Anton Horvath
Boris Molnar
Editors

Disputing Global Warming

Climate Change and its Causes, Effects and Prediction Series

NOVA

Climate Change and its Causes, Effects and Prediction Series

DISPUTING GLOBAL WARMING

CLIMATE CHANGE AND ITS CAUSES, EFFECTS AND PREDICTION SERIES

Global Climate Change
Harace B. Karling (Editor)
2001. 1-56072-999-6

Global Climate Change Revisited
Harace B. Karling (Editor)
2007. 1-59454-039-X

Climate Change Research Progress
Lawrence N. Peretz (Editor)
2008. 1-60021-998-5

Climate Change: Financial Risks
United States Government Accountability Office
2008. 978-1-60456-488-4

Post-Kyoto: Designing the Next International Climate Change Protocol
Matthew Clarke
2008. 978-1-60456-840-0

Economics of Policy Options to Address Climate Change
Gregory N. Bartos
2009. 978-1-60692-116-6

The Effects of Climate Change on Agriculture, Land Resources, Water Resources, and Biodiversity in the United States
Peter Backlund, Anthony Janetos, and David Schimel
2009. 978-1-60456-989-6

Emissions Trading: Lessons Learned from the European Union and Kyoto Protocol Climate Change Programs
Ervin Nagy and Gisella Varga (Editors)
2009. 978-1-60741-194-9

Disputing Global Warming
Anton Horvath and Boris Molnar (Editors)
2009. 978-1-60741-235-9

Climate Change and its Causes, Effects and Prediction Series

DISPUTING GLOBAL WARMING

ANTON HORVATH
AND
BORIS MOLNAR
EDITORS

Nova Science Publishers, Inc.
New York

LIBRARY OF CONGRESS CATALOGING-IN-PUBLICATION DATA
Available upon request

ISBN 978-1-60876-503-4 (E-Book)

Published by Nova Science Publishers, Inc. ✣ New York

CONTENTS

PREFACE

Global Warming - just that term evokes many people to nod their heads and fret about an impending climate disaster. In this book, the authors address some of the recent media coverage of global warming and Hollywood's involvement in the issue. Included is a discussion on former Vice President Al Gore's movie "An Inconvenient Truth." Recently, advocates of alarmism have grown increasingly desperate to try to convince the public that global warming is the greatest moral issue of our generation. During the past year, the American people have been served up an unprecedented parade of environmental alarmism by the media and entertainment industry, which link every possible weather event to global warming. The year 2006 saw many major organs of the media dismiss any pretense of balance and objectivity on climate change coverage and instead crossed squarely into global warming advocacy.This book summarizes some of the recent developments in the controversy over whether or not humans have created a climate catastrophe. Details on how teams of international scientists have dissented from the UN IPCC's view of climate science is included in this book as well.

In: Disputing Global Warming ISBN 978-1-60741-235-9
Editors: Anton Horvath and Boris Molnar, pp.1-57

Chapter 1

HOT AND COLD MEDIA SPIN CYCLE: A CHALLENGE TO JOURNALISTS WHO COVER GLOBAL WARMING*

James Inhofe

SPEECHES BY SENATOR INHOFE

Hot and Cold Media Spin Cycle: A Challenge to Journalists who Cover Global Warming

Senator James Inhofe, Chairman, Senate Environment and Public Works Committee
Senate Floor Speech Delivered Monday September 25, 2006

I am going to speak today about the most media-hyped environmental issue of all time, global warming. I have spoken more about global warming than any other politician in Washington today. My speech will be a bit different from the previous seven floor speeches, as I focus not only on the science, but on the media's coverage of climate change.

Global Warming – just that term evokes many members in this chamber, the media, Hollywood elites and our pop culture to nod their heads and fret about an impending climate disaster. As the senator who has spent more time speaking about the facts regarding global warming, I want to address some of the recent media coverage of global warming and Hollywood's involvement in the issue. And of course I will also discuss former Vice President Al Gore's movie "An Inconvenient Truth."

Since 1895, the media has alternated between global cooling and warming scares during four separate and sometimes overlapping time periods. From 1895 until the 1930's the media peddled a coming ice age.

From the late 1920's until the 1960's they warned of global warming. From the 1950's until the 1970's they warned us again of a coming ice age. This makes modern global

* This is an edited, excerpted and augmented edition of Senate Floor Speech Delivered Monday September 25, 2006 and Global Warming Related Materials.

warming the fourth estate's fourth attempt to promote opposing climate change fears during the last 100 years.

Recently, advocates of alarmism have grown increasingly desperate to try to convince the public that global warming is the greatest moral issue of our generation. Last year, the vice president of London's Royal Society sent a chilling letter to the media encouraging them to stifle the voices of scientists skeptical of climate alarmism.

During the past year, the American people have been served up an unprecedented parade of environmental alarmism by the media and entertainment industry, which link every possible weather event to global warming. The year 2006 saw many major organs of the media dismiss any pretense of balance and objectivity on climate change coverage and instead crossed squarely into global warming advocacy.

Summary of Latest Developments of Manmade Global Warming Hockey Stick

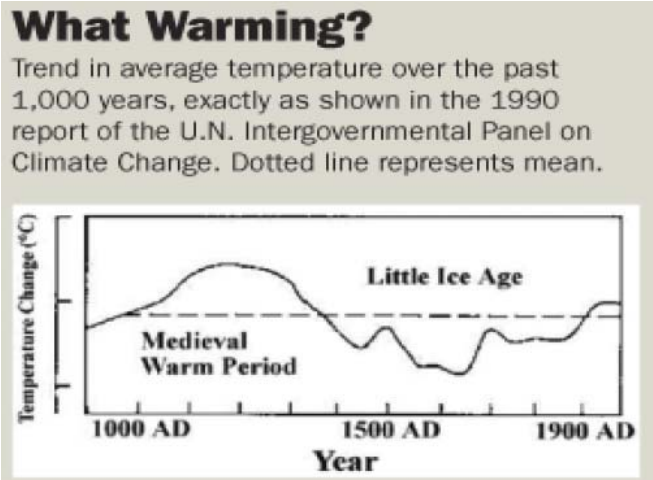
First, I would like to summarize some of the recent developments in the controversy over whether or not humans have created a climate catastrophe. One of the key aspects that the United Nations, environmental groups and the media have promoted as the "smoking gun" of proof of catastrophic global warming is the so-called 'hockey stick' temperature graph by climate scientist Michael Mann and his colleagues.

This graph purported to show that temperatures in the Northern Hemisphere remained relatively stable over 900 years, then spiked upward in the 20th century presumably due to human activity. Mann, who also co-publishes a global warming propaganda blog reportedly set up with the help of an environmental group, had his "Hockey Stick" come under severe scrutiny.

The "hockey stick" was completely and thoroughly broken once and for all in 2006. Several years ago, two Canadian researchers tore apart the statistical foundation for the hockey stick. In 2006, both the National Academy of Sciences and an independent researcher further refuted the foundation of the "hockey stick." http://epw.senate.gov/pressitem.cfm?party=rep&id=257697

The National Academy of Sciences report reaffirmed the existence of the Medieval Warm Period from about 900 AD to 1300 AD and the Little Ice Age from about 1500 to 1850. Both of these periods occurred long before the invention of the SUV or human industrial activity could have possibly impacted the Earth's climate. In fact, scientists believe the Earth was warmer than today during the Medieval Warm Period, when the Vikings grew crops in Greenland.

Climate alarmists have been attempting to erase the inconvenient Medieval Warm Period from the Earth's climate history for at least a decade. David Deming, an assistant professor at the University of Oklahoma's College of Geosciences, can testify first hand about this effort. Dr. Deming was welcomed into the close-knit group of global warming believers after he published a paper in 1995 that noted some warming in the 20th century. Deming says he was subsequently contacted by a prominent global warming alarmist and told point blank "We have to get rid of the Medieval Warm Period." When the "Hockey Stick" first appeared in 1998, it did just that.



Source: IPCC

End of Little Ice Age Means Warming

The media have missed the big pieces of the puzzle when it comes to the Earth's temperatures and mankind's carbon dioxide (C02) emissions. It is very simplistic to feign horror and say the one degree Fahrenheit temperature increase during the 20th century means we are all doomed. First of all, the one degree Fahrenheit rise coincided with the greatest advancement of living standards, life expectancy, food production and human health in the history of our planet. So it is hard to argue that the global warming we experienced in the 20th century was somehow negative or part of a catastrophic trend.

Second, what the climate alarmists and their advocates in the media have continued to ignore is the fact that the Little Ice Age, which resulted in harsh winters which froze New York Harbor and caused untold deaths, ended about 1850. So trying to prove man-made global warming by comparing the well-known fact that today's temperatures are warmer than during the Little Ice Age is akin to comparing summer to winter to show a catastrophic temperature trend.

In addition, something that the media almost never addresses are the holes in the theory that C02 has been the driving force in global warming. Alarmists fail to adequately explain why temperatures began warming at the end of the Little Ice Age in about 1850, long before man-made CO2 emissions could have impacted the climate. Then about 1940, just as man-made CO2 emissions rose sharply, the temperatures began a decline that lasted until the 1970's, prompting the media and many scientists to fear a coming ice age.

Let me repeat, temperatures got colder after C02 emissions exploded. If C02 is the driving force of global climate change, why do so many in the media ignore the many skeptical scientists who cite these rather obvious inconvenient truths?

Sixty Scientists

My skeptical views on man-made catastrophic global warming have only strengthened as new science comes in. There have been recent findings in peer-reviewed literature over the last few years showing that the Antarctic is getting colder and the ice is growing and a new study in Geophysical Research Letters found that the sun was responsible for 50% of 20th century warming.

Recently, many scientists, including a leading member of the Russian Academy of Sciences, predicted longterm global cooling may be on the horizon due to a projected decrease in the sun's output.

> "If, back in the mid- 0s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary."
>
> *60 Scientists Call on Harper to Revisit the Science of Global Warming*
> "Open Kyoto to Debate"
> An open letter to Canadian Prime Minister Stephen Harper
> Financial Post, Thursday, April 06, 2006

A letter sent to the Canadian Prime Minister on April 6 of this year by 60 prominent scientists who question the basis for climate alarmism, clearly explains the current state of scientific knowledge on global warming.

The 60 scientists wrote: http://www.canada.com/nationalpost/financialpost/story.html?id=3711460e-bd5a-475d-a6be4db87559d605

"If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary." The letter also noted:

"'Climate change is real' is a meaningless phrase used repeatedly by activists to convince the public that a climate catastrophe is looming and humanity is the cause. Neither of these fears is justified. Global climate changes occur all the time due to natural causes and the human impact still remains impossible to distinguish from this natural 'noise.'"

Computer Models Threaten Earth

One of the ways alarmists have pounded this mantra of "consensus" on global warming into our pop culture is through the use of computer models which project future calamity. But the science is simply not there to place so much faith in scary computer model scenarios which extrapolate the current and projected buildup of greenhouse gases in the atmosphere and conclude that the planet faces certain doom.

Dr. Vincent Gray, a research scientist and a 2001 reviewer with the UN's Intergovernmental Panel on Climate Change (IPCC) has noted, "The effects of aerosols, and their uncertainties, are such as to nullify completely the reliability of any of the climate models."

Earlier this year, 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."

> "The effects of aerosols and their uncertainties, are such as to nullify completely the reliability of any climate models."
>
> Dr. Vincent Gray
> Climate researcher and IPCC reviewer

In fact, after years of hearing about the computer generated scary scenarios about the future of our planet, I now believe that the greatest climate threat we face may be coming from alarmist computer models.

This threat is originating from the software installed on the hard drives of the publicity and grant seeking climate modelers.

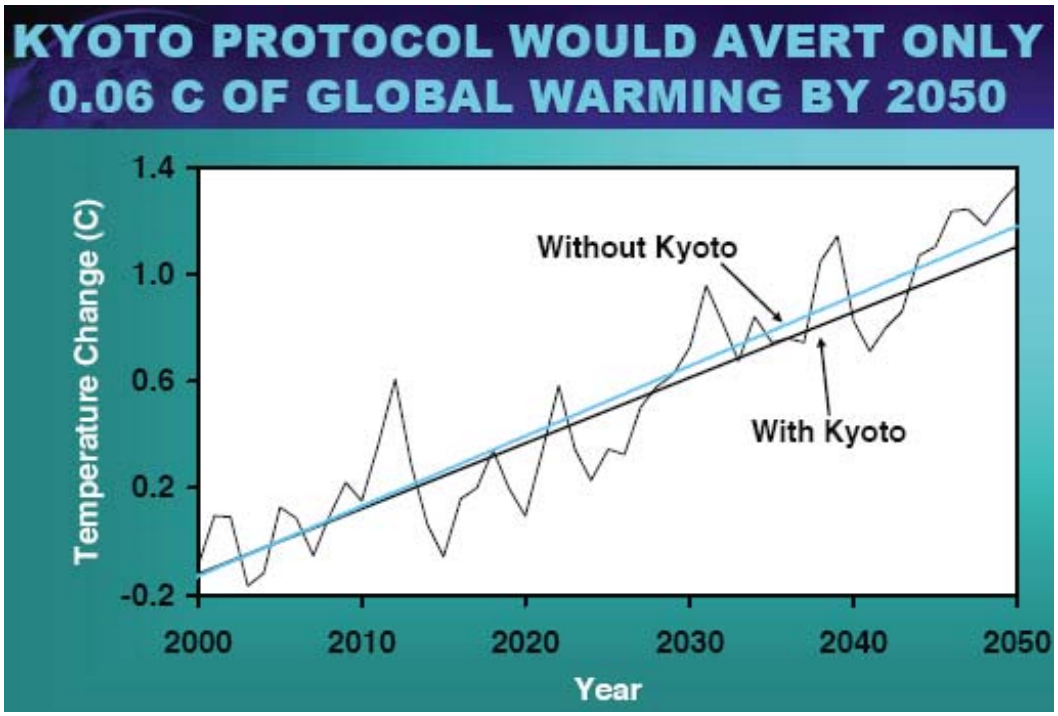
It is long past the time for us to separate climate change fact from hysteria.

Kyoto: Economic Pain for no Climate Gain

One final point on the science of climate change: I am approached by many in the media and others who ask, "What if you are wrong to doubt the dire global warming predictions? Will you be able to live with yourself for opposing the Kyoto Protocol?"

My answer is blunt. The history of the modern environmental movement is chock full of predictions of doom that never came true. We have all heard the dire predictions about the threat of overpopulation, resource scarcity, mass starvation, and the projected death of our oceans. None of these predictions came true, yet it never stopped the doomsayers from continuing to predict a dire environmental future.

The more the eco-doomsayers' predictions fail, the more the eco-doomsayers predict.



Fully implementing the Kyoto Protocol would not produce a meaningful abatement of the projected warming trend. Equivalently, the forecast warming that would have developed by 2050 occurs by 2053. Model results are for the UKMO HadCM3 IS92a model.

These failed predictions are just one reason I respect the serious scientists out there today debunking the latest scaremongering on climate change. Scientists like MIT's Richard Lindzen, former Colorado State climatologist Roger Pielke, Sr., the University of Alabama's Roy Spencer and John Christy, Virginia State Climatologist Patrick Michaels, Colorado State University's William Gray, atmospheric physicist S. Fred Singer, Willie Soon of the Harvard-Smithsonian Center for Astrophysics, Oregon State climatologist George Taylor and astrophysicist Sallie Baliunas, to name a few.

But more importantly, it is the global warming alarmists who should be asked the question – "What if they are correct about man-made catastrophic global warming?" – because they have come up with no meaningful solution to their supposed climate crisis in the two decades that they have been hyping this issue.

If the alarmists truly believe that man-made greenhouse gas emissions are dooming the planet, then they must face up to the fact that symbolism does not solve a supposed climate crisis.

The alarmists freely concede that the Kyoto Protocol, even if fully ratified and complied with, would not have any meaningful impact on global temperatures. And keep in mind that Kyoto is not even close to being complied with by many of the nations that ratified it, including 13 of the EU-15 nations that are not going to meet their emission reduction promises.

Many of the nations that ratified Kyoto are now realizing what I have been saying all along: The Kyoto Protocol is a lot of economic pain for no climate gain.

Legislation that has been proposed in this chamber would have even less of a temperature effect than Kyoto's undetectable impact. And more recently, global warming alarmists and the media have been praising California for taking action to limit C02. But here again: This costly feel-good California measure, which is actually far less severe than Kyoto, will have no impact on the climate – only the economy.

> "Kyoto represents the first component of an authentic global governance"
>
> French President Jacques Chirac
> at the Hague in November of 2000

Symbolism does not solve a climate crisis.

In addition, we now have many environmentalists and Hollywood celebrities, like Laurie David, who have been advocating measures like changing standard light bulbs in your home to fluorescents to help avert global warming. Changing to more energy-efficient light bulbs is a fine thing to do, but to somehow imply we can avert a climate disaster by these actions is absurd.

Once again, symbolism does not solve a climate crisis.

But this symbolism may be hiding a dark side. While greenhouse gas limiting proposals may cost the industrialized West trillions of dollars, it is the effect on the developing world's poor that is being lost in this debate.

The Kyoto Protocol's post 2012 agenda which mandates that the developing world be subjected to restrictions on greenhouse gases could have the potential to severely restrict development in regions of the world like Africa, Asia and South America – where some of the Earth's most energy-deprived people currently reside.

Expanding basic necessities like running water and electricity in the developing world are seen by many in the green movement as a threat to the planet's health that must be avoided.

Energy poverty equals a life of back-breaking poverty and premature death.

If we allow scientifically unfounded fears of global warming to influence policy makers to restrict future energy production and the creation of basic infrastructure in the developing world – billions of people will continue to suffer.

Last week my committee heard testimony from Danish statistician Bjorn Lomborg, who was once a committed left-wing environmentalist until he realized that so much of what that movement preached was based on bad science. Lomborg wrote a book called "The Skeptical Environmentalist" and has organized some of the world's top Nobel Laureates to form the 2004 "Copenhagen Consensus" which ranked the world's most pressing problems. http://www.copenhagenconsensus.com/Default. aspx?ID=1 58

And guess what?

They placed global warming at the bottom of the list in terms of our planet's priorities. The "Copenhagen Consensus" found that the most important priorities of our planet included: combating disease, stopping malaria, securing clean water, and building infrastructure to help lift the developing nations out of poverty. I have made many trips to Africa, and once you see the devastating poverty that has a grip on that continent, you quickly realize that fears about global warming are severely misguided.

I firmly believe that when the history of our era is written, future generations will look back with puzzlement and wonder why we spent so much time and effort on global warming fears and pointless solutions like the Kyoto Protocol.

French President Jacques Chirac provided the key clue as to why so many in the international community still revere the Kyoto Protocol, who in 2000 said Kyoto represents "the first component of an authentic global governance."

Furthermore, if your goal is to limit C02 emissions, the only effective way to go about it is the use of cleaner, more efficient technologies that will meet the energy demands of this century and beyond.

The Bush administration and my Environment and Public Works Committee have been engaged in these efforts as we work to expand nuclear power and promote the Asia-Pacific Partnership. This partnership stresses the sharing of new technology among member nations including three of the world's top 10 emitters – China, India and South Korea – all of whom are exempt from Kyoto.

Media Coverage of Climate Change

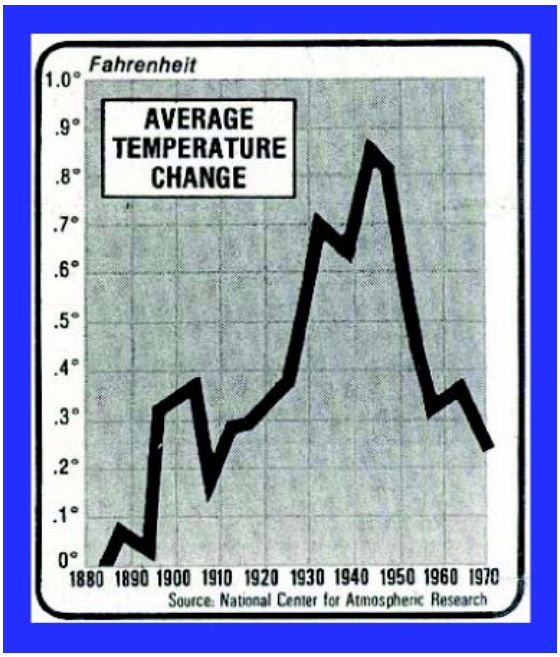
Many in the media, as I noted earlier, have taken it upon themselves to drop all pretense of balance on global warming and instead become committed advocates for the issue.

Here is a quote from Newsweek magazine:

"There are ominous signs that the Earth's weather patterns have begun to change dramatically and that these changes may portend a drastic decline in food production– with serious political implications for just about every nation on Earth."

A headline in the New York Times reads: "Climate Changes Endanger World's Food Output." Here is a quote from Time Magazine:

"As they review the bizarre and unpredictable weather pattern of the past several years, a growing number of scientists are beginning to suspect that many seemingly contradictory meteorological fluctuations are actually part of a global climatic upheaval."



All of this sounds very ominous. That is, until you realize that the three quotes I just read were from articles in 1975 editions of Newsweek Magazine and The New York Times, and Time Magazine in 1974. http://time-proxy.yaga.com/time/archive/printout/0,23657,944914,00.html

They weren't referring to global warming; they were warning of a coming ice age.

Let me repeat, all three of those quotes were published in the 1970's and warned of a coming ice age.

In addition to global cooling fears, Time Magazine has also reported on global warming. Here is an example:

"[Those] who claim that winters were harder when they were boys are quite right... weathermen have no doubt that the world at least for the time being is growing warmer."

Before you think that this is just another example of the media promoting Vice President Gore's movie, you need to know that the quote I just read you from Time Magazine was not a recent quote; it was from January 2, 1939.

Yes, in 1939. Nine years before Vice President Gore was born and over three decades before Time Magazine began hyping a coming ice age and almost five decades before they returned to hyping global warming.

Time Magazine in 1951 pointed to receding permafrost in Russia as proof that the planet was warming.

In 1952, the New York Times noted that the "trump card" of global warming "has been the melting glaciers."

But Media Could not Decide between Warming or Cooling Scares

There are many more examples of the media and scientists flip-flopping between warming and cooling scares.

Here is a quote from the New York Times reporting on fears of an approaching ice age. "Geologists Think the World May be Frozen Up Again."

That sentence appeared over 100 years ago in the February 24, 1895 edition of the New York Times. Let me repeat. 1895, not 1995.

A front page article in the October 7, 1912 New York Times, just a few months after the Titanic struck an iceberg and sank, declared that a prominent professor "Warns Us of an Encroaching Ice Age."

The very same day in 1912, the Los Angeles Times ran an article warning that the "Human race will have to fight for its existence against cold." An August 10, 1923 Washington Post article declared: "Ice Age Coming Here."

By the 1930's, the media took a break from reporting on the coming ice age and instead switched gears to promoting global warming:

"America in Longest Warm Spell Since 1776; Temperature Line Records a 25-year Rise" stated an article in the New York Times on March 27, 1933. The media of yesteryear was also not above injecting large amounts of fear and alarmism into their climate articles.

An August 9, 1923 front page article in the Chicago Tribune declared:

"Scientist Says Arctic Ice Will Wipe Out Canada." The article quoted a Yale University professor who predicted that large parts of Europe and Asia would be "wiped out" and Switzerland would be "entirely obliterated."

A December 29, 1974 New York Times article on global cooling reported that climatologists believed "the facts of the present climate change are such that the most optimistic experts would assign near certainty to major crop failure in a decade."

The article also warned that unless government officials reacted to the coming catastrophe, "mass deaths by starvation and probably in anarchy and violence" would result. In 1975, the New York Times reported that "A major cooling [was] widely considered to be inevitable." These past predictions of doom have a familiar ring, don't they? They sound

strikingly similar to our modern media promotion of former Vice president's brand of climate alarmism.

After more than a century of alternating between global cooling and warming, one would think that this media history would serve a cautionary tale for today's voices in the media and scientific community who are promoting yet another round of eco-doom.

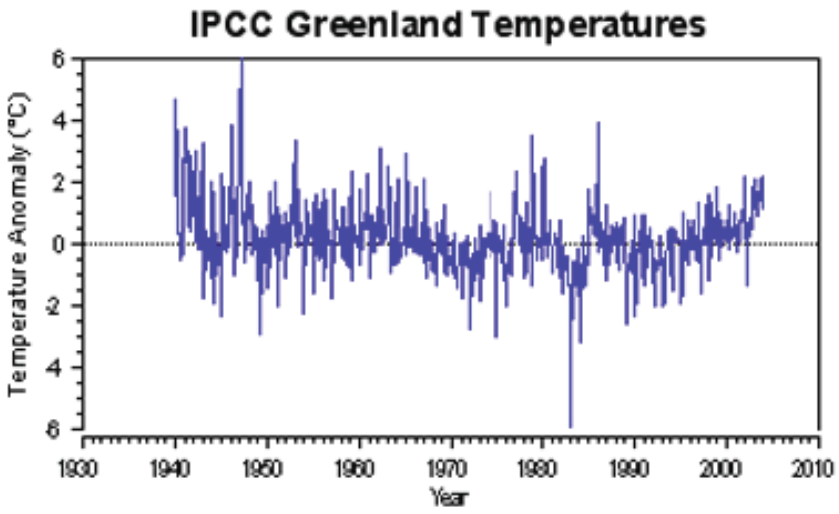
Much of the 100-year media history on climate change that I have documented here today can be found in a publication titled "Fire and Ice" from the Business and Media Institute. http://www. businessandmedia.org/specialreports/2006/fireandice/fireandice_timeswarns.asp

Media Coverage in 2006

Which raises the question: Has this embarrassing 100-year documented legacy of coverage on what turned out to be trendy climate science theories made the media more skeptical of today's sensational promoters of global warming?

You be the judge.

On February 19th of this year, CBS News's "60 Minutes" produced a segment on the North Pole. The segment was a completely one-sided report, alleging rapid and unprecedented melting at the polar cap. http://www.cbsnews.com/stories/2006/02/16/ 60minutes/main1 3231 69.shtml



It even featured correspondent Scott Pelley claiming that the ice in Greenland was melting so fast, that he barely got off an ice-berg before it collapsed into the water.

"60 Minutes" failed to inform its viewers that a 2005 study by a scientist named Ola Johannessen and his colleagues showing that the interior of Greenland is gaining ice and mass and that according to scientists, the Arctic was warmer in the 1930's than today.

On March 19th of this year "60 Minutes" profiled NASA scientist and alarmist James Hansen, who was once again making allegations of being censored by the Bush administration. http://www.cbsnews.com/ stories/2006/03/1 7/60minutes/main1 415985 .shtml

In this segment, objectivity and balance were again tossed aside in favor of a one-sided glowing profile of Hansen.

The "60 Minutes" segment made no mention of Hansen's partisan ties to former Democrat Vice President Al Gore or Hansen's receiving of a grant of a quarter of a million dollars from the left-wing Heinz Foundation run by Teresa Heinz Kerry. There was also no mention of Hansen's subsequent endorsement of her husband John Kerry for President in 2004. http://www.columbia.edu/~jeh1/dai_ complete.pdf

Many in the media dwell on any industry support given to so-called climate skeptics, but the same media completely fail to note Hansen's huge grant from the left-wing Heinz Foundation. http://www. heinzawards.net/speechDetail.asp?speechID=6

The foundation's money originated from the Heinz family ketchup fortune. So it appears that the media makes a distinction between oil money and ketchup money.

"60 Minutes" also did not inform viewers that Hansen appeared to concede in a 2003 issue of Natural Science that the use of "extreme scenarios" to dramatize climate change "may have been appropriate at one time" to drive the public's attention to the issue. http://naturalscience.com/ns/articles/01-16/ns_jeh6. html

Why would "60 Minutes" ignore the basic tenets of journalism, which call for objectivity and balance in sourcing, and do such one-sided segments? The answer was provided by correspondent Scott Pelley. Pelley told the CBS News website that he justified excluding scientists skeptical of global warming alarmism from his segments because he considers skeptics to be the equivalent of "Holocaust deniers." http://www.cbsnews.com/blogs/2006/03/22/publiceye/entry1431768.shtml

This year also saw a New York Times reporter write a children's book entitled" The North Pole Was Here." The author of the book, New York Times reporter Andrew Revkin, wrote that it may someday be "easier to sail to than stand on" the North Pole in summer. So here we have a very prominent environmental reporter for the New York Times who is promoting aspects of global warming alarmism in a book aimed at children.

Time Magazine Hypes Alarmism

In April of this year, Time Magazine devoted an issue to global warming alarmism titled "Be Worried, Be Very Worried." http://www.time.com/time/covers/0,16641,20060403,00.html

This is the same Time Magazine which first warned of a coming ice age in 1920's before switching to warning about global warming in the 1930's before switching yet again to promoting the 1970's coming ice age scare.

The April 3, 2006 global warming special report of Time Magazine was a prime example of the media's shortcomings, as the magazine cited partisan left-wing environmental groups with a vested financial interest in hyping alarmism.

Headlines blared:

"More and More Land is Being Devastated by Drought"

"Earth at the Tipping Point"

"The Climate is Crashing,"

Time Magazine did not make the slightest attempt to balance its reporting with any views with scientists skeptical of this alleged climate apocalypse.

I don't have journalism training, but I dare say calling a bunch of environmental groups with an obvious fund-raising agenda and asking them to make wild speculations on how bad global warming might become, is nothing more than advocacy for their left-wing causes. It is a violation of basic journalistic standards.

To his credit, New York Times reporter Revkin saw fit to criticize Time Magazine for its embarrassing coverage of climate science. http://orient.bowdoin.edu/orient/article.php?date=2006-04-28§ion=1&id=7

So in the end, Time's cover story title of "Be Worried, Be Very Worried," appears to have been apt. The American people should be worried – very worried – of such shoddy journalism.

Al Gore Inconvenient Truth

In May, our nation was exposed to perhaps one of the slickest science propaganda films of all time: former Vice President Gore's "An Inconvenient Truth." In addition to having the backing of Paramount Pictures to market this film, Gore had the full backing of the media, and leading the cheerleading charge was none other than the Associated Press.

On June 27, the Associated Press ran an article by Seth Borenstein that boldly declared "Scientists give two thumbs up to Gore's movie." The article quoted only five scientists praising Gore's science, despite AP's having contacted over 100 scientists. http://www.usatoday.com/weather/news/2006-06-27- inconvenient-truth-reviews _x.htm

The fact that over 80% of the scientists contacted by the AP had not even seen the movie or that many scientists have harshly criticized the science presented by Gore did not dissuade the news outlet one bit from its mission to promote Gore's brand of climate alarmism. http://epw.senate.gov/pressitem. cfm?party=rep&id=257909

I am almost at a loss as to how to begin to address the series of errors, misleading science and unfounded speculation that appear in the former Vice President's film Here is what Richard Lindzen, a meteorologist from MIT has written about "An Inconvenient Truth." "A general characteristic of Mr. Gore's approach is to assiduously ignore the fact that the earth and its climate are dynamic; they are always changing even without any external forcing. To

treat all change as something to fear is bad enough; to do so in order to exploit that fear is much worse." http://www.opinionjournal.com/extra/ ?id=1 10008597

What follows is a very brief summary of the science that the former Vice President promotes in either a wrong or misleading way:

- He promoted the now debunked "hockey stick" temperature chart in an attempt to prove man's overwhelming impact on the climate
- He attempted to minimize the significance of Medieval Warm period and the Little Ice Age
- He insisted on a link between increased hurricane activity and global warming that most sciences believe does not exist.
- He asserted that today's Arctic is experiencing unprecedented warmth while ignoring that temperatures in the 1930's were as warm or warmer
- He claimed the Antarctic was warming and losing ice but failed to note, that is only true of a small region and the vast bulk has been cooling and gaining ice.
- He hyped unfounded fears that Greenland's ice is in danger of disappearing
- He erroneously claimed that ice cap on Mt. Kilimanjaro is disappearing due to global warming, even while the region cools and researchers blame the ice loss on local land-use practices
- He made assertions of massive future sea level rise that is way out side of any supposed scientific "consensus" and is not supported in even the most alarmist literature.
- He incorrectly implied that a Peruvian glacier's retreat is due to global warming, while ignoring the fact that the region has been cooling since the 1 930s and other glaciers in South America are advancing
- He blamed global warming for water loss in Africa's Lake Chad, despite NASA scientists concluding that local population and grazing factors are the more likely culprits
- He inaccurately claimed polar bears are drowning in significant numbers due to melting ice when in fact they are thriving
- He completely failed to inform viewers that the 48 scientists who accused President Bush of distorting science were part of a political advocacy group set up to support Democrat Presidential candidate John Kerry in 2004

> "A general characteristic of Mr. Gore's approach is to assiduously ignore the fact that the earth and its climate are dynamic; they are always changing even without any external forcing. To treat all change as something to fear is bad enough; to do so in order to exploit that fear is much worse."
>
> Richard Lindzen, the Alfred P. Sloan Professor of Atmospheric Science at MIT, op-ed in the June 26, 2006 *Wall Street Journal*

Now that was just a brief sampling of some of the errors presented in "An Inconvenient Truth." Imagine how long the list would have been if I had actually seen the movie – there would not be enough time to deliver this speech today.

Tom Brokaw

Following the promotion of "An Inconvenient Truth," the press did not miss a beat in their role as advocates for global warming fears.

ABC News put forth its best effort to secure its standing as an advocate for climate alarmism when the network put out a call for people to submit their anecdotal global warming horror stories in June for use in a future news segment. http://abcnews.go.com/International/story?id=2094224&CMP=OTCRSSFeeds03 12

In July, the Discovery Channel presented a documentary on global warming narrated by former NBC anchor Tom Brokaw. The program presented only those views of scientists promoting the idea that humans are destroying the Earth's climate. http://epw.senate.gov/fact.cfm?party=rep&id=258659

You don't have to take my word for the program's overwhelming bias; a Bloomberg News TV review noted "You'll find more dissent at a North Korean political rally than in this program" because of its lack of scientific objectivity.

Brokaw also presented climate alarmist James Hansen to viewers as unbiased, failing to note his quarter million dollar grant form the partisan Heinz Foundation or his endorsement of Democrat Presidential nominee John Kerry in 2004 and his role promoting former Vice President Gore's Hollywood movie.

Brokaw, however, did find time to impugn the motives of scientists skeptical of climate alarmism when he featured paid environmental partisan Michael Oppenhimer of the group Environmental Defense accusing skeptics of being bought out by the fossil fuel interests.

The fact remains that political campaign funding by environmental groups to promote climate and environmental alarmism dwarfs spending by the fossil fuel industry by a three-to-one ratio.

Environmental special interests, through their 527s, spent over $19 million compared to the $7 million that Oil and Gas spent through PACs in the 2004 election cycle.

I am reminded of a question the media often asks me about how much I have received in campaign contributions from the fossil fuel industry. My unapologetic answer is 'Not Enough,' – especially when you consider the millions partisan environmental groups pour into political campaigns.

Engineered "Consensus"

Continuing with our media analysis: On July 24, 2006 The Los Angeles Times featured an op-ed by Naomi Oreskes, a social scientist at the University of California San Diego and the author of a 2004 Science Magazine study. Oreskes insisted that a review of 928 scientific papers showed there was 100% consensus that global warming was not caused by natural climate variations. This study was also featured in former Vice President Gore's "An Inconvenient Truth," http://epw.senate.gov/fact. cfm?party=rep&id=259323

However, the analysis in Science Magazine excluded nearly 11,000 studies or more than 90 percent of the papers dealing with global warming, according to a critique by British social scientist Benny Peiser.

Peiser also pointed out that less than two percent of the climate studies in the survey actually endorsed the so-called "consensus view" that human activity is driving global warming and some of the studies actually opposed that view.

But despite this manufactured "consensus," the media continued to ignore any attempt to question the orthodoxy of climate alarmism.

As the dog days of August rolled in, the American people were once again hit with more hot hype regarding global warming, this time from The New York Times op-ed pages. A columnist penned an August 3rd column filled with so many inaccuracies it is a wonder the editor of the Times saw fit to publish it.

For instance, Bob Herbert's column made dubious claims about polar bears, the snows of Kilimanjaro and he attempted to link this past summer's heat wave in the U.S. to global warming – something even alarmist James Hansen does not support. http://epw. senate.gov/fact.cfm?party=rep&id=261382

Polar Bears Look Tired?

Finally, a September 15, 2006 Reuters News article claimed that polar bears in the Arctic are threatened with extinction by global warming. The article by correspondent Alister Doyle, quoted a visitor to the Arctic who claims he saw two distressed polar bears. According to the Reuters article, the man noted that "one of [the polar bears] looked to be dead and the other one looked to be exhausted." The article did not state the bears were actually dead or exhausted, rather that they "looked" that way.

Have we really arrived at the point where major news outlets in the U.S. are reduced to analyzing whether or not polar bears in the Arctic appear restful? How does reporting like this get approved for publication by the editors at Reuters? What happened to covering the hard science of this issue?

What was missing from this Reuters news article was the fact that according to biologists who study the animals, polar bears are doing quite well. Biologist Dr. Mitchell Taylor from the Arctic government of Nunavut, a territory of Canada, refuted these claims in May when he noted that

"Of the 13 populations of polar bears in Canada, 11 are stable or increasing in number. They are not going extinct, or even appear to be affected at present." http://www.thestar.com/ NASApp/cs/ ContentServer?pagename=thestar/Layout/Article_Type 1 &c=Article&cid=1 14643381 9696&call_ pageid=970599 119419

Sadly, it appears that reporting anecdotes and hearsay as fact, has now replaced the basic tenets of journalism for many media outlets.

Alarmism has Led to Skepticism

It is an inconvenient truth that so far, 2006 has been a year in which major segments of the media have given up on any quest for journalistic balance, fairness and objectivity when it comes to climate change. The global warming alarmists and their friends in the media have attempted to smear scientists who dare question the premise of man-made catastrophic global warming, and as a result some scientists have seen their reputations and research funding dry up.

The media has so relentlessly promoted global warming fears that a British group called the Institute for Public Policy Research – and this from a left leaning group – issued a report in 2006 accusing media outlets of engaging in what they termed "climate porn" in order to attract the public's attention.

Bob Carter, a Paleoclimate geologist from James Cook University in Australia has described how the media promotes climate fear:

"Each such alarmist article is larded with words such as 'if', 'might', 'could', 'probably', 'perhaps', 'expected', 'projected' or 'modeled' - and many involve such deep dreaming, or

ignorance of scientific facts and principles, that they are akin to nonsense," professor Carter concluded in an op-ed in April of this year. http://www.telegraph.co.uk/opinion/main.jhtml?xml=/opinion/2006/04/09/do0907. xml&sSheet=/news/2006/04/09/ixworld.html

Another example of this relentless hype is the reporting on the seemingly endless number of global warming impact studies which do not even address whether global warming is going to happen. They merely project the impact of potential temperature increases.

The media endlessly hypes studies that purportedly show that global warming could increase mosquito populations, malaria, West Nile Virus, heat waves and hurricanes, threaten the oceans, damage coral reefs, boost poison ivy growth, damage vineyards, and global food crops, to name just a few of the global warming linked calamities. Oddly, according to the media reports, warmer temperatures almost never seem to have any positive effects on plant or animal life or food production.

Fortunately, the media's addiction to so-called 'climate porn' has failed to seduce many Americans.

According to a July Pew Research Center Poll, the American public is split about evenly between those who say global warming is due to human activity versus those who believe it's from natural factors or not happening at all.

In addition, an August Los Angeles Times/Bloomberg poll found that most Americans do not attribute the cause of recent severe weather events to global warming, and the portion of Americans who believe global warming is naturally occurring is on the rise.

Yes – it appears that alarmism has led to skepticism.

The American people know when their intelligence is being insulted. They know when they are being used and when they are being duped by the hysterical left.

The American people deserve better – much better – from our fourth estate. We have a right to expect accuracy and objectivity on climate change coverage. We have a right to expect balance in sourcing and fair analysis from reporters who cover the issue.

Above all, the media must roll back this mantra that there is scientific "consensus" of impending climatic doom as an excuse to ignore recent science. After all, there was a so-called scientific "consensus" that there were nine planets in our solar system until Pluto was recently demoted.

Breaking the cycles of media hysteria will not be easy since hysteria sells – it's very profitable. But I want to challenge the news media to reverse course and report on the objective science of climate change, to stop ignoring legitimate voices this scientific debate and to stop acting as a vehicle for unsubstantiated hype.

America Reacts to Speech Debunking Media Global Warming Alarmism

Senator James Inhofe, Chairman, Senate Environment and Public Works Committee
Senate Floor Speech Delivered Thursday, September 28, 2006

This past Monday, I took to this floor for the eighth time to discuss global warming. My speech focused on the myths surrounding global warming and how our national news media has embarrassed itself with a 100-year documented legacy of coverage on what turned out to be trendy climate science theories.

Over the last century, the media has flip-flopped between global cooling and warming scares. At the turn of the 20th century, the media peddled an upcoming ice age – and they said the world was coming to an end. Then in the 1930s, the alarm was raised about disaster from global warming – and they said the world was coming to an end. Then in the 70's, an alarm for another ice age was raised – and they said the world was coming to an end. And now, today we are back to fears of catastrophic global warming – and again they are saying the world is coming to an end.

Today I would like to share the fascinating events that have unfolded since my floor speech on Monday.

CNN Criticizes my Speech

This morning, CNN ran a segment criticizing my speech on global warming and attempted to refute the scientific evidence I presented to counter climate fears.

First off, CNN reporter Miles O'Brien inaccurately claimed I was "too busy" to appear on his program this week to discuss my 50 minute floor speech on global warming. But they were told I simply was not available on Tuesday or Wednesday.

I did appear on another CNN program today – Thursday – which I hope everyone will watch. The segment airs tonight on CNN's Glenn Beck Show on Headline News at 7pm and repeats at 9pm and midnight Eastern.

Second, CNN's O'Brien falsely claimed that I was all "alone on Capitol Hill" when it comes to questioning global warming.

Mr. O'Brien is obviously not aware that the U.S. Senate has overwhelmingly rejected Kyoto style carbon caps when it voted down the McCain-Lieberman climate bill 60-3 8 last year – an even larger margin than its rejection in 2003.

Third, CNN's O'Brien, claimed that my speech earlier contained errors regarding climate science. O'Brien said my claim that the Antarctic was actually cooling and gaining ice was incorrect. But both the journals Science and Nature have published studies recently finding – on balance – Antarctica is both cooling and gaining ice.

CNN's O'Brien also criticized me for saying polar bears are doing well in the Arctic. But he ignored that the person I was quoting is intimately familiar with the health of polar bear populations. Let me repeat what biologist Dr. Mitchell Taylor from the Arctic government of Nunavut, a territory of Canada, said recently:

"Of the 13 populations of polar bears in Canada, 11 are stable or increasing in number. They are not going extinct, or even appear to be affected at present."

CNN's O'Brien also ignores the fact that in the Arctic, temperatures were warmer in the 1930's than today.

O'Brien also claimed that the "Hockey Stick" temperature graph was supported by most climate scientists despite the fact that the National Academy of Sciences and many independent experts have made it clear that the Hockey Stick's claim that the 1990's was the hottest decade of the last 1000 years was unsupportable.

So it seems my speech struck a nerve with the mainstream media. Their only response was to cherry pick the science in a failed attempt to refute me.

It seems that it is business as usual for many of them. Sadly, it looks like my challenge to the media to be objective and balanced has fallen on deaf ears.

Speech Bypassed the Mainstream Media

Despite the traditional media's failed attempt to dismiss the science I presented to counter global warming alarmism, the American people bypassed the tired old traditional media by watching CSPAN or clicking on the Drudge Report and reading the speech online.

From the flood of overwhelming positive feedback I received, I can tell you the American people responded enthusiastically to my message.

The central theme was not only one of thanks, but expressing frustration with the major media outlets because they knew in their guts that what they have been hearing in the news was false and misleading.

Here is a brief sampling:

Janet of Saugus, Massachusetts: "Thank you Senator Inhofe. Finally someone with the guts to stand up and call it what it is – a sham. I think you have taken over Toby Keith's place as my favorite Oklahoman!!"

Al of Clinton, Connecticut writes: "It's about time someone with a loud microphone spoke up on the global warming scam. You have courage - if only this message could get into the schools where kids are being brow-beaten with the fear message almost daily."

Kevin of Jacksonville, Florida writes: "I'm so glad that we have leaders like you who are willing to stand up against the onslaught of liberal media, Hollywood and the foolish elected officials on this topic. Please keep up the fight!"

Steven of Phoenix, Arizona writes: "As a scientist, I am extremely pleased to see that there is at least one member of congress who recognizes the global warming hysteria for what it is. I am extremely impressed by the Senator's summary and wish he was running for President."

Craig of Grand Rapids, Michigan writes: "As a meteorologist I strongly agree with everything you said."

Dan of Westwood, Massachusettes writes: "This the most concise, well researched, eloquently presented argument against Global Warming I have ever seen. Somebody in Congress has finally gotten it right!"

Adam of Salmon, Idaho writes: "Thank you for the brave speech made about all of the hyping about alleged global warming and its causes. It took guts."

My speech ignited an internet firestorm. So much so, that my speech became the subject of a heated media controversy in New Zealand. Halfway across the globe, a top official from the New Zealand Climate Science Coalition challenged New Zealand's television station to balance what he termed "alarmist doom-casting" and criticized them for failing to report the views of scientists in their own country that I cited here in America. (http://www.scoop.co.nz/stories/PO0609/S00306.htm)

As the controversy in New Zealand shows, global warming hysteria has captured more than just the American media.

The reaction to my speech keeps coming in: Just this morning, The Pittsburgh Tribune-Review newspaper wrote an editorial calling my speech "an unusual display of reason" on the Senate floor.

I do have to give credit to another publication, Congressional Quarterly, or CQ for short. On Tuesday, CQ's Toni Johnson took the issues I raised seriously and followed up with phone calls to scientist-turned global warming pop star James Hansen's office. CQ wanted to ask Hansen about his quarter of a million dollar grant from the left-wing Heinz Foundation, whose money originated from the Heinz family ketchup fortune.

As I have pointed out, many in the media dwell on any industry support given to so-called climate skeptics, but the same media completely fail to note Hansen's huge grant from the partisan Heinz Foundation. It seems the media makes a distinction between ketchup money and oil money.

But Hansen was unavailable to respond to CQ's questions about the 'Ketchup Money' grant, which is highly unusual for a man who finds his way into the media on an almost daily basis. Mr. Hansen is always available when he is peddling his increasingly dire predictions of climate doom.

ABC News Promotes Climate Hysteria

I have been engaged in this debate for several years and believe there is a growing backlash of Americans rejecting what they see as climate scare tactics. And as a result, global warming alarmists are becoming increasingly desperate.

Perhaps that explains why the very next day after I spoke on the floor, ABC News's Bill Blakemore on Good Morning America prominently featured James Hansen touting future scary climate scenarios that could / might / possibly happen. ABC's "modest" title for the segment was "Will the Earth Become Too Hot? Are Our Children in Danger?"

The segment used all the well worn tactics from the alarmist guidebook – warning of heat waves, wildfires, droughts, melting glaciers, mass extinctions unless mankind put itself on a starvation energy diet and taxed emissions.

But that's no surprise – Blakemore was already on the record declaring "After extensive searches, ABC News has found no such [scientific] debate" about manmade catastrophic global warming. (http://abcnews.go.com/US/print?id=2374968)

You have to be a pretty poor investigator to believe that. Why would 60 prominent scientists this last spring have written Canadian Prime Minister Harper that "If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary." (http://www.canada.com/nationalpost/financialpost/story.html?id=3711460e-bd5a475d-a6be-4db87559d605)

On Tuesday's program, the ABC News anchor referred to Blakemore as "passionate" about global warming. "Passionate" is one word to describe that kind of reporting, but words like objectivity or balance are not.

I believe it's these kinds of stories which explain why the American public is growing increasingly skeptical of the hype. Despite the enormous 2006 media campaign to instill fear into the public, the number of people who believe that weather naturally changes – is increasing.

A Los Angeles Times/Bloomberg poll in August found that most Americans do not attribute the cause of recent severe weather events to global warming, and the portion of Americans who believe that climate change is due to natural variability has increased over 50% in the last five years.

Given the diminishing importance of the mainstream media, I expect that trend to continue.

I hope my other colleagues will join me on the floor and start speaking out to debunk hysteria surrounding global warming. This issue is too important to our generation and future generations to allow distortions and media propaganda to derail the economic health of our nation.

Bringing Integrity back to the IPCC Process

Senator James Inhofe, Chairman, Senate Environment and Public Works Committee
Senate Floor Speech Delivered Tuesday, November 15, 2005

I have addressed this chamber on the subject of global warming many times over the last few years. In those speeches, I presented well-documented facts regarding the science and economics of the global warming issue that, sadly, many of my colleagues and the public heard for the very first time.

Today, I will discuss something else – scientific integrity and how to improve it. Specifically, I will discuss the systematic and documented abuse of the scientific process by an international body that claims it provides the most complete and objective scientific assessment in the world on the subject of climate change – the United Nations-sponsored Intergovernmental Panel on Climate Change, or IPCC. I will conclude with a series of recommendations as to the minimum changes the IPCC must make if it is to restore its credibility.

When I became Chairman of the Senate Committee on Environment and Public Works, one of my top three priorities was to improve the quality of environmental science used in public policymaking by taking the politics out of science. I have convened hearings on this subject and the specific issue of global warming science.

I am a U.S. Senator, and a former mayor and businessman. I am not a scientist. But I do understand politics. And the more I have delved into the issue, the more convinced I have become that science is being co-opted by those who care more about peddling fear of gloom and doom to further their own, broader agendas than they do about scientific integrity.

I am committed to shining a light on their activities. Global warming alarmists will undoubtedly continue to accuse me of attacking the science of global warming – that is part of their game. But nothing could be further from the truth. I support and defend credible, objective science by exposing the corrupting influences that would subvert it for political purposes. Good policy must be based on good science, and that requires science be free of bias, whatever its conclusions.

As nations meet again next month in Montreal to discuss global warming, the pronouncements of the IPCC leaders will gain renewed attention as they continue their efforts to craft a fourth assessment of the state of global warming science. If the fourth assessment is to have any credibility, fundamental changes will need to be made.

The flaws in the IPCC process began to manifest themselves in the first assessment, but did so in earnest when the IPCC issued its second assessment report in 1996. The most obvious was the altering of the document on the central question of whether man is causing global warming.

Here is what Chapter 8 – the key chapter in the report – stated on this central question in the final version accepted by reviewing scientists:

"No study to date has positively attributed all or part [of the climate change observed to date] to anthropogenic causes."

But when the final version was published, this and similar phrases in 15 sections of the chapter were deleted or modified. Nearly all the changes removed hints of scientific doubts regarding the claim that human activities are having a major impact on global warming.

In the Summary for Policy Makers – which is the only part of the report that reporters and policy makers read – a single phrase was inserted. It reads:

"The balance of evidence suggests that there is a discernible human influence on global climate."

The lead author for Chapter 8, Dr. Ben Santer, should not be held solely accountable. According to the journal Nature, the changes to the report were made in the midst of high-level pressure from the Clinton / Gore State Department to do so. I understand that after the State Department sent a letter to Sir John Houghton, co-Chairman of the IPCC, Houghton prevailed upon Santer to make the changes. The impact was explosive, with media across the world, including heavyweights such as Peter Jennings, declaring this as proof that man is responsible for global warming.

Notably, polls taken shortly afterwards showed scant support for the statement. The word "discernible" implies measurable or detectable, and depending on how the question was asked, only 3- 19 percent of American scientists concurred.

In 2001, the third assessment report was published. Compared with the flaws in the third assessment, those in the second assessment appear modest. The most famous is the graph produced by Dr. Michael Mann and others. Their study concluded that the 20th century was the warmest on record in the last 1,000 years, showing flat temperatures until 1900 and then spiking upward – in short, it looked like a hockey stick. It achieved instant fame as proof of man's causation of global warming because it was featured prominently in the Summary Report read by the media.

Since then, the hockey stick has been shown to be a relic of bad math and impermissible practices. Dr. Hans von Storch, a prominent German researcher with the GKSS Institute for Coastal Research – who, I'm told, believes in global warming – put it this way:

"Methodologically it is wrong: rubbish."

In fact, a pair of Canadian researchers showed that when random data is fed into Michael Mann's mathematical construct, it produces a hockey stick more than 99 percent of the time. Yet the IPCC immortalized the hockey stick as the proof positive of catastrophic global warming.

How can such a thing occur? Sadly, it is due to the institutional structure of the IPCC itself – it breeds manipulation.

First, the IPCC is a political institution. Its charter is to support the efforts of the UN Framework Convention on Climate Change, which has the basic mission of eliminating the threat of global warming. This clearly creates a conflict of interest with the standard scientific goal of assessing scientific data in an objective manner.

The IPCC process itself illustrates the problem. The Summary Report for Policymakers is not approved by the scientists and economists who contribute to the report. It is approved by Intergovernmental delegates – in short, politicians. It doesn't take a leap of imagination to realize that politicians will insist the report support their political agenda.

A typical complaint of scientists and economists is that the Summary does not adequately reflect the uncertainties associated with tentative conclusions in the basic report. The uncertainties identified by contributing authors and reviewers seem to disappear or are downplayed in the Summary.

A corollary of this is that lead authors and the Chair of the IPCC control too much of the process. The old adage "power corrupts and absolute power corrupts absolutely" applies.

Only a handful of individuals were involved in changing the entire tone of the second assessment. Likewise, Michael Mann was a Chapter lead author in the third assessment.

One stark example of how the process has been corrupted involves a U.S. Government scientist who is among the world's most respected experts on hurricanes – Dr. Christopher Landsea. Earlier this year, Dr. Landsea resigned as a contributing author in the upcoming fourth assessment. His reason was simple – the lead author for the Chapter on extreme weather, Dr. Kevin Trenberth, had demonstrated he would pursue a political agenda linking global warming to more severe hurricanes.

Trenberth had spoken at a forum where he was introduced as a lead author and proceeded to forcefully make the link. He has spoken here in the Senate as well, and it is clear that Trenberth's mind is completely closed on the issue. The only problem is that Trenberth's views are not widely accepted among the scientific community. As Landsea put it last winter:

"All previous and current research in the area of hurricane variability has shown no reliable, long-term trend up in the frequency or intensity of tropical cyclones, either in the Atlantic or any other basin."

When Landsea brought it to the attention of the IPCC, he was told that Trenberth – who as lead author is supposed to bring a neutral, unbiased perspective to his position – would keep his position. Landsea concluded that:

"Because of Dr. Trenberth's pronouncements, the IPCC process on our assessment of these crucial extreme events in our climate system has been subverted and compromised, its neutrality lost."

Landsea's experience is not unique. Richard Lindzen, a prominent MIT researcher who was a contributing author to a Chapter in the third assessment, among others has said that the Summary did not reflect the Chapter he contributed to. But when you examine how the IPCC is structured, is it really so surprising?

Second, the IPCC has demonstrated an unreasoning resistance to accepting constructive critiques of its scientific and economic methods, even in the report itself. Of course, combined with my first point, this is a recipe for de-legitimizing the entire endeavor in terms of providing credible information that is useful to policy makers.

Let me offer a few examples of what I am talking about.

Malaria is considered one of the four greatest risks associated with global warming. But the relationship between climate and mosquito populations is highly complex. There are over 3,500 species of mosquito, and all breed, feed, and behave differently. Yet the nine lead authors of the health section in the second assessment had published only six research papers on vector-borne diseases among them.

Dr. Paul Reiter of the Pasteur Institute, a respected entomologist who has spent decades studying mosquito-borne malaria, believes that global warming would have little impact on the spread of malaria. But the IPCC refused to consider his views in its third assessment, and has completely excluded him from contributing to the fourth assessment.

Here's another example: To predict future global warming, the IPCC estimated how much world economies would grow over the next century. Future increases in carbon dioxide emission estimates are directly tied to growth rates, which in turn drive the global warming predictions.

Unfortunately, the method the IPCC uses to calculate growth rates is wrong. It also contains assumptions that developing nations will experience explosive growth – in some

cases, becoming wealthier than the United States. These combine to greatly inflate even its lower-end estimates of future global warming.

The IPCC, however, has bowed to political pressure from the developing countries that refuse to acknowledge the likelihood they will not catch up to the developed world. The result: Future global warming predictions by the IPCC are based on a political choice, not on credible economic methodologies.

Likewise, the IPCC ignored the advice of economists who conclude that, if global warming is real, future generations would have a higher quality of life if societies maximize economic growth and adapt to future warming rather than trying to drastically curb emissions. The IPCC turns a deaf ear.

This problem with the economics led to a full-scale inquiry by the UK's House of Lords Select Committee on Economic Affairs. The ensuing report should be required reading. The Committee identified numerous problems with the IPCC.

In fact, the problems identified were so substantial, it led Lord Nigel Lawson, former Chancellor of the Exchequer and a Member of the Committee, to recently state:

"I believe the IPCC process is so flawed, and the institution, it has to be said, so closed to reason, that it would be far better to thank it for the work it has done, close it down, and transfer all future international collaboration on the issue of climate change..."

To regain its credibility, the IPCC must correct its deficiencies in all of the following areas before it releases its fourth assessment report.

Structurally, the IPCC must:

Adopt procedures by which scientific reviewers formally approve both the Chapters and the Summary Report for Policymakers. Government delegates should not be part of the approval process. Limit the authority of lead authors and the Chair to introduce changes after approval by the reviewers. Create an ombudsman for each Chapter. These ombudsmen should consult with reviewers who believe valid issues are not being addressed, and disseminate a report for reviewers prior to final approval which is made part of the final document. Institute procedures to ensure that an adequate cross-section of qualified scientists wishing to participate in the process is selected based on unbiased criteria. The ombudsmen should review complaints of bias in the selection process.

There are many specific issues that the IPCC must address as well. For instance, the IPCC must:

Ensure that uncertainties in the state of knowledge are clearly expressed in the Summary for Policymakers. Provide highly defensible ranges of the costs of controlling greenhouse gas emissions. Defensibly assess the effects of land-use changes in causing observed temperature increases. Provide highly defensible ranges of the benefits of global warming. Examine the costs and benefits of an adaption strategy versus a mitigation strategy. Adequately examine studies finding a cooling trend of the Continental Antarctic for the last 40 years, as well as increases in the Antarctic ice mass. Adequately explain why the models predict greater warming than has been observed, avoiding use of selective data sets. Ensure an unbiased assessment of the literature on hurricanes. Ensure adequate review of malaria predictions by a range of specialists in the field, ensuring all views are expressed.

There are dozens more issues, most of which are as important as the ones I've just raised. Instead of listing them all here, I intend to post on my Committee's website this winter a more exhaustive and detailed list of issues that must be addressed in the fourth assessment.

In concluding, I'd quote from an article in Der Speigel by Dr. von Storch and Dr. Nico Stehr, who is with Zeppelin University. They wrote:

"Other scientists are succumbing to a form of fanaticism almost reminiscent of the McCarthy era... Silencing dissent and uncertainty for the benefit of a politically worthy cause reduces credibility, because the public is more well-informed than generally assumed. In the long term, the supposedly useful dramatizations achieve exactly the opposite of what they are intended to achieve. If this happens, both science and society will have missed an opportunity."

It is my solemn hope that the IPCC will listen the words of Drs. von Storch and Stehr and not miss the opportunity to re-establish its credibility. Only then will its work product be useful to policymakers. If the IPCC remains committed to its current path, however, then Lord Lawson's solution is the only viable one – the IPCC should be disbanded.

EPW MAJORITY PRESS RELEASES

Renowned Scientist Defects from Belief in Global Warming – Caps Year of Vindication for Skeptics

http://epw.senate.gov/pressitem.cfm?party=rep&id=264777
October 17, 2006

Washington DC - One of the most decorated French geophysicists has converted from a believer in manmade catastrophic global warming to a climate skeptic. This latest defector from the global warming camp caps a year in which numerous scientific studies have bolstered the claims of climate skeptics. Scientific studies that debunk the dire predictions of human-caused global warming have continued to accumulate and many believe the new science is shattering the media-promoted scientific "consensus" on climate alarmism.

Claude Allegre, a former government official and an active member of France's Socialist Party, wrote an editorial on September 21, 2006 in the French newspaper L'Express titled "The Snows of Kilimanjaro" (For English Translation, click here: http://epw.senate.gov/fact.cfm?party=rep&id=264835) detailing his newfound skepticism about manmade global warming. See: http://www.lexpress.fr/idees/tribunes/ dos sier/allegre/dossier.asp?ida=45 1670 Allegre wrote that the "cause of climate change remains unknown" and pointed out that Kilimanjaro is not losing snow due to global warming, but to local land use and precipitation changes. Allegre also pointed out that studies show that Antarctic snowfall rate has been stable over the past 30 years and the continent is actually gaining ice.

"Following the month of August experienced by the northern half of France, the prophets of doom of global warming will have a lot on their plate in order to make our fellow countrymen swallow their certitudes," Allegre wrote. He also accused proponents of manmade catastrophic global warming of being motivated by money, noting that "the ecology of helpless protesting has become a very lucrative business for some people!"

Allegre, a member of both the French and U.S. Academy of Sciences, had previously expressed concern about manmade global warming. "By burning fossil fuels, man enhanced the concentration of carbon dioxide in the atmosphere which has raised the global mean

temperature by half a degree in the last century," Allegre wrote 20 years ago. In addition, Allegre was one of 1500 scientists who signed a November 18, 1992 letter titled "World Scientists' Warning to Humanity" in which the scientists warned that global warming's "potential risks are very great." See: http://homepages.ihug.co.nz/~sai/sciwarn. html

Allegre has authored more than 100 scientific articles, written 11 books and received numerous scientific awards including the Goldschmidt Medal from the Geochemical Society of the United States.

Allegre's conversion to a climate skeptic comes at a time when global warming alarmists have insisted that there is a "consensus" about manmade global warming. Proponents of global warming have ratcheted up the level of rhetoric on climate skeptics recently. An environmental magazine in September called for Nuremberg-style trials for global warming skeptics and CBS News "60 Minutes" correspondent Scott Pelley compared skeptics to "Holocaust deniers." See: http://www.epw.senate.gov/ fact.cfm?party=rep&id=264568 & http://www.cbsnews.com/
blogs/2006/03/22/publiceye/entry1431768. shtml In addition, former Vice President Al Gore has repeatedly referred to skeptics as "global warming deniers."

This increase in rhetorical flourish comes at a time when new climate science research continues to unravel the global warming alarmists' computer model predictions of future climatic doom and vindicate skeptics.

60 Scientists Debunk Global Warming Fears

Earlier this year, a group of prominent scientists came forward to question the so-called "consensus" that the Earth faces a "climate emergency." On April 6, 2006, 60 scientists wrote a letter to the Canadian Prime Minister asserting that the science is deteriorating from underneath global warming alarmists.

"Observational evidence does not support today's computer climate models, so there is little reason to trust model predictions of the future... Significant [scientific] advances have been made since the [Kyoto] protocol was created, many of which are taking us away from a concern about increasing greenhouse gases. If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary," the 60 scientists wrote. See: http://www.canada.com/ nationalpost/financialpost/story.html?id=3711460e-bd5a-475d-a6be4db87559d605

"It was only 30 years ago that many of today's global-warming alarmists were telling us that the world was in the midst of a global-cooling catastrophe. But the science continued to evolve, and still does, even though so many choose to ignore it when it does not fit with predetermined political agendas," the 60 scientists concluded.

In addition, an October 16, 2006 Washington Post article titled "Climate Change is Nothing New" echoed the sentiments of the 60 scientists as it detailed a new study of the earth's climate history. The Washington Post article by reporter Christopher Lee noted that Indiana University geologist Simon Brassell found climate change occurred during the age of dinosaurs and quoted Brassell questioning the accuracy of computer climate model predictions.

"If there are big, inherent fluctuations in the system, as paleoclimate studies are showing, it could make determining the Earth's climatic future even harder than it is," Brassell said. See: http://www. washingtonpost.com/wp-dyn/content/article/2006/10/15/AR2006101500 672.html

Global Cooling on the Horizon?

