Kommentarer till artikeln ” The IPCC is not infallible (shock!)”. Endast mina kommentarer och repliker till mina kommentarer är medtagna. Observera att författarens namn (eller pseudonym) finns efter inlägget. Varje inlägg är numrerat med ordningsnumret i bloggen. Moderatorn [normalt Gavin Schmidt] lägger ibland in kommentarer mitt i texten – dessa är signerade. Kommentarerna är kronologiskt ordnade.

91. The fact that the IPCC is not infallible is hardly a surprise. But an organization that argues for measures that may cost trillions of dollars should have a very high standard indeed of quality assurance.

[Response: The IPCC does not argue for measures. The reports are policy neutral. - gavin]

A true researcher could not in any reasonable way confuse an article in a WWF report (itself being very much an actor in the game) with a true peer reviewed research article. Hence I would say that it is very unlikely that this could have been an accident. Instead, I believe that it is due the probably commonplace mixup of science and political ideas and ambitions within the IPCC. This matter should thus NOT be taken lightly as suggested in your article and whether or not the glaciers are in fact retreating can not in any way be used as excuse for glossing over this [edit]

Comment by Steven Jörsäter — 20 January 2010 @ 8:47 AM

448. Re:91
The IPCC is supposed to collate and summarize the science that supports the thesis that human produced carbon dioxide is causing the world wide temperature to increase.

The Summary for Policy Makers is just what it says, a list of policy driven summaries of the science that suggest political policies to be implemented.

[Response: I would recommend reading something before broadcasting your incorrect opinions on it. - gavin]

Comment by ferocious — 23 January 2010 @ 4:11 PM

1801. In regards to the political nature of the IPCC and the UNEP(posts 91, 448, others), sometimes it is best to go back and look at history. This is from the 1994 Rio treaty:

” The Convention on Climate Change sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The Convention enjoys near universal membership, with 192 countries having ratified.

Under the Convention, governments:

* gather and share information on greenhouse gas emissions, national policies and best practices
* launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries

* cooperate in preparing for adaptation to the impacts of climate change

The Convention entered into force on 21 March 1994. ”

This is in 1994. 6 years after Dr. Hansen published a seminal paper which predicted unending global warming due to CO2 emissions, and testified in front of the US Congress during the hottest days of August in 1988. Dr. Hansen’s paper was based on about 22 years of data showing a rise in global temperatures of about 0.26 deg C from 1966 to 1988. Between 1988 and 1994, when this conference took place, there was no rise in temperatures. That gives a total of 0.3 deg C in three decades. I’ll leave it to the reader to decide how substantial these conclusions were. Based on everything I’ve read here on Real Climate the conclusion that CO2 was responsible for a large increase in global temperature and constituted a substantial risk worth spending billions on was a very shaky conclusion at the time. As our moderator is wont to say, 22 years is just weather, not climate. A thirty year trend of 0.1 deg C/decade is well within the normal variations of the climate over that length of time.

Reading the UN documents, and those from previous sessions, it is readily apparent that the conclusion had already been drawn by the policy makers at the UN much earlier that CO2 was the major driver of global warming and they embarked on a manor political effort in response. The whole process is plainly a political operation using science, of a sort, as a backstop. The current efforts of the IPCC, although it is not a UN organization, are still political efforts aimed at controlling the emissions of CO2. The science may be “settled” to a degree, but the IPCC operation is clearly a political power play.

Comment by ferocious — 18 February 2010 @ 4:45 PM

Kommentarer till artikeln ”2009 temperatures av Jim Hansen” med undertiteln :” If It’s That Warm, How Come It’s So Damned Cold?”. *Endast mina kommentarer och repliker till mina kommentarer är medtagna. Observera att författarens namn (eller pseudonym) finns efter inlägget. Varje inlägg är numrerat med ordningsnumret i bloggen.*

501. I must say that I find this article amazing in the British understatement sense. Firstly, it is clear from the graphs of the complete GISS data in figure 1 and of the HadCRUT and GISS data in figure 4 that the past decade remains special among the last decades. The trend is suddenly clearly quite flat – it is difficult to say whether it is in fact rising or falling but it is flat. This is not commented on in the entire article – only a rather desperate and not very interesting wish to get the past year as the second warmest. So it is not at all surprising that the public is feeling that global warming has stopped. It has and your data show it. Secondly, it is also amazing that this article fails to make any reference to UAH (or RSS) MSU satellite data. These data have their own pros and cons but give a much better global coverage and less need to revert to extreme methods such as assigning measurements to boxes where no measurements have been made(!) They clearly show the same thing, the past decade was essentially flat. If you start at 2000 (an unusually cool year) you get a very slow warming of about 0.5 C per century. If you start in 2001 you actually get cooling. Thirdly, the Arctic Oscillation Index discussion is very interesting. Why did not that appear many years ago? Suddenly an explanation is presented why so many winters in the last decade in northern Europe have been so warm. This row of warm winters is probably the one most important reason for people to have believed in AGW. No serious climate scientist would have believed that, of course, the change was far too rapid and extreme. But the scientists have remained essentially dishonestly SILENT on this question and left the public to their own misleading

imagination and in the grip of unserious activist journalists, presumably for the “good cause”. Not surprising then that in this winter when people have became aware that winters can still be severe and cold, that they have started to seriously doubt AGW and climate science in general.
Finally, a question that could prove important in the future. For how long must the global temperature remain flat (but with noise, of course) until you accept that the trend has been broken? Another 5 years, 10 or perhaps 20? This time is important since it gives us a measure of when the current model-measurement relation can be falsified. And stating the number of years in advance makes the test much more valuable.

Comment by Steven Jörsäter — 22 January 2010 @ 2:20 AM

507. Steven: “The trend is suddenly clearly quite flat ”

Incorrect.

There is no significant difference in the trend for the last 10 years from the trend predicted by the role of AGW.

The ***trend*** is ***up***.

The ***error*** in the trend determination is ***high***.

Because 10 years isn’t long enough to determine a trend.

Comment by Completely Fed Up — 22 January 2010 @ 6:43 AM

509. Completely fed up (507): I agree that ten years is short given the “noise”. But when looking for a trend change you have no choice but to look at recent data. See RSS data plotted during the last decade at http://klimatet.jorsater.se/#post12. It looks quite flat to me! Certainly, it does in no way support a continued trend anymore than it does a flat trend. Maybe you missed my point and end – suppose THAT an underlying trend change has ocurred – when will everybody agree that is has done so judging from the measurements?!

