

FAKING THE FIGURES AGAIN

It is admitted, by Jim Hansen, no less, that measuring surface temperature is impossible. Let me quote him once more:

“GISS Surface Temperature Analysis

The Elusive Absolute Surface Air Temperature (SAT)

Q. What exactly do you mean by SAT?

A. I doubt that there is a general agreement how to answer this question. Even at the same location, the temperature near the ground may be very different from the temperature 5 ft above the ground and different again from 10ft or 50ft above the ground. Particularly in the presence of vegetation (say in a rain forest) the temperature above the vegetation may be very different from the temperature below the top of the vegetation. A reasonable suggestion might be to use the average temperature of the first 50ft of air either above ground or on top of the vegetation. To measure SAT we have to agree on what it is and, as far as I know, no such standard has been adopted. I cannot imagine that a weather station would build a 50ft stack of thermometers to be able to find the true SAT at its location.

Q. What do we mean by daily SAT?

A. Again, there is no universally accepted correct answer. Should we note the temperature every 6 hours and report the mean, should we do it every two hours, hourly, have a machine record it every second, or simply take the average of the highest and lowest temperature of the day? On some days the various methods may lead to drastically different results.

Q. What SAT do the local media report?

A. The media report the reading of one particular thermometer of a nearby weather station. This temperature may be very different from the true SAT even at that location and has certainly nothing to do with the true regional SAT. To measure the true regional SAT we would have to use many 50ft stacks of thermometers distributed evenly over the whole region, an obvious practical impossibility.”

Having stated that there is no agreed way to measure the surface air temperature, he talks about the “true” value which nobody agrees to; Essex et al (2007) argue that “there is no physically meaningful global temperature”. There are theoretical reasons why the average temperature of the earth’s surface cannot be measured. Because of the fact that the sun does not shine for half the

time, its variability is non linear. It is impossible to simulate it with any of the mathematical functions used by statisticians and even if this were possible there is a variety of possible averages, such as the arithmetic mean, geometric mean, or the harmonic mean.

Hansen, J., 2009, GISS Surface Temperature Analysis, The Elusive Absolute Surface Air Temperature (SAT)

http://data.giss.nasa.gov/gistemp/abs_temp.html goes on to say that even when you cannot agree on how to measure SAT you can measure the “anomalies” by using models and guesswork!

He even attempts to “guess” the average temperature of the earth as “anywhere between 55° and 58°F” (12.8°C to 14.4°C) for which he gives an unconvincing “global mean” of “roughly 14°C”, apparently emanating from models. He has no actual evidence.

Despite this, the IPCC and the climate scientists use a processed version of surface temperature measurements as their main argument that the “globe” is warming, and they ascribe the current cooling as a mere episode before the inevitable later warming, for which we are to be saddled with very expensive measures to reduce carbon dioxide emissions.

There is overwhelming evidence that the very slight warming (0.7°C over 100 years) of their compilation is caused by urban and human development over the period. The IPCC, however, persistently deny this, trotting out in allk their reports the same 1990 paper:

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

The IPCC have repeatedly quoted this paper as evidence that urban heating is negligible. These authors examined an “extensive” set of rural station temperature data for three regions of the world - European parts of the Soviet Union, Western Australia and Eastern China. When combined with similar analyses for the contiguous United States, the results are claimed to be representative of 20% of the land area of the Northern Hemisphere and 10% of the Southern Hemisphere

They worked out the linear slope or “trend” of temperature anomalies for the rural series in each case and compared it with the same slope for several gridded series. For the Western USSR, it covered the period 1901-1987 and 1930-1987, for Eastern Australia it was 1930-1988 compared with 1930-1997, for Eastern China it was 1954-1983 and for the contiguous United States it was 1901-1984. The differences between urban and rural slopes were only significant at the 5% level for Eastern Australia and for one set of Eastern China.

It seems to be assumed that the so-called “rural sites have no urban effects. There is plenty of evidence that this is wrong.