In August, Khabibullo Abdusamatov, a scientist who heads the space research sector for the Russian Academy of Sciences, predicted long-term global cooling may be on the horizon due to a projected decrease in the sun's output. See: http://en.rian.ru/russia/ 20060825/53143686.html

Sun's Contribution to Warming

There have also been recent findings in peer-reviewed literature over the last few years showing that the Antarctic is getting colder and the ice is growing and a new 2006 study in Geophysical Research Letters found that the sun was responsible for up to 50% of 20th-century warming. See: http://www.agu.org/ pubs/crossref/2006/2006GL027 1 42.shtml

"Global Warming" Stopped in 1998

Paleoclimate scientist Bob Carter has noted that there is indeed a problem with global warming – it stopped in 1998. "According to official temperature records of the Climate Research Unit at the University of East Anglia in the UK, the global average temperature did not increase between 1998- 2005. "...this eight-year period of temperature stasis did coincide with society's continued power station and SUV-inspired pumping of yet more carbon dioxide into the atmosphere," noted paleoclimate researcher and geologist Bob Carter of James Cook University in Australia in an April 2006 article titled "There is a problem with global warming... it stopped in 1998." See: http://www.telegraph.co.uk/ opinion/ main.jhtml?xml=/opinion/2006/04/09/do0907.xml&sSheet=/news/2006/04/09/ixworld.html

"Global?" Warming Misnamed - Southern Hemisphere Not Warming

In addition, new NASA satellite tropospheric temperature data reveals that the Southern Hemisphere has not warmed in the past 25 years contrary to "global warming theory" and modeling. This new Southern Hemisphere data raises the specter that the use of the word "global" in "global warming" may not be accurate. A more apt moniker for the past 25 years may be "Northern Hemisphere" warming. See: http:// motls.blogspot.com/2006/09/southern-hemisphere-ignores-global.html

Alaska Cooling

According to data released on July 14, 2006 from the National Oceanic and Atmospheric Administration (NOAA), the January through June Alaska statewide average temperature was "0.55F (0.30C) cooler than the 1971-2000 average." See: http://www.publicaffairs.noaa.gov/ releases2006/jul06/noaa06-065. html

Oceans Cooling

Another bombshell to hit the global warming alarmists and their speculative climate modeling came in a September article in the Geophysical Research Letters which found that over 20% of the heat gained in the oceans since the mid-1950s was lost in just two years. The former climatologist for the state of Colorado, Roger Pielke, Sr., noted that the sudden cooling of the oceans "certainly indicates that the multi-decadal global climate models have serious issues with their ability to accurately simulate the response of the climate system to human- and natural-climate forcings." See: http://climatesci.atmos. colostate.edu/2006/09/

Light Hurricane Season and Early Winter

Despite predictions that 2006 would bring numerous tropical storms, 2006's surprisingly light hurricane season and the record early start of this year's winter in many parts of the U.S. have further put a damper on the constant doomsaying of the global warming alarmists and their media allies.

Droughts Less Frequent

Other new studies have debunked many of the dubious claims made by the global warming alarmists. For example, the claim that droughts would be more frequent, severe and wide ranging during global warming, has now being exposed as fallacious. A new paper in Geophysical Research Letters authored by Konstantinos Andreadis and Dennis Lettenmaier finds droughts in the U.S. becoming "shorter, less frequent and cover a small portion of the country over the last century." http://www.worldclimatereport. com/index.php/2006/1 0/13/where-are-the-droughts

Global Warming will not Lead to Next Ice Age

Furthermore, recent research has shown that fears that global warming could lead to the next ice age, as promoted in the 2004 Hollywood movie "The Day After Tomorrow" are also unsupportable. A 2005 media hyped study "claimed to have found a 30 percent slowdown in the thermohaline circulation, the results are published in the very prestigious Nature magazine, and the story was carried breathlessly by the media in outlets around the world... Less than a year later, two different research teams present convincing evidence [in Geophysical Research Letters] that no slowdown is occurring whatsoever," according to Virginia State Climatologist Patrick Michaels, editor of the website World Climate Report. See: http://www.worldclimatereport.com/index.php/2006/10/13/overturning-ocean-hype

'Hockey Stick' Broken in 2006

The "Hockey Stick" temperature graph's claim that the 1990's was the hottest decade of the last 1000 years was found to be unsupportable by the National Academy of Sciences and many independent experts in 2006. See: http://www.epw.senate.gov/pressitem.cfm?party =rep&id=257697

Study Shows Greenland's Ice Growing

A 2005 study by a scientist named Ola Johannessen and his colleagues showed that the interior of Greenland is gaining ice mass. See: http://www.co2science.org/ scripts/CO2ScienceB2C/articles/V8/ N44/C 1.j sp Also, according to the International Arctic Research Institute, despite all of the media hype, the Arctic was warmer in the 1930's than today.

Polar Bears not Going Extinct

Despite Time Magazine and the rest of the media's unfounded hype, polar bears are not facing a crisis, according to biologist Dr. Mitchell Taylor from the Arctic government of Nunavut. "Of the 13 populations of polar bears in Canada, 11 are stable or increasing in number. They are not going extinct, or even appear to be affected at present," Taylor wrote on

May 1, 2006. See: http://www.thestar.com/ NASApp/cs/ContentServer?pagename=thestar/ Layout/Article_Type 1 &c=Article&cid=1 146433819696 &call_pageid=970599 119419

Media Darling James Hansen Hypes Alarmism

As all of this new data debunking climate alarmism mounts, the mainstream media chooses to ignore it and instead focus on the dire predictions of the number-one global warming media darling, NASA's James Hansen. The increasingly alarmist Hansen is featured frequently in the media to bolster sky-isfalling climate scare reports. His recent claim that the Earth is nearing its hottest point in one million years has been challenged by many scientists. See: http://www.co2science.org/scripts/CO2ScienceB2C/ articles/V9/N39/EDITB.jsp Hansen's increasingly frightening climate predictions follow his 2003 concession that the use of "extreme scenarios" was an appropriate tactic to drive the public's attention to the urgency of global warming. See: http://naturalscience.com/ns/articles/01-16/ns_jeh6.htmlHansen also received a $250,000 grant form Teresa Heinz's Foundation and then subsequently endorsed her husband John Kerry for President and worked closely with Al Gore to promote his movie, "An Inconvenient Truth." See: http://www.heinzawards.net/speechDetail.asp?speechID=6 & http://www. columbia.edu/~jeh1/dai_complete.pdf

American People Rejecting Global Warming Alarmism

The global warming alarmists may have significantly overplayed their hand in the climate debate. A Los Angeles Times/Bloomberg poll this August found that most Americans do not attribute the cause of any recent severe weather events to global warming, and the portion of Americans who believe that climate change is due to natural variability has increased over 50% in the last five years.

Senator Inhofe Chastises Media for Unscientific and Unprincipled Climate Reporting

Senator James Inhofe (R-Okla.) Chairman of the Environment and Public Works Committee, commented last week on the media's unfounded global warming hype and some of the recent scientific research that is shattering the so-called "consensus" that human greenhouse gas emissions have doomed the planet.

"The American people are fed up with media for promoting the idea that former Vice President Al Gore represents the scientific 'consensus' that SUV's and the modern American way of life have somehow created a 'climate emergency' that only United Nations bureaucrats and wealthy Hollywood liberals can solve. It is the publicity and grant seeking global warming alarmists and their advocates in the media who have finally realized that the only "emergency" confronting them is their rapidly crumbling credibility, audience and bottom line. The global warming alarmists know their science is speculative at best and their desperation grows each day as it becomes more and more obvious that many of the nations that ratified the woeful Kyoto Protocol are failing to comply," Senator Inhofe said last week. See: http:// www.epw.senate.gov/pressitem.cfm?party=rep&id=264616

"The mainstream media needs to follow the money: The further you get from scientists who conduct these alarmist global warming studies, and the further you get from the financial grants and the institutions that they serve the more the climate alarmism fades and the skepticism grows," Senator Inhofe explained.

Eco-Doomsayers' Failed Predictions

In a speech on the Senate floor on September 25, 2006, Senator Inhofe pointed out the abject failure of past predictions of ecological disaster made by environmental alarmists.

"The history of the modern environmental movement is chock-full of predictions of doom that never came true. We have all heard the dire predictions about the threat of overpopulation, resource scarcity, mass starvation, and the projected death of our oceans. None of these predictions came true, yet it never stopped the doomsayers from continuing to predict a dire environmental future. The more the ecodoomsayers' predictions fail, the more the eco-doomsayers predict," Senator Inhofe said on September 25th. See: http://epw.senate.gov/speechitem.cfm?party=rep&id=263759

Inhofe Responds to Critical New York Times Editorial

http://epw.senate.gov/pressitem.cfm?party=rep&id=264616
October 12, 2006

Washington, D.C.-– Senator James Inhofe (R-Okla.), Chairman of the Environment and Public Works Committee responded to today's October 12, 2006 New York Times global warming editorial titled, "Doubting Inhofe."

(http://www.nytimes.com/2006/10/1 2/opinion/1 2thu2.html?hp)

In the past few weeks, Senator Inhofe has raised numerous questions regarding the media's coverage of global warming in two Senate Floor speeches, first on September 25, "Hot & Cold Media Spin:

A Challenge To Journalists Who Cover Global Warming" (http://www.epw.senate.gov/speechitem. cfm?party=rep&id=263759) and a follow-up speech on September 29 titled, "America Reacts To Speech Debunking Media Global Warming Alarmism." (http://www.epw.senate.gov/speechitem. cfm?party=rep&id=264027)

"*My recent speeches detailing the embarrassing 100 year history of the media's relentless climate hype and its flip flopping between global cooling and warming scares must have struck a nerve in the old gray lady of the New York Times," Senator Inhofe said. "A significant portion of my 50 minute Senate floor speech on September 25th was devoted to the New York Times history of swinging between promoting fears of a coming ice age to promoting fears of global warming. Since 1895, the media has alternated between global cooling and warming scares during four separate and sometimes overlapping time periods.*

"*The American people are fed up with media for promoting the idea that former Vice President Al Gore represents the scientific "consensus" that SUV's and the modern American way of life have somehow created a "climate emergency" that only United Nations bureaucrats and wealthy Hollywood liberals can solve.*

"*Now, fast forward to August 19, 2000, the New York Times was so eager to promote fears of the Arctic melting that it cheapened itself with a comical article declaring 'The North Pole is Melting.' The Times reporter, John Noble Wilford, noted that tourists visiting the North Pole saw open water and declared that 'The last time scientists can be certain the pole was awash in water, was more than 50 million years ago.' Wow. Pretty convincing stuff – that is until the Times was forced to retract the story 10 days later and admit nothing unusual*

had occurred at the pole. No wonder today's Times editorial felt compelled to accuse me of 'a hysteria of doubt,' it was no doubt a clumsy attempt to distract from their climate reporting legacy of hysteria."

Full Text of Senator Inhofe's Remarks

My recent speeches detailing the embarrassing 100 year history of the media's relentless climate hype and its flip flopping between global cooling and warming scares must have struck a nerve in the old gray lady of the New York Times. A significant portion of my 50 minute Senate floor speech on September 25th was devoted to the New York Times history of swinging between promoting fears of a coming ice age to promoting fears of global warming. Since 1895, the media has alternated between global cooling and warming scares during four separate and sometimes overlapping time periods.

The New York Times October 12, 2006 editorial accused me of possessing "a hysteria of doubt" about human caused catastrophic global warming. But in reality, there is no doubt that it is the New York Times that possesses a hysterical and erroneous history of climate alarmism.

Here is a quote from the February 24, 1895 edition of the New York Times reporting on fears of an approaching ice age: "Geologists Think the World May be Frozen Up Again." But on March 27, 1933, the New York Times reported: "America in Longest Warm Spell Since 1776; Temperature Line Records a 25-year Rise" Then in 1952, the New York Times was back on the global warming bandwagon declaring that the "trump card" of global warming "has been the melting glaciers." And a 1975 New York Times headline trumpeting fear of a coming ice age read: "Climate Changes Endanger World's Food Output."

Now, fast forward to August 19, 2000, the New York Times was so eager to promote fears of the Arctic melting that it cheapened itself with a comical article declaring "The North Pole is Melting." The Times reporter, John Noble Wilford, noted that tourists visiting the North Pole saw open water and declared that "The last time scientists can be certain the pole was awash in water, was more than 50 million years ago." Wow. Pretty convincing stuff – that is until the Times was forced to retract the story 10 days later and admit nothing unusual had occurred at the pole. No wonder today's Times editorial felt compelled to accuse me of "a hysteria of doubt," it was no doubt a clumsy attempt to distract from their climate reporting legacy of hysteria."

Mainstream Media Reaches Tipping Point

The American people are fed up with media for promoting the idea that former Vice President Al Gore represents the scientific "consensus" that SUV's and the modern American way of life have somehow created a "climate emergency" that only United Nations bureaucrats and wealthy Hollywood liberals can solve. It is the publicity and grant seeking global warming alarmists and their advocates in the media who have finally realized that the only "emergency" confronting them is their rapidly crumbling credibility, audience and bottom line. The global warming alarmists know their science is speculative at best and their desperation grows each day as it becomes more and more obvious that many of the nations that ratified the woeful Kyoto Protocol are failing to comply.

Quite simply Kyoto is dead and panic has gripped the global warming alarmists as they realize that Kyoto was nothing more than a fantasy. The Wharton Econometrics Forecasting Associates estimated Kyoto would cost an American family of four $2,700 annually, yet even

alarmists admit Kyoto would have minimal impact on reducing temperatures. Even the "Kyoto Lite" proposal of McCain-Lieberman would have cost American households an additional $810 a year and more than one million jobs would have been lost. Under McCain-Lieberman, electricity prices would have increased 20% and the difference in temperature would have been a mere .029 Celsius. These proposals would affect all Americans, including ranchers, farmers, those in the retail industry and virtually all sectors of the economy. Even the most ardent global warming alarmists now realize that Kyoto and similar proposals are all economic pain for no climate gain.

Evidence of this media collapse can be found in the over 500 e-mails my office received within a few days of my September 25, 2006 Senate floor speech taking the media and climate alarmists to task. Well over 90% of the e-mails and phone calls were positive responses from the grass roots of America and from many scientists who had finally had it with skewed reporting of traditional media outlets like the New York Times. And, it was not just the American people who responded. My speech and its message of mainstream media hype and failure, spread across the globe – from New Zealand, to England, to Canada to the Bahamas and China. http://epw.senate.gov/fact.cfm?party=rep&id=264408

It seems Americans are not alone when it comes to frustration with the relentless and unfounded scientific predictions of climate doom.

Shattering the Scientific Consensus

In April 2006, 60 prominent scientists wrote a letter sent to the Canadian Prime Minister asserting that the science is crumbling from underneath global warming alarmists. (http://www.canada.com/ nationalpost/financialpost/story.html?id=37 11 460e-bd5a-475d-a6be-4db87559d605)

'Observational evidence does not support today's computer climate models, so there is little reason to trust model predictions of the future ...Significant [scientific] advances have been made since the [Kyoto] protocol was created, many of which are taking us away from a concern about increasing greenhouse gases. If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary,' the 60 scientists wrote.

'It was only 30 years ago that many of today's global-warming alarmists were telling us that the world was in the midst of a global-cooling catastrophe. But the science continued to evolve, and still does, even though so many choose to ignore it when it does not fit with predetermined political agendas,'the 60 scientists concluded.

Inhofe Says NAS Report Reaffirms 'Hockey Stick' is Broken

http://epw.senate.gov/pressitem.cfm?party=rep&id=257697
June 22, 2006

Washington, D.C.-Sen. James Inhofe (R-Okla.), Chairman of the Committee on Environment and Public Works commented on today's congressionally commissioned review by the National Academy of Sciences that shows that Dr. Michael Mann's "hockey stick" study was flawed, specifically refuting some of its most often-cited conclusions.

The National Academy of Sciences' "Surface Temperature Reconstructions for the Last 2000 Years" noted in their summary that there were "relatively warm conditions centered around A.D. 1000 (identified by some as the 'Medieval Warm Period') and a relatively cold period (or 'Little Ice Age') centered around 1700." The hockey stick constructed by Mann and his colleagues purported to show temperatures in the Northern Hemisphere remained relatively stable over 900 years, then spiked upward in the 20th century.

"Today's NAS report reaffirms what I have been saying all along, that Mann's 'hockey stick' is broken," Senator Inhofe said. *"Today's report refutes Mann's prior assertions that there was no Medieval Warm Period or Little Ice Age."*

The NAS report also stated that "substantial uncertainties" surround Mann's claims that the last few decades of the 20th century were the warmest in last 1000 years. In fact, while the report conceded that temperature data uncertainties increase going backward in time, it acknowledged that "not all individual proxy records indicate that the recent warmth is unprecedented...'

In addition, the NAS report further chastises Mann, declaring "Even less confidence can be placed in the original conclusions by Mann et al. (1999) that 'the 1990's are likely the warmest decade, and 1998 the warmest year, in at least a millennium ...'"

"This report shows that the planet warmed for about 200 years prior to the industrial age, when we were coming out of the depths of the Little Ice Age where harsh winters froze the Thames and caused untold deaths.

"Trying to prove man-made global warming by comparing the well-known fact that today's temperatures are warmer than during the Little Ice Age is akin to comparing summer to winter to show a catastrophic temperature trend."

"I don't like the word 'Balance"- Says ABC News Global Warming Reporter United States Senate Committee on Environment and Public Works

Inhofe Expresses Concerns over IPCC'S Lack of Objectivity in Letter to Chairman Pachauri

http://epw.senate.gov/pressitem.cfm?party=rep&id=249544
December 7, 2005

Offers Recommendations for Returning Credibility to IPCC Processes

Washington, DC – Sen. James Inhofe (R-Okla.), Chairman of the Environment and Public Works Committee, today sent a letter to Dr. R.K. Pachauri, chairman of the United Nations' Intergovernmental Panel on Climate Change (IPCC), expressing the concerns with the IPCC processes that he shared with his colleagues on the Senate floor during a November 15th speech.

"On November 15th, 2005," Senator Inhofe wrote, "I addressed my colleagues in the United States Senate to express the importance of returning integrity to the processes that govern the work of the Intergovernmental Panel on Climate Change (IPCC). Over the last decade, a number of flaws and even abuses in those processes designed to influence public opinion have become evident. My concern was further heightened by comments you made

yesterday in Montreal at a forum titled 'Arriving at a post-2012 Climate Change Settlement: Technology Options & Cooperative Opportunities.'" ...

"My primary concerns lie with how certain scientific conclusions are selected or excluded from the IPCC's consideration and presentation, and how the science has been manipulated in order to reach a predetermined conclusion. These problems must be remedied in order for the IPCC to present a fair and impartial conclusion as to the current state of climate science."

December 7, 2005
Dr. R. K. Pachauri
Chair, Intergovernmental Panel on Climate Change IPCC Secretariat
c/o World Meteorological Organization
7 bis Avenue de la Paix
C.P. 2300
CH- 1211 Geneva 2
Switzerland

Dear Dr. Pachauri:

When I became Chairman of the United States Senate's Committee on Environment and Public Works, one of my top three priorities was to improve the quality of environmental science used in public policy- making by removing politics from science. I have convened hearings on this subject and, more specifically, the issue of global warming science. The more I have researched the issue, the more convinced I have become that climate science is being co-opted by those who care more deeply about promoting doomsday scenarios to further their own, broader agendas than they do about scientific integrity. I am committed to returning integrity to the scientific process so that the focus is on objective scientific inquiry and assessment and not on influencing public opinion to support political goals.

On November 15th, 2005, I addressed my colleagues in the United States Senate to express the importance of returning integrity to the processes that govern the work of the Intergovernmental Panel on Climate Change (IPCC). Over the last decade, a number of flaws and even abuses in those processes designed to influence public opinion have become evident.

My concern was further heightened by comments you made yesterday in Montreal at a forum titled "Arriving at a post-2012 Climate Change Settlement: Technology Options & Cooperative Opportunities." In your formal commentary concerning a public opinion survey on climate change, you stated:

In the fourth assessment, we will conduct an extensive outreach effort. If facts are highlighted, not exaggerated... then it will help in changing public perception.

Such an effort, and such an attitude, is in direct conflict with an objective assessment of the science, free of political goals. Selective presentations of facts, whether accurate or not, skew the public's understanding of the issue by eliminating contrary findings and potentially considerable uncertainty about their accuracy. Moreover, the IPCC has a history of failing your one condition – that findings not be exaggerated – as I detailed for my Senate colleagues. To be direct, the IPCC is no longer an institution that can be credibly relied upon in setting public policy. As the IPCC nears conclusion of its work on the fourth assessment report, I wish to share with you, in the enclosed speech, the concerns I expressed on the floor

of the Senate last month as well as offer solutions that I believe, if adopted, would help the IPCC regain its scientific credibility.

My primary concerns lie with how certain scientific conclusions are selected or excluded from the IPCC's consideration and presentation, and how the science has been manipulated in order to reach a predetermined conclusion. These problems must be remedied in order for the IPCC to present a fair and impartial conclusion as to the current state of climate science.

As I conveyed to my colleagues, I hope the IPCC can regain the integrity lost with the missteps of the first three assessment reports and produce a sound fourth assessment that considers all sides of the science, and is not co-opted by agenda-driven politicians. Only then can the IPCC's work product be useful to policymakers across the globe. As I stated, I am committed to returning integrity to the scientific process. I hope the members of the IPCC share that same commitment.

Sincerely,

James M. Inhofe
United States Senate
Chairman
Committee on Environment and Public Works

Additional Constructive Recommendations to the IPCC to Help it Restore its Credibility

- In the field of research examining the impact on temperatures from land-use changes, a new subsection should be created to ensure important work that has been done in the field is represented and examined in assessing the relative contribution of land-use changes.
- Assess and explain the full extent of the bias built into future temperature estimates based on the propensity of most General Circulation Models to predict increased Arctic cloud cover under a doubling of carbon dioxide, given that these modeled clouds do not manifest the observed property of modulating incoming sunlight but instead only yielding the positive feedback of enhancing downward longwave radiation even for the summer season at the Arctic.
- Examine and assess the recent evidence for an increase in intensity of tropical circulation using both reanalyses data and satellite-based observations.
- Explain why the predicted range of global precipitation increase under a doubled carbon dioxide scenario is no more than 5% despite a relatively large increase in atmospheric water vapor – approximately 20-30%.
- Assess the impact of this small increase in precipitation on tropical circulation.
- Examine critically how the El Nino-Southern Oscillation air-sea coupling phenomenon will change by increasing carbon dioxide under the global-warming scenario.
- Assess and explain why the polar amplification signals predicted under carbon dioxide-induced global warming have not been observed or verified by the available surface air temperature data of the Arctic.

- The U.S. NSF/NOAA's Understanding Change Panel of the Study of Environmental Arctic Change (or SEARCH) committee recently concluded that:
- While many modeling studies suggest that the increase in greenhouse gases may favor shifts in the primary atmospheric circulation modes, in particular a higher frequency of the positive Arctic Oscillation mode, we find no compelling evidence that the variations of the circulation are greenhouse-driven. Because much of the recent circulation-driven change is likely a manifestation of natural variability, there is a possibility that the recent warming trajectory could slow in the near future.
- Explain how these conclusions were incorporated into the IPCC's conclusions, and fully discuss where the conclusions differ and the underlying reasons for these differences.
- Assess and explain why the General Circulation Models do not correspond with measurements in the lower tropical troposphere and upper polar troposphere, how this has been factored into your conclusions, and what steps are being taken to address this important deficiency.
- Examine in detail what climate models actually predict for the balance between ablation and accumulation of ice at both the Greenland and Antarctic ice sheets.
- Assess the impacts of coarse resolution of topography in the current General Circulation Models on the calculation of the ablation process around the coastal melt zones of Greenland and the Antarctic, and identify studies with differing conclusions that use a finer resolution of topography.
- Assess and explain the impacts of Pacific Decadal Oscillation on the observed temperature records generally. In particular, assess and explain the impacts of the PDO on Alaska for the last 50 years.
- Provide a complete description of the temperature record, including warming at the beginning of the last century, with a full description of the bounds of confidence in the various data underlying each portion of the temperature record.
- Compare the observed temperature record of the period 1918-1945 (with a total rise of 0.43 Celsisus) with the identical length of time between 1977-2004 (with a total rise of 0.48 Celsius) without inclusion of low-pass filter, which biases the results. • Ensure generally that comparisons of early- and late-20th century temperature trends are not distorted, examining the warming trend beginning in 1907.
- Examine the ratio of "wettest days" to total annual precipitation over the last 100 years in those areas with robust datasets, giving major conclusions and large geographical regions/countries that do not conform with this trend; if they do not conform, explain how.
- In assessing tropical storm studies, fully explain and account for the sudden, dramatic rise in observed tropical storms corresponding tightly with the introduction of satellites over this observed areas and other measurement techniques. Explain the relative importance of whether these data are robust in any conclusions supporting increased storms.
- Assess the full body of research regarding tropical storms, without disproportionate reliance on the small number of studies that are controversial.
- Provide a complete presentation of the number of storms making landfall in the Atlantic Gulf of Mexico. Break this down by year and location.

- List the number of deaths estimated from each of these strikes.
- Assess the property damage associated with hurricanes, adjusted for population increase and rise in wealth.
- Temperature increase predictions linearly based on carbon dioxide should more accurately reflect likely carbon dioxide growth rates by taking into account historical carbon concentration growth rates.
- Sea level rise estimates should be adjusted to reflect historical emissions and new projections regarding high-latitude ice sheets, which indicate a sea level rise nearly 50

EPW MAJORITY FACT OF THE DAY

"I don't Like the Word "Balance" - Says ABC News Global Warming Reporter

http://epw.senate.gov/fact.cfm?party=rep&id=265464
October 30, 2006

Burlington, VT - ABC News Reporter Bill Blakemore declared "I don't like the word 'balance' much at all" in global warming coverage at a journalism conference in Vermont over the weekend.

Blakemore, who reported on August 30, 2006, "After extensive searches, ABC News has found no such [scientific] debate" on global warming, (http://abcnews.go.com/US/print?id=2374968) said he rejects 'balance' in order to justify excluding any skeptics of manmade catastrophic global warming from his reporting. He made his remarks at Friday's panel discussion at the Society of Environmental Journalists annual conference in Burlington.

Blakemore lamented "the deep professional shame that I discovered two years ago," regarding how he believes the media had been manipulated by skeptics of manmade catastrophic global warming.

"Of course [skeptics] play on the idea that we have to be 'balanced,'" he noted.

"It was very lazy of us for 10 years when we were asked for balance from the [climate skeptic] spinners. We just gave up and said 'Okay, okay – I will put the other side on, okay are you happy now?'" he said. "And it saves us from the trouble of having to check out the fact that these other sides were the proverbial flat earth society."

Blakemore also took on the role of psychologist in explaining that global warming presents an "existential" dilemma and people face what he termed "psychological obstacles" about whether to believe the dire predictions that the planet is facing a climate crisis.

"We are looking at serious mainstream scientists now tell us that maybe - it's over. It's hard. It's the kind of news you have to take in small doses," Blakemore explained. *[EPW note: Many scientists dispute the notion that mankind has created a climate doomsday. See: (http://epw.senate.gov/pressitem. cfm?party=rep&id=264777)]*

"Denial is initially natural and healthy; the psychologists tell us it is what we do to hold our meaning system together, so that we can at least function at first when trauma happens

and we are all being delivered a major trauma here," he explained. He added that greenhouse gas theory is akin to "3rd grade science."

"Does [extreme weather patterns] fit exactly within the predicted pattern that we projected almost 30 or 40 years ago? This is the little logical problem that we journalists can still work on and solve,"

Blakemore said. *(EPW Note: 30 and 40 years ago, scientists were erroneously predicting a coming ice age. See last week's Newsweek's retraction of global cooling reporting 31 years after its initial report: (http://epw.senate.gov/fact.cfm?party=rep&id=265087))*

"The problem is we journalists have not stood up on our own feet and said 'Excuse me, this is going to be my assessment of where the scientific assessment is.' Because those spinners would say you got to listen to who – for the scientific assessment and they will point to their favorable [skeptical] organizations." He also said, "I am a professional journalist; don't tell me how to do my job."

Blakemore said skeptics of global warming should be ignored because some of them are being funded by industry. But he has failed to note that scientists he promotes such as James Hansen, Michael Oppenheimer, are both recipients of huge sums of money from environmental special interest groups.

When Blakemore reported on January 29, 2006, that NASA scientist James Hansen was alleging that the Bush Administration was censoring his scientific work, he failed to inform viewers that Hansen had received a quarter of a million dollars from Teresa Heinz Kerry's foundation, the Heinz Foundation, and subsequently endorsed her husband Democrat John Kerry for President in 2004 http://www.abcnews. go.com/WNT/story?id=1555183

In addition, Michael Oppenheimer is a paid partisan of the group Environmental Defense. Blakemore also told the journalism conference that global warming was an ever present entity that "affects everything in the weather, everywhere all the time and in every instance."

Blakemore has also lavished praised on Vice President Al Gore and his movie "An Inconvenient Truth", comparing Gore to Shakespeare and Robert Frost. http://blogs. abcnews.com/theworldnewser/2006/05/ al_gore_and_an_.html

Senator Inhofe Credited for Prompting Newsweek Admission of Error on 70's Predictions of Coming Ice Age

http://epw.senate.gov/fact.cfm?party=rep&id=265087
October 24, 2006

Washington, D.C.-On September 25, 2006, Senator James Inhofe (R-Okla.) delivered a 50 Minute Senate floor speech critiquing the media's 100 Year history of embarrassing climate change reporting alternating between promoting fears of a coming ice age and global warming. Since Senator Inhofe's speech, reaction from around the world has been resoundingly positive. (See: http://epw.senate.gov/ speechitem.cfm?party=rep&id=264027) In addition, a Renowned French Scientist recently defected from belief in manmade global warming, capping a year of vindication for climate skeptics. (See: http:// epw.senate.gov/ pressitem.cfm?party=rep&id=264777)

Now it appears the media – led by Newsweek Magazine – is feeling the heat about their erroneous past predictions of climate doom.

In Case you Missed it….
Newsweek Changes Media Climate 31 Years after Global Cooling Story Magazine Admits First Article Was 'Wrong,' but still Wasn't 'Inaccurate' Journalistically

By Dan Gainor
Business & Media Institute 10/24/2006

It took 31 years, but Newsweek magazine admitted (see: http://msnbc.msn.com/id/ 15391426/site/ newsweek) it was incorrect about climate change.

In a nearly 1,000-word correction, Senior Editor Jerry Adler finally agreed that a 1975 piece on global cooling "was so spectacularly wrong about the near-term future."

Even then, Adler wasn't quite willing to blame Newsweek for the incredible failure. "In fact, the story wasn't 'wrong' in the journalistic sense of 'inaccurate,'" he claimed.

"Some scientists indeed thought the Earth might be cooling in the 1970s, and some laymen – even one as sophisticated and well-educated as Isaac Asimov – saw potentially dire implications for climate and food production," Adler added. However, the story admitted both Time magazine and Newsweek were wrong on the subject – Newsweek as recently as 1992.

The situation was brought to light after Sen. James Inhofe (R-OK) gave an extensive speech about media climate change coverage to the Senate on September 25. Inhofe told his Senate colleagues: "Much of the 100-year media history on climate change that I have documented today can be found in a publication entitled 'Fire & Ice' from the Business & Media Institute."

Adler described Inhofe as "chair of the Environment and Public Works Committee and the self- proclaimed scourge of climate alarmists." The article agreed that, to use a phrase from the Watergate era of the first story, mistakes had been made, but questioned whether Inhofe had drawn the right lesson from the media failures.

Adler said scientists have also predicted in the past that Earth would be hit by a "giant meteorite," but "... that doesn't mean that journalists have been dupes or alarmists for reporting this news. Citizens can judge for themselves what constitutes a prudent response ..." However, citizens can't "judge for themselves" if they are getting only one theory, whether it is global cooling or global warming.

Newsweek cited information culled from the BMI report that "for more than 100 years journalists have quoted scientists predicting the destruction of civilization by, in alternation, either runaway heat or a new Ice Age." But he was unwilling to admit that what the media now say about climate change could be wrong. Newsweek wasn't alone in its climate revisionism. The October 12 New York Times included an editorial that criticized Inhofe for his criticism of the Times. Inhofe's comments, according to the article, were "a brisk survey of the way the news media have covered climatic predictions over the past century." It continued, "Cooling, warming – we never get it right."

But the Times editors still castigated Inhofe for his comments because they "do not expect Mr. Inhofe to see the light – or feel the heat – any time soon." At least Newsweek was willing to admit that the world was better off for having ignored the 1975 story.

"All in all, it's probably just as well that society elected not to follow one of the possible solutions mentioned in the Newsweek article: to pour soot over the Arctic ice cap, to help it melt."

It took Newsweek 31 years to correct its mistakes on global cooling. If they want to recant their latest global warming stance and start the calendar today, that means the next correction will run on October 23, 2037.

For full article go to: http://www.businessandmedia.org/articles/2006/20061024143134.aspx

Nuremberg-style Trials Proposed for Global Warming Skeptics

http://epw.senate.gov/fact.cfm?party=rep&id=264568
October 11, 2006

Washington, D.C.- A U.S. based environmental magazine that both former Vice President Al Gore (http://gristmill.grist.org/print/2006/9/1 9/11408/11 06?show_ comments=no) and PBS newsman Bill Moyers, for his October 11th global warming edition of "Moyers on America" titled "Is God Green?" (http://www.grist.org/news/maindish/ 2006/05/09/roberts/index.html) have deemed respectable enough to grant one-on-one interviews to promote their projects, is now advocating Nuremberg-style war crimes trials for skeptics of human caused catastrophic global warming.

Grist Magazine's staff writer David Roberts called for the Nuremberg-style trials for the "bastards" who were members of what he termed the global warming "denial industry."

Roberts wrote in the online publication on September 19, 2006, "When we've finally gotten serious about global warming, when the impacts are really hitting us and we're in a full worldwide scramble to minimize the damage, we should have war crimes trials for these bastards – some sort of climate Nuremberg."

(http://gristmill.grist.org/print/2006/9/1 9/11408/11 06?show_comments=no)

Gore and Moyers have not yet commented on Grist's advocacy of prosecuting skeptics of global warming with a Nuremberg-style war crimes trial. Gore has used the phrase "global warming deniers" to describe scientists and others who don't share his view of the Earth's climate. It remains to be seen what Gore and Moyers will have to say about proposals to make skepticism a crime comparable to Holocaust atrocities.

The use of Holocaust terminology has drawn the ire of Roger Pielke, Jr. of the University of Colorado's Center for Science and Technology Policy Research. "The phrase 'climate change denier' is meant to be evocative of the phrase 'holocaust denier,'" Pielke, Jr. wrote on October 9, 2006 (http://sciencepolicy.colorado.edu/prometheus/archives/author_pielkejr_r/ index.html#000952).

"Let's be blunt. This allusion is an affront to those who suffered and died in the Holocaust. This allusion has no place in the discourse on climate change. I say this as someone fully convinced of a significant human role in the behavior of the climate system," Pielke, Jr. explained.

The article Global Warming: The Chilling Effect On Free Speech (www.spiked-online.com/index.php?/ site/article/1782/)last week in Spiked Online addresses this new found penchant by environmentalists and some media members to charge skeptics of human caused catastrophic global warming with "crimes against humanity" and urge Nuremberg-style prosecution of them.

RELATED ARTICLES

The Wall Street Journal
Commentary: Stern Review by Bjorn Lomborg

http://epw.senate.gov/fact.cfm?party=rep&id=265689
November 2, 2006; Page A12

The report on climate change by Nicholas Stern and the U.K. government has sparked publicity and scary headlines around the world. Much attention has been devoted to Mr. Stern's core argument that the price of inaction would be extraordinary and the cost of action modest.

Unfortunately, this claim falls apart when one actually reads the 700-page tome. Despite using many good references, the Stern Review on the Economics of Climate Change is selective and its conclusion flawed. Its fear-mongering arguments have been sensationalized, which is ultimately only likely to make the world worse off.

The review correctly points out that climate change is a real problem, and that it is caused by human greenhouse-gas emissions. Little else is right, however, and the report seems hastily put-together, with many sloppy errors. As an example, the cost of hurricanes in the U.S. is said to be both 0.13% of U.S. GDP and 10 times that figure.

The review is also one-sided, focusing almost exclusively on carbon-emission cuts as the solution to the problem of climate change. Mr. Stern sees increasing hurricane damage in the U.S. as a powerful argument for carbon controls. However, hurricane damage is increasing predominantly because there are more people with more goods to be damaged, settling in ever more risky habitats. Even if global warming does significantly increase the power of hurricanes, it is estimated that 95% to 98% of the increased damage will be due to demographics. The review acknowledges that simple initiatives like bracing and securing roof trusses and walls can cheaply reduce damage by more than 80%; yet its policy recommendations on expensive carbon reductions promise to cut the damages by 1% to 2% at best. That is a bad deal.

Mr. Stern is also selective, often seeming to cherry-pick statistics to fit an argument. This is demonstrated most clearly in the review's examination of the social damage costs of CO2 – essentially the environmental cost of emitting each extra ton of CO2. The most well-recognized climate economist in the world is probably Yale University's William Nordhaus, whose "approach is perhaps closest in spirit to ours," according to the Stern review. Mr. Nordhaus finds that the social cost of CO2 is $2.50 per ton. Mr. Stern, however, uses a figure of $85 per ton. Picking a rate even higher than the official U.K. estimates – that have themselves been criticized for being over the top – speaks volumes.

Mr. Stern tells us that the cost of U.K. flooding will quadruple to 0.4% from 0.1% of GDP due to climate change. However, we are not told that these alarming figures only hold true if one assumes that the

U.K. will take no additional measures – essentially doing absolutely nothing and allowing itself to get flooded, perhaps time and again. In contrast, the U.K. government's own assumptions take into account a modest increase in flood prevention, finding that the cost will

actually *decline* sharply to 0.04% of U.K. GDP, in spite of climate change. Why does Mr. Stern not share that information?

But nowhere is the imbalance clearer than in Mr. Stern's central argument about the costs and benefits of action on climate change. The review tells us that we should make significant cuts in carbon emissions to stabilize the concentration of atmospheric carbon dioxide at 550 ppm (parts per million). Yet such a stark recommendation is not matched by an explicit explanation of what this would mean in terms of temperature.

The U.N. Climate Panel estimates that stabilizing at 550 ppm would mean an increase in temperature of about 2.3 degrees Celsius in the year 2100. This might be several degrees below what would otherwise happen, but it might also be *higher*. Mr. Nordhaus estimates that the stabilization policy would reduce the rise in temperature from 2.53 degrees Celsius to just 2.42 degrees Celsius. One can understand the reluctance of the Stern review to advertise such a puny effect.

Most economists were surprised by Mr. Stern's large economic estimates of damage from global warming. Mr. Nordhaus's model, for example, anticipates 3% will be wiped off global GDP if nothing is done over the coming century, taking into account the risk for catastrophes. The Stern review purports to show that the cost is "larger than many earlier studies suggested."

On the face of it, Mr. Stern actually accepts Mr. Nordhaus's figure: Even including risks of catastrophe and non-market costs, he agrees that an increase of four degrees Celsius will cost about 3% of GDP. But he assumes that we will continue to pump out carbon far into the 22nd century – a rather unlikely scenario given the falling cost of alternative fuels, and especially if some of his predictions become clear to us toward the end of this century. Thus he estimates that the higher temperatures of eight degrees Celsius in the 21 80s will be very damaging, costing 11% to 14% of GDP.

The Stern review then analyzes what the cost would be if everyone in the present and the future paid equally. Suddenly the cost estimate is not 0% now and 3% in 2100 – but 11% of GDP right now and forever. If this seems like a trick, it is certainly underscored by the fact that the Stern review picks an extremely low discount rate, which makes the cost look much more ominous now.

But even 11% is not the last word. Mr. Stern suggests that there is a risk that the cost of global warming will be higher than the top end of the U.N. climate panel's estimates, inventing, in effect, a "worst-case scenario" even worse than any others on the table. Therefore, the estimated damage to GDP jumps to 15% from 11%. Moreover, Mr. Stern admonishes that poor people count for less in the economic calculus, so he then inflates 15% to 20%.

This figure, 20%, was the number that rocketed around the world, although it is simply a much- massaged reworking of the standard 3% GDP cost in 2100 – a figure accepted among most economists to be a reasonable estimate.

Likewise, Mr. Stern readjusts the cost of dealing with climate change. The U.N. found that the cost of 550 ppm stabilization would be somewhere around 0.2% to 3.2% of GDP today; he reports that costs could lie between -4% and 15% of GDP. The -4% is based on the suggestion that cutting carbon emissions could make us *richer* because revenue recycling could address inefficiencies in taxation – but the alleged inefficiencies, if correct, should be addressed no matter what the policies about climate change. The reason Mr. Stern nevertheless finds a very low cost estimate is because he only considers models with so-called

Induced Technological Change. These models are known to reduce costs by about two percentage points because carbon cuts lead to an increase in research and development, which again makes further cuts cheaper. Thus Mr. Stern concludes that the costs are on average 1% of GDP, and in the summary actually claims that this is a maximum cost.

The Stern review's cornerstone argument for immediate and strong action now is based on the suggestion that doing nothing about climate change costs 20% of GDP now, and doing something only costs 1%. However, this argument hinges on three very problematic assumptions.

First, it assumes that if we act, we will not still have to pay. But this is not so – Mr. Stern actually tells us that his solution is "already associated with significant risks." Second, it requires the cost of action to be as cheap as he tells us – and on this front his numbers are at best overly optimistic. Third, and most importantly, it requires the cost of doing nothing to be a realistic assumption: But the 20% of GDP figure is inflated by an unrealistically pessimistic vision of the 22nd century, and by an extreme and unrealistically low discount rate. According to the background numbers in Mr. Stern's own report, climate change will cost us 0% now and 3% of GDP in 2100, a much more informative number than the 20% now and forever.

In other words: Given reasonable inputs, most cost-benefit models show that dramatic and early carbon reductions cost more than the good they do. Mr. Stern's attempt to challenge that understanding is based on a chain of unlikely assumptions.

Moreover, there is a fourth major problem in Mr. Stern's argument that has received very little attention. It seems naïve to believe that the world's 192 nations can flawlessly implement Mr. Stern's multitrilliondollar, century-long policy proposal. Will nobody try to avoid its obligations? Why would China and India even participate? And even if China got on board, would it be able to implement the policies? In 2002, China decided to cut sulfur dioxide (SO2) emissions by 10% – they are now 27% *higher* despite SO2 being nationally a much bigger health and environmental problem than climate change.

Why does all this matter? It matters because, with clever marketing and sensationalist headlines, the Stern review is about to edge its way into our collective consciousness. The suggestion that flooding will overwhelm us has already been picked up by commentators, yet going back to the background reports properly shows *declining* costs from flooding and fewer people at risk. The media is now quoting Mr. Stern's suggestion that climate change will wreak financial devastation that will wipe 20% off GDP, explicitly evoking memories of past financial catastrophes such as the Great Depression or World War II; yet the review clearly tells us that costs will be 0% now and just 3% in 2100.

It matters because Gordon Brown, Tony Blair and Nicholas Stern all profess that one of the major reasons that they want to do something about climate change is because it will hit the world's poor the hardest. Using a worse-than-worst-case scenario, Mr. Stern warns that the wealth of South Asia and Sub-Saharan Africa will be reduced by 10% to 13% in 2100 and suggests that effect would lead to 145 million more poor people.

Faced with such alarmist suggestions, spending just 1% of GDP or $450 billion each year to cut carbon emissions seems on the surface like a sound investment. In fact, it is one of the least attractive options. Spending just a fraction of this figure – $75 billion – the U.N. estimates that we could solve all the world's major basic problems. We could give everyone clean drinking water, sanitation, basic health care and education right now. Is that not better?

We know from economic models that dealing just with malaria could provide economic boosts to the order of 1% extra GDP growth per capita per year. Even making a very conservative estimate that solving *all* the major basic issues would induce just 2% extra growth, 100 years from now each individual in the developing world would be more than 700% richer. That truly trivializes Mr. Stern's 10% to 13% estimates for South Asia and Sub-Saharan Africa.

Last weekend in New York, I asked 24 U.N. ambassadors – from nations including China, India and the U.S. – to prioritize the best solutions for the world's greatest challenges, in a project known as Copenhagen Consensus. They looked at what spending money to combat climate change and other major problems could achieve. They found that the world should prioritize the need for better health, nutrition, water, sanitation and education, long before we turn our attention to the costly mitigation of global warning.

We all want a better world. But we must not let ourselves be swept up in making a bad investment, simply because we have been scared by sensationalist headlines.

Click Here for the Entire Op/Ed: http://online.wsj.com/article/SB116243506287110986-search. html?KEYWORDS=lomborg&COLLECTION=wsjie/6month

The Australian
Bob Carter: British Report the Last Hurrah of Warmaholics

The Stern warning could join Paul Ehrlich's The Population Bomb and the Club of Rome's Limits to Growth in the pantheon of big banana scares that proved to be unfounded.

Bob Carter is a geologist and founding member of the Australian Environment Foundation.

http://epw.senate.gov/fact.cfm?party=rep&id=265690
November 03, 2006

Nicholas Stern is a distinguished economist. Climate change is a complex, uncertain and contentious scientific issue. Have you spotted the problem with the Stern review yet?

An accomplished cost-benefit analysis of climate change would require two things: a clear, quantitative understanding of the natural climate system and a dispassionate, accurate consideration of all the costs and benefits of warming as well as cooling.

Unfortunately, the Stern review is not a cost-benefit but a risk analysis, and of warming only.

This adroit shuffle of the pea under the thimble perhaps explains why Stern's flawed and partial account of our possible climate future stresses costs, ignores benefits, and fails to consider the all too likely eventuality of future cooling.

Even more unfortunate for Stern than his restricted brief is that there is no established theory of climate. Stern therefore has to rely on the advice of others in providing the summary of climate science that occupies the first 21 pages of his review. Though he cites a range of scientific literature, his summary strongly reflects the unsatisfactory consensus view of the UN's Intergovernmental Panel on Climate Change.

The advice to policy-makers that governments periodically receive from the IPCC contains political rather than scientific advice. In concert with this, over the past 10 years the

IPCC has moved from being primarily a reviewer of the science evidence to being an advocate for the alarmist case for global warming.

Perhaps the most important scientific point made in the Stern review is the statement that "the accuracy of climate predictions is limited by computer power".

Nonetheless, the review's risk analysis assumes that the computer models used are able to predict the future path of global climate for policy purposes. They cannot.

Worse, even if the models did have global predictive skill, that would only be a tiny first step towards policy advice, because the global average temperature or sea-level rise that the models calculate are conceptual statistics, not physical realities.

Estimating accurate costs and benefits for future environmental change requires not just knowledge of changing global averages but accurate, site-specific predictions for all parts of the planet.

For example, from 1965 to 1998, measured sea level rose slightly in Townsville and fell slightly in Cairns. Presuming that these trends continue, there is obviously the need for different coastal management plans for the two regions. Now repeat that thought exercise for future changes in temperature, precipitation and sea level worldwide. To make actual and accurate predictions for this is, of course, impossible.

Stern has surely accepted his IPPC-centric science advice in good faith, yet that turns out to be his fatal mistake. Because there is copious evidence that the advice is untrustworthy. For instance, participants at a recent international climate conference in Stockholm were told that the hockey-stick depiction of temperature over the last 1000 years, an IPCC favourite, has been discredited; that pre-industrial atmospheric carbon dioxide levels were higher, and fluctuated more, than is indicated by the averaged ice core measurements; that global temperature has not increased since 1998, despite continuing increases in carbon dioxide; that the Arctic region is no warmer now than it was in the 1930s; and that climate models are too uncertain to be used as predictive policy tools.

These considerations undercut the core IPCC arguments for dangerous human-caused warming, as contained in its 2001 assessment report. Yet early drafts of the forthcoming fourth assessment report reveal that IPCC thinking does not consider these deep uncertainties, and neither does Stern.

The opinion of Bjorn Lomborg, writing in yesterday's Wall Street Journal, suggests that it is not just Stern's science that is flawed. Lomborg accuses Stern of cherry-picking statistics to fit the argument, such as massaging future warming cost estimates from the generally accepted 0per cent of gross domestic product now to 3 per cent in 2100 to figures as high as "20 per cent now and forever".

It seems that the economics of the Stern review is as shaky as the science, given that Lomborg concludes that "its fear-mongering arguments have been sensationalised, which is ultimately only likely to make the world worse off".

The Stern review has been presented as a rigorous treatment of climate change and its economic effects. In reality, however, the review is a political document whose relation to the truth is about the same as that of the notorious British report on Iraq's weapons of mass destruction.

The Stern agenda in Britain is to enable Labour to compete for eco-votes with an increasingly green- oriented Tory party. A wider agenda is the imposition of carbon levies for goods and services provided from outside Europe, thereby penalising more efficient

competitors elsewhere. The European Union has form on this, and has previously tried to use DDT and genetic engineering of food as bogies to justify trade barriers.

Among a range of possible carbon morality taxes, Stern considers the application of a food-miles levy on produce subjected to lengthy air transport. Subsequent media coverage has concentrated on earlier estimates that flying 1kg of kiwifruit from New Zealand to Europe generates 5kg of carbon dioxide. With delicious irony, it turns out that virtually all NZ kiwifruit are transported by ship, yet arrive in Britain at a price that undercuts local supplies. No wonder a levy is needed.

Australian grape growers are doubtless already resigned to having an extra "noble carbon" levy imposed on their products, to the advantage of their French competitors. For that matter, why not a ballet miles surcharge on tickets at Covent Garden when the Australian Ballet next visits London? And given that most British dildos probably come from overseas, perhaps UK citizens will soon have dildo miles, too.

The Stern review is not about climate change but about economic, technological and trade advantage. Its perpetrators seek power through climate scaremongering. The review's release was carefully timed to closely precede this month's US congressional elections and the Nairobi climate conference. Beyond these events, we can expect another burst of alarmist hallelujahs to accompany the launch of IPCC's assessment report in February.

Though it will be lionised for a while yet, the Stern review is destined to join Paul Ehrlich's The Population Bomb and think tank the Club of Rome's manifesto, Limits to Growth, in the pantheon of big banana scares that proved to be unfounded. It is part of the last hurrah for those warmaholics who inhabit a world of virtual climate reality that exists only inside flawed computer models.

Meanwhile, the empirical data stressed by climate rationalists will ultimately prevail over the predictions of the unvalidated computer models. Perhaps then we will be able to attend to the real climate policy problem, which is to prepare response plans for extreme weather events, and for climate warmings as well as coolings, in the same way we prepare to cope with all other natural hazards.

Click Here for the entire Op/Ed: http://theaustralian.news.com.au/story/0,20867,20690289-7583,00.html

The San Francisco Chronicle
Inhofe, the Apostate by Debra J. Saunders

http://epw.senate.gov/fact.cfm?party=rep&id=264709
Sunday, October 15, 2006

Global Warming is a religion, not science. That's why acolytes in the media attack global-warming critics, not with scientific arguments, but for their apostasy. Then they laud global-warming believers, not for reducing greenhouse gases, but simply for believing global warming is a coming catastrophe caused by man. The important thing is to have faith in those who warn: The End Is Near.

So a New York Times editorial Thursday took after Sen. James Inhofe, R-Okla., not for being a Doubting Thomas, but as the headline read, a "Doubting Inhofe." The brunt of the editorial was not a scientific refutation of Inhofe's arguments against the global-warming

craze – other than to cite a National Academy of Sciences report that warned that the Earth is approaching the warmest temperatures in 12,000 years – a short blip in time to your average geologist.

The Times' focus was on Inhofe's refusal to bow to "the consensus among mainstream scientists and the governments of nearly every industrialized nation concerning manmade climate change." That is, Inhofe has had the effrontery to challenge elite orthodoxy. Or, as the editorial put it, Inhofe "has really buttressed himself with the will to disbelieve."

Get thee away, Satan.

"I see a sense of desperation that I haven't seen before," Inhofe told me by phone Thursday, "and frankly I'm enjoying it."

CNN's Miles O'Brien also challenged Inhofe in a similar vein. O'Brien cited the NAS study, then assailed Inhofe with quotes from notable Republicans – President Bush, Gov. Arnold Schwarzenegger and Rep. Chris Shays of Connecticut – who recognize global warming. Note that Schwarzenegger gets into global-warming heaven just for believing, despite his four Hummers and use of a private jet.

Global warming even has a martyr, NASA scientist James Hansen, who told O'Brien in January that under the Bushies, "you're not free to speak your own mind." It's amazing that a scientist can complain the he is being muzzled – while appearing on CNN and "60 Minutes."

Be it noted that Hansen endorsed Sen. John Kerry for president in 2004 and received a $250,000 award from a foundation run by Teresa Heinz Kerry in 2001. At the time, Hansen told the New York Times, the award had "no impact on my evaluation of the climate problem or on my political leanings." I believe that.

I also believe we should all be so muzzled. What does Inhofe make of the NAS finding? Inhofe recognizes that the Earth is warming, but sees this as part of the natural cycle. Inhofe mentioned the Medieval Warm Period – 1000 to 1270 A.D. when the Vikings grew crops in Greenland. So he doesn't buy this 12,000-year high. His office referred me to a piece University of Oklahoma geology professor David Deming penned for the Normal Transcript that noted, "The fact that the thermometer wasn't invented until the year 1714 ought to give us pause when evaluating this remarkable claim."

I remain agnostic on global warming, as I've seen good arguments on both sides. I know, however, that I never will be convinced that global warming is a scientific threat as long as believers put most of their energy into establishing orthodoxy and denying that reputable global-warming skeptics exist.

The Times' "mainstream scientists" line undermines the editorial's credibility as it ignores the likes of MIT climate scientist Richard S. Lindzen, who argues that clouds and water vapor will counteract greenhouse-gas emissions. Ditto the 60 Canadian scientists who wrote to Prime Minister Stephen Harper that there is no "'consensus' among climate scientists."

Let me add the Copenhagen Consensus, a group of Nobel Prize-winning scientists and economists that looks at the best way to spend a hypothetical $50 billion to benefit mankind, rated fighting global warming as a "bad" use of money. That's amazing, when you consider the pressure that is put upon scientists to conform.

"Consensus" is another word for clique science. The good people are true believers, the bad people exhibit a "will to disbelieve." Editors used to salute healthy skepticism. Now some are global-warming Torquemadas.

For full article go to: http://sfgate.com/cgi-bin/article.cgi?file=/c/a/2006/10/15/EDGMQKEIS11.DTL

The Norman Transcript
Inhofe Correct on Global Warming by David Deming

http://epw.senate.gov/fact.cfm?party=rep&id=264537
October 5, 2006

Mr. Deming is a geophysicist, an adjunct scholar with the Oklahoma Council of Public Affairs (ocpathink.org), and an associate professor of Arts and Sciences at the University of Oklahoma.

Oklahoma Senator James Inhofe has been taking a lot of heat lately for his skeptical stance on global warming. He's been called a "social dinosaur" for his failure to accept the politically correct view. But in my opinion, Sen. Inhofe is absolutely correct to be skeptical. As the Enlightenment philosopher Denis Diderot said, "skepticism is the first step towards truth."

I'm a geophysicist who has conducted and published climate studies in top-rank scientific journals. My perspective on Sen. Inhofe and the issue of global warming is informed not only by my knowledge of climate science, but also by my studies of the history and philosophy of science.

The media hysteria on global warming has been generated by journalists who don't understand the provisional and uncertain nature of scientific knowledge. Science changes. For years we were told that drinking coffee was bad for our health and would increase our risk for heart disease. But more recent studies have shown that not only is coffee safe for our hearts, it can decrease the risk of liver cancer and is chock full of healthy antioxidants.

I read in the Edmond Sun Oct. 1 an article by an economist which indicated that temperatures are now higher than at any time in the past 12,000 years. The fact that the thermometer wasn't invented until the year 1714 ought to give us pause when evaluating this remarkable claim. Reconstructions of past temperatures are not measurements, but estimates. These estimates are based on innumerable interpretations and uncertain assumptions, all invisible to someone who only reads the headline. Better studies – completely ignored by the major media – have shown that late-twentieth-century temperatures are not anomalous or unusually warm.

I also read last week that in a mere 50 years mean global temperatures on Earth will be higher than they have been for the last million years. We all know that in recent years weather forecasts have become more accurate. But meteorologists can't predict what the temperature will be in 30 days. How is it that we are supposed to believe that they can reliably forecast what the temperature will be in 50 years? They can't, because Earth's climate system is complex and poorly understood.

It is not surprising that some scientists today find evidence to support global warming. True believers always find confirming evidence. In the late 18th century, a school of geologists known as Neptunists became convinced that all of the rocks of the Earth's crust had been precipitated from water. British geologist Robert Jameson characterized the supporting evidence for Neptunism as "incontrovertible." The Neptunists were completely

wrong, but able to explain away any evidence that appeared to contradict their theory. A skeptic pointed out that not all rocks had their genesis in the ocean because he had observed molten lava from a volcano cool and solidify into rock. Unperturbed, the Neptunists calmly explained that the heat of the volcano had merely melted a rock that had been originally generated in water.

Around 1996, I became aware of how corrupt and ideologically driven current climate research can be. A major researcher working in the area of climate change confided in me that the factual record needed to be altered so that people would become alarmed over global warming. He said, "We have to get rid of the Medieval Warm Period."

The Medieval Warm Period was a time of unusually warm weather that began around 1000 AD and persisted until a cold period known as the "Little Ice Age" took hold in the 14th and 15th centuries. The warmer climate of the Medieval Warm Period was accompanied by a remarkable flowering of prosperity, knowledge, and art in Europe. But the existence of the Medieval Warm Period was an "inconvenient truth" for true believers in global warming. It needed to be erased from history so that people could become convinced that present day temperatures were truly anomalous. Unfortunately, the prostitution of science to environmental ideology is all too common.

Sen. James Inhofe is not only correct in his view on global warming, but courageous to insist on truth, objectivity, and sound science. Truth in science doesn't depend on human consensus or political correctness. The fact that the majority of journalists and pundits bray like sheep is meaningless. Galileo, another "social dinosaur," said "the crowd of fools who know nothing is infinite."

Click Here for the Op/Ed: http://www.normantranscript.com/siteSearch/apstorysection/local_story_ 278005204

The Oklahoman
Editorial: Inhofe Holds his own on Warming Debate

http://epw.senate.gov/fact.cfm?party=rep&id=264535
October 9, 2006

U.S. SEN. Jim Inhofe is chairman of the Environmental and Public Works Committee, and few things bug him more than folks who attribute global warming to humankind as though it were established science. You know, people like Al Gore.

Inhofe has made it his personal quest to do battle with those who have elevated theory to sound science. He has made a number of lengthy speeches from the Senate floor — much of his arguments detailed and highly technical fodder that may have a dual use as a cure for insomnia. Yet such is the nature of the global warming debate.

Inhofe, R-Tulsa, recently took his crusade to CNN's "American Morning" program. The cable network's Miles O'Brien introduced Inhofe as the senator who had said global warming was a "hoax." Things got pretty warm from there on in.

Inhofe conceded there is global warming but contested the widely held belief that human activity is to blame. He said some areas of the globe aren't warming at all and cited findings that the Antarctic is gaining ice and getting cooler. He noted the Harvard Center for Astrophysics says the world was warmer in the 15th century than it is now.

O'Brien cited another study that said Antarctic ice is thinning and that huge chunks of it are breaking off into the ocean, potentially raising sea levels. Inhofe countered that sea levels are rising slightly in some places, but not others. Later the senator went on the offensive, recalling that 12 years ago O'Brien said another ice age was coming. It was good banter, mostly in good humor.

Credit Inhofe for nimbly making his case. And we think he's got a point. The science on human causation of global warming is conflicted and unsettled. There's something to be said for a senator who does his homework and is willing to swim against the stream on this important issue.

Click here for the full text of the editorial: http://www.newsok.com/article/2952076/

Investor's Business Daily
Editorial: Cooling down the Climate Scare

http://epw.senate.gov/fact.cfm?party=rep&id=264251
September 29, 2006

Environment: The country is drowning in wild alarums warning of impending doom due to global warming. Yet there has risen — from the U.S. Senate, of all places — a lone voice of rational dissent.

While Al Gore drifts into deeper darkness on the other side of the moon, propelled by such revelations as cigarette smoking is a "significant contributor to global warming," Sen. James Inhofe is becoming a one-man myth-wrecking crew.

Inhofe, a Republican from Oklahoma, took to the Senate floor two days last week to expose the media's role in the global warming hype. This is a man who more than three years ago called the global warming scare "the greatest hoax ever perpetrated on the American people" and has made a habit of tweaking the left-leaning environmental lobby.

One member of the media, Miles O'Brien of CNN, responded last week to Inhofe's criticism of the media with a piece criticizing Inhofe and challenging his arguments. If anything, it seems that O'Brien's reply simply motivated Inhofe to continue his effort to undress the media's complicity and bring light to the issue.

We hope so. The "science" on global warming and the media's propaganda campaign need to be picked apart.

The assumptions made by gloomy theorists should be revealed for what they are: mere conjecture.

The lies and carefully crafted implications, many of them discharged like toxic pollutants by a former vice president, deserve a thorough and lasting deconstruction.

What the public needs — and deserves — is a credible voice to counter the sermons from Gore, on whose behalf cigarettes were distributed in 2000 to Milwaukee homeless people who were recruited by campaign volunteers to cast absentee ballots. Inhofe could be that voice.

He's no John the Baptist crying out in the wilderness. What he is, in fact, is a thrice-elected senator, a former member of the House and, before that, a state senator and representative.

For those not impressed by a political background — after all, Gore, far out of proportion to his qualifications, rose to the second most powerful position on Earth — consider that Inhofe is an Army veteran and longtime pilot, and has actually worked in the private sector.

Unlike most in the Senate, Inhofe is willing to stand on a soapbox and expose his head to his opponents' rhetorical stones. Name another in that august body who would dare label as a hoax the premise that undergirds the day's most trendy pop cult. Is there anyone there who would want to try to stand up to the likes of O'Brien?

O'Brien's biased report is not exactly the type of exposure global warming skeptics hope for, though.

The goal, say the skeptics, should be to teach and inform, to provide an alternative to the flood of hyperbole and intentionally misleading thunder that's passed off as settled science.

There are enough scientists to fill a fleet of Humvees who can express scepticism over global warming, despite Gore's claims that the matter has been resolved in favor of his conclusions. But none has the forum a U.S. senator can command. With rare exceptions, scientists can marshal media attention on the climate change issue only by spouting the party line that man-made emissions are causing Earth to warm. That's the sort of stuff the press laps up like a starving dog.

Without the wind of a compliant media at his back, Inhofe nevertheless got his message out to America, primarily through C-Span and the Drudge Report, which linked to his speeches at the Web site of the Senate Committee on Environment and Public Works.

Among those responding to Inhofe's first speech included a scientist and a meteorologist. Both hold views on global warming that are in line with the senator's — which puts them at odds with the environmental lobby's assertions of "consensus" that have been relentlessly beaten into the masses for more than a decade.

The most important audience, though, is among the Americans who have no links to science. They're the ones who have a lot to learn and will benefit the most from someone who has mass access to the public and is willing to challenge the widely — and often uncritically — accepted claims about climate change.

Click Here for the Editorial: http://www.investors.com/editorial/editorialcontent.asp?secid=1501&status =article&id=2444229827 11443

The Wall Street Journal
There Is no 'Consensus' on Global Warming by Richard S. Lindzen

http://epw.senate.gov/fact.cfm?party=rep&id=257863
Mr. Lindzen is the Alfred P. Sloan Professor of Atmospheric Science at MIT.
June 26, 2006; Page A14

According to Al Gore's new film "An Inconvenient Truth," we're in for "a planetary emergency": melting ice sheets, huge increases in sea levels, more and stronger hurricanes and invasions of tropical disease, among other cataclysms – unless we change the way we live now...

Mr. Gore assures us that "the debate in the scientific community is over."

That statement, which Mr. Gore made in an interview with George Stephanopoulos on ABC, ought to have been followed by an asterisk. What exactly is this debate that Mr. Gore is

referring to? Is there really a scientific community that is debating all these issues and then somehow agreeing in unison? Far from such a thing being over, it has never been clear to me what this "debate" actually is in the first place.

The media rarely help, of course. When Newsweek featured global warming in a 1988 issue, it was claimed that all scientists agreed. Periodically thereafter it was revealed that although there had been lingering doubts beforehand, now all scientists did indeed agree. Even Mr. Gore qualified his statement on ABC only a few minutes after he made it, clarifying things in an important way. When Mr. Stephanopoulos confronted Mr. Gore with the fact that the best estimates of rising sea levels are far less dire than he suggests in his movie, Mr. Gore defended his claims by noting that scientists "don't have any models that give them a high level of confidence" one way or the other and went on to claim – in his defense – that scientists "don't know... They just don't know."

So, presumably, those scientists do not belong to the "consensus." Yet their research is forced, whether the evidence supports it or not, into Mr. Gore's preferred global-warming template – namely, shrill alarmism. To believe it requires that one ignore the truly inconvenient facts. To take the issue of rising sea levels, these include: that the Arctic was as warm or warmer in 1940; that icebergs have been known since time immemorial; that the evidence so far suggests that the Greenland ice sheet is actually growing on average. A likely result of all this is increased pressure pushing ice off the coastal perimeter of that country, which is depicted so ominously in Mr. Gore's movie. In the absence of factual context, these images are perhaps dire or alarming.

They are less so otherwise. Alpine glaciers have been retreating since the early 19th century, and were advancing for several centuries before that. Since about 1970, many of the glaciers have stopped retreating and some are now advancing again. And, frankly, we don't know why...

A general characteristic of Mr. Gore's approach is to assiduously ignore the fact that the earth and its climate are dynamic; they are always changing even without any external forcing. To treat all change as something to fear is bad enough; to do so in order to exploit that fear is much worse. Regardless, these items are clearly not issues over which debate is ended – at least not in terms of the actual science.