[Response: But maybe it started again last Tuesday? If the uncertainty in the trend is large you simply can't conclude anything. - gavin]

Comment by Steven Jörsäter — 22 January 2010 @ 8:27 AM

511.” It looks quite flat to me! ”

That doesn’t mean the trend is flat.

You’re picking two points and going “but they look flat between them”.

You’re not even picking 10 years of data: you’re picking 2 years worth of data 10 years apart.

Comment by Completely Fed Up — 22 January 2010 @ 8:49 AM

512. Steven Jorstater, do you understand what a complicated process it is to turn the spectral measurements made by a satellite into a lower troposphere temperature? It is hardly straightforward, and the result is hardly free of error. If your "trend" is present in only one dataset, it ain't significant.

Here is an exercise for both you and Tilo. Model your temperature data as a linear mean with gaussian noise around that mean–that gives you 3 parameters. Now assume that SOMEWHERE there is a change in that trend, that can be modeled via a second linear trend–that gives this new model 7 parameters–2 slopes and intercepts, 2 noise standard deviations and a date that best fits the change. Determine these parameters using a likelihood fit and calculate the Akaike Information Criterion (AIC). If the likelihood for the 7 parameter is not a factor of ~55 better than your linear trend, the linear trend will have superior predictive power. In other words, your additional parameters will give you no additional information. Be sure to report back!

Comment by Ray Ladbury — 22 January 2010 @ 8:57 AM

514. Steven J., we are not constrained to argue only from statistical fits of temperature and CO2.

There's a highly detailed understanding of the physical mechanisms involved. The predictions of warming follow mostly from this: and they've been looking very good. Yes, the 2000s look flat–but they were also very, very warm. The statistics are such that the second fact is a good deal more significant than the first.

Comment by Kevin McKinney — 22 January 2010 @ 9:30 AM

520. Comment to Ray Ladbury (512): You miss the point completely. I asked the question at the end how many years of a new trend are required before you believe in it. Your answer seems to be – almost never! Not very scientific… And yes, I think I have an idea of the difficulties in the calibration of the satellite data having worked with the calibration of Space Telescope data for a couple of years. Measuring surface temperature of a globe with something like 1% coverage seems harder… Besides, as I wrote, the flatness is seen in the the GISS data as well.

Comment to Kevin McKinney (514): "There's a highly detailed understanding of the physical mechanisms involved". Yes, and I am Santa Claus! It is exactly this unscientific overbelief in largely untested models and the underlying physics that I react against. Climate models have essentially never been tried in different parameter spaces (compared to the present one) and compared with real data and thus the credibility must necessarily remain low until that is done [please reconstruct the Little Ice Age or the end of the real Ice Age as a SIMPLE exercise]. There are some parameters that are poorly known and most likely a number are unknown. The CO2 by itself is possibly quite straightforward but the nonlinear feedback processes simply aren't as you all know. Anything from land use, cloud sensitivity and space interaction remain at best obscurely understood. Complex numerical models of this kind typically contains so many parameters and are sensitive to them all that getting only one wrong may be catastrophic for the result. There is a famous parallel example in astronomy regarding Supernova 1987 A. Stellar models, vastly more trained and better understood than climate models since there are many well observed stars with widely different parameters (ages, metallicities, masses etc.) that they have been trained on, all predicted that a precursor of a

supernova should be a red giant star. Before 1987 A no precursor had ever been observed. When it blasted off in nearby Large Magellanic Cloud, a well mapped region, the precursor could be identified. It was – blue! Not surprising, within a few months after the event papers started to appear indicating that blue supernovae were indeed possible. Post fact – models can always be adapted. Science advances by disbelief rather than belief. I think that on these pages we all want to understand the climate, don't we? Let's do science then and not religion!

[Response: Fine, but why then do you have a dogmatic belief that climate models are untested? This is not true. They predicted the response of the climate to Pinatubo before that impact was seen, they predicted warming from the 1980s before it occurred, they correctly predicted that the original CLIMAP ocean temperatures for the last glacial maximum would be revised down with better data, they predicted that the original MSU data which showed cooling were wrong (and they were) etc. - gavin]

522. Comment by Steven Jörsäter — 22 January 2010 @ 12:48 PM

Further to this post, it seems that a lot of folks are really missing the boat on the entire climate model history of development, challenges met, present limitations, etc. Over and over, we hear various anecdotes of other model failures, these used as analogies to climate models. I'm a fan of analogy but it only works in the simplest of cases, for portraying something that can be substantially conveyed without need for detail.

Steven, without picking on you on in particular but just as the most recent example, you say,

"Climate models have essentially never been tried in different parameter spaces (compared to the present one) and compared with real data and thus the credibility must necessarily remain low until that is done…"

But climate models have faced exactly these things you describe, some of them long ago. It's not flattering to you and it's counterproductive to discussion when you make such an assertion. In its general features, your assertion is one of the most tired and exhausted misunderstandings found on this site. You need to be much more specific if you're going to effectively attack models.

Now I'm going to be entirely redundant and post a hint as to where you might be able to derive an argument worth pursuing:

http://www.aip.org/history/climate/GCM.htm

Comment by Doug Bostrom — 22 January 2010 @ 4:58 PM

523. Steven Jorsatter: Try here:

http://BartonPaulLevenson.com/30Years.html

Comment by Barton Paul Levenson — 22 January 2010 @ 5:39 PM

527.Steven Jorstater,

First, a climate trend becomes clear with about 30 years of data–that's a definition based on statistics. After 15 years, it becomes enticing, but it is not definitive. Is that OK with you, or do you want us to make a special exception for you?

As to your experience on telescopes, there is a really, really big difference between calibrating a purpose-built detector to perform the mission it was designed to perform and extracting a signal from an instrument that was never designed to measure that parameter. The GISS and HADCRUT algorithms are comparatively much simpler.

Now as to your assertions about models, all I can say is BULLSHIT! To contend that stellar models are better understood than climate models is simply laughable, and saying that climate models have not been validated is either astoundingly ignorant or mendacious.

http://bartonpaullevenson.com/ModelsReliable.html

And frankly, I find your accusation that the entire scientific community–not just the climate scientists–is deluding itself to be insulting.

So, Steven, next time you want an ego boost from throwing your buzzwords around, maybe you should pick a site that isn't so full of real scientists who will see through your bullshit like the thin gruel that it is.

