

A Logical Argument Against Man Made Global Warming  
for the Layman

by

Erik Bays

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This essay was completed as part of the completion of a BS in Journalism: Communication Studies from the University of Oregon. The author is a vegetarian, he recycles, he uses a bicycle as his primary mode of transportation, and his home is powered by wind power. He is not employed by any oil or gas company or any special interest group. You can contact the author at [erikbays@yahoo.com](mailto:erikbays@yahoo.com).

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## I. Introduction

Did you know that the Earth has been cooling for the last decade? Did you know that the poles of the planet are gaining about as much ice as they are losing? Did you know that for 420,000 years changes in the Earth's temperature have happened before changes in atmospheric carbon dioxide? These are not things that you are likely to learn by listening to the mainstream media.

This paper has two goals. First, it tries to educate the reader about some of the issues surrounding manmade global warming (hereafter simply "global warming"). Second, it makes a logical argument against global warming.

This paper does not address the issue of what should or should not be done about global warming. This paper simply addresses the question: Is global warming occurring?

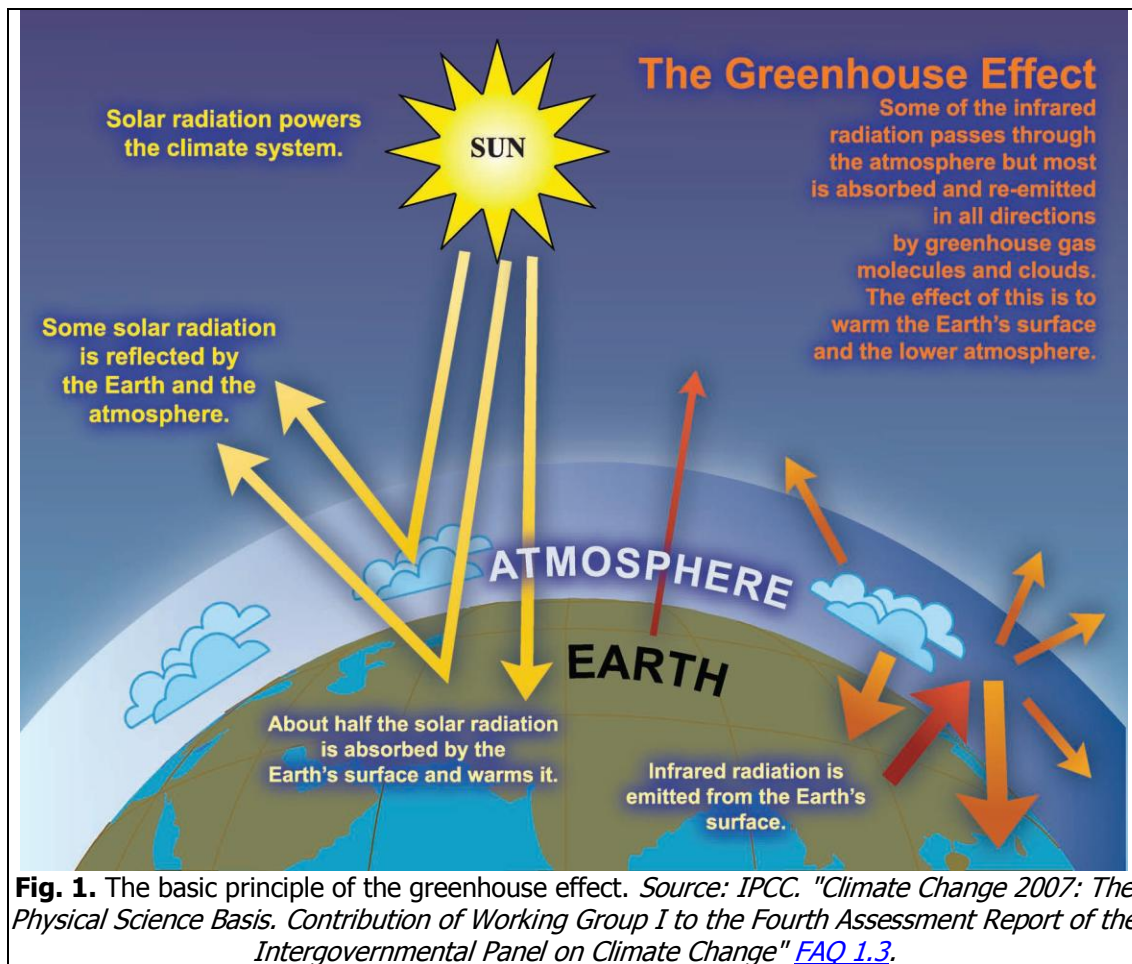
This paper makes the following arguments:

- 1) The IPCC is driven by politics and is not an objective scientific body. Its conclusions are untrustworthy.
- 2) There is still scientific debate about global warming.
- 3) Computer climate models are unreliable.
- 4) Changes in energy from the sun drive climate change on Earth, not carbon dioxide.
- 5) Earth's temperature has been warmer in the past. It is not hotter than normal.

Therefore, global warming has not yet been proven.

## II. The Greenhouse Effect

Here is the basic idea of the greenhouse effect. When sunlight hits the earth it warms its ground temperature. The warm earth then emits infrared radiation to cool itself. This escaping radiation is absorbed by greenhouse gasses (GHGs) in the atmosphere. These gasses do not absorb most of the incoming shortwave radiation but do absorb most of the outgoing longwave radiation. The cooling earth warms the atmosphere, which then radiates some of that heat back down to the earth. This is

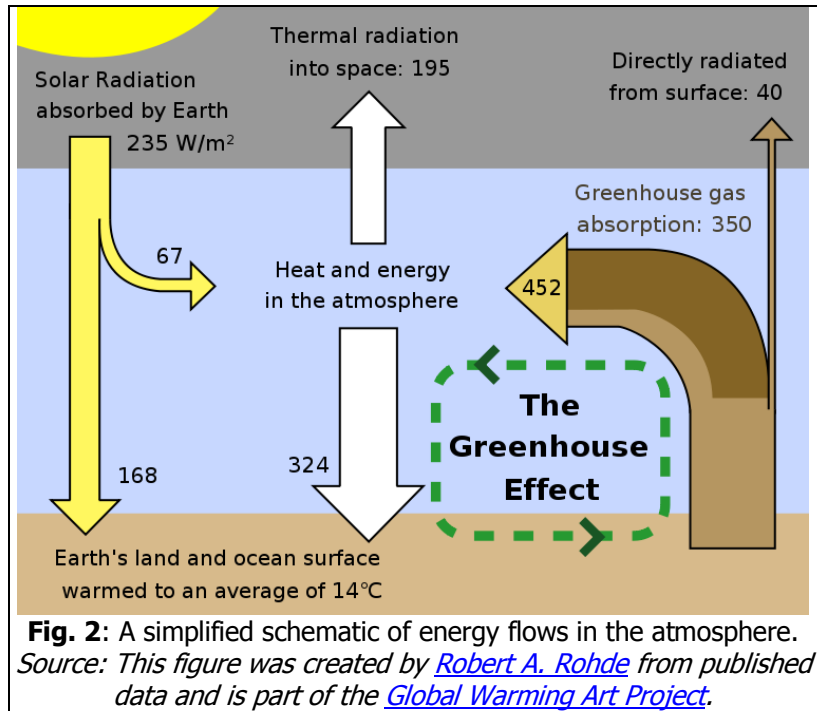


called "the greenhouse effect" based on how a greenhouse can warm up when its door is closed. Another analogy would be, "the car in the parking lot effect."

### Global warming

skeptics do not debate the greenhouse effect. Without

the greenhouse effect the temperature of Earth would be about 10° F and the oceans would be frozen solid.<sup>1</sup> Skeptics also do not deny that man is putting carbon dioxide (CO<sub>2</sub>), a GHG, into the atmosphere. What is debated is the effect increased CO<sub>2</sub> in the atmosphere has on the system.



### III. An Appeal to Authority Fallacy: The IPCC

Before getting to the actual [logical arguments](#) against global warming, it is necessary to briefly address the most common fallacies that are used to support it and also give some political background. The first fallacy is the presumed authority of the IPCC.

The Intergovernmental Panel on Climate Change (IPCC) was created by the UN in 1988 to address the growing concern of global warming. The intention was for the

IPCC to be an objective scientific body that could produce reports on climate change for politicians worldwide. In 2007 the IPCC won the Nobel Peace Prize jointly with Al Gore for informing the world about global warming.<sup>2</sup>

When it is said that there is a consensus in the scientific community that global warming is occurring, this is usually referring to the IPCC.<sup>3</sup> The IPCC's assessment reports are widely seen as authoritative evidence that global warming is occurring. Instead of providing logical evidence to support the idea of global warming, someone may say that they believe in it because the IPCC says it is true. This is a reasonable position with a topic as complex as global warming. After all, we can't do field research on global warming ourselves. At some point we have to rely on some scientist we've never met. However, in the context of a logical discussion, to say global warming is true simply because the IPCC says so is a fallacy known as an "appeal to authority."

This paper will provide some reasons why the IPCC cannot be trusted as an objective scientific body. This is also not a logical argument; it is an "ad hominem" (character) attack. It is done in this case to overcome the IPCC's presumed authority.

### ***Revisions to the 1995 IPCC Second Assessment Report***

In its [Second Assessment Report](#) in 1995, the IPCC made headlines when it announced for the first time that "the balance of evidence suggests a discernible human influence on global climate." This was a groundbreaking change from its position in its first assessment report, and it had heavy political significance. Shortly after this report,

the United States announced that it would now support "the adoption of a realistic but binding target" for emissions.<sup>4</sup> It was also on the basis of this report that the Kyoto Protocol was entered into by most of the countries of the world two years later.

A coalition of oil, coal, and utility companies known as the Global Climate Coalition quickly accused the IPCC of misconduct.<sup>5</sup> Accusations followed from Frederick Seitz, a scientist with formidable credentials. Seitz was a recipient of the National Medal of Science and a past president of both the National Academy of Sciences and the American Physical Society.<sup>6</sup>