A clearer claim as to what debate has ended is provided by the environmental journalist Gregg Easterbrook. He concludes that the scientific community now agrees that significant warming is occurring, and that there is clear evidence of human influences on the climate system. This is still a most peculiar claim. At some level, it has never been widely contested. Most of the climate community has agreed since 1988 that global mean temperatures have increased on the order of one degree Fahrenheit over the past century, having risen significantly from about 1919 to 1940, decreased between 1940 and the early '70s, increased again until the '90s, and remaining essentially flat since 1998...

Given that we do not understand the natural internal variability of climate change, this task is currently impossible. Nevertheless there has been a persistent effort to suggest otherwise, and with surprising impact. Thus, although the conflicted state of the affair was accurately presented in the 1996 text of the Intergovernmental Panel on Climate Change (IPCC), the infamous "summary for policy makers" reported ambiguously that "The balance of evidence suggests a discernible human influence on global climate." This sufficed as the smoking gun for Kyoto.

The next IPCC report again described the problems surrounding what has become known as the attribution issue: that is, to explain what mechanisms are responsible for observed changes in climate. Some deployed the lassitude argument – e.g., we can't think of an alternative – to support human attribution. But the "summary for policy makers" claimed in a manner largely unrelated to the actual text of the report that "In the light of new evidence and taking into account the remaining uncertainties, most of the observed warming over the last 50 years is likely to have been due to the increase in greenhouse gas concentrations."

In a similar vein, the National Academy of Sciences issued a brief (15-page) report responding to questions from the White House. It again enumerated the difficulties with attribution, but again the report was preceded by a front end that ambiguously claimed that "The changes observed over the last several decades are likely mostly due to human activities, but we cannot rule out that some significant part of these changes is also a reflection of natural variability." This was sufficient for CNN's Michelle Mitchell to presciently declare that the report represented a "unanimous decision that global warming is real, is getting worse and is due to man. There is no wiggle room." Well, no.

More recently, a study in the journal Science by the social scientist Nancy Oreskes claimed that a search of the ISI Web of Knowledge Database for the years 1993 to 2003 under the key words "global climate change" produced 928 articles, all of whose abstracts supported what she referred to as the consensus view. A British social scientist, Benny Peiser, checked her procedure and found that only 913 of the 928 articles had abstracts at all, and that only 13 of the remaining 913 explicitly endorsed the so-called consensus view. Several actually opposed it.

Even more recently, the Climate Change Science Program, the Bush administration's coordinating agency for global-warming research, declared it had found "clear evidence of human influences on the climate system." This, for Mr. Easterbrook, meant: "Case closed." What exactly was this evidence?

The models imply that greenhouse warming should impact atmospheric temperatures more than surface temperatures, and yet satellite data showed no warming in the atmosphere since 1979. The report showed that selective corrections to the atmospheric data could lead to some warming, thus reducing the conflict between observations and models descriptions of what greenhouse warming should look like. That, to me, means the case is still very much open.

So what, then, is one to make of this alleged debate? I would suggest at least three points.

First, nonscientists generally do not want to bother with understanding the science. Claims of consensus relieve policy types, environmental advocates and politicians of any need to do so. Such claims also serve to intimidate the public and even scientists – especially those outside the area of climate dynamics. Secondly, given that the question of human attribution largely cannot be resolved, its use in promoting visions of disaster constitutes nothing so much as a bait-and-switch scam. That is an inauspicious beginning to what Mr. Gore claims is not a political issue but a "moral" crusade.

Lastly, there is a clear attempt to establish truth not by scientific methods but by perpetual repetition. An earlier attempt at this was accompanied by tragedy. Perhaps Marx was right. This time around we may have farce – if we're lucky.

Click Here for the Op/Ed: http://online.wsj.com/article_print/SB115127582141890238.html

The National Post

Open Kyoto to Debate
Sixty Scientists Call on Harper to Revisit the Science of Global Warming

Special to the Financial Post,
Thursday, April 06, 2006
An open letter to Prime Minister Stephen Harper:

Dear Prime Minister:

As accredited experts in climate and related scientific disciplines, we are writing to propose that balanced, comprehensive public-consultation sessions be held so as to examine the scientific foundation of the federal government's climate-change plans. This would be entirely consistent with your recent commitment to conduct a review of the Kyoto Protocol. Although many of us made the same suggestion to then-prime ministers Martin and Chretien, neither responded, and, to date, no formal, independent climate-science review has been conducted in Canada. Much of the billions of dollars earmarked for implementation of the protocol in Canada will be squandered without a proper assessment of recent developments in climate science.

Observational evidence does not support today's computer climate models, so there is little reason to trust model predictions of the future. Yet this is precisely what the United Nations did in creating and promoting Kyoto and still does in the alarmist forecasts on which Canada's climate policies are based. Even if the climate models were realistic, the environmental impact of Canada delaying implementation of Kyoto or other greenhouse-gas reduction schemes, pending completion of consultations, would be insignificant. Directing your government to convene balanced, open hearings as soon as possible would be a most prudent and responsible course of action.

While the confident pronouncements of scientifically unqualified environmental groups may provide for sensational headlines, they are no basis for mature policy formulation. The study of global climate change is, as you have said, an "emerging science," one that is perhaps the most complex ever tackled. It may be many years yet before we properly understand the Earth's climate system. Nevertheless, significant advances have been made since the protocol was created, many of which are taking us away from a concern about increasing greenhouse gases. If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary.

We appreciate the difficulty any government has formulating sensible science-based policy when the loudest voices always seem to be pushing in the opposite direction. However, by convening open, unbiased consultations, Canadians will be permitted to hear from experts on both sides of the debate in the climate-science community. When the public comes to understand that there is no "consensus" among climate scientists about the relative importance of the various causes of global climate change, the government will be in a far better position to develop plans that reflect reality and so benefit both the environment and the economy.

"Climate change is real" is a meaningless phrase used repeatedly by activists to convince the public that a climate catastrophe is looming and humanity is the cause. Neither of these fears is justified. Global climate changes all the time due to natural causes and the human impact still remains impossible to distinguish from this natural "noise." The new Canadian government's commitment to reducing air, land and water pollution is commendable, but allocating funds to "stopping climate change" would be irrational. We need to continue intensive research into the real causes of climate change and help our most vulnerable citizens adapt to whatever nature throws at us next.

We believe the Canadian public and government decision-makers need and deserve to hear the whole story concerning this very complex issue. It was only 30 years ago that many of today's global-warming alarmists were telling us that the world was in the midst of a global-cooling catastrophe. But the science continued to evolve, and still does, even though so many choose to ignore it when it does not fit with predetermined political agendas.

We hope that you will examine our proposal carefully and we stand willing and able to furnish you with more information on this crucially important topic.

CC: The Honourable Rona Ambrose, Minister of the Environment, and the Honourable Gary Lunn, Minister of Natural Resources

Sincerely,

Dr. Ian D. Clark, professor, isotope hydrogeology and paleoclimatology, Dept. of Earth Sciences, University of Ottawa

Dr. Tad Murty, former senior research scientist, Dept. of Fisheries and Oceans, former director of Australia's National Tidal Facility and professor of earth sciences, Flinders University, Adelaide; currently adjunct professor, Departments of Civil Engineering and Earth Sciences, University of Ottawa

Dr. R. Timothy Patterson, professor, Dept. of Earth Sciences (paleoclimatology), Carleton University, Ottawa

Dr. Fred Michel, director, Institute of Environmental Science and associate professor, Dept. of Earth Sciences, Carleton University, Ottawa

Dr. Madhav Khandekar, former research scientist, Environment Canada. Member of editorial board of Climate Research and Natural Hazards

Dr. Paul Copper, FRSC, professor emeritus, Dept. of Earth Sciences, Laurentian University, Sudbury, Ont.

Dr. Ross McKitrick, associate professor, Dept. of Economics, University of Guelph, Ont.

Dr. Tim Ball, former professor of climatology, University of Winnipeg; environmental consultant

Dr. Andreas Prokoph, adjunct professor of earth sciences, University of Ottawa; consultant in statistics and geology

Mr. David Nowell, M.Sc. (Meteorology), fellow of the Royal Meteorological Society, Canadian member and past chairman of the NATO Meteorological Group, Ottawa

Dr. Christopher Essex, professor of applied mathematics and associate director of the Program in Theoretical Physics, University of Western Ontario, London, Ont.

Dr. Gordon E. Swaters, professor of applied mathematics, Dept. of Mathematical Sciences, and member, Geophysical Fluid Dynamics Research Group, University of Alberta

Dr. L. Graham Smith, associate professor, Dept. of Geography, University of Western Ontario, London, Ont.

Dr. G. Cornelis van Kooten, professor and Canada Research Chair in environmental studies and climate change, Dept. of Economics, University of Victoria

Dr. Petr Chylek, adjunct professor, Dept. of Physics and Atmospheric Science, Dalhousie University, Halifax

Dr./Cdr. M. R. Morgan, FRMS, climate consultant, former meteorology advisor to the World Meteorological Organization. Previously research scientist in climatology at University of Exeter, U.K.

Dr. Keith D. Hage, climate consultant and professor emeritus of Meteorology, University of Alberta Dr. David E. Wojick, P.Eng., energy consultant, Star Tannery, Va., and Sioux Lookout, Ont.

Rob Scagel, M.Sc., forest microclimate specialist, principal consultant, Pacific Phytometric Consultants, Surrey, B.C.

Dr. Douglas Leahey, meteorologist and air-quality consultant, Calgary Paavo Siitam, M.Sc., agronomist, chemist, Cobourg, Ont.

Dr. Chris de Freitas, climate scientist, associate professor, The University of Auckland, N.Z.

Dr. Richard S. Lindzen, Alfred P. Sloan professor of meteorology, Dept. of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology

Dr. Freeman J. Dyson, emeritus professor of physics, Institute for Advanced Studies, Princeton, N.J.

Mr. George Taylor, Dept. of Meteorology, Oregon State University; Oregon State climatologist; past president, American Association of State Climatologists

Dr. Ian Plimer, professor of geology, School of Earth and Environmental Sciences, University of Adelaide; emeritus professor of earth sciences, University of Melbourne, Australia

Dr. R.M. Carter, professor, Marine Geophysical Laboratory, James Cook University, Townsville, Australia

Mr. William Kininmonth, Australasian Climate Research, former Head National Climate Centre, Australian Bureau of Meteorology; former Australian delegate to World Meteorological Organization Commission for Climatology, Scientific and Technical Review

Dr. Hendrik Tennekes, former director of research, Royal Netherlands Meteorological Institute

Dr. Gerrit J. van der Lingen, geologist/paleoclimatologist, Climate Change Consultant, Geoscience Research and Investigations, New Zealand

Dr. Patrick J. Michaels, professor of environmental sciences, University of Virginia

Dr. Nils-Axel Morner, emeritus professor of paleogeophysics & geodynamics, Stockholm University, Stockholm, Sweden

Dr. Gary D. Sharp, Center for Climate/Ocean Resources Study, Salinas, Calif.

Dr. Roy W. Spencer, principal research scientist, Earth System Science Center, The University of Alabama, Huntsville

Dr. Al Pekarek, associate professor of geology, Earth and Atmospheric Sciences Dept., St. Cloud State University, St. Cloud, Minn.

Dr. Marcel Leroux, professor emeritus of climatology, University of Lyon, France; former director of Laboratory of Climatology, Risks and Environment, CNRS

Dr. Paul Reiter, professor, Institut Pasteur, Unit of Insects and Infectious Diseases, Paris, France. Expert reviewer, IPCC Working group II, chapter 8 (human health)

Dr. Zbigniew Jaworowski, physicist and chairman, Scientific Council of Central Laboratory for Radiological Protection, Warsaw, Poland

Dr. Sonja Boehmer-Christiansen, reader, Dept. of Geography, University of Hull, U.K.; editor, Energy & Environment

Dr. Hans H.J. Labohm, former advisor to the executive board, Clingendael Institute (The Netherlands Institute of International Relations) and an economist who has focused on climate change

Dr. Lee C. Gerhard, senior scientist emeritus, University of Kansas, past director and state geologist, Kansas Geological Survey

Dr. Asmunn Moene, past head of the Forecasting Centre, Meteorological Institute, Norway

Dr. August H. Auer, past professor of atmospheric science, University of Wyoming; previously chief meteorologist, Meteorological Service (MetService) of New Zealand

Dr. Vincent Gray, expert reviewer for the IPCC and author of The Greenhouse Delusion: A Critique of 'Climate Change 2001,' Wellington, N.Z.

Dr. Howard Hayden, emeritus professor of physics, University of Connecticut

Dr Benny Peiser, professor of social anthropology, Faculty of Science, Liverpool John Moores University, U.K.

Dr. Jack Barrett, chemist and spectroscopist, formerly with Imperial College London, U.K.

Dr. William J.R. Alexander, professor emeritus, Dept. of Civil and Biosystems Engineering, University of Pretoria, South Africa. Member, United Nations Scientific and Technical Committee on Natural Disasters, 1994-2000

Dr. S. Fred Singer, professor emeritus of environmental sciences, University of Virginia; former director, U.S. Weather Satellite Service

Dr. Harry N.A. Priem, emeritus professor of planetary geology and isotope geophysics, Utrecht University; former director of the Netherlands Institute for Isotope Geosciences; past president of the Royal Netherlands Geological & Mining Society

Dr. Robert H. Essenhigh, E.G. Bailey professor of energy conversion, Dept. of Mechanical Engineering, The Ohio State University

Dr. Sallie Baliunas, astrophysicist and climate researcher, Boston, Mass.

Douglas Hoyt, senior scientist at Raytheon (retired) and co-author of the book The Role of the Sun in Climate Change; previously with NCAR, NOAA, and the World Radiation Center, Davos, Switzerland

Dipl. -Ing. Peter Dietze, independent energy advisor and scientific climate and carbon modeller, official IPCC reviewer, Bavaria, Germany

Dr. Boris Winterhalter, senior marine researcher (retired), Geological Survey of Finland, former professor in marine geology, University of Helsinki, Finland

Dr. Wibjorn Karlen, emeritus professor, Dept. of Physical Geography and Quaternary Geology, Stockholm University, Sweden

Dr. Hugh W. Ellsaesser, physicist/meteorologist, previously with the Lawrence Livermore National Laboratory, Calif.; atmospheric consultant.

Dr. Art Robinson, founder, Oregon Institute of Science and Medicine, Cave Junction, Ore.

Dr. Arthur Rorsch, emeritus professor of molecular genetics, Leiden University, The Netherlands; past board member, Netherlands organization for applied research (TNO) in environmental, food and public health

Dr. Alister McFarquhar, Downing College, Cambridge, U.K.; international economist
Dr. Richard S. Courtney, climate and atmospheric science consultant, IPCC expert reviewer, U.K.

Click Here for the Letter to the Editor: http://www.canada.com/nationalpost/financialpost /story. html?id=37 1 1460e-bd5a-475d-a6be-4db87559d605

In: Disputing Global Warming ISBN 978-1-60741-235-9
Editors: Anton Horvath and Boris Molnar, pp.59-216

Chapter 2

U.S. SENATE REPORT: OVER 400 PROMINENT SCIENTISTS DISPUTED MAN-MADE GLOBAL WARMING CLAIMS IN 2007. SCIENTISTS DEBUNK "CONSENSUS"*

U.S. Senate Environment and Public Works Committee, Minority Staff Report

INTRODUCTION

Over 400 prominent scientists from more than two dozen countries recently voiced significant objections to major aspects of the so-called "consensus" on man-made global warming. These scientists, many of whom are current and former participants in the UN IPCC (Intergovernmental Panel on Climate Change), criticized the climate claims made by the UN IPCC and former Vice President Al Gore.

The new report issued by the Senate Environment and Public Works Committee's office of the GOP Ranking Member details the views of the scientists, the overwhelming majority of whom spoke out in 2007.

Even some in the establishment media now appear to be taking notice of the growing number of skeptical scientists. In October, the Washington Post Staff Writer Juliet Eilperin conceded the obvious, writing that climate skeptics "appear to be expanding rather than shrinking." Many scientists from around the world have dubbed 2007 as the year man-made global warming fears "bite the dust." In addition, many scientists who are also progressive environmentalists believe climate fear promotion has "co-opted" the green movement.

This blockbuster Senate report lists the scientists by name, country of residence, and academic/institutional affiliation. It also features their own words, biographies, and weblinks to their peer reviewed studies and original source materials as gathered from public

* This is an edited, excerpted and augmented edition of a United States Senate publication, released on December 20, 2007.

statements, various news outlets, and websites in 2007. This new "consensus busters" report is poised to redefine the debate.

Many of the scientists featured in this report consistently stated that numerous colleagues shared their views, but they will not speak out publicly for fear of retribution. Atmospheric scientist Dr. Nathan Paldor, Professor of Dynamical Meteorology and Physical Oceanography at the Hebrew University of Jerusalem, author of almost 70 peer- reviewed studies, explains how many of his fellow scientists have been intimidated.

"Many of my colleagues with whom I spoke share these views and report on their inability to publish their skepticism in the scientific or public media," Paldor wrote. *[Note: See also July 2007 Senate report detailing how skeptical scientists have faced threats and intimidation]*

Scientists from around the World Dissent

This new report details how teams of international scientists are dissenting from the UN IPCC's view of climate science. In such nations as Germany, Brazil, the Netherlands, Russia, Argentina, New Zealand and France, nations, scientists banded together in 2007 to oppose climate alarmism. In addition, over 100 prominent international scientists sent an open letter in December 2007 to the UN stating attempts to control climate were "futile."

Paleoclimatologist Dr. Tim Patterson, professor in the department of Earth Sciences at Carleton University in Ottawa, recently converted from a believer in man-made climate change to a skeptic. Patterson noted that the notion of a "consensus" of scientists aligned with the UN IPCC or former Vice President Al Gore is false. "I was at the Geological Society of America meeting in Philadelphia in the fall and I would say that people with my opinion were probably in the majority."

This new committee report, a first of its kind, comes after the UN IPCC chairman Rajendra Pachauri implied that there were only “about a dozen" skeptical scientists left in the world. Former Vice President Gore has claimed that scientists skeptical of climate change are akin to "flat Earth society members" and similar in number to those who "believe the moon landing was actually staged in a movie lot in Arizona."

The distinguished scientists featured in this new report are experts in diverse fields, including: climatology; geology; biology; glaciology; biogeography; meteorology; oceanography; economics; chemistry; mathematics; environmental sciences; engineering; physics and paleoclimatology. Some of those profiled have won Nobel Prizes for their outstanding contribution to their field of expertise and many shared a portion of the UN IPCC Nobel Peace Prize with Vice President Gore.

Additionally, these scientists hail from prestigious institutions worldwide, including: Harvard University; NASA; National Oceanic and Atmospheric Administration (NOAA) and the National Center for Atmospheric Research (NCAR); Massachusetts Institute of Technology; the UN IPCC; the Danish National Space Center; U.S. Department of Energy; Princeton University; the Environmental Protection Agency; University of Pennsylvania; Hebrew University of Jerusalem; the International Arctic Research Centre; the Pasteur Institute in Paris; the Belgian Weather Institute; Royal Netherlands Meteorological Institute; the University of Helsinki; the National Academy of Sciences of the U.S., France, and Russia; the University of Pretoria; University of Notre Dame; Stockholm University; University of

Melbourne; Columbia University; the World Federation of Scientists; and the University of London.

The voices of many of these hundreds of scientists serve as a direct challenge to the often media-hyped "consensus" that the debate is "settled."

A May 2007 Senate report detailed scientists who had recently converted from believers in man-made global warming to skepticism. [*See May 15, 2007 report: Climate Momentum Shifting: Prominent Scientists Reverse Belief in Man-made Global Warming - Now Skeptics: Growing Number of Scientists Convert to Skeptics After Reviewing New Research – - In addition, an August 2007 report detailed how proponents of manmade global warming fears enjoy a monumental funding advantage over skeptical scientists.]*

The report counters the claims made by the promoters of man-made global warming fears that the number of skeptical scientists is dwindling.

Examples of "consensus" claims made by promoters of man-made climate fears:

Former Vice President Al Gore (November 5, 2007): "There are still people who believe that the Earth is flat." Gore also compared global warming skeptics to people who "believe the moon landing was actually staged in a movie lot in Arizona." (June 20, 2006)

CNN's Miles O'Brien (July 23, 2007): "The scientific debate is over," O'Brien said. "We're done." O'Brien also declared on CNN on February 9, 2006 that scientific skeptics of man-made catastrophic global warming "are bought and paid for by the fossil fuel industry, usually."

On July 27, 2006, Associated Press reporter Seth Borenstein described a scientist as "one of the few remaining scientists skeptical of the global warming harm caused by industries that burn fossil fuels."

Dr. Rajendra Pachauri, Chairman of the IPCC view on the number of skeptical scientists as quoted on Feb. 20, 2003: "About 300 years ago, a Flat Earth Society was founded by those who did not believe the world was round. That society still exists; it probably has about a dozen members."

Agence France-Press (AFP Press) article (December 4, 2007): The article noted that a prominent skeptic "finds himself increasingly alone in his claim that climate change poses no imminent threat to the planet."

Andrew Dessler in the eco-publication Grist Magazine (November 21, 2007): "While some people claim there are lots of skeptical climate scientists out there, if you actually try to find one, you keep turning up the same two dozen or so (e.g., Singer, Lindzen, Michaels, Christy, etc., etc.). These skeptics are endlessly recycled by the denial machine, so someone not paying close attention might think there are lots of them out there – but that's not the case."

The Washington Post asserted on May 23, 2006 that there were only "a handful of skeptics" of man-made climate fears.

UN special climate envoy Dr. Gro Harlem Brundtland on May 10, 2007 declared the climate debate "over" and added “it's completely immoral, even, to question” the UN’s scientific “consensus."

The UN Framework Convention on Climate Change Executive Secretary Yvo de Boer said it was “criminally irresponsible” to ignore the urgency of global warming on November 12, 2007.

ABC News Global Warming Reporter Bill Blakemore reported on August 30, 2006: "After extensive searches, ABC News has found no such [scientific] debate" on global warming.

BRIEF HIGHLIGHTS OF THE REPORT FEATURING OVER 400 INTERNATIONAL SCIENTISTS

Israel: *Dr. Nathan Paldor, Professor of Dynamical Meteorology and Physical Oceanography at the Hebrew University of Jerusalem has authored almost 70 peer- reviewed studies and won several awards.* "First, temperature changes, as well as rates of temperature changes (both increase and decrease) of magnitudes similar to that reported by IPCC to have occurred since the Industrial revolution (about 0.8C in 150 years or even 0.4C in the last 35 years) have occurred in Earth's climatic history. There's nothing special about the recent rise!"

Russia: *Russian scientist Dr. Oleg Sorochtin of the Institute of Oceanology at the Russian Academy of Sciences has authored more than 300 studies, nine books, and a 2006 paper titled "The Evolution and the Prediction of Global Climate Changes on Earth."* "Even if the concentration of ‘greenhouse gases' double man would not perceive the temperature impact," Sorochtin wrote. (Note: Name also sometimes translated to spell Sorokhtin)

Spain: Anton Uriarte, a professor of Physical Geography at the University of the Basque Country in Spain and author of a book on the paleoclimate, rejected manmade climate fears in 2007. "There's no need to be worried. It's very interesting to study [climate change], but there's no need to be worried," Uriate wrote.

Netherlands: Atmospheric scientist Dr. Hendrik Tennekes, a scientific pioneer in the development of numerical weather prediction and former director of research at The Netherlands' Royal National Meteorological Institute, and an internationally recognized expert in atmospheric boundary layer processes, "I find the Doomsday picture Al Gore is painting - a six-meter sea level rise, fifteen times the IPCC number - entirely without merit," Tennekes wrote. "I protest vigorously the idea that the climate reacts like a home heating system to a changed setting of the thermostat: just turn the dial, and the desired temperature will soon be reached."

Brazil: Chief Meteorologist Eugenio Hackbart of the MetSul Meteorologia Weather Center in Sao Leopoldo - Rio Grande do Sul, Brazil declared himself a skeptic. "The media is promoting an unprecedented hyping related to global warming. The media and many scientists are ignoring very important facts that point to a natural variation in the climate system as the cause of the recent global warming," Hackbart wrote on May 30, 2007.

France: Climatologist Dr. Marcel Leroux, former professor at Université Jean Moulin and director of the Laboratory of Climatology, Risks, and Environment in Lyon, is a climate skeptic. Leroux wrote a 2005 book titled Global Warming - Myth or Reality? - The Erring Ways of Climatology. "Day after day, the same mantra - that ‘the Earth is warming up' - is churned out in all its forms. As ‘the ice melts' and ‘sea level rises,' the Apocalypse looms ever nearer! Without realizing it, or perhaps without wishing to, the average citizen in bamboozled, lobotomized, lulled into mindless acceptance. ... Non-believers in the greenhouse scenario are in the position of those long ago who doubted the existence of God ... fortunately for them, the Inquisition is no longer with us!"

Norway: Geologist/Geochemist Dr. Tom V. Segalstad, a professor and head of the Geological Museum at the University of Oslo and formerly an expert reviewer with the UN IPCC: "It is a search for a mythical CO2 sink to explain an immeasurable CO2 lifetime to fit a hypothetical CO2 computer model that purports to show that an impossible amount of fossil fuel burning is heating the atmosphere. It is all a fiction."

Finland: Dr. Boris Winterhalter, retired Senior Marine Researcher of the Geological Survey of Finland and former professor of marine geology at University of Helsinki, criticized the media for what he considered its alarming climate coverage. "The effect of solar winds on cosmic radiation has just recently been established and, furthermore, there seems to be a good correlation between cloudiness and variations in the intensity of cosmic radiation. Here we have a mechanism which is a far better explanation to variations in global climate than the attempts by IPCC to blame it all on anthropogenic input of greenhouse gases," Winterhalter said.

Germany: Paleoclimate expert Augusto Mangini of the University of Heidelberg in Germany, criticized the UN IPCC summary. "I consider the part of the IPCC report, which I can really judge as an expert, i.e. the reconstruction of the paleoclimate, wrong," Mangini noted in an April 5, 2007 article. He added: "The earth will not die."

Canada: *IPCC 2007 Expert Reviewer Madhav Khandekar, a Ph.D meteorologist, a scientist with the Natural Resources Stewardship Project who has over 45 years experience in climatology, meteorology and oceanography, and who has published nearly 100 papers, reports, book reviews and a book on Ocean Wave Analysis and Modeling:* "To my dismay, IPCC authors ignored all my comments and suggestions for major changes in the FOD (First Order Draft) and sent me the SOD (Second Order Draft) with essentially the same text as the FOD. None of the authors of the chapter bothered to directly communicate with me (or with other expert reviewers with whom I communicate on a regular basis) on many issues that were raised in my review. This is not an acceptable scientific review process."

Czech Republic: Czech-born U.S. climatologist Dr. George Kukla, a research scientist with the Lamont-Doherty Earth Observatory at Columbia University, expressed climate skepticism in 2007. "The only thing to worry about is the damage that can be done by worrying. Why are some scientists worried? Perhaps because they feel that to stop worrying may mean to stop being paid," Kukla told Gelf Magazine on April 24, 2007.

India: One of India's leading geologists, B.P. Radhakrishna, President of the Geological Society of India, expressed climate skepticism in 2007. "We appear to be overplaying this global warming issue as global warming is nothing new. It has happened in the past, not once but several times, giving rise to glacial-interglacial cycles."

USA: Climatologist Robert Durrenberger, past president of the American Association of State Climatologists, and one of the climatologists who gathered at

Woods Hole to review the National Climate Program Plan in July, 1979: "Al Gore brought me back to the battle and prompted me to do renewed research in the field of climatology. And because of all the misinformation that Gore and his army have been spreading about climate change I have decided that 'real' climatologists should try to help the public understand the nature of the problem."

Italy: Internationally renowned scientist Dr. Antonio Zichichi, president of the World Federation of Scientists and a retired Professor of Advanced Physics at the University of Bologna in Italy, who has published over 800 scientific papers: "Significant new peer-

reviewed research has cast even more doubt on the hypothesis of dangerous human-caused global warming."

New Zealand: IPCC reviewer and climate researcher and scientist Dr. Vincent Gray, an expert reviewer on every single draft of the IPCC reports going back to 1990 and author of The Greenhouse Delusion: A Critique of "Climate Change 2001: "The [IPCC] 'Summary for Policymakers' might get a few readers, but the main purpose of the report is to provide a spurious scientific backup for the absurd claims of the worldwide environmentalist lobby that it has been established scientifically that increases in carbon dioxide are harmful to the climate. It just does not matter that this ain't so."

South Africa: Dr. Kelvin Kemm, formerly a scientist at South Africa's Atomic Energy Corporation who holds degrees in nuclear physics and mathematics: "The global-warming mania continues with more and more hype and less and less thinking. With religious zeal, people look for issues or events to blame on global warming."

Poland: Physicist Dr. Zbigniew Jaworowski, Chairman of the Central Laboratory for the United Nations Scientific Committee on the Effects of Radiological Protection in Warsaw: "We thus find ourselves in the situation that the entire theory of man-made global warming-with its repercussions in science, and its important consequences for politics and the global economy-is based on ice core studies that provided a false picture of the atmospheric CO2 levels."

Australia: Prize-wining Geologist Dr. Ian Plimer, a professor of Earth and Environmental Sciences at the University of Adelaide in Australia: "There is new work emerging even in the last few weeks that shows we can have a very close correlation between the temperatures of the Earth and supernova and solar radiation."

Britain: Dr. Richard Courtney, a UN IPCC expert reviewer and a UK-based climate and atmospheric science consultant: "To date, no convincing evidence for AGW (anthropogenic global warming) has been discovered. And recent global climate behavior is not consistent with AGW model predictions."

China: Chinese Scientists Say C02 Impact on Warming May Be 'Excessively Exaggerated' - Scientists Lin Zhen-Shan's and Sun Xian's 2007 study published in the peer-reviewed journal Meteorology and Atmospheric Physics: "Although the CO2 greenhouse effect on global climate change is unsuspicious, it could have been excessively exaggerated." Their study asserted that "it is high time to reconsider the trend of global climate change."

*Denmark: Space physicist Dr. Eigil Friis-Christensen is the director of the Danish National Space Centre, a member of the space research advisory committee of the Swedish National Space Board, a member of a NASA working group, and a member of the European Space Agency who has authored or co-authored around 100 peer- reviewed papers and chairs the Institute of Space Physics: "*The sun is the source of the energy that causes the motion of the atmosphere and thereby controls weather and climate. Any change in the energy from the sun received at the Earth's surface will therefore affect climate."

Belgium: *Climate scientist Luc Debontridder of the Belgium Weather Institute's Royal Meteorological Institute (RMI) co-authored a study in August 2007 which dismissed a decisive role of CO2 in global* warming: "CO2 is not the big bogeyman of climate change and global warming. "Not CO2, but water vapor is the most important greenhouse gas. It is responsible for at least 75 % of the greenhouse effect. This is a simple scientific fact, but Al Gore's movie has hyped CO2 so much that nobody seems to take note of it."

Sweden: Geologist Dr. Wibjorn Karlen, professor emeritus of the Department of Physical Geography and Quaternary Geology at Stockholm University, critiqued the *Associated Press* for hyping promoting climate fears in 2007. "Another of these hysterical views of our climate. Newspapers should think about the damage they are doing to many persons, particularly young kids, by spreading the exaggerated views of a human impact on climate."

USA: Dr. David Wojick is a UN IPCC expert reviewer, who earned his PhD in Philosophy of Science and co-founded the Department of Engineering and Public Policy at Carnegie-Mellon University: "In point of fact, the hypothesis that solar variability and not human activity is warming the oceans goes a long way to explain the puzzling idea that the Earth's surface may be warming while the atmosphere is not. The GHG (greenhouse gas) hypothesis does not do this." Wojick added: "The public is not well served by this constant drumbeat of false alarms fed by computer models manipulated by advocates."

Background: Only 52 Scientists Participated in UN IPCC Summary

The over 400 skeptical scientists featured in this new report outnumber by nearly eight time the number of scientists who participated in the 2007 UN IPCC Summary for Policymakers. The notion of "hundreds" or "thousands" of UN scientists agreeing to a scientific statement does not hold up to scrutiny. (See report debunking "consensus") Recent research by Australian climate data analyst John McLean revealed that the IPCC's peer-review process for the Summary for Policymakers leaves much to be desired. (Note: The 52 scientists who participated in the 2007 IPCC Summary for Policymakers had to adhere to the wishes of the UN political leaders and delegates in a process described as more closely resembling a political party’s convention platform battle, not a scientific process.

Proponents of man-made global warming like to note how the National Academy of Sciences (NAS) and the American Meteorological Society (AMS) have issued statements endorsing the so-called "consensus" view that man is driving global warming. But both the NAS and AMS never allowed member scientists to directly vote on these climate statements. Essentially, only two dozen or so members on the governing boards of these institutions produced the "consensus" statements. This report gives a voice to the rankand-file scientists who were shut out of the process.

The most recent attempt to imply there was an overwhelming scientific "consensus" in favor of man-made global warming fears came in December 2007 during the UN climate conference in Bali. A letter signed by only 215 scientists urged the UN to mandate deep cuts in carbon dioxide emissions by 2050. But absent from the letter were the signatures of these alleged "thousands" of scientists.

UN IPCC chairman Rajendra Pachauri urged the world at the December 2007 UN climate conference in Bali, Indonesia to "Please listen to the voice of science."

The science has continued to grow loud and clear in 2007. In addition to the growing number of scientists expressing skepticism, an abundance of recent peer-reviewed studies have cast considerable doubt about man-made global warming fears. A November 3, 2007 peer-reviewed study found that "solar changes significantly alter climate." A December 2007 peer-reviewed study recalculated and halved the global average surface temperature trend between 1980 - 2002. Another new study found the Medieval Warm Period "0.3C warmer than 20th century"

A peer-reviewed study by a team of scientists found that "warming is naturally caused and shows no human influence." - Another November 2007 peer-reviewed study in the journal Physical Geography found "Long-term climate change is driven by solar insolation changes." These recent studies were in addition to the abundance of peer-reviewed studies earlier in 2007. - See "New Peer-Reviewed Scientific Studies Chill Global Warming Fears"

With this new report of profiling 400 skeptical scientists, the world can finally hear the voices of the "silent majority" of scientists.

FULL SENATE REPORT: U.S. SENATE REPORT: OVER 400 PROMINENT SCIENTISTS DISPUTED MAN-MADE GLOBAL WARMING CLAIMS IN 2007

December 20, 2007

This report is in the spirit of enlightenment philosopher Denis Diderot who reportedly said, "Skepticism is the first step towards truth."

[Disclaimer: The following scientists named in this report have expressed a range of views from skepticism to outright rejection of predictions of catastrophic man-made global warming. As in all science, there is no lock step single view.]

Atmospheric scientist Dr. Nathan Paldor, Professor of Dynamical Meteorology and Physical Oceanography at the Hebrew University of Jerusalem has authored almost 70 peer-reviewed studies and won several awards. "First, temperature changes, as well as rates of temperature changes (both increase and decrease) of magnitudes similar to that reported by IPCC to have occurred since the Industrial revolution (about 0.8C in 150 years or even 0.4C in the last 35 years) have occurred in Earth's climatic history. There's nothing special about the recent rise!" Paldor told EPW on December 4, 2007. "Second, our ability to make realizable (or even sensible) future forecasts are greatly exaggerated relied upon by the IPCC. This is true both for the numerical modeling efforts (the same models that yield abysmal 3-day forecasts are greatly simplified and run for 100 years!)," Paldor explained. "Third, the rise in atmospheric CO2 is much smaller (by about 50%) than that expected from the anthropogenic activity (burning of fossil fuels such as oil, coal and natural gas), which implies that the missing amount of CO2 is (most probably) absorbed by the ocean. The oceanic response to increasing CO2 concentration in the atmosphere might be much slower than that of the atmosphere (and is presently very poorly understood). It is quite possible that after an ‘adjustment time' the ocean (which contains far more CO2 than the atmosphere) will simply increase its biological activity and absorb the CO2 from the atmosphere (i.e. the atmospheric CO2 concentration will decrease)," he added. "Fourth, the inventory of fossil fuels is fairly limited and in one generation we will run out of oil. Coal and natural gas might take 100-200 years but with no oil their consumption will increase so they probably won't last as long. The real alternative that presently available to humanity is nuclear power (that can easily produce electricity for domestic and industrial usage and for transportation when our vehicles are reverted to run on electricity). The technology for this exists today and can replace our dependence on fossil fuel in a decade! This has to be made known to the general public who is unaware of the alternative for taking action to lower the anthropogenic spewing

of CO2. This transformation to nuclear energy will probably rake place when oil reserves dwindle regardless of the CO2 situation," he wrote. Paldor also noted the pressure for scientists to bow to the UN IPCC view of climate change. "Many of my colleagues with whom I spoke share these views and report on their inability to publish their skepticism in the scientific or public media," he concluded.

Dr. Denis G. Rancourt, Professor of Physics and an Environmental Science researcher at the University of Ottawa, believes the global warming campaigns do a disservice to the environmental movement. "Promoting the global warming myth trains people to accept unverified, remote, and abstract dangers in the place of true problems that they can discover for themselves by becoming directly engaged in their workplace and by doing their own research and observations. It trains people to think lifestyle choices (in relation to CO2 emission) rather than to think activism in the sense of exerting an influence to change societal structures," Rancourt wrote in a February 27, 2007 blog post. Rancourt believes that global warming "will not become humankind's greatest threat until the sun has its next hiccup in a billion years or more (in the very unlikely scenario that we are still around,)" and noted that even if C02 emissions were a grave threat, "government action and political will cannot measurably or significantly ameliorate global climate in the present world." Rancourt believes environmentalists have been duped into promoting global warming as a crisis. "I argue that by far the most destructive force on the planet is power-driven financiers and profit-driven corporations and their cartels backed by military might; and that the global warming myth is a red herring that contributes to hiding this truth. In my opinion, activists who, using any justification, feed the global warming myth have effectively been co-opted, or at best neutralized," Rancourt wrote. Rancourt also questioned the whole concept of a global average temperature, noting, "Averaging problems aside, many tenuous approximations must be made in order to arrive at any of the reported final global average temperature curves." He further explained: "This means that determining an average of a quantity (Earth surface temperature) that is everywhere different and continuously changing with time at every point, using measurements at discrete times and places (weather stations), is virtually impossible; in that the resulting number is highly sensitive to the chosen extrapolation method(s) needed to calculate (or rather approximate) the average." "The estimates are uncertain and can change the calculated global warming by as much as 0.5 C, thereby removing the originally reported effect entirely," he added. Finally, Rancourt asserted that in a warm world, life prospers. "There is no known case of a sustained warming alone having negatively impacted an entire population," he said, adding, "As a general rule, all life on Earth does better when it's hotter: Compare ecological diversity and biotic density (or biomass) at the poles and at the equator." Rancourt added, "Global warming is strictly an imaginary problem of the First World middle class."

Czech-born U.S. climatologist Dr. George Kukla, a research scientist with the Lamont-Doherty Earth Observatory at Columbia University expressed climate skepticism in 2007. "The only thing to worry about is the damage that can be done by worrying. Why are some scientists worried? Perhaps because they feel that to stop worrying may mean to stop being paid," Kukla told Gelf Magazine on April 24, 2007. "What I think is this: Man is responsible for a PART of global warming. MOST of it is still natural," Kukla explained. Kukla "said that the accelerating warming of the Earth is not caused by man but by the regularities of the planets' circulation around the Sun," according to a June 4, 2007 article in the *Prague Monitor*. "The changes in the Earth's circulation around the Sun are now extremely slow.

Moreover, they are partially being compensated by the human impact on the climate. I think we will know more in about 50 years," Kukla said. Kukla is viewed as a pioneer in the study of solar forcing of climate changes.

One of India's leading geologists, B.P. Radhakrishna, President of the Geological Society of India, expressed climate skepticism in 2007. "There is some evidence to show that our planet Earth is becoming warmer and that human action is probably partly responsible, especially in the matter of greenhouse gas emissions. What is in doubt, however, is whether the steps that are proposed to be taken to reduce carbon emission will really bring down the carbon dioxide level in the atmosphere and whether such attempts, even carried out on a global scale, will produce the desired effect," Radhakrishna wrote in an August 23, 2007 essay. "We appear to be overplaying this global warming issue as global warming is nothing new. It has happened in the past, not once but several times, giving rise to glacial-interglacial cycles. We appear to be now only in the middle of an interglacial cycle showing a trend toward warming as warming and cooling are global and have occurred on such a scale when humans had not appeared on the planet. If we read geology correctly, the earth we live on is not dead but is dynamic and is continuously changing. The causes of these changes are cosmogenic and nothing we are able to do is likely to halt or reverse such processes," he explained. "Warming of the climate, melting of glaciers, rise in sea levels and other marked changes in climate - these do not pose immediate threats and there is besides, no way of controlling such changes even if we want to. Exercises at mitigation of these likely disasters are, however, possible and mankind, in all likelihood, will gradually adjust itself to the changed conditions. This has happened before; men and animals have moved to greener pastures and adapted themselves to the changed situations," he added.

Climatologist Dr. John Maunder, past president of the Commission for Climatology who has spent over 50 years in the "weather business" all around the globe, and who has written four books on weather and climate, says "the science of climate change will probably never be fully understood." "It is not always true that the climate we have now (wherever we live) is the best one ... some people (and animals and crops) may prefer it to be wetter, drier, colder, or warmer," Maunder wrote on his website updated on November 27, 2007. "Climatic variations and climatic changes from whatever cause (i.e. human induced or natural) clearly create risks, but also provide real opportunities. (For example, the 2007 IPCC report - see below - shows that from 1900 to 2005, significantly increased precipitation has been observed in eastern parts of North and South America, northern Europe, and northern and central Asia)," he explained. Maunder also was one of the signatories of a December 13, 2007 open letter critical of the UN IPCC process. “Leading scientists, including some senior IPCC representatives, acknowledge that today's computer models cannot predict climate. Consistent with this, and despite computer projections of temperature rises, there has been no net global warming since 1998,” the letter Maunder signed stated. “That the current temperature plateau follows a late 20th-century period of warming is consistent with the continuation today of natural multi-decadal or millennial climate cycling,” the letter added.

Glaciologist Nikolai Osokin of the Institute of Geography and member of the Russian Academy of Sciences dismissed alarmist climate fears of all of the world's ice melting in a March 27, 2007 article. "The planet may rest assured," Osokin wrote. "This hypothetical catastrophe could not take place anytime within the next thousand years," he explained. "Today, scientists say that the melting of the permafrost has stalled, which has been proved by data obtained by meteorological stations along Russia's Arctic coast," Olokin added. "The

(recent) period of warming was tangible, but now it may be drawing to a close. Most natural processes on the earth are cyclical, having a shorter or longer rhythm. Yet no matter how these sinusoids look, a temperature rise is inevitably followed by a decline, and vice versa."

Atmospheric Physicist Dr. Garth W. Paltridge, an Emeritus Professor from University of Tasmania, is another prominent skeptic. Paltridge who was a Chief Research Scientist with the CSIRO Division of Atmospheric Research before taking up positions in 1990 as Director of the Institute of Antarctic and Southern Ocean Studies at the University of Tasmania and as CEO of the Antarctic Cooperative Research Center. Paltridge questioned the motives of scientists hyping climate fears. "They have been so successful with their message of greenhouse doom that, should one of them prove tomorrow that it is nonsense, the discovery would have to be suppressed for the sake of the overall reputation of science," Paltridge wrote in an April 6, 2007 op- ed entitled "Global Warming - Not Really a Done Deal?" Paltridge is best known internationally for his work on atmospheric radiation and on the theoretical basis of climate change. He is a fellow of the Australian Academy of Science. Paltridge also worked with the National Climate Program Office. "Even as it is, the barriers to public dissemination of results that might cast doubt on one aspect or another of accepted greenhouse wisdom are extraordinarily high. Climate scientists rush in overwhelming numbers to repel infection by ideas not supportive of the basic thesis that global warming is perhaps the greatest of the threats to mankind and that it is caused by human folly - the burning of fossil fuels to support our way of life," Paltridge explained. "In a way, their situation is very similar to that of the software engineers who sold the concept of the Y2K bug a decade ago. The ‘reputation stakes' have become so high that it is absolutely necessary for some form of international action (any action, whether sensible or not) to be forced upon mankind. Then, should disaster not in fact befall, the avoidance of doom can be attributed to that action rather than to the probability that the prospects for disaster were massively oversold," he added. "Pity the politicians who (we presume) are trying their best to make an informed decision on the matter. Of course politicians realize that those clamoring for their attention on any particular issue usually have other un-stated agendas. But they may not recognize that scientists too are human and are as subject as the rest of us to the seductions of well-funded campaigns. One of the more frightening statements about global warming to be heard now from the corridors of power is that ‘the scientists have spoken'. Well maybe they have - some of them anyway - but the implication of god-like infallibility is a bit hard to take," he concluded.

Climate Scientist Dr. Ben Herman, past director of the Institute of Atmospheric Physics and former Head of the Department of Atmospheric Sciences at the University of Arizona is a member of both the Institute for the Study of Planet Earth’s Executive Committee and the Committee on Global Change. Herman questioned how the UN IPCC could express 90% confidence that humans have warmed the planet. "That conclusion was really surprising to me, it having come from a world wide group of supposedly outstanding climate experts," Herman wrote in an April 6, 2007 article in Climate Science. Herman, who is currently studying several satellite based remote sensing projects to monitor ozone, temperature, water vapor, and aerosols from space, noted that the climate models are not cooperating with predictions of a man-made climate catastrophe. "Now, the models also predict that the mid tropospheric warming should exceed that observed at the ground, but satellite data contradicts this," Herman wrote.

Prof. Francis Massen of the Physics Laboratory in Luxemburg and the leader of a meteorological station examined the UN IPCC's Summary for Policymakers (SPM). "The SPM conceals that the methane concentration in the atmosphere has been stable for seven years (and nobody knows exactly why); not one climatic model foresaw this," Massen wrote in a February 2007 article entitled "IPCC 4AR SPM: Gloom and Doom." (translated) Massen noted there is an "unrestrained contest among media, environmental groups and politicians" to paint as dire a picture as possible of future climate conditions following the UN summary. Massen called some of the climate reporting "absolute rubbish." "It seems that in the climatic area a new faith fight has broken out, which has all characteristics of historical Religion," he added.

Chief Meteorologist Eugenio Hackbart of the MetSul Meteorologia Weather Center in Sao Leopoldo - Rio Grande do Sul - Brazil declared himself a skeptic. "The media is promoting an unprecedented hyping related to global warming. The media and many scientists are ignoring very important facts that point to a natural variation in the climate system as the cause of the recent global warming," Hackbart wrote on May 30, 2007. "I believe we have the duty to inform people about the true facts of global warming. It is interesting that is this global warming era of hysteria we just lived a very cold week with snow in the higher elevation of Southern Brazil and that the next week could be even colder with low temperatures not seen in this part of the globe during the month of May in the last 20 to 30 years. It is not only South Africa that is freezing. South America is under a sequence of cold blasts not seen since the very cold climatic winter of 2000 (La Niña)," Hackbart concluded. In a June 5, 2007 article, Hackbart noted that the "historical cold events in Southern Brazil (in 1957, 1965, 1975, 1984, 1996 and 2006) have another aspect in common. They all took place around the 11-year sun cycle solar minimum."

Ocean researcher Dr. John T. Everett, a former National Oceanic and Atmospheric Administration (NOAA) senior manager and UN IPCC lead author and reviewer, who led work on five impact analyses for the IPCC including Fisheries, Polar Regions, Oceans and Coastal Zones. Everett, who is also project manager for the UN Atlas of the Oceans, received an award while at NOAA for "accomplishments in assessing the impacts of climate change on global oceans and fisheries." Everett, who publishes the website http://www.climatechangefacts.info/index.htm also expressed skepticism about climate fears in 2007. "It is time for a reality check," Everett testified to Natural Resources Committee in the U.S. Congress on April 17, 2007. "Warming is not a big deal and is not a bad thing," Everett emphasized. "The oceans and coastal zones have been far warmer and colder than is projected in the present scenarios of climate change," Everett said. "In the oceans, major climate warming and cooling is a fact of life, whether it is over a few years as in an El Niño or over decades as in the Pacific Decadal Oscillation or the North Atlantic Oscillation. Currents, temperatures, salinity, and biology changes rapidly to the new state in months or a couple years. These changes far exceed those expected with global warming and occur much faster. The one degree F. rise since about 1860, indeed since the year 1000, has brought the global average temperature from 56.5 to 57.5 degrees. This is at the level of noise in this rapidly changing system," Everett explained. "I would much rather have the present warm climate, and even further warming, than the next ice age that will bring temperatures much colder than even today. The NOAA PaleoClimate Program shows us that when the dinosaurs roamed the earth, the earth was much warmer, the CO2 levels were 2 to 4 times higher, and coral reefs were much more expansive. The earth was so productive then that we are still using the oil,

coal, and gas it generated," he added. "More of the warming, if it comes, will be during winters and at night and toward the poles. For most life in the oceans, warming means faster growth, reduced energy requirements to stay warm, lower winter mortalities, and wider ranges of distribution," he explained. "No one knows whether the Earth is going to keep warming, or since reaching a peak in 1998, we are at the start of a cooling cycle that will last several decades or more," Everett concluded. *Everett also worked for the National Marine Fisheries Service as Division Chief for Fisheries Development in the 1970s and he noted that the concern then was about how predicted global cooling would impact the oceans.*

Physicist Dr. Syun-Ichi Akasofu, the former director of both University of Alaska Fairbanks' Geophysical Institute and International Arctic Research Center who has twice been named in "1000 Most Cited Scientists," released a scientific study of the Arctic on March 2007 that concluded the recent warming was likely "natural" and not manmade. Akasofu, an award winning scientist who has published more than 550 professional journal articles and authored or co-authored 10 books, also recently blasted the UN IPCC process. "I think the initial motivation by the IPCC (established in 1988) was good; it was an attempt to promote this particular scientific field," Akasofu said in an April 1, 2007 interview. "But so many [scientists] jumped in, and the media is looking for a disaster story, and the whole thing got out of control," Akasofu added. The article continued: "Akasofu said there is no data showing that ‘most' of the present warming is due to the man-made greenhouse effect, as the members of the Intergovernmental Panel on Climate Change wrote in February. "If you look back far enough, we have a bunch of data that show that warming has gone on from the 1 600s with an almost linear increase to the present," Akasofu said. The article concluded: "Akasofu said scientists who support the man-made greenhouse gas theory disregard information from centuries ago when exploring the issue of global warming. Satellite images of sea ice in the Arctic Ocean have been available in the satellite era only since the 1 960s and 1 970s. ‘Young researchers are interested in satellite data, which became available after 1975,' he said. ‘All the papers since (the advent of satellites) show warming. That's what I call 'instant climatology.' I'm trying to tell young scientists, 'You can't study climatology unless you look at a much longer time period.'"

Physicist Dr. Gerhard Gerlich, of the Institute of Mathematical Physics at the Technical University Carolo-Wilhelmina in Braunschweig in Germany, and Dr. Ralf D. Tscheuschner co-authored a July 7, 2007 paper titled "Falsification of the Atmospheric CO2 Greenhouse Effects Within the Frame of Physics." The abstract of the paper reads in part, "(a) there are no common physical laws between the warming phenomenon in glass houses and the fictitious atmospheric greenhouse effects; (b) there are no calculations to determine an average surface temperature of a planet; (c) the frequently mentioned difference of 33 C is a meaningless number calculated wrongly; (d) the formulas of cavity radiation are used inappropriately; (e) the assumption of a radiative balance is unphysical; (f) thermal conductivity and friction must not be set to zero, the atmospheric greenhouse conjecture is falsified." Gerlich and Tscheuschner's study concluded, "The horror visions of a risen sea level, melting pole caps and developing deserts in North America and in Europe are fictitious consequences of fictitious physical mechanisms, as they cannot be seen even in the climate model computations. The emergence of hurricanes and tornados cannot be predicted by climate models, because all of these deviations are ruled out. The main strategy of modern CO2-greenhouse gas defenders seems to hide themselves behind more and more pseudo explanations, which are not part of the academic education or even of the physics training."

Geologist/Geochemist Dr. Tom V. Segalstad, a professor and head of the Geological Museum at the University of Oslo and formerly an expert reviewer with the UN IPCC, expressed skepticism of climate fears in 2007. A July 7, 2007 article in Canada's *Financial Post* read, "In the real world, as measurable by science, CO2 in the atmosphere and in the ocean reach a stable balance when the oceans contain 50 times as much CO2 as the atmosphere. 'The IPCC postulates an atmospheric doubling of CO2, meaning that the oceans would need to receive 50 times more CO2 to obtain chemical equilibrium,' explains Prof. Segalstad. 'This total of 51 times the present amount of carbon in atmospheric CO2 exceeds the known reserves of fossil carbon-- it represents more carbon than exists in all the coal, gas, and oil that we can exploit anywhere in the world.'" The article continued, "Also in the real world, Prof. Segalstad's isotope mass balance calculations – a standard technique in science – show that if CO2 in the atmosphere had a lifetime of 50 to 200 years, as claimed by IPCC scientists, the atmosphere would necessarily have half of its current CO2 mass. Because this is a nonsensical outcome, the IPCC model postulates that half of the CO2 must be hiding somewhere, in 'a missing sink.' Many studies have sought this missing sink – a Holy Grail of climate science research-- without success. 'It is a search for a mythical CO2 sink to explain an immeasurable CO2 lifetime to fit a hypothetical CO2 computer model that purports to show that an impossible amount of fossil fuel burning is heating the atmosphere,' Prof. Segalstad concludes. 'It is all a fiction.'"

Geologist Dr. David Kear, the former director of geological survey at the Department of Science and Industrial Research in New Zealand, called predictions of rising sea level as a result of man-made global warming "science fiction," and said the basic rules of science are being ignored. "When youngsters are encouraged to take part in a school science fair the first thing they are told to do is check the results, then re-check them, something NIWA [National Institute of Water and Atmospheric Research] appear to have forgotten to do," Kear said in a April 13, 2007 article. "In looking at the next 50 years, why have they not studied the past 50 years and applied their findings to the predictions? One would think this was a must," Kear explained. The article continued, "First global warming predictions made in 1987 estimated an annual rise in sea levels of 35mm. That scared the world but since then, the figure has continued to be reduced by 'experts.'" Kear concluded, "Personal beliefs on climate change and rising sea levels should be delayed until just one of the many predictions made since 1985 on the basis of carbon additions to the atmosphere comes true."

Solar Physicist and Climatologist Douglas V. Hoyt, who coauthored the book The Role of the Sun in Climate Change and has worked at both the National Oceanic and Atmospheric Administration (NOAA) and the National Center for Atmospheric Research (NCAR), has developed a scorecard to evaluate how accurate climate models have been. Hoyt wrote, "Starting in 1997, we created a scorecard to see how climate model predictions were matching observations. The picture is not pretty with most of the predictions being wrong in magnitude and often in sign." A March 1, 2007 blog post in the *National Review* explained how the scoring system works. "[Hoyt] gives each prediction a 'yes-no-undetermined score.' So if the major models' prediction is confirmed, the score at the beginning would be 1-0-0. So how do the models score when compared with the evidence? The final score is 1-27-4. That's one confirmed prediction, 27 disconfirmed, and 4 undetermined," the blog noted. Hoyt has extensively researched the sun-climate connection and has published nearly 100 scientific papers in such areas as the greenhouse effect, aerosols, cloud cover, radiative transfer, and sunspot structure. To see Hoyt's climate model scorecard, go here:

Dr. Boris Winterhalter, retired Senior Marine Researcher of the Geological Survey of Finland and former professor of marine geology at University of Helsinki, criticized the media for what he considered its alarming climate coverage. "It is with great regret that I find media apt to grab any prophesy for catastrophes by ‘reputed scientists' without hesitation," Winterhalter wrote on his website. Winterhalter, one of the 60 signatories in a 2006 letter urging withdrawal of Kyoto to Canadian Prime Minister Stephen Harper, also wrote, "The effect of solar winds on cosmic radiation has just recently been established and, furthermore, there seems to be a good correlation between cloudiness and variations in the intensity of cosmic radiation. Here we have a mechanism which is a far better explanation to variations in global climate than the attempts by IPCC to blame it all on anthropogenic input of greenhouse gases." "To state that sea level rises or falls due to global change is completely out of proportion. There are far too many factors affecting this planet from the inside and the outside to warrant the idea that man is capable of influencing these natural processes," he added.

Particle Physicist Jasper Kirkby, a research scientist at CERN, the European Organization for Nuclear Research, believes his research will reveal that the sun and cosmic rays are a "part of the climate-change cocktail." Kirkby runs a CLOUD (Cosmics Leaving Outdoor Droplets) project that examines how the sun and cosmic rays impact clouds and subsequently the climate. In a February 23, 2007 Canadian National *Post* article, CERN asserted, "Clouds exert a strong influence on the Earth's energy balance, and changes of only a few per cent have an important effect on the climate." According to the *National Post* article, "Dr. Kirkby has assembled a dream team of atmospheric physicists, solar physicists, and cosmic ray and particle physicists from 18 institutes around the world, including the California Institute of Technology and Germany's Max- Planck Institutes, with preliminary data expected to arrive this coming summer. The world of particle physics is awaiting these results with much anticipation because they promise to unlock mysteries that can tell us much about climate change, as well as other phenomena." Kirkby once said his research into the sun and cosmic rays "will probably account for somewhere between a half and the whole of the increase in the Earth's temperature that we have seen in the last century."

Solar physicists Galina Mashnich and Vladimir Bashkirtsev, of the Institute of Solar-Terrestrial Physics of the Siberian Division of the Russian Academy of Sciences, believe the climate is driven by the sun and predict global cooling will soon occur. The two scientists are so convinced that global temperatures will cool within the next decade they have placed a $10,000 wager with a UK scientist to prove their certainty. The criteria for the $10,000 bet will be to "compare global temperatures between 1998 and 2003 with those between 2012 and 2017. The loser will pay up in 2018," according to an April 16, 2007 article in *Live Science*. Bashkirtsev and Mashnich have questioned the view that the "anthropogenic impact" is driving Earth's climate. "None of the investigations dealing with the anthropogenic impact on climate convincingly argues for such an impact," the two scientists noted in 2003. Bashkirtsev and Mashnich believe the evidence of solar impacts on the climate "leave little room for the anthropogenic impact on the Earth's climate." They believe that "solar variations naturally explain global cooling observed in 1950-1970, which cannot be understood from the standpoint of the greenhouse effect, since CO2 was intensely released into the atmosphere in this period."

Physics Professor Emeritus Dr. Howard Hayden of the University of Connecticut and author of The Solar Fraud: Why Solar Energy Won't Run the World, debunked fears of a man-made climate disaster during a presentation in April. "You think SUVs are the cause of

glaciers shrinking? I don't think so," Hayden, who retired after 32 years as a professor, said, according to an April 25, 2007 article in *Maine Today*. "Don't believe what you hear out of Hollywood and Washington, D.C.," Hayden said. According to the article, Hayden argued that "climate history proves that Gore has the relationship between carbon dioxide concentration and global warming backwards. A higher concentration of carbon dioxide in the atmosphere, he said, does not cause the Earth to be warmer. Instead," he said, "a warmer Earth causes the higher carbon dioxide levels." Hayden explained, "The sun heats up the Earth and the oceans warm up and atmospheric carbon dioxide rises." According to the article, Hayden "said humans' contribution to global carbon dioxide levels is virtually negligible." Hayden is also the editor of a monthly newsletter called "The Energy Advocate."

Internationally renowned scientist Dr. Antonio Zichichi, president of the World Federation of Scientists and a retired Professor of Advanced Physics at the University of Bologna in Italy, who has published over 800 scientific papers, questioned man-made global warming fears. According to an April 27, 2007 article at Zenit.org, Zichichi "pointed out that human activity has less than 10% impact on the environment." The article noted that Zichichi "showed that the mathematical models used by the [UN's] IPCC do not correspond to the criteria of the scientific method. He said the IPCC used ‘the method of 'forcing' to arrive at their conclusions that human activity produces meteorological variations.'" Zichichi said that based upon actual scientific fact "it is not possible to exclude the idea that climate changes can be due to natural causes," and he added that it is plausible that "man is not to blame." According to the article, "He also reminded those present that 500,000 years ago the Earth lost the North and South Poles four times. The poles disappeared and reformed four times, he said. Zichichi said that in the end he is not convinced that global warming is caused by the increase of emissions of ‘greenhouse gases' produced through human activity. Climate changes, he said, depend in a significant way on the fluctuation of cosmic rays." Zichichi also signed a December 2007 open letter to the United Nations stating in part "Significant new peer-reviewed research has cast even more doubt on the hypothesis of dangerous human-caused global warming."

Renowned Astronomer Sir Patrick Moore, a fellow of the UK's Royal Astronomical Society, host of the BBC's Sky at Night program since 1957 and author of over 60 books on astronomy called global warming concern ‘rubbish' in an interview with *The Sun* in 2005. "I think it's a lot of rubbish! From 1645-1715 the sun was inactive and we had a 'Little Ice Age,'" Moore said. "Then the sun went back to normal and the world warmed up," he concluded. Moore most recently co-authored two books published in 2006: *50 Years in Space: What We Thought Then What We Know Now;* and *Bang! The Complete History of the Universe*.

Atmospheric scientist Dr. James P. Koermer, a Professor of Meteorology and the director of the Meteorological Institute at Plymouth State University dismissed manmade global warming fears. "Global warming hysteria is based to a large extent on the unproven predictions of climate models. These numerical models are based on many simplified approximations of very complicated physical processes and phenomena," Koermer wrote to EPW on December 3, 2007. "My biggest concern is their [computer models'] lack of ability to adequately handle water vapor and clouds, which are much more important as climate factors than anthropogenic contributors. Until we can realistically simulate types of clouds, their optical thicknesses, and their altitudes, which we have a difficult time doing for short-term weather forecasts, I can't have much faith in climate models," Koermer wrote. "Another major

reason that I remain skeptical is based on what I know about past climate changes that occurred before man walked on earth. I am more amazed with how relatively stable climate has been over the past 15,000 or so years, versus the large changes that frequently appeared to take place prior to that time. I also can't ignore some of the recent evidence presented by some very well respected astrophysicists on solar variability. Most meteorologists including me have always been taught to treat the sun's output as a constant--now I am not so sure and I am intrigued by their preliminary findings relating to climate," he concluded.

Renowned agricultural scientist Dr. Norman Borlaug, known as the father of the "Green Revolution" for saving over a billion people from starvation by utilizing pioneering high yield farming techniques, is one of only five people in history who has been awarded a Nobel Peace Prize, the Presidential Medal of Freedom ,and the Congressional Gold Medal. Borlaug also declared himself skeptical of man-made climate fears in 2007. "I do believe we are in a period where, no question, the temperatures are going up. But is this a part of another one of those (natural) cycles that have brought on glaciers and caused melting of glaciers?" Borlaug asked, according to a September 21, 2007 article in *Saint Paul Pioneer Press*. The article reported that Borlaug is "not sure, and he doesn't think the science is, either." Borlaug added, "How much would we have to cut back to take the increasing carbon dioxide and methane production to a level so that it's not a driving force?" We don't even know how much."

Astronomer Dr. Jeff Zweerink of the University of California at Los Angeles (UCLA) studies gamma rays, black holes, and neutron stars and has declared himself a skeptic of man-made climate fears. "Many natural phenomena significantly affect the global climate. Atmospheric conditions are impacted by tectonic activity, erosion, and changes in Earth's biomass, for example," Zweerink wrote on December 18, 2006. "While politicians and activists focus on the effects of fossil fuel burning the breeding and domestication of cows and cultivation of rice, for example, actually does more harm than driving too many SUV's," Zweerink added.

Computer modeler Dr. Donald DuBois, who holds a PhD in Philosophy of Science, has spent most of his career modeling computer networks for NASA's International Space Station, GE Space Systems, the Air Force, and the Navy. DuBois is very skeptical of climate computer models predicting doom. "I know something about how misleading models can be, and the fact that their underlying assumptions can completely predetermine the results of the model. If the major climate models that are having a major impact on public policy were documented and put in the public domain, other qualified professionals around the world would be interested in looking into the validity of these models," DuBois wrote to EPW on May 17, 2007. "Right now, climate science is a black box that is highly questionable with unstated assumptions and model inputs. It is especially urgent that these models come out in the open considering how much climate change legislation could cost the United States and the world economies. Ross McKitrick's difficulty in getting the information from [Michael] Mann on his famous ‘hockey stick' [temperature] curve is a case in point which should be a scandal not worth repeating. The cost of documenting the models and making them available would be a trifle; the cost of not doing so could be astronomical," DuBois wrote. "I headed up a project to model computer networks (to see how they will perform before they are built) for NASA's International Space Station (including the ground stations around the globe). If I had suggested a $250 million network for the ISS and said that I was basing this recommendation

on my modeling but the models were not available for inspection, I would have been laughed out of the auditorium in Houston."