Comment by Ray Ladbury — 22 January 2010 @ 9:12 PM

539.#501 (Steven Jorsatter) and subsequent comments (e.g., #523)

If the temperature of a given year is lower than the temperature the previous year then, yes, it would be technically correct to say that the earth cooled during that year. However, this information is not useful if one's purpose is to predict what the Earth's temperature will be 100 years from now. For that, one needs 30 – 50 years of data for reasons explained by BPL in 523 (22 January, 5:39 PM)

Analogy: The fact that you have just descended into a valley doesn't mean that you're not heading toward the mountains.

Comment by Jerry Steffens — 23 January 2010 @ 6:51 PM

540. Steven (#501): Do me a favor and analyze the data for yourself. Google GISTEMP, find the file with the annual global mean surface-ocean index, enter the mean annual data of 1970-2009 in the spreadsheet software of your choice, make a chart, and add a linear trendline. You will see that the trendline almost exactly matches the 2009 data point. No surprise here: the first half of 2009 was in the wake of a La Nina event, and the second half was the onset of an El Nino event, and the two effects canceled each other in the annual mean. What this little analysis shows you is that global warming in the early 2000s was ahead of schedule due to

some persistent El Nino events. Global warming is exactly where it's supposed to be. There is no stalling of global warming at all.

Comment by Alex De Visscher — 23 January 2010 @ 6:54 PM

600. Thanks for all your comments! This discussion is becoming really interesting , probably more interesting than many of you realize [see posts 501, 507, 509 including Gavins comment, 511, 512, 514, 520, 522, 523, 527, 539, 540]. But first, let me show you the graph of the GISS (GISTEMP) and MSU RSS (satellite) monthly data in the years 2000 – 2009 (don't worry about the short time interval – I'll get back to that in a short moment), you find it at http://jorsater.se/klimatet/MSU%20RSS%20and%20GISS%202000-2009.jpg As you can see, both the GISS data and the satellite data agree reasonably well but they also show discrepancies. You find the linear regression line for both data sets – it is rising but rather slowly, 1,1 C per century for the GISS data and quite a bit less for the MSU RSS (satellite) data. I chose the even year 2000 in order not be accused for cherry picking – if you start at 2001 the GISS data is absolutely flat and the MSU RSS data is actually showing cooling, see http://jorsater.se/klimatet/MSU%20RSS%20and%20GISS%202001-2009.jpg. This is the basis for the claim that global warming has stopped. Everybody with me so far? Good!

Now to the statistical significance of such a short time interval. Several of the listed comments above are basic lessons on how long a significant interval should be. Ray Ladbury [post 527] also answered my question as to how long such an interval should be that he would believe in – he says "after 15 years enticing, but it is not definitive". OK, fine. The only problem is, of course, that if you are looking for a trend change you must look at a reasonably short interval, mustn't we? Because trend changes is what we are interested in if we want to know if global warming is still going on, isn't? If we already know it is going on we don't even need bother looking. Unfortunately, some of you may indeed be right that ten years is too short for us to be able to say anything. Let's see what an authority says – fortunately Jim Hansen discusses exactly this in another article – the very recent (January 21) report from GISS

http://www.giss.nasa.gov/research/news/20100121/

In this article, Hansen says "But when we average temperature over five or ten years to minimize that variability, we find that global warming is continuing unabated." This statement is very interesting. For one thing, Hansen thinks that something like 5-10 years is enough. So the flat curve in the last nine years ought to start getting interesting! But secondly, Hansen claims that "global warming is continuing unabated". From what thin air did he get that conclusion? The recent curves are quite flat, as we just saw! We know that the world got warmer from 1900-2000 – that he demonstrates clearly in the graphs in the paper (which is misleading since the last decade – which is the real subject, is hardly visible) we are commenting. But how do we know that warming is going on now? From what many of you have been writing – no measurements can tell us whether it is going on now or, for that matter in the last ten years. How is it then possible that the NASA report claims that "global warming is going on unabated"!? The fact that we just had the warmest decade doesn't tell us anything (and the second warmest year stuff even less). Or does it? We have to make up our mind – if a clear flat trend is not significant then a hypothesised rising one isn't either! What's more – the NASA report is released as news which gives the false impression that measurements have verified recent global warming. This NASA text is sent to journalists of which many most certainly do not how to it should be interpreted.

Hansen should of course have written : The last year was the warmest on record and so was the last decade but the time period is really too short to tell us anything about global warming! It could still be going on and it could have stopped or been reversed – we cannot really tell. Please do not come to any false conclusions! In the paper we comment here Hansen and coworkers are more cautious – they essentially only state that no cooling is going on (again – how does he know what lurks behind the noise!)

But there is more to our discussion here. When I wrote about the satellite data I got comments from Ray Ladbury [512 and 522] that they are hard to calibrate. That may be so but this is a very strange argument as to why they should be left out in Hansen's et al. paper. Is the moral – any data contradicting your results are left out and should anyone discover that, you do your best to discredit that data?! Not very scientific! Hanssen should of course have commented on the satellite data and possible discrepancies and, if he thought them inferior, clearly have stated that and also given appropriate references.

Finally, let's get back to the models which several of you comment upon. Climate models are fine science, don't get me wrong on that. They are the best we can do. But it is their uncritical application to the real world that I am worried about. Several of you claim that they are well tested. That confuses me. To my knowledge the conventional wisdom is that the earth hasn't had the present abundance of carbon dioxide in several millions of years (and proxy data is poor over such time) and certainly far longer back in time for the levels projected for the future by the IPCC. How could you then have tested the models with high levels of carbon dioxide AND compared them with detailed real measurements?

Finally, it should be stressed that the models CAN be reasonably tested for low CO2 situations. Run them backwards and reproduce the entire past century, the Little Ice Age and the Medieval Warm Period and the general picture of the last ice age and I shall be a believer. This has not been done, as far as I know. It requires, of course, abstaining from fine tuning such as fiddling with aerosols – if you allow such things you can fit anything. Also I should mention that there might be a semantic problem. Climate models is one thing but to really know what is happening with the climate over long time you need to model the entire earth system including the biosphere. Are you really saying that all this is well understood?

Finally, a comment to Ray Ladbury [527]. I don't think rude language has ever been effective as a tool for convincing people in a scientific discussion. Frankly, it has quite the opposite effect.