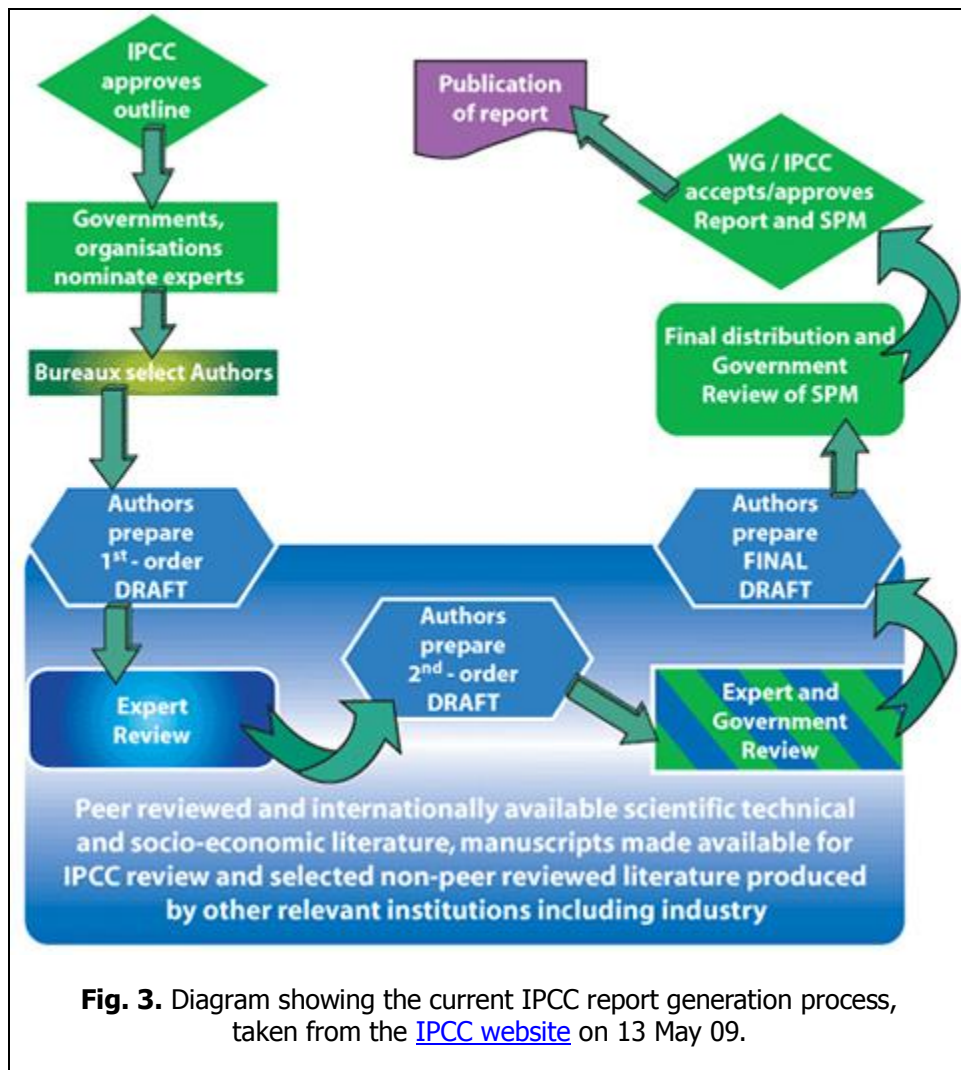
The accusations had to do with revisions that had been made to Chapter 8 of the report, the most controversial of the sections. Here is how the chapter was written, based on an account of a scientist who was involved with the revisions.<sup>7</sup> First, a working group of six dozen climate scientists met and debated over each portion of the chapter. Based on this discussion the chapter was written, submitted to the IPCC, and accepted. Then, government representatives had the opportunity under IPCC rules to respond to the report. Benjamin Santer, the lead author of Chapter 8, was required under IPCC rules to revise the chapter in response to these government comments. He made the revisions without consulting with the other scientists of the working group.

Seitz claimed that this revision amounted to deliberate fraud and "corruption of the peer-review process."<sup>8</sup> Specifically, the following statement was deleted, "None of the studies cited above has shown clear evidence that we can attribute the observed changes to the specific cause of increases in greenhouse gases," and the following



statement was added, "The balance of evidence suggests a discernible human influence on global warming."<sup>9</sup> This was a fundamental change. For a more complete listing of the revisions see [Appendix C](#).

These practices continue to this day. For the [2007 IPCC Fourth Assessment Report](#), the summary was released months before the text being summarized was completed. Then anything in the scientific text that did not line up with the predetermined summary was changed.<sup>10</sup>



Who funds or commissions a scientific study does not necessarily influence the outcome of the study if the scientists are left alone to do science. For example, Exxon can fund an environmental study, and that is fine, as long as Exxon does not try to influence what the conclusions are. However, if Exxon pressures or influences the scientists to change their conclusions, the science has been corrupted.

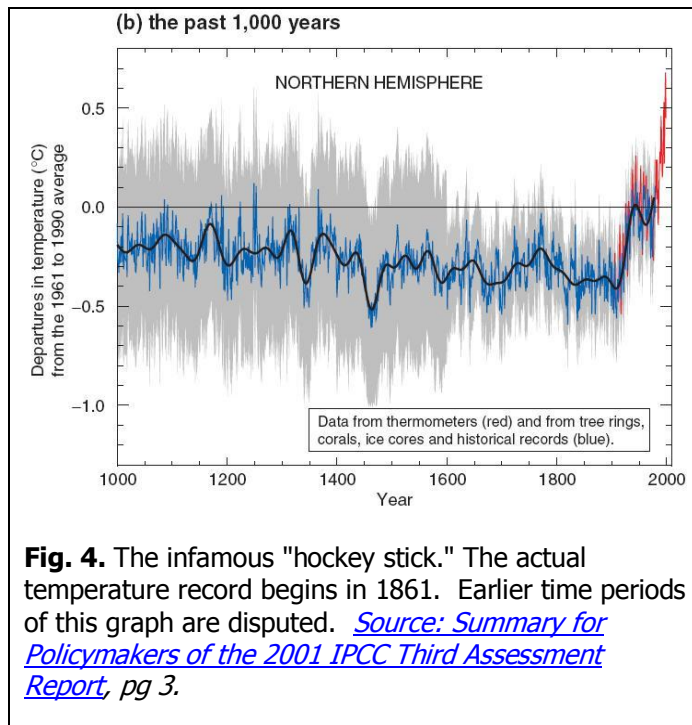
In short, the IPCC cannot claim to be a scientific body as long as government has input into the decision making process. There is no good reason for government review and feedback during the generation of a scientific report. As Fig. 3 shows, government has no fewer than two opportunities to influence IPCC reports as they are created. And historically, governments have used global warming as an excuse to expand their control and authority.<sup>11</sup>

*"I have found examples of a Summary [For Policy Makers] saying precisely the opposite of what the scientists said,"* - South African Nuclear Physicist and Chemical Engineer Dr. Philip Lloyd, an IPCC co-coordinating lead author who has authored over 150 refereed publications.<sup>12</sup>

*"The IPCC's editors could - and often did - reject the peer-reviewer's comments, a reversal of the normal practice in scientific peer-review."* - Climate data analyst John McLean after reviewing the documents of the 2007 IPCC Fourth Assessment Report Working Group I.<sup>13</sup>

## The "Hockey Stick"

In the [2001 IPCC Third Assessment Report](#), one of the lead authors, Michael Mann, relied heavily on his own research. Mann's research used a new statistical analysis method to analyze temperature data. His results did not show the past temperature periods known as the "medieval warm period" or the "little ice age." His results showed a relatively consistent temperature for the world up until about 1865, when the temperature skyrocketed.<sup>14</sup>



Because of its shape this graph became known as the "hockey stick." The hockey stick graph was present six times in the summary section alone, and it was all through the Third Assessment Report.<sup>15</sup>

In a physics class at the University of California, Berkeley, Professor Richard Muller, a recognized expert on global warming, had this to

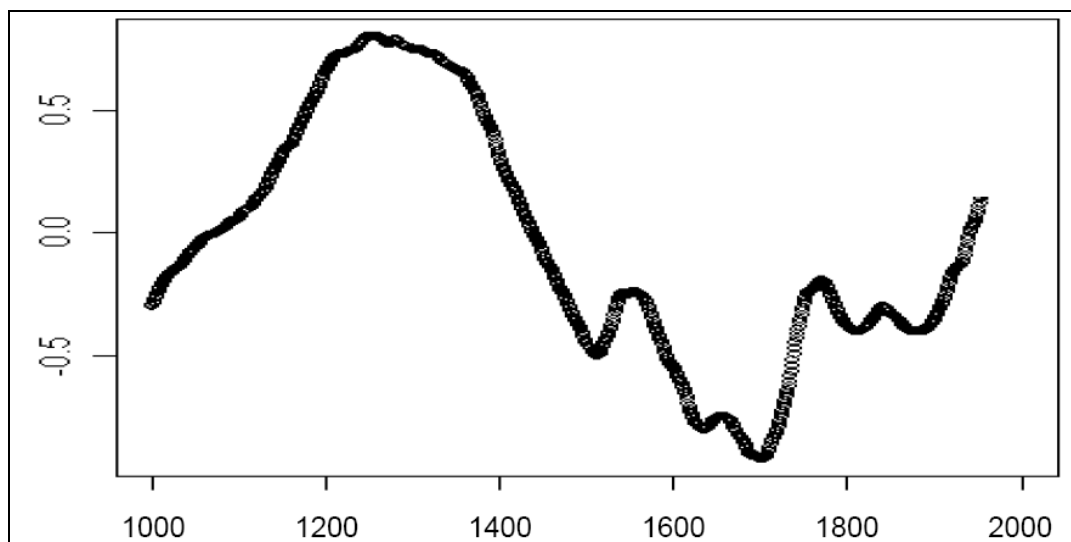
say about the hockey stick:

*"This really galvanized people. Suddenly we see that it is the warmest it's been in over a thousand years, and we're not just coming out of the little ice age. This is obviously due to humans. This became famous. Every politician in*

*Washington knew about it... The problem with this plot is it's wrong, and this is now a deep embarrassment to the people in the climate community.*<sup>16</sup>

The hockey stick was first refuted in 2003 in a paper published by Stephen McIntyre and Ross McKittrick.<sup>17</sup> In 2006 a committee led by renown statistician Edward Wegman reported to the US House of Representatives on the problems with Mann's methodology. Wegman reported to Congress: "Mann's methodology does not create the hockey stick out of whole cloth. Rather, it 'mines' the data to find it. If there is a hockey stick in the data somewhere, Mann's algorithm will bring it back alive and magnify its importance." Wegman stated that Mann's errors were fairly obvious to an expert statistician.<sup>18</sup>

The IPCC removed any mention of the hockey stick in its following reports, but has never acknowledged any error. The 2001 report is still publicly available on the



**Fig. 4.** Widely accepted view of global temperature before the hockey stick. *Source: Wegman, Edward, David Scott, and Yasmin Said. "Ad Hoc Committee Report on the 'Hockey Stick' Global Climate Reconstruction." Presented to the U.S. House of Representatives Committee on Energy and Commerce, 14 Jul 06.*

IPCC's web site, hockey stick and all.

The story of the hockey stick is significant to the IPCC's reputation as a scientific body because it reflects on the scientific process that is used. This is an error that the IPCC's peer-review process should have uncovered. Also, as a lead author, it was inappropriate for Mann to rely so heavily on his own work.

An analysis by the Science & Public Policy Institute has shown that IPCC contributors are largely part of a group of coworkers that have a predetermined opinion about global warming and are not receptive to contrary opinions.<sup>19</sup> McIntyre has recently made requests for information regarding the formulation of the IPCC's most recent assessment report, but was told by a lead author that all the records had been destroyed in violation of IPCC rules.<sup>20</sup> The number of respected scientists that have spoke out about the unscientific methods of the IPCC are too numerous to list here, but here are a few examples:

*"...it would not be surprising if working scientists would make special efforts to support the global warming hypothesis. There is ample evidence that this is happening on a large scale.... Data that challenges the hypothesis are simply changed. In some instances, data that was thought to support the hypothesis is found not to, and is then changed."* - MIT Climatologist Richard Lindzen<sup>21</sup>

*"The IPCC has actually become a closed circuit; it doesn't listen to others. It doesn't have open minds... I am really amazed that the Nobel Peace Prize has been given on scientifically incorrect conclusions..."* - Indian geologist Dr. Arun

D. Ahluwalia at Punjab University and a board member of the UN-supported International Year of the Planet.<sup>22</sup>

*"These [IPCC] Summaries are prepared by a relatively small core writing team with the final drafts approved line-by-line by government representatives. The great majority of IPCC contributors and reviewers, and the tens of thousands of other scientists who are qualified to comment on these matters, are not involved in the preparation of these documents. The summaries therefore cannot properly be represented as a consensus view among experts."* - Physical chemist Dr. Peter Stilbs, chairman of the climate seminar Department of Physical Chemistry at the Royal Institute of Technology (KTH) in Stockholm<sup>23</sup>

#### **IV. An Appeal to Authority Fallacy: Scientific Consensus**

Consensus is a political concept, not a scientific concept. At the heart of science is the struggle to constantly challenge and test accepted norms. Consensus is usually achieved within members of an organization in order to represent a unified position to those outside the group, even when the members within the group may disagree.