Anton Uriarte, a professor of Physical Geography at the University of the Basque Country in Spain and author of a book on the paleoclimate, rejected man-made climate fears. "It's just a political thing, and the lies about global warming are contributing to the proliferation of nuclear energy," Uriarte said according to a September 2007 article in the Spanish newspaper *El Correo*. "There's no need to be worried. It's very interesting to study [climate change], but there's no need to be worried," Uriarte wrote. "Far from provoking the so-called greenhouse effect, [CO2] stabilizes the climate." Uriarte noted that "the Earth is not becoming desertified, it's greener all the time." Uriarte says natural factors dominate the climate system. "The Earth being spherical, the tropics always receive more heat than the poles and the imbalance has to be continually rectified. They change places because of the tilt of the earth's axis. And, moreover, the planet isn't smooth, but rough, which produces perturbations in the interchange of air masses. We know the history of the climate very well and it has changed continuously," he wrote.

"It's evident that the Earth is a human planet, and that being so, it's quite normal that we influence the atmosphere. It's something else altogether to say that things will get worse. I believe that a little more heat will be very good for us. The epochs of vegetational exuberance coincided with those of more heat," he explained. "In warm periods, when there are more greenhouse gases in the atmosphere - more CO2 and water vapour - climate variability is less. In these periods greenhouse gases, which act as a blanket, cushion the differences between the tropics and the poles. There is less interchange of air masses, less storms. We're talking about a climate which is much less variable," he added. (Translation)

Professor David F. Noble of Canada's York University authored the book America by Design: Science, Technology and the Rise of Corporate Capitalism and co-founded a group designed to make scientific and technological research relevant to the needs of working people. Noble, a former curator at the Smithsonian Institution in Washington and a former professor at MIT, is a committed environmentalist and a man-made global warming skeptic. Noble now believes that the movement has "hyped the global climate issue into an obsession." Noble wrote a May 8, 2007 essay entitled "The Corporate Climate Coup" which details how global warming has "hijacked" the environmental left and created a "corporate climate campaign" which has "diverted attention from the radical challenges of the global justice movement." Noble wrote, "Don’t breathe. There’s a total war on against CO2 emissions, and you are releasing CO2 with every breath. The multi-media campaign against global warming now saturating our senses, which insists that an increasing CO2 component of greenhouse gases is the enemy, takes no prisoners: you are either with us or you are with the 'deniers.' No one can question the new orthodoxy or dare risk the sin of emission. If Bill Clinton were running for president today he would swear he didn’t exhale." Noble added, "How did scientific speculation so swiftly erupt into ubiquitous intimations of apocalypse?"

Award-winning quaternary geologist Dr. Olafur Ingolfsson, a professor from the University of Iceland who has conducted extensive expeditions and field research in the both the Arctic and Antarctic, chilled fears that the iconic polar bear is threatened by global warming. Ingolfsson was awarded the prestigious "Antarctic Service Medal of the United States" by the National Science Foundation. "We have this specimen that confirms the polar bear was a morphologically distinct species at least 100,000 years ago, and this basically means that the polar bear has already survived one interglacial period," Ingolfsson said

according to a December 10, 2007 article in the BBC. The article explained, "And what's interesting about that is that the Eeemian - the last interglacial - was much warmer than the Holocene (the present)." Ingolfsson continued, "This is telling us that despite the on-going warming in the Arctic today, maybe we don't have to be quite so worried about the polar bear. That would be very encouraging." Ingolfsson is optimistic about the polar bears future because of his research about the Earth's history. "The polar bear is basically a brown bear that decided some time ago that it would be easier to feed on seals on the ice. So long as there are seals, there are going to be polar bears. I think the threat to the polar bears is much more to do with pollution, the build up of heavy metals in the Arctic. This is just how I interpret it. But this is science - when you have little data, you have lots of freedom," he concluded.

Over 100 Prominent International Scientists Warn UN Against 'Futile' Climate Control Efforts in a December 13, 2007 open letter. "Attempts to prevent global climate change from occurring are ultimately futile, and constitute a tragic misallocation of resources that would be better spent on humanity's real and pressing problems," the letter signed by the scientists read. *The scientists, many of whom are current and former UN IPCC (Intergovernmental Panel on Climate Change)* scientists, sent an open letter to the UN Secretary-General questioning the scientific basis for climate fears and the UN's so-called "solutions." "It is not possible to stop climate change, a natural phenomenon that has affected humanity through the ages. Geological, archaeological, oral and written histories all attest to the dramatic challenges posed to past societies from unanticipated changes in temperature, precipitation, winds and other climatic variables," the scientists wrote. "In stark contrast to the often repeated assertion that the science of climate change is 'settled,' significant new peer-reviewed research has cast even more doubt on the hypothesis of dangerous human-caused global warming," the open letter added. [*EPW Note: Several other recent peer-reviewed studies have cast considerable doubt about man-made global warming fears. For most recent sampling see: New Peer-Reviewed Study finds 'Solar changes significantly alter climate' (11-3- 07) & "New Peer-Reviewed Study Halves the Global Average Surface Temperature Trend 1980 - 2002" & New Study finds Medieval Warm Period '0.3C Warmer than 20th Century' - New Peer-Reviewed Study*

*Finds: "Warming is naturally caused and shows no human influence." - A November peer-reviewed study in the journal Physical Geography found "L*ong-term climate change is driven by solar insolation changes". *For a more comprehensive sampling of peer-reviewed studies earlier in 2007 see "New Peer-Reviewed Scientific Studies Chill Global Warming Fears" - For a detailed analysis of how "consensus" has been promoted, see: Debunking The So-Called "Consensus" On Global Warming.* The scientists' letter continued: "The United Nations Intergovernmental Panel on Climate Change (IPCC) has issued increasingly alarming conclusions about the climatic influences of human-produced carbon dioxide (CO2), a non-polluting gas that is essential to plant photosynthesis. While we understand the evidence that has led them to view CO2 emissions as harmful, the IPCC's conclusions are quite inadequate as justification for implementing policies that will markedly diminish future prosperity. In particular, it is not established that it is possible to significantly alter global climate through cuts in human greenhouse gas emissions." "The IPCC Summaries for Policy Makers are the most widely read IPCC reports amongst politicians and nonscientists and are the basis for most climate change policy formulation. Yet these 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," the letter added. *[EPW Note: Only 52 scientists participated in the UN IPCC Summary for Policymakers in April 2007, according to the Associated Press. An analysis by Australian climate researcher John Mclean in 2007 found the UN IPCC peer-review process to be "an illusion."* The letter was signed by renowned scientists such as Dr. Antonio Zichichi, president of the World Federation of Scientists; Dr. Reid Bryson, dubbed one of the "Fathers of Meteorology"; Atmospheric pioneer Dr. Hendrik Tennekes, formerly of the Royal Netherlands Meteorological Institute; Award winning physicist Dr. Syun-Ichi Akasofu of the International Arctic Research Center, who has twice named one of the "1000 Most Cited Scientists"; Award winning MIT atmospheric scientist Dr. Richard Lindzen; UN IPCC scientist Dr. Vincent Gray of New Zealand; French climatologist Dr. Marcel Leroux of the University Jean Moulin; World authority on sea level Dr. Nils-Axel Morner of Stockholm University; Physicist Dr. Freeman Dyson of Princeton University; Physicist Dr. Zbigniew Jaworowski, chairman of the Scientific Council of Central Laboratory for Radiological Protection in Poland; Paleoclimatologist Dr. Robert M. Carter of Australia; Former UN IPCC reviewer Geologist/Geochemist Dr. Tom V. Segalstad, head of the Geological Museum in Norway; and Dr. Edward J. Wegman, of the U.S. National Academy of Sciences. Other scientists (not already included in this report) who signed the letter include: *Don Aitkin, PhD*, Professor, social scientist, retired Vice-Chancellor and President, University of Canberra, Australia; *Geoff L. Austin, PhD*, FNZIP, FRSNZ, Professor, Dept. of Physics, University of Auckland, New Zealand; *Chris C. Borel, PhD*, remote sensing scientist, U.S.; *Dan Carruthers*, M. Sc., wildlife biology consultant specializing in animal ecology in Arctic and Subarctic regions, Alberta, Canada; *Hans Erren, Doctorandus*, geophysicist and climate specialist, Sittard, The Netherlands; *William Evans, PhD*, Editor, American Midland Naturalist; Dept. of Biological Sciences, University of Notre Dame, U.S.; *R. W. Gauldie, PhD*, Research Professor, Hawai'i Institute of Geophysics and Planetology, School of Ocean Earth Sciences and Technology, University of Hawai'i at Manoa; *Albrecht Glatzle, PhD*, sc.agr., Agro-Biologist and Gerente ejecutivo, INTTAS, Paraguay; *Fred Goldberg, PhD*, Adj Professor, Royal Institute of Technology, Mechanical Engineering, Stockholm, Sweden; *Louis Hissink* M.Sc. M.A.I.G., Editor AIG News and Consulting Geologist, Perth, Western Australia; *Andrei Illarionov, PhD*, Senior Fellow, Center for Global Liberty and Prosperity, U.S.; founder and director of the Institute of Economic Analysis, Russia; *Jon Jenkins, PhD*, MD, computer modelling - virology, Sydney, NSW, Australia; *Olavi Kärner, Ph.D.*, Research Associate, Dept. of Atmospheric Physics, Institute of Astrophysics and Atmospheric Physics, Toravere, Estonia; *Jan J.H. Kop*, M.Sc. Ceng FICE (Civil Engineer Fellow of the Institution of Civil Engineers), Emeritus Professor of Public Health Engineering, Technical University Delft, The Netherlands; *Professor R.W.J. Kouffeld*, Emeritus Professor, Energy Conversion, Delft University of Technology, The Netherlands; *Salomon Kroonenberg, PhD*, Professor, Dept. of Geotechnology, Delft University of Technology, The Netherlands; *The Rt. Hon. Lord Lawson of Blaby*, economist; Chairman of the Central Europe Trust; former Chancellor of the Exchequer, U.K.; *Douglas Leahey, PhD*, meteorologist and air-quality consultant, Calgary, Canada; *William Lindqvist, PhD*, consulting geologist and company director, Tiburon, California, U.S.; *A.J. Tom van Loon, PhD*, Professor of Geology (Quaternary Geology), Adam Mickiewicz University, Poznan, Poland; former President of the European Association

of Science Editors; *Horst Malberg, PhD,* Professor for Meteorology and Climatology, Institut für Meteorologie, Berlin, Germany; *Alister McFarquhar, PhD,* international economist, Downing College, Cambridge, U.K.; *Frank Milne, PhD*, Professor, Dept. of Economics, Queen's University, Canada; *Asmunn Moene, PhD,* former head of the Forecasting Centre, Meteorological Institute, Norway; *Alan Moran, PhD*, Energy Economist, Director of the IPA's Deregulation Unit, Australia; *John Nicol, PhD*, physicist, James Cook University, Australia; *Mr. David Nowell*, M.Sc., Fellow of the Royal Meteorological Society, former chairman of the NATO Meteorological Group, Ottawa, Canada; *Brian Pratt, PhD*, Professor of Geology, Sedimentology, University of Saskatchewan, Canada; *Harry N.A. Priem*, PhD, Emeritus Professor of Planetary Geology and Isotope Geophysics, Utrecht University; former director of the Netherlands Institute for Isotope Geosciences; *Colonel F.P.M. Rombouts*, Branch Chief - Safety, Quality and Environment, Royal Netherlands Air Force; *R.G. Roper, PhD*, Professor Emeritus of Atmospheric Sciences, School of Earth and Atmospheric Sciences, Georgia Institute of Technology, U.S.; *Arthur Rorsch, PhD*, Emeritus Professor, Molecular Genetics, Leiden University, The Netherlands; *Rob Scagel*, M.Sc., forest microclimate specialist, principal consultant, Pacific Phytometric Consultants, B.C., Canada; *Gary D. Sharp, PhD*, Center for Climate/Ocean Resources Study, Salinas, CA, U.S.; *L. Graham Smith, PhD*, Associate Professor, Dept. of Geography, University of Western Ontario, Canada; *Peter Stilbs*, TeknD, Professor of Physical Chemistry, Research Leader, School of Chemical Science and Engineering, KTH (Royal Institute of Technology), Stockholm, Sweden; *Len Walker, PhD*, power engineering, Pict Energy, Melbourne, Australia; *Stephan Wilksch, PhD*, Professor for Innovation and Technology Management, Production Management and Logistics, University of Technology and Economics Berlin, Germany; and *Raphael Wust, PhD*, Lecturer, Marine Geology/Sedimentology, James Cook University, Australia. Also, "Other professional persons knowledgeable about climate change who expressed support for the open letter to the UN Secretary General" included meteorological researcher and spotter for the National Weather Service *Allan Cortese;* Water resources engineer *Don Farley*; *Dr. David A. Gray* of Messiah College, a former researcher in electromagnetic waves in the atmosphere; *Barrie Jackson*, associate professor of Chemical Engineering at Queen's University, Kingston, Ontario, Canada; *Raymond J. Jones, PhD*, FATSE, OAM. retired, Agronomist, Townsville, Australia; *J.A.L. Robertson*, M.A. (Cantab.), F.R.S.C., nuclear-energy consultant, Deep River, ON, Canada; *J.T.Rogers, PhD*, FCAE, nuclear engineer; energy analyst, Ottawa, Canada; *John K. Sutherland, PhD* in Geology (Manchester University), New Brunswick, Canada; *Noor van Andel, PhD* Energy Physics, Burgemeester Stroinkstraat, The Netherlands; *Arthur M. Patterson,* P.Eng, Geological Engineer. Extensive experience in the Canadian Arctic; *Agronomist Pat Palmer* of New Zealand; and *Alois Haas* emeritus Prof. PhD, nuclear chemistry; *Michael Limburg*, Engineer, deputy press-speaker of Europäisches Institut für Klima & Energie (EIKE - European Institute for Climate & Energy), Grob Glienicke, Germany; *Dietrich von Saldern*, PhD., Diplom Ingenieur, Assessor des Bergfachs, Mining Engineer, Germany; *Tom Harris,* B. Eng., M. Eng. (thermofluids), Executive Director, Natural Resources Stewardship Project, Ottawa, Canada. *(See attachment one for full text of letter and complete list of signatories at end of this report.)*

Dutch Geologist Dr. Chris Schoneveld, a retired exploration geophysicist, has become an outspoken skeptic regarding the human influence on climate over the past four years. "If global warming is just a consequence of natural climatic fluctuations similar to well-

documented, geologically caused climate changes, wouldn't we rather adapt to a warming world than to spend trillions of dollars on a futile exercise to contain carbon dioxide emissions?" Schoneveld wrote in the October 1, 2007 *International Herald Tribune*. "As long as the causes of the many climate changes throughout the Earth's history are not well understood, one cannot unequivocally separate natural causes from possibly man-made ones. The so-called scientific consensus discourages healthy debate between believers in global warming and skeptics. There has never been a UN- organized conference on climate change where skeptics were invited for the sake of balance to present their case," he explained. Schoneveld also critiqued the UN IPCC process on February 3, 2007. "Who are the geologists that the IPCC is relying on? Is the IPCC at all concerned about the frequency and recurrence of ice ages? Who are the astronomers that advise the IPCC on other cause of possible climate change (sun spots or earth's elliptical orbit, tilt and wobble of its axis) so as to ascertain that we are not just experiencing a normal trend related to interglacial warming or variation in solar radiation?" he asked.

Atmospheric scientist Dr. Hendrik Tennekes, a scientific pioneer in the development of numerical weather prediction and former director of research at The Netherlands' Royal National Meteorological Institute, and an internationally recognized expert in atmospheric boundary layer processes, took climate modelers to task for their projections of future planetary doom in a February 28, 2007 post on Climate Science. "I am of the opinion that most scientists engaged in the design, development, and tuning of climate models are in fact software engineers. They are unlicensed, hence unqualified to sell their products to society. In all regular engineering professions, there exists a licensing authority. If such an authority existed in climate research, I contend, the vast majority of climate modelers would vainly attempt certification. Also, they would be unable to obtain insurance against professional liability," Tennekes said. Tennekes also unleashed on the promoters of climate fears in a January 31, 2007 article. "I worry about the arrogance of scientists who claim they can help solve the climate problem, provided their research receives massive increases in funding", he wrote. "I am angry about the Climate Doomsday hype that politicians and scientists engage in. I am angry at Al Gore, I am angry at the Bulletin of Atomic Scientists for resetting its Doomsday clock, I am angry at Lord Martin Rees for using the full weight of the Royal Society in support of the Doomsday hype, I am angry at Paul Crutzen for his speculations about yet another technological fix, I am angry at the staff of IPCC for their preoccupation with carbon dioxide emissions, and I am angry at Jim Hansen for his efforts to sell a Greenland Ice Sheet Meltdown Catastrophe," he explained. Tennekes has also blasted Gore and the UN in the Dutch De Volskrant newspaper on March 28, 2007. "I find the Doomsday picture Al Gore is painting - a six-meter sea level rise, fifteen times the IPCC number - entirely without merit," Tennekes wrote. "I protest vigorously the idea that the climate reacts like a home heating system to a changed setting of the thermostat: just turn the dial, and the desired temperature will soon be reached. We cannot run the climate as we wish," Tennekes said. "Whatever the IPCC staff thinks, it is not at all inconceivable that decreasing solar activity will lead to some cooling ten years from now," he concluded.

Chemical engineer Thomas Ring has authored several scientific papers for Oil and Gas Journal and is a member of the American Institute of Chemical Engineers. Ring, who has a degree from Case Western Reserve University and is licensed in the state of California, declared "we should not fear global warming" in 2007. "Warming of the Earth has never been catastrophic; in fact, humankind has always fared better in warmer than cooler periods, with

less hardship and illness and improved agriculture," Ring wrote on November 28, 2007. Ring called for "solid, objective and unbiased research, rather than fear-mongering based on a nonscientific ‘consensus.'" "What's responsible for prior periods of warmth in 600 BC, 1000 and 1912 to 1943, all when there was no or little man-made CO2? It's most likely the sun, whose radiation varies to the fourth power of its temperature," he wrote. "Atmospheric water vapor is, however, 0.9 percent, 25 times as much as CO2. Water vapor is a 'radiator' that is three times more powerful than CO2, but its larger effect has been ignored in the global warming debate," he concluded.

Harvard-educated Physicist Arthur E. Lemay, a renowned computer systems specialist, declared his climate skepticism in 2007. "Recent studies show that there are far better explanations for the earth's warming before 1998. The variations in the sun's radiant energy and production of cosmic rays are far more persuasive than the greenhouse gas theory," Lemay wrote on December 5, 2007 in the *Jakarta Post* during the UN Climate Conference in Bali. "The solar theory explains it, the greenhouse gas theory does not. In science, when observations do not support a theory, it is the theory which needs to be discarded. So, all this blather about reducing CO2, the Kyoto Protocol and the Bali conference are all a waste of money," Lemay explained. "Of course, the global warming alarmists cannot tolerate the solar theory because we cannot do anything about it, and no government wants to spend billions of dollars for nothing," he wrote. "It's time for Indonesia and other developing countries to demand an explanation as to why CO2 reduction is being mandated when it is not the problem," he concluded.

Geophysicist Dr. Claude Allegre, a top Geophysicist and French Socialist who has authored more than 100 scientific articles, written 11 books, and received numerous scientific awards including the Goldschmidt Medal from the Geochemical Society of the United States, converted from climate alarmist to skeptic in 2006. Allegre, who was one of the first scientists to sound global warming fears 20 years ago, now says the cause of climate change is "unknown" and accused the "prophets of doom of global warming" of being motivated by money, noting that "the ecology of helpless protesting has become a very lucrative business for some people!" "Glaciers' chronicles or historical archives point to the fact that climate is a capricious phenomena. This fact is confirmed by mathematical meteorological theories. So, let us be cautious," Allegre explained in a September 21, 2006 article in the French newspaper *L 'EXPRESS*. The *National Post* in Canada also profiled Allegre on March 2, 2007, noting, "Allegre has the highest environmental credentials. The author of early environmental books, he fought successful battles to protect the ozone layer from CFCs and public health from lead pollution." Allegre now calls fears of a climate disaster "simplistic and obscuring the true dangers" and mocks "the greenhouse-gas fanatics whose proclamations consist in denouncing man's role on the climate without doing anything about it except organizing conferences and preparing protocols that become dead letters." Allegre, a member of both the French and U.S. Academy of Sciences, had previously expressed concern about man-made global warming. "By burning fossil fuels, man enhanced the concentration of carbon dioxide in the atmosphere which has raised the global mean temperature by half a degree in the last century," Allegre wrote 20 years ago. In addition, Allegre was one of 1500 scientists who signed a November 18, 1992 letter titled "World Scientists' Warning to Humanity" in which the scientists warned that global warming's "potential risks are very great." Allegre mocked former Vice President Al Gore's Nobel Prize in 2007, calling it "a

political gimmick." Allegre said on October 14, 2007, "The amount of nonsense in Al Gore's film! It's all politics; it's designed to intervene in American politics. It's scandalous."

Astrophysicist Dr. Howard Greyber, a Fellow Royal Astronomical Society and member of the International Astronomical Union, called warming fears "unwarranted hysteria" and chastised a newspaper columnist's views on global warming. "When [columnist] Thomas Friedman touts carbon dioxide as the cause of global warming in his column, I respond as a physicist that he cannot comprehend that it is still not proven that carbon dioxide emissions actually are causing global warming. Correlation does not prove Causation," Greyber wrote on September 20, 2007 in the *International Herald Tribune*. "The Earth's climate changes all the time. Did carbon dioxide emissions cause the Medieval Warm Period, when Vikings raised crops on Greenland's coast? What caused the cold climate from 1700 to 1850? In 1975, articles were published predicting we were entering a New Ice Age. Reputable scientists oppose this unwarranted alarmist hysteria," he noted. "Understanding climate change is an extremely difficult scientific problem. Giant computers generating climate models cannot be trusted so far. As any computer person knows, garbage in means garbage out. If research suggests subtle variations in our Sun's radiation reaching Earth are causing global climate change, what would Friedman recommend?" Greyber concluded.

Astrophysicist Dr. Nir Shaviv, one of Israel's top, young, award-winning scientists of the Hebrew University of Jerusalem, recanted his belief that man-made emissions were driving climate change. "Like many others, I was personally sure that CO2 is the bad culprit in the story of global warming. But after carefully digging into the evidence, I realized that things are far more complicated than the story sold to us by many climate scientists or the stories regurgitated by the media. In fact, there is much more than meets the eye," Shaviv said in a February 2, 2007 Canadian *National Post* article. According to Shaviv, the CO2 temperature link is only "incriminating circumstantial evidence." "Solar activity can explain a large part of the 20th-century global warming" and "it is unlikely that [the solar climate link] does not exist," Shaviv noted, pointing to the impact cosmic- rays have on the atmosphere. According to the *National Post*, Shaviv believes that even a doubling of CO2 in the atmosphere by 2100 "will not dramatically increase the global temperature." "Even if we halved the CO2 output, and the CO2 increase by 2100 would be, say, a 50% increase relative to today instead of a doubled amount, the expected reduction in the rise of global temperature would be less than 0.5C. This is not significant," Shaviv explained. Shaviv also wrote on August 18, 2006 that a colleague of his believed that "CO2 should have a large effect on climate" so "he set out to reconstruct the phanerozoic temperature. He wanted to find the CO2 signature in the data, but since there was none, he slowly had to change his views." Shaviv believes there will be more scientists converting to man-made global warming skepticism as they discover the dearth of evidence. "I think this is common to many of the scientists who think like us (that is, that CO2 is a secondary climate driver). Each one of us was working in his or her own niche. While working there, each one of us realized that things just don't add up to support the AGW (Anthropogenic Global Warming) picture. So many had to change their views," he wrote.

Research physicist Dr. John W. Brosnahan develops remote-sensing instruments for atmospheric science for such clients as NOAA and NASA and has published numerous peer-reviewed research, as well as developed imaging Doppler interferometry for sensing winds, waves, and structure in the atmosphere. "Of course I believe in global warming, and in global cooling – all part of the natural climate changes that the Earth has experienced for billions of years, caused primarily by the cyclical variations in solar output," Brosnahan wrote to EPW

on December 10, 2007. "I have not seen any sort of definitive, scientific link to man-made carbon dioxide as the root cause of the current global warming, only incomplete computer models that suggest that this might be the case," Brosnahan explained. "Even though these computer climate models do not properly handle a number of important factors, including the role of precipitation as a temperature regulator, they are being (mis-)used to force a political agenda upon the U.S. While there are any number of reasons to reduce carbon dioxide generation, to base any major fiscal policy on the role of carbon dioxide in climate change would be inappropriate and imprudent at best and potentially disastrous economic folly at the worst," he concluded.

Mathematician & Engineer Dr. David Evans, who did carbon accounting for the Australian Government and is head of the group "Science Speak," recently detailed his conversion to a skeptic. "I devoted six years to carbon accounting, building models for the Australian government to estimate carbon emissions from land use change and forestry. 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. I am now skeptical," Evans wrote in an April 30, 2007 blog. "But after 2000 the evidence for carbon emissions gradually got weaker – better temperature data for the last century, more detailed ice core data, then laboratory evidence that cosmic rays precipitate low clouds," Evans wrote. "As Lord Keynes famously said, 'When the facts change, I change my mind. What do you do, sir?'" he added. Evans noted how he benefited from climate fears as a scientist. "And the political realm in turn fed money back into the scientific community. By the late 1990s, lots of jobs depended on the idea that carbon emissions caused global warming. Many of them were bureaucratic, but there were a lot of science jobs created too. I was on that gravy train, making a high wage in a science job that would not have existed if we didn't believe carbon emissions caused global warming. And so were lots of people around me; and there were international conferences full of such people. And we had political support, the ear of government, big budgets, and we felt fairly important and useful (well, I did anyway). It was great. We were working to save the planet! But starting in about 2000, the last three of the four pieces of evidence outlined above fell away or reversed," Evans wrote. "The pre-2000 ice core data was the central evidence for believing that atmospheric carbon caused temperature increases. The new ice core data shows that past warmings were *not* initially caused by rises in atmospheric carbon, and says nothing about the strength of any amplification. This piece of evidence casts reasonable doubt that atmospheric carbon had any role in past warmings, while still allowing the possibility that it had a supporting role," he added. "Unfortunately politics and science have become even more entangled. The science of global warming has become a partisan political issue, so positions become more entrenched. Politicians and the public prefer simple and less-nuanced messages. At the moment the political climate strongly supports carbon emissions as the cause of global warming, to the point of sometimes rubbishing or silencing critics," he concluded. (Evans bio link)

Yury Zaitsev, an analyst with Russia's Institute of Space Studies, rejected man-made global warming fears in 2007. "Paleoclimate research shows that the chillier periods of the Earth's history have always given way to warmer times, and vice versa. But it is not quite clear what causes this change," Zaitsev wrote on September 28, 2007 in the Russian publication *RIA Novosti*. "*Yury Leonov, director of the Institute of Geology at the Russian Academy of Sciences*, thinks that the human impact on nature is so small that it can be

dismissed as a statistical mistake," Zaitsev explained. "Until quite recently, experts primarily attributed global warming to greenhouse gas emissions, with carbon dioxide singled out as the chief culprit. But it transpires that water vapor is just as bad," he wrote. "Sun-related phenomena have fairly regular and predictable consequences on the Earth. Of course, they exert influence on humans and other species and, to some extent, on the environment, altering atmospheric pressure and temperature. But they are not likely to contribute much to climate change. This is a global process and is the result of global causes. For the time being, we are far from understanding them fully," he added.

Climate researcher Dr. Tad Murty, former Senior Research Scientist for Fisheries and Oceans in Canada and former director of Australia's National Tidal Facility and professor of earth sciences, Flinders University, reversed himself from believer in man-made climate change to a skeptic. "I started with a firm belief about global warming, until I started working on it myself," Murty explained on August 17, 2006. "I switched to the other side in the early 1990s when Fisheries and Oceans Canada asked me to prepare a position paper and I started to look into the problem seriously," Murty explained. Murty was one of the 60 scientists who wrote an April 6, 2006 letter urging withdrawal of Kyoto to Canadian Prime Minister Stephen Harper which stated in part, "If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary."

French climatologist Dr. Marcel Leroux, former professor at University of Jean Moulin and former director of the Laboratory of Climatology, Risks, and Environment (CNRS) in Lyon, is a climate skeptic. Leroux wrote a 2005 book titled Global Warming - Myth or Reality? - The Erring Ways of Climatology. "Hardly a week goes by without some new scoop ... filling our screens and the pages of our newspapers," Leroux wrote in his book. The media promotes the view that "global warming caused by the greenhouse effect is our fault, just like everything else, and the message/slogan/misinformation becomes even more simplistic, ever cruder! It could not be simpler: if the rain falls or draught strikes; if the wind blows a gale or there is none at all; whether it's heat or hard frost; it's all because of the greenhouse effect, and we are to blame. An easy argument, but stupid!" he explained. "The Fourth Report of the IPCC might just as well decree the suppression of all climatology textbooks, and replace them in our schools with press *communiqués*. ... Day after day, the same mantra - that 'the Earth is warming up' - is churned out in all its forms. As 'the ice melts' and 'sea level rises,' the Apocalypse looms ever nearer! Without realizing it, or perhaps without wishing to, the average citizen in bamboozled, lobotomized, lulled into mindless acceptance. ... Non-believers in the greenhouse scenario are in the position of those long ago who doubted the existence of God ... fortunately for them, the Inquisition is no longer with us!" he wrote. "The possible causes, then, of climate change are: well-established orbital parameters on the paleoclimatic scale, ... solar activity, ...; volcanism ...; and far at the rear, the greenhouse effect, and in particular that caused by water vapor, the extent of its influence being unknown. These factors are working together all the time, and it seems difficult to unravel the relative importance of their respective influences upon climatic evolution. Equally, it is tendentious to highlight the anthropogenic factor, which is, clearly, the least credible among all those previously mentioned," he added.

Climate scientist Dr. Chris de Freitas of the University of Auckland, N.Z., also converted from a believer in man-made global warming to a skeptic. "At first I accepted that increases in human-caused additions of carbon dioxide and methane in the atmosphere would trigger

changes in water vapor, etc. and lead to dangerous ‘global warming,' but with time and with the results of research, I formed the view that, although it makes for a good story, it is unlikely that the man-made changes are drivers of significant climate variation," de Freitas wrote on August 17, 2006. "I accept there may be small changes. But I see the risk of anything serious to be minute," he added. "One could reasonably argue that lack of evidence is not a good reason for complacency. But I believe the billions of dollars committed to GW research and lobbying for GW and for Kyoto treaties etc could be better spent on uncontroversial and very real environmental problems (such as air pollution, poor sanitation, provision of clean water and improved health services) that we know affect tens of millions of people," de Freitas concluded. De Freitas was one of the 60 scientists who wrote an April 6, 2006 letter urging withdrawal of Kyoto to Canadian Prime Minister Stephen Harper which stated in part, "Significant [scientific] advances have been made since the [Kyoto] protocol was created, many of which are taking us away from a concern about increasing greenhouse gases."

Atmospheric scientist Dr. Gerhard Kramm of the Geophysical Institute at the University of Alaska Fairbanks expressed climate skepticism in 2007. "The IPCC would never be awarded by the Nobel Prize in Physics because most of the statements of the IPCC can be assessed as physical misunderstanding and physical misinterpretations," Kramm wrote in a letter to the *Associated Press* on October 21, 2007. "There is no scientific certainty, even though the *Associated Press* distributes this message always every day," Kramm wrote in his letter, criticizing the news outlet. "The change in the radiative forcing components since the beginning of the industrial era is so small (2 W/m^2, according to the IPCC 2007) that we have no pyrgeometers (radiometers to measure the infrared radiometer emitted by the earth and the atmosphere) which are able to provide any empirical evidence of such a small change because their degrees of accuracy are too less," he wrote. "By far, most of [the IPCC] members can be considered, indeed, as members of a Church of Global Warming. They are not qualified enough to understand the physics behind the greenhouse effect and to prove the accuracy of global climate models (see, for instance, the poor publication record of Dr. [RK] Pachauri, the current Chairman of the IPCC). However, in science it would be highly awkward to vote which results are correct and which are wrong," he added. "A decrease of the anthropogenic CO2 emission to the values below of those of 1990 would not decrease the atmospheric CO2 concentration. This concentration would increase further, however the increase would be lowering. As illustrated in Slide 38, it might be that the atmospheric CO2 concentration tends to an equilibrium concentration of somewhat higher than 500 ppmv. Here, equilibrium means that the increase of natural and anthropogenic CO2 emission is equaled by the uptake of CO2 by vegetation and ocean," he concluded.

Geologist Georgia D. Brown, an instructor of Geology & Oceanography at College of Lake County in Illinois, rejected climate fears and supported the notion of a coming global cool down. "I talk to my students about this topic every semester, not just when we are covering glacial geology, but at different points throughout the term. I want them to know that they shouldn't take every alarmist claim at face value," Brown wrote on December 13, 2006. "Fear is a means of controlling a population, and since the cold war has ended, the government needed new fuel for its control fire," Brown wrote. Brown, who said she "spent quite a bit of time doing research in climatology, and what triggers the ice age cycle" explained that "it is a slight increase in temperature, and the resulting increase in precipitation, that triggers ice sheet growth … . And have you read about the 30% decrease in

the North Atlantic Current? What happens to Greenland, Iceland, The British Isles, and Europe as a result? It gets damn cold!"

Physicist Dr. Laurence I. Gould, Professor of Physics at the University of Hartford and former Chair of the New England Section of the American Physical Society, has authored peer-reviewed research articles and given numerous talks nationally and internationally. Gould, who has made an intensive study of climate change, challenged climate fears in 2007. "There is (I have found) a huge problem in getting to learn of both sides of the AGW debate. But this ‘debate' needs to be aired, regardless of what is being presented to scientists and to the public as the ‘truth' about AGW," Gould wrote in a September 20, 2007 editorial titled "Global Warming from a Critical Perspective." "Although I have seen many articles arguing for the reality and danger of anthropogenic greenhouse warming (AGW), I have rarely seen one that presents scientific arguments against the AGW claims," Gould wrote. "The implication [by many in the media] seems to be that anyone who has a contrary argument is not ‘respectable' - yet there are many leading climatologists (such as Richard Lindzen of MIT) who have very good arguments disagreeing," Gould wrote.

Russian scientist Alexander G. Egorov, a researcher with the Arctic and Antarctic Research Institute in Saint Petersburg, called global warming a temporary inconvenience tied to the natural fluctuation of the sun. According to an October 18, 2007 translated article in *Russian Science News,* Egorov believes warming is "not more than a natural variation." The article explained that Egorov believes "long-term temperature rising to be just an episode of global history, a consequence of natural fluctuations, which depend on changes in solar activity and surface air pressure. The scientist has analyzed data of monthly average values of surface air pressure between November and April 1923-2005 in cellular mesh points, located northwards from 40th parallel of the northern hemisphere." The article concluded, "If pressure over Atlantic drops, then speed of warm water transfer grows, like in 1920-1940s, when warming was detected in the Arctic. During the 22nd solar cycle, which started in 1986, the pressure over vast territories of the northern hemisphere, including Canada, Greenland, the Arctic Ocean, Eastern Europe, Eastern and Western Siberia, dropped significantly. This stage of natural fluctuations concurs with current climate state, which is usually called the global warming. However, in the next solar cycle the pressure over the Northern Atlantic may change, causing the end of global warming."

One of the "Fathers of Meteorology," Dr. Reid Bryson, the founding chairman of the Department of Meteorology at University of Wisconsin (now the Department of Oceanic and Atmospheric Sciences, was pivotal in promoting the coming ice age scare of the 1 970s (See *Time Magazine*'s 1974 article "Another Ice Age" citing Bryson: See *Newsweek*'s 1975 article "The Cooling World" citing Bryson) has now converted into a leading global warming skeptic. On February 8, 2007 Bryson dismissed what he terms "sky is falling" man-made global warming fears. Bryson was on the United Nations Global 500 Roll of Honor and was identified by the British Institute of Geographers as the most frequently cited climatologist in the world. "Before there were enough people to make any difference at all, two million years ago, nobody was changing the climate, yet the climate was changing, okay?" Bryson told the May 2007 issue of *Energy Cooperative News.* "All this argument is the temperature going up or not, it's absurd. Of course it's going up. It has gone up since the early 1 800s, before the Industrial Revolution, because we're coming out of the Little Ice Age, not because we're putting more carbon dioxide into the air," Bryson said. "You can go outside and spit and have the same effect as doubling carbon dioxide," he added. "We cannot say what part of that

warming was due to mankind's addition of ‘greenhouse gases' until we consider the other possible factors, such as aerosols. The aerosol content of the atmosphere was measured during the past century, but to my knowledge this data was never used. We can say that the question of anthropogenic modification of the climate is an important question – too important to ignore. However, it has now become a media free-for-all and a political issue more than a scientific problem," Bryson explained in 2005.

UN IPCC reviewer, global warming author, and economist Dr. Hans H.J. Labohm, a lecturer at the Netherlands Defense Academy, started out as a man-made global warming believer but he later switched his view after conducting climate research. Labohm wrote on August 19, 2006, "I started as an anthropogenic global warming believer, then I read the [UN's IPCC] Summary for Policymakers and the research of prominent skeptics." "After that, I changed my mind," Labohm explained. *Labohm coauthored the 2004 book Man-Made Global Warming: Unraveling a Dogma with Eindhoven University of Technology emeritus professor of chemical engineer Dick Thoenes who was the former chairman of the Royal Netherlands Chemical Society.* Labohm was one of the 60 scientists who wrote an April 6, 2006 letter urging withdrawal of Kyoto to Canadian Prime Minister Stephen Harper which stated in part, "'‘Climate change is real' is a meaningless phrase used repeatedly by activists to convince the public that a climate catastrophe is looming and humanity is the cause. Neither of these fears is justified. Global climate changes all the time due to natural causes and the human impact still remains impossible to distinguish from this natural ‘noise.'"

Paleoclimatologist Tim Patterson, professor in the department of Earth Sciences at Carleton University in Ottawa converted from believer in CO2's driving the climate change to a skeptic. "I taught my students that CO2 was the prime driver of climate change," Patterson wrote on April 30, 2007. Patterson said his "conversion" happened following his research on "the nature of paleo-commercial fish populations in the NE Pacific." "[My conversion from believer to climate skeptic] came about approximately 5- 6 years ago when results began to come in from a major NSERC (Natural Sciences and Engineering Research Council of Canada) Strategic Project Grant where I was PI (principle investigator)," Patterson explained. "Over the course of about a year, I switched allegiances," he wrote. "As the proxy results began to come in, we were astounded to find that paleoclimatic and paleoproductivity records were full of cycles that corresponded to various sun-spot cycles. About that time, [geochemist] Jan Veizer and others began to publish reasonable hypotheses as to how solar signals could be amplified and control climate," Patterson noted. Patterson says his conversion "probably cost me a lot of grant money. However, as a scientist I go where the science takes me and not where activists want me to go." Patterson now asserts that more and more scientists are converting to climate skeptics. "When I go to a scientific meeting, there's lots of opinion out there, there's lots of discussion [about climate change]. I was at the Geological Society of America meeting in Philadelphia in the fall and I would say that people with my opinion were probably in the majority," Patterson told the *Winnipeg Sun* on February 13, 2007. Patterson, who believes the sun is responsible for the recent warming of the Earth, ridiculed the environmentalists and the media for not reporting the truth. "But if you listen to [Canadian environmental activist David] Suzuki and the media, it's like a tiger chasing its tail. They try to outdo each other and all the while proclaiming that the debate is over but it isn't – come out to a scientific meeting sometime," Patterson said. In a separate interview on April 26, 2007 with a Canadian newspaper, Patterson explained that the scientific proof favors skeptics. "I think the proof in the pudding, based on what [media and governments] are

saying, [is] we're about three quarters of the way [to disaster] with the doubling of CO2 in the atmosphere," he said. "The world should be heating up like crazy by now, and it's not. The temperatures match very closely with the solar cycles."

Physicist Dr. Zbigniew Jaworowski, Chairman of the Central Laboratory for the United Nations Scientific Committee on the Effects of Radiological Protection in Warsaw, took a scientific journey from a believer of man-made climate change in the form of global cooling in the 1 970s all the way to converting to a skeptic of current predictions of catastrophic man-made global warming. "At the beginning of the 1 970s I believed in man-made climate cooling, and therefore I started a study on the effects of industrial pollution on the global atmosphere, using glaciers as a history book on this pollution," Dr. Jaworowski, wrote on August 17, 2006. "With the advent of man-made warming political correctness in the beginning of 1 980s, I already had a lot of experience with polar and high altitude ice, and I have serious problems in accepting the reliability of ice core CO2 studies," Jaworowski added. Jaworowski, who has published many papers on climate with a focus on CO2 measurements in ice cores, also dismissed the UN IPCC summary and questioned what the actual level of CO2 was in the atmosphere in a March 16, 2007 report in *EIR Science* entitled "CO2: The Greatest Scientific Scandal of Our Time." "We thus find ourselves in the situation that the entire theory of man-made global warming-with its repercussions in science, and its important consequences for politics and the global economy-is based on ice core studies that provided a false picture of the atmospheric CO2 levels," Jaworowski wrote. "For the past three decades, these well- known direct CO2 measurements, recently compiled and analyzed by Ernst-Georg Beck (Beck 2006a, Beck 2006b, Beck 2007), were completely ignored by climatologists-and not because they were wrong. Indeed, these measurements were made by several Nobel Prize winners, using the techniques that are standard textbook procedures in chemistry, biochemistry, botany, hygiene, medicine, nutrition, and ecology. The only reason for rejection was that these measurements did not fit the hypothesis of anthropogenic climatic warming. I regard this as perhaps the greatest scientific scandal of our time," Jaworowski wrote. "The hypothesis, in vogue in the 1 970s, stating that emissions of industrial dust will soon induce the new Ice Age, seems now to be a conceited anthropocentric exaggeration, bringing into discredit the science of that time. The same fate awaits the present," he added. Jaworowski believes that cosmic rays and solar activity are major drivers of the Earth's climate. Jaworowski was one of the 60 scientists who wrote an April 6, 2006 letter urging withdrawal of Kyoto to Canadian Prime Minister Stephen Harper which stated in part, "It may be many years yet before we properly understand the Earth's climate system. Nevertheless, significant advances have been made since the protocol was created, many of which are taking us away from a concern about increasing greenhouse gases."

A group of German scientists of "several scientific disciplines" formed a new group in 2007 to declare themselves climate change skeptics. The group of scientists issued a proclamation on September 15, 2007 titled "The Climate Manifest of Heiligenroth." The group, which included prominent scientist Ernst-George Beck who authored a groundbreaking February 2007 paper, entitled "180 Years of Atmospheric C02 Analysis by Chemical Methods," publicly issued six basic points of skepticism about manmade global warming. They stated that their "motivation was to initiate processes against daily campaigns of media and politics concerning climate." Their six points are: 1) "There is not proven influence on climate by man made emission of CO2; 2) Scenarios on future climate change derived from computer models are speculative and contradicted by climate history; 3) There

has been climate change in all times of Earth history with alternating cold and warm phases; 4) The trace gas CO2 dos not pollute the atmosphere, CO2 is an essential resource for plant growth and therefore a precondition for life on Earth; 5) We are committing ourselves to an effective preservation of our environment and support arrangements to prevent unnecessary stress on eco systems; and 6) We strongly warn against taking action using imminent climate catastrophe as a vehicle which will not be beneficial for our environment and will cause economic damage." The declaration was signed by the following scientists: *Biologist Ernst-Georg Beck; Engineer and energy expert Paul Bossert*; *Biologist Branford Helgo; Hydro biologist Edgar Gardeners*; *Agricultural scientist Dr. Rainer Six; Engineer Heinze Thieme. Physics Professor Hubert Becker; Rikard Bergsten Master of Science in Physics and Computer Engineering; Professor of physics Dr. Ludecke Horst-Joachim*; *Peter Martin, Professor of Engineering*; *Engineer Martin Bock; Chemical and environmental engineer Donald Clauson; Physicist Dr. Theo Eichten*; *Biochemist Flick Hendrikje; Agricultural scientist Dr. Glatzle Albrecht; Chemist Dr. Hauck Guenther; Professor of environmental and climate physics Dr. Detlef Hebert; Astrophysicist Dr Peter Heller; Chemist Dr. Albert Krause; Forestry scientist Dr. Christoph Leinb: Chemist Dr. Hans Penner; Mathematician Dr. Paul Matthews; Chemist Dr. Wuntke Knut; Meteorologist Klaus-pulse Eckart.* Others who signed the declaration included: Dr. Herbert Backhaus; Dieter Ber; Gunter Ederer; Ferdinand Furst zu Hohenlohe-Bartenstein; Dieter Kramer; Uwe Tempel; Brigitte Bossert; Nikolaus Lentz; Werner Vermess Eisenkopf; Wilfried Heck; Heinz Hofman; Rainer Hoffman; and Werner Eisenkopf.

Paleoclimatologist Dr. Ian D. Clark, professor of the Department of Earth Sciences at University of Ottawa, who has been involved with the International Atomic Energy Agency and co-authored the book Environmental Isotopes in Hydrogeology, which won the Choice Magazine "Outstanding Textbook" award in 1998, reversed his views on man-made climate change after further examining the evidence. "I used to agree with these dramatic warnings of climate disaster. I taught my students that most of the increase in temperature of the past century was due to human contribution of CO2. The association seemed so clear and simple. Increases of greenhouse gases were driving us towards a climate catastrophe," Clark said in a 2005 documentary *Climate Catastrophe Cancelled: What You're Not Being Told About the Science of Climate Change*. "However, a few years ago, I decided to look more closely at the science and it astonished me. In fact there is no evidence of humans being the cause. There is, however, overwhelming evidence of natural causes such as changes in the output of the sun. This has completely reversed my views on the Kyoto protocol," Clark explained. "Actually, many other leading climate researchers also have serious concerns about the science underlying the [Kyoto] Protocol," he added.

Prominent scientist Professor Dr. Nils-Axel Morner, a leading world authority on sea levels and coastal erosion who headed the Department of Paleogeophysics & Geodynamics at Stockholm University, declared in 2007 "the rapid rise in sea levels predicted by computer models simply cannot happen." Morner called a September 23, 2007 *AP* article predicting dire sea level rise "propaganda." "The *AP* article must be regarded as an untenable horror scenario not based in observational facts," Morner wrote to EPW. "Sea level will not rise by 1 m in 100 years. This is not even possible. Storm surges are in no way intensified at a sea level rise. Sea level was not at all rising 'a third of a meter in the last century': only some 10 cm from 1850 to 1940," he wrote. Morner previously noted on August 6, 2007, "When we were coming out of the last ice age, huge ice sheets were melting rapidly and the sea level rose at

an average of one meter per century. If the Greenland ice sheet stated to melt at the same rate - which is unlikely - sea level would rise by less than 100 mm - 4 inches per century." Morner, who was president of the INQUA Commission on Sea Level Changes and Coastal Evolution from 1999 to 2003, has published a new booklet entitled "The Greatest Lie Ever Told," to refute claims of catastrophic sea level rise.

Environmental geochemist Dr. Jan Veizer, professor emeritus of University of Ottawa, converted from believer to skeptic after conducting scientific studies of climate history. "I simply accepted the [global warming] theory as given," Veizer wrote on April 30, 2007 about predictions that increasing CO2 in the atmosphere was leading to a climate catastrophe. "The final conversion came when I realized that the solar/cosmic ray connection gave far more consistent picture with climate, over many time scales, than did the CO2 scenario," Veizer wrote. "It was the results of my work on past records, on geological time scales, that led me to realize the discrepancies with empirical observations. Trying to understand the background issues of modeling led to realization of the assumptions and uncertainties involved," Veizer explained. "The past record strongly favors the solar/cosmic alternative as the principal climate driver," he added. Veizer acknowledged the Earth has been warming and he believes in the scientific value of climate modeling. "The major point where I diverge from the IPCC scenario is my belief that it underestimates the role of natural variability by proclaiming CO2 to be the only reasonable source of additional energy in the planetary balance. Such additional energy is needed to drive the climate. The point is that most of the temperature, in both nature and models, arises from the greenhouse of water vapor (model language ‘positive water vapor feedback')," Veizer wrote. "Thus to get more temperature, more water vapor is needed. This is achieved by speeding up the water cycle by inputting more energy into the system," he continued. "Note that it is not CO2 that is in the models but its presumed energy equivalent (model language ‘prescribed CO2'). Yet, the models (and climate) would generate a more or less similar outcome regardless where this additional energy is coming from. This is why the solar/cosmic connection is so strongly opposed, because it can influence the global energy budget which, in turn, diminishes the need for an energy input from the CO2 greenhouse," he wrote.

German scientist Ernst-Georg Beck, a biologist, authored a February 2007 paper entitled 180 Years of Atmospheric C02 Analysis by Chemical Methods that found levels of atmospheric CO2 levels were not measured correctly possibly due to the fact that they measurements did not fit with hypothesis of man-made global warming. The abstract to the paper published in Energy and Environment reads in part, ""More than 90,000 accurate chemical analyses of CO2 in air since 1812 are summarized. The historic chemical data reveal that changes in CO2 track changes in temperature, and therefore climate in contrast to the simple, monotonically increasing CO2 trend depicted in the post-1990 literature on climate-change. Since 1812, the CO2 concentration in northern hemispheric air has fluctuated exhibiting three high level maxima around 1825, 1857 and 1942 the latter showing more than 400 ppm." The paper concluded: "Most authors and sources have summarized the historical CO2 determinations by chemical methods incorrectly and promulgated the unjustifiable view that historical methods of analysis were unreliable and produced poor quality results."

Internationally known forecasting pioneer Dr. Scott Armstrong of the Wharton School at the Ivy League University of Pennsylvania and his colleague, forecasting expert Dr. Kesten Green of Monash University in Australia challenged Gore to a $10,000 bet in June 2007 over the accuracy of climate computer models predictions. "Claims that the Earth will get warmer

have no more credence than saying that it will get colder." According to Armstrong, the author of *Long-Range Forecasting*, the most frequently cited book on forecasting methods, "Of 89 principles [of forecasting], the [UN] IPCC violated 72." Armstrong and Green also critiqued the *Associated Press* for hyping climate fears in 2007. "Dire consequences have been predicted to arise from warming of the Earth in coming decades of the 21st century. Enormous sea level rise is one of the more dramatic forecasts. According to the *AP*'s Borenstein, such sea-level forecasts were experts' judgments on what will happen," Armstrong and Green wrote to EPW on September 23, 2007. "As shown in our analysis, experts' forecasts have no validity in situations characterized by high complexity, high uncertainty, and poor feedback. To date we are unaware of any forecasts of sea levels that adhere to proper [scientific] forecasting methodology and our quick search on Google Scholar came up short," Armstrong and Green explained. "Media outlets should be clear when they are reporting on scientific work and when they are reporting on the opinions held by some scientists. Without scientific support for their forecasting methods, the concerns of scientists should not be used as a basis for public policy," they concluded. *Armstrong and Green also co-authored a November 29, 2007 paper with Harvard astrophysicist Dr. Willie Soon* which found that polar bear extinction predictions violate "scientific forecasting procedures." The study analyzed the methodology behind key polar bear population predictions and found that one of the two key reports in support of listing the bears had "extrapolated nearly 100 years into the future on the basis of only five years data - and data for these years were of doubtful validity." Both key reports violated critical evidence-based principles of forecasting, rendering their forecasts invalid, according to the report. The study concluded that "experts' predictions, unaided by evidence-based forecasting procedures, should play no role in this decision [to list polar bear as endangered]. Without scientific forecasts of a substantial decline of the polar bear population *and* of net benefits from feasible policies arising from listing polar bears, a decision to list polar bears as threatened or endangered would be irresponsible."

UK Professor Emeritus of Biogeography Philip Stott of the University of London ridiculed the notion of a scientific "consensus" on catastrophic man-made global warming. "In the early 20th century, 95% of scientists believed in eugenics. Science does not progress by consensus, it progresses by falsification and by what we call paradigm shifts," Stott said on March 14, 2007 during a live debate with other scientists in New York City. "And can I remind everybody that IPCC that we keep talking about, very honestly admits that we know very little about 80% of the factors behind climate change. Well let's use an engineer; I don't think I'd want to cross Brooklyn Bridge if it were built by an engineer who only understood 80% of the forces on that bridge," Stott said. He noted how ridiculous political leaders act when it comes to global warming." Angela Merkel, the German chancellor, [and] my own good Prime Minister (UK's Tony Blair), for whom I voted – let me emphasize – arguing in public two weeks ago as to who in 'Annie get the gun style' could produce the best temperature. 'I could do two degrees C said Angela [Merkel].' 'No, I could only do three [degrees] said Tony [Blair].' Stand back a minute, those are politicians telling you that they can control climate to a degree Celsius," Stott said.

Swedish Geologist Dr. Wibjorn Karlen, professor emeritus of the Department of Physical Geography and Quaternary Geology at Stockholm University, critiqued the *Associated Press* for hyping climate fears. "Another of these hysterical views of our climate," Karlen wrote to EPW regarding the September 22, 2007 *AP* article predicting dire sea level rise. "Newspapers should think about the damage they are doing to many persons, particularly young kids, by

spreading the exaggerated views of a human impact on climate," Karlen explained. "I have used the NASA temperature data for a study of several major areas. As far as I can see the IPCC "Global Temperature" is wrong. Temperature is fluctuating but it is still most places cooler than in the 1 930s and 1 940s," Karlen wrote. "The latest estimates of sea level rise are 1.31 mm/year. With this water level increase it will take about 800 years before the water level has increased by 1 m if not conditions change before that (very likely). Society will look very different at that time," he added.

Ecologist Dr. Patrick Moore, a Greenpeace founding member who left the environmental organization because he believed it had become too radical, rejected climate alarmism and lamented the efforts to silence climate skeptics. "It appears to be the policy of the [UK] Royal Society to stifle dissent and silence anyone who may have doubts about the connection between global warming and human activity. That kind or repression seems more suited to the Inquisition than to a modern, respected scientific body," Moore, the chief scientist for Greenspirit, wrote in a September 21, 2006 letter to the Royal Society accusing it of attempting to silence skeptics. "I am sure the Royal Society is aware of the difference between a hypothesis and a theory. It is clear the contention that human-induced CO2 emissions and rising CO2 levels in the global atmosphere are the cause of the present global warming trend is a hypothesis that has not yet been elevated to the level of a proven theory. Causation has not been demonstrated in any conclusive way," Moore wrote.

Geologist Morten Hald, an Arctic expert at the University of Tromso in Norway, questioned the reliability of computer models predicting a melting Arctic. "The main problem is that these models are often based on relatively new climate data. The thermometer has only been in existence for 150 years and information on temperature which is 150 years old does not capture the large natural changes," Hald, who is participating with a Norwegian national team in Arctic climate research, said in a May 18, 2007 article. The article continued, "Professor Hald believes the models which are utilized to make prognoses about the future climate changes consider paleoclimate only to a minor degree." "Studies of warm periods in the past, like during the Stone Ages can provide valuable knowledge to understand and tackle the warmer climate in the future," Hald explained. Hald has also expressed uncertainty about how to evaluate various climate forcing factors and predict future climate after a study of patterns and variability of past climate in the Norwegian Region. “The instrumental record of climate variability is too short and spatially incomplete to reveal the full range of seasonal to millennial-scale climate variability, or to provide empirical examples of how the climate system responds to large changes in climate forcing. This recent record is also a complex reflection of both natural and anthropogenic forcing (e.g., trace gases and aerosols). Various proxy sources, on the other hand, provide the much wider range of realizations needed to describe and understand the full range of natural climate system behavior,” according to Hald. “The reconstructions clearly show that climate in the Norwegian Region has been both significantly warmer and cooler that it is today during the Holocene. Both rapid (decadal) changes, as well as more gradual (century-millennial) changes have been observed during the past,” he added.

Paavo Siitam, a retired professor of chemistry, agronomy, biology, and physics, and a researcher in soils and microbiology, critiqued the *Associated Press* for hyping climate fears in 2007. "Despite some doom and gloom predictions, excluding waves washing onto shores by relatively rarely occurring tsunamis and storm-surges, low-lying areas on the face of our planet have NOT yet been submerged by rising oceans... so probably low-lying areas along

shorelines of Canada and the USA will be SAFE into foreseeable and even distant futures," Siitam wrote to EPW on September 22, 2007 regarding an *AP* article predicting dire sea level rise. "By the way, I'd be happy to buy prized oceanfront properties at bargain prices, anywhere in the world, when unwarranted, panic selling begins. The dire predictions will not come true this century," he added.

Meteorologist Grant Dade of Texas TV's KLTV, a member of both the American Meteorological Society and the National Weather Association, dismissed man-made climate fears in 2007. "I think it is about time we see the other side of the Global Warming debate come out," Dade said on November 8, 2007. "Is the Earth warming? Yes, I think it is. But is man causing that? No. It's a simple climate cycle our climate goes through over thousands of years." Dade critiqued the media for hyping climate fears while ignoring inconvenient facts. "Did you hear about the Arctic ice melting? But you didn't hear in Antarctica last winter was the most ice ever recorded," Dade said. "You don't hear that," he added.

Dr. Art Robinson of the Oregon Institute of Science and Medicine declared his climate skepticism in 2007. "Long-term temperature data suggest that the current - entirely natural and not man made - temperature rise of about 0.5 degrees C per century could continue for another 200 years. Therefore, the best data available leads to an extrapolated value of about 1 foot of rise during the next two centuries," Robinson wrote to EPW on September 23, 2007. "There is no scientific basis upon which to guess that the rise will be less or will be more than this value. Such a long extrapolation over two centuries is likely to be significantly in error - but it is the only extrapolation that can be made with current data. There may be no sea level rise at all. No one knows," he added.

Canadian Geologist Albert F. Jacobs, co-founder of the group Friends of Science, critiqued the *Associated Press* for hyping climate fears in 2007. "Basic to the IPCC case for sea level rise and for the alarmists' hype is the hypothesis that increasing levels of carbon dioxide will cause increasing amounts of global warming. It should be stressed that this assumption of truth is no more than a hypothesis, which is increasingly being attacked and on which any meaningful discussion has been thwarted by the IPCC's political masters," Jacobs wrote to EPW on September 23, 2007. "As far as CO2 is concerned, basic physics has always been clear about the limitations of higher concentrations of gas to absorb equivalent amounts of heat radiation. ‘Doubling of CO2' does none of the things the IPCC's computer says it does. And that's all separate from the fact that water vapour is a much greater ‘greenhouse' driver than carbon dioxide in any case," Jacobs added.

Meteorologist Chuck F. Wiese, the president of the Portland Oregon based Weatherwise, Inc., lambasted "fancy computer models that can be manipulated" and "are absolutely incorrect and fraudulent." Wiese called computer model predictions of climate doom a "bunch of baloney." "The physics of this is in support of anyone who is a skeptic. As I have said, C02 is of secondary importance; anything that we did to reduce C02 emissions is going to make no change in my opinion that you could really measure in the climate response at all, because other things are going on that just overpower the small contribution you get from C02, it does not make a dog's bit of difference," Wiese said in a January 18, 2007 radio interview.

American Enterprise Institute's (AEI) Joel Schwartz, who holds a master's degree in planetary science from the California Institute of Technology, touted a significant 2007 peer-reviewed study as "overturning the UN IPCC 'consensus' in one fell swoop." "New research from Stephen Schwartz of Brookhaven National Lab concludes that the Earth's climate is only

about one-third as sensitive to carbon dioxide as the IPCC (Intergovernmental Panel on Climate Change) assumes," wrote AEI's Schwartz in an August 17, 2007 blog post. The study's "result is 63% lower than the IPCC's estimate of 3 degrees C for a doubling of CO2 (2.0-4.5 degrees C, 2SD range). Right now we're about 41% above the estimated pre-industrial CO2 level of 270 ppm. At the current rate of increase of about 0.55% per year, CO2 will double around 2070. Based on Schwartz's results, we should expect about a 0.6 degrees C additional increase in temperature between now and 2070 due to this additional CO2. That doesn't seem particularly alarming," AEI's Schwartz explained. "In other words, there's hardly any additional warming 'in the pipeline' from previous greenhouse gas emissions. This is in contrast to the IPCC, which predicts that the Earth's average temperature will rise an additional 0.6 degrees C during the 21st Century even if greenhouse gas concentrations stopped increasing," he added. "Along with dozens of other studies in the scientific literature, [this] new study belies Al Gore's claim that there is no legitimate scholarly alternative to climate catastrophism. Indeed, if Schwartz's results are correct, that alone would be enough to overturn in one fell swoop the IPCC's scientific 'consensus', the environmentalists' climate hysteria, and the political pretext for the energy-restriction policies that have become so popular with the world's environmental regulators, elected officials, and corporations. The question is, will anyone in the mainstream media notice?" AEI's Schwartz concluded.

Chemist Dr. Franco Battaglia, a professor of Environmental Chemistry at the University of Modena in Italy and co-author of a book critical of the modern environmental movement tilted Green Outside, Red Inside: Deception of Environmentalists. The book was co-authored with *Dr. Renato Angelo Ricci, emeritus professor of physics at the University of Padua and honorary president of the Italian Society of Physics.* Battaglia dismissed man-made global warming fears as "trivial." Battaglia mocked that notion that we live in "a world where the colorless, odorless, taste, harmless CO2, food plants and therefore our food was at the same rank of radioactive waste." "A world where a trivial global warming is currently less than what [Viking] Erik the Red faced when he colonized Greenland" during the Medieval Warm Period," Battaglia wrote on September 2, 2007 in the Italian newspaper Il Giornale. "Our energy needs put CO2 into the atmosphere (at least until we decide to produce at 100% over nuclear), he explained. Battaglia also referred to the Kyoto Protocol as "stupid." (translated)

Climate scientist Luc Debontridder of the Belgium Weather Institute's Royal Meteorological Institute (RMI) co-authored a study in August 2007 which dismissed a decisive role of CO2 in global warming. The press release about the study read, "CO2 is not the big bogeyman of climate change and global warming. This is the conclusion of a comprehensive scientific study done by the Royal Meteorological Institute, which will be published this summer. The study does not state that CO2 plays no role in warming the earth." "But it can never play the decisive role that is currently attributed to it," Luc Debontridder said according to the August 2007 release. "Not CO2, but water vapor is the most important greenhouse gas. It is responsible for at least 75 % of the greenhouse effect. This is a simple scientific fact, but Al Gore's movie has hyped CO2 so much that nobody seems to take note of it," Debontridder explained. "Every change in weather conditions is blamed on CO2. But the warm winters of the last few years (in Belgium) are simply due to the 'North-Atlantic Oscillation'. And this has absolutely nothing to do with CO2," he added.

Australian climate data analyst John McLean authored a September 2007 study which found the UN IPCC peer-review process is "an illusion." A September 2007 analysis of the IPCC (Intergovernmental Panel on Climate Change) scientific review process entitled "Peer

Review? What Peer Review?" revealed very few scientists are actively involved in the UN's peer-review process. According to McLean's analysis, "The IPCC would have us believe that its reports are diligently reviewed by many hundreds of scientists and that these reviewers endorse the contents of the report. Analyses of reviewer comments show a very different and disturbing story." The paper continued, "In [the IPCC's] Chapter 9, the key science chapter, the IPCC concludes that 'it is very highly likely that greenhouse gas forcing has been the dominant cause of the observed global warming over the last 50 years.' The IPCC leads us to believe that this statement is very much supported by the majority of reviewers. The reality is that there is surprisingly little explicit support for this key notion. Among the 23 independent reviewers just 4 explicitly endorsed the chapter with its hypothesis, and one other endorsed only a specific section. Moreover, only 62 of the IPCC's 308 reviewers commented on this chapter at all." The analysis concluded, "The IPCC reports appear to be largely based on a consensus of scientific papers, but those papers are the product of research for which the funding is strongly influenced by previous IPCC reports. This makes the claim of a human influence self-perpetuating and for a corruption of the normal scientific process." [12-24-2007 - Clarified description of McLean]

Canadian climatologist Dr. Timothy Ball, formerly of the University of Winnipeg, who earned his PhD from the University of London, called fears of man-made global warming "the greatest deception in the history of science" in a February 5, 2007 op-ed in Canada Free Press. "Believe it or not, Global Warming is not due to human contribution of Carbon Dioxide (CO2). This, in fact, is the greatest deception in the history of science. We are wasting time, energy and trillions of dollars while creating unnecessary fear and consternation over an issue with no scientific justification," Ball wrote. "The world has warmed since 1680, the nadir of a cool period called the Little Ice Age (LIA) that has generally continued to the present. These climate changes are well within natural variability and explained quite easily by changes in the sun. But there is nothing unusual going on," Ball explained. "As [MIT's Richard] Lindzen said many years ago, ‘the consensus was reached before the research had even begun.' Now, any scientist who dares to question the prevailing wisdom is marginalized and called a skeptic, when in fact they are simply being good scientists. This has reached frightening levels with these scientists now being called climate change denier with all the holocaust connotations of that word. The normal scientific method is effectively being thwarted," Ball concluded. Ball also explained that one of the reasons climate models are failing is because they overestimate the warming effect of CO2 in the atmosphere. Ball described how CO2’s warming impact diminishes. “Even if CO2 concentration doubles or triples, the effect on temperature would be minimal. The relationship between temperature and CO2 is like painting a window black to block sunlight. The first coat blocks most of the light. Second and third coats reduce very little more. Current CO2 levels are like the first coat of black paint,” Ball explained in a June 6, 2007 article in Canada Free Press.