They concluded “It is unlikely that the remaining unsampled areas of the developing countries in tropical climates, or other highly populated parts of Europe, could significantly increase the overall urban bias above 0.05°C during the twentieth century”

It is unclear whether this small correction has been made for the most recent version of the Jones et al. global temperature series

There are several things wrong with the Jones et al. (1990) paper.

- The quality of the data is even worse than usual. They admit “It is unfortunate that separate maximum and minimum temperature data are not more widely available.”
- The qualification for a “rural” site is a population below 10,000 for Western Soviet Union, below 35,000 for Eastern Australia, and below 100,000 for Eastern China. There is ample evidence that urban effects exist in such places.
- They have chosen countries with a continuous record of effective scientific supervision. These are not representative of the rest of the world, where changes of country and adequate supervision are far less common.

Even these countries raise doubts. Russia had a tyrannical regime where statistics were frequently manipulated for political purposes. China had a major famine from the “Great Leap Forward” between 1958 and 1959 and also a manipulation of statistics.

Two of the countries, the contiguous USA and China have such reliable records that, when corrected, they show little or no warming, or residual urban influence, but these two well monitored countries cannot be regarded as “typical” of the rest of the world.

In the very same year there appeared in Geophysical Research Letters another paper which included two of the authors of the previous paper, Wang and Karl : (Wang, W-C, Z. Zeng, T. R Karl,1990. Urban Heat Islands in China. Geophys. Res. Lett. 17, 2377-2380. .

The abstract of this paper reads

“We used 1954-1983 surface temperature from 42 Chinese urban (average population 1.7 million) and rural (average population 150,000) station pairs to study the urban heat island effects. Despite the fact that the rural stations are not true rural stations, the magnitude of the heat islands was calculated to average 0.23°C over the thirty year period, with a minimum value (0.19°C) during the 1964-1973 decade and maximum (0.28°C) during the most recent decades.”

This study appears to have used the same stations that were claimed to have no urban bias in the first paper and now there is an urban bias even if “rural” now includes places with population as high as 150,000.

The early paper states, of Eastern China, “The stations were selected on the basis of station history: We chose those with few, if any, changes in instrumentation, location or observation times”.

Wang et al. (1990) says “They were chosen based on station histories. We chose those without any changes in instrumentation, location, or observation times”.

Both papers were written at the same time and different conclusions made from the same data. Recently, Keenan, D. 2007. The Fraud Allegation Against Some Climatic Research of Wei-Chyug Wang. Energy and Environment, 18, 985-995. has shown that many of the Chinese stations moved several times over the period in question, in one case 15 km and he accuses Wang of outright fraud, as he must have known this at the time. Wang has subsequently been investigated for fraud by his university, but they ended up clearing him.

Whoever was responsible, there is no doubt that this crucial paper does not provide the evidence expected of it.

One of the accepted principles of all scientific research is that results from research must be capable of being reproduced when studied by another scientist. For this reason the actual data that are behind any scientific work should be available to independent scientists in order to check the quality of the conclusions. It has usually been a requirement of the editors of scientific Journals that the data are available in this way, It is a regrettable feature of much of the research on climate that this requirement has not been enforced. As a result the results have to be suspect until they are available

I have for many years tried to get access to the temperature data used by Phil Jones and his team, but without success. It is therefore interesting to read what happened recently when Stephen McIntyre and Ross McKittrick recently took advantage of the Freedom of Information Act in Britain to require Phil Jones to provide access to his original data so they could check whether his results could be justified. The results of this attempt make sober, and sometimes hilarious reading, as follows:

CCNet 120/2009 - 14 August 2009 -- Audiatur et altera pars

CAN BRITISH CLIMATE SCIENCE STILL BE TRUSTED?

The world's source for global temperature record admits it's lost or destroyed

all the original data that would allow a third party to construct a global temperature record. The destruction (or loss) of the data comes at a convenient time for the Climatic Research Unit (CRU) in East Anglia - permitting it to snub FOIA requests to see the data.

--Andrew Orłowski, The Register, 13 August 2009

Even if WMO agrees, I will still not pass on the data. 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.

--Phil Jones, Climatic Research Unit, 21 February 2005

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.