Stating that global warming is occurring because there is a scientific consensus to that effect is another appeal to authority fallacy. Scientists throughout history have held contrary views that later turned out to be correct. Regardless, claims to a scientific consensus are untrue.

Much of a discussion of a scientific consensus comes from "An Inconvenient Truth,"<sup>24</sup> where Al Gore states that a survey of 928 random abstracts published in scientific journals that use the word "climate change" showed that 75% of them agreed with the consensus and that none of them disagreed. Al Gore went on to say that not believing in global warming is as ridiculous as believing that the Earth is flat. However, it has been shown that the study was flawed, and that the majority of abstracts did not mention manmade effects on climate at all.<sup>25</sup>

In the last section we already discussed the problems with the IPCC consensus. It should also be recognized that statements from organizations such as the National Academy of Sciences and the American Meteorological Society endorsing the "consensus" view represents the handful of members on the governing boards and do not represent every member in the organization.

The fact is that a large number of notable scientists have spoken out against global warming. More than 31,478 US scientists have signed a mail-in petition rejecting global warming as part of the [Global Warming Petition Project](#),<sup>26</sup> including 9,029 scientists with PhDs. Additionally, a [minority report](#) from the US Senate Environment and Public Works Committee<sup>27</sup> has released a list of over 700 scientists rejecting global warming. This list is perhaps more significant because it includes biographies from the scientists as well as specific quotes. The list includes many current and former IPCC members as well as several Nobel Prize winners.

A short amount of time spent reading through statements in the report listed above is enough to verify that the global warming discussion is not over.

## **V. Argument: Computer Models Are Unreliable**

How confident are you that the weather forecast for a week from now is accurate? Forecasting the weather more than about two weeks ahead is fairly unreliable. If this is the case, how can we expect computer models to predict the climate in 2050?

Comparing local weather and global climate is not an equal comparison; they are really two different things. They are similar, however, from the perspective that they each have an incredible number of variables involved. A computer climate model is only as good as the person who programs it, and there is still a lot we don't know about climate. A computer model is also subject to the preconceived ideas of the person who programs it, like the idea that CO<sub>2</sub> is warming the Earth.

James Hansen, head of the NASA Institute for Space Studies, gatekeeper of the satellite temperature data used by the IPCC, outspoken supporter of global warming and friend of Al Gore, once said to the US Senate, "The forcings that drive long-term climate change are not known with an accuracy sufficient to define future climate change."<sup>28</sup> The 2007 IPCC Fourth Assessment Report states that of the nine variables that affect climate change, they have a "low" to "med" level of scientific understanding for seven, and only a "high" level for two.<sup>29</sup> It is with this data that they program their



computer models. The IPCC's current stated level of confidence in their conclusions would not be enough to warrant scientific publication on other subjects.<sup>30</sup>

Our current lack of understanding of Earth's climate prohibits us from accurately determining future climate change.<sup>31</sup> Climate models used by the IPCC predict that the tropical troposphere and polar troposphere should be much warmer than they are.<sup>32</sup>

Doctor and author Michael Crichton explained it well in 2007 at a global warming debate when he said:

*"In 1988 when James Hansen had talked to Congress and said that global warming had finally arrived, the 'New York Times' published a model result that suggested that in the next hundred years there would be a 12° C increase. A few years later, the increase was estimated to be 6°, then 4°. The most recent UN estimate is 3°. Will it continue to go down? I expect so."<sup>33</sup>*

Hundreds of respected scientists, listed in a [US Senate report](#),<sup>34</sup> have voiced their opinions that climate models are unreliable. Ultimately, the best way to understand our climate is to examine what it has done in the past.

*"Since I am no longer affiliated with any organization nor receiving any funding, I can speak quite frankly....As a scientist I remain skeptical...The main basis of the claim that man's release of greenhouse gases is the cause of the warming is based almost entirely upon climate models. We all know the frailty of models concerning the air-surface system." - Atmospheric Scientist Dr. Joanne Simpson,*

the first woman in the world to receive a PhD in meteorology, formerly of NASA, who has authored more than 190 studies.<sup>35</sup>

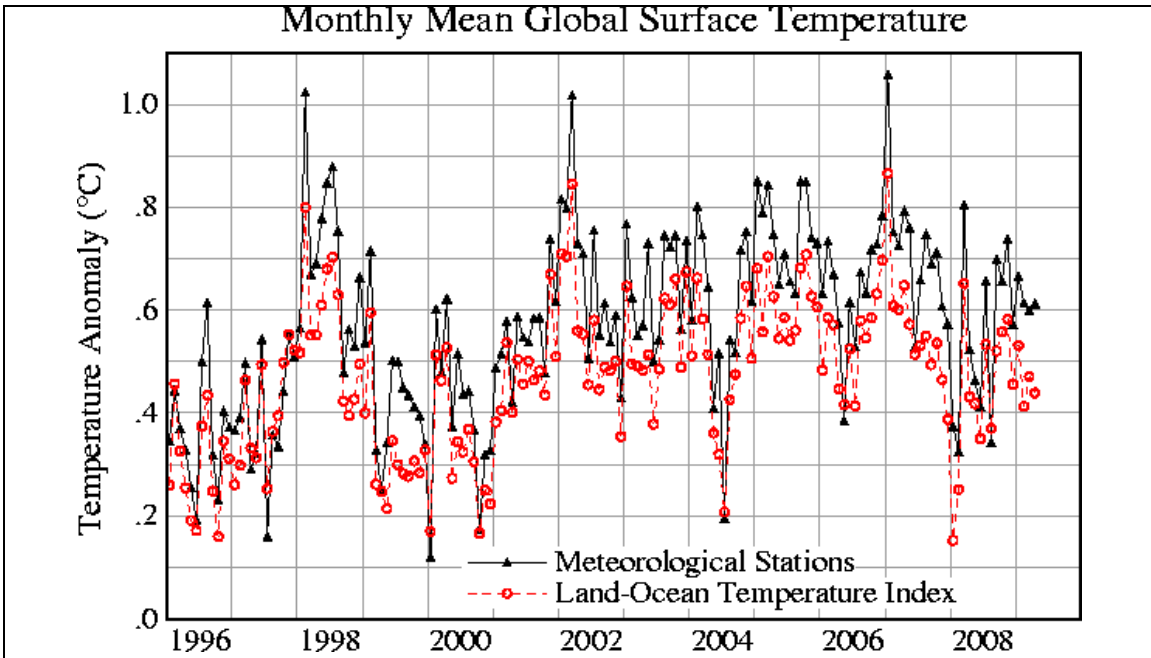
*"Are there other possibilities to explain the temperature increase of the last 40 years? Yes! Current warming is consistent with the 300 year trend. Changes in solar activity could explain much of it. Then there is the climate model-predicted mid-troposphere 'hot' zone that is supposed to exist over the tropics.*

*Temperature measurements show that the hot zone is non-existent. This is more than sufficient to invalidate global climate models and projections made with them!"* - Steven M. Japar, PhD atmospheric chemist who worked on the IPCC's Second (1995) and Third (2001) Assessment Reports.<sup>36</sup>

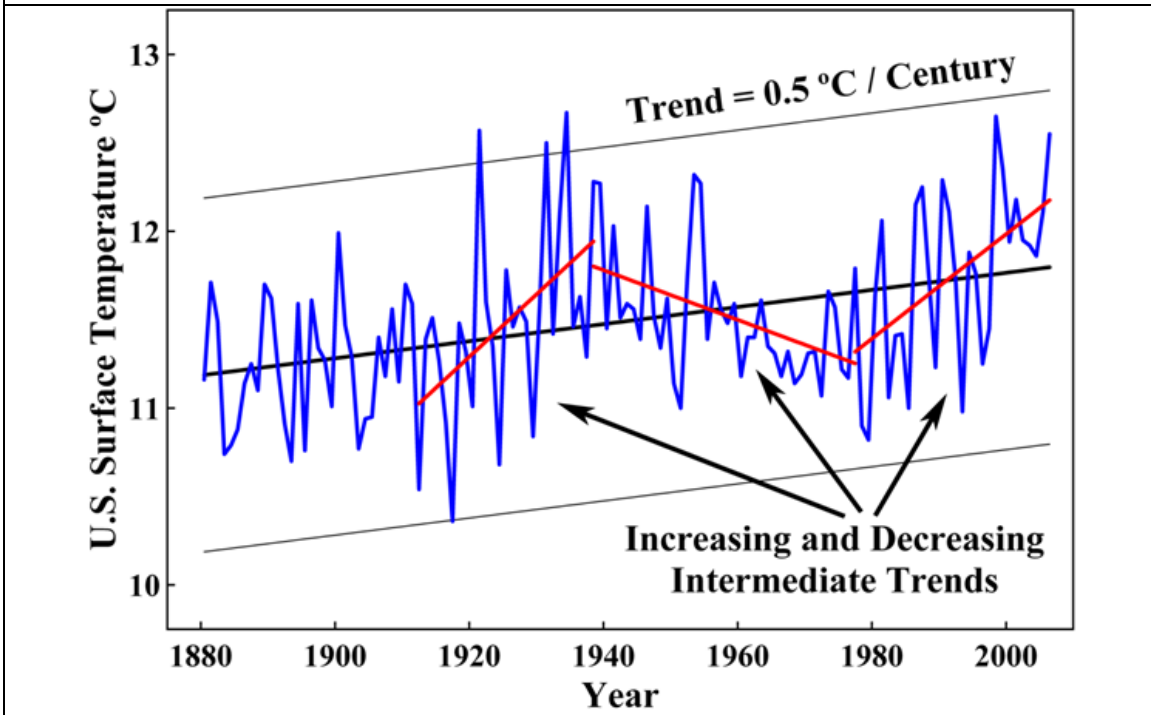
## **VI. Argument: Temperature Trends**

Now we can actually discuss the main merits of the case against global warming. The obvious place to start is temperature. The IPCC states that humans have been affecting climate since about 1957 by adding CO<sub>2</sub> to the atmosphere, and that since that time the Earth has warmed about 1° F (0.6° C).<sup>37</sup> Lately, however, it hasn't been warming. From 1998 until 2009 the Earth has cooled about .25° C despite the fact that CO<sub>2</sub> levels have continued to climb.