Climate data analyst Stephen McIntyre of ClimateAudit.org, one of the individuals responsible for debunking the infamous "Hockey Stick" temperature graph, exposed a NASA temperature data error in 2007 which led to 1934 – not the previously hyped 1998 – being declared the hottest in U.S. history since records began. Revised NASA temperature data now reveals four of the top ten hottest years in the U.S. were in the 1930's while only three of the hottest years occurred in the last decade.

[Note: 80% of man-made CO2 emissions occurred after 1940.] "NASA has yet to own up fully to its historic error in misinterpreting US surface temperatures to conform to the Global

Warming hypothesis, as discovered by Stephen McIntyre at ClimateAudit.org," reported an August 17, 2007 article in American Thinker. McIntyre has also harshly critiqued the UN IPCC process. "So the purpose of the three-month delay between the publication of the (IPCC) Summary for Policy-Makers and the release of the actual WG1 (Working Group 1 report) is to enable them to make any 'necessary' adjustments to the technical report to match the policy summary. Unbelievable. Can you imagine what securities commissions would say if business promoters issued a big promotion and then the promoters made the 'necessary' adjustments to the qualifying reports and financial statements so that they matched the promotion. Words fail me," McIntyre explained January 2007.

A Panel of Broadcast Meteorologists Rejected Man-Made Global Warming Fears in 2007 - Claimed 95% of TV Meteorologists Skeptical. "You tell me you're going to predict climate change based on 100 years of data for a rock that's 6 billion years old?" *Meteorologist Mark Johnson* said. Johnson dismissed the 2007 UN IPCC summary for policymakers, "Consensus does not mean fact. ... Don't drink the Kool-Aid." *Meteorologist Mark Nolan* said, "I'm not sure which is more arrogant - to say we caused [global warming] or that we can fix it." Johnson and Nolan were joined on the panel by fellow *Ohio meteorologists Dan Webster, Dick Goddard, and John Loufman* in dismissing fears of global warming, according to Crain's Cleveland publication on February 13, 2007. "Mr. Webster observed that in his dealings with meteorologists nationwide, 'about 95%' share his skepticism about global warming," the paper reported. Goddard noted that scientists have flip-flopped on climate issues before. "I have a file an inch thick from 30 years ago that says the planet was cooling," Goddard explained. Webster jokingly referenced former Vice President Gore. "Where's Al Gore now? You can bet he's not in New York, where they've got nearly 12 feet of snow right now," Webster joked to the crowd of several hundred.

Polar expert Ivan Frolov, the head of Russia's Science and Research Institute of Arctic and Antarctic Regions, said atmospheric temperature would have to much higher to make continental glaciers melt. "Many hundred years or 20-3 0 degree temperature rise would have made glaciers melt," Frolov said in a December 14, 2006 Russian news article. Frolov noted that currently Greenland's and Antarctic glaciers have the tendency to grow. The article explained, "Frolov says cooling and warming periods are common for our planet - temperature fluctuations amounted to 10-12 degrees. However, such fluctuations haven't caused glaciers to melt. Thus, we shouldn't be afraid they melt today."

Atmospheric scientist Dr. William R. Cotton of the Department of Atmospheric Science at Colorado State University, an internationally respected expert in the aerosol effects on weather and climate, called claims that man-made global warming was causing any recent abnormal weather an "abuse of limited scientific knowledge." Cotton, who has been extensively cited in the peer reviewed literature, rejected global warming alarmism on October 17, 2006 in Climate Science. "Climate variability has been with Earth for eons. Greenhouse warming is only one factor affecting climate change. There are many other factors some associated with human activity, many not, and not all processes associated with climate variability have been quantitatively identified," Cotton said. "Therefore I am skeptical about claims of forecasts of what the climate will be like in say, 5, 10 years or more. I also view claims that a few years of abnormal weather (like intense hurricane landfalls, severe storms and floods, and droughts) to be caused by human activity as abuse of limited scientific knowledge."

Bernie Rayno, Senior Meteorologist with AccuWeather, said in February 2007, "Our climate has been changing since the dawn of time. There is not enough evidence to link global warming to greenhouse gases." "We as humans thought we were causing a cooling cycle," Rayno said, referring to the fears of a coming ice age in the 1970s. "It's interesting to watch the media flip back and forth on this," he added.

VK Raina, India's leading Glaciologist, questioned the assertion that global warming was melting glaciers in India. "Claims of global warming causing glacial melt in the Himalayas are based on wrong assumptions," Raina told the Hindustan Times on February 11, 2007. The paper continued, "Raina told the Hindustan Times that out of 9,575 glaciers in India, till date, research has been conducted only on about 50. Nearly 200 years data has shown that nothing abnormal has occurred in any of these glaciers. It is simple. The issue of glacial retreat is being sensationalized by a few individuals, the septuagenarian Raina claimed. Throwing a gauntlet to the alarmist, he said the issue should be debated threadbare before drawing a conclusion."

IPCC 2007 Expert Reviewer Madhav Khandekar, a Ph.D meteorologist, a scientist with the Natural Resources Stewardship Project who has over 45 years experience in climatology, meteorology and oceanography, and who has published nearly 100 papers, reports, book reviews and a book on Ocean Wave Analysis and Modeling, slammed the UN IPCC process. "To my dismay, IPCC authors ignored all my comments and suggestions for major changes in the FOD (First Order Draft) and sent me the SOD (Second Order Draft) with essentially the same text as the FOD. None of the authors of the chapter bothered to directly communicate with me (or with other expert reviewers with whom I communicate on a regular basis) on many issues that were raised in my review. This is not an acceptable scientific review process," Khandekar wrote in a May 28, 2007 letter to the editor of Canada's The Hill Times. "...Adherents of the IPCC science like to insist that the debate over climate change science is over and it is now time for action. I urge [those IPCC supporters] to browse through recent issues of major international journals in climate and related science. Hardly a week goes by without a significant paper being published questioning the science," Khandekar added. "The science of climate change is continuously evolving. The IPCC and its authors have closed their minds and eyes to this evolving science which points to solar variability as the prime driver of earth's climate and not the human-added greenhouse gases," he concluded. Khandekar also further critiqued the UN's IPCC process in a February 13, 2007 interview in the Winnipeg Sun. "I think the IPCC science is a bit too simplistic," he explained. "IPCC scientists did not thoroughly analyze why the Earth's surface temperature – land and ocean combined – has increased only modestly in the past 30 years," Khandekar said. "We have not fully explored why the climate changes from one state to another. It is too premature to say," he concluded. Khandekar also wrote an August 6, 2007 commentary explaining that the Southern Hemisphere is cooling. "In the Southern Hemisphere, the land-area mean temperature has slowly but surely declined in the last few years. The city of Buenos Aires in Argentina received several centimeters of snowfall in early July, and the last time it snowed in Buenos Aires was in 1918! Most of Australia experienced one of its coldest months of June this year. Several other locations in the Southern Hemisphere have experienced lower temperatures in the last few years. Further, the sea surface temperatures over world oceans are slowly declining since mid-1998, according to a recent world-wide analysis of ocean surface temperatures," Dr. Khandekar explained.

Award winning Chief Meteorologist James Spann of Alabama ABC TV affiliate declared that he does "not know of a single TV meteorologist who buys into the man-made global warming hype." "I have been in operational meteorology since 1978, and I know dozens and dozens of broadcast meteorologists all over the country," Spann, who holds the highest level of certification from the American Meteorological Society, wrote in a January 18, 2007 blog post. "I do not know of a single TV meteorologist who buys into the man-made global warming hype. I know there must be a few out there, but I can't find them," Spann added. "Billions of dollars of grant money is flowing into the pockets of those on the man-made global warming bandwagon. No man-made global warming, the money dries up. This is big money, make no mistake about it. Always follow the money trail and it tells a story... Nothing wrong with making money at all, but when money becomes the motivation for a scientific conclusion, then we have a problem. For many, global warming is a big cash grab," Spann said. "[The climate] will always change, and the warming in the last 10 years is not much difference than the warming we saw in the 1 930s and other decades. And, lets not forget we are at the end of the ice age in which ice covered most of North America and Northern Europe," he noted.

Dr. Habibullo Abdussamatov, head of Space Research for the Pulkovo Observatory in Russia, pointed to global warming on Mars and the melting ice cap on the red planet as more evidence that the sun was a key driver of climate change. "Mars has global warming, but without a greenhouse and without the participation of Martians," Abdussamatov said in an interview on January 26, 2007 with Canada's National Post. "These parallel global warmings – observed simultaneously on Mars and on Earth – can only be a straight-line consequence of the effect of the one same factor: a long-time change in solar irradiance," Abdussamatov explained. "It is no secret that increased solar irradiance warms Earth's oceans, which then triggers the emission of large amounts of carbon dioxide into the atmosphere. So the common view that man's industrial activity is a deciding factor in global warming has emerged from a misinterpretation of cause and effect relations," Abdussamatov added. A predicted decline in solar irradiance is going to lead to global cooling by 2015 and "will inevitably lead to a deep freeze around 2055- 60," according to Abdussamatov. Abdussamatov was also featured in a February 28, 2007 article in National Geographic titled "Mars Melt Hints at Solar, Not Human, Cause for Warming, Scientist Says," where he reiterated his scientific findings that "man-made greenhouse warming has made a small contribution to the warming seen on Earth in recent years, but it cannot compete with the increase in solar irradiance."

French physicist Dr. Serge Galam, director of research at the National Center of Scientific Research (CNRS) and member of a laboratory of Ecole Polytechnique, expressed man-made global warming skepticism in 2007. "The human cause of global warming is the subject of a consensus of scientists and experts, but not a diagnosis indisputable," Galam wrote in a February 7, 2007 article in *Le Monde* titled "No Scientific Certainty on Climate." "The world, our planet, is showing signs of changing its undeniable natural cycles, which also shape the course of all life forms currently on the Earth. These changes are clearly visible, but remain limited for the time being," Galam explained. He also compared man-made climate fears to ancient pagan fears of nature. "Throughout the history, our ancestors were persuaded that the forces of nature obeyed the gods, and that these was the mistakes which involved their ires, which appeared then by natural disordered states. During very a long time, one believed to be able to stop them by human and animal sacrifices. Science taught us that that

was not founded, and here that this old antiquated belief re-appears with a found vitality, and who in more is pressed on the scientists in the name of science," he explained. (translated)

James Woudhuysen, a professor of Forecasting and Innovation at De Montfort University in Britain, critiqued the environmental movement from a liberal perspective. "Science seems to have become the Great Dictator, and no dissent can be allowed. We refer to this as the New Scientism. We call it new to distinguish it from the old sort - the sort that, ironically enough, was organised by US imperialism in the Cold War," Woudhuysen wrote on February 5, 2007. "As with the original Cold War scientism, the New Scientism perverts objective science towards questionable political ends," he wrote. "Ironically, greens now rehabilitate the Cold War scientism of RAND, which they affect to hate so much, so as to legitimise not the Cold War, but today's war on personal behaviour - the war to colonise people's minds, make them internalise green mores, and make them spend all their time buying (and repairing) windmills, sorting their rubbish, and turning off their consumer electronics equipment. Instead of rationing access to fallout shelters, David Miliband wants a nationwide scheme to ration carbon," he added. Woudhuysen also mocked the UN IPCC's claims of "consensus." "Some have used the IPCC summary to assert that the debate on climate change is over. In part, this stems from the proclamations of the IPCC itself and its supporters. For example, Achim Steiner said that 2 February, the day the summary was published, would be ‘remembered as the day the question mark was removed'. Anyone interested in genuine scientific inquiry, not to mention political debate, should always be concerned when question marks are removed," Woudhuysen wrote. "The heart of the problem with today's supposed consensus on climate science is not so much a false claim to knowledge of how climate works, as an assertion that such knowledge can tell us how to live our lives. In this sense, the real consensus on climate change today is more political than scientific. It is a consensus that privileges emotional fears of loss, and which is based on apocalyptic thinking and doubt about humanity's achievements and capabilities," he added.

Geologist Peter Sciaky who has served as a chief geologist for companies and written scientific reports, declared himself a skeptic of man-made climate change in 2007. "Among all my liberal and leftist friends (and I am certainly one of those), I know not a one who does not accept that global warming is an event caused by mankind. I do not know one geologist who believes that global warming is not taking place. I do not know a single geologist who believes that it is a man-made phenomenon," Sciaky wrote in a June 9, 2007 article at CounterPunch.org. "A geologist has a much longer perspective. There are several salient points about our earth that the greenhouse theorists overlook (or are not aware). The first of these is that the planet has never been this cool," Sciaky wrote. "There is abundant fossil evidence to support this--from plants of the monocot order (such as palm trees) in the rocks of Cretaceous Age in Greenland and warm water fossil in sedimentary rocks of the far north. This is hardly the first warming period in the earth's history. The present global warming is hardly unique. It is arriving pretty much ‘on schedule.' One thing, for sure, is that the environmental community has always spurned any input from geologists (many of whom are employed by the petroleum industry)," Sciaky wrote. "There are hundreds of reasons--political, pragmatic and economic, health and environmental--for cleaning up our environment, for conservation of energy, for developing alternate fuels, cleaning up our nuclear program, etc. Global warming is not one of them," he concluded.

Marine Biologist Daniel Botkin, President of the Center for the Study of the Environment and Professor Emeritus in the department of Ecology, Evolution, and Marine Biology at the

University of California, authored the book Discordant Harmonies: A New Ecology for the Twenty-First Century. Botkin also dampened global warming fears in 2007. "Global warming doesn't matter except to the extent that it will affect life – ours and that of all living things on Earth. And contrary to the latest news, the evidence that global warming will have serious effects on life is thin. Most evidence suggests the contrary," Botkin wrote in an October 17, 2007 op-ed in the *Wall Street Journal*. "Case in point: This year's United Nations report on climate change and other documents say that 20%-30% of plant and animal species will be threatened with extinction in this century due to global warming – a truly terrifying thought. Yet, during the past 2.5 million years, a period that scientists now know experienced climatic changes as rapid and as warm as modern climatological models suggest will happen to us, almost none of the millions of species on Earth went extinct," Botkin explained. "We're also warned that tropical diseases are going to spread, and that we can expect malaria and encephalitis epidemics. But scientific papers by Prof. Sarah Randolph of Oxford University show that temperature changes do not correlate well with changes in the distribution or frequency of these diseases; warming has not broadened their distribution and is highly unlikely to do so in the future, global warming or not," he wrote. "I'm not a naysayer. I'm a scientist who believes in the scientific method and in what facts tell us. I have worked for 40 years to try to improve our environment and improve human life as well. I believe we can do this only from a basis in reality, and that is not what I see happening now. Instead, like fashions that took hold in the past and are eloquently analyzed in the classic 19th century book *Extraordinary Popular Delusions and the Madness of Crowds*, the popular imagination today appears to have been captured by beliefs that have little scientific basis," he added.

Nigel Calder, former editor of New Scientist and co-author with Physicist Henrik Svensmark of a new 2007 book entitled The Chilling Stars: A New Theory of Climate Change, expressed his view that the UN rejects science it sees as "politically incorrect," and accused the UN of denying that "climate history and related archeology give solid support to the solar hypothesis." Calder wrote in a February 11, 2007 op-ed in the UK Times, "Twenty years ago, climate research became politicized in favor of one particular hypothesis, which redefined the subject as the study of the effect of greenhouse gases. As a result, the rebellious spirits essential for innovative and trustworthy science are greeted with impediments to their research careers." Calder concluded, "Humility in face of Nature's marvels seems more appropriate than arrogant assertions that we can forecast and even control a climate ruled by the sun and the stars."

Ivy League Geologist Dr. Robert Giegengack, the chair of Department of Earth and Environmental Science at the University of Pennsylvania, believes Gore's understanding of climate science is so poor that he told his undergrad students at University of Pennsylvania in February 2007, "Every single one of you knows more about [global warming] than Al Gore." According to the February 2007 edition of Philadelphia Magazine, the Ivy League professor Giegengack voted for Gore for president in 2000 and would probably vote for him again if given the opportunity. But Giegengack's support of Gore faded when he examined the science presented in Gore's film: "The glossy production [An Inconvenient Truth] is replete with inaccuracies and misrepresentations, and appeals to public fear as shamelessly as any other political statement that hopes to unite the public behind a particular ideology." Giegengack, who holds both a master's degree and a doctorate in geology, explained that the Earth has been warming for about 20,000 years, and humans have only been collecting data for about 200 years. "For most of Earth's history, the globe has been warmer than it has been for the last

200 years. It has only rarely been cooler," Giegengack said, noting that the colder periods included ice piled up two miles thick on what is now North America. According to the magazine, "Giegengack tells his students they might want to consider that ‘natural' climatic temperature cycles control carbon dioxide levels, not the other way around. That's the crux of his argument with Gore's view of global warming - he says carbon dioxide doesn't control global temperature, and certainly not in a direct, linear way."

"Sea level is rising," Giegengack said. The article continued: "But, he explains, it's been rising ever since warming set in 18,000 years ago. The rate of rise has been pretty slow - only about 400 feet so far. And recently - meaning in the thousands of years - the rate has slowed even more. The Earth's global ocean level is only going up 1.8 millimeters per year. That's less than the thickness of one nickel. For the catastrophe of flooded cities and millions of refugees that Gore envisions, sea levels would have to rise about 20 feet." Giegengack explains: "At the present rate of sea-level rise it's going to take 3,500 years to get up there [to Gore's predicted rise of 20 feet]. So if for some reason this warming process that melts ice is cutting loose and accelerating, sea level doesn't know it. And sea level, we think, is the best indicator of global warming." Finally, Giegengack concludes by rejecting the notion that we need to "save" the Earth. "There's all this stuff about saving the planet. The Earth is fine. The Earth was fine before we got here, and it'll be fine long after we're gone." *Giegengack's University of Pennsylvania colleague, Geologist Dr. Ed Doheny (formerly of Drexel University)* also critiqued former Vice President Al Gore's climate science presentation. "[Gore's] got his independent and dependent variables all mixed up," Doheny said according to an October 18, 2007 article in The Daily Pennsylvanian. Doheny also mocked Gore by stating, "I didn't know they gave the Nobel Prize for acting."

AccuWeather Chief Meteorologist Joe Bastardi questioned whether mankind was driving recent warming or whether it was "the pulsing of the sun" in an April 10, 2007 blog titled, "Does the Sun Have the Smoking Gun?" "People are concerned that 50 years from now it will be warm beyond a point of no return. My concern is almost opposite, that it's cold and getting colder," Bastardi, who specializes in long-range forecasts, wrote. "You see, the warmer it gets, the tougher it is to get warmer. There will always be a certain set point in a system and unless the amounts of water and land changes, it will try to get back to that set point. The oscillations of water temperatures can distort feedback from the Earth as I believe we are seeing now, and the dance between the tropics and non tropical areas as far as the weather goes is something that one can see in the [19]30s through the [19]50s, but at least to me disappears in the [19]60s through the [19]80s, or when the Pacific is in its warmer cycle, the Atlantic cooler," Bastardi wrote. He rejected the idea that the C02 climate connection was the only acceptable view in the climate change debate. "One has to understand that the force feeding of any idea with so many variables in a system is counter to methods long established to prove or disprove theories," Bastardi explained.

Environmental scientist Dr. David W. Schnare, a senior enforcement counsel at the U.S. Environmental Protection Agency who has managed EPA's Office of Ground- Water and Drinking Water Economic, Legislative and Policy Analysis Branch, proclaimed his man-made climate skepticism in 2007. "When it comes to global warming, I'm a skeptic because the conclusions about the cause of the apparent warming stand on the shoulders of incredibly uncertain data and models," Schnare wrote on August 10, 2007. "I 'm a Ph.D. environmental scientist. As a scientist, from time-to-time I must also be a skeptic. It's in the nature of the job," he wrote. "The fundamental data set on which the international community has based its

models has been challenged and the keepers of the data have had to downward adjust their numbers, the first of several downward adjustments, apparently," Schnare explained. "As a policy matter, one has to be less willing to take extreme actions when data are highly uncertain. So, for this reason alone, I'm also skeptical about governmental responses," he added.

Environmental Economist and global warming co-author Dennis Avery's 2006 book, Unstoppable Global Warming: Every 1500 Years, details the solar-climate link using hundreds of studies from peer reviewed literature and "shows the earth's temperatures following variations in solar intensity through centuries of sunspot records, and finds cycles of sun-linked isotopes in ice and tree rings." "Past climate warmings haven't correlated with CO2 changes. The Antarctic ice cores show that after the last four Ice Ages, the temperatures warmed 800 years before the CO2 levels increased in the atmosphere. The warming produced more CO2 in the atmosphere, not the other way around," said co-author Avery in an April 6, 2007 op-ed. Avery also noted that "70% of the warming we have had since 1850 occurred before 1940 and 80% of the human emitted C02 occurred after 1940, which tells me that the warming before 1940 was by natural cycle. The warming since 1940 – 2/10 of a degree Celsius – I will give Al Gore 1/10 [of a degree Celsius], that is all I can give him (for a human contribution to warming) and I don't think that's enough to frighten my school children," Avery said in an April 28, 2007 CBS Chicago TV special "The Truth About Global Warming." Avery also explained in an April 25, 2007 op-ed, "We've had no warming at all since 1998." "Remember, too, that each added unit of CO2 has less impact on the climate. The first 40 parts per million (ppm) of human-emitted CO2 added to the atmosphere in the 1940s had as much climate impact as the next 360 ppm," he added.

Aeronautical engineer Eduardo Ferreyra, president and founder of the Argentinean Foundation for a Scientific Ecology, questioned man-made climate fears in 2007. "Wasn't warming supposed to be ‘global'? As our records shows, Argentina has been cooling since 10 years ago, and the central part of the country since 1987. As Hadley Center's recently published data shows, the Southern Hemisphere temperatures have been decreasing for the last seven years," Ferreyra wrote in the *New York Times* blog Dot Earth on December 18, 2007. "2007 has seen media temperatures steadily 2° to 4°C lower than normal average, and our present summer shows a December with a decreasing trend," Ferreyra explained. "Cold Antarctic Polar Fronts have increased in intensity and frequency. Late frosts as the November 14th, 2007 one caused a 50-80% loss in wheat, corn, and barley crops in the humid Pampas. Similar abnormal cold weather was observed in the rest of South America, South Africa, New Zealand and big areas in Australia. So, where is global warming? Or these are just natural variations (when it is cooling) but when there is a slight increase in temperature then it is human induced "global warming"? Ferreyra wrote. *Climatologist Brian Fuchs of the National Drought Mitigation Center at the University of Nebraska-Lincoln* said in February 2007 that it was "up in the air" how long the current warming trend would continue. Fuchs also replied "probably not" when asked if human emissions are solely to blame for global warming.

Meteorologist Robert Cohen, a member of the American Meteorological Society who also has a Masters in physical oceanography, called the UN IPCC process "scientific socialism" on March 5, 2007 and declared that the "idea of a consensus in the meteorological community is false." "Research has also shown that slight changes in energy from the sun can significantly affect the earth, particularly in terms of clouds, which are a weak link in the global warming models. The level and amount of cloud can determine whether temperatures

will warm as the cloud layer limits heat dissipation to space or whether temperatures will cool as the sun's incoming energy is reflected back to space before reaching the Earth's surface," he wrote. "I do not agree with all of the IPCC conclusions and know through peer discussions that the idea of a consensus in the meteorological community is false," Cohen said. He added: "Is it worth destroying our economy and lifestyle based on an unproven theory which does not correlate with historical observations?" "Much of the 'proof' of agw (anthropogenic global warming) is based on models that can not recreate the historical record. There is a wealth of observations that disprove these models, but that is ignored in the media," he wrote on August 13, 2007.

Dr. Paul Reiter, a malaria expert formerly of the Centers for Disease Control and Prevention and professor of entomology and tropical disease with the Pasteur Institute in Paris, participated in the UN IPCC process and now calls the concept of consensus on global warming a "sham." Professor Reiter, an expert in malaria, had to threaten legal action to have his name removed from the IPCC. "That is how they make it seem that all the top scientists are agreed," he said on March 5, 2007. "It's not true." Reiter has written more than 30 papers in peer-reviewed journals. Reiter also wrote on January 11, 2007: "For years, the public has been fed a lusty diet of climate doom and gloom, cooked and served by alarmists who use the language of science to push their agenda. Now, every politician of every stripe must embrace the 'climate consensus' or be branded a callous skeptic. For twelve years, my colleagues and I have protested against the unsubstantiated claims that climate change is causing the disease [of malaria] to spread. We have failed miserably to alter the situation. Recently, the Associated Press quoted an entomologist who claimed there is an unprecedented outbreak of malaria in Karatina, Kenya, at 1,868 meters (6,130 feet). The heart-rending article began: 'The soft cries of children broke the morning stillness, as parents brought them into the hillside hospital, one by one ... drained by a disease once unknown in the high country of Kenya.' But there is nothing new about malaria in Karatina. Between World War I and the 1 950s, there were ten disastrous epidemics in the region, and they extended much higher into these hills," Reiter wrote. "We have done the studies and challenged the alarmists - but they continue to ignore the facts, and perpetuate the lies," he concluded.

Lord Christopher Monckton, the Viscount Monckton of Brenchley, a climate researcher, found 31 errors and exaggerations in the UN IPCC 4th assessment summary in February 2007. The IPCC quietly made the corrections without public admission of guilt, according to Lord Christopher Monckton. "The UN has still not corrected or apologized for the 'hockey-stick,' by which it falsely abolished the Mediaeval Warm Period, when temperatures were 2 or 3C warmer than today, and disaster failed to ensue. But it has been forced to correct several schoolboy howlers - though it has not had the honesty to announce publicly and clearly that it has done so," Monckton said in March 2007. Monckton echoed UK Lord Nigel Lawson's call that the IPCC be disbanded. "It is too politicized and too incompetent to serve any useful purpose," Monckton said.

Soil scientist Don Barron presented his research in Minnesota on March 13, 2007 that details his view that global warming is natural and not driven by anthropogenic emissions. Barron cited numerous scientific studies and concluded by asking, "Global warming or Gospel by Gore? You decide."

Former Colorado State Climatologist Dr. Roger Pielke, Sr., presently senior scientist at the University of Colorado in Boulder, chastised the news media for promoting the idea that the UN IPCC Summary for Policymakers is written by the scientists. "The media is in error

when it states that, ‘The Intergovernmental Panel on Climate Change -made up of thousands of scientists from around the world - reported earlier this month they are more certain than ever that humans are heating earth's atmosphere through the burning of fossil fuels...,'" Pielke, Sr. wrote on March 9, 2007. "Are there really ‘thousands of scientists' who wrote this report? Hardly. The IPCC is actually led and written by just a few dozen scientists," Pielke Sr. added. Pielke, Sr. believes land use changes play a key role in impacting temperatures and believes the IPCC fails to recognize this factor. "In terms of climate change and variability on the regional and local scale, the IPCC Reports, the CCSP Report on surface and tropospheric temperature trends, and the U.S. National Assessment have overstated the role of the radiative effect of the anthropogenic increase of CO2 relative to the role of the diversity of other human climate forcing on global warming, and more generally, on climate variability and change," Pielke, Sr.'s blog states on the "Main Conclusions" page.

In a May 10, 2007 blog post, Pielke wrote that the UN was "disingenuous" with many of their claims. "Since about 2002 there has been NO statistically significant global average warming in the lower and middle troposphere and since about 1995 there has been NO statistically significant cooling in the stratosphere. The IPCC SPM conclusion that ‘warming of the climate system is unequivocal' is wrong as it ignores the lack of such warming in recent years by these other metrics of climate system heat changes," Pielke explained. "Perhaps global warming will begin again. However, the neglect to include the recent lack of tropospheric warming and stratospheric cooling (both of which are predicted to continue quasi-linearly for the coming decades by the multi-decadal global climate models, except for major volcanic eruptions) results in a seriously biased report by the IPCC. It has been disappointing that the media so far has chosen to parrot the statements in the IPCC SPMs rather than do investigative reporting on these issues," he concluded.

Meteorologist Bill Steffen of Grand Rapids, Michigan noted that C02 is not the only factor to consider in climate change. "There are at least several causes of recent ‘global warming'. Carbon Dioxide (CO2) gets most of the attention, but there are other factors. A minor effect is the lack of a substantial volcano in recent years. The last volcano to pump a lot of dirt into the upper atmosphere was Mt. Pinatubo in the Philippines in 1991," Steffen wrote in a January 28, 2007 blog post.

Mathematician David Orrell dismissed long-term climate models as unreliable. "The track record of any kind of long-distance prediction is really bad, but everyone's still really interested in it. It's sort of a way of picturing the future. But we can't make longterm predictions of the economy, and we can't make long-term predictions of the climate," Orrell said in an April 3, 2007 article in Canada's *National Post*. The *National Post* article explained Orrell's views: "And so scientists use theoretical concepts like ‘flux adjustments' to make the models agree with reality. When models about the future climate are in agreement, ‘it says more about the self-regulating group psychology of the modeling community than it does about global warming and the economy.'"

Biochemistry researcher Dr. Thomas Lavin, who is a physician who holds patents regarding physical, chemical, and biological sciences and has conducted peer- reviewed research and experiments, expressed climate skepticism in 2007. "I first published a peer reviewed paper in 1981, and have been looking at data for 30 years," Lavin wrote to EPW on December 13, 2007. "I am somebody who has designed experiments and looked at data. And if you simply freeze Al Gore's movie when he introduces the CO2 and temperature relationship through geologic time, and look at the graph, the temperature goes up before the

CO2 in every one of the six or seven elevations recorded geologically. And this time gap is on the order of a few hundred years," Lavin explained. "Add this to the NASA temperature revision [making 1934 the hottest year in the U.S.] and then add that many of the climate models which predict doom use the old, unrevised NASA data, and you have total garbage in/ garbage out," he wrote. "Before we start regulating who gets to build a factory, and who gets to fly on a private jet, or drive to work, I think the data has to be real and convincing," he added. "This episode in history I think will go down as marking the reverse of Galileo and Copernicus, the end of the Age of Reason, and it's frightening," Lavin concluded.

Australian engineer Dr. Peter Harris authored an August 20, 2007 paper entitled "Probability of Sudden Global Cooling." The study Harris authored found that "the data...clearly shows the nominal 100KY cycle for glaciation and the interglacial phases and it shows that we have reached the end of the typical interglacial cycle and are due for a sudden cooling climate change. Based on this analysis we can say that there is a probability of 94% of imminent global cooling and the beginning of the coming ice age." He added, "By observation of a number of natural internal processes we can find further support for the coming change and I have referred before to the confirmed slowdown of the Gulf Stream, the effect of major endothermic polar ice melt and forecast reduction in solar activity after 70 years of extreme activity not seen for 8000 years before. The Stratosphere is cooling and ice is building on the South Pole. Climate is becoming unstable. Most of these major natural processes that we are witnessing now are interdependent and occur at the end of each interglacial period, ultimately causing sudden long term cooling."

French scientist Vincent Courtillot is the director of the Institute de Physique du Globe de Paris, a member of the Academy of Sciences, a geomagnetism scientist, and president of the Geomagnetism and Paleomagnetism Section of the American Geophysical Union. Courtillot is also a climate skeptic. Courtillot joined his fellow colleagues at the French Academy of Sciences in a scientific debate. Courtillot explained in an October 15, 2007 article in *Le Figaro* that "it is important that [climate skeptics] can express themselves." Courtillot represented the skeptical arguments along with geophysicist *Louis Le Mouël of the Institute de Physique du Globe de Paris. Claude Allègre, prominent climate skeptic, French Socialist, and award winning geophysicist also supported the skeptics' team.* The article, titled "Climate: Polemic Between Academics" in *Le Figaro* reported, "Louis Le Mouël represented the path of ‘skeptics,' highlighting the role of variations in activity of the sun, volcanism, cosmic rays or magnetism, rather than changes in CO2 of human origin, to explain variations in temperature."

Frederic Fluteau, a geomagnetism scientist with the Institute de Physique du Globe de Paris, co-authored a paper published on January 30, 2007 in the Earth and Planetary Science Letters. The paper, co-authored with geomagnetism scientist Yves Gallet and scientist Agnes Genevey of the Centre de Research at the Restauration des Musées, found, "Much of the observed increase in global surface temperature over the past 150 years occurred prior to the 1940s and after the 1980s. The main causes invoked are solar variability, changes in atmospheric greenhouse gas content or sulfur due to natural or anthropogenic action, or internal variability of the coupled ocean- atmosphere system." The paper also found that "a proposed mechanism involves variations in the geometry of the geomagnetic field (f.i. tilt of the dipole to lower latitudes), resulting in enhanced cosmic-ray induced nucleation of clouds. No forcing factor, be it changes in CO2 concentration in the atmosphere or changes in cosmic ray flux modulated by solar activity and geomagnetism, or possibly other factors, can at

present be neglected or shown to be the overwhelming single driver of climate change in past centuries." Le Mouël also served as one of the co-authors.

Meteorologist Jesse Ferrell of AccuWeather praised the new skeptical UK documentary *The Great Global Warming Swindle* in an April 2, 2007 blog post. "I will say that this movie has blown the entire [climate] debate open again, or should," Ferrell wrote. "Many people have made up their minds without seeing or hearing all the evidence. If you've seen Al Gore's An Inconvenient Truth then you should take the time to watch The Great Global Warming Swindle," he added.

The New Zealand Climate Science Coalition released seven "pillars of wisdom" to counter the UN IPCC climate report. As detailed in the Dominion Post on April 5, 2007, the coalition of prominent scientific skeptics includes: *Dr. Vincent Gray, an expert reviewer for the IPCC and most recently a visiting scholar at the Beijing Climate Centre; Dr Gerrit van der Lingen, a geologist and paleoclimatologist and former director of Geoscience Research and Investigations New Zealand; Professor Augie Auer (deceased June 2007) of Auckland, past professor of atmospheric science, University of Wyoming, and previously MetService chief meteorologist; Professor Bob Carter, a New Zealand-trained geologist with extensive research experience in palaeoclimatology, now at the Marine Geophysical Laboratory, James Cook University, Warwick Hughes, a New Zealand earth scientist living in Pert; and Roger Dewhurst, of Katikati, a consulting environmental geologist and hydrogeologist.*

The seven "pillars of wisdom" are:

1. Over the past few thousand years, the climate in many parts of the world has been warmer and cooler than it is now. Civilizations and cultures flourished in the warmer periods.
2. A major driver of climate change is variability in solar effects, such as sunspot cycles, the sun's magnetic field and solar particles.

   These may account in great part for climate change during the past century. Evidence suggests warming involving increased carbon dioxide exerts only a minor influence.
3. Since 1998, global temperature has not increased. Projection of solar cycles suggests that cooling could set in and continue to about 2030.
4. Most recent climate and weather events are not unusual; they occur regularly.

   For example, in the 193 0s the Arctic experienced higher temperatures and had less ice than now.
5. Stories of impending climate disaster are based almost entirely on global climate models.

   Not one of these models has shown that it can reliably predict future climate.
6. The Kyoto Protocol, if fully implemented, would make no measurable difference to world temperatures.

   The trillions of dollars that it will cost would be far better spent on solving known problems such as the provision of clean water, reducing air pollution, and fighting malaria and Aids.
7. Climate is constantly changing and the future will include coolings, warmings, floods, droughts, and storms.

> The best policy is to make sure we have in place disaster response plans that can deal with weather extremes and can react adaptively to longer-term climate cooling and warming trends.

Emeritus Professor Lance Endersbee, a former dean of engineering and pro-vice chancellor at Monash University, accused the scientific leaders of trying to stifle debate over the causes of climate change. According to a April 5, 2007 article in the Sydney Morning Herald, Professor Endersbee says it is highly probable that increased electromagnetic radiation of the sun is behind global warming. "There are several disturbing aspects of the IPCC report which indicate that the conclusions are based on serious misconceptions about the behavior of the Earth," Prof Endersbee said. "The report reflects little understanding of the dynamic relation between the Earth, the Sun and the Cosmos. In these circumstances it is incredible that some leaders of scientific societies and academies have tried to use their authority to demand acceptance of the IPCC report," Endersbee added. In a follow-up interview on July 6, 2007 on Australia's ABC Western Queensland's Morning Program, Endersbee explained the earth is an electrical conductor moving through the magnetic flux of the sun. "So we have these electric currents being created within the earth in response to the electro-magnetic radiation of the sun and that is the main driver of climate change on earth - it's not man," he explained. Endersbee believes that the world has been warming naturally due to this increased magnetic flow from the sun that started around the year 1700. "And now we're starting to depict that it seems to be reaching an end of that cycle and it does seem as though the earth may be cooling down," he said. Endersbee also said carbon trading schemes were being set up by governments for political reasons, not scientific reasons. "What terrifies me is the way the state governments in Australia [with] their emissions trading are contemplating using the superannuation funds to invest in carbon trading - they're going to lose their money!" He further explained, "Scholarship is being driven by media and media attention and this is a terrifying state of affairs. You can get all the money in the world if the research you're doing is related to climate change... if you say climate change isn't caused by man it's caused by the sun, it doesn't get any money at all."

Mathematical researcher Douglas J. Keenan, a former Morgan Stanley employee and current independent mathematical researcher, who has authored numerous peer-reviewed studies, accused the UN of "fabrications" and "discovered that the sources used by the Intergovernmental Panel for Climate Change (IPCC) have disregarded the positions of weather stations." Keenan accused the UN of "intentionally using outdated data on China from 1991 and ignoring revised data on the country from 1997." "One of the big problems in global warming studies, and in science generally, is that research data is often not available to outsiders. Instead, researchers tend to hoard the data for themselves and their friends (who are reluctant to be critical)," Keenan on April 4, 2007. Keenan wrote in a March 28, 2007 blog, "The problems with the peer review process have implications for our understanding of global warming (as well as for science generally). Once something has been published in a peer-reviewed journal-particularly a prestigious journal-it tends to be considered as established, possibly even heralded as ‘truth'. This means that other researchers will often rely on its conclusions, with little, if any, further checking. The extent to which this happens varies among different branches of science. It seems to be especially so in the study of global warming." Keenan continued, "The primary body tasked with advising government policy makers about global warming is the IPCC (Intergovernmental Panel on Climate Change).

Policy makers generally regard the IPCC as authoritative. The IPCC bases its analyses on peer-reviewed research, but it does no checking of that research itself. Yet most peer-reviewed research is not properly checked prior to its publication. In other words, most of the research that is relied upon by the IPCC, and thus government policy makers, has never been properly checked. That probably seems incredible; it is unfortunately true."

Chief Meteorologist Craig James, of a Michigan NBC TV affiliate, questions the computer model predictions of climate doom. James, who was elected a fellow of the American Meteorological Society for outstanding contribution to the atmospheric sciences, wrote in a February 14, 2007 blog post, "It seems to make sense, CO2 is a greenhouse gas and if the amount of CO2 in the atmosphere increases, the temperature should increase. Unfortunately, it is not that simple. If CO2 was the only thing that changed and there were no other what are called ‘forcings' and ‘feedbacks', then maybe it would be simple." "It seems to me there is plenty of room for skepticism about the scenarios painted by the models based on purely scientific grounds. Anyone who takes the time and effort to study the issue would not make the incredible statement that skeptics are on a par with ‘Holocaust Deniers' as Ellen Goodman did in a Boston Globe article a couple of weeks ago," James wrote. According to James, computer models do not include volcanoes, which cool the atmosphere, and "the models do not properly account for the role clouds may play in a warmer world. We don't clearly understand whether they produce a positive or negative feedback (additional warming or cooling)." James probed the heart of the argument for man-made global warming when he asked in a June 4, 2007 blog, "Is it good science to never once mention the problems with the General Circulation Models (GCMs)?" "The rationale seems to be that the models produce the kind of warming we see only when you include an increasing amount of CO2 into the atmosphere. The warming cannot be reproduced by natural processes alone in the models. That's because the models do not handle those natural processes correctly. They either don't include or are woefully inadequate in their handling of major climate forcings such as the Pacific Decadal Oscillation, the Atlantic Multidecadal Oscillation, El Nino, La Nina, water vapor, cloud feedbacks, etc. This is one case where getting the answer you are looking for in the models occurs for the wrong reason. There may have to be a snowstorm in Miami before it is no longer politically incorrect to say such a thing in public. Actually, the snowstorm would probably be blamed on global warming too," he explained. James also wrote a blog post detailing how the IPCC downplays cold weather is a bigger killer than hot weather. James's April 4, 2007 blog was titled "Heat and Cold Related Deaths." "This paper from WebMD states: ‘Cold-related deaths are far more numerous than heat-related deaths in the United States, Europe, and almost all countries outside the tropics," James wrote. James summed up his view in a May 28, 2007 blog: "The more I study this subject and become increasingly aware of the failings of the computer models, the more I think you can trust the Old Farmer's Almanac on what next year's winter will be like more than you can trust the climate models."

Prize-wining Geologist Dr. Ian Plimer, a professor of Earth and Environmental Sciences *at the University of Adelaide in Australia,* rejected alarmist views of climate science in an article in the *Sydney Morning Herald* on April 6, 2007. "The Earth's temperature rose by 0.7 per cent in the 20th century, but there was also an increase in piracy. Does that mean piracy causes global warming?" Plimer asked. "There is new work emerging even in the last few weeks that shows we can have a very close correlation between the temperatures of the Earth and supernova and solar radiation.

What if global warming has nothing to do with human activity? What happens if the astronomers are right, and the world is actually entering a cooling period?" Plimer questioned. "We geologists have seen climate change for 4500 million years. Tell us something new," he added.

Meteorologist Jim Clark of Florida's WZVN-TV ABC 7 declared he did not agree with what has been labeled the "consensus" view on global warming in a March 30, 2007 radio interview. Clark, an on-air weather forecaster since 1983, said, "The amount of human impact on climate change seems to be pretty small and seems very unlikely to be a disaster." "Climate is something that has always been changing on the planet. It fluctuates, it goes up and down. I have always thought of climate that is not homeostasis. So much of the current debate, it just strikes me as very odd, especially in the popular media where the headlines screamed the debate is over. Well, there never was a debate about whether the globe was warming. The real debate has always been the amount of the human effect on the climate," Clark said. In a December 10, 2007 commentary, Clark further expanded on his climate views. "The planet has not warmed over the last decade and climate factors seem to be lining up for a global cool down, despite the ever increasing concentration of atmospheric CO2," Clark wrote. "Those defending an impending global warming crisis try to explain the mid-20th century cooling with the notion that man-made aerosols (air pollution) cut down on the amount of sunshine reaching the surface and caused the cooling. The problem with that argument is that the cooling took place in both hemispheres, while man-made aerosols were primarily in the northern hemisphere. To this day, we do not know very much about how human emitted aerosols impact climate. Some say they produce warming. Others argue for cooling.

Still some suggest that the affect of aerosols depends on there location in the atmosphere and may produce warming or cooling at different times," he explained. "Despite the overwhelming evidence that internal cycles like the PDO (Pacific Decadal Oscillation) have played a huge role in 20th century climate change, the IPCC and the global warming community ignore them almost entirely," he added. "It is not possible to tell just how much of the 0.06 degrees warming per decade is the result of increasing CO2 and other 'greenhouse' gases. Even if we assume that it accounts for 2/3 of the observed trend (unlikely), it only leads to a net warming of 0.80 degrees over the next 200 years! Such a warming would be largely beneficial and any negative impacts could be dealt with cheaply and efficiently at regional levels," Clark concluded. *Indur M Goklany, Ph.D, who has represented the United States at the International Panel on Climate Change and in the negotiations leading to the United Nations Framework Convention on Climate Change*, also scrutinized the UN's IPCC Summary for Policymakers (SPM) released in 2007. "Once one gets past the opaque verbiage of the SPM, it is clear that most of the negative impacts listed in the SPM are overstated, while the positive impacts are understated," Goklany noted in an April 9, 2007 critique. Goklany managed the US Environmental Protection Agency's fledgling emissions- trading program in the 1980s. "These [IPCC] studies estimate impacts for 2085 using technologies from the 1 990s or earlier. This is like estimating today's food production and levels of hunger using technologies from the 1910s! You are bound to underestimate food production and overestimate hunger. In developing countries prevalence of chronic hunger declined from 37% to 17% between 1970 and 2001, despite an 83% increase in population, in substantial part because of new technologies," Goklany added. "Similarly, human health impacts are often estimated assuming that adaptive capacities are fixed as of the start date of the analysis.

Under such a methodology the mortality and morbidity rates from water related diseases in the U.S., for example, would be the same in 2000 as in 1900. But in fact, these rates have declined by 99% or more during the 20th century for disease such as typhoid, paratyphoid, dysentery, malaria, etc.," Goklany noted.

Global warming author and economist Dr. Thomas Gale Moore is a former professor at Michigan State University, a senior fellow at the Hoover Institute, and author of the book Climate of Fear: Why We Shouldn't Worry about Global Warming. "I don't argue that we're having global warming, but I find the effects are going to be small," Moore said according to the September/October 2005 issue of *Stanford Magazine*. The article explained that Moore "insists that Americans in particular will benefit from a warmer climate in many ways, including longer growing seasons and reduced heating costs."

Meteorologist Joseph Conklin launched a skeptical website called Climatepolice.com on February 25, 2007. "The goal of the website is to show the public that other research on climate change exists and the debate is not over," Conklin said. Conklin, who specializes in analysis of surface weather observations, also operates NiceWeather.com, a website specializing in monthly weather forecasts. "Scientific research should be apolitical. Extremist groups have promoted global warming as their primary political issue. I want this website to help correct that," Conklin added. On August 10, 2007 Conklin wrote: “A few months ago, a study came out that demonstrated global temperatures have leveled off. But instead of possibly admitting that this whole global warming thing is a farce, a group of British scientists concluded that the real global warming won’t start until 2009.”

Dr. David Wojick is a UN IPCC expert reviewer, who earned his PhD in Philosophy of Science and co-founded the Department of Engineering and Public Policy at Carnegie-Mellon University. "In point of fact, the hypothesis that solar variability and not human activity is warming the oceans goes a long way to explain the puzzling idea that the Earth's surface may be warming while the atmosphere is not. The GHG (greenhouse gas) hypothesis does not do this," Wojick, who specializes in mathematical logic, wrote in a May 2, 2005 commentary. "The public is not well served by this constant drumbeat of false alarms fed by computer models manipulated by advocates," he explained.

Oxford-educated economist Tony Gilland is the science and society director of the UK based Institute of Ideas. Gilland, who initiated the UK's Science Education Project, declared the debate about global warming far from over in 2007 and lamented the UN's politicization. "The UN's all-powerful climate change panel is no straightforward scientific body. It is a deeply political organization that was born out of disenchantment with progress," Gilland wrote in a June 28, 2007 essay. "The IPCC, an unelected body, holds an unprecedented influence on the lives of everyone on the planet - and any attempt to question this body's legitimacy or actions is shouted down as ‘denial' of the scientific facts," he explained. "It is striking how many in the scientific community have become extremely intolerant of dissent," Gilland added. "The way in which politicians, the media and civil society have come to hang on the latest pronouncements of the IPCC demonstrates how this political failure has allowed a scientific conceptualization of a political problem to become institutionalized across the globe, to the point where conceiving of it differently has become almost unimaginable," he concluded.

Analytical chemist Hans Schreuder who publishes the UK based website ILoveMyCarbonDioxide.com, rejected man-made global warming fears in 2007. "Any and all arguments put forward by the perceived consensus of scientists who still have their names

engraved on the IPCC report are based on nothing more than theory and best fit computer modeling. Normally varying weather patterns are ‘blamed' on AGW (anthropogenic global warming) without any scientific basis and for the sole purpose of scaremongering a gullible public," Schreuder wrote on December 10, 2007. Schreuder also asserted that "ALL ‘proof' is based on theories and computer models, not actual direct evidence - cause there ain't none. ALL the records from the past show clearly that CO2 did NOTHING to ‘drive' or ‘force' any temperature changes. If it did, we would be as hot as hell by now and no life would be possible."

Russian scientist Dr. Oleg Sorochtin (name also sometimes translated to spell Soroktin) of the Institute of Oceanology at the Russian Academy of Sciences has authored more than 300 studies, nine books, and a 2006 paper titled "The Evolution and the Prediction of Global Climate Changes on Earth." Sorochtin, who made several Antarctic expeditions, rejected man-made climate fears in 2007. "The temperature increase has a pronounced natural origin and is not determined by the ‘greenhouse effect' of greenhouse gases," Sorochtin wrote in an essay on October 9, 2007 in *Ria Novosti*. (translated) "Even if the concentration of ‘greenhouse gases' double man would not perceive the temperature impact," Sorochtin wrote. "The real causes of climate change lie in the unevenness of the sun's radiation, in the precession (amendment of the rotational axis) of the earth, in the instability of the ocean currents in the periodic desalination and salinity of surface waters of the Arctic Sea and the other. The main causes of which are the solar activity and the luminosity. The higher these parameters, the higher the temperature," Sorochtin wrote. "The highest point of the warming has already occurred," he wrote. "The low point phase of solar activity, with a sharp decline in temperature will be accompanied; against the year 2041 is expected. The cool climate is at least 50 to 60 years," he added.

Climate change author and engineer Rolf Riehm of Germany wrote the 2007 book skeptical of man-made global warming titled Is the climatic Change inevitable? - About the Environmental Hypocrisy. "Allegedly the temperature of the earth has risen during the past 20 years by about 0.6° C. And carbon dioxide is claimed to be the reason for it. In reality it is not possible to measure the temperature of the earth: One would have to define before in what region, one would have to say if we compare at night or during day-time. If in summer or in winter. If we measure in the Antarctic or in the Sahara!" Riehm wrote in his book. "In reality climate changes occur in cycles of several 1000 years," he added. Riehm also critiqued former Vice President Al Gore. "Gore has no knowledge of the laws of science. But this does not prevent him from making hundreds of false statements. He showed terrific trick films of the rise of the sea water level and showed how dozens of major towns drowned in the floods," Riehm wrote.

State of Florida Climatologist Dr. Jim O'Brien, professor emeritus of Florida State University, and who serves as the director of the Center for Ocean-Atmospheric Prediction Studies, critiqued the *Associated Press* for hyping climate fears. "The best measurements of sea level rise are from satellite instrument called altimeters. Currently they measure 14 inches in 100 years. Everyone agrees that there is no acceleration. Even the UN IPCC quotes this," O'Brien wrote to EPW on September 23 about an *AP* article predicting dire sea level rise. "If you increase the rate of rise by four times, it will take 146 years to rise to five feet. Sea level rise is the ‘scare tactic' for these guys," O'Brien added.

IPCC reviewer and climate researcher and scientist Dr. Vincent Gray of New Zealand, an expert reviewer on every single draft of the IPCC reports going back to 1990 and author

of The Greenhouse Delusion: A Critique of "Climate Change 2001, declared, "The claims of the IPCC are dangerous unscientific nonsense" in an April 10, 2007 article. Gray is also a member of The New Zealand Climate Science Coalition. "All [UN IPCC does] is make ‘projections' and ‘estimates'. No climate model has ever been properly tested, which is what ‘validation' means, and their ‘projections' are nothing more than the opinions of ‘experts' with a conflict of interest, because they are paid to produce the models. There is no actual scientific evidence for all these ‘projections' and ‘estimates'. It should be obvious that they are ridiculous," Gray noted. "Global temperatures have not been rising for eight years. New Zealand temperatures in the last 50 years have gone down with volcanoes and up with El Niños but have no signs of ‘warming'. Christchurch has not warmed since 1917. The sea level in Auckland has been much the same since 1960," Gray added. In a July 3, 2007 blog post, Gray further explained, "I have written many pages of comments on the various IPCC Reports and most of them have been ignored." "The very few comments made by most of the reviewers suggest that there may be very few actual people who ever read the report itself all the way through except those who write it," he added. "The [IPCC] ‘Summary for Policymakers' might get a few readers, but the main purpose of the report is to provide a spurious scientific backup for the absurd claims of the worldwide environmentalist lobby that it has been established scientifically that increases in carbon dioxide are harmful to the climate. It just does not matter that this ain't so," he concluded. In a May 28, 2007 letter to Canada's The Hill Times, Gray noted how political the IPCC process has become. "[No one can] deny that the ‘Summary for Policymakers' is approved line-byline by the government representatives because the press has recently mentioned that particular conclusions have involved clashes between the Russians, Chinese and Americans. The ‘drafting authors' job is to write down what they are told to do," Gray wrote. "...The ‘lead authors' of the report are all chosen (and usually financed) by government representatives, so they can be relied upon to produce results which the governments like. They do not want another fiasco like the one in the 1995 report when they had to alter the ‘final draft' to comply with the ‘Summary for Policymakers.' They have a set of instructions for ‘lead authors' which ensures that they toe the line. This year's report is more extreme than before and there is continuous publicity for its extravagant claims. The ‘lead authors' are certainly behind this, but an increasing proportion of all the other scientists involved with the report are becoming irritated by the propaganda. It is interesting that this year we have had a succession of ‘Summaries for Policymakers' without a single copy of any of the reports upon which they are supposed to be based," he concluded.

Former Harvard University Physicist Dr. Lubos Motl, a string theorist who is currently a professor at Charles University in the Czech Republic, challenged the premise of the C02 driven climate cycles in a April 9, 2007 blog post. "As we have explained in 2006, Vostok ice core records show that the carbon dioxide concentration averaged over a few centuries has been correlated with temperature at least for half a million of years. However, we know for sure that the temperature was the cause and the CO2 concentration was its consequence, not the other way around. It follows that the greenhouse effect hasn't been important in the last half a million of years," Motl wrote. "For whatever reason, some people are not willing to accept this obvious conclusion. That's why they invent various bizarre verbal constructs to circumvent the otherwise inevitable conclusion," Motl noted. "However, there are other ways to see that the influence of temperature on the concentration of gases has been more important than any influence in the opposite direction. For example, the ice core records show that the

concentration of methane was correlated with temperature, too. If the CO2 concentration were the primary cause, we would have no explanation why the CH4 (Methane) concentration was also correlated. In fact, CO2 and CH4 play the very same role in the ice core records. If some combination of them determined the temperature, we would still have no explanation why these two concentrations were correlated with one another," Motl added.

Team of Scientists Question Validity of a 'Global Temperature' - From a March 18, 2007 article in *Science Daily*: "Discussions on global warming often refer to 'global temperature.' Yet the concept is thermodynamically as well as mathematically an impossibility, says *Physicist Dr. Bjarne Andresen*, a professor at The Niels Bohr Institute, University of Copenhagen, who has analyzed this topic in collaboration with *professors Christopher Essex from University of Western Ontario* and *Ross McKitrick from University of Guelph, Canada*." The Science Daily article reads, "It is impossible to talk about a single temperature for something as complicated as the climate of Earth." "A temperature can be defined only for a homogeneous system. Furthermore, the climate is not governed by a single temperature. Rather, differences of temperatures drive the processes and create the storms, sea currents, thunder, etc. which make up the climate." He explains that while it is possible to treat temperature statistics locally, it is meaningless to talk about a global temperature for Earth. "The globe consists of a huge number of components which one cannot just add up and average. That would correspond to calculating the average phone number in the phone book. That is meaningless. Or talking about economics, it does make sense to compare the currency exchange rate of two countries, whereas there is no point in talking about an average 'global exchange rate.'" The article concludes, "These are but two examples of ways to calculate averages. They are all equally correct, but one needs a solid physical reason to choose one above another. Depending on the averaging method used, the same set of measured data can simultaneously show an upward trend and a downward trend in average temperature. Thus claims of disaster may be a consequence of which averaging method has been used, the researchers point out."

Geologist Dr. Don J. Easterbrook, Emeritus Professor at Western Washington University, who has *authored eight books and 150 journal publications,* chastised Gore for his scientific inaccuracies. "But there are a lot of inaccuracies in the statements we are seeing, and we have to temper that with real data," Easterbrook said in a March 13, 2007 *New York Times* article. "[Easterbrook] hotly disputed Mr. Gore's claim that ‘our civilization has never experienced any environmental shift remotely similar to this' threatened change.

"Nonsense, Dr. Easterbrook told the crowded session. He flashed a slide that showed temperature trends for the past 15,000 years. It highlighted 10 large swings, including the medieval warm period. These shifts, he said, were up to ‘20 times greater than the warming in the past century.' Getting personal, he mocked Mr. Gore's assertion that scientists agreed on global warming except those industry had corrupted. ‘I've never been paid a nickel by an oil company,' Dr. Easterbrook told the group," the *Times* article explained. Easterbrook rejects the notion that there is a "consensus" on global warming. "There are several hundred thousand scientists in the world. And the people who wrote the [UN IPCC] report that received a lot of publicity in February consisted of 33 policy makers, and the authorship of the entire IPCC report consists of 143 people. And that's hardly representative of the entire meteorological word," Easterbrook told Fox News Channel on March 13, 2007. "The validity of a scientific concept is not a matter of how many people vote for it or against it. It's a matter

of the evidence upon which it's based. And the truth is there is no real tangible evidence of the connection between CO2 and global warming," he added.

Paleoclimate expert Augusto Mangini of the University of Heidelberg in Germany, criticized the UN IPCC summary. "I consider the part of the IPCC report, which I can really judge as an expert, i.e. the reconstruction of the paleoclimate, wrong," Mangini noted in an April 5, 2007 article.(translated) "The earth will not die. Our archives show clearly that it has often been warmer, in addition, there have been cooler periods, which occurred just as fast as the current warm phase," Mangini said. "The statement that the heating up of the climate taking place now is comparable only with the heating up before 120,000 years is simply not correct. We have data, which show that there were periods which were similarly warm or even still warmer than today during the last ten thousand years," Mangini said.

German climate scientist Dr. Hans von Storch, the Director of Institute for Coastal Research of the GKSS Research Centre, a professor at the Meteorological Institute of the University of Hamburg who focuses on climate diagnostics and statistical climatology, and has published 11 books. Storch believes human are influencing climate change, but feels the fear factor has been dramatically overplayed. "We should spend more time talking about adjusting to the inevitable and not about reducing CO2 emissions. We have to take away people's fear of climate change," Storch told the German publication *Der Spiegel* on March 16, 2007. Storch dismissed fears of mass deaths from future heat waves caused by global warming. "Such claims are completely idiotic and dubious. What they did was to simply perform an extrapolation based on the mortality rate during the exceptionally hot 2003 summer, which took everyone by surprise and for which we were therefore completely unprepared. But if higher summer temperatures become the norm in the future, people will adjust," he explained. Storch noted the limitations of science. "We climate researchers can only offer possible scenarios. In other words, things could end up being completely different. But there are undoubtedly parts of the world that will benefit on balance from climate change. Those areas tend to be in the north, where it has been cold and uncomfortable in the past. But it's considered practically heretical to even raise such issues," he said.

Alabama State Climatologist Dr. John Christy of the University of Alabama in Huntsville and NASA, served as a UN IPCC lead author in 2001 for the 3rd assessment report and detailed how he witnessed scientists distorting the science. "I was at the table with three Europeans, and we were having lunch. And they were talking about their role as lead authors. And they were talking about how they were trying to make the report so dramatic that the United States would just have to sign that Kyoto Protocol," Christy told CNN on May 2, 2007. "One of the statements in the [IPCC Summary for Policymakers] SPM was the statement that, if you boil it down, it says we are 90 percent certain that most of the warming in the last 50 years was due to human effects. I don't agree with that. I think things are much more ambiguous," Christy said. Christy also dismissed Gore's warning of a 20 foot sea level rise to due future global warming. "To come up with 20 feet is really grasping at straws, I think, but it does make a dramatic image. It makes a startling announcement," Christy said. Christy dismissed fears of man-made climate doom. "I don't see a catastrophe developing from our emissions into the air of what should be correctly identified as ‘plant food,'" Christy wrote in a February 6, 2007 article. "The climate cannot be predictably managed with such [emission reduction] proposals given the uncertainty of natural variations. For example, to make a 10 percent dent in CO2 would require 1000 nuclear power plants and this would still not make a measurable difference on whatever the climate will do anyway," Christy

explained. "I'm full of optimism about the continued growth of wealth and health around the world. This wealth will create cleaner environments even in countries where persistent poverty has destroyed too much habitat and fouled too many rivers," he concluded.

Meteorologist Brian van de Graaff attributed recent warming trends to natural variability. "History has taught us that weather patterns are cyclical and although we have noticed a warming pattern in recent time, I don't know what generalizations can be made from this with the lack of long-term scientific data," van de Graaff said in a December 2006 interview. Van de Graaff, who holds the prestigious Seal of Approval from the American Meteorological Society, also noted how global warming has turned into such a heated debate. "Often, it is so politicized and those on both sides don't always appear to have their facts straight," he said.

Meteorologist David Aldrich declared, "I am a global warming skeptic" in an April 9, 2007 blog post. "If you have had doubts, you have come to the right place," Aldrich wrote. "Although, I believe man plays a role in climate change through urbanization ("the heat island effect" & development), land use changes, and aerosols and gases – natural factors are ALSO important, most notably the sun and ocean," Aldrich who is certified by both the American Meteorological Society and the National Weather Association, explained. "There's a different side to what is causing climate change. I think too much emphasis has been put on CO2. I do not believe CO2 is a pollutant. I'm made of CO2, you're made of CO2 ... the ocean is a reservoir of CO2," Aldrich explained in a June 6, 2007 article in City Paper.

Renowned hurricane forecaster Dr. William Gray, Emeritus Professor of Atmospheric Science at Colorado State University (CSU), and head of the schools Tropical Meteorology Project, chastised former Vice President Al Gore as "a gross alarmist" in an April 6, 2007 Associated Press interview. "[Gore's] one of these guys that preaches the end-of-the-world type of things. I think he's doing a great disservice and he doesn't know what he's talking about," Dr. Gray said. The AP article explained, "Gray believes a recent increase in strong hurricanes is not due to global warming but is part of a multi-decade trend of alternating busy and slow periods related to ocean circulation patterns." Gray believes current climate researchers rely too much on computer models. "Us older guys that were around in the pre-satellite, pre-computer age, we had to deal with the real weather. Most of these people don't forecast," he said. "They don't live in a real world. They're living in an imaginary world."

Physicist Dr. Freeman Dyson, Professor Emeritus of Physics at the Institute for Advanced Study, in Princeton, is a fellow of the American Physical Society, a member of the US National Academy of Sciences, and a fellow of the Royal Society of London. Dyson called himself a "heretic" on global warming. "Concerning the climate models, I know enough of the details to be sure that they are unreliable. They are full of fudge factors that are fitted to the existing climate, so the models more or less agree with the observed data. But there is no reason to believe that the same fudge factors would give the right behavior in a world with different chemistry, for example in a world with increased CO2 in the atmosphere.," Dyson said in an April 10, 2007 interview. Dyson is also a fellow of the American Physical Society, a member of the US National Academy of Sciences, and a fellow of the Royal Society of London. "The fuss about global warming is grossly exaggerated," Dyson also wrote in his 2007 book "Many Colored Glass: Reflections on the Place of Life in the Universe." Dyson focuses on debunking climate models predictions of climate doom: "They do not begin to describe the real world that we live in. The real world is muddy and messy and full of things that we do not yet understand. It is much easier for a scientist to sit in an air-conditioned building and run computer models, than to put on winter clothes and measure what is really

happening outside in the swamps and the clouds. That is why the climate model experts end up believing their own models."

Paleoclimate scientist Dr. Bob Carter of Australia's James Cook University and former chairman of the earth science panel of the Australian Research Council, who has published numerous peer-reviewed papers, discredited the UN IPCC. "Many distinguished scientists refuse to participate in the IPCC process, and others have resigned from it, because in the end the advice that the panel provides to governments is political and not scientific. Although at least -$50 billion has been spent on climate research, the science arguments for a dangerous human influence on global warming have, if anything, become weaker since the establishment of the IPCC in 1988," Carter wrote in an April 11, 2007 op-ed in the UK Telegraph. Carter, who has had over 100 papers published refereed scientific journals, continued, "For more than 90 per cent of recent geological time, the cores show that the earth has been colder than today. We modern humans are lucky to live towards the end of the most recent of the intermittent, and welcome, warm interludes. It is a 10,000 year-long period called the Holo-cene, during which our civilizations have evolved and flourished." "Similar cores through polar ice reveal, contrary to received wisdom, that past temperature changes were followed - not preceded, but followed - by changes in the atmospheric content of carbon dioxide.

Yet the public now believes strongly that increasing human carbon dioxide emissions will cause runaway warming; it is surely a strange cause of climate change that naturally postdates its supposed effect?" he added. "So the evidence for dangerous global warming forced by human carbon dioxide emissions is extremely weak. That the satellite temperature record shows no substantial warming since 1978, and that even the ground- based thermometer statistic records no warming since 1998, indicates that a key line of circumstantial evidence for human-caused change (the parallel rise in the late 20th century of both atmospheric carbon dioxide and surface temperature) is now negated," Carter concluded. Carter also wrote a June 18, 2007 op-ed detailing even more skepticism on climate fears. "Lower atmosphere satellite-based temperature measurements, if corrected for non-greenhouse influences such as El Niño events and large volcanic eruptions, show little if any global warming since 1979, a period over which atmospheric CO2 has increased by 55 ppm (17 per cent)," Carter wrote. "There are strong indications from solar studies that Earth's current temperature stasis will be followed by climatic cooling over the next few decades," he added.