--Climatic Research Unit, University of East Anglia, August 2009

If this information were to be released contrary to the conditions under which this institution received it, it would damage the trust that other national scientists and institutions have in UK-based public sector organisations. I apologise that your request will be met (sic) but if you have any further information needs in the future then please contact me.

--Climatic Research Unit, University of East Anglia, August 2009

There are stipulations on the data, with the exception that there are no stipulations on the data. Obviously, under such non-stipulated stipulations, we cannot supply the requested data.

--Pat Frank, AC, 13 August 2009

Those apparently tasked with carrying the standard for anthropogenic global warming are increasingly resembling the Gang That Couldn't Shoot Straight. It is the work of those most convinced that global warming is an oncoming freight train that will make it impossible to resolve the real climate change issues we face. While they are busy blaming the skeptics, it is their errors that will haunt them when it comes to making decisions.

--Thomas Fuller, The Examiner, 13 August 2009

(1) GLOBAL WARMING ATE MY DATA

The Register, 13 August 2009

http://www.theregister.co.uk/2009/08/13/cru_missing/

By Andrew Orlowski

The world's source for global temperature record admits it's lost or destroyed all the original data that would allow a third party to construct a global temperature record. The destruction (or loss) of the data comes at a convenient time for the Climatic Research Unit (CRU) in East Anglia - permitting it to snub FOIA requests to see the data.

The CRU has refused to release the raw weather station data and its processing methods for inspection - except to hand-picked academics - for several years. Instead, it releases a processed version, in gridded form. NASA maintains its own (GISSTEMP), but the CRU Global Climate Dataset, is the most cited surface temperature record by the UN IPCC. So any errors in CRU cascade around the world, and become part of "the science".

Professor Phil Jones, the activist-scientist who maintains the data set, has cited various reasons for refusing to release the raw data. Most famously, Jones told an Australian climate scientist in 2005:

Even if WMO agrees, I will still not pass on the data. 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.

In 2007, in response to Freedom of Information Act requests, CRU initially said it didn't have to fulfil the requests because "Information accessible to applicant via other means Some information is publicly available on external websites".

Now it's citing confidentiality agreements with Denmark, Spain, Bahrain and our own Mystic Met Office. Others may exist, CRU says in a statement, but it might have lost them because it moved offices. Or they were made verbally, and nobody at CRU wrote them down.

As for the raw station data,

"We are not in a position to supply data for a particular country not covered by the example agreements referred to earlier, as we have never had sufficient resources to keep track of the exact source of each individual monthly value. Since the 1980s, we have merged the data we have received into existing series or begun new ones, so it is impossible to say if all stations within a particular country or if all of an individual record should be freely available. Data storage availability in the 1980s meant that we were not able to keep themultiple 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."

Canadian statistician and blogger Steve McIntyre, who has been asking for the data set for years, says he isn't impressed by the excuses. McIntyre obtained raw data when it was accidentally left on an FTP server last month. Since then, CRU has battened down the hatches, and purged its FTP directories lest any more raw data escapes and falls into the wrong hands.

McIntyre says he doesn't expect any significant surprises after analysing the raw data, but believes that reproducibility is a cornerstone of the scientific principle, and so raw data and methods should be disclosed.

(r) 2009, The Register

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(2) THE CRU GONG SHOW: REFUSING ROSS MCKITRICK

Climate Audit, 13 August 2009

<<http://www.climateaudit.org/?p=6825>>

by Steve McIntyre

Today brought in some CRU refusals - their rejections of Ross Mc, Roman M, myself. (They're going to have to re-do their Roger Pielke rejection, since they replied to the wrong request in his case.) Each one deserves to be savored. So today I'll post up their obstruction of Ross McKitrick.

FOI officer Palmer denied the request on the grounds that the request is "manifestly unreasonable" as the data is "available elsewhere", that its disclosure would have an "adverse effect on international relations" and would have an adverse impact on the institutions supplying the data.