Another significant time period is between about 1942 and about 1976. During this time temperatures also fell despite increasing levels of CO<sub>2</sub>. Scientists worldwide were afraid that we were entering into another ice age.<sup>38</sup>

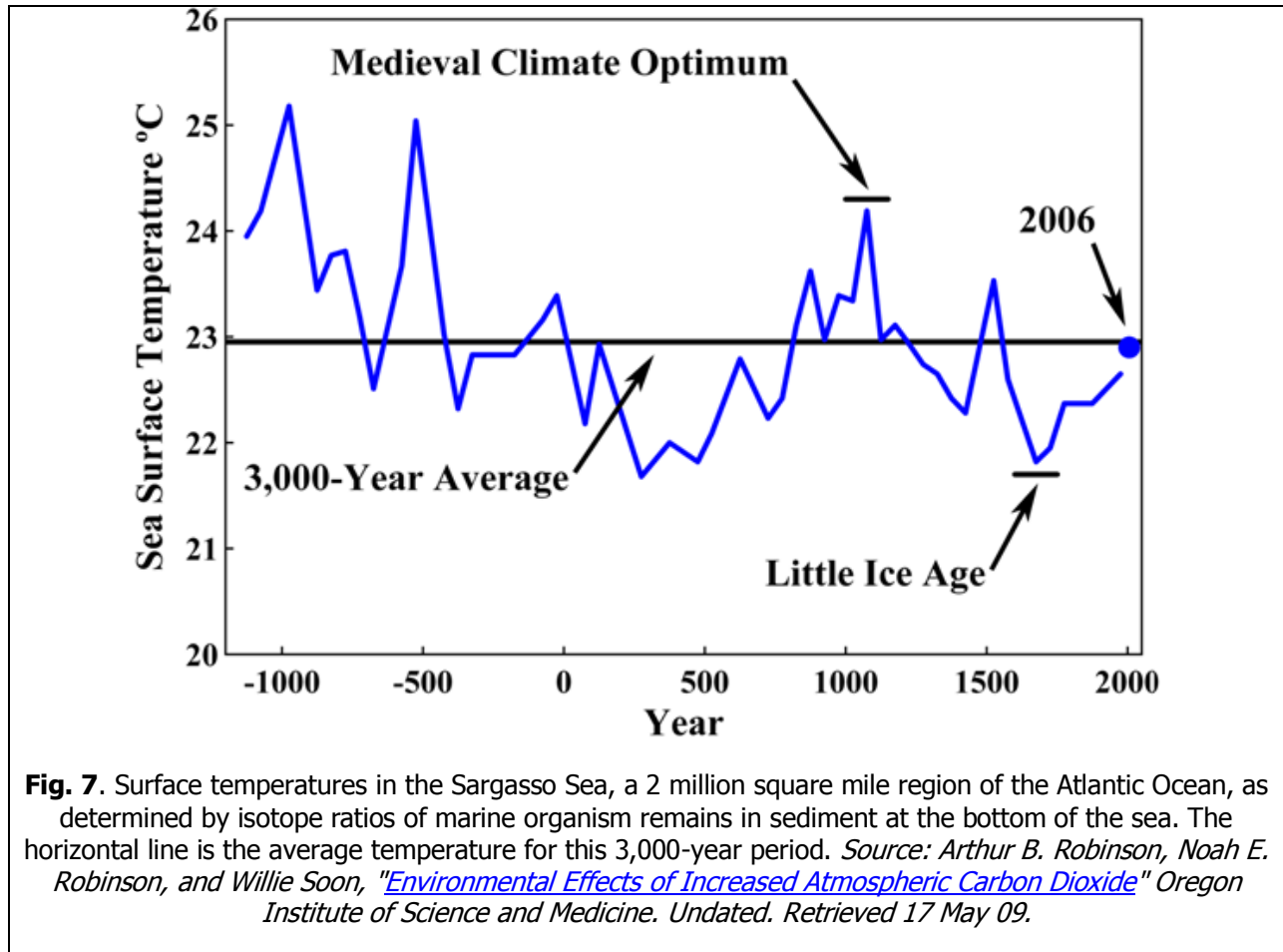


**Fig. 5.** Surface temperature of the Earth since 1996. The Goddard Institute for Space Studies is the source the IPCC uses for its temperature data. *Source: [Goddard Institute for Space Studies](#). Retrieved 17 April 09.*



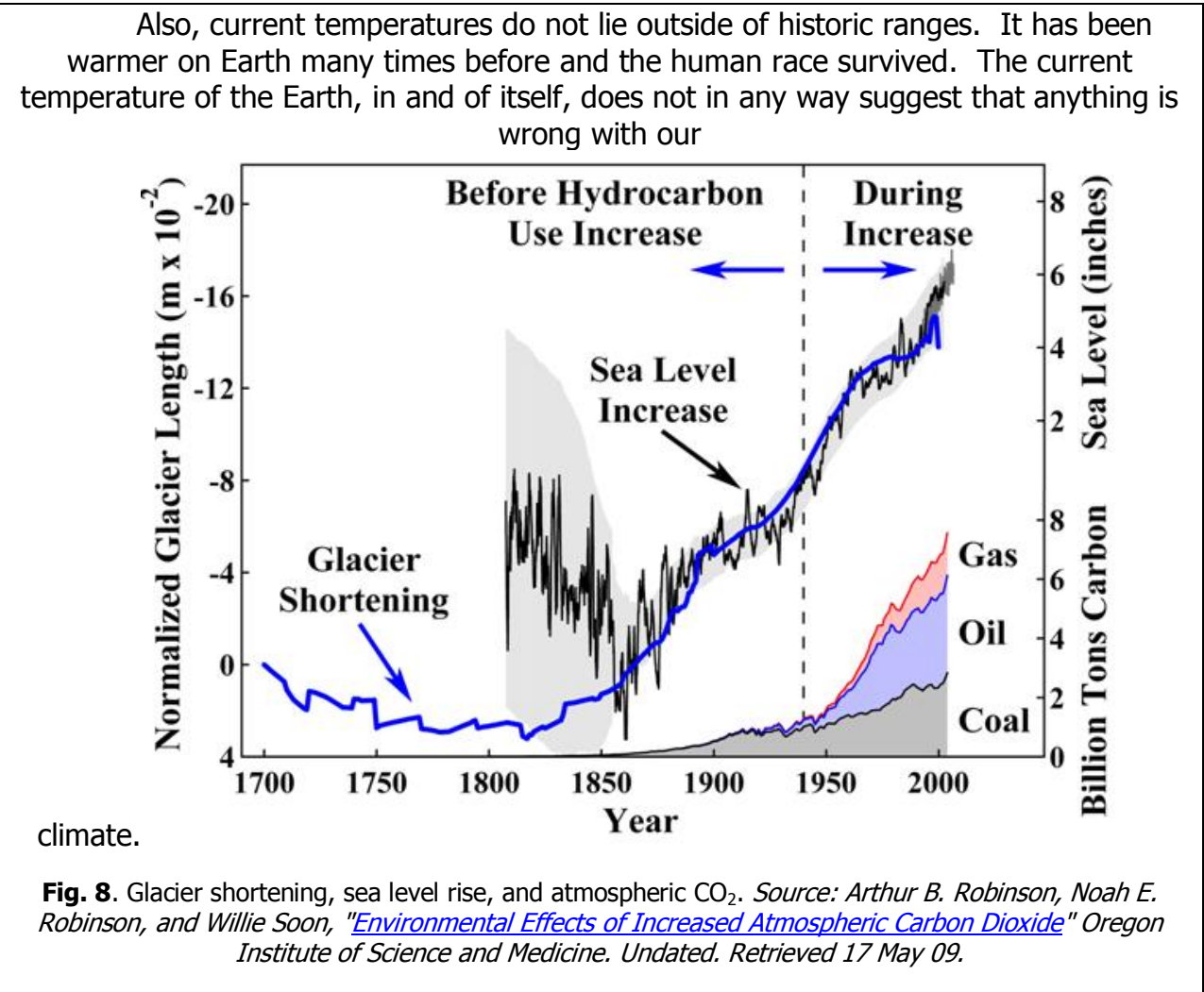
**Fig. 6.** US Surface temperature since 1880. *Source: Arthur B. Robinson, Noah E. Robinson, and Willie Soon, "[Environmental Effects of Increased Atmospheric Carbon Dioxide](#)" Oregon Institute of Science and Medicine. Undated. Retrieved 17 May 09.*

Some people will argue that a 10 or 15 year time period is not long enough to gauge a climate trend, and they would be right. It is all a matter of what time period you want to look at and how you present the data. Over a 3000 year period the Earth has been cooling. Over a 1500 year period it has been warming. Over a 1000 year period it has been cooling. Over a 400 year period it has been warming. Actually, it has pretty much been steadily warming for 400 years as we have come out of a time period known as the "little ice age." It cooled last night, and it has been warming since the sun came up this morning.



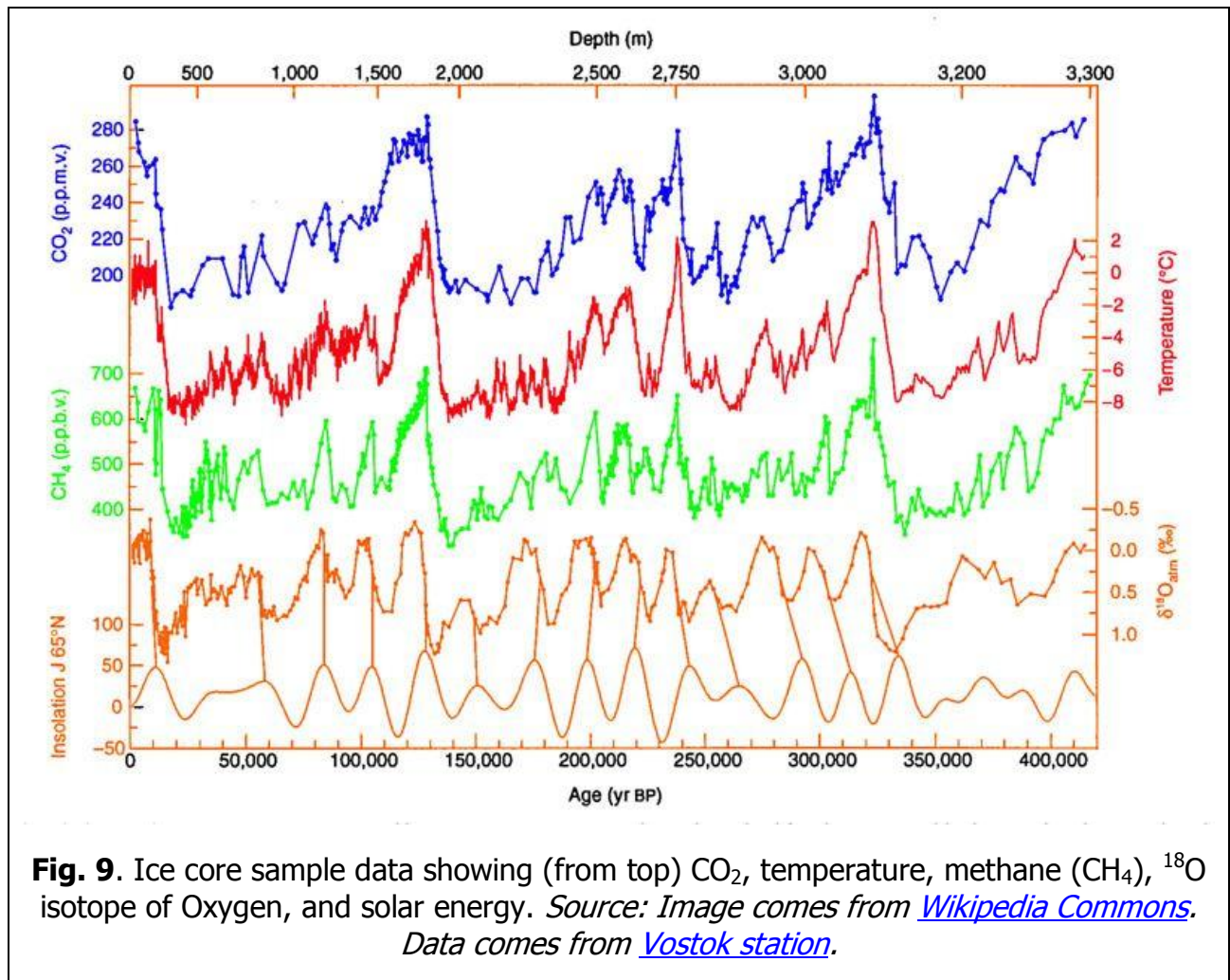
**Fig. 7.** Surface temperatures in the Sargasso Sea, a 2 million square mile region of the Atlantic Ocean, as determined by isotope ratios of marine organism remains in sediment at the bottom of the sea. The horizontal line is the average temperature for this 3,000-year period. *Source: Arthur B. Robinson, Noah E. Robinson, and Willie Soon, "Environmental Effects of Increased Atmospheric Carbon Dioxide" Oregon Institute of Science and Medicine. Undated. Retrieved 17 May 09.*