Penn State Meteorologist Paul Knight, host and founder of the program "Weather World" expressed skepticism about man-made global warming in 2007. "We have to be very careful about using global temperatures. You have very few people who do it absolutely correctly," Knight said in a April 20, 2007 interview. "I wish the climate system were simple. It is not. Listen to the facts. There is a fair bit we do not understand," Knight said. The article continued, "The southern ice cap over Antarctica has actually gotten larger since the 1 970s, Knight said. And the overall average temperature on the southern tundra has actually dropped a half degree Celsius over the last two decades. To understand global climate change, the sun must be taken into account, according to Knight. He said much of the warmer temperatures the earth has experienced may be attributed to longer sunspot cycles on the sun. Some scientists argue sunspots may actually make the sun's powerful rays even stronger during cycles and may cause slightly higher temperatures on Earth." http://www.lancasterfarming.com/node/532

Geophysicist Dr. David Deming, associate professor of arts and sciences at the University of Oklahoma who has published numerous peer-reviewed research articles, dismissed fears of man-made global warming. "Present-day temperatures are not anomalously warm. The best methods we have for estimating past temperatures are borehole temperatures and the elevation of tree lines. Both of these methods indicate temperatures during the High Middle Ages were just as warm as today. Five thousand to 7,000 years ago, temperatures were significantly warmer," Deming wrote in a January 10, 2007 op-ed in the Edmond Sun. "Ninety percent of the greenhouse effect is due to water vapor. The warming response to the concentration of greenhouse gases in the atmosphere is logarithmic. That means if some global warming does occur, most of it will be at night, at winter, and at high latitudes where humidity is low. These are places and times where warmer temperatures would be beneficial, not detrimental," Deming wrote. "Neither the Greenland nor the Antarctic ice sheets are undergoing any significant ablation or melting. The polar bear population is stable," he added. "No one has ever died from global warming. What kills people is cold, not heat. For more than 150 years, it has been documented in the medical literature that human mortality rates are highest in the winter when temperatures are the coldest," he explained. "In summary, the problem is not one of skepticism, it's one of ignorance. Global warming hysteria is based on ignorance fueled by speculation and alarmism. The average person is more likely to be struck by a meteorite from outer space than harmed by global warming," Deming concluded.

Dr. Mel Goldstein, a PhD Meteorologist on Connecticut's TV News Channel 8, questioned the long-range climate models used by the UN's IPCC. "When you are in the trenches and forecasting each and everyday, you begin to realize the inadequacies of our computer models," Goldstein wrote in a March 9, 2007 blog. "I become skeptical when atmospheric models are used to project conditions 100 or 200 years from now," he noted. Goldstein, who established the first and only Bachelor's degree program in meteorology at Connecticut Western Connecticut State University and authored the book *The Complete Idiot's Guide to Weather*, also questioned how the IPCC could account for the range of variables that go into long range climate projections. "There are many important variables we just can't handle with confidence. For example in the IPCC report, the cooling effect of clouds is given a low level of scientific understanding (LOSU). The range of possibilities is so great that the highest estimate of reflectivity from clouds can completely balance the highest estimate of warming from carbon dioxide. Then, there is the whole issue of water vapor which is a powerful greenhouse gas. It can range from 0.2 to 2% in the atmosphere. Whereas, carbon dioxide is about .03%. Sadly, we know so little about water vapor and the heat it generates," Goldstein wrote. In a June 29, 2007 blog post, Goldstein continued his critique of the shortcoming of climate predictions. "Long range forecasts are often short on reality. Sure, we have great mathematical equations applied to predicting our weather. But not all is known about our weather. We don't understand how water vapor comes into the equations, and that is a big deal. Heat sources represent other major unknowns, after all, heat drives the atmosphere. We make assumptions about these unknowns, and as long as these fit for the moment, the forecast looks good. But a slight error will only magnify as the forecast is further extended," Goldstein wrote. "We can get an idea of a trend, but specifics 30 days or 90 days out are seldom correct. Most of what we know about the atmosphere was known a hundred years ago. No doubt, technology has advanced faster than our basic understanding of the atmosphere. There are times when even a 24-hour forecast leaves something to be desired," he concluded.

Dr. Anthony Lupo, Professor of Atmospheric Science, University of Missouri- Columbia, wrote in a May 18, 2007 email to EPW, "I don't believe that the climate change issue is an emergency, or that there is compelling evidence to blame humanity for the current warming. Warming is undoubtedly occurring, but it may have nothing (0%), or a little (0-10%) to do with human activity." Lupo continued, "There is abundant scientific evidence demonstrating that the climate changes cyclically on time-scales ranging from a few years, to hundreds of thousands of years. There is plenty of evidence to suggest that the climate is not 'stagnant' either. The climate has been relatively cool for the last few hundred years and has warmed to levels which are at or below an inferred maximum approximately 1000 years ago." "There are too many unknowns (e.g., the nature of solar and internal variability). There are too many things we don't understand about the current climate (e.g., the carbon cycle, atms - ocean interactions)," he added. Lupo has also critiqued Gore's movie. "[Gore's] whole tone of this was, 'We've got to make radical changes in our lifestyle, and we have to make them now, and that's because the science on the issue is settled,'" Lupo said in a July 13, 2006 article in the *Columbia Tribune*. "Well that's not entirely the case. The science, for one thing, is not settled." Lupo disputes the reason for warming temperatures and says recent temperatures are within natural variability. "One thing I can agree with Gore on is the world is getting warmer," he said. "One thing I can't agree on is the cause."

Dr. Thomas P. Sheahen, an MIT educated physicist, author of the book An Introduction to High-Temperature Superconductivity, and writer of the popular newspaper column "Ask the Everyday Scientist," dismisses the idea of a "consensus" on man-made global warming. *"*We must all remember that scientific truth is not determined by popular vote. The [UN] IPCC is severely tainted by politics," Sheahen wrote to EPW on June 11, 2007. "No one disputes that the Earth has been warming over the last 150 years. The controversy is over whether it's natural or anthropogenic (AGW)," he added. "I have done computer modeling of physical and chemical phenomena, and I know two things very well: first, your outputs will always be conditioned by the input assumptions you make at the front end; and second, data *always* trumps theory. For a model to be valid, it has to match the data. Given the observations of temperature variations during the 20th century, you really can't make the case that mankind caused such erratic temperature swings," Sheahen concluded.

Dr. Edward J. Wegman, a professor at the Center for Computational Statistics at George Mason University and chair of the National Academy of Sciences' Committee on Applied and Theoretical Statistics, played a prominent role in questioning the statistical validity of Michael Mann's UN promoted "Hockey Stick" temperature graph of last 1000 years of Northern Hemisphere temperatures. Wegman and a panel of statisticians conducted a third-party review the "Hockey Stick." According to a November 28, 2006 article in Canada's National Post, Wegman found that Mann made a basic error that "may be easily overlooked by someone not trained in statistical methodology. We note that there is no evidence that Dr. Mann or any of the other authors in paleoclimate studies have had significant interactions with mainstream statisticians." Wegman found that Mann's "small group of climate scientists were working on their own, largely in isolation, and without the academic scrutiny needed to ferret out false assumptions." "I am baffled by the claim that the incorrect method doesn't matter because the answer is correct anyway. Method Wrong + Answer Correct = Bad Science," Wegman said. Wegman also noted how the peer-review process can be skewed by a cozy group of scientists within a specific field. "Of course, if a given discipline area is small and the authors in the area are tightly coupled, then this process is likely to turn up very

sympathetic referees. These referees may have coauthored other papers with a given author. They may believe they know that author's other writings well enough that errors can continue to propagate and indeed be reinforced," Wegman wrote in his report to the U.S. Congress.

Dr. Richard Tol, the director of the Centre for Marine and Atmospheric Science, and a prominent economist with Hamburg University in Germany, dismissed the UN IPCC touted Stern Report on the economics of climate change as "preposterous." Tol, one of the authors of three of the IPCC Working Groups, dismissed the idea that mankind must act now to prevent catastrophic global warming, according a February 2, 2007 article in Canada's National Post. "Tol doesn't think the evidence is in on global warming and its effects, he doesn't think there's reason to rush to action, and he doesn't think that crash programs to curb global warming are called for," the National Post article explained. Tol debunked the Stern review as "alarmist and incompetent." "There is no risk of damage [from global warming] that would force us to act injudiciously," according to Tol. "We've got enough time to look for the economically most effective options, rather than dash into 'actionism,' which then becomes very expensive," he concluded. Tol wrote the critique despite the fact that his work was cited by the Stern Report no less than 63 times. In a separate November 11, 2006 interview, Tol specifically critiqued the UN IPCC process. “Over the years, the IPCC has become ever greener and the few economists, who were previously involved, have been pushed out. Obviously, this casts doubt on the quality of the results,” Tol explained. Tol has also asserted that the benefits of a warmer world are frequently overlooked. Tol noted that "warming temperatures will mean that in 2050 there will be about 40,000 fewer deaths in Germany attributable to cold-related illnesses like the flu,” according to a May 7, 2007 article in Der Spiegel.

Dr. Duncan Wingham, Professor of Climate Physics at University College London and Director of the Centre for Polar Observation and Modeling, has presented evidence that Antarctic ice is growing. According to a December 15, 2006 article in Canada's National Post, "Early last year at a European Union Space Conference in Brussels, for example, Dr. Wingham revealed that data from a European Space Agency satellite showed Antarctic thinning was no more common than thickening, and concluded that the spectacular collapse of the ice shelves on the Antarctic Peninsula was much more likely to have followed natural current fluctuations than global warming." "One cannot be certain, because packets of heat in the atmosphere do not come conveniently labeled 'the contribution of anthropogenic warming,' "Wingham said, noting that the evidence is not "favorable to the notion we are seeing the results of global warming." Wingham and his colleagues found that 72% of the ice sheet covering the entire land mass of Antarctica is growing at the rate of 5 millimeters per year. "That makes Antarctica a sink, not a source, of ocean water. According to their best estimates, Antarctica will ‘lower global sea levels by 0.08 mm' per year" the National Post article reported. Wingham also co-authored a March 2007 review of Antarctic and Greenland ice sheets which found that the current “best estimate” of the contribution of polar ice loss to global sea level rise is 0.35 millimeters per year or less than an inch and a half over a century. In a March 16, 2007 interview, Wingham further explained, "Most people don't realize that Antarctica is so cold there isn't much melting going on.” In 2005, Wingham emphasized the uncertainty of blaming polar ice reductions on human activity. “One cannot be certain, because packets of heat in the atmosphere do not come conveniently labeled 'the contribution of anthropogenic warming,'" Wingham said. Wingham has also asserted, “There’s a tendency today to associate every change that one sees in the ice on the planet with global warming. Almost certainly some of the changes are nothing to do with global warming at all but are

connected with natural variability in the climate system." Wingham, the lead investigator on the UK-led Cryosat spacecraft mission to monitor ice sheets, added, "I wouldn't be surprised if Cryosat will increase the confusion rather than decrease it, because we will start to see natural processes in the climate system that we don't see today."

The Center for the Study of Carbon Dioxide and Global Change and the website "C02 Science" was established to debunk man-made climate fears. An April 11, 2007 report noted that current temperatures in Southern Greenland are "1.5°C colder than the peak warmth of Medieval Times." A June 6, 2007 scientific report by the Center also debunked many of NASA's James Hansen's climate claims by finding *"very little evidence to justify [Hansen's] policy prescriptions for dealing with what he calls a 'dangerous climate change.'"* The website, run by three scientists, *agronomist Dr. Craig Idso, physicist Dr. Sherwood Idso, and botanist Keith Idso,* documents the scientific evidence countering warming fears and offers evidence that the Earth was as warm or warmer during the Medieval Warm Period. The "Medieval Warm Period Project's" goal is to show that "approximately one thousand years ago, when the atmosphere's CO2 concentration was approximately 25% lower than it is currently, earth's near-surface air temperature was equally as warm as, or even warmer than, it is today, demonstrating that today's temperatures are not unnatural and need not be due to the historical rise in the air's CO2 content." Scientific supporters of the Center for the Study of Carbon Dioxide and Global change include: *Climate expert Donald G. Baker* of the University of Minnesota; *Biologist W. Dennis Clark of* Arizona State University; *Chemist Alan Moghissi* of the Institute for Regulatory Science; *Meteorologist William E. Reifsnyder* (Deceased); *Physics professor Clinton H. Sheehan* of Ouachita Baptist University in Arkansas*; Zoologist Kenneth E. F. Watt;* and *Horticulturist Sylvan H. Wittwer* of the Michigan State University.

Astrophysicist Piers Corbyn of the UK based long-term solar forecast group Weather Action noted the UN's IPCC fourth assessment had a "serious misrepresentation of solar activity in the Report." Corbyn also ridiculed the idea that the IPCC summary for policymakers was written by 2500 of the worlds "leading scientists" and said IPCC should instead be called a "The IPCC Report by appointees of many governments." "In fact the report is drafted and finalized by appointees of Governments who may have little or no expertise in many of the wide ranging fields covered. It should further be noted that the many scientists who undertake diligent measurement and observational or estimation work which is used to indirectly support the report conclusions have generally no expertise or locus around the key subject on which the findings of the report are actually based, namely 'Climate Models.' This is the preserve of only a handful of people who generally are in government funded institutions rather than more independent bodies," Corbyn wrote in an open letter to UK government officials on February 11, 2007. "Perhaps the phrase 'The (IPCC) Report by appointees of many governments' would be fairer and should be insisted on, and would not incorrectly imply informed confirmed agreement from many scientists whose work, however excellent, does no such thing," Corbyn concluded. Corbyn also debunked a 2007 widely publicized no solar-climate link study on July 20, 2007. "In desperate attempts to shore up their crumbling doctrine of man-made climate change, Professor Lockwood and Henry Davenport (Letters, July 14) cherry-pick data themselves. Professor Lockwood's 'refutation' of the decisive role of solar activity in driving climate is as valid as claiming a particular year was not warm by simply looking at the winter half of data. The most significant and persistent cycle of variation in the world's temperature follows the 22-year magnetic cycle of the sun's

activity. So what does he do? He ‘finds' that for an 11-year stretch around 1987 to 1998 world temperatures rose, while there was a fall in his preferred measures of solar activity. A 22-year cycle and an 11-year cycle will of necessity move in opposite directions half the time. The problem for global warmers is that there is no evidence that changing CO2 is a net driver for world climate. Feedback processes negate its potential warming effects. Their theory has no power to predict. It is faith, not science. I challenge them to issue a forecast to compete with our severe weather warnings - made months ago - for this month and August which are based on predictions of solar-particle and magnetic effects that there will be periods of major thunderstorms, hail and further flooding in Britain, most notably July 22-26, August 5-9 and August 18-23. These periods will be associated with new activity on the sun and tropical storms. We also forecast that British and world temperatures will continue to decline this year and in 2008. What do the global warmers forecast?" Corbyn wrote.

Meteorologist Joseph D'Aleo served as the first Director of Meteorology at The Weather Channel and was the Chief Meteorologist at Weather Services International Corporation and served as chairman of the American Meteorological Society's (AMS) Committee on Weather Analysis and Forecasting. D'Aleo founded a new website and organization skeptical of man-made global warming fears called International Climate and Environmental Change Assessment Project at Icecap.us on April 9, 2007. D'Aleo is a Certified Consultant Meteorologist (CCM) and he was elected a Fellow and a councilor with the AMS. D'Aleo's new website states the affiliated scientists "believe that local problems with the station data and natural cycles such as those in the sun and oceans are also important contributors to the global changes in our climate and weather. We worry the sole focus on greenhouse gases and the unwise reliance on imperfect climate models while ignoring real data may leave civilization unprepared for a sudden climate shift that history tells us will occur again, very possibly soon." D'Aleo wrote on May 17, 2007, "When I started really looking at the data I saw the signatures of urbanization and local land use factor in global temperatures. I also saw that temperatures cycled over time and those cycles correlated far better with the cycles in the sun and ocean temperatures than with greenhouse gases, which would argue for a parallel increase not cyclical warming and cooling." "I have recently done extensive correlative studies that convince me that the sun and oceans are the real drivers and carbon dioxide is a bit player in the scheme of things. I also believe the cyclical warming has peaked as the factors are changing and a cooling has started or will soon do so, depending on what measure you use," he added. *Other scientists affiliated with D'Aleo on his Icecap.us website include: Astrophysicist Dr. Sallie Baliunas, Deputy Director of Mount Wilson Observatory; Hurricane expert Dr. William Gray, Associate Professor head of the Tropical Research Project at Colorado State University; Oregon State Climatologist George Taylor of Oregon State University's College of Oceanic and Atmospheric Sciences; Marine Biologist Dr. Gary D. Sharp of the Center for Climate/Ocean Resources Study; former radiochemist Alan Siddons, Florida State Climatologist Dr. James O'Brien, Director Emeritus of the Center for Ocean-Atmospheric Prediction Studies at Florida State University; Climate scientist Dr. Richard C. Willson of Columbia University's Center for Climate Systems Research.* http://icecap.us

Oceanographer Dr. Willem de Lange of the department of Earth and Ocean Sciences at the University of Waikato in New Zealand has published numerous peer-reviewed papers in the areas of coastal processes and climatic hazards; tsunami and storm surge prediction and mitigation; wave-induced sediment transport. He has also declared himself skeptical of man-made climate fears. "The Greenhouse Effect is a climate feedback mechanism - it modifies

climate change but does not drive it," de Lange wrote to EPW on December 18, 2007. "Earth's climate is a complex system that is continually changing at different temporal and spatial scales - it may change abruptly, or gradually and affect regions or the whole globe. The primary driver of Earth's Climate at Human time scales is the quantity and quality of Solar radiation - the total amount, and the distribution of radiation across different wavelengths," de Lange explained. "Humans affect climate in a variety of ways - Human impacts are greatest at the micro-scale (your office), and diminish at larger spatial and temporal scales (impact at a global scale over the last 100 years is small - as far as I can tell it tends to disappear into the measurement errors). Emissions of greenhouse gases are a minor contribution to climate feedback as the Greenhouse Effect operates between physically constrained limits," he wrote. "Catastrophic climate changes in the next century are unlikely based on observational data," he concluded.

Senior Meteorologist Dr. Joe Sobel of Accuweather, winner of the American Meteorological Society 2005 Award for Broadcaster of the Year, asserted that climate change is nothing new. "The climate is changing. The climate has always changed, that is a fact of the earth's existence," Sobel said on January 11, 2007. Sobel has 35 years experience at Accuweather and has also been a member of the American Meteorology Society since 1966. "Only 10,000 years ago – which is geologically speaking is like [the snap of a finger] – we were in the midst of an ice age," Sobel said. "There is not much doubt that climate changes and that climate will continue to change," Sobel reiterated. "The question is what is causing it. It is totally a naturally cycle? Is it totally human induced? I suspect the truth lies somewhere in between," he concluded. Sobel also lamented the National Hurricane Center's new tropical storm naming policy because he believes it results in false claims of global warming related increases in storms. "Back in the old days... and I'm only talking 5 years or so ago... we did not name sub-tropical storms. Names were only given to storms that were deemed to be truly tropical. In the last few years, there have been a number of sub-tropical storms named. Those named storms go into the total of named storms and obviously increase the number of storms that year and consequently increase the average number of storms per year," Sobel wrote on May 9, 2007 in his blog. "It has been claimed that global warming is responsible for an increasing number of tropical storms and hurricanes, but here is a reason that the number of storms is increasing that has absolutely nothing to do with global warming. It's because we are mixing apples and oranges and calling them all apples!" he added.

Economist Dr. Owen McShane, chair of the policy panel of the New Zealand based International Climate Science Coalition, slammed "consensus" science on global warming on April 21, 2007. "There is no scientific evidence to justify the wild claims of doom and catastrophe that have made headlines in recent weeks," McShane said. "All we have is a scenario promoted by government funded scientists who are part of the United Nations Intergovernmental Panel on Climate Change (IPCC), based on computer modeling that has been slammed by many independent climatologists around the world as lacking any scientific validity or credibility," he said. "People generally seem not to be aware that the UN defines ‘climate change' as only the effects of climate that result from human activity. It ignores the natural drivers that have governed the global climate for millions of years past. For reasons that have everything to do with politics and nothing to do with science or meteorological observations and records, the present Government committed New Zealand to the Kyoto Protocol that even its most ardent supporters admit will not reduce global warming," McShane asserted. "What Kyoto will do, like the sale of indulgences in the Middle Ages, is

make people and organizations pay for emissions of carbon dioxide by buying credits from countries like Russia that have vast tracts of forested land," he concluded.

Anthropologist Dr. Benny Peiser of the Faculty of Science of Liverpool John Moores University in the UK who has published peer-reviewed studies, debunked a 2004 study published in *Science* which Gore cited in his movie. The study examined 928 peer- reviewed studies and found a virtual 100% consensus on man-made global warming. But Peiser's own analysis found that the study's "entire argument is flawed as the whole ISI data set includes just 13 abstracts (less than 2%) that explicitly endorse what [the author] has called the 'consensus view.'" "In fact, the vast majority of abstracts do not mention anthropogenic climate change," Peiser added. Peiser, who edits a climate change Internet newsletter, has also noted that the media ignores the scientists and studies that cast doubt on climate alarmism. "Hardly a week goes by without a new research paper that questions part or even some basics of climate change theory," Peiser told the New York Times on March 13, 2007. Peiser noted how science has been overtaken with an "apocalyptic" view of the future climate. "Not since the apocalyptic consensus of the Middle Ages has the prognostication of impending doom and global catastrophe on the basis of mathematical modeling been as widely accepted as today," Peiser noted in an April 18, 2007 presentation to European Parliament on climate change. "Ironically, these apocalyptic predictions of the future are politically sanctioned at the same time as a growing number of scientists are recognizing that environmental and economic computer modeling of an inherently unpredictable future is illogical and futile," Peiser said. "Over the last 10 years, the editors of the world's leading science journals such as Science and Nature as well as popular science magazines such as Scientific American and New Scientist have publicly advocated drastic policies to curb CO2 emissions. At the same time, they have publicly attacked scientists skeptical of the climate consensus," Peiser noted.

Atmospheric scientist and hurricane expert Dr. Christopher W. Landsea NOAA's National Hurricane Center who served as a UN IPCC as both an author and a reviewer and has published numerous peer-reviewed research noted that recent hurricane activity is not linked to man-made factors. According to a February 23, 2007 article in Myrtle Beach Online, Landsea explained that "the 1926-1935 period was worse for hurricanes than the past 10 years and 1900-1905 was almost as bad." Landsea asserted that it is therefore not true that there is a current trend of more and stronger hurricanes. "It's not a trend, it's a cycle: 20-45 years quiet, 20-45 years busy," Landsea said. He did say that a warming world would only make hurricanes "5 percent stronger 100 years from now. We can't measure it if it's that small." The article said Landsea blamed Gore's *An Inconvenient Truth*, for "persuad[ing] some people that global warming is contributing to hurricane frequency and strength." Landsea, who was both an author and a reviewer for the IPCC's 2nd Assessment Report in 1995 and the 3rd Assessment Report in 2001, resigned from the 4th Assessment Report after becoming charging the UN with playing politics with Hurricane science. "I am withdrawing because I have come to view the part of the IPCC to which my expertise is relevant as having become politicized. In addition, when I have raised my concerns to the IPCC leadership, their response was simply to dismiss my concerns," Landsea wrote in a January 17, 2005 public letter. "My view is that when people identify themselves as being associated with the IPCC and then make pronouncements far outside current scientific understandings that this will harm the credibility of climate change science and will in the longer term diminish our role in public policy," he continued. "I personally cannot in good faith continue to contribute to a

process that I view as both being motivated by pre-conceived agendas and being scientifically unsound," Landsea added.

Atmospheric scientist Glen Shaw, a Professor of Physics at the Geophysical Institute at the University of Alaska Fairbanks, who was skeptical of global cooling fears in 1970s, now calls the current warming scare "massively political." Shaw noted in a April 22, 2007 article in *News Miner* that "a significantly large fraction of the science being done on global climate change is perhaps not wrong, but not enough, a little naive, repetitive and incorporating only a fraction of the complexity required to base policy on." "And the issue of global warming has become massively political. Special interests abound. Try getting funding while being a skeptic," he added. Shaw also explained how he ran up against the coming ice age scare three decades ago. "In the 1970s as a young scientist at the Geophysical Institute I wrote passionate letters complaining that for the first time in the geologic era man was changing the atmosphere of the planet. I argued that continued dumping of carbon dioxide into the atmosphere would be associated with a warming of the entire Earth and pled for attention to this matter. The letters were ignored. They were ignored because in the 1 970s, *Newsweek,* the *Christian Science Monitor,* the *New York Times,* and countless books and articles were warning of the dangers of global cooling. Things have changed." Shaw concluded: "There is much more in climate science that we simply do not understand. Believe it or not, nobody has any sustainable theory, other than a few clues, about the causes of the ice ages. They are resonant with some of the orbital movements of the planets, but only roughly so and other things are going on that cause and end these spectacular events. We do not know."

Geologist Dr. Lee C. Gerhard, past director and state geologist with the Kansas Geological Society and a senior scientist emeritus of the University of Kansas and a UN IPCC reviewer, debunked the notion that human C02 emissions are driving climate change. "Overall, the earth's climate has been cooling for 60 million years, but that is only an average – temperature goes up and down constantly," Gerhard said in a January article in a *National Policy Analysis* publication. "Depending on the period in earth's history that is chosen, the climate will either be warming or cooling. Choosing whether earth is warming or cooling is simply a matter of picking end points," Gerhard stated. Gerhard also noted that C02 only represents about 1/4 of one percent of the total greenhouse gas effect, "hardly a device to drive the massive energy system of earth's climate." Gerhard also wrote on August 17, 2006: "I never fully accepted or denied the anthropogenic global warming (AGW) concept until the furor started after [NASA's James] Hansen's wild claims in the late 1980's. I went to the [scientific] literature to study the basis of the claim, starting at first principles. My studies then led me to believe that the claims were false, they did not correlate with recorded human history." Gerhard concluded that "the current climate changes were entirely explainable by geologic history." Gerhard has published more than 150 papers and authored the 2001 book "Geological Perspectives of Global Climate Change."

Climatologist Dr. Roy W. Spencer, formerly a senior scientist for climate studies at NASA's Marshall Space Flight Center where he received NASA's Exceptional Scientific Achievement Medal, and currently principal research scientist at the University of Alabama in Huntsville, questioned how much scientists really know about the climate. "CO2 concentrations - now running at 380 parts per million (ppm), up about 40 percent in the last century - are indeed one possible explanation for our current warmth. But we also know that our climate is a nonlinear, dynamic system - which can go through sizeable gyrations all by itself," Spencer wrote in a February 26, 2007 article in the *New York Post*. "The one

atmospheric process that has the greatest control on the Earth's climate is the one we understand the least - precipitation," Spencer, currently a principal research scientist at the Global Hydrology and Climate Center of the National Space Science and Technology Center in Huntsville, Alabama, wrote. "In fact, for the amount of solar energy available to it, our climate seems to have a ‘preferred' average temperature, damping out swings beyond one degree or so. I believe that, through various negative feedback mechanisms, the atmosphere ‘decides' how much of the available sunlight will be allowed in, how much greenhouse effect it will generate in response, and what the average temperature will be," he concluded. Spencer has published more than two dozen scientific papers in peer-reviewed journals.

Dr. Kelvin Kemm, formerly a scientist at South Africa's Atomic Energy Corporation who holds degrees in nuclear physics and mathematics, refuted climate alarmism in an op-ed titled "No scientific basis for global warming contention." Kemm was also honored with a 2003 National Science and Technology Forum Award for sustained outstanding contributions to Science and Technology. "The global-warming mania continues with more and more hype and less and less thinking. With religious zeal, people look for issues or events to blame on global warming," Kemm wrote in an April 27, 2007 op-ed in South Africa's *Engineering News*. "Former US Veep Al Gore is being totally simplistic in his movie by just saying that Mount Kilimanjaro's loss of ice-cap volume is a sign of global warming. Most of Al's movie exhibited the same absence of genuine science, and rather presented itself as part of an election campaign," Kemm explained, while noting that warming temperatures did not cause a ice-cap melt on Kilimanjaro. "It is also a scientific fact that there has been no measurable atmospheric warming in the region of Kilimanjaro. Satellites have been measuring the regional temperature since 1979 in the free troposphere between 1 000-m and 8 000-m altitude and they show no troposphere warming in that area. None. So what is causing the ice cap to melt? The answer appears to be trees, or rather lack of them," Kemm wrote. "...Since the locals have cut down so many trees over the last century, there is much less wet air moving up the mountain than there used to be, so less ice forms at the top," he added.

Economist David Henderson, a Professor at the Westminster Business School and former Chief economist for the Organization for Economic Co-operation and Development, derided the UN IPCC process in a presentation in Brussels on April 18, 2007. "I believe that there is a problem of unwarranted trust in the IPCC process and in the role of the Panel itself, a problem which the *Stern Review* shows no awareness of. In peer-reviewed work that the IPCC has drawn on, the authors concerned have failed to make due disclosure of data, sources and procedures, and the IPCC has not required them to do so," Henderson said. Noting that he believed the IPCC "has acquired what is effectively a monopoly position," Henderson said the IPCC was "far from being a model of rigor, inclusiveness and impartiality." "To begin with, the very idea of creating a single would-be authoritative fount of wisdom is itself open to doubt. Even if the IPCC process were indisputably and consistently rigorous, objective and professionally watertight, it is imprudent for governments to place virtually exclusive reliance, in matters of extraordinary complexity where huge uncertainties prevail, on a single source of analysis and advice and a single process of inquiry. Viewed in this light, the very notion of setting consensus as an aim appears as questionable if not ill-judged," he said. Henderson also dismissed the *Stern Review* as "a heavily biased, exercise in speculative alarmism" and urged governments to "think again" about the focus on C02 reductions. "Rather than pursuing as a matter of urgency ambitious and costly targets for curbing CO2

emissions, [governments] should take prompt steps to ensure that they and their citizens are more fully and more objectively informed and advised," he said.

UN IPCC Contributing Author Dr. Aynsley Kellow is a former professor of Social Sciences of the Australian School of Environmental Studies at Griffith University who has presented papers to the Australian Academy of Science and co-authored the book International Environmental Policy: Interests and the Failure of the Kyoto Process. Kellow, who was a referee for Chapter 19 in the IPCC's fourth assessment report which covered "Key Vulnerabilities and Risk Assessment," questioned the premise of the IPCC's gloomy future predictions. “They [IPCC] really do emphasize the bad news. They’re looking for bad news in all of this,” Kellow said according to an April 23, 2007 article in Spiked-Online. "The IPCC is assuming rates of economic growth that dwarf the nineteenth-century success of the USA, the twentieth century in Japan and so on. The USA experienced, I think, a nine fold increase in GDP per capita; these are making assumptions about 30-fold increases. So you can question their credibility. But if you do that, you're questioning the emissions scenarios that are driving the climate models," Kellow said. “I’m not holding my breath for this criticism to be taken on board, which underscores a fault in the whole peer review process for the IPCC: There is no chance of a chapter [of the IPCC report] ever being rejected for publication, no matter how flawed it might be,” Kellow said. “The scientists are in there but it is, after all, called the *Intergovernmental* Panel on Climate Change. The scientists are there at the nomination of governments. Governments fund the exercise and sign-off on it ultimately,” Kellow said, noting the politicization of the process. Kellow also asserted that the whole Kyoto Protocol approach to greenhouse gas emissions does not favor developing nations. “The emphasis on CO2 suits largely post-1990 decarbonized European economies worried about justifying high levels of taxation, energy security policies and so on. It doesn’t suit those with ample coal supplies at a quarter of the cost of producing coal in Europe – which includes India and China. There’s a very European slant to Kyoto,” Kellow concluded.

Harvard-Smithsonian Center Astrophysicist Dr. Willie Soon, co-author of the book The Maunder Minimum and the Variable Sun-Earth Connection, and chief science advisor to the Science and Public Policy Institute, authored a comprehensive November 2007 study that was published in the peer-reviewed journal Physical Geography. The study concluded: "[L]ong-term climate change is driven by solar insolation changes, from both orbital variations and intrinsic solar magnetic and luminosity variations... There is no quantitative evidence that varying levels of minor greenhouse gases like CO2 and CH4 have accounted for even as much as half of the reconstructed glacial-interglacial temperature changes or, more importantly, for the large variations in global ice volume on both land and sea over the past 650 thousand years. ... [C]hanges in solar insolation at climatically sensitive latitudes and zones exceed the global radiative forcings of CO2 and CH4 by several-fold, and ... [therefore] regional responses to solar insolation forcing will decide the primary climatic feedbacks and changes." *Soon also co-authored a November 2007 study that found mankind's emissions are not harming the atmosphere. The paper, co-authored with Dr. Art Robinson and Noah Robinson, was published in Journal of American Physicians and Surgeons* and was titled, "Environmental Effects of Increased Atmospheric Carbon Dioxide." The study reported: "A review of the research literature concerning the environmental consequences of increased levels of atmospheric carbon dioxide leads to the conclusion that in creases during the 20th and early 21st centuries have produced no deleterious effects upon Earth's weather and climate. Increased carbon dioxide has, however, markedly in creased plant growth." The

study also found, "There are no experimental data to support the hypothesis that increases in human hydrocarbon use or in atmospheric carbon dioxide and other green house gases are causing or can be expected to cause unfavorable changes in global temperatures, weather, or landscape."

CBS Chicago affiliate Chief Meteorologist Steve Baskerville expressed skepticism that there is a "consensus" about mankind's role in global warming. "What is the truth about global warming? As you have seen in this program, it depends on who you talk to. As decision makers ponder our future as it relates to climate change, we need to keep asking questions. Because an informed public should have a role in determining the ultimate truth about global warming," the Emmy Award winning Baskerville concluded in an April 28, 2007 TV special he hosted called "The Truth about Global Warming." Baskerville's climate TV special clearly portrayed the science as not settled on man's role in climate change as he featured interviews with prominent skeptics, including MIT climate scientist Richard Lindzen and environmental economist Dennis Avery, co-author of the 2006 book *Unstoppable Global Warming: Every 1500 Years.*

Atmospheric scientist and hurricane expert Dr. Neil Frank, former director of the National Hurricane Center, dismissed fears of catastrophic man-made global warming. "It's a hoax," Frank told the *Washington Post* on May 28, 2006 regarding doomsday climate scenarios. According to the article, "[Frank] says cutting carbon emissions would wind up hurting poor people. I ask if he thinks more CO2 in the air would be a good thing. 'Exactly! Maybe we're living in a carbon dioxide-starved world. We don't know.'" Frank also lamented that the UN's IPCC does not reach out to many skeptics of global warming like himself. Frank has published a variety of professional papers on tropical meteorology and served the chairman of the International Hurricane Committee.

Statistician Dr. Bjorn Lomborg, author of "The Skeptical Environmentalist" and professor at the Copenhagen Business School, questioned former Vice President Al Gore's scientific presentations. "But if we are to embark on the costliest political project ever, maybe we should make sure it rests on solid ground. It should be based on the best facts, not just the convenient ones," Lomborg co-wrote in a January 21, 2007 *Wall Street Journal* op-ed titled "Will Al Gore Melt?" Lomborg, who proclaimed he "has provided one of the clearest counterpoints to Mr. Gore's tune," accused Gore of "chicken[ing]" out of a debate. "But if we are to follow Mr. Gore's suggestions of radically changing our way of life, the costs are not trivial," Lomborg wrote. "In the year 2100, Mr. Gore will have left the average person 30% poorer, and thus less able to handle many of the problems we will face, climate change or no climate change. Clearly we need to ask hard questions. Is Mr. Gore's world a worthwhile sacrifice? But it seems that critical questions are out of the question," he continued. "It would have been great to ask [Gore] why he only talks about a sea-level rise of 20 feet. In his movie he shows scary sequences of 20- feet flooding Florida, San Francisco, New York, Holland, Calcutta, Beijing and Shanghai. But were realistic levels not dramatic enough? The U.N. climate panel expects only a foot of sea-level rise over this century. Moreover, sea levels actually climbed that much over the past 150 years. Does Mr. Gore find it balanced to exaggerate the best scientific knowledge available by a factor of 20?" Lomborg wrote. "[Gore] considers Antarctica the canary in the mine, but again doesn't tell the full story. He presents pictures from the 2% of Antarctica that is dramatically warming and ignores the 98% that has largely cooled over the past 35 years. The U.N. panel estimates that Antarctica will actually increase its snow mass this century. Similarly, Mr. Gore points to shrinking sea ice in

the Northern Hemisphere, but don't mention that sea ice in the Southern Hemisphere is increasing. Shouldn't we hear those facts?" Lomborg added. Lomborg organized some of the world's top Nobel Laureates to form the 2004 Copenhagen Consensus which ranked the world's most pressing problems. The Copenhagen Consensus placed global warming at the bottom of the list in terms of our planet's priorities, behind combating disease, stopping malaria, securing clean water, and building infrastructure to help lift the developing nations out of poverty.

Geologist Dr. Simon Bras sell, of the Department of Geological Sciences at the Indiana University, noted "climate change is nothing new." According to an October 16, 2006 *Washington Post* article, "Brassell said the evidence of climate change so long ago during a period without humans could influence the modern-day understanding of global warming." "If there are big, inherent fluctuations in the system, as paleoclimate studies are showing, it could make determining the Earth's climatic future even harder than it is," Brassell said. "We're learning our climate, throughout time, has been a wild beast," Bras sell added. The study was conducted with the Royal Netherlands Institute for Sea Research and the results were published in the October 2006 issue of *Geology*.

Polar bear expert Dennis Compayre, formerly of the conservation group Polar Bears International, has studied the bears for almost 30 years in their natural habitat and is working on a new UK documentary about the bears.

Compayre disputed fears of a potential global warming threat to polar bears. A December 7, 2007 article in the UK *Daily Mail* reported, "Dennis Compayre raises bushy grey eyebrows as he listens to the environmentalists predict the polar bear's demise. ‘They (environmentalists) say the numbers are down from 1,200 to around 900, but I think I know as much about polar bears as anyone, and I tell you there are as many bears here now as there were when I was a kid.'" According to the article, Compayre, who was born and raised in the Arctic town, "is among those who eye the new ‘experts' in town with deep suspicion. Compayre added, ‘Churchill [in Northern Canada] is full of these scientists going on about vanishing bears and thinner bears. They come here preaching doom, but I question whether some of them really have the bears' best interests at heart. The bear industry in Churchill is big bucks, and what better way to keep people coming than to tell them they'd better hurry to see the disappearing bears.'" The article also noted, "To some Churchill residents, who base their opinions on personal experience rather than fancy charts and computer models, [the polar bear's demise] is so much nonsense put about by scaremongers for their own dubious ends."

David Dilley, founder of Global Weather Oscillations, Inc., rejects the idea of manmade global warming. Dilley's research found that the current global warming episode is a "Natural Recurring Cycle." "Dilley demonstrated that the current global warming episode is a ‘Natural Recurring Cycle,' and that this current cycle will begin to diminish as early as 2015, and no later than 2040," according to an April 6, 2007 press release. "Dilley's 15-years of ongoing climate research have uncovered a very powerful external forcing mechanism that causes shifts in regional weather cycles, and the world's climate. This forcing mechanism is called the ‘Primary Forcing Trigger Mechanism,' or PFM. The PFM is a cyclical forcing mechanism that can be forecast years in advance, or even traced back through the earth's climate history. The major influence of the PFM on the earth's climate is that it causes the world's dominating regional high-pressure systems to shift position, or become displaced from their normal seasonal position," noted the press release on the website of Global

Weather Oscillations. "Dilley states that the current global warming is without a doubt the result of a known external "natural" forcing cycle. According to Dilley, most government officials, climatologists and meteorologists are looking only at the increase in temperatures and carbon dioxide (CO2) levels over the past 50 to 100 years. But when you take into account nearly 40 other global warming episodes over the past 5 thousand years, it becomes very apparent that CO2 levels cannot be the forcing mechanism that has caused global warming," the press release stated.

Biologist Josef Reichholf, who heads the Vertebrates Department at the National Zoological Collection in Munich, rejected climate fears and asserted global warming will be beneficial to humans and animals, particularly polar bears. Fears of mass species extinctions because of global warming are "nothing but fear-mongering, for which there is no concrete evidence. On the contrary, there is much to be said for the argument that warming temperatures promote biodiversity. There is a clear relationship between biodiversity and temperature. The number of species increases exponentially from the regions near the poles across the moderate latitudes and to the equator. To put it succinctly, the warmer a region is, the more diverse are its species," Reichholf said in an interview with *Der Spiegel* on May 8, 2007. Reichholf, a professor of ecology and conservation at both of Munich's two universities, and author of the book *A Short Natural History of the Last Millennium,* continued, "As recently as the 1 960s, people were more concerned about a new ice age – and that would indeed pose a great danger to us. The most catastrophic eras were those in which the weather became worse, not phases of warmer climates. Precisely because we have to feed a growing population on this planet, we should in fact embrace a warmer climate. In warmer regions it takes far less effort to ensure survival," he said. "How did the polar bear survive the last warm period? Seals are the polar bear's most important source of food, and the Canadians slaughter tens of thousands of them every spring. That's why life is becoming more and more difficult for polar bears, and not because it's getting warmer. Look at the polar bear's close relative, the brown bear. It is found across a broad geographic region, ranging from Europe across the Near East and North Asia, to Canada and the United States. Whether bears survive will depend on human beings, not the climate," he said. Fear of spreading malaria is also unfounded, according to Reichholf. "That's another one of those myths. Many people truly believe that malaria will spread as temperatures rise. But malaria isn't even a true tropical disease. In the 19th century, thousands of people in Europe, including Germany, the Netherlands and even Scandinavia, died of malaria, even though they had never gone abroad. That's because this disease was still prevalent in northern and central Europe in previous centuries. We only managed to eliminate malaria in Europe by quarantining the sick, improving hygiene and draining swamps. That's why I consider it virtually impossible that malaria would return to us purely because of climate change. If it does appear, it'll be because it has been brought in somewhere," he said. "There have been much faster climate fluctuations in the past, which did not automatically lead to a global extinction of species. As a biologist, I can tell you that only the fewest animals and plants are accustomed to rigid climate conditions," he added.

Emmy award-winning Chief Meteorologist for an NBC affiliate Bill Meck, who has earned Seals of Approval from both the American Meteorological Society and the National Weather Association, questioned the notion that there is a scientific "consensus" about global warming. "If the science is ‘clear,' and there is no more ‘debate,' why is there still a tremendous amount of our tax dollars being allocated to research (and a PR campaign for that

matter)? We don't still go around researching why the Earth is round, or why the sky is blue. If it's a done deal, why are folks still trying to justify or prove it?" Meck asked in a February 13, 2007 blog. Meck, who produced a TV series called the "Global Warming Myth," praised the March 13, 2007 article in the *New York Times* for debunking much of the science presented in Gore's *An Inconvenient Truth*. "There are many wonderful nuggets of information to pull from [the *New York Times* article], but file away the bits about how there may not be the 'consensus of scientists' you so often hear about. Also check the info toward the end about the natural climate cycles. That is my contention all along. There have been natural climate cycles, always have, always will," Meck explained in a March 12, 2007 blog. "Also take note how there are very few times when the temperature hangs around the 'average', it's either warm or cold balancing out as an 'average'. Our current warming began at the end of the Little Ice Age, just over 100 years ago, when it was REALLY cold. Our current warm spell is simply balancing it out. Now go enjoy the 70's in March, guilt free!" he wrote.

Dr. Martin Hertzberg, a retired Navy meteorologist with a PhD in physical chemistry, distrusts climate computer models and believes the models do not adequately account for water in the atmosphere. According to the May 14, 2007 issue of *The Nation* magazine, Hertzberg said water in the form of oceans, snow, ice cover, clouds and vapor "is overwhelming in the radiative and energy balance between the Earth and the sun.... Carbon dioxide and the greenhouse gases are, by comparison, the equivalent of a few farts in a hurricane." The article explained Hertzberg's views: "Water covers 71 percent of Earth's surface. Compared with the atmosphere, there's 100 times more CO2 in the oceans, dissolved as carbonate. As the post-glacial thaw progresses the oceans warm up, and some of the dissolved carbon emits into the atmosphere, like fizz from soda." Hertzberg is quoted saying, "The greenhouse global warming theory has it ass backwards. It is the warming of the Earth that is causing the increase of carbon dioxide and not the reverse." The article noted, "In vivid confirmation of that conclusion, several new papers show that for the last 750,000 years, CO2 changes have always lagged behind global temperatures by 800 to 2,600 years."

Climate scientist Dr. Oliver W. Frauenfeld, a co-author of the 2005 book Shattered Consensus: The True State of Global Warming and a research scientist at the Cooperative Institute for Research in Environmental Sciences Division of Cryospheric and Polar Processes at the University of Colorado, questions the accuracy of climate models. "Without question, much more progress is necessary regarding our current understanding of climate and our abilities to model it. Before we can accurately understand the midlatitudes' response to tropical forcing, the tropical forcings themselves must be identified and understood," Frauenfeld wrote in "Shattered Consensus." Frauenfeld, a Contributing Author to the IPCC Working Group 1 Fourth Assessment Report, added, "Only after we identify these factors and determine how they affect one another, can we begin to produce accurate models. And only then should we rely on those models to shape policy. Until that time, climate variability will remain controversial and uncertain."

Geologist David Archibald of Summa Development Limited in Australia wrote a scientific paper titled "Solar Cycles 24 and 25 and Predicted Climate Response" in Energy and Environment in 2006 showing that solar cycles are more important than C02 levels. In a May 2007 updated paper, "The Past and Future of Climate" Archibald predicts an "imminent cooling" by 2030 based on solar cycles states. "Most rural temperature records in the United States were set in the 193 0s and 1940s. Greenland had its highest recorded temperatures in

the 1930s and has been cooler since," Archibald wrote. "The 1.5° temperature decline from the late 1950s to the mid-70s was due to a weak solar cycle 20 after a strong solar cycle 19," Archibald explains. Archibald also noted that the Medieval Warm Period was originally recognized by the UN IPCC to have been warmer than current temperatures, but it "become inconvenient to the IPCC, so they haven't mentioned it since." Archibald asserted, "Anthropogenic warming is real, it is also miniscule." He explained, "Since the beginning of the Industrial Revolution, increased atmospheric carbon dioxide has increased the temperature of the atmosphere by 0.1 °." "There is no correlation in the geologic record between atmospheric carbon dioxide and global temperature. The Earth went into an ice age 450 million years ago despite a level of atmospheric carbon dioxide that is ten times what it is today,"

Archibald wrote. "There are no deleterious consequences of higher atmospheric carbon dioxide levels. Higher atmospheric carbon dioxide levels are wholly beneficial," he added. "Anthropogenic Global Warming is so miniscule that the effect cannot be measured from year to year, and even from generation to generation," he concluded.

Physics professor Kjell Aleklett of the Department of Radiation Sciences and the Uppsala Hydrocarbon Depletion Study Group at Uppsala University in Sweden asserts that severe climate change is unlikely before the Earth runs out of fossil fuels. Writing in a June 5, 2007 post at Australia's Online Opinion, Aleklett suggests that "the combined volumes of these fuels are insufficient to cause the changes in climate." Aleklett believes that "compared with what has been previously asserted, we are going to be much better off in terms of carbon dioxide emissions" because the Earth is nearing "the maximum production rate for oil, or 'Peak Oil.'" He concludes by noting "we must discuss and dispute the temperature increases that the IPCC-families indicate and the fossil fuel resources that the IPCC uses in its prognoses. We need new estimates of future temperature increases based on realistic expectations of oil, natural gas and coal use.

Only then can we make sensible decisions for our future. The world's greatest future problem is that too many people must share too little energy."

Anthony Watts, former meteorologist for KHSL-TV, a CBS-TV affiliate in Redding, California, has examined 460 of the 1221 official climatic weather stations in the 48 lower states, and discovered multiple irregularities that are causing temperature data to skew higher than it should. Watts, who publishes a website devoted to investigating surface stations, believes his research casts doubt on NOAA's current and historical temperature data reports. "I believe we will be able to demonstrate that some of the global warming increase is not from CO2 but from localized changes in the temperature-measurement environment," Watts told the *Pittsburgh Tribune-Review* on June 17, 2007. Watts examined temperature stations that the National Oceanic & Atmospheric Administration's (NOAA) uses as part of its National Climatic Data Center. The NCDC has about 1,221 mostly rural weather observation stations around the country. Watts, who founded the web site surfacestations.org, has made it his mission to quality check weather stations to see if the data is being accurately captured. Watts noted one such weather station in California was "surrounded by asphalt and concrete, its also within 10 feet of buildings, and within 8 feet of a large metal cell tower that could be felt reflecting sunlight/heat. And worst of all, air conditioning units on the cell tower electronics buildings vent warm air within 10 feet of the sensor." Watts concluded, "I can tell you with certainty, the temperature data from this station is useless." Watt's extensive data research was noted by Meteorologist Joseph Conklin on August 10, 2007:

"The (U.S.) National Climate Data Center (NCDC) is in the middle of a scandal. Their global observing network, the heart and soul of surface weather measurement, is a disaster. Urbanization has placed many sites in unsuitable locations - on hot black asphalt, next to trash burn barrels, beside heat exhaust vents, even attached to hot chimneys and above outdoor grills! The data and approach taken by many global warming alarmists is seriously flawed. If the global data were properly adjusted for urbanization and station siting, and land use change issues were addressed, what would emerge is a cyclical pattern of rises and falls with much less of any background trend."

Dr. Wilson Flood, of the Royal Society of Chemistry and a chemistry education consultant, wrote that it is an "unproven hypothesis that rising greenhouse gas levels are largely responsible for climate change" in a June 27, 2007 letter to the *Scotsman* newspaper. "Further Met Office data also shows that global temperatures have actually fallen slightly in the last decade and have shown no statistically significant rise since 1990. Just to cap it all, NASA studies show that atmospheric levels of the greenhouse gas methane are falling, not rising. All of the above are easily verifiable and fly in the face of the conventional wisdom. But, hey, we shouldn't let a few inconvenient facts get in the way of what politicians believe, should we?" Flood wrote. In the May 2006 edition of *Education in Chemistry*, Flood explained, "Of all the scientific disciplines, chemistry equips us best to grasp the essentials of the global warming debate. After all global warming comes down to the absorption of infrared radiation by organic molecules, coupled with the mole concept which allows us to convert tonnes of fossil fuels into tonnes of carbon dioxide." Flood continued, "Those claiming that the effects of global warming from additional greenhouse gases can already be detected, I believe, are deluding themselves. It would take 5.5Wm-2 to produce a rise of 1K and an 11K rise (sometimes claimed) would need a massive 55W of additional energy for every square metre of the Earth's surface. There simply is not that amount of energy available still to be absorbed from the Earth's spectrum, most of which is largely saturated anyway owing to absorption by carbon dioxide and water vapour." Flood said, "Those who promote apocalyptic global warming claim that the sensitivity is much higher than 0.18K, some claiming 0.75K and even 1 .5K.6 These claims are mainly based on a postulated magnifying effect of water vapour but, from a consideration of infrared absorption spectroscopy in relation to the spectrum emitted by a body at 288K, it is not clear how such large values can be achieved." Flood concluded by noting that the proponents of a climate catastrophe are out "to frighten the population."

Senior Meteorologist Peter McGurk, with WSI Corporation, a provider of weather-driven business solutions to such clients as CNN, FOX, NBC, American Airlines, Delta, and FedEX, and formerly a Senior International Meteorologist for the former Weather Services Corporation, dismissed fears of "a global Armageddon in the making." After analyzing temperature data for U.S. states, McGurk, who holds a Master of Science degree in Geophysics from the University of Chicago, explained in a June 29, 2007 report, "As far as extreme maxes are concerned, not only is the overall average greater during the first half of the last century, but 2/3 of the monthly averages are also greater during the period 1900-1949. Only for the months of March, June, October and December were they warmer during the period 1950-1999." McGurk concluded, "I suspect that if we were truly headed for a Global Meltdown, that this data would vastly different than it is currently. Namely, we would be seeing many more record state maxes occurring more frequently during the recent past that the distant past. Additionally, we should not be seeing more state record extreme mins set

during the second half of the past century." He added, "For 3 out of the four seasons there were more record maxes during the first half of the last century and more record mins during the second half of the 1900s. From an extreme state monthly record perspective, hardly a global Armageddon in the making." "I don't feel that climate modeling is advanced enough to tell us with any degree of certainty what our planet's climate will be like one to three centuries from now. While I agree that there may have been some slight global warming during the past 150 years, there is still plenty of scientific debate as to what factors are responsible. Certainly the human race does influence the climate here on Earth, but we cannot say with any certainty to what extent this influence is when compared to other natural cycles of climate variability," McGurk wrote in a May 18 e-mail to EPW.

Chief Meteorologist Tom Chisholm of WMTW ABC Portland, Maine, who has also been on camera on The Weather Channel, wrote in an e-mail to EPW, "Variable processes in nature exist on a continuum. Any statement, concluding an absolute fixed state of variable, dissipative structures is folly." Chisholm continued, "This is true concerning accelerating and deaccelerating mathematical equations representing the earth's heat budget. Initializing an absolute measure of the earth's energy is impossible. Therefore, ‘computer models' that global warming pundits exercise and represent as predictively accurate, over long periods of time are, at best, suspect."

Atmospheric Scientist Ross Hays of NASA's Columbia Scientific Balloon Facility, in Palestine, Texas, declared himself a skeptic. "My belief is the planetary climate system is an ever changing and evolving one. The climate and geological state of the earth did not develop to this point and time and stop the clock," Hays wrote in a May 18, 2007 e-mail to EPW. Hays, who authored a study on African waves and their development into tropicalkin cyclones, continued, "The climate and the shape of our continents will continue to change. Yes we are in a cycle of warming, and we should protect our planet from pollution, but we will continue to go through cycles and changes no matter what. In the future there will be another cooling phase as our climate continues to take its sinusoidal trek through history."

Senior Meteorologist Jeff Halblaub of WSI Corporation which provides weather- driven business solutions to such clients as CNN, FOX, NBC, American Airlines, Delta, and FedEX, rejected man-made global warming fears. "It is my firm belief that the United Nations Intergovernmental Panel on Climate Change, politicians, some scientists, multinational corporations, environmentalists, moviemakers, and news media are making false claims regarding the effects of humans on the atmosphere," Halblaub wrote in a May 18, 2007 e-mail to EPW. "As recently as three decades ago, Newsweek Magazine reported cataclysmic climate damage would occur from "global cooling." Satellite observations, which survey the entire Earth (which is mostly water), show no temperature change at all since the late 1970s. Mankind changes climates on small scales through urban sprawl and other land-use modifications; human impact on global temperatures is miniscule compared to atmospheric, oceanic, geologic, and solar anomalies and phenomena," Halblaub wrote. "Carbon Dioxide is a ‘trace gas.' Per unit volume, CO2 is not even one tenth of one percent of the gases present. Water vapor is up to 114 times more abundant than CO2. It has a much greater effect as a greenhouse gas. In truth, climate researchers are taking a very small increase in CO2 and projecting it into the future using climate models. These models cannot even reproduce past climates. The results of these modeling studies are overinflated and inaccurate temperature increases. The ‘debate' on human-induced global warming is not over; there never was any. The ‘science' was decided before the research ever began," he added.

Climatologist Robert Durrenberger, past president of the American Association of State Climatologists, and one of the climatologists who gathered at Woods Hole to review the National Climate Program Plan in July, 1979, rejected man-made climate fears. Durrenberger says Gore's "misinformed" scientific assertions motivated him to get actively involved in the climate debate. "Al Gore brought me back to the battle and prompted me to do renewed research in the field of climatology. And because of all the misinformation that Gore and his army have been spreading about climate change I have decided that 'real' climatologists should try to help the public understand the nature of the problem. I hope by writing a book that I have contributed to the effort to combat the 'alarmists' who are trying to harm this country," Durrenberger wrote to EPW on May 19, 2007. "Put me on the list of skeptical members," Durrenberger, who is also a meteorologist, wrote. He also served as a member of a science panel for the National Academy of Sciences.

Meteorologist John Coleman, Founder of The Weather Channel and former meteorologist for ABC's Good Morning America, slammed the "recent political hype and media frenzy" about man-made global warming fears. "The recent political hype and media frenzy about 'Global Warming' is, in my studied opinion, an unprecedented episode of mass extremism and silliness," Coleman wrote in a May 19, 2007 email to EPW. "I believe that fifty years from now, serious scientists, political leaders and news editors will look back with astonished embarrassment at the irresponsibility of their predecessors. Its not that the Earth's atmosphere isn't somewhat warmer in 2007 than it was in 1907. It is. It is not that mankind's civilization isn't contributing to warming. It is. But the recent warming trend is not extreme or wildly accelerating or irreversible or destined to destroy our way of life. As I see it, the predictions of future catastrophic consequences of warming are totally without foundation," Coleman explained. "Much of what minor warming has been underway in recent years is the result of natural fluctuations in the heat output of the Sun and from other natural cycles. Much of the man made warming is from Urban Heat Islands and is well documented. Many other human activities from agriculture to aviation are having some impact on climate. These changes are worthy of study, reasonable concern and corrective action. All of that is taking place. But as for the dire predictions that dominate the political and media coverage today, there are serious doubts in my mind about their validity," he continued. "The historic data on which many of the 'studies' are based seems to have been selected and massaged to produce the investigators biased predetermined conclusions. And, the notion that the historic measurements are accurate within less than a degree of two is questionable. The old instruments were crude by any modern standards. And inference of past temperatures from other environmental traces seem to me to be subject to significant error. All computer forecast models require a basic set of assumptions. In many cases the bias of the investigators seem to have produced assumptions that have little reasonable basis," he concluded.

Chief Meteorologist Bob Breck of WVUE-TV in New Orleans rejected man-made climate fears. "As you well know, those of us older than 50 recall the same type of scare tactics back in the late 60s & 70s. The 'consensus' of scientists back then were warning of global cooling and the possible beginning of a new Little Ice Age. How could so many brilliant scientists have been so wrong?" Breck wrote to EPW on May 20, 2007. "The new (translation-younger) 'consensus' of scientists want you to believe that they have better data, that they have computer modeling and (worse yet) they're smarter! They want us to believe that the current warming will continue forever, yet there is nothing in the climatological history of our planet that indicates this will be the case. On the contrary, there is ample evidence to explain the

current warming, that CO2 is NOT the driver, and that other factors (deep ocean current cycles, solar energy fluctuations) are more responsible," Breck explained. "The media has decided that the facts, other than carbon dioxide being the driver, are not sexy enough to warrant any coverage. I hope there are enough members of Congress who remember the global cooling scare of 3 0-40 years ago," Breck concluded.

Atmospheric scientist Bruce Schwoegler, former U.S. Navy meteorologist and Boston broadcast meteorologist, rejected man-made climate fears. "It is my contention that too many variables cloud the global warming broth that has boiled over. A rational approach and lower setting on the hot stove political and media agenda is in order," Schwoegler wrote to EPW on May 29, 2007. Schwoegler, who was awarded the American Meteorological Society's Outstanding Broadcast Meteorologist service award, is also an investigator with an international team studying environmental impacts of a Caribbean volcano. "Yes, significant global warming is a concern, and there is a likely relationship between human induced impacts and climate change. But has anyone truly ascertained the scope, depth and outcome in our planetary system which is rife with natural checks and balances? Quantifying them and resultant interactions remains mostly a game of my theory versus yours," he explained. "Urbanization's heat islands, volcanic activity, solar fluctuations, historical climate cycles, oceanic and green canopy carbon budgets and the magnitude of artificial irrigation are but a few of the more blatant examples of puzzle pieces not yet in place. Even proliferating aircraft contrails and changes in measuring techniques and sites must be considered. All comprise a cloudy soup that should be set to low as I am not yet prepared to eat," he concluded.

NASA consultant and former space shuttle engineer John L. Casey of the Florida based Verity Management Services Inc. (VMS), has found solar influences on the climate dominate. An April 3, 2007 press release from VMS touted "A new theory for how the sun contributes to the heating and especially the cooling of the Earth." The release from Casey, who has conducted satellite launch studies for the U.S. Department of Defense, explained, "Discovered in the process of doing research into a book on natural disasters he is writing, the theory uncovered by Casey has identified two important cycles of the sun. One is between 90 and 100 years long and another 207 years long, that he says are the primary cycles for weather patterns in the US and possibly around the globe. ‘The surprise,' said Casey ‘was the near 100% match between low temperatures and solar activity lows between now and as far back as 900 AD. A correlation this strong is rare and exciting. The data is reliable enough for me to call an end to the current 207 year or ‘Bi-Centennial' cycle with the next solar sunspot period, and with it the start of a new period of declining temperatures.' If the theory's fundamental cycles play out as he predicts, over the next ten years we will be well on our way into a global cool down. He estimates by the peak of the next solar sunspot cycle which he calculates for the year 2012, there should be strong signs the cooler period has started in accordance with the relational cycle theory. He also says signs of a BiCentennial cycle changeover are already occurring although modestly. His observations are based on lower sunspot counts and year to year comparisons between 2006 and 2007."

Veteran climate researcher Erich Roeckner of the Max Planck Institute for Meteorology laments the lack of climate computer model reliability. "Clouds are still our biggest headache," Roeckner conceded, according to a May 7, 2007 article in DER SPIEGEL According to the article, "Even the most powerful computer models are still too imprecise to simulate the details. However, the clouds alone will determine whether temperatures will increase by one degree more or less than the average predicted by the models. This is a

significant element of uncertainty. Roeckner is a conscientious man and a veteran of climate research, so he, of all people, should know the limits of simulation programs. Roeckner, who constantly expects surprises, neatly sums up the problem when he says, 'No model will ever be as complex as nature.'" The Der Spiegel article continued, "'According to our computer model, neither the number nor intensity of storms is increasing,' says Jochem Marotzke, director of the Hamburg-based Max Planck Institute for Meteorology, one of the world's leading climate research centers. 'Only the boundaries of low-pressure zones are changing slightly, meaning that weather is becoming more severe in Scandinavia and less so in the Mediterranean.'" Roeckner also questioned some of the computer "scenarios" used by the UN IPCC to predict the future impacts of global warming. "Some emissions scenarios are perhaps already demonstrably wrong," Roeckner said according to January 26, 2006 interview in the journal Nature. "It is possible that all of them are wrong."

Meteorologist Larry Cosgrove said on Fox News Channel on January 19, 2007, "I do not espouse the global kool-aid line of the American Meteorological Society. Now, I like many people, believe in global warming. You can't refute that. Temperatures are warming around the globe. But, the question is what's causing it. Is it purely man made as the American Meteorological Society and [the Weather Channel's Dr. [Heidi] Cullen espouse or is it a combination of events, namely what's happening on the earth and 'some help' so to speak, from man kind?"

Nuclear Scientist Dr. Michael R. Fox, who holds a PhD in Physical Chemistry and is a science analyst for the Grassroot Institute of Hawaii, dismisses global warming "hysteria." "Regrettably, the current hysteria about global warming is based much more on fear, political agendas, and computer models that don't agree with each other or the climate, rather than hard-nosed evidence and science. The climate forces which have led to the estimated 0.6C degree temperature increase over the past 100 years or more (according to the International Panel on Climate Change) have been assumed to be manmade CO2 emissions from advanced nations including the U.S. We know this can't be true for several reasons," Fox wrote on July 18, 2007. "The first is that water vapor provides 95 percent of the total of the greenhouse gases, not CO2. The total of the CO2 represents less than 3 percent of the total. The second is that of the total atmospheric CO2 inventory, the manmade fraction is less than 3 percent of the CO2 total and therefore far less than 1 percent of the total greenhouse gas inventories. Third, studies of the recent climate variations are finding, for example, (See article by J. Oestermans, Science, p. 375, April 29, 2005) that glaciers have been receding since 1750 or so, well before any significant man-made CO2 emissions occurred. The mid 1700s were at the very depths of the Little Ice Age, which we have learned was the coldest climate over the last 5000 years. Obviously, other warming forces were at work before humans had anything to do with it. Now we have learned much more based upon observations of cosmic radiation, their sources, and the sun's magnetic fields, combined and new discoveries in the laboratory. A new and more comprehensive understanding of our planetary environment has emerged. This gives us a scientifically defensible explanation of both global warming and cooling," Fox explained. "Thanks to some recent excellent experimental work in physics by those such as Danish scientist Henrik Svensmark, we now know that cosmic rays and some of the debris from nuclear collisions with atoms in the atmosphere are directly involved with the initiating mechanisms of cloud formation. Basically, the more cosmic rays, the more clouds are formed and the cooler the temperature. Since many of the cosmic rays can be deflected by the Sun's magnet field, the cosmic ray intensity varies inversely with the strength of that field. The

stronger the solar magnetic field, the fewer cosmic rays hit the atmosphere, fewer clouds are formed, and the climate becomes warmer. Today the sun's magnetic field is more than twice as strong as it was at the turn of the last century. During the mid 1700s during the Little Ice Age there was a 70 year period when there were no sunspots (called the Maunder Minimum), and the solar magnetic field was very weak," Fox added. "What lies ahead are some exciting times in climate physics and our understanding of the environment. Unexplained findings in geological and climate histories are now being explained by these new lines of inquiry. It appears that the Sun's magnetic field has had a stronger effect on our climate than just the variations in solar irradiance could explain. Political leaders, environmental advocates, and even Oscar-winning documentarians who claim that "the debate of climate science is over" have been shown once again to be very wrong," he concluded.