Comment by Steven Jörsäter — 25 January 2010 @ 7:21 PM

612. "Finally, a comment to Ray Ladbury [527]. I don't think rude language has ever been effective as a tool for convincing people in a scientific discussion."

And RS, Tilo, Septic and many, many more (Heironymous for example who doesn't CARE if the science is sound: he doesn't like some of the people) aren't here for the science.

Comment by Completely Fed Up — 26 January 2010 @ 9:30 AM

614. Steven Jorstater, Wow, I think you might have just scored a record for the most distortions in a single post.

Steven: “The only problem is, of course, that if you are looking for a trend change you must look at a reasonably short interval, mustn’t we?”

WRONG!!! If it is a trend change, it will show up in the long-term data. Good lord, why not just fit 30 years worth of data to a 29th degree polynomial! That’ll give you a really good fit, won’t it. A great fit, but zero predictive capability!

Steven: “For one thing, Hansen thinks that something like 5-10 years is enough.”

Absolute bullshit! This verges on mendacious. All Hansen is saying is that if you average over 5-10 years, you filter out enough of the noise that the trend starts to emerg. Good Lord, man, if you average over 10 years, 2 decades gives you only 2 data points!!!

As to why Hansen used GISS data–well, it’s his data set. DUH!!! Taken over a meaningful period of time, UAH, RSS, HADCRUT, GISS, ice melt, phenological data and any other dataset you care to name is consistent with warming. And your allegations of misconduct against Jim Hansen are beneath what one would expect of any true scientist! As to the models–is it your serious contention that the physics of the greenhouse effect changes dramatically from 280 ppmv to 385 ppmv or even 600 ppmv? On what possible scientific finding could you base this contention.

Steven, your post betrays a stunning ignorance of climate science. Now you can either stay ignorant and keep posting absolute BS, or you can actually try to learn the science so you will at least be arguing against the real thing rather than a straw man. Your choice, but right now nearly everything you think you know is flat-assed wrong!

Comment by Ray Ladbury — 26 January 2010 @ 10:09 AM

650. SJ: if you are looking for a trend change you must look at a reasonably short interval, mustn’t we? Because trend changes is what we are interested in if we want to know if global warming is still going on, isn’t?

BPL: Will you for God’s sake CRACK A BOOK? I mean a book on statistics, preferably time-series analysis. NO, you do not want “a reasonably short interval” to find a trend change. The shorter your interval, the more likely the “trend change” isn’t a trend change at all.

Comment by Barton Paul Levenson — 27 January 2010 @ 5:51 AM

Kommentarer till artikeln ”The wisdom of Solomon”. *Endast mina kommentarer och repliker till mina kommentarer är medtagna. Observera att författarens namn (eller pseudonym) finns efter inlägget. Varje inlägg är numrerat med ordningsnumret i bloggen. Moderatorn [normalt Gavin Schmidt] lägger ibland in kommentarer mitt i texten – dessa är signerade. Kommentarerna är kronologiskt ordnade.*

354. Great wisdom indeed! The Solomon paper really came as a great gift. I have been trying to understand how Hansen argues in the paper further down the page and his related recent

article on the same subject. Hansen claims that “global warming is continuing unabated” right up into the present. This is surprising since his own temperature curves shows that the trend is quite flat. I mentioned this in a few comments to his article here on RC. This generated a number of comments, some of them unfortunately rather scornful with a general message that climate trends cannot be meaningfully measured over such a short period as a decade. There is something to that but then I don’t understand how Hansen can conclude with certainty that global warming is still going on. And if you are to look for recent trend changes you have no choice but to look at recent data.

Now Solomon and coworkes have done exactly that, looked at recent trends which they found surprisingly flat. The reason for this is a drop in the last decade in the humidity in the stratosphere which partly masks the underlying warming, they claim. In addition, they may have found important physics and possible negative feedback mechanisms which are not reflected in current models. It would be interesting to hear Hansen’s comments to as to why he refused to see the current flat trend in his data which may turn out to have substantial scientific importance. And a comment from Gavin whether he still thinks that the understanding of the physics underlying the modelling of climate change is quite as solid as he claimed a week ago. Who are really the denialists here?

[Response: If you think my understanding of the physics changes on a week by week basis, that would clearly be you. - gavin]

Comment by Steven Jörsäter — 4 February 2010 @ 6:17 PM

356. Steven Jörsäter (354) — But this just past decade is the warmest on record.

Tamino, on his Open Mind blog (on the sidebar) has several recent threads devoted to explaining how to interpret this century’s global temperature data.

Comment by David B. Benson — 4 February 2010 @ 7:23 PM

366. Steven Jörsäter says: 4 February 2010 at 6:17 PM

“And a comment from Gavin whether he still thinks that the understanding of the physics underlying the modelling of climate change is quite as solid as he claimed a week ago. ”

A week ago, a year ago, a decade ago researchers engaged in this field were discussing natural variability. They are -still- discussing natural variability, today. The difference today? They have a specific path of inquiry suggested by Solomon, one that may explain part of that variability.

You have a problem with this? What, exactly?

Comment by Doug Bostrom — 4 February 2010 @ 11:25 PM

377. BPL [370] “SJ: the trend is quite flat.

BPL: No, it is not. I don’t think you understand what a “trend” is in statistics.”

Perhaps not. But in that case I have good company. A quote from Solomon's paper : "However, the trend in global surface temperatures has been nearly flat since the late 1990s…"

Go tell her instead. If you dare!

Comment by Steven Jörsäter — 5 February 2010 @ 11:11 AM

392. Steven Jorsater in reply to a criticism about the use of the word trend: "Perhaps not. But in that case I have good company. A quote from Solomon's paper : "However, the trend in global surface temperatures has been

nearly flat since the late 1990s…"

Go tell her instead. If you dare!"

If Susan Solomon claims the trend is significant, I will tell her. However, she is not stupid, so I doubt I ever will have the opportunity. Compare to what Steve J did:"Hansen claims that "global warming is continuing unabated" right up into the present. This is surprising since his own temperature curves shows that the trend is quite flat."

The flatness is not statistically significant, is noise, global warming continues unabated. When the January 2010 satellite temp hit a new record, did the sudden T jump come about because of super-fast warming, global warming gone wild? No. It is the usual fluctuations on top of an unabated trend up.