As you can see from Fig. 7, the climate is constantly changing. The climate was not steady and stable until humans came along and upset the balance. The climate constantly changes all on its own. And it hasn't just been warming for 50 years. It's been warming for 400 years. The glacier on Mt. Kilimanjaro that Al Gore highlighted in his movie "An Inconvenient Truth"<sup>39</sup> has been melting for 125 years,<sup>40</sup> much longer than the time (since about 1957) the IPCC says humans have been affecting climate. In fact, glaciers in general have been melting and sea levels have been rising for 180 years.<sup>41</sup>



## VII. Argument: Carbon Dioxide Does Not Drive Temperature

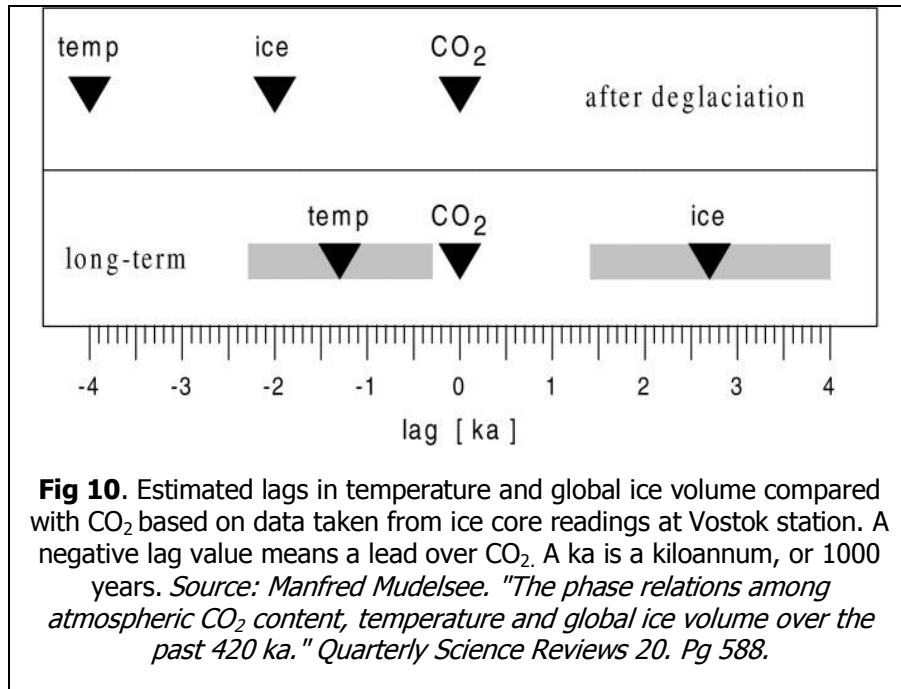
In "An Inconvenient Truth,"<sup>42</sup> Al Gore used a graph showing readings taken from ice core samples taken in Antarctica. These readings showed CO<sub>2</sub> and temperature levels going back 420,000 years. Gore stated the graph showed a correlation between temperature and CO<sub>2</sub> and ridiculed the idea that they did not. This is the only evidence for global warming given in the film; everything else he talks about is a natural disaster he attributes to global warming.



CO<sub>2</sub> and temperature are clearly linked. But any scientist can tell you (which Gore is not) that "correlation does not equal causation." In other words, it doesn't prove what is causing what. CO<sub>2</sub> could be driving temperature, temperature could be driving CO<sub>2</sub>, or some third factor could be driving both of them.

As it turns out, for the last 420,000 years changes in temperature have occurred *first*. The ice core readings show that changes in temperature lead changes in CO<sub>2</sub> by 1300 years +/- 1000 years.<sup>43</sup> The data gathered from the ice cores does not show what Gore infers. This is not to say that CO<sub>2</sub> is not a GHG or that it doesn't play a role in our climate. However, multiple scientific studies have confirmed that temperature changes happen in our atmosphere before CO<sub>2</sub> changes.<sup>44</sup>

What this data record shows is that CO<sub>2</sub> is not the main driver in our climate. The temperature changes prompted the oceans to interact with the air and either release or absorb CO<sub>2</sub>. The CO<sub>2</sub> did not prompt the changes in temperature. When temperatures began to cool they cooled despite higher levels of CO<sub>2</sub> for several hundred years. When temperatures began to rise they rose despite lower levels of CO<sub>2</sub> for several hundred years.



## VIII. Argument: The Sun Drives Temperature

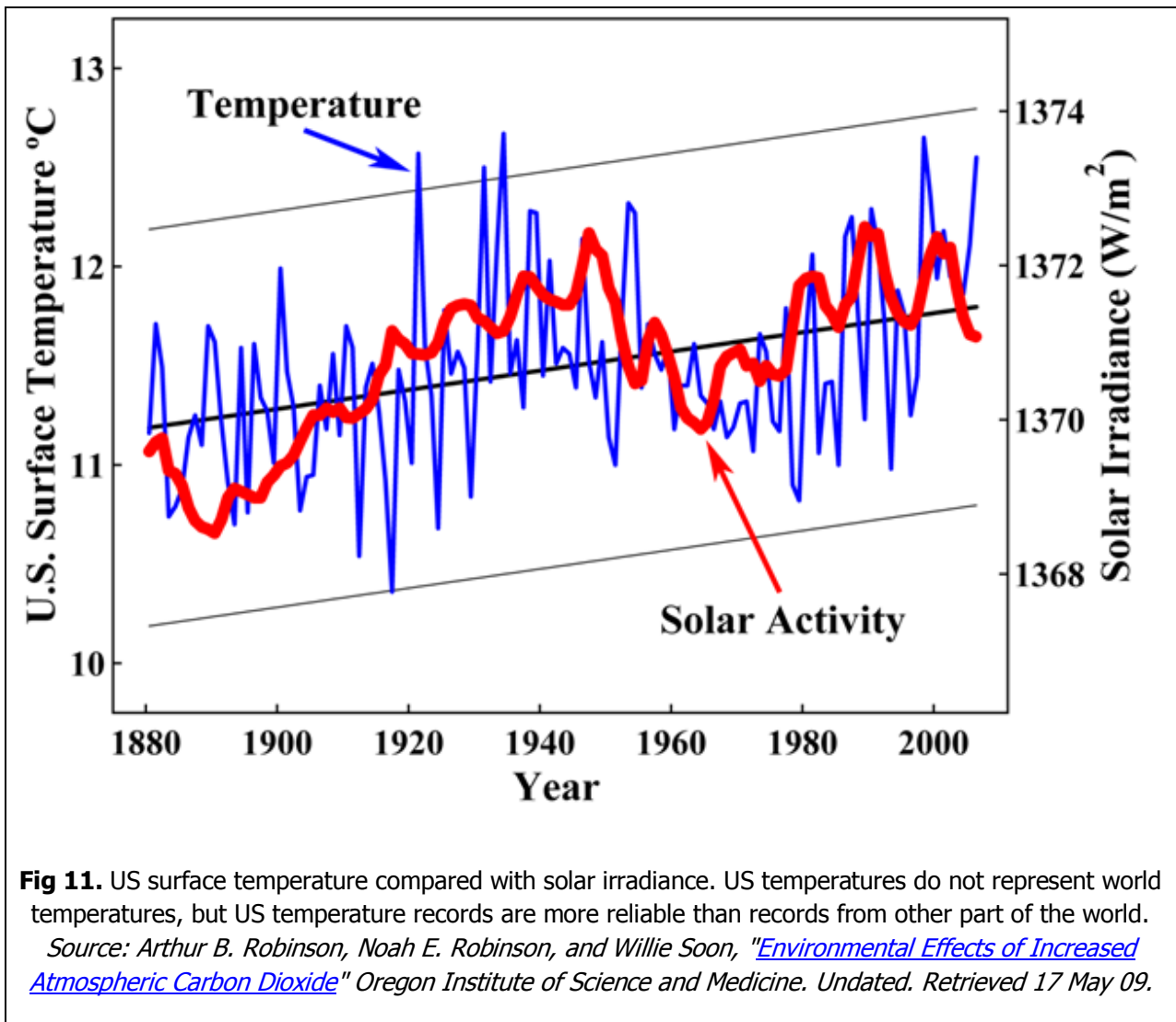
Energy from the sun is obviously the source of all the energy for our climate system, and this energy is not constant. It's always changing. It goes through periods of greater and lesser activity on a not-so regular basis.<sup>45</sup>

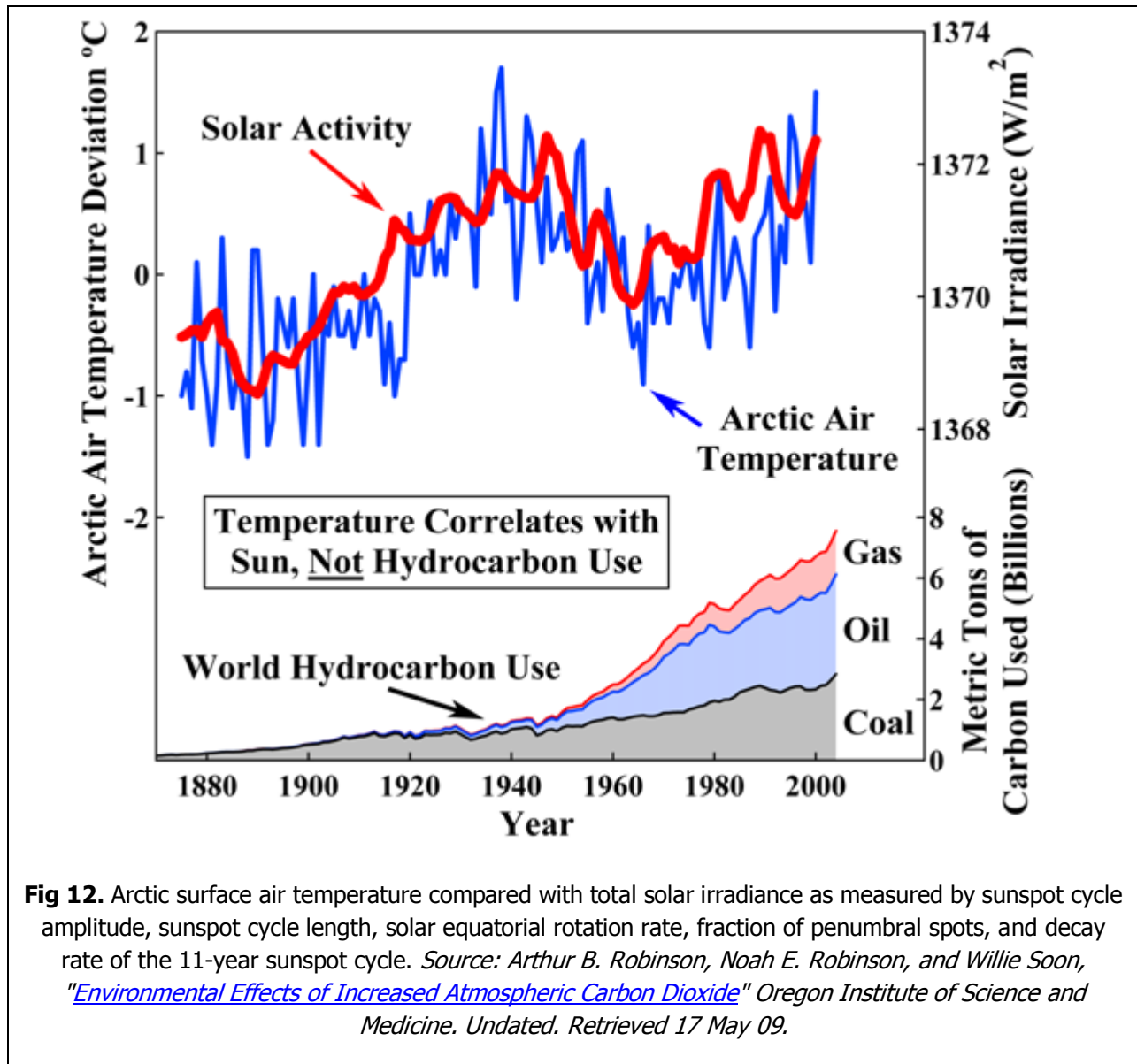
The IPCC states that solar variation is not the cause of the warming we have seen in the last 50 years. They base this position primarily on computer climate models. In its 2007 [Fourth Assessment Report](#) the IPCC describes its level of scientific understanding of solar irradiance as "low."<sup>46</sup>