Biologist Dr. Jennifer Marohasy, who has been a field biologist in remote parts of Africa and Madagascar and published in international and Australian scientific journals, dismisses climate fears. "I've always considered it somewhat pretentious to believe humans can actually stop climate change, given the earth's climate has always changed," Marohasy wrote on May 25, 2007 in an article entitled "Cooling Heels on Global Warming." She also critiqued Gore's presentation of climate science. "Never once during this so-called documentary does Gore acknowledge that there is potential for an alternative thesis on global warming and the role of carbon dioxide. All dissent is met with ridicule and/or name calling. Al Gore certainly doesn't appear to understand the potential value of hypotheses testing. Instead Gore reduces global warming to a moral issue and a contest between the good guys, which according to Gore includes all of the world's climate scientists, and the so-bad so-called skeptics, who he suggests are all hired guns," Marohasy wrote on September 16, 2006. She has also stated, "As a consequence of the burning of fossil fuels, atmospheric carbon dioxide levels are currently increasing. There is no evidence, however, to suggest this will bring doom or that, by signing the Kyoto Protocol, Australia would make a significant difference to global carbon dioxide levels or to the rate of climate change."

Professor Dr. William J.R. Alexander, Emeritus of the Department of Civil and Biosystems Engineering at the University of Pretoria in South Africa and a former member of the United Nations Scientific and Technical Committee on Natural Disasters, rejected the so-called "consensus" view on global warming. "Mix Al Gore, polar bears, Kilimanjaro, Katrina, the Royal Society, the Stern Review, the 2000 IPCC scientists and what do you get - the end of the world. Should we in Africa start digging our graves or make reservations at the crematorium? Or should we challenge the doomsday scenarios?" Alexander wrote in a May 1, 2007 report. "The claimed increases in surface air temperature resulting from global warming are less than those between breakfast and morning tea on a sunny day. In our part of the world they are also considerably less than those experienced when moving in and out of the shade on a cloudless day," Alexander explained. "Acting under political pressures of their own making, northern hemisphere scientists have allowed themselves to be forced into a claustrophobic position from which there is no escape. They are now desperately trying to convince the rest of the world of the catastrophic terrestrial consequences of global warming. In the absence of believable evidence of the claimed consequences, they are exercising dangerous practices of attempting to suppress all research that questions human causality. The reprehensible edicts of the Royal Society, the patently dishonest Stern Review and the pompous attempts to prevent the distribution of the DVD on the climate change swindle are evidence of the desperate situation in which the doomsday advocates find themselves," he

added. Alexander also expressed concerns that any so- called "solutions" to global warming will harm the poor. "The World Trade Organization

has failed in its attempts to lift trade restrictions imposed by affluent countries. In a recent development, some UK organizations have reduced the importation of perishable agricultural products from Africa using the excuse that this will reduce air pollution. Now the developed countries have the audacity to expect African countries to bow to their pressures based on corrupt science and broken promises of aid, in order to save the world from their imaginary doomsday scenarios. We are not that stupid," he concluded. Alexander co-authored a June 2, 2007 paper entitled "Linkages between solar activity, climate predictability and water resource development" with *Solar system researcher Frederick Bailey, Hydrogeologist Dr. David B Bredenkamp, Chemical engineer Dr. Alwyn van der Merwe and engineer Nico Willemse.* The paper read in part: "The analysis of this data demonstrates an unequivocal synchronous linkage between these processes in South Africa and elsewhere, and solar activity. This confirms observations and reports by others in many countries during the past 150 years. It is also shown with a high degree of assurance that there is a synchronous linkage between the statistically significant, 21-year periodicity in these processes and the acceleration and deceleration of the sun as it moves through galactic space. Despite a diligent search, no evidence could be found of trends in the data that could be attributed to human activities."

Geologist Dr. Cliff Ollier, a Research Fellow at the University of Western Australia, has worked internationally as a geologist, geomorphologist, and soil scientist, and has authored ten books and over 300 publications. Ollier dismissed fears of Greenland and Antarctic ice melts in an October 21, 2007 report entitled "THE GREENLAND- ANTARCTICA MELTING PROBLEM DOES NOT EXIST." Ollier debunked fears of a meltdown promoted by NASA's James Hansen. "Hansen is a modeller, and his scenario for the collapse of the ice sheets is based on a false model," Ollier wrote. "Hansen has a model of an ice sheet sliding along an inclined plane, lubricated by meltwater, which is itself increasing because of global warming. The same model is adopted in many copycat papers. Christoffersen and Hambrey (2006) and Bamber et al. (2007). A popular article based on the same flawed model appeared in the June 2007 issue of National Geographic, and the idea is present in textbooks such as The Great Ice Age (2000) by R.C.L. Wilson et al.," Ollier explained. "Hansen's model, unfortunately, includes neither the main form of the Greenland and Antarctic Ice Sheets, nor an understanding of how glaciers flow. The predicted behaviour of the ice sheets is based on melting and accumulation rates at the present day, and on the concept of an ice sheet sliding down an inclined plane on a base lubricated by meltwater, which is itself increasing because of global warming. The idea of a glacier sliding downhill on a base lubricated by meltwater seemed a good idea when first presented by de Saussure in 1779, but a lot has been learned since then," he added. "It is not enough to think that present climate over a few decades can affect the flow of ice sheets. Ice sheets do not simply grow and melt in response to average global temperature. Anyone with this naïve view would have difficulty in explaining why glaciation has been present in the southern hemisphere for about 30 million years, and in the northern hemisphere for only 3 million years," Ollier continued. "Some of the present-day claims that ice sheets ‘collapse' are based on false concepts. Ice sheets do not melt from the surface down - only at the edges. Once the edges are lost, further loss depends on the rate of flow of the ice. The rate of flow of an ice sheet does not depend on the present climate, but on the amount of ice already accumulated, and that will keep it flowing for a very long time. It is

possible that any increase in temperature will cause increased snowfall thereby nourishing the growth of the ice sheet, not diminishing it," he wrote. "The global warming doomsday writers claim the Greenland and Antarctic ice sheets are melting catastrophically, and will cause a sudden rise in sea level of 5 or more metres. This ignores the mechanism of glacier flow which is by creep. Glaciers are not melting from the surface down, nor are they sliding down an inclined plane lubricated by meltwater. The existence of ice over 3 km thick preserving details of past snowfall and atmospheres, used to decipher past temperature and CO2 levels, shows that the ice sheets have accumulated for hundreds of thousands of years without melting. Variations in melting around the edges of ice sheets are no indication that they are collapsing. Indeed ‘collapse' is impossible," he concluded.

Atmospheric scientist William R. Kininmonth, who headed Australia's National Climate Centre from 1986 to 1998 and coordinated the scientific and technical review of the 1997-98 El Niño event for the World Meteorological Organization and its input to the United Nations Task Force on El Niño, rejected man-made climate fears and asserted warming is natural. "How often does it need to be said that CO2 is a colourless, odourless gas whose only detrimental characteristic is to form a very weak acid (carbonic acid) when dissolved in water. On the other hand, CO2 is an essential component of photosynthesis: Increased CO2 in the atmosphere is an effective fertiliser of the biosphere as shown by horticulturalists artificially increasing the CO2 content within glasshouses. CO2 is NOT a pollutant," Kininmonth said in a May 30, 2007 article. "There is every reason to believe that increasing CO2 in the atmosphere will have no significant impact on the climate system. The greatest impact of atmospheric CO2 on the earth's radiation budget was the first 20 ppmv. After this concentration the source of IR radiation to space from the active CO2 radiation bands was in the stratosphere, where temperature does not change as the emanation goes to higher and higher altitudes with increasing concentration," Kininmonth explained. "There is every reason to believe that earth is near an upper temperature limit given its present distribution of land and ocean and the strength of solar irradiance. The earth's surface is heated by way of solar radiation and back IR radiation emanating from clouds, greenhouse gases and aerosols; it is cooled by conduction, evaporation and IR emission. Solar radiation and conduction are essentially constant and the earth's surface temperature will vary according to increasing back IR radiation (radiation forcing from CO2 and water vapour) being offset by surface IR emission and latent heat of evaporation," he added. "AGW (anthropogenic global warming) is a fiction and a very dangerous fiction," he concluded. On June 1, 2007, Kininmonth wrote, "Not only is it speculative to claim that humans can in any way influence the course of climate but it is arrogant to suggest that today's climate is getting worse than it has been in the past. For example, who would prefer to return to preindustrial conditions as they were during the Little Ice Age? Frost Fairs were common on many rivers of Europe and the London diarist John Evelyn records that in 1683-84 the Thames River froze from late December to early February. Conditions were terrible with men and cattle perishing and the seas locked with ice such that no vessels could stir out or come in. The fowls, fish and exotic plants and greens were universally perishing. Food and fuel were exceptionally dear and coal smoke hung so thickly that one could scarcely see across the street and one could scarcely breathe."

Economist Des Moore, former deputy secretary of the federal Treasury in Australia and current director of the Institute for Private Enterprise, debunked the UK Stern Report's claims that it is cheaper to act now to confront global warming. "I take a position similar to the Dual Critique of the Stern Review by 14 well-qualified scientists and economists. Their

conclusion was that the Review is "flawed to a degree that makes it unsuitable ... for use in setting policy". I also agree with the not dissimilar conclusion on the IPCC's February report by ten qualified economists and scientists, including Australian meteorologist, William Kininmonth, in a February 2007 publication by Canada's Fraser Institute," Moore wrote in a April 29, 2007 report entitled "How Big Can Global Carbon Markets Get?" "Modelling of possible outcomes reflect assumptions that are not necessarily correct about the weightings given to possible influences, or about the simplifications of highly complex human relationships. My analyses of past scientific predictions also suggest to me that, when looking to the future, science faces modelling problems similar to economics and has made as many if not more erroneous predictions," Moore explained. "[The UN IPCC Summary for Policymakers] concluded that it is 90 per cent certain that most of the recent warming is due to increased human activity. However, as two Australian economists have pointed out, 90 per cent certainty is the weakest acceptable level of confidence in a hypothesis test. Moreover, the Summary for Policymakers published by the IPCC on 6 April claims only an 80 per cent chance that warming has caused many of the perceived adverse environmental affects," Moore wrote. "Although there has been an increase in average global temperatures of about 0.6 a degree over the past 100 years, historical evidence suggests that temperature levels have been as high if not higher in periods in the past and that this did not then have adverse effects on societies. Indeed, rather to the contrary: significant economic and other advances seem to have occurred in past warm periods," he concluded.

Geologist Bob Foster, director of the Lavoisier Group in Australia denounced the UN IPCC reports. "Belief in the mythical stability of past climate has, as its equally- implausible corollary, belief that ‘doing the right thing' about greenhouse gas emissions can ensure a stable future climate," Foster wrote in a May 22, 2005 article. "IPCC's hypothesis of a people-driven climate is said to represent the consensus of 2,500 of the world's top climate scientists; and it has been embraced unquestioningly by Australia's governments, Federal and State. The Mediaeval Warm Period and Little Ice Age have been abolished; and IPCC ostentatiously promotes the ‘Mann Hockeystick' - a thousand- year temperature graph purporting to show a stable pre-industrial climate (handle), disturbed only now by humans burning fossil fuels (blade)," Foster wrote. "The Kyoto Protocol is but King Canute's first step toward impoverishing the world for no attainable purpose. But an alternative hypothesis offers two natural drivers for our ever-changing climate. Both have an underlying solar/planetary pace-maker, although via very different mechanisms. Humans can't control the Sun and planets - or climate," he added.

Global warming author and engineer Ray Evans, one of the founders of the Australian Lavoisier Group, published "Nine Facts About Climate Change" in February 2007. "Environmentalism has largely superseded Christianity as the religion of the upper classes in Europe and to a lesser extent in the United States," Evans writes in his publication. "It is a form of religious belief which fosters a sense of moral superiority in the believer, but which places no importance on telling the truth," he says. "The science from the anthropology point of view has collapsed. The carbon-dioxide link is increasingly recognised as irrelevant," Evans wrote. "CO2 only has a limited greenhouse effect in the atmosphere," he argues. "A ‘saturation effect' makes the carbon dioxide reduction road to salvation a ‘completely futile and irrational exercise in faith'" he says. On March 26, 2007, Evan further explained his views. "What is of very great importance to us now is to look for explanations as to why institutions such as the CSIRO so easily and carelessly abandoned reason, and decided to go

with the faith alone crowd," he said. "We have quite a way to go before reason can overcome hysteria in this debate," he added.

Meteorologist Rob Roseman of Colorado, who earned a Masters degree in Meteorology, expressed man-made global warming skepticism in 2007. "I don't think [global warming] is man-made. I could give you, and will give you, just a couple of examples of – by way of questions – that will make people question why they think it's man-made. For some reason we as humans have a tendency to want to believe things that are popular in the media rather than just, say, listen to all of the scientists. Number one, it is not settled science – I will tell you that; absolutely not settled science," Roseman said on April 23, 2007 on the Caplis & Silverman Show. "Colorado was covered by thousands of feet of ice at some point. How did that melt unless there were some little guys driving around in cars that we didn't know about?" Rosemand asked. "500 years ago, the Earth was about 5 degrees warmer than it is now – especially in North America and Northern Europe. Guess what? Some of the best climate, the best crop-growing weather and everything else, and the seas weren't 3 feet higher than they are today," he added.

Economist Dr. Robert Higgs, a Senior Fellow for the Independent Institute and who has been a visiting scholar at Oxford University, Stanford University, and a fellow for the National Science Foundation, rejected the notion of a "consensus" on man-made global warming and dismissed the UN IPCC's scientific credentials. "The United Nations (and its committees and the bureaus it oversees) is no more a scientific organization than the U.S. Congress (and its committees and the bureaus it oversees). When decisions and pronouncements come forth from these political organizations, it makes sense to treat them as essentially political in origin and purpose," Higgs wrote on May 7, 2007. "I have thirty-nine years of professional experience – twenty-six as a university professor, including fifteen at a major research university, and then thirteen as a researcher, writer, and editor – in close contact with scientists of various sorts, including some in the biological and physical sciences and many in the social sciences and demography. I have served as a peer reviewer for more than thirty professional journals and as a reviewer of research proposals for the National Science Foundation, the National Institutes of Health," Higgs wrote. He then explained how the peer-review process has many flaws. "Personal vendettas, ideological conflicts, professional jealousies, methodological disagreements, sheer self-promotion, and a great deal of plain incompetence and irresponsibility are no strangers to the scientific world; indeed, that world is rife with these all-too-human attributes. In no event can peer review ensure that research is correct in its procedures or its conclusions. The history of every science is a chronicle of one mistake after another," Higgs wrote.

Physicist Wm. Robert Johnston, who co-wrote the scientific paper in 2007 "Observations of the Ionospheric Projection of the Plasmapause and Comparisons with Relativistic Electron Measurements" which was submitted to the GRL, expressed his skepticism about global warming in a December 29, 2005 report entitled "What If All the Ice Melts? - Myths and Realities." "The suggestions that human activities will cause significant changes in global temperature and sea level in the next century are flawed predictions which haven't been confirmed by observations. The solutions to this apparently non-existent problem proposed by environmentalists would not have a significant effect on climate, but they would cause a significant amount of human suffering," Johnston wrote. "Note that it has taken 18,000 years to melt 60% of the ice from the last ice age. The remaining ice is almost entirely at the north and south poles and is isolated from warmer weather. To melt the ice of Greenland and

Antarctica would take thousands of years under any realistic change in climate. In the case of the East Antarctic Ice Sheet, which accounts for 80% of the Earth's current ice, Sudgen argues that it existed for 14,000,000 years, through wide ranges in global climate," Johnston explained. "It is sad that some youngsters think that burning of hydrocarbons could cause the ice caps to melt and drown cities; it is criminal when teachers don't correct this nonsense," he concluded.

Space Physicist Dr. James Wanliss of Embry-Riddle Aeronautical University, who received a prestigious award from National Science Foundation in 2004, rejects manmade climate fears and teaches an honors course titled "The Politics and Science of Fear." "I fear that attempts are being made to purposefully subvert the public understanding of the nature of science in order to achieve political goals," Wanliss said according to a May 12, 2007 article in Florida's *News Journal*. "Science is not about consensus, and to invoke this raises the hackles of scientists such as myself. The lure of politics and publicity is no doubt seductive, but it nevertheless amazes me that so many scientists have jumped on the bandwagon of consensus science, apparently forgetting or ignoring the sad history of consensus science," Wanliss explained. "The atmosphere is incredibly complicated, and we know very little about it. We are studying a system which is so big . . . we don't know what all the variables are," he said. "You want certainty, but it's hard to get that," he said. "Science isn't about certainty." Wanliss is heading a team of researchers who will use data gathered from ground- and satellite-based instruments that measure fluctuations in the Earth's magnetic field.

Oregon State Climatologist George Taylor of Oregon State University's College of Oceanic and Atmospheric Sciences, had his job title threatened by the state's Governor over his skeptical stance on man-made warming fears. Excerpt from a February 8, 2007 article from KGW.com: "[State Climatologist George Taylor] does not believe human activities are the main cause of global climate change...So the [Oregon] governor wants to take that title from Taylor and make it a position that he would appoint. In an exclusive interview with KGW-TV, Governor Ted Kulongoski confirmed he wants to take that title from Taylor." The article quoted Taylor as stating: "Most of the climate changes we have seen up until now have been a result of natural variations."

Astronomer and Physicist Dr. Hugh Ross, who has conducted research on quasars and galaxies, expressed global warming skepticism in a December 18, 2006 article entitled "Global Warming – How Concerned Do We Really Need to be?" "We tend to think Earth's climate will always be optimal for human civilization if we just take better care of it. But nothing could be further from the truth," Ross wrote. "When we put emotion and politics aside and take a rational look at our planet's history, we actually see something quite different. Ice and sediment cores show that over the past four million years, the global climate has oscillated many times. The changes are caused by variations in Earth's orbit. Each cycle lasts about 100,000 years with an ice age typically taking up 90,000 of those years, and a global warming effect, the other 10,000 years," Ross explained. "Contrary to the claims of a few high profile politicians, celebrities, and environmentalists, some of our human activities in fact create a cooling effect," Ross wrote. "The release of aerosols and particulates actually blocks out sunlight and generates light-reflecting cloud layers, especially over densely populated and highly industrialized regions where pollution is loosely, if at all regulated. The bottom line here is that there are dozens of physical, chemical, and biological processes that contribute to both heating and cooling the planet. When any one of these factors gets out of balance with the others, Earth is at risk of losing its optimal climate for human civilization,"

Ross added. "This delicate balancing act of multiple and diverse natural processes and human activities gives us reason to be cautious. But to suggest that we can stop global warming by simply cutting back on fossil fuel combustion and altering our industrial processes is naïve at best. If we ignore one or more of certain mechanisms that contribute to either global warming or cooling, our attempted solutions could actually make matters worse," he concluded.

Paleoclimatologist Dr. Fred Michel, Director of the Institute of Environmental Science and Associate Professor of the Department of Earth Sciences at Carleton University in Canada, rejected global warming fears. "Climate hysteria has been known to be a sham all along," Michel told EPW on May 16, 2007. "As someone who has worked in the arctic on topics such as permafrost, groundwater, and Quaternary glacial history, it has always been quite clear that the climate is constantly changing and that natural processes are able to produce very large changes over very short time periods," wrote Michel, who has worked with the International Energy Agency. We need "to return our focus to the important issues that need to be addressed, which includes being aware of the effects of a changing climate whether it be warmer or colder," he added.

State Climatologist Dr. Charles Wax of Mississippi State University and past president of the American Association of State Climatologists, declared his skepticism on warming in 2007. "First off, there isn't a consensus among scientists. Don't let anybody tell you there is," Wax said, according to a May 16, 2007 article. "I don't know if it's going to rain Thursday or not. Certainly I don't know what the temperature is going to be in 2050," Wax explained. "In 1957, all the thermometers (the government uses to track temperatures) were moved from fields onto airports. It went from the Weather Bureau, which supported agriculture, to the Department of Commerce. Cities are hotter. (If you look at the numbers) you'll see a major climate change in 1957 alone," he said. Wax, who chaired the U.S.D.A.'s Southern Region Research Committee for Climatology in Agricultural Production, also explained the geologic history of the Earth. "There was a little ice age from 1400 to 1800. We're warming back up, but it's not nearly as warm as it was 2,000 or 7,000 years ago," he explained.

Chemical Engineer Dr. Tony Burns of the University of New South Wales in Sydney, Australia expressed skepticism of man-made global warming. "The common viewpoint is that man-made carbon dioxide is to blame, but the Earth has been through ice ages and periods of global warming for millions of years," Burns wrote in an April 2006 essay. "As recently as 1,000 years ago, the Earth was a degree warmer in the ‘Medieval Warm Period' and the Vikings could grow crops in Greenland," Burns explained. "No one questions how this could happen so many years before our recent fuel consumption excesses. No one questions why man-made carbon dioxide would have any effect on global warming when it constitutes less than 1 percent of greenhouse gases (the major greenhouse gas is water vapor). No one questions the recent Antarctic ice cores from Dome Concordia, with ice up to 700,000 years old, which show increases in atmospheric carbon dioxide concentration occurring about 1,000 years after global temperature rises, thus suggesting that high carbon dioxide levels are a result of global warming, not a cause," he added. Burns decried the demonization of climate skeptics. "In 1633, opposition to the common viewpoint could mean death. This was the case with Galileo when he proposed that the Earth revolved around the sun. He was tried for heresy. Of course things are different today. People who question dogma are no longer burnt at the stake. Instead, they're branded as having suspect motives, as reactionaries or simply as nutcases," he concluded.

Dr. Michael J. Economides, Professor of Chemical and Biomolecular Engineering at Cullen College of Engineering at University of Houston and the author of numerous books and over 50 scientific studies, rejected climate fears. "After a desperate literature search over four years, involving as many as 30 engineering and science graduate students, we have yet to come up with one professional paper that shows a quantitative causality between increased carbon dioxide and enhanced global temperature," Economides, who is a member of the Russian Academy of Natural Sciences, wrote in a April 9, 2007 article in *Energy Tribune.* "This means there is not one paper in the literature of heat transfer or thermodynamics that shows the physics of global warming in a quantified way, using well-known laws or principles. There are, however, many arm- waving and postulating writings, often in the popular press, all referencing the other 'hundreds of papers,'" Economides explained.

Chemical Scientist Dr. Brian G. Valentine of the U.S. Department of Energy and professor at University of Maryland, has studied computational fluid dynamics and modeling of complex systems and expressed global warming skepticism. "Human development, associated with the continual advance of Civilization on the Earth, has always influenced the local weather; and the degree of influence on local weather is probably proportional to the magnitude of the changes in the Earth's topography that have resulted from continual human advances," Valentine wrote to EPW on May 17, 2007. "There is no evidence that any of these changes in local weather have ever resulted in a change to the global climate. My own research has convinced me that excepting for one situation, there have NEVER been ANY influences that have changed the global climate - not solar, not stellar, not variations in Earth's spin on its axis - nothing - that can be demonstrated beyond reasonable doubt, for which equally valid evidence is available that contradicts the assumption of global climate change," Valentine explained. "This single exception is the known variation of eccentricity of the Earth's orbit about the Sun. This is the periodic variation of distance from Earth to the Sun that changes the distance from the Earth to the Sun within Earth's seasons, and occurs within tens of thousands of year epochs," he concluded. *(Note: Valentine is expressing his personal views.)*

Microbiologist Gary Novak publishes a website detailing his skepticism of manmade global warming. "Arctic ice is melting faster than expected, because oceans are heating more than the atmosphere. No atmospheric temperature increase has been found in eight years. Alarmists are not promoting science; they are promoting propaganda justified through a black-box analysis which generates contrived numbers. Science requires evidence and logic," Novak, who holds a masters degree in microbiology, wrote on his website in 2007. "There is no mechanism for carbon dioxide creating global warming. 'Greenhouse gases' absorb all radiation available to them in a few meters. More of the gas cannot absorb more radiation. A thick sheet of plastic does nothing more than a thin sheet. Doubling the CO2 would only shorten the distance for absorption of radiation from 10 meters to 5 meters, which is not an increase in temperature," Novak explained. "The real cause of global warming could be an increase in solar energy, as critics generally claim; but there is evidence that it is due to variations in heat from the earth's core. Ice ages are caused by oceans heating, which appears to result from increased heat from inside the earth. The primary evidence is the exact cycling of ice ages. Environmental factors would not be so precise. Also, the oceans heating more than the atmosphere points to the heat coming from inside the earth. Atmospheric changes can result from variations in solar activity, but they are superficial compared to heat from the earth's core which drives ice age cycles," he concluded.

Biologist and Biophysicist Dr. Paulo N. Correa, who has published extensively in scientific journals, co-authored a recent paper entitled "Global Warming: An Official Pseudoscience." Correa wrote about "mass-hysterias as the pseudoscientific fad of 'global warming.'" "In the 70s, in the wake of the atmospheric cooling experienced between 1945-1947 and 1972, there was a passing fad of 'global' cooling, supposedly buttressed by study of the fossil record and ice samples, which had 'established' the existence of cycles of minor ice-ages (see reference to the Milankovitch model below). At that time, the fear was that the earth was just turning the corner into a new ice-age," Correa wrote. "Just like seawater shows oscillations in temperature or content of sensible heat, the atmosphere, too, is subject to long-term oscillations in energy content, including sensible heat and its measure by temperature. In fact, the evidence indicates that the atmosphere undergoes regular periods of cooling and heating, both near the ground and all the way up, through the troposphere, to the tropopause and the stratosphere. The scientific evidence collected over the past 50 years suggests that there are periods of cooling and warming superimposed on cycles of various scales, and that these variations are connected, in ways not yet understood, to solar periodicities, geothermal energy, varying atmospheric electricity and latent heat, and varying cloud cover and cloud composition," he added.

Meteorologist Justin Berk asserted that the "majority of TV meteorologists" are skeptical of dire man-made global warming claims. Berk said in a March 30, 2007 article in The Jewish Times, "I truly believe that global warming is more political than anything else. It's a hot topic. It grabs people's interest. As a meteorologist, I have studied this a lot and I believe in cutting down pollution and in energy efficiency. But I have a hard time accepting stories how we as individuals can stop climate change. It has happened on and off throughout history. We produce pollution but that is a small piece of the entire puzzle." Berk continued: "There are cycles of hurricanes and we had a 30-year cycle from the 1930s to the 1950s. Then from the mid-1960s to the 1990s there was low hurricane activity. We knew there would be another round of higher activity in hurricanes and now it's happening. [But people have] latched onto this topic and it's been distorted and exploited. I know that a lot of scientists, including the majority of TV meteorologists, agree with me. In the mid-1970s, climate experts said we were heading for an ice age. Thirty years later, they're saying global warming. If you look at the big picture, we've had warming and cooling throughout history. It's a natural cycle. We haven't created it and it's not something we can stop."

Physicist George E. Smith, a former physics lecturer at University of Auckland, is a member of the American Association for the Advancement of Science and the American Institute of Physics. Smith expressed climate skepticism in 2007. "There is enough doubt to scuttle any idea that man is causing [global warming]," Smith wrote to EPW on May 27, 2007. "The earth is a giant swamp cooler, with increased warming (mostly in the oceans) leading to increased evaporation, which ultimately leads to more clouds forming somewhere, and hence less solar radiation reaching the ground so it cools down again. So long as we have oceans, we can't change the temperature of the earth, either up or down, even if we wanted to," Smith, who received the Distinguished Alumni Award from the University of Auckland, explained. "The so-called global mean temperature is reputed to be 58F versus about 57 F a century ago. So what value would you like it to be and why?" Smith added. In 2005, Smith also detailed his skepticism in a January 2005 Physics Today article. "The largest single repository of CO2 on Earth is the oceans, and that the solubility of CO2 in water drops as the water temperature increases. So clearly a mechanism exists whereby increasing ocean water

temperatures (which is where most of the solar energy goes) causes increased out-gassing of CO2 into the atmosphere. Furthermore, Arctic permafrost zones revert to marshy peat bogs when the Arctic warms, and then bacterial activity takes hold and converts decaying ancient vegetation into atmospheric CO2. Both of those processes are happening right now," Smith wrote. "The Russian Vostok ice cores going back 420 000 years and the Dome-C ice cores going back 730 000 years show that the Antarctic ice sheet has not melted during that time frame, even in the warmest interglacial periods. The ice cores also show periods of rapid global warming followed by rapidly increasing atmospheric CO2," he added.

Evolutionary Biologist and Paleozoologist Dr. Susan Crockford of University of Victoria in Canada has published papers in peer-reviewed academic journals and rejected fears that man-made global warming could devastate animal life on Earth. "It is apparent to me that animal species are much more flexible over the long term (centuries and millennia) than we assume based on short-term studies of local populations: most species have the capacity to adjust to abrupt climate or habitat change," Crockford told EPW on December 1, 2007. "While many individuals, or even entire local populations, may perish in the face of change, others do just fine (this variation in ‘survivability' among individuals within a population is characteristic of all species). The individuals who survive rebuild the population and the species perpetuates," Crockford added. "Contrary to popular belief, populations can rebound from quite low levels, as demonstrated by the fact that many population expansions (and introductions by humans) derive from a handful of individuals at best and often, a single pregnant female. Polar bears, for example, survived several episodes of much warmer climate over the last 10,000 years than exists today and if global numbers of bears dropped during these times, they must have rebounded nicely or there would not be so many bears today. Ringed seals, the primary prey of polar bears (and similarly dependant on sea ice), also survived these warm periods and are now very abundant," she added. "In other words, there is no evidence to suggest that the polar bear or its food supply is in danger of disappearing entirely with increased Arctic warming, regardless of the dire fairy-tale scenarios predicted by computer models: evidence from the past is a kind of ‘ground truth' we can trust and it tells us that sufficient sea ice will persist, even with significant increases in temperature, to ensure the survival of both polar bears and ringed seals," she concluded.

Meteorologist Herb Stevens, one of the original meteorologists at The Weather Channel and founder of Grass Roots Weather, expressed climate skepticism in 2007. "Based on my background as a scientist, you should also know that I am a firm believer that warming of out atmosphere is not caused by man. Quite simply, the evidence does not exist to prove a correlation between greenhouse gas emissions and rising atmospheric temperatures.. .the correlation does not pass muster with the scientific method, and until it does, thousands of other scientists and I continue to look elsewhere for the answers to questions of short and long term climate change," Stevens wrote on May 17, 2007. "The vast majority of the coverage of global warming suggests catastrophic consequences await in the not too distant future...mind you, all of those predictions for 25, 50, or even 100 years in the future come from computer models, the same technology that quite often can't get tomorrow's weather right," Stevens explained. "It is especially troubling to scientists that the vast majority of spokespersons for global warming have little if any scientific background.. .politicians, actors, radio and television hosts, and other members of the media, most of whom have journalism backgrounds," Stevens added. "Unfortunately, due to the one-sidedness of the information barrage, much of our society has bought in to the notion that we are on the road to ruin.

Several entities within the winter sports industry have become vocal supporters of the notion of human-induced global warming, and they have scared the heck out of a lot of people in the process," he concluded.

Meteorologist Arthur T. "Terry" Safford III, a retired Lt Col. of the U.S. Air Force has declared himself a skeptic. "My principal interest in this subject is not so much how climate change affects public policy, but more the scientific aspects. That does bother me greatly. I was always taught that as a pure scientist, you gather the facts, develop some possible explanation, and select the best-tested solution. That is clearly not the norm with (internationally) government-granted scientists or grants from agenda groups. They tend to start with the conclusion and work backwards to the facts. If the facts aren't convenient, they are adjusted, the sample size reduced, or simply ignored," Safford wrote to EPW on May 21, 2007. "This is 'junk' science, at its worst and needs to uncovered and exposed. It's OK, under the First Amendment, if Hollywood advocates junk science, but it is not OK for the meteorological/climatological community. The science of meteorology has enough trouble with its 'public image' without destroying its credibility altogether," Safford explained. "I am a retired synoptic meteorologist from the Air Force for 29 years. I spent the vast majority of that time directly supporting military operations at a number of locations and differing commands in both the Air Force and Army," he concluded.

The UK-based Scientific Alliance, which bills itself as a "evidence-based approach" to environmental issues and has numerous scientists as members, rejected climate alarm in 2007. "The Scientific Alliance points out that these (the UN IPCC) conclusions are derived from the output of computer models based on an imperfect understanding of the non-linear, chaotic system which is our climate," stated a May 3, 2007 press release from the group. *Chemist Martin Livermore, director of the Scientific Alliance,* stated in the release, "Politicians and many in the scientific community are putting their faith in the unproven hypothesis that carbon dioxide is the main driver of climate change. They ignore the fact that the formation of clouds - known to have a major influence on climate - is poorly understood. They ignore the major influence of El Niño events, responsible for the record average temperatures in 1998 but the mechanism of which we do not understand. And they ignore the lack of agreement between model predictions and observation in the upper atmosphere and much of the southern hemisphere. This is not a sound basis for the most radical global policy proposals ever seen." The release continued, "It is clear that there has been a significant warming trend in parts of the world in the last 30 years, particularly in the northern hemisphere. But what has caused these changes, and what will happen over the next 30 years, is not well understood. To believe that we can control climate with our current level of knowledge is misguided. In the circumstances, the global community should focus its efforts on protecting vulnerable areas while helping to lift people out of the poverty which increases their vulnerability. Putting reduction of carbon dioxide emissions as top priority will do nothing for the world's poorest countries." *Scientists who are members of the Scientific Alliance include: Professor Tom Addiscott* of the University of East London, who was awarded the Royal Agricultural Society of England Research Medal, specializes in research about modelling the processes which determine losses of nitrate from the soil; *Chemist Dr Jack Barrett* of Imperial College has conducted research into spectroscopy and photochemical kinetics and authored several textbooks about Inorganic Chemistry and the Bacterial Oxidation of Minerals; *Dr Sonja Boehmer-Christiansen* has worked with emission modelers; *Biochemist and microbiologist Professor Vivian Moses* of King's College and University

College in London; *Professor Anthony Trewavas* of the Institute of Molecular Plant Sciences at the University of Edinburgh who has authored over 220 papers and two books; *Mathematician Mark Cantley* a former adviser in the Directorate for Biotechnology, Agriculture and Food, of the Directorate-General for Research, of the European Commission; *Professor Mick Fuller PhD* is Professor of Plant Physiology at the University of Plymouth and Head of Graduate School and former Head of the Department of Agriculture and Food Studies at Plymouth; *Professor Michael Laughton, DSc(Eng), FREng.* Emeritus Professor of Electrical Engineering in the University of London and currently Visiting Professor in the Department of Environmental Science and Technology at Imperial College; and *Chemical Engineer Professor William Wilkinson,* who was the former deputy chief executive of British Nuclear Fuels and served on the UK Advisory Committee on Research and Development and the Science Research Council. http://scientific-alliance.org/

Climatologist Dr. David R. Legates, the Delaware State Climatologist and the Director, Center for Climatic Research at the University of Delaware, has authored or coauthored 45 peer-reviewed scientific studies. Legates also expressed climate skepticism in 2007. "Scientific debate continues regarding the extent to which human activities contribute to global warming and what the potential impact on the environment might be. Importantly, much of the scientific evidence contradicts assertions that substantial global warming is likely to occur soon and that the predicted warming will harm the Earth's biosphere," Legates wrote in a May 15, 2007 study entitled "Climate Science: Climate Change and Its Impacts." "Sea levels have been rising - in fact, they have been rising since the end of the last ice age 20,000 years ago - but there is no evidence of an accelerating trend. The complexity of the climate and the limitations of data and computer models mean projections of future climate change are unreliable at best. In sum, the science does not support claims of drastic increases in global temperatures over the 21st century, nor does it support claims of human influence on weather events and other secondary effects of climate change," Legates concluded. Legates has also served as Coordinator of the National Geographic sponsored Delaware Geographic Alliance and served as the Associate Director for the NASA sponsored Delaware Space Grant Consortium. Legates has also clashed with the Governor of Delaware in 2007 because of the Governor disagreed with his skeptical views on global warming.

Meteorologists Andre and Sally Bernier of WJW-TV, in Cleveland, Ohio, both reject climate fears. "As two degreed and seasoned meteorologists, we will not be selling our snowblower anytime soon or tempted to try planting a palm tree in our front lawn," the Berniers, who were formerly of The Weather Channel, wrote to EPW on May 21, 2007. "There is simply far too little evidence to support entertaining the notion of anthropogenic causes for any climate shift. The focus has been to unearth as much evidence as possible all the while ignoring any evidence that is contrary to the theory the likes of which is far too significant to cast off," the Berniers explained. "Additionally, to rely and act on computer models which do not even come close to accurately capture the infinitely complex climate system of Earth is nothing short of reckless and irresponsible," they explained. "Thirty years ago headlines frightened everyone with an in imminent ice age. We suspect that fifty years from now, real science will have cast off and forgotten these claims similar to the realization that Galileo was right after all," the Berniers concluded.

Yury Izrael, the director of Global Climate and Ecology Institute, a member of the Russian Academy of Sciences and UN IPCC Vice President, rejected man-made global warming fears. "There is no proven link between human activity and global warming," Izrael,

who also served as former first vice-president of the World Meteorological Organization, wrote on June 23, 2005 in *RIA Novosti*. "Global temperatures increased throughout the 1 940s, declined in the 1 970s and subsequently began to rise again. Present-day global warming resembles the 1 940s, when ships could easily navigate Arctic passages. However, man's impact was much smaller at that time. A Russian expedition that recently returned from the central Antarctic says that temperatures are now starting to decrease. These sensational findings are one of Mother Nature's surprises," Izrael wrote. "Atmospheric carbon dioxide was 280 PPM (parts per million air molecules) in 1880, and now stands at 378 PPM. It has increased by 31% since the pre-industrial era. This is quite a lot, but temperatures have increased by only 0.6 degrees. Paradoxically, temperatures tended to rise by one to 12 degrees at peak intervals, with carbon-dioxide fluctuations totaling not more than 300 PPM. This contradiction is rather baffling. Therefore I believe that the link between man's activities and rising temperatures has not been proved completely. Natural factors and the impact of man seem to be interlinked," he added. "The European Union has established by fiat that a two-degree rise in global temperatures would be quite dangerous. However, this data is not scientifically sound. In ancient times the Earth had periods when maximum CO2 concentrations were 6,000 PPM (in Carboniferous period). But life still goes on," he concluded.

Chemist Dr. Joel M. Kauffman, Emeritus Professor of Chemistry at the University of the Sciences in Philadelphia, rejected the notion that "the vast majority" of scientists believe in man-made global warming. "The truth about this is the opposite; most scientists do not," Kauffman wrote on September 7, 2007. "CO2 can hardly have been the cause of warming because its level in air has been higher than it is now at least 3 times between 1812 and 1962 as shown by 90,000 direct chemical measurements (Beck, E.-G., 180 Years of Atmospheric CO2 Gas Analysis by Chemical Methods, Energy & Environment, 2007, 18(2), 259-282). Further, there is no recent correlation between CO2 levels and atmospheric temps as you may see easily from a NOAA graph," he wrote. "With an allowance for such urban heat island effects, the global temperature rise from 1905-1940 was similar to the one from 1970-2003 (www.giss.nasa.gov). Dr. Hansen's flawed USA ground station temps from 2000-2006 needed a Y2K correction provided by the Canadian Steve McIntyre showing that 1934 was the warmest year of the last 100, not 1998 or 2006," he concluded.

Meteorologist Jim Ott, formerly of WTMJ-TV in Wisconsin, a member of the American Meteorological Society and a former lecturer at University of Wisconsin, expressed climate skepticism in 2007 of climate fears. "There is no question that the past 25 years have been warmer than average. There is also no question that background levels of carbon dioxide, or CO2, in the atmosphere have shown a slow but steady increase since the late 1 950s, when measurements were begun in a remote spot in the Hawaiian Islands. That is where the certainty ends and the questions really begin," Ott, who hold a masters of science, wrote on February 10, 2007. "Evidence buried deeper in the Earth suggests that there may have been four major glaciations in North America, with each period of cooling followed by warming. Theories abound about why the climate changed enough to form the glaciers and then to melt them, but the fact is no one knows for sure what caused those climate changes. One thing we do know: It wasn't anything that humans did. And if we really don't know the answers, isn't it possible that the same factors that caused those climate changes could become active again?" he wrote. "More questions: If CO2 levels have been increasing since the Industrial Revolution in the 19th century, as many scientists surmise, why have we seen some major changes in

weather patterns over that time period that don't fit the global warming theory? For example, why were the 1930s much warmer than the 1960s? And why were some of our most severe winters in the late 1 970s and early 1 980s? Weren't CO2 levels rising during those times? Obviously, other factors besides man have an impact on climate," he added. "If we conclude that from now on only human activity can affect climate change, we are ignoring factors that we don't understand. Could we be in for some unexpected surprises if we assume that the Earth's climate will only get warmer in the coming decades?" he wrote. "Assuming that 25 years of warmer-than-average weather constitutes a long-term, irreversible climate change ignores other periods of anomalous weather that were only temporary. Assuming that human activity is the only factor that will affect the Earth's climate, and that what is happening now will continue in the future, leaves some big questions unanswered," he concluded.

Legendary inventor Ray Kurzweil, described as "an inventor whose work in artificial intelligence has dazzled technological sophisticates for four decades" according to May 2, 2007 CNN article, dismissed former Vice President Al Gore's climate views. "These slides that Gore puts up are ludicrous, they don't account for anything like the technological progress we're going to experience," Kurzweil said, according to the CNN article. The article also noted Kurzweil "invented the flatbed scanner, the first true electric piano, and large-vocabulary speech-recognition software; he's launched ten companies and sold five, and has written five books; he has a BS in computer science from MIT and 13 honorary doctorates." In a June 19, 2006 interview with the *Washington Post*, Kurzweil elaborated more on technology. "None of the global warming discussions mention the word ‘nanotechnology. Yet nanotechnology will eliminate the need for fossil fuels within 20 years. If we captured 1% of 1% of the sunlight (1 part in 10,000) we could meet 100% of our energy needs without ANY fossil fuels. We can't do that today because the solar panels are too heavy, expensive, and inefficient. But there are new nanoengineered designs that are much more effective. Within five to six years, this technology will make a significant contribution," he said. "I don't see any disasters occurring in the next 10 years from this. However, I AM concerned about other environment issues. There are other reasons to want to move quickly away from fossil fuels including environmental pollution at every step and the geopolitical instability it causes," he concluded.

Atmospheric scientist Dr. Augie Auer of the New Zealand Climate Science Coalition, former professor at the University of Wyoming and former MetService chief meteorologist, dismissed climate fears: "People should not allow themselves to be deluded by the computer-modeled speculation with which they are bombarded in the news media these days. Measurements show mankind's contribution to the greenhouse effect through carbon dioxide emissions has been somewhere between miniscule to indiscernible," said Professor Auer in a April 5, 2007 article. "In any case, records tell us that increases in the level of carbon dioxide in the atmosphere have followed, not led, natural cyclical increases in Earth's temperature," Prof. Auer added. Auer took to task doomsday computer predictions. "Most of these climate predictions or models, they are about a half a step ahead of PlayStation 3 (video game). They're really not justified in what they are saying. Many of the assumptions going into [the models] are simply not right," Auer said in May 2007 in a New Zealand radio interview shortly before his death in June 10, 2007. Auer also declared man-made climate fears unfounded. "We're all going to survive this," Auer said in a May 19, 2007 article in the Timaru Herald. "If we didn't have the greenhouse effect the planet would be at minus 18 deg C but because we do have the greenhouse effect it is plus 15 deg C, all the time," he

explained. "We couldn't do it (change the climate) even if we wanted to because water vapour dominates," he concluded. [In Memoriam: Auer died on June 10, 2007]

Geologist Dr. Norman J. Page a retired independent geological consultant, rejected climate fears. "It is clear that periodic changes in the suns activity, its size, irradiance and magnetism strongly affect climate and are likely the main driver of climate change," Page explained in to EPW on May 25, 2007. "The words 'United States' are almost invariably followed by 'the world's biggest polluter.' This is not so. The U.S. emits a large amount of CO2 but land use patterns in the United States also absorb large amounts of CO2. The important figure for any country or region is not the total emitted but the net amount after absorption is subtracted from emissions. The data are not robust, but a paper published in Science magazine in 1998 concludes that on balance North America takes up more CO2 than it emits to the tune of about 100 million tons per year while Eurasia actually puts into the atmosphere on balance about 3.5 billion tons CO2. The United States cleans up its own mess while Europe is a massive net polluter," Page wrote. "Compared to most of earth's history the earth is now impoverished in CO2. At various times in the last 550 million years CO2 levels have often been four or five times current levels and for some eras 10 to 15 times greater than today. Water vapor is by far the most abundant greenhouse gas while CO2 comprises less than 3% of earth's greenhouse gases," Page explained.

Fifteen scientists in the Netherlands signed an open letter declaring "Man is not responsible for global warming" in 2007. "The warming is mainly natural causes," read the January 11, 2007 open letter signed by the 15 scientists in De Volkskrant, Holland. "Some cite the fact that the climate is currently warming and that the level of carbon dioxide in the atmosphere is increasing. True - but correlation is never proof of causation. Besides, the climate cooled for much of the 20th century, from 1940 to 1975 - - even while CO2 was increasing rapidly," the 15 scientists explained. "There are nearly two dozen large models – each giving a different result, depending on the assumptions fed into the computer," the letter continued. "In any case, model results are never evidence; only actual observations and data count," they added. "The current warming may well be part of the natural 1500-year cycle that has been measured in ice cores, ocean sediments, stalagmites, etc., going back nearly a million years," the scientists concluded. The scientists who signed the open letter included: *Peter Bloemers*, professor of biochemistry, University of Nijmegen: *Adriaan Broere*, an engineer and geophysicist, worked in satellite technology; *Bas van Geel*, paleo-ecology professor, University of Amsterdam; *Hub Jongen*, electrical engineer; *Rob Kouffeld*, professor of energy, TU Delft; *Rob Melon*, professor of molecular recognition, Utrecht University; *Jan Mulderink*, a chemical engineer, former research director AKZO Arnhem, former chairman for the Foundation of Sustainable Chemical Technology in Wageningen; *Harry Priem*, . professor of planetary and isotope geology, former director ZWO / NWO Institute for Isotope - Geophysical Research, a former chairman Royal Dutch Geological organization; *Henk Schalke*, former chairman of the management team IUGS-UNESCO; *Olaf Schuiing*, Geochemistry professor, University of Utrecht; Dick Thoenes, em. professor chemical process engineering TU Eindhoven, a former chairman Royal Dutch Chemical Society; and *Jan Pieter van Wolfswinkel*, a retired mechanical engineering professor, TU Delft.

Australian marine scientist Dr. Walter Starck rallied around NASA's top administrator Michael Griffin's skeptical climate comments. "Griffin makes an important distinction between the scientific findings of climate change and dramatic predictions of catastrophic

consequences accompanied by policy demands. The former can be evaluated by its evidence, but; the latter rest only on assertions and claims to authority," Starck said in a June 1, 2007 press release. "Alternate predictions of benefits from projected changes have been proposed with comparable authority and plausibility. For example, unless one chooses to define the Little Ice Age as ‘normal' and ‘optimal' the net effect of any warming has only been beneficial and any anthropogenic contribution very small indeed. Dramatic predictions of imminent disaster have a near perfect record of failure. Griffin's note of caution in the escalating concern over climate change deserves sober consideration," he added.

Meteorologist Paul G. Becker, a former chief meteorologist with the Air Force and former Colorado Springs chapter president of the American Meteorological Society, called Gore's view of climate change the "biggest myth of the century." "The most plentiful is water vapor making up 35 to 70 percent of all greenhouse gases. Mankind's total contribution to all greenhouse gases - this includes cars, trucks, manufacturing plants, boats, planes and any pollution producer you can name - the total is less than 1 percent. Mother Nature provides the other 99 percent," Becker wrote in a June 3, 2007 article. "Remember that most of the natural wonders of the world were caused by various ice ages and periods of global warming. We've warmed one-half of a degree in the last century, but Gore has Florida under water in a decade or so when the ice cap melts," he added.

Climate scientist Dr. Christopher L. Castro, a Professor of the Department of Atmospheric Sciences at the University of Arizona, expressed skepticism of a global warming catastrophe in 2007. "I believe the balance of evidence from the paleoclimate record, recent climate history (particularly since the 1 980s), and the anthropogenic attribution GCM (Global Climate Models) experiments (e.g., Meehl et al. type studies) support the conclusion that recent climate change is due, in part, to anthropogenic forcing," Castro wrote on June 4, 2007. But Castro also said he generally agrees that "other possible forcings to the climate system besides CO2 (like land-use change, aerosols, etc.) are not accounted for well, if at all" and "models are highly sensitive to parameterized processes, like clouds, convection, and radiation, and these processes can have significant impacts on their results." Castro also said, "GCMs have very limited utility for climate prediction (i.e., seasonal forecasts) or climate projection (i.e., global warming projections) on the regional scale." In an October 26, 2007 interview, Castro further explained his views. "In terms of climate-change projection, there are a lot of scary scenarios that have been published in the literature regarding what's going to happen with Arizona's climate in the future. But those predictions are based on coarse-resolution general circulation models, which can't even simulate some basic processes of Arizona climate, for example, the summer monsoon," Castro said.

Climatologist Dr. Robert E. Davis, a Professor at University of Virginia, a former UN IPCC contributor and past president of the Association of American Geographers, and past-chair of the American Meteorological Society's Committee on Biometeorology and Aerobiology, dismissed what he termed "hysteria over global warming." "We keep hearing about historically warm years, warm decades, or warm centuries, uncharacteristically long or severe droughts, etc. for which mankind's striving for a high quality of life is to blame, via the internal combustion engine and its byproduct, carbon dioxide. But in reality, in most cases, we have a tragically short record of good observations to really determine how much of a record we're even close to setting," Davis wrote on May 12, 2005. "Be wary of global warming psychics warning us of unprecedented climate shifts – in most cases, they are only unprecedented because of the short life span of most scientists. Remember one of the

absolutely fundamental and too- often unstated tenets of science – there's little point in studying anything that doesn't vary during a scientist's lifetime," he added. Davis has written numerous papers on such topics as atmospheric circulation change."

Dr. Robert H. Essenhigh, a Bailey Professor of Energy Conversion in the department of Mechanical Engineering at Ohio State University, who has published over 45 peer-reviewed studies, dismissed climate fears. "Man's addition to the carbon- dioxide flux in the atmosphere, by fossil-fuel combustion, is essentially irrelevant," Essenhigh wrote on June 13, 2005. "Of the two main reasons, the first is that nature does a far bigger job in the carbon-dioxide supply rate, and the second is that carbon dioxide is secondary to water as a so-called greenhouse gas. So shouldn't we first try to control water? And behind that again is the alternative warming concept, most generally known as the Arctic Ocean Model, which is considered by many to be the real driver for the temperature oscillations and has been for the last million years or so. So, is the carbon dioxide driving the temperature, as so many people seem to believe? Or, is the temperature driving the carbon dioxide? If it's the latter, then what's the problem with carbon dioxide emissions?" Essenhigh wrote. According to the Intergovernmental Panel on Climate Change - and can it be wrong? - nature's rate of carbon supply to the atmosphere (carried as carbon dioxide) and back out again is about 150 gigatons per year. About 60 gigatons per year come from and go back to vegetation, and 90 gigatons per year are from and to the sea. And from man? That's about 5 or 6 or possibly 7 gigatons per year, which is about the size of the noise in the nature data and is essentially trivial by comparison," he added. "And, of the two gases in the atmosphere that do most of the warming, carbon dioxide, as noted, is secondary. Water is responsible for roughly 80 percent to 85 percent of the absorption and re-radiation, and carbon dioxide is responsible for (most of) the balance of 15 percent to 20 percent," he added.

Applied Physicist and Engineer Dr. Jeffrey A. Glassman wrote an October 24, 2006 paper entitled "The Acquittal of Carbon Dioxide." In the abstract of the paper appearing in Rocket Scientist's Journal, Glassman wrote, "Carbon dioxide in the atmosphere is the product of oceanic respiration due to the well?known but under?appreciated solubility pump. Carbon dioxide rises out of warm ocean waters where it is added to the atmosphere. There it is mixed with residual and accidental CO2, and circulated, to be absorbed into the sink of the cold ocean waters." Glassman further explained, "Next the thermohaline circulation carries the CO2?rich sea water deep into the ocean. A millennium later it appears at the surface in warm waters, saturated by lower pressure and higher temperature, to be exhausted back into the atmosphere." "Notwithstanding that carbon dioxide is a greenhouse gas, atmospheric carbon dioxide has neither caused nor amplified global temperature increases. Increased carbon dioxide has been an effect of global warming, not a cause. Technically, carbon dioxide is a lagging proxy for ocean temperatures. When global temperature, and along with it, ocean temperature rises, the physics of solubility causes atmospheric CO2 to increase. If increases in carbon dioxide, or any other greenhouse gas, could have in turn raised global temperatures, the positive feedback would have been catastrophic. While the conditions for such a catastrophe were present in the Vostok record from natural causes, the runaway event did not occur. Carbon dioxide does not accumulate in the atmosphere," he wrote.

Dr. A.T.J. de Laat, who specialized in atmospheric composition and climate research at the Royal Netherlands Meteorological Institute, commented in the February 2007 Bulletin of the American Meteorological Society. "The line of reasoning here is that natural factors alone cannot explain the observed twentieth-century temperature variations, while including

greenhouse gases does. The logical fallacy is the ‘fallacy of false dilemma/either-or fallacy,' that is, the number of alternatives are (un)intentionally restricted, thereby omitting relevant alternatives from consideration (Haskins 2006)," de Laat wrote. "That global twentieth-century temperature variations can be explained by using a simple model merely points to a certain consistency between this model or climate model simulations and observations. Furthermore, the fact that the late-twentieth-century warming is unexplained by two factors (solar variations and aerosols) and can be explained by including a third factor (greenhouse gases) does not prove that greenhouse gases are the cause; it just points to a missing process in this model," he explained. "In fact, this whole line of reasoning does not prove the existence of global warming; it is merely consistent with it. As an example, it is still debated whether or not land surface temperature changes during the twentieth century are affected by anthropogenic non-greenhouse gas processes and whether or not these processes affect surface temperatures on a global scale (Christy et al. 2006; Kalnay et al. 2006; de Laat and Maurellis 2006). There is a risk associated with this line of reasoning in that it suggests that understanding temperature variations of the climate system as a whole is very simple and completely understood, all one has to consider is the amount of incoming and outgoing radiation by changes in atmospheric absorbers and reflectors," he added. "Notwithstanding the fact that temperature is not a conserved quantity in any physical system, and thus is not the best metric to study energy within the climate system, it also suggests that other processes and nonlinear behavior of the climate system are either nonexistent or do not affect (decadal and global) temperature variations. Presenting climate science this way oversimplifies the complexity of the climate system and possibly overstates our current understanding," he concluded.

Dr. Patrick J. Michaels, former Virginia State Climatologist, a UN IPCC reviewer, and University of Virginia professor of environmental sciences, called Gore's film "science fiction" in a February 23, 2007 article. "The main point of [Gore's] movie is that, unless we do something very serious, very soon about carbon dioxide emissions, much of Greenland's 630,000 cubic miles of ice is going to fall into the ocean, raising sea levels over twenty feet by the year 2100," Michaels wrote. Michaels is a senior fellow in environmental studies at the Cato Institute and author of "Meltdown: The Predictable Distortion of Global Warming by Scientists, Politicians, and the Media." Michaels continued, "Nowhere in the traditionally refereed scientific literature do we find any support for Gore's hypothesis. Instead, there's an un-refereed editorial by NASA climate firebrand James E. Hansen, in the journal *Climate Change* - edited by Steven Schneider, of Stanford University, who said in 1989 that scientists had to choose ‘the right balance between being effective and honest' about global warming - and a paper in the *Proceedings of the National Academy of Sciences* that was only reviewed by one person, chosen by the author, again Dr. Hansen. These are the sources for the notion that we have only ten years to ‘do' something immediately to prevent an institutionalized tsunami. And given that Gore only conceived of his movie about two years ago, the real clock must be down to eight years! It would be nice if my colleagues would actually level with politicians about various ‘solutions' for climate change. The Kyoto Protocol, if fulfilled by every signatory, would reduce global warming by 0.07 degrees Celsius per half- century." Michaels lost his position as the VA State Climatologist after a clash with the state's Governor: "I was told that I could not speak in public," Michaels said in a September 29, 2007 Washington Post interview. Excerpt from article: "Michaels has argued that the climate is becoming warmer but that the consequences will not be as dire as others have predicted.

Gov. Kaine had warned. Michaels not to use his official title in discussing his views. 'I resigned as Virginia state climatologist because I was told that I could not speak in public on my area of expertise, global warming, as state climatologist,' Michaels said in a statement this week provided by the libertarian Cato Institute, where he has been a fellow since 1992. 'It was impossible to maintain academic freedom with this speech restriction.'

Australian Scientist Jonathan Lowe, who specializes in statistical analysis of climate change and holds masters in science, is currently working on his PhD, expressed climate skepticism. "If CO2 emissions were the major cause of global warming then we would see constant increases in temperature across the day and night as the CO2 blanket keeps the heat inside our atmosphere. Scientific research has shown that this has occurred with both minimum and maximum temperature increasing. We have pointed out time and time again how minimum temperatures are not a good indication of night time warming, especially when it rarely occurs at night," Lowe wrote of Australian temperatures on his Gust of Hot Air blog on November 7, 2007. "If CO2 was the major cause of global warming then we would see no significant difference in rate of change of temperature anomalies, in other words, all temperatures should increase equally. If the sun was a major cause of global warming then we would see no or limited changes at night, an increase in the rate of change approaching the middle of the day, and then a decreasing rate of change of temperature anomalies when the sun starts to lose its daytime strength," he explained. "So what do we find when looking at the data?" he asked. "The data points heavily towards sun induced global warming," he concluded.

Tim Thornton, who holds degrees in Meteorology and Computer Science, publishes the website "The Global Warming Heretic." "If warming is in fact occurring, is it human-induced (i.e. anthropogenic)? There is no – zero, zilch, nada – conclusive evidence to this effect, despite what you hear daily from pundits and politicians. It is often asserted, often assumed, but to my knowledge never demonstrated beyond reasonable doubt or on a preponderance of the evidence," Thornton wrote on May 21, 2007. "It has seemed so clear to me that the global warming (or climate change, or whatever they're calling it this week) juggernaut has been only 10 percent science mixed with 90 percent politics. If this was a purely scientific issue, why would we see it – alone of all scientific pursuits – declared to be ‘settled' and closed to further inquiry? Why else would the media be giving the time of day to people who say that those who challenge the orthodoxy are the moral equivalent of Holocaust deniers? When some Hollywood climate expert like Leonardo DiCaprio proclaims that humanity possibly faces extinction because of global warming, why doesn't someone on the pro-AGW side ask him to stop making their cause look bad?" Thornton wrote.

60 Prominent Scientists came forward in 2006 to question the so-called "consensus" that the Earth faces a "climate emergency." The 60 scientists wrote an open letter in 2006 to the Canadian Prime Minister asserting that the science is deteriorating from underneath global warming alarmists. "If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary," the 60 scientists wrote on April 6, 2006. "Observational evidence does not support today's computer climate models, so there is little reason to trust model predictions of the future... Significant [scientific] advances have been made since the [Kyoto] protocol was created, many of which are taking us away from a concern about increasing greenhouse gases," the 60 scientists wrote. "‘Climate change is real' is a meaningless phrase used repeatedly by activists to convince the public that a climate catastrophe is looming and

humanity is the cause. Neither of these fears is justified. Global climate changes all the time due to natural causes and the human impact still remains impossible to distinguish from this natural 'noise,'" they added. "It was only 30 years ago that many of today's global-warming alarmists were telling us that the world was in the midst of a global-cooling catastrophe. But the science continued to evolve, and still does, even though so many choose to ignore it when it does not fit with predetermined political agendas," the 60 scientists concluded. Scientists signing the letter included: *Dr. Paul Copper*, FRSC, professor emeritus, Dept. of Earth Sciences, Laurentian University, Sudbury, Ont.; *Dr. Andreas Prokoph*, adjunct professor of earth sciences, University of Ottawa; consultant in statistics and geology; *Mr. David Nowell*, M.Sc. (Meteorology), fellow of the Royal Meteorological Society, Canadian member and past chairman of the NATO Meteorological Group, Ottawa; *Dr. L. Graham Smith*, associate professor, Dept. of Geography, University of Western Ontario, London, Ont.; *Dr. G. Cornelis van Kooten*, professor and Canada Research Chair in environmental studies and climate change, Dept. of Economics, University of Victoria; *Dr./Cdr. M. R. Morgan*, FRMS, climate consultant, former meteorology advisor to the World Meteorological Organization. Previously research scientist in climatology at University of Exeter, U.K.; *Dr. Keith D. Hage*, climate consultant and professor emeritus of Meteorology, University of Alberta; *Rob Scagel*, M.Sc., forest microclimate specialist, principal consultant, Pacific Phytometric Consultants, Surrey, B.C.; *Dr. Douglas Leahey*, meteorologist and air-quality consultant, Calgary; *Dr. Gerrit J. van der Lingen*, geologist/paleoclimatologist, Climate Change Consultant, Geoscience Research and Investigations, New Zealand; *Dr. Asmunn Moene*, past head of the Forecasting Centre, Meteorological Institute, Norway; *Dr. Jack Barrett*, chemist and spectroscopist, formerly with Imperial College London, U.K.; *Dr. Harry N.A. Priem*, emeritus professor of planetary geology and isotope geophysics, Utrecht University; former director of the Netherlands Institute for Isotope Geosciences; past president of the Royal Netherlands Geological & Mining Society; Dipl.-Ing. *Peter Dietze*, independent energy advisor and scientific climate and carbon modeller, official IPCC reviewer, Bavaria, Germany; *Dr. Hugh W. Ellsaesser*, physicist/meteorologist, previously with the Lawrence Livermore National Laboratory, Calif.; atmospheric consultant; *Dr. Arthur Rorsch*, emeritus professor of molecular genetics, Leiden University, The Netherlands; past board member, Netherlands organization for applied research (TNO) in environmental, food and public health; and *Dr. Alister McFarquhar*, Downing College, Cambridge, U.K.; international economist. (See attachment two for full letter and complete list of signatories at end of "Consensus Busters" report)

Physicist and Mathematician Dr. Vladimir Shaidurov of the Russian Academy of Sciences, who has published more than 50 papers in peer-reviewed journals, presented his views on climate change in 2006. According to a March 13, 2006 press release from the University of Leicester in the UK, "A new theory to explain global warming was revealed at a meeting at the University of Leicester (UK) and is being considered for publication in the journal *Science First Hand.* The controversial theory has nothing to do with burning fossil fuels and atmospheric carbon dioxide levels. According to Vladimir Shaidurov of the Russian Academy of Sciences, the apparent rise in average global temperature recorded by scientists over the last hundred years or so could be due to atmospheric changes that are not connected to human emissions of carbon dioxide from the burning of natural gas and oil. Shaidurov explained how changes in the amount of ice crystals at high altitude could damage the layer of thin, high altitude clouds found in the mesosphere that reduce the amount of warming solar

radiation reaching the earth's surface." The release continued, "The most potent greenhouse gas is water, explains Shaidurov, and it is this compound on which his study focuses. According to Shaidurov, only small changes in the atmospheric levels of water, in the form of vapour and ice crystals can contribute to significant changes to the temperature of the earth's surface, which far outweighs the effects of carbon dioxide and other gases released by human activities. Just a rise of 1% of water vapour could raise the global average temperature of Earth's surface more then 4 degrees Celsius." The release concluded, "Shaidurov has concluded that only an enormous natural phenomenon, such as an asteroid or comet impact or airburst, could seriously disturb atmospheric water levels, destroying persistent so-called 'silver', or noctilucent, clouds composed of ice crystals in the high altitude mesosphere (50 to 85km)."

Dr. Ross McKitrick, Associate Professor of Environmental Economics at the University of Guelph, is author or coauthor of dozens of peer-reviewed papers in both economics and climate science journals. McKitrick, a UN IPCC expert reviewer, and one of the de-bunkers of the IPCC "hockey stick" graph, is coauthor of the prize-winning best-seller Taken By Storm: The Troubled Science, Policy and Politics of Global Warming. In an essay published on December 5, 2007 in the *National Post*, he describes new research that shows the IPCC surface temperature record is exaggerated. "The data come from thermometers around the world, but between the thermometer readings and the final, famous, warming ramp, a lot of statistical modeling aims at removing known sources of exaggeration in the warming trend. In a new article in the December 2007 issue of the peer-reviewed *Journal of Geophysical Research*, Climatologist Dr. Patrick Michaels and McKitrick concluded that the temperature manipulations for the steep post-1980 period are inadequate, and the [IPCC] graph is an exaggeration. McKitrick believes that the United Nations agency promoting the global temperature graph has made "false claims about the quality of its data." McKitrick reports in this new, peer-reviewed study that data contamination problems "account for about half the surface warming measured over land since 1980."