Comment by t_p_hamilton — 5 February 2010 @ 4:17 PM

404. 354 — Steven Jörsäter

The question is, how can Hansen say that "global warming is continuing unabated" despite the "quite flat" temperatures of the last decade. The answer is that natural fluctuations exist. Without the underlying rising trend caused by increasing greenhouse gas concentrations, the ups and downs associated with natural fluctuations would cancel each other out; thus, the big gains of the 80s and 90s would soon be wiped out by losses. In other words, we should now be seeing a distinct and statistically significant cooling trend. The reason we are not is that the underlying warming trend is still operating. The work of Solomon, et al., in no way invalidates this conclusion; it merely provides a possible explanation for the latest of these "natural fluctuations."

Comment by Jerry Steffens — 5 February 2010 @ 6:51 PM

432. The Emperor is Naked but few here seem to see it

I must say that it has been a truly fascinating time just over a fortnight* here at Real Climate. Although I have followed this prestigious blog from time to time I did only recently decide to intervene in the debates. (*for Americans fortnight=14 days).

The discussion on Hansen's article woke me up. Hansen didn't see the recent flatness of the global temperature record. Instead, Hansen and coworkers spent some effort disproving

statements about a stalled global warming appearing in the debate. In a sister publication (http://www.giss.nasa.gov/research/news/20100121/) he makes the by now famous statement: “But when we average temperature over five or ten years to minimize that variability, we find that global warming is continuing unabated.”

This puzzled me. Anyone looking at the data sees immediately that the trend looks flatter in the last decade. This is more clear if you don’t insist on plotting the entire trend since 1880, as Hansen did, leaving only microscopic space for the last decade.

I pointed this out in a comment to Hansen’s article here at RC and I also wondered why he didn’t compare the data to the satellite record – a data set where the flatness is even more pronounced.

The response baffled me. I was told that ten years is far too short to say anything about the climate, that I didn’t understand anything about statistics and the current article was about Hansen’s own data set (implying that it didn’t need be compared to anything else). Wow! What about discussing what we are actually seeing instead and try to understand the key point why Hansen did not mention the flat trend even if he didn’t think it was significant? I was wondering whether this was part of the consensus thinking in climate science – anything that may contradict your dogmas you try to avoid seeing? Very unscientific in that case.

Then the Solomon paper came. Susan Solomon and coworkers did not only see the recent flatness – they made interesting and important science out of it! Great, by luck I had a Big Shot on my side that couldn’t easily be dismissed. I could not have thought about a better demonstration on how you may risk missing important scientific discoveries by not having an open mind on the task at hand.

When pointing this out I get new scornful comments instead of the obvious one – good point! None of them seems to carry any scientific value [Come on - if the significance of a new trend is questionable then certainly the difference between e.g. "quite flat" and "nearly flat" is nonsense.]

What is going on really? And what is consensus? This is science, not politics or activism, isn’t it? If a hard scientific fact appears tomorrow stating that AGW was an illusion, we will all accept it, wouldn’t we? To me, consensus is the very contradiction to science. Consensus is something politicians and activists practise. In true science everything is questioned perpetually – there is not anything settled beyond doubt except possibly the scientific method. If someone presents a case against Newton’s laws he must be given a serious chance to do that. He may be met by more scepticism and be required to qualify his case more than he likes to assure he is not a crackpot but that is quite natural since Newton’s laws have been around for three hundred years. In the new science of climate change new important facts may come any day such as Solomon’s paper and any scientifically based criticism should be taken seriously.

I would very much welcome comments about why you think the ceiling seems so low in this forum instead of the expected and enviable academic freedom?

Finally, I must thank Gavin – this blog is nevertheless great since it allows us to discuss these questions.

Comment by Steven Jörsäter — 6 February 2010 @ 7:31 PM

440. Steven Jörsäter (432) — Here is a link which shows NOAA's latest global tempeerature graphic.

http://climateprogress.org/2010/02/02/groundhogs-day-movie-global-warming-where-its-always-the-hottest-decade-on-record/

Do note the trend, hmmm?

Comment by David B. Benson — 7 February 2010 @ 4:03 PM

443. 432 re Steven Jörsäter says:

"The Emperor is Naked but few here seem to see it." "Hansen didn't see the recent flatness of the global temperature record." "Then the Solomon paper came. Susan Solomon and coworkers did not only see the recent flatness…" "This puzzled me"…

Whats the big woop?, this does not break the long term global average temp trend and you know it.(It is not 30 years and some years can actually be colder and not break the average 30 year temp record…you do know the math term "averages" right?). The year 2009, was still breaking high global average temp records in spite of the Sun being at a near record low and the recent global average temp trend being "flat".

This does not mean the long-term 30 year trend is gone (even a high school algebra grad would know this). We are still breaking all time high global average temp trends for 2009 and some years might even be colder and not break the definition of averages, averages, averages, averages, averages, averages.

Hi Steve, some points I think..and I don't think they are being contradictory. You are not a publishing climate scientist whose work holds up over time. This is literally rocket science and you are telling the general public that the publishing rocket climate scientists whose work holds up over time that their rocket science work is wrong… to me this seems the height of arrogance and mental instability.

Do you know what 240 Watts/Meter2 means and why that is important? Do you know why 600-700 wave cycles per cm is important to CO2, the atmospheric window and methane? Do you know what O16/O18 ratios are or CO12/CO13 or BE12 ratios are or why they are important? You need to know this before you say the "emperor has no clothes."

Asking questions is great…but making broad statements not as a publishing climate scientist whose work holds up over time is how civilizations fall…because then our decisions are made by baseless opinions. This is scary. I don't want my kid's and grand kids' futures or our country's future run by insanity like this. The Salem witch trials came by reasoning like this.

1) As you see, real science is allowed to question itself no matter how embarrassing it may seem to the uneducated (and indeed it is welcome). The contrarians don't do this. For them,

everything is “not happening and is not human caused” and everything against it is ignored. This is not science.

2) You need to examine what the big picture is. The definition of human-caused climate change has always been 30 or more years of trends with natural variability built in so that even some years might be colder. If trends less than this pop up, they are examined anyway. It still does not change the orignal defintion of 30 years of trends. Scientists would be wanton to not examine everything, even small year changes to investigate them…this is literally what you pay them for out of your tax money. However, it still does not change the orignal defintion of 30 year trends.