CA readers will recall that I requested the same version of CRU station data as was sent to Peter Webster and that they refused on the grounds that they had "confidentiality agreements" (all of which have been destroyed or lost other than stale agreements with Norway and Bahrain and an agreement with Spain that does not require confidentiality) with parties that they can no longer identify, but the one thing that they were certain of was that these agreements prohibited the delivery of the data to a "non-academic".

Ross McKittrick is obviously an "academic". And aside from being an "academic", he even has relevant publications in the field. Here is Ross' original request:

Pursuant to the Environmental Information Regulations, I hereby request:

1. A copy of any digital version of the CRUTEM station data set that has been sent from CRU to Peter Webster and/or any other person at Georgia Tech between January 1, 2007 and June 25, 2009
2. A copy of any instructions or stipulations accompanying the transmission of data to Peter Webster and/or any other person at Georgia Tech between January 1, 2007 and June 25, 2009 limiting its further dissemination or disclosure.

I write as an academic with publications in peer-reviewed journals and an ongoing research program on the subject of surface climate measurement. With respect to #2, please be aware that restrictions on data disclosure may disqualify any research arising from this data set from being published in many peer-reviewed journals, therefore I require a complete response as to whether any such instructions accompanied the data.

Thank you for your attention,

Here is the CRU response in full:

Your request for information received on 24 July 2009 for a "A copy of any digital version of the CRUTEM station data set that has been sent from CRU to Peter Webster and/or any other person at Georgia Tech between January 1, 2007 and June 25, 2009" and "a copy of any instructions or stipulations accompanying the transmission of data to Peter Webster and/or any other person at Georgia Tech between January 1, 2007 and June 25, 2009 limiting its further dissemination or disclosure" has now been considered and it is, unfortunately, not possible to meet your request.

In accordance with Regulation 14 of the Environmental Information Regulations 2004 this letter acts as a Refusal Notice, and I am not obliged to supply this information and the reasons for exemption are as stated below:

Exception Reason

Reg. 12(4)(b) - Request is manifestly unreasonable. Information is available elsewhere

Reg. 12(5)(a) - Adverse effect on international relations. Release would damage relations with scientists & institutions from other nations

Reg. 12(5)(f) - Adverse effect on the person providing information. Information is covered by a confidentiality agreement

We believe that Regulation 12(4)(b) applies to your request for the data because the requested data is a subset of data already available from other sources; namely the Global Historical Climatology Network (GHCN), and the Climatic Research Unit already makes requested information available on its website in a gridded format. We believe, following DEFRA guidance, that it is unreasonable for the University to spend public resources on providing information in a different format to that which is already available.

In regards Regulation 12(5)(a), much of the requested data comes from both individual scientists and institutions from countries around the world. If this information were to be released contrary to the conditions under which this institution received it, it would damage the trust that other national scientists and institutions have in UK-based public sector organisations and would likely result in them becoming reluctant to share information and participate in scientific projects in future. This would

damage the ability of the University and other UK institutions to co-operate with meteorological organisations and governments of other countries. Regulation 12(5)(f) applies to the data requested because the data was received by the University on terms that limits further transmission. We believe that there would be an adverse effect on the institutions that supplied data under those agreements as it would undermine the conditions under which they supplied the data to the Climate Research Unit.

In regards your request for any stipulations accompanying the transmission of the data to academics at Georgia Tech, no such instructions or stipulations are held by the University.

All the agreements that we do hold in relation to the requested data are available on the Climate Research Unit website at:

www.cru.uea.ac.uk/cru/data/availability/

Regulation 12(1)(b) mandates that we consider the public interest in any decision to release or refuse information under Regulation 12(4). In this case, we feel that there is a strong public interest in upholding contract terms governing the use of received information. To not do so would be to potentially risk the loss of access to such data in future as noted above. In regards Regulation 12(4)(b), we believe it is not in the public interest to divert public resources away from other work to provide information that is available elsewhere. Finally in regards Regulation 12(5)(a), we feel that there is a clear public interest in neither damaging nor restricting scientific collaboration between UK-based scientists and institutions with international colleagues.

I should note, however, that the University is commencing work, in concert with the Met Office Hadley Centre, to seek permission from data suppliers in advance of the next update of the CRUTEM database in 2010 in order to provide public access to this data. This work has been announced on the CRU website and further updates on it's progress will be available there. I apologise that your request will be met but if you have any further information needs in the future then please contact me.