However, the best evidence of how the climate is working is not computer models but data of how the climate has acted throughout history. Historic data shows that changes in solar energy correspond with changes in temperature both in the long term (Fig. 9, Pg. 21) and the short term (Fig. 10, 11, 12). As Al Gore might say, even a



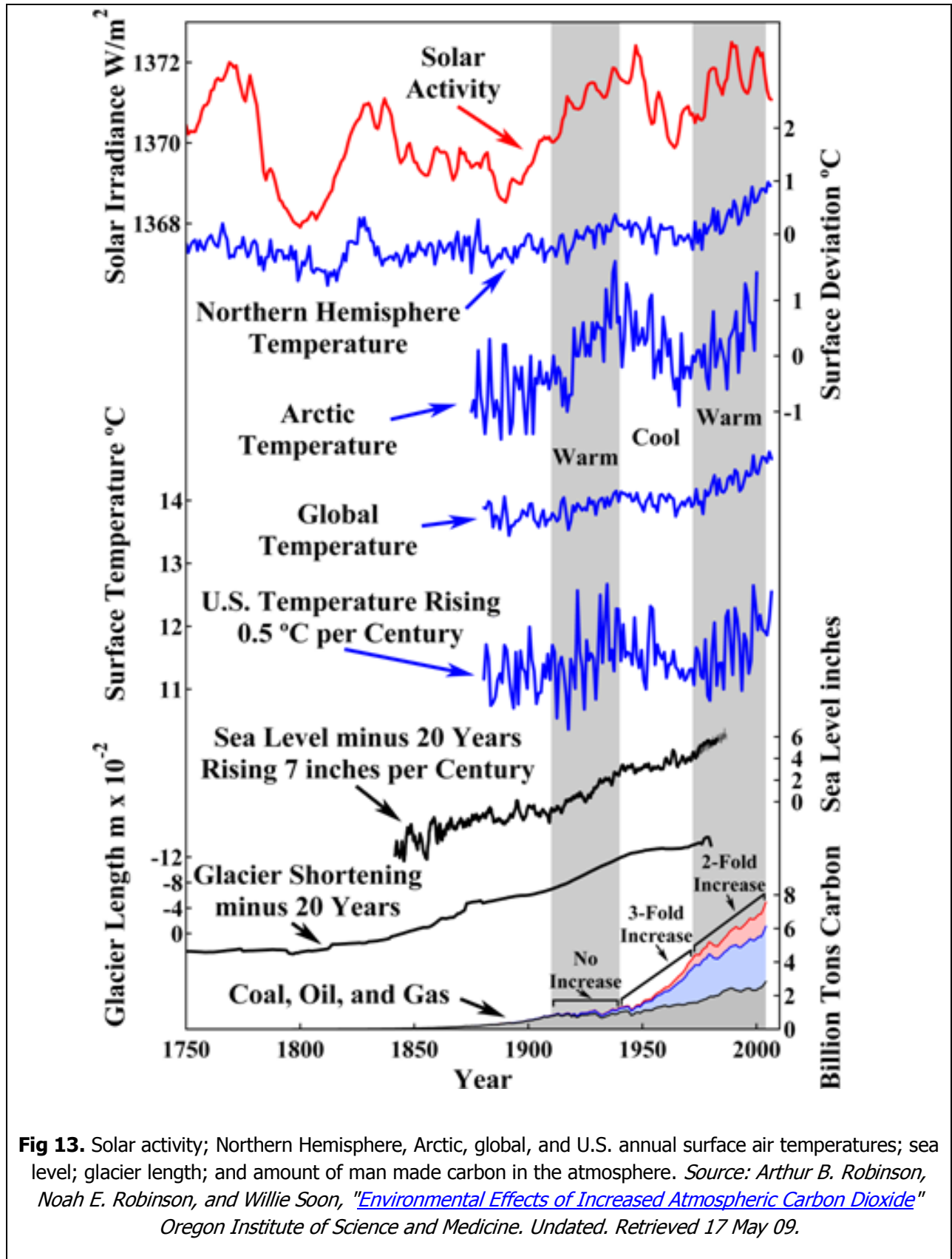
fourth grader can see there is a correlation. And in this case, there is no way that we can say that the Earth's temperature is affecting the amount of energy from the sun. A correlation in this case can only mean that changes in solar radiation are affecting changes in Earth's temperature.





**Fig 12.** Arctic surface air temperature compared with total solar irradiance as measured by sunspot cycle amplitude, sunspot cycle length, solar equatorial rotation rate, fraction of penumbral spots, and decay rate of the 11-year sunspot cycle. *Source: Arthur B. Robinson, Noah E. Robinson, and Willie Soon, "Environmental Effects of Increased Atmospheric Carbon Dioxide" Oregon Institute of Science and Medicine. Undated. Retrieved 17 May 09.*

Fig. 12 compares temperature with changes in solar energy and CO<sub>2</sub>. As this chart shows, changes in solar energy are a much more logical driver of temperature changes than changes in CO<sub>2</sub>. The graph of solar energy is much more similar to the temperature graphs than the graph of CO<sub>2</sub>.



**Fig 13.** Solar activity; Northern Hemisphere, Arctic, global, and U.S. annual surface air temperatures; sea level; glacier length; and amount of man made carbon in the atmosphere. *Source: Arthur B. Robinson, Noah E. Robinson, and Willie Soon, "Environmental Effects of Increased Atmospheric Carbon Dioxide" Oregon Institute of Science and Medicine. Undated. Retrieved 17 May 09.*

## IX. Related Topics

That is it. The main argument against global warming has been made. Here are some other issues surrounding global warming that are good to be knowledgeable of:

### ***Water Vapor and Clouds***

One of the most unknown factors in the global warming debate is clouds. Clouds reflect a portion of the incoming shortwave energy before it reaches the earth. An increase in temperature could create an increase in H<sub>2</sub>O which could cause more clouds. This could counteract any potential warming due to increased greenhouse gasses. Since no one really knows how clouds form, no one knows how to factor this in.<sup>47</sup>

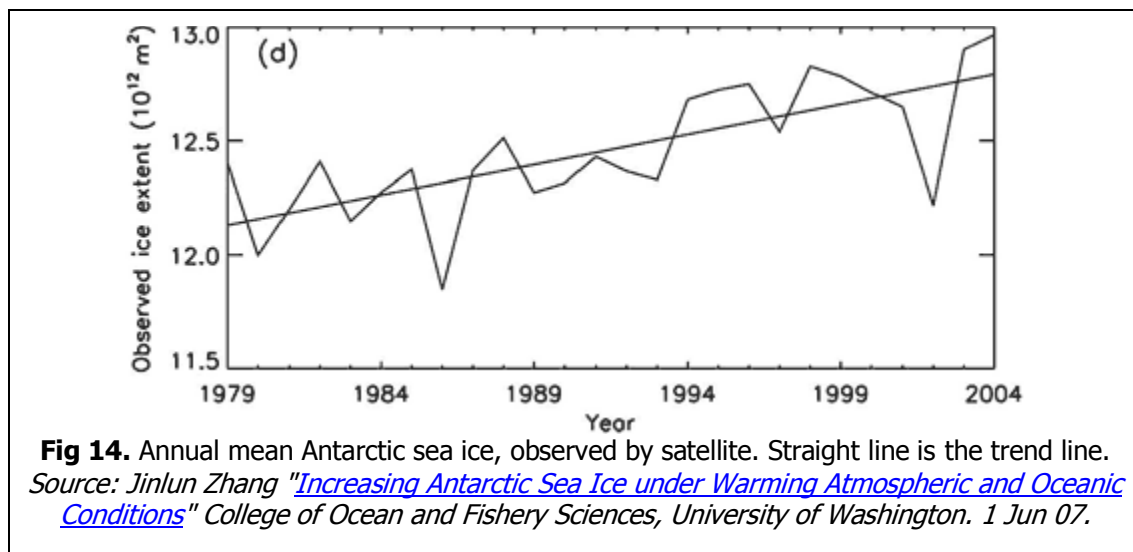
On pg 592 of its 2007 [Fourth Assessment Report](#) the IPCC states, "Important deficiencies remain in the simulation of clouds." On pg 593, referring to clouds that block incoming radiation, the IPCC says, "The relatively poor simulation of these clouds in the present climate is a reason for some concern."

*"Even doubling or trebling (tripling) the amount of carbon dioxide will virtually have little impact, as water vapour and water condensed on particles as clouds dominate the worldwide scene and always will."* - Geoffrey G. Duffy, professor in the Department of Chemical and Materials Engineering of the University of Auckland, NZ, who has published 218 journal, peer-reviewed papers and conference papers.<sup>48</sup>

## ***Polar Ice***

A lot of attention has been given to melting arctic ice, so it's good to know a little bit about it. News articles often mention that arctic ice is at lower levels than even before in recorded history.<sup>49,50</sup> What they often do not mention is that recorded history only dates back to 1979, which is when we started measuring the ice with satellites.<sup>51</sup> If the arctic ice cap does melt, it won't be the first time. The Earth has been warmer than it is now on many occasions.

The Arctic only accounts for about 3% of the world's ice. Antarctica accounts for about 90% of the world's ice, and the eastern 80% of Antarctica has been cooling for 30 years.<sup>52</sup> The western 20% of Antarctica, which we hear about occasionally when an ice shelf falls into the ocean, actually has an active volcano under it that is lubricating the ice and helping it slide into the ocean.<sup>53</sup> The fact that these ice shelves fall into the ocean is quite possibly a result of natural causes and not global warming.<sup>54</sup> Also, the sea ice around all but western Antarctica is increasing.<sup>55</sup>



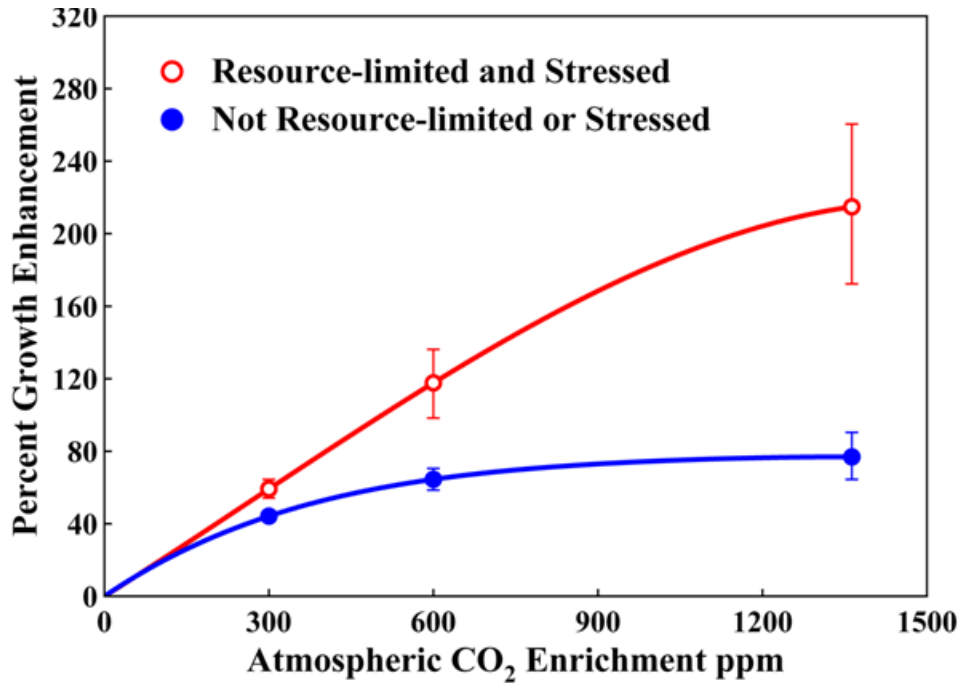
Of course, none of this says anything one way or the other about global warming. Antarctica has a climate all its own.

