MY THOUGHTS ON GLOBAL WARMING - CREDIBLE DEBATE CONTINUES

Stephen L. Bakke, December 2007 and April 2011

Questions Raised By My Research

The work I have done has discovered some very good points to be made in favor of concern about climate change. My goal here is not to enumerate those with which I agree. Rather, I want to present why I feel the debate has only just begun. I will do this by listing some of the observations and questions that prevent me from "jumping aboard" Mr. Gore's runaway train. Some of what I present gives examples of credible evidence that the debate does go on, whether we like it or not, and it must continue in order to better assure the right outcome. I will also try to present important questions raised in my mind and others, and the competing opinions and their basis.

Credible Debate Continues

"Only an insignificant fraction of scientists deny the global warming crisis. The time for debate is over. The science is settled." So said Al Gore way back in 1992. Even then it was shown to be obviously incorrect. A Gallup pole at the time reported that 53% of scientists actively involved in global climate research did not believe global warming had occurred; 30% weren't sure; and only 17% believed global warming had begun. Al has bad habits that are hard to break. Here are some examples of how the debate continues:

- In March 2007, there was an Oxford-style debate in New York sponsored by Intelligence Squared, a debating society. Brenda Ekwurzel of the Union of Concerned Scientists, Gavin Schmidt of NASA's Goddard Institute for Space Studies and Richard Somerville of the Scripps Institution for Oceanography argued that global warming is a crisis. Michael Crichton, Dr. Richard Lindzen of MIT, and Dr. Philip Statt of the University of London argued that it was not. The audience was polled both before and after the debate with 57% believing in the crisis before the debate, with only 42% after hearing the arguments. The more facts people learn, the less they tend to agree with the alarmists.
- At a recent (2007) debate over global warming sponsored by National Public Radio, the audience was polled beforehand and was solidly on the side of the more alarmist predictions. Afterwards, they switched to a slight majority against those predictions. I don't find where Al Gore has ever debated his positions directly (with the possible exception of a debate with Rush Limbaugh about 15 years ago that could have been like the "extreme" debating the "ridiculous").
- NASA's top administrator Michael Griffen feels the need to debate. He recently stated that while warming is occurring, he is not yet sure "it is fair to say that it is a problem we must wrestle with". He is by no means a technical expert, but he

is a high level official who is close to many who are, and he feels the need to be cautious in making judgments. He has received much criticism for this.

- There seems to have been a shift in momentum in climate science. Many former • believers in the catastrophic theory have recently reversed themselves and are now skeptics. Here is just a sampling of those who have recently spoken out to oppose the "consensus" theory. I understand that a soon to be released Senate report will include a much more comprehensive list (I can't find the list if it already has been released - my source for this information is a Senate related website)...... **Dr. Claude Allegre**, a top geophysicist and French Socialist – he was an early proponent of the warnings and now says the causes of global warming are "unknown" and refers to his former colleagues as "prophets of doom"......Geologist Bruno Wiskel of the University of Alberta recently reversed his view – this resulted from a closer review of the science behind the attempts being made in favor of adopting the Kyoto Protocol...... Astrophysicist Dr. Nir Shaviv, a young Israeli award winning scientist – his further review of the evidence behind the CO2 theory led him to state that "things are far more complicated than the story sold to us by many climate scientists" – he believes some of the causes come from solar activity...... Mathematician and engineer Dr. David Evans, who did carbon accounting for the Australian Government stated "When I started that job in 1999, the evidence that carbon emissions caused global warming seemed pretty conclusive, but since then new evidence has weakened the case that carbon emissions are the main cause"...... Botanist Dr. David Bellamy, famed UK environmentalist recently converted after reviewing the science relating to natural phenomenon contributing significantly to global warming...... **Dr. Chris de Freitas** of The University of Auckland, N.Z. wrote in 2006, "with the results of research....it is unlikely that the man-made changes are drivers of significant climate variation".....Meteorologist Dr. Reid Bryson, founding chairman of the Department of Meteorology at the University of of Wisconsin (now The Department Oceanic and Atmospheric Sciences).....Global warming author and economist Hans H.J. Labohm......Paleoclimatologist Tim Patterson, of Carlton University in Ottawa...... Physicist Dr. Zbigniew Jaworowski, chairman of the Central Laboratory for the U.N. Scientific Committee on the Effects of Radiological Protection in Warsaw......Paleoclimatologist **Dr. Ian D. Clark**, professor of the Department of Earth Sciences at University of Ottawa......Environmental geochemist **Dr. Jan Veizer**, professor emeritus of University of Ottawa......This is just the tip of the iceberg – you can expect to hear of more and more defections.
- Climate researcher **Dr. Tad Murty**, former Senior Research Scientist for Fisheries and Oceans in Canada co-authored a 2006 letter to the Canadian Prime Minister which stated in part, "If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist." He was one of 60 who sent the letter urging the PM to undertake "a proper assessment of recent developments in climate science". It also disputed the contention that "a climate catastrophe is looming and humanity is the cause". The letter cautioned that