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(3) OPINION: WHERE IS THE GLOBAL WARMING A-TEAM?

The Examiner, 13 August 2009

<<http://www.examiner.com/x-9111-SF-Environmental-Policy-Examiner~y2009m8>

d13-Where-is-the-global-warming-ATeam>

Thomas Fuller

Those apparently tasked with carrying the standard for anthropogenic global warming are increasingly resembling the Gang That Couldn't Shoot Straight. This has huge implications for the political struggle for resources to reduce emissions and convert our energy base to greener technologies. So what follows will look like piling on--but it isn't. We really need to get better measurements, better analysis and better communications or our efforts to control global warming will go the same way as Australia's, where they recently voted down their version of Cap and Trade.

First up is Phil Jones from East Anglia University in the UK, where he is charged with collating, smoothing and computing average temperatures from thousands of measurement stations around the world. When served with Freedom of Information requests by climate skeptics, the response from Dr. Jones and East Anglia was more or less that they lost it. Steve Macintyre from Climate Audit, who made one of the FOI requests, reports on it here. Roger Pielke Jr., who also filed one request, talks about the implications of their inability to archive data here. Key quote:

"Can this be serious? So not only is it now impossible to replicate or reevaluate homogeneity adjustments made in the past -- which might be important to do as new information is learned about the spatial representativeness of siting, land use effects, and so on -- but it is now also impossible to create a new temperature index from scratch. CRU is basically saying, "trust us." So much for settling questions and resolving debates with empirical information (i.e., science)."

Next we find the climate scientists taking refuge at Real Climate with yet another controversy. This is about a paper they published last year saying, predictably enough, that Antarctica was warming, and, predictably enough, having huge problems with their analysis. Here is a discussion of the topic from Penn State, where Michael Mann of Steig et al has an appointment.

"In an entirely unrelated development, Steig et al have issued a corrigendum in which they reproduce (without attribution) results previously reported at Climate Audit by Hu McCulloch (and drawn to Steig's attention by email) - see comments below and Hu McCulloch's post here.

They also make an incomplete report of problems with the Harry station - reporting the incorrect location in their Supplementary Information, but failing to report that the "Harry" data used in Steig et al was a bizarre splice of totally unrelated stations (see When Harry Met Gill). The identification of this problem was of course previously credited by the British Antarctic Survey to Gavin the Mystery Man."

This week's episode of Weird Science concludes with yet another guest appearance by Real Climate contributor Micheal Mann, who has published a study on how hurricanes have developed with greater frequency than at any time in the past 1,000 years, according to this story in the Houston Chronicle.

But, as noted in the article, "This is not Mann's first attempt to use "proxies" for actual observations of conditions to tease out historical climate details.

He was among the scientists whose global temperature reconstruction of the last 1,000 years - dubbed the "hockey stick graph" because it showed a distinct upward trend since the mid-19th century attributed to greenhouse gases - received both praise and criticism.

Now he appears to be doing the same with hurricane activity, and the new work is not without its detractors.

"The paper comes to very erroneous conclusions because of using improper data and illogical techniques," said Chris Landsea, science and operations officer at the National Hurricane Center.

In his criticism, Landsea notes that the paper begins by saying that Atlantic tropical activity has "reached anomalous levels over the past decade."

This ignores recent work by Landsea and a number of other hurricane scientists who found that storm counts in the early 1900s - in an era without

satellites and fewer seaborne observers - likely missed three or four storms a year. The addition of these storms to the historical record, he said, causes the long-term trend over the last century to disappear." "This isn't a small quibble," he said. "It's the difference between a massive trend with doubling in the last 100 years, versus no trend."

It is occurrences such as these that will condemn good energy policy to failure. It is the work of those most convinced that global warming is an oncoming freight train that will make it impossible to resolve the real climate change issues we face. While they are busy blaming the skeptics, it is their errors that will haunt them when it comes to making decisions.