### ***Carbon Dioxide Increases Plant Growth***

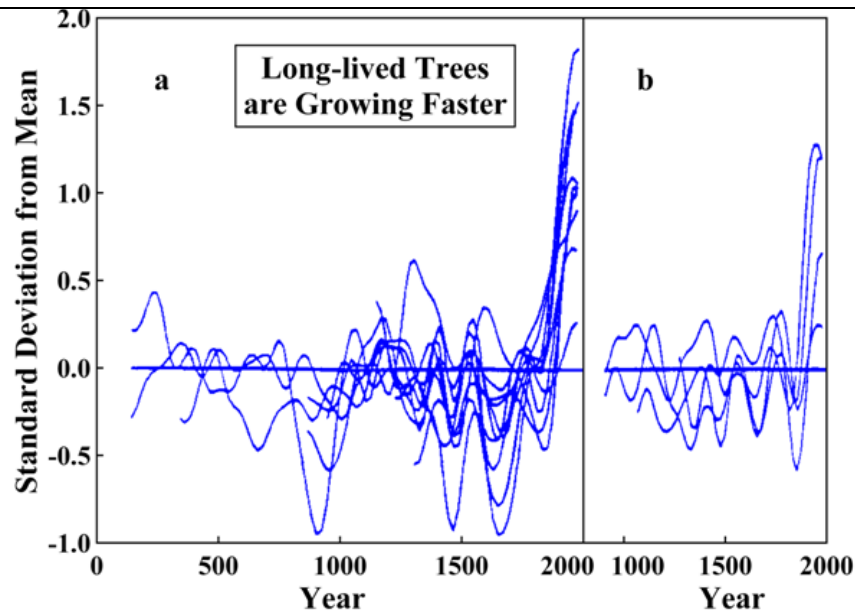
We are carbon-based life. CO<sub>2</sub> is the gas of life. Increased CO<sub>2</sub> levels in the atmosphere cause plants to grow faster, and increased plant life allows for increased animal life.

Roger Revelle, the founder of our modern greenhouse science and also the famed mentor to Al Gore, said, "Increased CO<sub>2</sub> in the air acts like a fertilizer for plants ... you get more plant growth. Increasing CO<sub>2</sub> levels also affect water transpiration, causing plants to close their pores and sweat less. That means plants will be able to grow in drier climates."<sup>56</sup>

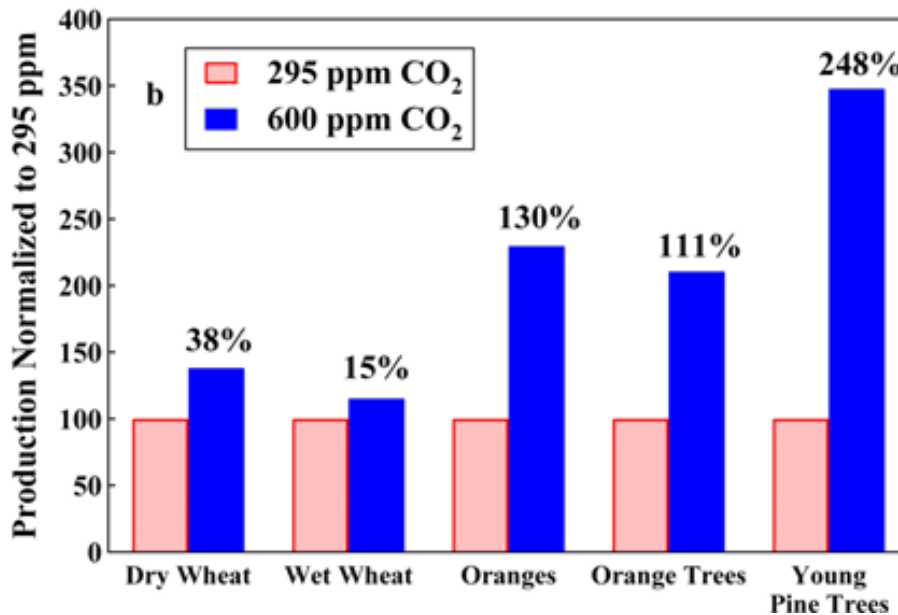
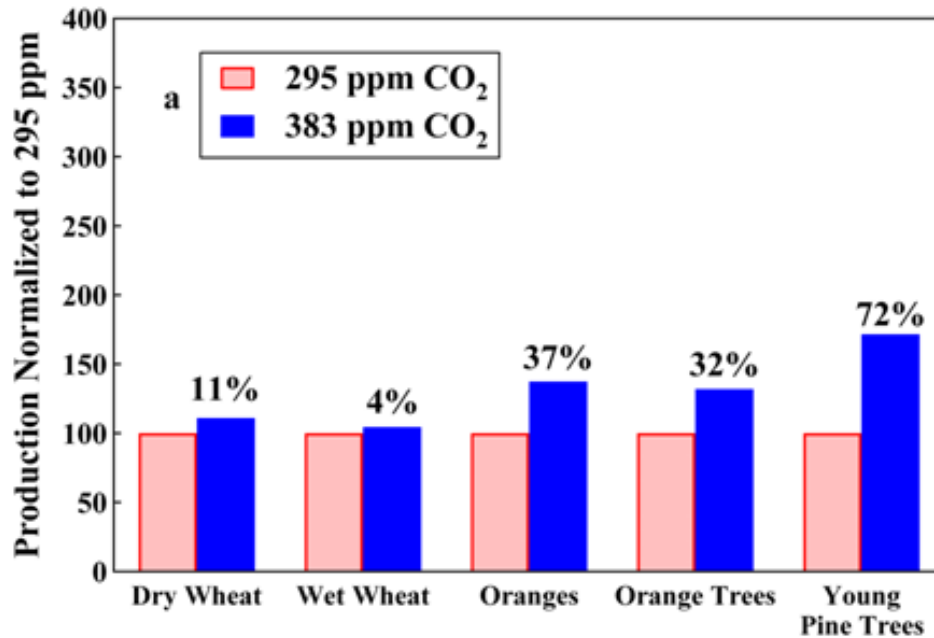
By one account, the absorption of CO<sub>2</sub> by plants has increased by 2% over the last 50 years and is still rising. If it could rise by another 2% it would completely offset manmade CO<sub>2</sub> emissions.<sup>57</sup> Hundreds of experiments have demonstrated that increased CO<sub>2</sub> stimulates plant growth.<sup>58</sup> On this basis, rising levels of atmospheric CO<sub>2</sub> can be a huge benefit for mankind.



**Fig 15.** Data from 279 published experiments in which plants of all types were grown under stressed and unstressed conditions. *Source: Arthur B. Robinson, Noah E. Robinson, and Willie Soon, "Environmental Effects of Increased Atmospheric Carbon Dioxide" Oregon Institute of Science and Medicine. Undated. Retrieved 17 May 09.*



**Fig 16.** Standard deviation from the mean of tree ring widths for bristlecone pine, limber pine, and fox tail pine. Tree ring widths were averaged in 20-year segments and then normalized so that the means of prior tree growth were zero. *Source: Arthur B. Robinson, Noah E. Robinson, and Willie Soon, "Environmental Effects of Increased Atmospheric Carbon Dioxide" Oregon Institute of Science and Medicine. Undated. Retrieved 17 May 09.*



**Fig 17.** Calculated growth rate enhancement of various plants already taking place as a result of atmospheric enrichment by CO<sub>2</sub> from 1885 to 2007 (a), and expected as a result of atmospheric enrichment by CO<sub>2</sub> to a level of 600 ppm (b). *Source: Arthur B. Robinson, Noah E. Robinson, and Willie Soon, "Environmental Effects of Increased Atmospheric Carbon Dioxide" Oregon Institute of Science and Medicine. Undated. Retrieved 17 May 09.*



## **X. Conclusion**

Since:

- 1) The IPCC is driven by politics and is not an objective scientific body. Its conclusions are untrustworthy.
- 2) There is still scientific debate about global warming.
- 3) Computer climate models are unreliable.
- 4) Earth's temperature has been warmer in the past. It is not hotter than normal.
- 5) Changes in energy from the sun drive climate change on Earth, not carbon dioxide.

Therefore, global warming has not yet been proven.

This paper has tried to simplify a very complicated topic. Every issue in this paper has a lot more evidence to support it. Examine the references in this paper, do your own research, and make up your mind based on logical evidence and not emotional alarmism.

## Appendix A: Common Logical Fallacies<sup>59</sup>

This following list is just a few of the most common fallacies seen in this debate:

*Ad Hominem.* Instead of arguing against the arguments being presented, this fallacy attacks the person giving the argument. If the character attack directly relates to the testimony that person is giving it is not a fallacy. Arguing that a *specific* global warming skeptic is in the employ of oil companies is not a fallacy as it directly relates to the issue.

Example: Only fringe scientists don't support global warming.

Example: Not believing in global warming is like believing the Earth is flat.

*Appeal to Authority.* This consists of supporting a claim by quoting the judgment of someone who is not an authority in the field or who is likely to be biased in some way.

Example: The IPCC produces scientific reports supporting global warming, so global warming must be happening. (The IPCC's reports are influenced by government politics, see [Section III](#).)

*Appeal to Emotion.* This is an argument that is irrelevant to the topic being argued and plays upon an emotion such as pity, fear, or pride.

Example: The fact that polar bears are dying is an example of manmade global warming. (Even if polar bears are dying due to a loss of Arctic ice this is not proof that man is causing the warming.)

*Confusion of Cause and Effect.* This fallacy consists of confusing the cause with the effect of an event or in failing to recognize that there may be a reciprocal causal relationship between the two events.

Example: CO<sub>2</sub> and temperature have changed together for the last 420,000 years, therefore CO<sub>2</sub> drives temperature. (Historically changes in temperature have occurred first. See [Section VII.](#))

*Straw Man.* This fallacy consists of misrepresenting an opponent's view or argument, usually to make it easier to attack.

Example: The greenhouse effect is proven science. For someone to argue against the greenhouse effect is ridiculous. (No global warming skeptic argues the greenhouse effect, only the effect additional CO<sub>2</sub> may have on the system.)

## Appendix B: Errors in "An Inconvenient Truth"

In 2007 a British court ruled<sup>60</sup> that if Al Gore's documentary "An Inconvenient Truth" was shown in schools the students would also have to be presented with nine factual errors in the movie:

1) *CO<sub>2</sub> and temperature correlation.* Gore stated that that ice core measurements show a correlation between temperature and CO<sub>2</sub> and ridiculed the idea that they did not. This is the only evidence for global warming given in the film; everything else he talks about is a natural disaster he attributes to global warming. As discussed in [Section VII](#), the ice core measurements actually show that temperature changes lead CO<sub>2</sub> changes by several hundred years, contrary to what Gore infers.