"observational evidence does not support today's computer climate models" and warned that since the study of climate change is relatively new, "it may be many years yet before we properly understand the earth's climate system".

- Referring to the letter from the prior item, also signing the letter were **Fred Singer**, former director of the U.S. Weather Satellite Service; **Ian Clark**, hydrogeology and paleoclimatology specialist at the University of Ottawa; **Hendrik Tennekes**, former director of research at the Royal Netherlands Meteorological Institute; physicist **Freeman Dyson** of the Princeton Institute for Advanced Studies; the University of Alabama's **Roy Spencer**, formerly senior scientist in climate studies at NASA's Marshall Space Flight Center in Huntsville, Alabama. There were 55 more qualified individuals, but I will stop there.
- In 2006, the director of the International Arctic Research Center in Fairbanks, Alaska testified to Congress that highly publicized climate models showing a disappearing Arctic were nothing more than "science fiction" (he was taking exception to the models, not stating that nothing is changing in the Arctic).
- While everyone was castigating the U.S. for not jumping onto the Kyoto bandwagon, we were the only country at the meeting in Bali (December 2007) with CO2 emissions declining in 2006. This is from the Energy Information Administration. U.S. CO2 emissions also fell most recently in 2001 and 1990.
- According to the 2007 IPCC (Intergovernmental Panel on Climate Change Al Gore's co-winner of the Nobel Peace Prize) report, ground based warming ceased in 1998 this despite an increase in CO2 by 4% over the last 8 years. And satellite data also shows little, if any, warming since 1979, although atmospheric CO2 has increased by 17%. This certainly supports continuing the debate.
- I find the IPCC reports helpful, worthy, and much more balanced than Al Gore's work. However, even some contributors to IPCC have problems with being associated with portions of the report they were not involved in and with which they disagree. The claim that "2500 top scientists" support the theory of man made global warming is reported to be misleading. This number includes many politicians, other non-scientists, and even some who now are counted among the dissenters. Some believe there is unauthorized selective editing of what they personally have written and submitted. One example is Paul Reiter of the Pasteur Institute who felt his views were not considered but he was listed as one of the contributors. He had to sue to have his name removed.
- In 2003, environmental scientists Dennis Bray and Hans von Storch surveyed 530 of their peers in 27 countries on topics related to global warming. One question asked, "To what extent do you agree or disagree that climate change is mostly the result of anthropogenic (human) causes?" On a scale of 1 (strongly agree) to 7 (strongly disagree), the average score was 3.62, reflecting no clear consensus.