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(4) ANALYSIS: THE UN FCCC AND ACCESS TO CLIMATE DATA

by Richard J. T. Klein, Stockholm Environment Institute

<<http://rogerpielkejr.blogspot.com/2009/08/un-fccc-and-access-to-climate-data.html>>

I've looked into how the UNFCCC (United Nations Framework Convention on Climate Change), in response to Articles 4.1(g) and 5, has addressed the issue of climate-data exchange to date, and it turns out there's more to it than I thought. Importantly, there appears to be an important dialogue between the Global Climate Observing System (GCOS) and the UNFCCC Conference of the Parties (COP). GCOS has released a series of reports that consider the issues of data exchange, management and stewardship, and make clear recommendations. There has been some follow-up by the COP, but more can be done.

Following the publication in 1998 of the GCOS report "Report on the Adequacy of the Global Climate Observing System" (PDF), COP-4, in decision 14/CP.4 urged Parties to the UNFCCC to undertake free and unrestricted exchange of data to meet the needs of the Convention.

In 2003 GCOS published its "Second Report on the Adequacy of the Global Observing Systems for Climate in Support of the UNFCCC" (PDF), which states in reference to decision 14/CP.4 that "the record of many Parties in providing

full access to their data is poor. Indeed, most Parties appear to be unaware of their performance in this respect." The report contains a section on data management and stewardship, which states that "the preservation of the data for future use requires facilities and infrastructure to ensure the long-term storage of the data". One of the findings of this section is "The rapidly-increasing volume of raw observations that must be saved and stored in an archive is such that the data are too often inaccessible to many users."

In response to the second report, COP-9, in decision 11/CP.9, requested Parties to review the report and to consider what actions they can take to address the findings, noting, among other things, "the importance of adhering to applicable adopted principles of free and unrestricted exchange of data and products, especially with respect to the set of Essential Climate Variables as defined in the second adequacy report."

A year later, in 2004, GCOS submitted its "Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC" to the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA) (PDF). It also has a section on data management and stewardship, building on the second adequacy report of 2003. A draft "Progress Report on the Implementation of the Global Observing System for Climate in Support of the UNFCCC 2004-2008" is available for comment on the GCOS website (PDF). There is no section on data management and stewardship in this report.

In 2005 GCOS submitted the report "Analysis of Data Exchange in Global Atmospheric and Hydrological Networks" (PDF). The "reluctance of some countries to exchange data", and "data and metadata standardisation and data stewardship" were among the major problems and challenges identified in the report. In response, SBSTA-23 in 2005 urged Parties and invited intergovernmental organisations and international bodies to provide active support to international data centres in their efforts to obtain permission from countries for the release of the data and the rescue of historical climate records."

The exchange and management of climate data was also discussed at an expert meeting held in the context of the Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change. The report of the expert meeting (PDF) states,

"A key barrier identified in exchanging data and information, besides the fact that some data are privately held, is that the mandates of institutions holding data are not necessarily aligned with the needs of users for impacts, vulnerability and adaptation work. In this regard, WMO Resolution 40, which urges members to strengthen their commitment to the free and unrestricted exchange of meteorological and related data and products, was noted."

It also says,

"Regarding data exchange, data increase their value with use and should therefore be openly disseminated, tested, validated, documented and supported by metadata; arrangements such as the GNU General Public License (a free 'copy left' license for software and other works), which would require users to provide information on their use or modification of the data, could be explored."

Is all or any of this relevant to CRU? Yes, I think it is, in particular the response of SBSTA to the 2005 GCOS report. Presuming that CRU qualifies as an international data centre, its functioning is dependent on receiving adequate support from the UK and other Parties. However, none of the above is put in particularly strong language, and while Article 4.1(g) is an international legal commitment, the COP decisions and SBSTA report can safely be ignored by Parties. But with the publicity this debate is generating and the generally perceived increased need for climate data (not only for adaptation but also mitigation), my guess is that there will be more pressure on Parties to take Articles 4.1(g) and 5 seriously.

Cheers

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"To kill an error is as good a service
as, and sometimes better than, the
establishing of a new truth or fact"
Charles Darwin