2) *Pacific islands "drowning."* Gore says low-lying inhabited Pacific coral atolls are already being inundated because of global warming, leading to the evacuation of several island populations to New Zealand. They are not. Coral actually grows ten times the projected rate of sea level rise.<sup>61</sup>

3) *Shut down of the gulf stream.* According to the IPCC, this is very unlikely.<sup>62</sup>

4) *Melting snow on Mt. Kilimanjaro.* Furtwangler Glacier has been melting for 125 years. More of the glacier had melted before the 1950's, when the IPCC says man started to influence climate,<sup>63</sup> than afterwards.<sup>64</sup>

5) *Lake Chad drying up.* The "scientific consensus" is that this is not due to global warming.<sup>65</sup>

6) *Hurricane Katrina*. If anything, tornado frequency has decreased over the last several decades. Hurricane frequency is consistent.<sup>66</sup>

7) *Polar bears drowning*. The only evidence of this is a report of four polar bears drowning in a storm and not from swimming long distances between ice floes.

8) *Coral reefs bleaching*. Not due to global warming. There was some bleaching in 1998, but it was caused by that year's El Nino Southern Oscillation.<sup>67</sup>

9) *20-foot sea level rise*. Gore states that "if Greenland should melt" oceans would rise 20 feet. He does not state that not even the IPCC believes it will melt.<sup>68</sup>

## Appendix C: Revisions Made to the IPCC 1995 Assessment Report

What follows is a copy of the changes made to Chapter 8 of the IPCC's [2<sup>nd</sup> Assessment Report](#) by the lead author, Benjamin D. Santer, after the report had been accepted by the IPCC and in response to comments made by government representatives. This record is taken from a [paper](#) by Vincent Gray,<sup>69</sup> who has been an expert reviewer for the IPCC since it began and on all four of its assessment reports.

Stephan Schneider, who was present at the government revision meeting, called the revisions "minor."<sup>70</sup>

New material is *italicized*; deleted material has a double underline.

### Summary

"Many but not all *The Majority* of these studies show that the observed changes in global-mean, annually-averaged temperature over the last century is unlikely to be due entirely to natural fluctuations of the climate system."

"The evidence rests heavily on the reliability of the (still uncertain) estimates of natural variability noise levels."

*"Furthermore, the probability is very low that these correspondences could occur by chance as a result of natural internal variability. The vertical patterns of change are also inconsistent with the response patterns expected for solar and volcanic forcing."*

"Viewed as a whole, these results indicate that *the* observed *trend in* global warming *mean temperature* over the past 100 years is larger than our current best estimates of natural climate variations over the last 600 years. *unlikely to be entirely natural in origin."*

## Section 8.1

"The attribution of a detected climate change to a particular causal mechanism can be established only by testing *involves tests* of competing hypotheses."

"The claimed statistical detection of an anthropogenic signal in the observations must always be accompanied by the caveat that other explanations for the detected climate-change signal cannot be ruled out completely, unless a rigorous attempt has been made to do so. *There is, however, an important distinction between achieving 'practically meaningful' and 'statistically unambiguous' attribution. This distinction rests on the fact that scientists and policymakers have different perceptions of risk. While a scientist might require decades in order to reduce the risk of making an erroneous decision on climate change attribution to an acceptably low level (say 1-5%), a policymaker must often make decisions without the benefit of waiting decades for near-statistical certainty.*"

### Section 8.1.3

"We now have: \* more relevant model simulations, both for the definition of an anthropogenic climate change signal and for the estimation of natural internal variability. \* *more relevant simulations for the estimation of natural internal variability, and initial estimates from paleoclimatic data of total natural variability on global or hemispheric scales*; \* more powerful statistical methods for detection of anthropogenic change, and a better understanding of simpler statistical methods and increased application of pattern-based studies with greater relevance for attribution."

## Section 8.2.2 Inadequate Representation of Feedbacks

*"Deficiencies in the treatment and incorporation of feedbacks are a source of signal uncertainty."*

## Section 8.2.5

"Current pattern-based detection work has not attempted *is now beginning* to account for these forcing uncertainties."

## Section 8.3.2

*"Initial attempts are now being made* For these reasons and many others, scientists have been unable to use paleoclimate data in order to reconstruct a satisfactory, spatially-comprehensive picture of climate variability over even the last 1,000 years. Nevertheless, The process of quality-controlling paleoclimatic data, integrating information from different proxies, and improving spatial coverage should be encouraged. Without a Better paleoclimatic data bases for at least the past millennium, it will be difficult *are essential* to rule out natural variability as an explanation for recent observed changes, or and to validate coupled model noise estimates on century time scales (Barnett et al., 1995)."

## Section 8.3.3.3

"While such studies help to build confidence in the reliability of the model variability on interannual to decadal time scales, there are still serious concerns about the longer time scale variability, which is more difficult to validate (Barnett et al., 1995). Unless paleoclimatic data can help us to 'constrain' the century time scale natural



variability estimates obtained from CGCMs, it will be difficult to make a convincing case for the detection and attribution of an anthropogenic climate change signal."

#### Section 8.4.1

"While none of these studies has specifically considered the attribution issue, they often draw some attribution-related conclusions, for which there is little justification."

#### Section 8.4.1.1

"The conclusion that can be drawn from this body of work, and earlier studies reported in Wigley and Barnett (1990) is that the warming trend to date is unlikely to have occurred by chance due to internally-generated variability of the climate system, although this explanation cannot be ruled out. This, however, does not preclude the possibility that a significant part of the trend is due to natural forcing factors. *Implicit in such studies is a weak attribution statement--i.e., some (unknown) fraction of the observed trend is being attributed to human influences. Any such attribution-related conclusions, however, rest heavily on the reliability of our estimates of both century time-scale natural variability and the magnitude of the observed global warming mean trend. At best, therefore, trend significance can only provide provides circumstantial support for the existence of an anthropogenic component to climate change, but does not directly address the attribution issue."*

#### Section 8.4.1.3

*"These empirical estimates of In summary, such studies offer support of a DT2x are subject to considerable uncertainty, as shown in a number of studies (see, e.g.,*

Wigley and Barnett, 1990; Wigley and Raper, 1991b; Kheshgi and White; 1993b). In summary, such studies offer support for a DT2x value similar to that obtained by GCMs, *and suggest that human activities have had a measurable impact on global climate*, but *they* cannot help to establish a unique link between anthropogenic forcing changes and climate change."

#### Section 8.4.2.1

*"Implicit in these global mean results is a weak attribution statement--if the observed global mean changes over the last 20 to 50 years cannot be fully explained by natural climate variability, some (unknown) fraction of the changes must be due to human influences."*

"None of the studies cited above has shown clear evidence that we can attribute the observed changes to the specific cause of increases in greenhouse gases."

#### Section 8.4.2.3.

*"To date, pattern-based studies have not been able to quantify the magnitude of a greenhouse gas or aerosol effect on climate. Our current inability to estimate reliably the fraction of the observed temperature changes that are due to human effects does not mean that this fraction is negligible. The very fact that pattern-based studies have been able to discern sub-global-scale features of a combined CO<sub>2</sub> + aerosol signal relative to the ambient noise of natural internal variability implies that there may be a non-negligible human effect on global climate."*

## Section 8.5.2

*"Simultaneous model-observed agreement in terms of changes in both global means and patterns, as in the recent study by Mitchell et al. (1995a), is even less likely to be a chance occurrence or the result of compensating model errors."*

## Section 8.6

"Finally we come to the most difficult question of all: 'When will the detection and unambiguous attribution of human-induced climate change occur?' *when the detection and attribution of human-induced climate change is likely to occur. The answer to this question must be subjective, particularly* in the light of the very large signal and noise uncertainties discussed in this Chapter, it is not surprising that the best answer to this question is 'We do not know'. *Some scientists maintain that these uncertainties currently preclude any answer to the question posed above. Other scientists would and have claimed, on the basis of the statistical results presented in Section 8.4, that confident detection of a significant anthropogenic climate change has already occurred.* would and have claimed, on the basis of the results presented in Section 8.4, that detection of a significant climate change has already occurred. *As noted in Section 8.1, attribution involves statistical testing of alternative explanations for a detected observed change and* Few if any would be willing to argue that *completely* unambiguous attribution of *(all or part of)* this change to anthropogenic effects has already occurred, or was likely to happen in the next several years."

*"However, evidence from the patterned-based studies reported on here suggests that an initial step has now been taken in the direction of attribution, since correspondences between observations and model predictions in response to combined changes in greenhouse gases and anthropogenic sulphate aerosols:*

- have now been seen both at the surface and in the vertical structure of the atmosphere;*
- have been found in terms of complex spatial patterns rather than changes in the global mean alone;*
- show an overall increase over the last 20 to 50 years;*
- are significantly different from our best model-based estimates of the correspondence expected due to natural internal climatic variability.*

*Furthermore, although quantitative attribution studies have not explicitly considered solar and volcanic effects, our best information indicates that the observed patterns of vertical temperature change are not consistent with the responses expected for these forcings.*

*The body of statistical evidence in Chapter 8, when examined in the context of our physical understanding of the climate system, now points toward a discernible human influence on global climate. Our ability to quantify the magnitude of this effect is currently limited by uncertainties in key factors, including the magnitude and pattern of longer-term natural variability and the time-evolving patterns of forcing by (and response to) greenhouse gases and aerosols."*

Section 8.7

APPARENTLY DELETED!

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<sup>12</sup> US Senate Environment and Public Works Committee. "[U. S. Senate Minority Report: More Than 700 International Scientists Dissent Over Man-Made Global Warming Claims Scientists Continue to Debunk 'Consensus' in 2008 & 2009.](#)" Minority report. 11 Dec 08. Updated 16 Mar 09. Pg 7. *This report lists biographies and quotes from more than 700 notable scientists rejecting the "consensus" position on global warming. There are a number of current and former IPCC scientists included, as well as Nobel Prize winners, and scientists who shared the Nobel Peace Prize with Al Gore.*

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<sup>24</sup> Al Gore. "An Inconvenient Truth." Dir. Davis Guggenheim. Paramount Classics. 2006. *This documentary shows the PowerPoint presentation that Al Gore has shown all over the world. Al Gore won the Nobel Peace Prize in 2006 jointly with the IPCC for his work in spreading awareness on global warming. This movie also won many other awards, including an Academy Award and an Oscar. This movie is being shown to school children around the world and is a historic piece of the global warming debate. Most of this movie has been shown to be factually incorrect. See Appendix B.*

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- <sup>58</sup> Robert Brinsmead. Pg 2.
- <sup>59</sup> Edward Damer. "Attacking Faulty Reasoning: A Practical Guide to Fallacy-Free Arguments." 3<sup>rd</sup> Ed. Belmont: Wadsworth Publishing. 1995. *I examined several books on logic and fallacies and this was the best of the ones I read.*
- <sup>60</sup> David Adam. "[Gore's climate film has scientific errors - judge.](#)" Guardian.co.uk. 11 Oct 07. *This article lists nine factual errors that a British court ruled were contained in "An Inconvenient Truth." Any time the documentary is shown in a British school these errors must also be listed.*
- <sup>61</sup> Christopher Monckton. Pg 5.
- <sup>62</sup> David Adam.
- <sup>63</sup> Richard Muller. "Physics For Future Presidents." University of California, Berkeley. 8 Apr 08. [Lecture 20](#), at approx. 27:30. *The quote is at about 7:30 on the link here to YouTube.*
- <sup>64</sup> Christopher Monckton. Pg 8.
- <sup>65</sup> Ibid. Pg 8.
- <sup>66</sup> Richard Muller. "Physics For Future Presidents." University of California, Berkeley. 10 Apr 08. [Lecture 21](#), at approx 5:50. *The quote is at about 5:50 on the link here to YouTube.*
- <sup>67</sup> Christopher Monckton. Pg 10.
- <sup>68</sup> Richard Muller. "Physics For Future Presidents." University of California, Berkeley. 10 Apr 08. [Lecture 21](#), At approx 21:50. *The quote is at about 1:50 on the link here to YouTube.*

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<sup>69</sup> Vincent Gray.

<sup>70</sup> Paul Edwards and Stephan Schneider. Pg 11.