- Referring to the same survey as in the last item, asked whether abrupt climate changes will wreak devastation in some areas of the world, the percentage of scientists strongly agreeing (9.1%) was nearly identical to the percentage strongly disagreeing (9.0%). Another question asked to what degree might global warming prove beneficial for some societies? A striking 34% of the scientists answered 1 or 2 (a great degree of benefit); just 8.3% answered 6 or 7 (very little or no benefit). Plainly, the science isn't settled. It changes all the time.
- The 2007 report of the IPCC foresees the possible (according to some models) rise in sea levels of about 17 inches over the next century. This is less than half the maximum projection in the prior (2001) report. Why the revision? The IPCC states in their fine print that it was "mainly because of improved information". And, appropriately, they still admit their research involves guesswork. Science is getting better but far from settled the debate goes on.
- In October 2007, in the British High Court of Justice, Mr. Justice Burton ruled that Mr. Gore's film could not be shown in British schools unless opposing opinions and information was also communicated (i.e. separate appropriate guidance has to be provided). His ruling referred to nine specifically identified errors, exaggerations, and misrepresentations in the film. Some of the glaring flaws in research and presentation are becoming clear to more than just a few.
- Referring to the prior point, the nine errors (the word "error" was used by Judge Burton, not introduced by me) highlighted by this judge are (very abbreviated):
 (1) Sea level rise of up to 20 feet will be caused by melting of either West Antarctica or Greenland in the near future....(2) Low lying inhabited Pacific atolls are being inundated because of anthropogenic global warming......(3) Shutting down of the "Ocean Conveyor"......(4) Direct coincidence between rise in CO2 in the atmosphere and in temperature (referring to two graphs)......(5) The snows of Kilimanjaro melting......(6) Drying up of Lake Chad.......(7) Hurricane Katrina caused by global warming......(8) Death of polar bears......(9) Bleaching of coral reefs...I will deal with several of these in more detail later in this report.
- In 2004 a panel of 8 world-renowned economists (including three Nobel laureates) met to discuss and prioritize proposals that address ten of the world's greatest challenges. This group is referred to as the "Copenhagen Consensus". The challenges and solutions, presented as alternatives to be prioritized, were those identified by the United Nations. The climate related challenge (global warming) and the suggested solution (e.g. Kyoto) were rated at the absolute bottom of the list of priorities. Diseases and malnutrition were ranked one and two. For comparison, a group of scientists also gathered, and the results were very similar. And here is something surprising a sampling of U.N. ambassadors also were given this challenge and results were again similar. They all had to choose between alternatives, while being limited by resources, and having been given information on projected results of various actions or inactions. In other words, we should deal with facts, not submit to panic and emotions.

- In August 2007, NASA acknowledged it had accidentally inflated its official record of surface temperatures in the U.S. beginning with the year 2000. A Canadian statistician discovered the error. Al Gore had emphasized these statistics when he reported that nine of the ten hottest years in history have been in the last decade, with 1998 the warmest on record he made a "big deal" about this. The revised data show 1998 falling to second place behind 1934 as the warmest year, followed by 1921, 2006, 1931, 1999, and 1953, 1990, 1938, and 1939. Note that only one year in the last five is on this list, and only three (rather than nine as Al Gore had stated) in the top ten are from the past decade. The 1930s now had 4 in the top ten. Mr. Gore has avoided dealing with this disclosure.
- Expanding on the last point, new data are also emerging that the temperature record should be adjusted even further downward. There is preliminary evidence that land use changes over the years may be contaminating temperature records. Some recording stations that were originally isolated are now located in alleys (new construction), near air conditioning units (in the flow of heat from the condensers), in parking lots (concrete), and other heat generating environments.
- The IPCC uses models to predict the future. The results are varying enough from subsequent actual measurements that some scientists state with confidence that it points to lessening evidence of human impact and increases the apparent impact of natural climate variability. The theoretical and the observed already conflict.
- In 2001, NASA released information that there had been discovered a phenomenon that mitigates virtually all of the warming effects of CO2 (in some experts' opinion). They also stated that their models did not consider the effect of this in their projections. There was very little or no media attention given to this significant event. The discovery is called a "heat vent". It is very technical, but here goes: The cooling/venting efficiency of rainfall over the oceans increases when sea temperatures rise above 28 degrees C. This has a cooling affect, and mitigates the tendency for warming to create water vapor. It acts sort of like a "governor"... (Ole just told me to stop while I'm ahead).
- An example of "spin", or misrepresentation, comes from a news report stating that "The EPA says sea levels **may** rise as much as 3.5 feet, in line with the warnings of the IPCC". The EPA really said that in the next 100 years, there is a 1% (or nil Ed.) chance of rising 3.5 feet. Finding this type of bias should fuel the debate.
- The U.N. can be scary when you consider how it is involved in any multi-national movement to address climate change (IPCC or Kyoto). I found a quote by Maurice Strong, founder of the U.N. Eco-Summit and an Undersecretary General, as follows: "Isn't the only hope for the planet that the industrial civilizations collapse? Isn't it our responsibility to bring about?" This isn't much different than a quote by environmental activist Paul Ehrlich: "Economic growth in rich

countries like ours is the disease, not the cure." Or, Matt Lauer who stated: "Us homo sapiens are turning out to be as destructive a force as any asteroid....consume too much...." What's the motive? Take it for what it's worth.

At this point in my presentation it's time to remind you of my purpose. When you have completed reading this report, considering everything I will by then have presented, and whether or not you agree with me or others referred to herein, I ask you to re-evaluate Al Gore's very specific representation that "zero" percent of scientific writing is in disagreement with his basic assertions about global warming. The debate was always there and never went away.