3) Temperature world wide average trends may now be “flat” compared to past years…but no publishing climate scientist whose work holds up over time disputes (including Solomon) that we are still breaking high record global averaged temperatures even for this year (that is part of a 30 year trend (even though the Sun is at a near all time record low) or that the long term global average trends are still continuing. You know this. I don’t see any contradictions here. True, this may all seem confusing to an uneducated neophyte, however this is rocket science and is why uneducated people should stay out of whether global warming is happening or not or whether humans are causing it or not. You would not tell an open-heart surgeon how to operate on your child…although asking questions is great.

No rules are being broken here. They are talking about it from the perspectives of small temp trends which don’t break the original scientific defintion which still holds today and the large picture which has not changed over 30 years. Small trends within 30 years have natural variation in it…always have and always will (and are in the original definition)…that is why you want 30 years of trends. Some years in the 30 year average might actually be colder due to natural variabiltiy…but it does not break the long term warming trend which is being driven by larger forces than weather such as the Earth’s radiation inbalance. Investigating short term natural variability is necessary and welcome, but does not change the big picture.

WMO global 2009 temperature analysis:

http://www.wmo.int/pages/mediacentre/press_releases/pr_869_en.html
http://www.noaanews.noaa.gov/stories2009/20090916_globalstats.html
http://www.cpc.noaa.gov/products/precip/CWlink/daily_ao_index/ao_index.html
http://en.wikipedia.org/wiki/North_atlantic_oscillation

WMO global 2009 temperature analysis:

http://www.wmo.int/pages/mediacentre/press_releases/pr_869_en.html

Visbeck, 2001 http://www.pnas.org/content/98/23/12876.full

Comment by Richard Ordway — 8 February 2010 @ 10:56 AM

447.#432: You are looking at the decade after 2000 and compare their average with the previous decadal mean. You observe that “the slope of the trend is decreasing” because you look only two decades. If you look into longer temperature record, you can easily find the “flat decades” and “rising decades” in the past, and also the long term rising trend. It is too myopic to compare only the recent two decades.

Comment by MR SH — 9 February 2010 @ 12:05 PM

463.It is hard to make oneself sufficiently clear in short comments like this. What I meant by my comment [432] – The Emperor is Naked – is that being by being too sure that you are on the right track you may turn blind to obvious and important facts. The Hansen paper seen in perspective from the Solomon et al paper demonstrated that as I outlined there. The comments I received only strengthens that view.

We don't need to discuss the long term temperature trend from the 1880's and onwards. AGW has quite a strong case that we can all agree on. But a strong case doesn't mean it is proven, far from it. And the only way to try to disprove it in a scientific way is to explore all other sensible options and show that they don't get you anywhere.

I have received several comments about trends stating that 30 years is required to see anything significant. I have already written that I can understand the argument although I think it is exaggerated. But suppose for a moment that we would all agree on that 30 years is the minimum time to get anything significant out of the measurements. The obvious conclusion would be to freeze climate science as for the prediction of the future climate for the next 30 years (or, even better, 60 years, to get two significant points). Theoretical work should stop and Hansen (and his heirs!) could keep on publishing a temperature mean value once every thirty years. Only after such a period would it be meaningful to resume climate science since there is little scientific point in making models or theoretical work that cannot by definition be falsified by observations. Is this what we want?

Fortunately, a lot of scientists in the field believe that interesting results could come from shorter intervals. Solomon et al obviously did as did their reviewers. Hansen also thinks so, he says 5 to 10 years but in reality he seems to think even shorter intervals may be interesting since he spends a considerable effort in finding the second warmest year within the last decade.

But the central issue is why are so many so annoyed by critical comments instead of getting inspired? The commenter [443] does his best to describe me as ignorant and uneducated. Not very good arguments but a well known method. And no one has tried to answer my challenging question – Why is the ceiling so low? Instead, the comments have clearly demonstrated that is indeed low. But why?

I happen to believe that the field of climate science as it appears presently is best studied from the outside. In that way one doesn't risk grants being cancelled because of possible "erroneous" conclusions and one doesn't feel compelled to obey the pressure from the IPCC which owns its very existence to finding the "right" results*, of which we have lately seen some interesting examples, as also commented on this blog. While saying this I must add that I am positive that most climate scientists follow their true scientific instinct. But do the gedanken experiment that AGW was somehow played down in a series of 5 to 10 influential papers. What would happen to the funding of the IPCC? Or to the funding of climate science in general?

*Is the IPCC a unique case where a research related organization is named after the very phenomenon it is set to investigate whether it exists? CERN should e.g. be promptly renamed HPI (Higgs Particle Instititute) by the same logic.

Comment by Steven Jörsäter — 10 February 2010 @ 5:40 PM

467. Steven Jörsäter:

"AGW has quite a strong case that we can all agree on. But a strong case doesn't mean it is proven, far from it. And the only way to try to disprove it in a scientific way is to explore all other sensible options and show that they don't get you anywhere."

And here I thought we were trying to understand what the science has long shown to be happening [AGW] …. humanity has been exploring the "other options" for decades and found they're not real sensible, or do you have some other "sensible" explanation of the very complex system we call climate? You sound like you're preaching to the BAU choir, and your fixation with names and funding betrays that bias, you don't like the "A" part of AGW, or maybe the "W" part. So call it CC instead, which is what the IPCC does. To my unscientific eye, the relation of the Solomon paper to Hansens is we have more information about the details of the climate systems, NOT that Solomon contradicts anything or is "another sensible explanation" in isolation.

Comment by flxible — 11 February 2010 @ 10:04 AM

469. re 463 Steven Jörsäter "What I meant by my comment [432] – The Emperor is Naked – is that being by being too sure that you are on the right track you may turn blind to obvious and important facts."

Obvious and important Facts…Facts…Facts…hmmmmmmm. That's often stretching it.

Many contrarians, whose work does not hold up under scrutiny, continually add and add again- mostly 20-year old ideas which have mountains of studies showing they are wrong, and very rarely, new thoughts to the peer-reviewed climate literature. Lots of their work literally does not even obey the laws of physics.

But they still regularly publish. It's part of science. Even though most of them seem to know as much about climate chemistry and physics as your pet cocker spaniel, their work is welcome because it does indeed keep science on their toes. They usefully find little things or parts of studies that might have mistakes, that do not change the results of the study itself.

Over and over in 11 years, I have heard the top publishing climate scientists whose work holds up over time at the place I was for 11 years, privately say to me that they are glad for opposing view points and they welcome it because it keeps them/science on their toes.

