubt. False claims of certainty and expertise by alarmist researchers have been a major obstacle to any rational public debate of the matter.

Fantasies vs. Reality

In the meantime, while we have been indulging the fantasies of activists and academics vying for our attention on the threat of CAGW, the economies of the developed world have come to teeter on the brink of financial chaos.

Democracies everywhere have voted for more government and more benefits than their productive sectors can support. Deficits are now chronic and blowing out while productive activity struggles under the burden of ever more government imposed restrictions and demands. The climate-alarmist push to penalise and restrict the use of fossil fuels and force the premature adoption of expensive, inadequate, unreliable renewable energy is a dagger to the very heart of our society at a time of great vulnerability. Ironically, if the alarmist aim is achieved they themselves, the urban non-producers, will be among the first to become truly unsustainable. The next few years look to become a decisive reality test.

In <u>news just in</u>* (and curiously ignored in the mainstream Western media) it is reported that for the first time since it began The Intergovernmental Panel on Climate Change (IPCC) was not invited to attend an upcoming United Nations Climate Change Conference. Could it be that in a global financial crisis nations have finally come to realise that climate hysterics are more of a problem than a solution?