You can be certain, that if any study has holes in it…or even if it does not have holes in it, the contrarians have and are publishing works against it (however, their work might hold up 5% of the time, if even that these days..and it is only on the small things that don't change the big picture).

Please, please, please, please take the time to read this site…almost one out of every four posts here is reliably done in relation to contrarians works. I will doubt your sincerity if you do not check.

The contrarian studies are taken as seriously as mainstream science can… Ridiculous ideas such as "the moon is made of green cheese" or "the Earth is flat" can only be rehashed so many times…but still it is published, and republished and rerepublished.

Examples of contrarian studies (none of which stand up over time to the best of my knowledge on big things…) :

Soon and Baliunas, 2003.
Soon et al, 2003.
Schwartz, 2007, Journal of Geophysical Research.
Scafetta and West, 2005.
Scafetta, N., and R. C. Willson, 2009.
Scafetta and West, 2006.
Scafetta and West, 2007.
McKitrick, McIntyre 2005.
Lindzen, 2001.
Miskolczi, 2007, Idojárás.
Tsonis , 2009, GEOPHYSICAL RESEARCH LETTERS.
Craig & Lohle 2008.
Douglass et al.2007.
Klotzbach et al, 2009, J. Geophys. Res.
McClean et al, 2009, J. Geophys. Re.s
Gerlich and Tscheushner, 2009.
Essex, McKitrick, Andresen, 2007.
Chilingar, Khilyuk, Sorokhtin, 2008.
Nordell, 2008.
IPCC AR4, 2007 (synthesis and includes some contrarian ideas)
Lindzen and Choi 2009

Comment by Richard Ordway — 11 February 2010 @ 1:29 PM

473.Steven Jorstater says: "And the only way to try to disprove it in a scientific way is to explore all other sensible options and show that they don't get you anywhere."

How many times would you like to explore them–or in other words how many times must a zombie be killed before it is really dead? Richard Ordway has cited several corpes of contrarian articles. He could have gone back and cited several of their previous incarnations in the literature of the '30s, '40's 50's and '60s.

In addition, all credible options are continually being looked at by mainstream climate scientists. The quickest way to fame and glory is to overturn an established theory.

SJ: “The obvious conclusion would be to freeze climate science as for the prediction of the future climate for the next 30 years (or, even better, 60 years, to get two significant points). Theoretical work should stop and Hansen (and his heirs!) could keep on publishing a temperature mean value once every thirty years.”

Oh good Lord! Have you ever even taken a science class? Science changes by its nature. It advances. Over time, you wind up with some steady robust elements that define the consensus theory. Guess what: the greenhouse effect is one of these in climate science.

SJ: “Fortunately, a lot of scientists in the field believe that interesting results could come from shorter intervals.”

No, Steven, all scientists believe that interesting results are to be found at shorter intervals. The short-term variability of climate is one of the current frontiers of the field. Lots and lots of work being done. But guess what? That variability does not invalidate the long-term trend, but rather is on top of it. The long term trend is interesting precisely because it stands out from the short-term variability.”

SJ: “But the central issue is why are so many so annoyed by critical comments instead of getting inspired?”

Oh, I don’t know, could it be that we have heard the same critical comments and refuted them about twice a week from people who haven’t bothered to try and understand the science? That couldn’t have anything to do with it, could it?

SJ: “The commenter [443] does his best to describe me as ignorant and uneducated.”

Steve, when it comes to climate science, you are ignorant. That is not an insult, but a diagnosis. Richard went out of his way to give you resources where you could begin your education. Clearly, you chose to take offense rather than take the opportunity.

SJ: “I happen to believe that the field of climate science as it appears presently is best studied from the outside. In that way one doesn’t risk grants being cancelled because of possible “erroneous” conclusions and one doesn’t feel compelled to obey the pressure from the IPCC which owns its very existence to finding the “right” results*, of which we have lately seen some interesting examples, as also commented on this blog.”

OK, Steve, here is where you veer off the rails into tinfoil-hat nutjob territory. Cite one scientist who has lost his funding because he found results contrary to the consensus model of climate? Just one? Do you have any idea how paltry most research grants are? Do you have any idea how miniscule funding for the IPCC is? Do you realize that most scientists volunteer their time to the IPCC and that it is considered an onerous imposition on time that could be spent doing research? Five or Ten influential papers–hell, dude, there are a couple of thousand papers that support the consensus!

And then you go and show you are every bit as ignorant of particle physics as climate science. Do you really think the LHC will be a failure if it doesn’t find the Higgs? Do you really think that it will find nothing of interest independent of whether it finds the Higgs.

Steven, I’m going to try and say this in as nice a way as I can. Right now, it is clear that you understand very little about how science is done or what motivates scientists. Most of what you think you understand is wrong. Mark Twain said, “It’s not what you don’t know that gets you in trouble. It’s what you know for sure that just ain’t so.” And what you think you know for sure is leading you toward becoming a crank. Maybe it is time to think where you think you learned that scientists might alter their conclusions to hold onto research funding or that results contrary to prevailing theory are punished. It ain’t so. Quite the opposite. Science is founded on innovation and on correcting past errors.

Do you have any scientists that you could shadow for a couple of weeks to learn how science is actually done? Have you read Spencer Weart’s excellent work on the history of climate science:

http://www.aip.org/history/climate/

It is very readable, and Spencer, in addition to being an excellent historian, was trained as a physicist. Please do us all a favor and read it.

Comment by Ray Ladbury — 11 February 2010 @ 5:28 PM

475.#463 Steven Jörsäter

I don’t think anyone is saying interesting results ‘can’t’ come from shorter time periods. Certain signals can be attributed to certain evens on short time scales ENSO and El Nino or La Nina or some other oceanic cycles have reasonable attribution to affect. Attribution needs to be tied to affect of course to understand things better.

As to your comments in 432, specifically temps are flat for 10 years???

It is important to consider natural variation. Look at the overall trend and you see lines going up and down in the annual record of global temps. This is natural variation. It's like when Monckton tried to claim sea lever was no longer rising… and he used a graph that clearly showed the trend of sea level rising.

http://www.ossfoundation.us/projects/environment/global-warming/myths/images/fake-images/Monckton_Sea_Level_Rise.png/view

Shorter term analysis does not apply to the longer term trend without some sort of attribution. Most of this variation is likely natural variation.

If we find that AGW is an illusion scientifically, I will absolutely accept it. In the mean time, there is no evidence that overrides the current understanding of the forcing levels imposed in the system by added GHG's… unless of course you have found the evidence???

In your #463 post you use the meme, hey we really don't know… which usually translates to we should not do anything until we know…You 'may' be misinterpreting what some people are saying or assigning values that are not there (i.e. your comments on Hansen)

Your lovely red herring argument about people should get inspired by 'your' criticism is kind of egocentric, wouldn't you say? Unless of course you have some peer reviewed criticism that has survived review, to show us that you did?

Otherwise your criticisms do not have much substance. You of course being a sound and reasoning person would agree with that, correct? Please, get me caught up. Where is your "Why is the ceiling so low" question. I just searched the thread for that exact phrase and it only shows up in #463?

As to your "outside" comment, there is nothing that would make a young scientists more famous than disproving the human cause for this global warming event. DO you really think that it has not been thoroughly examined, considered and attempted.

Look at Svensmarks work.

http://www.ossfoundation.us/projects/environment/global-warming/myths/henrik-svensmark

and Lindzen… they are trying really hard, and failing.

Use reason and common sense and the veil may fall and ye shall wake up to what 'consensus' in 'science' means. Note to all who wish to help promote 'Fee & Dividend': I have changed the signature in all my emails to include the below text. Please consider doing the same. For those that post in here that are aware of the issue, please consider ending all your posts with the text and link. We get a lot of readers in here and the more that post, the more will see it.

—

The Climate Lobby

Sign the Petition!

http://www.climatelobby.com

Comment by John P. Reisman (OSS Foundation) — 11 February 2010 @ 7:52 PM

479. #463 Steven Jörsäter says:10 February 2010 at 5:40 PM

Only after such a period would it be meaningful to resume climate science since there is little scientific point in making models or theoretical work that cannot by definition be falsified by observations.

Even if we disregard the other faults in your argument, (see e.g. Ray L at #473) and even if we accept all of "Popper's Logic of Scientific Discovery" ,which is not always done, the approach in that remark is a misreading of the falsifiability criterion. Falsifiability refers to the logical possibility of falsification and has nothing to do with the problems of performing tests. The same conclusion applies to Popper's Conjectures and Refutations although here the criterion would be a demand for the scientist to look for tests. Popper was certainly not hostile to theoretical work, as the above quotation suggests.

Comment by Geoff Wexler — 12 February 2010 @ 12:25 PM

Kommentarer till artikeln "IPCC errors: facts and spin". *Endast mina kommentarer och repliker till mina kommentarer är medtagna. Observera att författarens namn (eller pseudonym) finns efter inlägget. Varje inlägg är numrerat med ordningsnumret i bloggen. Moderatorn [normalt Gavin Schmidt] lägger ibland in kommentarer mitt i texten – dessa är signerade. Kommentarerna är kronologiskt ordnade.*

281. Revealing errors

I agree that the errors made in the IPCC report may not be very important at first sight. But the problem is that both of the major statements that you list [glaciers and the Netherlands] have an alarmistic tone that cannot be mistaken. This is what worries serious critics. They are not just any types of mistakes – they are excellent examples of statements that should make it easier to "sell" the message. Politics, not science, is a good description. I don't think that requiring the IPCC to use only peer reviewed literature would be of any great help to assure a neutral and correct description. It is easy to make a very biased presentation citing well chosen articles and well chosen parts of articles no matter how scientifically correct they may be.

That the IPCC is not trying to present an unbiased and neutral description of the present development of the current climate and its consequences should be obvious to anyone. If we e.g. look at the WGII chapter 12.6.1 we see an extensive discussion of the European heatwave in 2003. A singular weather event is thus allowed to play the part of a warning example. We are also informed that this heat wave led to 35000 fatalities. Is this a balanced way to describe what a possible future climate would mean? If so, I hope that the winter of 2009/2010 appears in the next round of reports with a statement such as : On the other hand, with ongoing warming there should less risk of severe cold periods such as that which struck in 2009/2010

which claimed xxx thousand deaths in Europe alone. Do you think something like that will be included?

But there is an even more interesting aspect of the "gates". I do not know which media you read. The media I see are overwhelmingly alarmistic and biased in their reporting and have been so for years. This extends, amazingly enough, even to quality newspapers and magazines such as The New York Times and The Economist. The "gates" stories have finally awakened them. Instead of believing the climate story as gospel truth they have understood that they should review the material in a critical way, something that one expects from the free press but which certainly and amazingly has not taken place until now. That they finally take the time to scrutinize the IPCC publications is thus a good thing regardless of where you stand in the debate provided you have some interest in the truth. The fact that two such obvious errors remain in the text doesn't only show that the IPCC review mechanism is faulty – it shows that almost no one has read the texts thoroughly. I blame myself for not having done so since I would almost certainly have gotten suspicious on both statements and a rather easy check would have proved them faulty. In the case of the Netherlands story it is more than amazing that this error could have survived so long without anyone noticing it – I suspect that on the order of one out of two of Dutch intellectuals would have immediately spotted the error.

Comment by Steven Jörsäter — 15 February 2010 @ 6:00 PM

289.@281 Steven Jörsäter,

an insightful and important comment, since it goes beyond the rather simplistic factual debate, a sidetrack as far as I am concerned. What you highlight is the framing of climate change in general, and the staging of risk in particular. Sociologist Ulrich Becks book World At Risk is a good primer.

It is frustrating that so many knowledgeable believers (knowledgeable on the physical facts and physical theories, all the WG1 people, the mature science of climate change) are almost void of knowlege on framing issues. The reasons for this is of course their limited scientific training. Yet, we can not blaim them for this. We are all limited in our expertise and insights,social scientists even more so than natural scientists.

As a response to this post, several people will assert that I am a "denier", which only illustrate their factual simplicity and their inability to see the broader picture. Simplictic believers should read Mike Hulmes book Why we disagree about climate change.

Comment by Andreas Bjurström — 15 February 2010 @ 7:06 PM

305.SJ@281, You are late to the party. We have already noted that the IPCC underestimates the severity of several threats (e.g. melting of the cryosphere, sea-level rise, etc.).

Has it ever occurred to you that the reason The Economist and the Times take the editorial position they do is because they've looked at the evidence? Did it ever occur to you to look at the evidence?

Comment by Ray Ladbury — 15 February 2010 @ 9:11 PM