Meteorologist Gary England, who pioneered the use of Doppler radar weather-forecasting, dismisses climate fears. "The climate has always been changing and it will most likely always continue to change. In the distant past, we have been much colder than we are now and we have been much warmer than we are now. And all of that happened many times without humans," England wrote on July 1, 2007 in an article in *Associated Content.* "Here in Oklahoma we're a little warmer than we were 30 years ago. Recently we ended a two year drought and it has been replaced with significant, long duration rains. Is all of this a result of global warming? Maybe it is and maybe it isn't. You see, no one really knows. If they say they do, I suggest that person is confused at best or has an agenda at the worst," England explained. "An examination of ice core data is frequently used as proof that CO2 heats the atmosphere. A close examination of that data shows that the air temperature went up first and then the CO2 went up. Mars is loosing pole ice faster that earth is loosing the same. As someone said recently, 'It's the sun stupid!' Recent research suggests that the activity of our sun combined with cosmic radiation from far outside our galaxy interact with our atmosphere to produce effects never dreamed of a few years ago. Is anything or everything in this paragraph correct? Nobody really knows," he concluded.

Chemical engineer Robert W. Hahn dismissed climate fears in an article titled "Global Warming Skepticism" on July 5, 2007. "I remain very skeptical that carbon dioxide is the primary cause and that humans either have caused it or can reverse it. According to the data,

the temperature near the surface of the Earth has warmed less than one degree Celsius since 1880. That is not very much," Hahn wrote. "Carbon dioxide is not a very potent greenhouse gas. Water vapor and atmospheric methane account for most of the greenhouse effect, about 95 percent. Humans account for less than one-tenth of one percent of the greenhouse gases and about three percent of the carbon dioxide in the atmosphere. If we stopped burning all fossils fuels, including natural gas, coal, wood, gasoline, diesel, jet fuel and the like, it would have very little effect," he added. "There is a growing body of scientific evidence that the irradiance of our sun is the primary cause of global warming. The sun is at a peak in activity, which drives off more cosmic radiation, which in turn causes less cloud cover, which then warms the surface. Studies in Copenhagen and most recently Canada have confirmed this correlation and have suggested we are heading toward a cooling, not warming, period," he concluded.

Economist Tim Curtin, a former advisor with the EU, World Bank, and an Emeritus Faculty member of Australian National University, debunked the notion that global warming would have serious economic consequences. In a June 29, 2007 paper titled "The Da Vinci Code of Climate Change Economics," Curtin wrote, "This paper questions the claims of the IPCC and the Stern Review that the predicted warming climate over the next years will have serious adverse economic consequences for the poor everywhere and above all in Africa. Finally, the paper suggests that attempts to reduce carbon emissions by systems of caps and trades are unlikely to produce any net reductions in emissions." Curtin explained, "With a little more inaction on the part of the government, we will with any luck escape the horrors of carbon emission trading, with its associated armies of inspectors and traders all engaged in an essentially unproductive and useless exercise - useless because when permits have been issued to all current emitters at or pro rata within their current level of emissions, the subsequent trades between emission cutters and emission increasers can only produce ZERO net reduction emissions. In sum, Nicholas Stern's quest for the da Vinci code that will save the globe may seem in retrospect as no more than another of those episodes like the persecution of the Witches of Salem that occasionally beset the most rational and well ordered societies."

Scientist Michael Hammer who works as a research scientist/engineer for a high technology manufacturer and major worldwide exporter based in Australia wrote a June 20, 2007 paper titled "A Theoretical Analysis of the Effect of Greenhouse Gases in the Atmosphere." The paper read, "A further hypothesis suggests that only a small portion of the temperature rise is due to the direct action of carbon dioxide with much of the remainder being due to positive feedback via water vapour. The total predicted temperature rise for an increase in CO2 levels to 560 ppm is 2 - 4.5 degrees above current temperatures with 3 degrees most likely. This spectroscopic-based analysis suggests that sensitivity to both gases is likely to be far lower than would be required for such a scenario and does not support either hypothesis. It suggests that an increase in CO2 concentration from the current 379 ppm to 560 ppm is likely to cause a temperature increase of about 0.12 degrees (0.22 degrees C for a change from 280 ppm to 560 ppm) and that the positive feedback effect from water vapour should be less than 15% of this direct effect. These results are about 20 times lower than the IPCC predictions."

Hydro-climatologist Stewart Franks is an Associate Professor of Environmental Engineering at the University of Newcastle in Australia whose research has focused flood and drought risk and seasonal climate prediction. A March 17, 2007 article in *The Australian*

newspaper explained Franks' climate views. Franks "is increasingly uneasy about the dangerous path the debate is taking, where alternative views are discouraged and reputations attacked and discredited. Franks says our understanding of the physics of climate is still so limited, we cannot explain natural variability or predict when droughts will break, or the when and why clouds form, which makes him wary of mainstream claims projecting temperature changes over the next century. He argues that greenhouse gases in the atmosphere account for only about 2 per cent to 3 per cent of the overall warming effect, meaning even major increases in gases lead to only slight shifts in temperature: between 0.5C and 1C. He is less certain than other dissenting scientists that variation in solar activity is the cause, but doubts that greenhouse gases are the main driver of temperature changes," the article stated. "It's clear that we don't understand enough of the physics of climate to understand natural variability but I don't expect climate change from CO2 to be particularly significant at any point in the future," Franks said. The article continued, "Franks points to new modeling which has measured changes in the Earth's albedo, or reflectance, driven mainly by cloud formation. The paper by a team of geophysicists reported an unexplained decline in cloud cover until 1998, which caused the Earth to absorb more heat from the atmosphere. This resulted in increases in incoming solar radiation more than 10 times bigger than the same effect attributed to greenhouse gases. Franks says the current IPCC models assume albedo is constant but such research should be added to the body of knowledge, not excluded or rejected. 'It's reached the point that anyone who offers an open mind publicly is basically criticized and put down,' he says." Franks also wrote a June 2007 paper titled "Multi-decadal Climate Variability: Flood and Drought - New South Wales" in which he concluded that "strong evidence of multi-decadal climate variability" has dominated the climate. "Climate has never been static!" Franks wrote. "Current drought cannot be directly linked to 'climate change'" and "El Niño/La Niña variability [is] due to natural processes," Franks wrote.

Meteorologist Art Horn, currently operating The 'Art' Of the Weather business, is skeptical of man-made climate fears. "It is my belief that climate change is not a product of human activity. Many other meteorologists feel this way," Horn wrote to EPW on May 29, 2007. "The debate on this issue is not over as many who will profit from the 'Global Warming industry' would like it to be. They stand to make millions if not billions of dollars by creating a climate of fear, regulation, carbon offsets and taxes. The atmosphere is regulated by changes in the solar output and it's affects on the oceans. These factors and others impart a far greater influence on our climate than the very small amounts of carbon dioxide and other greenhouse gases in our atmosphere. Carbon dioxide is a natural part of the air. Humans are adding some additional amounts but it is a very small part of the total," Horn explained. "Water vapor is by far the most significant greenhouse gas, five times more effective at retaining heat from the sun and 50 to 100 times more plentiful in our atmosphere. The news media has been using the fear of climate change due to humans as a method of generating audience. Now every news program, documentary, newspaper, magazine and Hollywood star is on the 'bandwagon' to make money from something they don't understand but stand to profit from. In a free society an open debate on this important issue needs to take place, not the one sided drumbeat we get from the media," Horn concluded.

Ivy League Organic Chemist Dr. D. Bruce Merrifield is a former Undersecretary of Commerce for Economic Affairs, Professor Emeritus of the Wharton School of Business at the University of Pennsylvania, and a member of the Visiting Committee for Physical

Sciences at the University of Chicago. "The earth has been subjected to many warming and cooling periods over millions of years, none of which were of human origin," Merrifield wrote on July 11, 2007. "Data from many independent sources have mutually corroborated these effects. They include data from coring both the Antarctic ice cap and sediments from the Sargasso Sea, from stalagmites, from tree rings, from upwellings in the oceans, and from crustaceans trapped in pre-historic rock formations. The onset of each 100,000-year abrupt warming period has been coincident with emissions into the atmosphere of large amounts of both carbon dioxide and methane greenhouse gases, which absorb additional heat from the sun, a secondary warming effect," he explained. "Solar radiation would appear to be the initial forcing event in which warming oceans waters release dissolved carbon dioxide, and melt methane hydrates, both of which are present in the oceans in vast quantities. Subsequent declines in radiation are associated with long cooling periods in which the green house gases then gradually disappear (are re-absorbed) into terrestrial and ocean sinks, as reflected in the data from coring the Antarctic Ice Cap and Sargasso Sea," he added. "The current 100 year solar radiation cycle may now have reached its peak, and irradiation intensity has been observed to be declining. This might account for the very recent net cessation of emission of green house gases into the atmosphere starting about 1988, in spite of increasing generation of anthropomorphically-sourced industrial-based green house gases. While it seems likely that solar radiation, rather than human activity, is the ‘forcing agent' for global warming, the subject surely needs more study," he concluded.

Oxford-educated Geochemist Dr. Cal Evans, a prominent researcher who has advised the Alberta Research Council, the Natural Sciences, and Engineering Research Council of Canada, and who is affiliated with the Calgary-based group Friends of Science, dismissed climate fears in 2007. "The primary process that governs global temperature cycles has been identified - it's a combination of solar irradiation and high-energy cosmic rays. Carbon dioxide appears to be a very minor factor. Although the political forces that support the CO2 theory remain formidable, the science has turned decisively against them," Evans said according to an article on July 9, 2007. "Yes, there's been an increase [in CO2] but the quantity remains extremely small, no more than a trace element," Evans said. "Whatever causes global warming must involve clouds and other atmospheric vapour. To date, no one has been able to identify a link between higher CO2 concentrations and greater volumes of atmospheric water vapour," he added. "The slight increase in ground temperature has no parallel in the troposphere. If atmospheric CO2 concentration was actually a significant factor in global warming, it stands to reason that atmospheric temperatures would rise but that hasn't happened," he said. "It's ironic that CO2 propaganda has achieved an unprecedented degree of political penetration in Canada and the United States precisely at the same time that the scientific case is melting away. Billions of dollars in research funding and related activity are at stake, and so are a great many professional reputations. So the truth will certainly be inconvenient for someone, and the struggle won't end for a while yet. Eventually, however, the facts will make themselves known," he concluded.

Dr. Peter Ridd, a Reader in Physics at James Cook University in Australia who specializes in Marine Physics and who is also a scientific adviser to the Australian Environment Foundation, dismissed the idea of a "consensus" on man-made global warming. "It should be apparent that scientists and politicians such as Al Gore, who have been telling us that the science is unquestionable on this issue, have been stretching the truth," Ridd, who has authored over 60 publications in scientific journals, wrote on July 19, 2007. "It seems that

there are some good reasons to believe that we may have been swindled," Ridd added. Ridd also debunked fears of global warming negatively impacting coral reefs. "Just as canaries were used to detect gas in coal mines, coral reefs are the canaries of the world, and their death is a first indication of our apocalyptic greenhouse future. The bleaching events of 1998 and 2002 were our warning. Heed them now or retribution will be visited upon us. In fact a more appropriate creature with which to compare corals would be cockroaches - at least for their ability to survive. If our future brings us total self-annihilation by nuclear war, pollution or global warming, my bet is that both cockroaches and corals will survive. Their track-record is impressive," Ridd explained. "Corals have survived 300 million years of massively varying climate both much warmer and much cooler than today, far higher CO2 levels than we see today, and enormous sea level changes. Corals saw the dinosaurs come and go, and cruised through mass extinction events that left so many other organisms as no more than a part of the fossil record. Corals are particularly well adapted to temperature changes and in general, the warmer the better. It seems odd that coral scientists are worrying about global warming because this is one group of organisms that like it hot. Corals are most abundant in the tropics and you certainly do not find fewer corals closer to the equator. Quite the opposite, the further you get away from the heat, the worse the corals. A cooling climate is a far greater threat. The scientific evidence about the effect of rising water temperatures on corals is very encouraging," he added. "Why does a scientist and environmentalist such as myself worry about a little exaggeration about the reef? Surely it's better to be safe than sorry. To a certain extent it is, however, the scientist in me worries about the credibility of science and scientists. We cannot afford to cry wolf too often or our credibility will fall to that of used car salesmen and estate agents - if it is not there already. The environmentalist in me worries about the misdirection of scarce resources if we concentrate on ‘saving' a system such as the Great Barrier Reef," he concluded.

Space physicist Dr. Eigil Friis-Christensen is the director of the Danish National Space Centre, a member of the space research advisory committee of the Swedish National Space Board, a member of a NASA working group, and a member of the European Space Agency. Friis-Christensen co-authored a paper along with physicist Henrik Svensmark on Thursday, July 19, 2007, entitled "What Do We Really Know about the Sun-Climate Connection?" The paper stated, "The sun is the source of the energy that causes the motion of the atmosphere and thereby controls weather and climate. Any change in the energy from the sun received at the Earth's surface will therefore affect climate. During stable conditions there has to be a balance between the energy received from the sun and the energy that the Earth radiates back into Space. This energy is mainly radiated in the form of long wave radiation corresponding to the mean temperature of the Earth." The study continued, "From historical and geological records we know that the Earth's climate has always been changing. Sometimes such changes have been relatively abrupt and have apparently had large sociological effects." In October 2007, Friis-Christensen and Physicist Henrik Svensmark, co-authored another report from the Danish National Space Center Study concluding: “The Sun still appears to be the main forcing agent in global climate change.” Friis-Christensen *has authored or co-authored around 100 peer-reviewed papers and chairs the Institute of Space Physics.*

UK atmospheric scientist John Kettley, formerly of the Met Office and the Fluid Dynamics Department at the Bracknell headquarters, dismissed the linkage of wild weather in the summer of 2007 in England to global warming. "In my view, none of the severe weather we have experienced is proof of 'climate change.' It is just a poor summer - nothing

more, nothing less - something that was the norm throughout most of the Sixties and has been repeated on several occasions more recently," Kettley, a former meteorologist with the BBC, wrote in an op-ed on July 22, 2007 titled "Global Warming? No, Just an Old-Style British Summer." "To many, the black skies and fierce rains must have seemed an ominous portent of things to come: symptomatic of the environmental ravages of global warming. But, however extreme the weather we have experienced over the past few days, its significance in meteorological terms is likely to be more prosaic. This year's apparently extraordinary weather is no more sinister than a typical British summer of old and a reminder of why Mediterranean holidays first became so attractive to us more than 40 years ago," Kettley wrote. "Going further back, history also shows that 1912 was an atrocious summer. It was so bad, in fact, that we are still some way short of the torrential downpours that happened that year. It seemed particularly bad at the time because 1911 had been such an exceptionally good summer. So, taking a long view, there is a pattern of warming and cooling. The Edwardians were experiencing a period of significant warming (much like now) following a cold Victorian spell. There was a period of warming from the Twenties through to the end of the Fifties and, after a cooler period, there has been a further significant warming over the past 20 years," he added. "In the final analysis, this summer may be just such a 'blip' in the charts," he concluded.

Geologist Gabriel Salas, who leads a UN High Commission for Refugees funded team, rejected the idea that man-made global warming was causing droughts in Africa. A July 27, 2007 article in *The Christian Science Monitor* reported, "Salas, as a geologist, doesn't see the problem of global warming as a recent phenomenon, but as something that has been going on for thousands of years." "The attack of Rome by Hannibal happened 2,400 years ago, and he took elephants from Carthage and marched them toward Rome. Now, the fact that you had elephants in the North of Africa shows that there has been climate change and that desertification has been taking place for a long time," Salas said.

Former New Zealand Science Ministry analyst Don Stewart, a UK-based researcher in geological and biological history, said, "The residual ice caps and glaciers we see today have shrunk considerably since 2450 BC. Furthermore, British reports from navigators and explorers since Elizabethan times show that there has been a significant retreat since those first empirical observations available to us from their logs written up to 200 years before the Industrial Revolution that is often falsely blamed for global warming." "Although the pollution of 200 years of carbon-based industrial activity may have contributed a miniscule factor, either reducing or increasing the already-rising atmospheric temperatures, the globe's own natural heat from molten lava and iron at its core, in addition to the sun's rays heating the atmosphere, means that the ice caps could not exist forever anyway and in fact now look like disappearing altogether within 4500 years (2450 BC - 2050 AD) of their formation." Stewart dismissed claims that UK floods were evidence of man-made global warming. "At the moment, we really have insufficient empirical evidence to conclude that is true," he added.

Chemist Frank Britton rejected man-made climate fears in 2007. "CO2 makes a very small contribution to the Earth's temperature. It is only 0.039 percent of the atmosphere. Nitrogen, oxygen, water vapor and argon comprise more than 99 percent of the atmosphere. Furthermore, carbon dioxide is not a particularly effective greenhouse gas. Out of the wide spectrum of radiation received from the sun, CO2 only absorbs energy from three very narrow levels," Britton wrote in a July 28, 2007 article in the *Pasadena Star* titled "Global Warming is Nature's Doing." "Many people believe there is a difference between man-made

CO2 and natural CO2. There is no difference. Carbon dioxide is comprised of one carbon atom and two oxygen atoms. CO2 is a natural, vital part of biological life. Ants, termites and decaying foliage account for the formation of most of the CO2. There are more than a quadrillion ants and termites," Britton explained. "Global-warming activists believe mankind is altering the Earth's temperature. Although many know that man's contribution is negligible, it is not to their political advantage to reveal this fact. Climate scientists receive funding from the government to research causes of and solutions to man-made global warming. If the current warming were demonstrated to be the natural cycle, this funding would be cut," he added. "Carbon dioxide's contribution to global warming is minimal; water vapor is the great buffer for the Earth's temperature; the oceans control this process. Human beings have no measurable control over global temperatures," he concluded.

Dr. John Brignell is a UK Emeritus Engineering Promfessor at the University of Southampton who held the Chair in Industrial Instrumentation at Southampton and was awarded the Callendar Silver Medal by InstMC. He also served on a committee of the Institute of Physics and currently publishes the web site http://www.numberwatch.co.uk/ with the mission to expose "scares, scams, junk, panics and flummery cooked up by the media, politicians, bureaucrats and so-called scientists and others that try to confuse the public with wrong numbers." His motto is "Working to Combat Math Hysteria." "Global warming is a new phenomenon in human affairs. Not only is it now a major religion, but it has an associated industrial complex of a wealth sufficient to give it unheard of political power throughout the world. It presides over a virtual monopoly of research funding," Brignell wrote in July 2007. "Clearly, global warming is anthropogenic (man-made). It exists mainly in the human mind and is manufactured from two sources - careless data acquisition and dubious data processing," Brignell wrote. In November 2007, Brignell, who wrote a book entitled *Sorry, Wrong Number: The Abuse of Measurement*, compiled a list of over 600 things allegedly caused by global warming. To see the full list with weblinks to the source, see here:

Retired Air Force atmospheric scientist Dr. Edward F Blick, Professor of Meteorology and Engineering at University of Oklahoma, rejected man-made climate fears in 2007. "Is their any solid evidence the earth is warming due to man's use of fossil fuels transferring excessive amounts of CO2 in our atmosphere? The answer is NO!" Blick wrote on June 17, 2007 in an article titled "The Religions of Global Warming." "The amount of CO2 that man puts into the atmosphere each year is about 3 billion tons per year. But this is insignificant compared to the 39,000 billion tons in our oceans, 2,200 billion tons in our vegetation and soils, and 750 billion tons in our atmosphere. Much of the CO2 generated by man is consumed by vegetation," Blick explained. "Man cannot control the weather, but he can kill millions of people in his vain attempt to control it, by limiting or eliminating the fuel that we use," Blick added. He also questioned the accuracy of temperature gathering. "At the time of the collapse of the Soviet Union (around 1990), they could not afford their weather stations in Siberia, so they were closed. Hence, with the loss of the cooler temperature data from Siberia and rural stations in other countries, coupled with the heat island effects of the large city stations, and errors in thermometers of the 1800's, any increase in the average earth temperature in the past may be an illusion," he wrote. "CO2 is not poison and it is not our enemy. CO2 and oxygen are the twin gases of life. Humans and animals breathe in oxygen and exhale CO2. Plants breathe in CO2, make carbohydrates, and breathe out oxygen. We feed the plants and they feed us," Blick wrote.

Iowa State Climatologist Dr. Elwynn Taylor, Professor of Meteorology at Iowa State University and a former project scientist with the National Aeronautics and Space Administration, expressed skepticism of man-made climate fears. An August 2007 article reported that "while Taylor believes entirely in global warming, he hasn't yet jumped on the popular *Inconvenient Truth* bandwagon. 'I don't know how much people have caused,' he says. 'Nobody really knows ... but what I do know is that we had a global cooling period from around the middle 1800s to around 1900, global warming from 1900 to around 1940, global cooling again from 1940 to 1972, and global warming since 1972. Thermometers have measured this for us.'" The article continued, "Taylor accepts that global warming is occurring. But he says the extent to which man is contributing to its acceleration is debatable...he says the popular theories floated by the likes of Al Gore may be slightly overcooked. 'I think people are exaggerating the idea that all of the temperature change occurring on Earth is being caused by this,' he says. 'They shouldn't be saying that. Because pretty soon we could discover that these things are only partially true. And then people, feeling misled, won't do anything.'" The article added, "Taylor is reluctant to blame human activity-specifically, increased emissions of greenhouse gases like carbon dioxide-for [global warming's] apparent acceleration? Because the bigger picture tells him there are more powerful cycles at play. He justifies his pragmatic position with convincing anecdotal evidence from the story he tells about Greenland's super-thick ice cap starting to melt back and revealing that humans inhabited the place 1,400 years ago. 'You could have taken your ship across the North Pole late in the summer then, too,' he says. 'So what we've discovered is there have been occasions throughout history when sea ice in the North Pole would go away during certain times of the year and other spans of history where the ice was essentially permanent. These things go back and forth. We wonder now if there was ever a time when there was no glacier on top of Greenland at all. Geologists say yes-a short 3 million years ago we didn't have any permanent year-round ice on the planet. These things come and go in natural cycles.'

Meteorologist Dr. Fred Ward, who earned his PhD in Meteorology from MIT and is a former meteorologist for Boston TV, ridiculed what he termed "global warming zealots." "Good, worldwide temperature data are available for less than a century, but that hasn't stopped the alarmists from quoting what are called 'temperature' data extending back to the Romans. Such data are not temperatures, but proxies which are claimed to measure temperature," Ward wrote in the New Hampshire *Union Leader* on July 16, 2007. "Such proxies include tree rings, ice cores and the like, but they all suffer from one serious limitation. The proxies can be calculated from the weather, but the weather cannot be calculated from the proxies. The brief reason is that many different weather elements work in complex ways to produce the proxy," he added. "Finally, for those of you old enough to read in the 1970s, there was a lot of hysteria back then about the global temperature. The same 'if we don't act promptly, in 10 years it will be too late' statements were published, on the covers of reputable papers and magazines, by many of the same 'scientists,' and for many of the same base motives. The only difference between the 1970s and now was that the disaster that was just around the corner was global cooling! How times change, while people don't," he concluded.

A 2006 study of Greenland by a team of scientists debunked fears of Greenland melting. The study led by Petr Chylek of Los Alamos National Laboratory, Space and Remote Sensing Sciences found the rate of warming in 1920-1930 was about 50% higher than that in 1995-

2005, suggesting carbon dioxide 'could not be the cause' of warming. "We find that the current Greenland warming is not unprecedented in recent Greenland history. Temperature increases in the two warming periods (1920-1930 and 1995-2005) are of similar magnitude, however the rate of warming in 1920-1930 was about 50% higher than that in 1995-2005," the abstract of the study read. The peer-reviewed study, which was published in the June 13, 2006 *Geophysical Research Letters*, found that after a warm 2003 on the southeastern coast of Greenland, "the years 2004 and 2005 were closer to normal being well below temperatures reached in the 1930s and 1940s." The study further continued, "Almost all post-1955 temperature averages at Greenland stations are lower (colder climate) than the (1881-1955) temperature average." In addition, the Chylek-led study explained, "Although there has been a considerable temperature increase during the last decade (1995 to 2005) a similar increase and at a faster rate occurred during the early part of the 20th century (1920 to 1930) when carbon dioxide or other greenhouse gases could not be a cause. The Greenland warming of 1920-1930 demonstrates that a high concentration of carbon dioxide and other greenhouse gases is not a necessary condition for a period of warming to arise. The observed 1995-2005 temperature increase seems to be within natural variability of Greenland climate. A general increase in solar activity [Scafetta and West, 2006] since 1 990s can be a contributing factor as well as the sea surface temperature changes of tropical ocean [Hoerling et al., 2001]." "To summarize, we find no direct evidence to support the claims that the Greenland ice sheet is melting due to increased temperature caused by increased atmospheric concentration of carbon dioxide." The co-authors of the study were M.K. Dubey of Los Alamos National Laboratory and G. Lesins, Dalhousie University in Canada. Chylek has authored over 100 studies in peer-reviewed journals. Chylek was one of the 60 scientists who wrote an April 6, 2006 letter urging withdrawal of Kyoto to Canadian prime minister Stephen Harper which stated, "If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary."

Former California State Climatologist Jim Goodridge, a consultant for the California Department of Water Resources, authored a July 28, 2007 paper noting the impact of the sun on climate change. "Evidence for climate variation is inferred from the sunspot numbers. The 'Solar Constant' sunspot relationship clearly suggests a long-range historic view of solar irradiance from 1500. The solar irradiance has been clearly increasing since 1940. The Maunder Minimum of sunspot numbers from 1660 to 1710 was clearly a time of worldwide cold temperatures. The year 1816 was known as the year without a summer," Goodridge wrote. Goodridge also blamed natural factors for the increase in temperatures in California since the 1 970s. "The evidence for a major climate shift since the mid 1 970s is quite real. California indices of rainfall and temperature have both shown an increasing trend since 1975. Physical changes in Earth weather systems that accompany the 1975 weather trend changes include the Pacific Decadal Oscillation (PDO) index, a 1975 change in the Atmospheric Angular Momentum (AAM) index and a 1940 increase in solar irradiance," he explained. "A comparison of the accumulated departure from average of the California temperature and the Pacific Decadal Oscillation Index (PDO) indices indicate both peaking about 1943 and generally declining until the major climate shift of 1975. Again, this suggests a 35-year lag time in solar influence," he added.

Geologist Bruno Wiskel of the University of Alberta recently reversed his view of man-made climate change and instead became a global warming skeptic. Wiskel was once such a big believer in man-made global warming that he set out to build a "Kyoto house" in honor of

the UN sanctioned Kyoto Protocol which was signed in 1997. Wiskel wanted to prove that the Kyoto Protocol's goals were achievable by people making small changes in their lives. But after further examining the science behind Kyoto, Wiskel reversed his scientific views completely and became such a strong skeptic that he recently wrote a book titled *The Emperor's New Climate: Debunking the Myth of Global Warming*. A November 15, 2006 *Edmonton Sun* article explains Wiskel's conversion while building his "Kyoto house," saying, "Instead, he said he realized global warming theory was full of holes and 'red flags,' and became convinced that humans are not responsible for rising temperatures." Wiskel now says "the truth has to start somewhere." Noting that the Earth has been warming for 18,000 years, Wiskel told the Canadian newspaper, "If this happened once and we were the cause of it, that would be cause for concern. But glaciers have been coming and going for billions of years." Wiskel also said that global warming has gone "from a science to a religion" and noted that research money is being funneled into promoting climate alarmism instead of funding areas he considers more worthy. "If you funnel money into things that can't be changed, the money is not going into the places that it is needed," he said.

Dr. Denis Dutton, Associate Professor of Philosophy at the University of Canterbury in New Zealand and recipient of the New Zealand Royal Society Medal for Services to Science and Technology, teaches a course on the distinction between science and pseudoscience. Dr. Dutton is skeptical about the degree to which human activity has contributed to the general warming trend that began in the 1 880s. "Working at the university where Karl Popper taught in the 1940s, I am more than a little aware of the way that adequate scientific hypotheses must always be open to falsification. The best way for science and public policy to proceed is to continuously assess evidence pro and con for anthropogenic global warming," Dutton wrote to EPW on December 4, 2007. "Climate alarmists in particular are too prone to cherry-pick evidence that suits their case, ignoring factors that might disprove it," he added. Dutton recently founded the website Climate Debate Daily, which he co-edits with Douglas Campbell (http://climatedebatedaily.com).

Professor Emeritus Peter R Odell of International Energy Studies at the University of Rotterdam questioned why global temperatures have not increased since 1998. "The UK's Meteorological Office research centre has now had to confirm a fall in average global temperatures since 1998. This clearly opens to challenge the widely-held view that it is primarily the growth in carbon dioxide emissions, released by mankind's use of carbon fuels, that cause global warming," Odell wrote on August 13 in an unpublished letter to the UK *Guardian* newspaper. "Indeed, since 1998 there has been a record near- 25% increase in the production and use of coal, oil and natural gas - totaling an additional 2000 million tons of oil equivalent over the nine year period. Two-fifths of this has been coal, the most polluting of the three carbon fuels, so generating voluminous additional carbon dioxide for the atmosphere. Yet, in spite of an all-time peak period of carbon fuels' use, it seems that no overall global warming phenomenon has been generated!" Odell wrote. "Thus, instead of the Met Office's think-tank apparent acceptance of the concept of a demonstrable relationship between global warming and carbon dioxide emissions for its future forecasts, should it not first be held responsible for an explanation as to why this has not happened over the past nine years - and why it will not happen for at least the next three years?" he asked.

UK Astronomer Dr. David Whitehouse, who authored the 2004 book The Sun: A Biography, detailed the sun's significant influence on the climate. "Something is happening to our sun. It has to do with sunspots, or rather the activity cycle their coming and going

signifies. After a period of exceptionally high activity in the 20th century, our sun has suddenly gone exceptionally quiet. Months have passed with no spots visible on its disc. We are at the end of one cycle of activity and astronomers are waiting for the sunspots to return and mark the start of the next, the so-called cycle 24. They have been waiting for a while now with no sign it's on its way any time soon," Whitehouse wrote on December 5, 2007 in the UK *Independent*. "Throughout the 20th century, solar cycles had been increasing in strength. Almost everyone agrees that throughout most of the last century the solar influence was significant. Studies show that by the end of the 20th century the sun's activity may have been at its highest for more than 8,000 years. Other solar parameters have been changing as well, such as the magnetic field the sun sheds, which has almost doubled in the past century," Whitehouse explained. "Since [1998] average temperatures have held at a high, though steady, level. Many computer climate projections suggest that the global temperatures will start to rise again in a few years. But those projections do not take into account the change in the sun's behaviour. The tardiness of cycle 24 indicates that we might be entering a period of low solar activity that may counteract man-made greenhouse temperature increases. Some members of the Russian Academy of Sciences say we may be at the start of a period like that seen between 1790 and 1820, a minor decline in solar activity called the Dalton Minimum. They estimate that the sun's reduced activity may cause a global temperature drop of 1 .5C by 2020. This is larger than most sensible predictions of man-made global warming over this period," he added.

MIT Climate Scientist Dr. Richard Lindzen, former UN IPCC lead author and reviewer and an Alfred P. Sloan Professor of Meteorology, Dept. of Earth, Atmospheric and Planetary Sciences, called fears of man-made global warming "silly" in January 31, 2007 CNN interview. "I think it's mainly just like little kids locking themselves in dark closets to see how much they can scare each other and themselves," Lindzen said. "Nobody's arguing that man has zero impact on the climate. But the question is can you distinguish it from all the other stuff going on? And I think the answer is still no," Lindzen told the Weather Channel on January 14, 2007. "Controlling carbon is kind of a bureaucrat's dream. If you control carbon, you control life," he also told the Weather Channel on March 31, 2007. Lindzen dismisses "solutions" to global warming like changing light bulbs to fluorescent or participating in the Kyoto Protocol. "If you had a decision to make which actually would matter, then, of course it would be a very difficult situation," Lindzen said in an April 28, 2007 CBS Chicago TV special "The Truth About Global Warming." "One of the things the scientific community is pretty agreed on is those things will have virtually no impact on climate no matter what the models say. So the question is do you spend trillions of dollars to have no impact? And that seems like a no-brainer," he said. Lindzen also explained the UN's IPCC Summary for Policymakers involves only a dozen or so scientists. "It's not 2,500 people offering their consensus, I participated in that. Each person who is an author writes one or two pages in conjunction with someone else.. .but ultimately, it is written by representatives of governments, of environmental organizations like the Union of Concerned Scientists, and industrial organizations, each seeking their own benefit," Lindzen said. "At present, the greenhouse forcing is already about three-quarters of what one would get from a doubling of CO2. But average temperatures rose only about 0.6 degrees since the beginning of the industrial era, and the change hasn't been uniform- warming has largely occurred during the periods from 1919 to 1940 and from 1976 to 1998, with cooling in between. Researchers have

been unable to explain this discrepancy," Lindzen wrote in the April 16, 2007 issue of Newsweek.

Astronomer Dr. Ian Wilson of the University of Southern Queensland, Australia, specializes in statistical analysis and astrophysics research, and was a former operations astronomer at the Hubble Space Telescope Institute in Baltimore, MD. Wilson declared man-made global warming fears "bit the dust" after a 2007 peer- reviewed study found that even a doubling of atmospheric carbon dioxide would not have an alarming impact on global temperatures. "Anthropogenic (man-made) global warming bites the dust," declared Wilson about the study titled "Heat Capacity, Time Constant, and Sensitivity of Earth's Climate System," authored by Brookhaven National Lab scientist Stephen Schwartz. "Effectively, this [new study] means that the global economy will spend trillions of dollars trying to avoid a warming of ~ 1.0 K by 2100 A.D.," Wilson wrote in an August 19, 2007 note to the Senate Environment & Public Works Committee. Wilson was referring to the trillions of dollars that would be spent under such international global warming treaties like the Kyoto Protocol. "Previously, I have indicated that the widely accepted values for temperature increase associated with a doubling of CO2 were far too high, i.e. 2 - 4.5 Kelvin. I indicated that a figure closer to 1 Kelvin (corresponding to an increase in the world mean temperature of ~ 0.1 K per decade) was more appropriate. This new peer-reviewed paper by Stephen Schwartz appearing in the *Journal of Geophysical Research* claims a value of 1.1 +/- 0.5 K increase for a doubling of CO2," he added.

Statistician Lenny Smith of the London School of Economics, who co-authored a study on the uncertainties of climate models for the Tyndall Centre for Climate Change Research in Oxford, dubbed climate modeling "naive realism." "Our models are being over-interpreted and misinterpreted," Smith said, according to a *New Scientist* article from August 16, 2007. "They are getting better; I don't want to trash them per se. But as we change our predictions, how do we maintain the credibility of the science?" Smith explained. "We need to drop the pretence that they are nearly perfect," he added. The article noted that Smith believes that the "over-interpretation of models is already leading to poor financial decision-making." The article continued: "[Smith] singled out for criticism the British government's UK Climate Impacts Programme and Met Office. He accused both of making detailed climate projections for regions of the UK when global climate models disagree strongly about how climate change will affect the British Isles."

Geologist Dr. Al Pekarek, professor of geology, earth and atmospheric sciences at St. Cloud State University, ridicules man-made global warming fears as a "media circus." "Climate is a very complex system, and anyone who claims we know all there is to know about it, let's say, is charitably misinformed or chooses to be," Pekarek said according to a September 7, 2007 article. "We fool ourselves if we think we have a sufficiently well-understood model of the climate that we can really predict. We can't," he explained. "Geologists know that the Earth's climate has done this all the time in its history. We also know that man has not been around very long and could not have caused that. So we know that there are many natural forces that have caused our climate to change," he continued. "Those of us who don't jump on the bandwagon - we're called deniers and Hitlers and I don't know what all else. Some of us have been threatened - I think some with their life, but more it's trying to destroy our reputations," Pekarek added. He also pulled no punches in criticizing former Vice President Al Gore's documentary *An Inconvenient Truth*, calling the film "a total misrepresentation of science." He dismissed computer model fears of a climate doomsday.

"It's an abuse of science. They are misquoting science. They are misusing science. They are making predictions of dire consequences in the name of science that will not come true, and science will lose its credibility," he explained. "In some of our schools, we are scaring the hell out of our kids. ... They think they have no future," he said. "In 10 years, you won't hear anything about global warming," he concluded.

Botanist Dr. David Bellamy, a famed UK environmental campaigner, former lecturer at Durham University, and host of a popular UK TV series on wildlife, recently converted into a skeptic after reviewing the science and now calls global warming fears "poppycock." According to a May 15, 2005 article in the UK *Sunday Times*, Bellamy said that "global warming is largely a natural phenomenon. The world is wasting stupendous amounts of money on trying to fix something that can't be fixed." "The climate-change people have no proof for their claims. They have computer models which do not prove anything," Bellamy added. Bellamy's conversion concerning global warming did not come without a sacrifice, as several environmental groups have ended their association with him because of his views on climate change. The severing of relations came despite Bellamy's long activism for green campaigns. The UK *Times* reported Bellamy "won respect from hard-line environmentalists with his campaigns to save Britain's peat bogs and other endangered habitats. In Tasmania he was arrested when he tried to prevent loggers cutting down a rainforest." On July 1, 2007, in an op-ed titled "THE GLOBAL WARMING MYTH," Bellamy called man-made catastrophic global warming promotion "a political football that has lost its foundations in real science." "There are no facts linking the concentration of atmospheric carbon dioxide with imminent catastrophic global warming, there are only predictions based on complex computer models," he explained. Bellamy turned his skepticism on Gore, asking "Why scare the families of the world with tales that polar bears are heading for extinction when there is good evidence that there are now twice as many of these iconic animals, most doing well in the Arctic than there were 20 years ago? Why cry wolf on a rise in the spread of malaria thanks to rising temperatures when this mosquito borne disease was a main killer of people throughout the Little Ice Age in Britain and northern Russia?"

Naturalist Nigel Marven is a trained zoologist and botanist and a UK wildlife documentary maker who spent three months studying and filming polar bears in Canada's arctic in 2007. Marven expressed skepticism about fears that global warming would devastate polar bears. "I think climate change is happening, but as far as the polar bear disappearing is concerned, I have never been more convinced that this is just scaremongering. People are deliberately seeking out skinny bears and filming them to show they are dying out. That's not right," Marven said according to a December 7, 2007 article in the UK *Daily Mail*. "Of course, in 30 years, if there's no ice over the North Pole, then the bears will be in trouble. But I've seen enough to know that polar bears are not yet on the brink of extinction," Marven added. The article also noted that indigenous residents of the Arctic also reject polar bear fears. "After almost three months of working with those who know the Arctic best - among them Inuit Indians, who are appalled at the way an animal they have lived beside for centuries has become a poster species for ‘misinformed' Greens - Nigel Marven finds himself in broad agreement," the article reported.

Nobel Prize-winning Economist Gary S. Becker, who is a senior fellow at the Hoover Institution and University Professor of Economics and Sociology at the University of Chicago, debunked the notion that acting now to reduce greenhouse gases will save in the long run. "Future generations would be better off if the present generation, instead of

investing the $800 billion in greenhouse gas-reducing technologies, invested the same amount in capital that would be available to future generations," Becker wrote on February 4, 2007. "One criticism of this argument is that if the resources were not invested in reducing greenhouse gases, they would not be invested in other capital that would accrue to future generations. Perhaps not. But bear in mind that during the past 150 years, more recent generations in the United States and other developed and developing nations have been much better off than earlier generations when measured by income, health, education, and virtually all other important criteria," Becker explained. "This rising standard of living across generations has been achieved mainly through advances in technology, and generous savings and investments for children and grandchildren by parents and their elected representatives. Why should this fundamental aspect of family and public behavior change as a result of the accumulation of the harmful greenhouse gases in the atmosphere?" he wrote. "Discounting is sensible behavior. Common sense also suggests that technologies will be much improved in the future, including those that can improve health, income, and the environment. Put differently, later generations have benefited from large and continuing advances in technologies of all kinds in the past 150 years, including those related to the environment," he added.

Lev Zeleny, director of the Institute of Space Research at the Russian Academy of Sciences and an Academy corresponding member, rejects man-made climate fears. According to a September 28, 2007 article in the Russian publication *RIA Novosti*, Zeleny "believes that before making Kyoto Protocol-like decisions, we should thoroughly study the influence of all factors and receive more or less unequivocal results. In order to treat an illness, we must diagnose it first, he insists." Zeleny noted, "Judging by Venus, a planet, which is similar to the Earth in all respects, we can see how far this can go. The temperature on its surface is about 500° C (mostly due to a greenhouse effect). At one time, Venus did not have a layer of clouds, and this is probably when it was warmed up by the Sun, causing a greenhouse effect. What if the Sun is responsible for the warming of our climate?" Zeleny asked. "There are two channels of energy transfer from the Sun - electromagnetic and corpuscular radiation," he explained. "The bulk of it - about 1.37 kW per square meter of the Earth's surface - which equals the power of an electric kettle - comes via the electromagnetic channel. This flow of energy primarily fits into the visible and infrared range of the spectrum and its amount is virtually immune to change - it alters by no more than a few fractions of a percent. It is called the 'solar constant.' The flow of energy reaches the Earth in eight minutes and is largely absorbed by its atmosphere and surface. It has decisive influence on the shaping of our climate," Zeleny said. "Solar wind becomes more intense when the Sun is active. It sweeps space rays out of the solar system like a broom," he added. "This affects cloud formation, which cools off both the atmosphere and the whole planet. We know from historic records that it was quite cold in 1350-13 80. The Sun was very active during this time," he said. "Some dangers are much less discussed today, for instance, the inversion of the Earth's magnetic field," Zeleny warns. "It is gradually changing its polarity; the poles are crawling to the equator at increasing speed. There were whole epochs in the Earth's history when the magnetic field all but disappeared. Such oscillations have taken place throughout almost its entire geological history," he concluded.

CNN Meteorologist Rob Marciano compared Gore's film to "fiction" in an on air broadcast on October 4, 2007. When a British judge ordered schools that show Gore's *An Inconvenient Truth* to include a disclaimer noting multiple errors in the film, Marciano

applauded the judge saying, "Finally, finally." Marciano then added, "The Oscars, they give out awards for fictional films as well." Marciano specifically critiqued Gore for claiming hurricanes and global warming were linked.

Geologist C. Robert Shoup authored a summer 2007 scientific study for the American Association of Petroleum Geologists in which he debunked global warming fears. "The hypothesis of Anthropogenic Global Warming does not yet meet the basic scientific standards of proof needed to be accepted as a viable hypothesis, much less as accepted fact," Shoup wrote in the study titled "Science Under Attack." Shoup concluded, "A comprehensive review of the climate data suggests that many global warming advocates do not present data that is contradictory to their beliefs. In addition, the constant call to end debate and silence scientists who challenge the hypothesis of Anthropogenic Global Warming is a violation of scientific protocol and has the affect of suppressing healthy scientific debate."

Horticulturalist Alan Titchmarch, a prominent naturalist who hosts the popular "The Nature of Britain" program on the BBC, received the Royal Horticultural Society's highest award – the Victoria Medal of Honor – for outstanding services to horticulture. Titchmarch *also* joined the climate skeptics in 2007. "Our climate has always changed," Titchmarch said according to an October 6, 2007 article in the UK *Telegraph*. "I wish we could grow up about it," he explained, "I'm sure we are contributing to global warming, and we must do all we can to reduce that, but our climate has always changed. The Romans had vineyards in Yorkshire. We're all on this bandwagon of 'Ban the 4x4 in Fulham'. Why didn't we have global warming during the Industrial Revolution? In those days you couldn't have seen across the street for all the carbon emissions and the crap coming out of the chimneys," he said. Titchmarch also rejected fears of warming induced species loss. "We'll lose some, we'll gain others. Wildlife is remarkably tenacious. Nature always copes," he said.

Alexandre Amaral de Aguiar, communications director for Brazil's MetSul Weather Center and weatherman for Ulbra TV in Porto Alegre, Brazil, debunked former Vice President Al Gore's science claims in 2007. "It was exactly 10 years ago today. October 14th 1997. The guest in the El Niño Community Preparedness Summit in Santa Monica, California, was the Vice President of the United States Al Gore. It was another opportunity to him to propagate the scary vision of a warmed globe. The main point was the super El Niño event of that year. Gore took advantage of the scene to forecast a future without (cooling) La Niña events. El Niño (warming) events, according to him and his fellow scientists, would become permanent," Aguiar wrote on October 14, 2007 on the skeptical website IceCap.US. "Gore's theory bankrupted exactly ten years after its release. The largest ocean in Earth is much colder than average and global climate starts to feel the impacts of a moderate La Niña event that may reach the strong threshold," Aguiar explained. "It will take some more years for 'Mother Nature' to dismiss some or all of Gore forecasts, but earlier predictions made by him are already proving to be an inconvenient mistake," he concluded.

Chief Meteorologist Karl Spring of Duluth, Minnesota, who is certified by both the American Meteorological Society and the National Weather Association, expressed skepticism of former Vice President Al Gore's climate views. On the day Gore's Nobel Prize was announced in October 2007, Spring declared on KUWS radio, "I wouldn't pay a dime to see [*An Inconvenient Truth*] for many reasons." Spring then ridiculed Gore. "Politically, he's a left-wing nut. And he does things for other agendas." He added that Gore "takes facts and extrapolates them to such extremes," and he projects "a doomsday scenario." *Meteorologist Kyly Underwood joined Spring in dismissing Gore's scientific opinions during on KUWS*

radio. "We need to be careful about where we get our information on global warming, and this debate unfortunately is driven by politicians."

Gwyn Prins of the London School of Economics and Steve Rayner of Oxford authored a report prominently featured in the UK journal Nature in October 2007 calling on the UN to "radically rethink climate policy," and they cautioned against a "bigger" version of Kyoto with even more draconian provisions. Prins and Rayner's report in the influential journal bluntly declared "... as an instrument for achieving emissions reductions [Kyoto] has failed. It has produced no demonstrable reduction in emissions or even in anticipated emissions growth." Their report was titled "Time to Ditch Kyoto" and was highlighted in an October 24, 2007 *National Post* article. "But as an instrument for achieving emissions reductions it has failed. It has produced no demonstrable reduction in emissions or even in anticipated emissions growth. And it pays no more than token attention to the needs of societies to adapt to existing climate change." The report also noted, "Kyoto's supporters often blame non-signatory governments, especially the United States and Australia, for its woes." The report continued, "But the Kyoto Protocol was always the wrong tool for the nature of the job." Prins and Rayner instead urged investment in new technologies and adaptation as the most promising method to deal with climate change. Prins and Rayner also strongly dissented from the Kyoto style approaches advocated by the UN IPCC in a December 7, 2007 article in the Wall Street Journal. “This week in Bali, Indonesia, [UN] delegates are considering climate policy after the Kyoto Protocol expires in 2012. We will witness a well-known human response to failure. Delegates will insist on doing more of what is not working: in this case more stringent emissions-reduction targets, and timetables involving more countries. A bigger and ‘better’ Kyoto will be a bigger and worse failure,” they wrote. Earlier in 2007, Prins and Rayner warned of creating ‘bizarre distortions in public policy” by downplaying adaptation to climate change. “Similarly, non-climate factors are by far the most important drivers of increased risk to tropical disease. For instance, one study found that without taking into account climate change, the global population at risk from malaria would increase by 100% by 2080, whereas the effect of climate change would increase the risk of malaria by at most 7%. Yet tropical disease risk is repeatedly invoked by climate-mitigation advocates as a key reason to curb emissions. In a world where political attention is limited, such distortions reinforce the current neglect of adaptation,” they wrote in February 2007 in the journal Nature.

Chinese Scientists Say C02 Impact on Warming May Be ‘Excessively Exaggerated' - Scientists Lin Zhen-Shan's and Sun Xian's 2007 study published in the peer- reviewed journal Meteorology and Atmospheric Physics noted that "although the CO2 greenhouse effect on global climate change is unsuspicious, it could have been excessively exaggerated." Their study asserted that "it is high time to reconsider the trend of global climate change." The study looked at "multi-scale analysis of global temperature changes" and concluded "that ‘global climate will be cooling down in the next 20 years.'" The scientists concluded that even if atmospheric CO2 were to stabilize, "the CO2 greenhouse effect will be deficient in counterchecking the natural cooling of global climate in the following 20 years." "The global climate warming is not solely affected by the CO2 greenhouse effect. The best example is temperature obviously cooling however atmospheric CO2 concentration is ascending from 1940s to 1970s. Although the CO2 greenhouse effect on global climate changes is unsuspicious, it could have been excessively exaggerated. It is high time to re-consider the global climate changes," Zhen-Shan and Xian concluded.

Physicist Dr. Henrik Svensmark released a report with his colleagues at the Danish National Space Centre which shows that the planet is experiencing a natural period of low cloud cover due to fewer cosmic rays entering the atmosphere. "We have the highest solar activity we have had in at least 1,000 years," Svensmark said in the February 11, 2007 article in the UK Telegraph. "Humans are having an effect on climate change, but by not including the cosmic ray effect in models it means the results are inaccurate. The size of man's impact may be much smaller and so the man-made change is happening slower than predicted," Svensmark said. Svensmark published his finding on the influence that cosmic rays have on cloud production in the Proceedings of the Royal Society Journal in late 2006 and he has a new 2007 book entitled The Chilling Stars: A New Theory of Climate Change. "It was long-thought that clouds were caused by climate change, but now we see that climate change is driven by clouds," Svensmark said. In October 2007, Svensmark co-authored another report from the Danish National Space Center Study concluding: "The Sun still appears to be the main forcing agent in global climate change." The report was authored with Physicist Henrik Svensmark and Eigil Friis-Christensen.

Air resources engineer Tom Scheffelin, who estimates on-road vehicle emissions for the California Air Resources Board, declared himself a climate skeptic in 2007. "Does carbon dioxide affect the climate? Carbon dioxide levels track temperature changes between 300 to 1,000 years after the temperature has changed. Carbon dioxide has no direct role in global warming; rather, it responds to biological activity, which responds to climate changes," Scheffelin wrote in a November 5, 2007 article titled "Global Warming Causes Carbon Dioxide." Scheffelin critiqued what he termed "the quasi-religious fervor surrounding global warming." He explained, "Cyclic global warming is normal and must occur no matter what anyone does or does not do. The most frequent global climate cycle is caused by the ocean's response to the orbits of the earth and moon." Scheffelin continued, "Carbon dioxide levels track temperature changes between 300 to 1,000 years after the temperature has changed. Carbon dioxide has no direct role in global warming; rather, it responds to biological activity, which responds to climate changes." He concluded by issuing a warning to the public about climate fears. "Beware future radical government mandates designed to save the planet. What can one do? Elect legislators who do not fall prey to the global warming hysteria. Walk or bicycle as often as possible; the world is a better place when experienced on foot or by bicycle. Grow two ears of corn where before only one ear grew (*Gulliver's Travels*). Stop worrying over global warming; worry causes poor health. Study geology, it's fascinating. Enjoy life during this, the most productive, safe and healthful era in the history of mankind," he concluded.

Atmospheric scientist Dr. Chris Walcek is a professor at the University at Albany in NY and a Senior Research Associate at the Atmospheric Sciences Research Center who studies the relationship of pollutants within the atmosphere. Walcek is also a skeptic of man-made global warming fears. "10,000 years ago we were sitting under 2,000 feet of ice right here. It looked like Antarctica right here. And then over a one to two thousand year period, we went into today's climate and the cause of that change is not, well, nobody has a definitive theory about why that happened," Walcek said according to a November 6, 2007 article. In a separate May 5, 2007 interview, Walcek expanded on his climate skepticism and accused former Vice President Al Gore of having "exaggerated" part of his film. "A lot of the imagery like hurricanes and tornados. And as far as tornados go, there is no evidence at all that tornados are affected. And a recent committee of scientists concluded that there isn't a strong

correlation between climate change and hurricane intensity. A lot of people are saying we're going to see more Katrina's and there's just not much evidence of that. We have had strong hurricanes throughout the last hundred years and we're probably going to have strong hurricanes once in a while," Walcek said. "We are over-due for an ice-age if you look at the geological records, we have had a period of not having a thousand feet of ice sitting here in Albany" New York, he added.

Environmental expert Sergei Golubchikov, Vice President of Russia's National Geocryological Foundation, expressed skepticism of man-made global warming in 2007. "Humanity is focusing environmental efforts on the boogeyman of global warming," Golubchikov wrote in a November 8, 2007 article in *RIA Novosti*. "Environmental phobias go hand in hand with technological civilization. Anxiety over climate change is carried too far, to my mind," Golubchikov continued. "Anxiety easily turns to panic, forcing the world into hasty, and possibly wrong, steps. The Kyoto Protocol, for instance, was ratified even before the link between global warming and the concentration of carbon dioxide in the atmosphere had been proved," Golubchikov explained. "But is the gas [CO2] so bad? It is no poison, and plants need it as much as we humans need our daily bread. At present it makes up a mere 0.037% of the atmosphere. Greater concentrations cause plant life to flourish-especially forests, the greatest absorbers of greenhouse gases. If the release of carbon dioxide into the atmosphere were suddenly stopped, the earth's plant life would consume that remaining in a matter of 8-11 years. After that they would curl up and die. Every living thing on earth would be doomed with them," he wrote. "As 95% of the world's carbon dioxide is dissolved in saline water, global warming makes the sea the principal source of emissions, leaving industry far behind. To my mind, international agreements should instead seek to reduce emissions of sulfur dioxide, carbonic and nitric oxides, benzpyrene, soot, heavy metals and other toxic substances responsible for causing cancer and mutations. These are, in fact, the greatest environmental challenge to governments and the public," he added.

Aeronautical engineer Bob Edleman, former Chief Engineer of Boeing's Electronic Systems Division who also worked as a software engineer in data reduction and flight simulation, expressed skepticism about man-made climate fears promoted in former Vice President Al Gore's film. "My conclusion is that the movie is mostly misleading and, yes, we'd better stop the ideological wrangling and consider the facts," Edelman wrote on October 4, 2007. "There is no consensus. Even if there were it would have no value in science. Proof leads to consensus, not the other way around," he added.

Geologists Dr. George Chilingar, and L.F. Khilyuk of the University of Southern California authored a December 2006 study in the peer-reviewed journal Environmental Geology which found warming temperatures were due to natural factors, not mankind. "The current global warming is most likely a combined effect of increased solar and tectonic activities and cannot be attributed to the increased anthropogenic impact on the atmosphere. Humans may be responsible for less than 0.01°C (of approximately 0.56°C (1°F) total average atmospheric heating during the last century)," the paper concluded. "Recalculating this amount into the total anthropogenic carbon dioxide emission in grams of CO2, one obtains the estimate 1.003× 1018 g, which constitutes less than 0.00022% of the total CO2 amount naturally degassed from the mantle during geologic history. Comparing these figures, one can conclude that anthropogenic carbon dioxide emission is negligible (indistinguishable) in any energy- matter transformation processes changing the Earth's climate," Chilingar and

Khilyuk added. Chilingar is a professor of civil and petroleum engineering at UCLA and is the former president of the U.S. chapter of the Russian Academy Sciences.

Chemist Dr. Daniel W. Miles, a former professor of physics who earned his PhD from the University of Utah, expressed skepticism of climate fears in 2007. "It is very apparent from a dozen or so peer-reviewed scientific articles that fluctuations in cosmic radiation have an important impact on climate change," Miles wrote in a November 8, 2007 essay titled "Scientific Consensus on Global Warming Not Overwhelming." "It is claimed that even if the carbon dioxide concentration in the air were doubled, its greenhouse effect would be canceled by a mere one percent rise in cloudiness. The reason is simply that greater cloudiness means a larger deflection of the solar radiation away from the surface of our planet," he wrote. "The more intense the influx of cosmic rays, the more clouds. Cosmic rays ionize air molecules, transforming them into condensation nuclei for water vapor, where the ice crystals - from which clouds are created - are formed. The quantity of cosmic rays impacting the atmosphere is controlled by changes in the so-called solar wind - when the winds are stronger, they drive cosmic radiation away from the Earth, fewer clouds are formed and the Earth becomes warmer," Miles explained.

Engineer David Holland authored a November 2007 study titled "Bias and Concealment in the IPCC Process: The 'Hockey-Stick' Affair and its Implications" which was published in the scientific journal Energy & Environment. Holland also wrote a 2006 critique of the Stern Review for *World Economics*. Holland, who is a member of the Institution of Engineering and Technology, critiqued modern climate science methods and the UN IPCC process. "[Climate science] is by all measures as important a field of research as medicine, and ought to operate to standards at least as high, but it does not. On the contrary, it is steeped in bias, concealment and spin," Holland, wrote in his November paper for *Energy & Environment*. "Strong and well- founded scientific disagreement remains," he wrote. Holland took the IPCC to task. "The IPCC's governing principles are interpreted loosely, for example the strong scientific and statistical disagreements expressed by reviewers are not adequately, if at all, recorded in IPCC reports. Unpublished papers supporting IPCC orthodoxy are included even though their supporting data and methodology are not available. The use of non-disclosure agreements runs entirely counter to the IPCC's role," he wrote.

Meteorologist Morgan Palmer of Texas TV's KLTV, who holds Seals of Approval from both the American Meteorological Society (AMS) and the National Weather Association (NWA), declared himself skeptical of man-made climate fears in 2007. "Any idea can become mainstream if you just hear one side of the argument," Palmer said on November 8, 2007. Palmer called man-made warming a theory and accused proponents of becoming political. "It is because of money," Palmer explained. "Folks that are writing these papers that a lot of institutions are going after grant money, and grant money is given by folks who might have very good intentions, but unfortunately the papers that are being written are heavily weighed on man-made Global Warming," he added.

Berkeley University- and MIT-educated scientist Jeffrey P. Schaffer, now a professor at the Department of Science & Mathematics at Napa Valley College in California, questioned man-made climate fears in 2007. Gore's claims of a "20-foot sea level rise due to rapid melting of the Greenland ice sheet is far from reality," Schaffer wrote on November 14, 2007 in an article titled "A Scientist's Take on Global Warming" in the *Napa Valley Register*. "Beginning in 1986 I became seriously interested in global warming, and learned that the sea level would rise about 20 feet very rapidly due to melting ice shelves and sea ice. However,

as any science-literate elementary school kid can tell you, when floating ice melts, it contracts; there is no increase in volume, so no sea-level rise. After about 10 years with this impending doom scenario, scientists dropped it. I suppose some elementary school kid told them about the ‘floating ice cubes' class experiment," Schaffer explained. Schaffer also detailed why he believes climate science has become politicized and recommended the book *State of Fear* by Michael Crichton. Crichton "shows how environmental organizations such as the Sierra Club create imaginary crises. Having been on the board of one organization and observing others, I can vouch for this. A perceived crisis really boosts your membership! For example, here is a global-warming quote by Stanford University climatologist Stephen Schneider: ‘We need to get some broad-based support to capture the public's imagination. That of course, entails getting loads of media coverage. So we have to offer up scary scenarios, make simplified, dramatic statements, and make little mention of any doubts we might have,'" Schaffer concluded.

Climate scientist Dr. David Douglass of the University of Rochester refuted the entire basis for man-made climate fears in 2007. Douglass co-authored a December 2007 peer-reviewed paper published in the International Journal of Climatology of the Royal Meteorological Society which found the evidence for human influence for warming temperatures lacking in the atmosphere. "The observed pattern of warming, comparing surface and atmospheric temperature trends does not show the characteristic fingerprint associated with greenhouse warming. The inescapable conclusion is that the human contribution is not significant and that observed increases in carbon dioxide and other greenhouse gases make only a negligible contribution to climate warming," said Douglass, the paper's lead author on December 10, 2007. The paper was co-authored with *Physicist Dr. S. Fred Singer, Climatologist Dr. John Christy and Benjamin D. Pearson.*

Climate scientist Dr. Dick Morgan, former director of Canada's Met/Oceano Policy and Plans, a marine meteorologist and a climate researcher at both Exeter University and the Bedford Institute of Oceanography, rejected man-made climate fears in 2007. "I have had over 65 years of global climatic experience in every ocean of the world and am convinced that solar variability is the major component of climate change. It influences the global thermohaline circulation and the quasi-permanent pressure oscillations which export polar air towards the ITF via the Trade Winds. Hence, seasonal Monsoons, Tropical Storms and ENSO generation," Morgan, a former associate of the British Antarctic Survey Group at Cambridge, wrote to EPW on November 18, 2007. "The Major GHGs (greenhouse gases) are water vapour and ozone – the latter being more important than CO2 in fossil fuel emissions because of its effect upon aerosols which determine cloud albedo and chemistry. Having been a forecaster at an airfield in Glasgow, during the coal burning period, I can vouch for that statement empirically," Morgan explained. "CO2 warming is not entirely detrimental because of its feedback as a catalyst for the greening of the terrestrial surface as its own sink in forestry, food production and grazing crops for animals. Its attributes and detriments are probably near balanced," he wrote. "As there is a perfect correlation between population growth and CO2, the major objective of Kyoto should be population control, otherwise it is simply pissing against the wind," he added. "As the IPCC does not have an adequate representation of oceanographers and solar scientists in its WG1 (Working Group 1) and [IPCC] Panel, it is not representative of the total scientific forum of experts in climate change integers, Centers of expertise in oceanography are almost unanimously advising that if IPCC models are right then the Gulf Stream will fail and scientists in highly reputable solar research

centers are anticipating 60 years of solar quiescence are imminent. The IPCC are not advising the public of these alternative theses which advocate cooling – countering anthropogenic warming," he concluded.

Iowa Meteorologists George Waldenberger and Gary Shore expressed skepticism about whether mankind was driving climate change in 2007. "Well, I went to school at UCLA, a big climate school. And it isn't really an issue as to if the global climate has been warming," Waldenberger said on April 11, 2007. "It has over the past 40 years. The question is what type of role do we take in that warming. Is it all natural fluctuations or are the increased concentrations of carbon dioxide part of this? And that's a subject that's up in the air," Waldenberger explained.

Meteorologist Gary Shore, agreed with Waldenberger. "There's definitely global warming," Shore said on April 11, 2007. "No question about that. And it seems very likely that what we're doing has some part of that, some impact; but as to exactly how much of it is us and how much of it is other things, nobody knows," Shore explained. Waldenberger further commented, "But you know carbon dioxide is a greenhouse gas just like water vapor, which is actually the most efficient greenhouse gas. And that's why we're actually 60 degrees warmer than we would be without water vapor in the air. So if you're talking about the greenhouse effect, that's very real, and we need it to survive. But as far as carbon dioxide concentrations increasing over the last 100 years, they have about 30 percent. And temperatures have increased about a degree on average across the entire globe over the last hundred years as well. So it seems to be a reasonable argument." "So the debate now goes into, well, what does that mean? Are things going to keep going in the direction that they're going or does increased carbon dioxide sort of fertilize the air and does that create more plants which in turn digest more carbon dioxide and create more oxygen? You know, there's a wide variety of ways we can go from here. So the debate then becomes: What do we need to do now?" he added.

Atmospheric scientist H. Michael Mogil, a 30-year veteran of NOAA (National Oceanic and Atmospheric Administration), who is certified by the American Metrological Society and currently owns the "How the Weatherworks" consulting firm, questioned man-made global warming fears in 2007. "As a certified consulting meteorologist who has written extensively about weather, I am compelled to address the spate of stories that appear almost daily promoting climate fears," Mogil, who holds a masters degree in Meteorology, wrote in a commentary published on October 27, 2007 in the *Napa Valley Register* titled "Earth is Warming, but it's Not Our Fault." "Long-term climate studies show that the Earth goes through large- and small-scale weather and climate patterns. These are based on solar energy output and solar flare activity, wobbles of the Earth's rotation, changes in land locations (plate tectonics or continental drift, depending upon your age when the subject was taught), periodic melting and reformation of glaciers and much more. Humans are clearly affecting some of these typical variations, but we are not their cause," Mogil explained. "While the Intergovernmental Panel on Climate Change (IPCC) and Al Gore claim that humans are almost certainly the cause of the changes, I disagree. The warming began as the last ice age waned some 500 years ago, not as humans started to industrialize," he wrote. "I'm not sure why so many of my meteorological colleagues who have similar feelings have not spoken up. Perhaps it is because the news media is presenting mostly a one-sided approach to the topic. So, in my new book, *Extreme Weather*, coming in November [2007], and in letters like this,

I'm pushing for a more scientific examination of the evidence and a more balanced perspective," he concluded.

Geologist Brian R. Pratt, a professor in the Department of Geological Sciences at the University of Saskatchewan in Canada, is an award-winning sedimentologist and paleontologist who specializes in earth's environmental history in Deep Time. Pratt is also a skeptic of climate change fears. "I have reviewed the observational evidence of climate change which leads me to interpret climate fluctuations and weather patterns as natural phenomena not caused by anthropogenic activities," Pratt told EPW on November 27, 2007. "I am very concerned that Earth's physical, chemical and biological processes are being widely misunderstood by the public, by politicians and even by many scientists. Consequently, ‘stopping' global warming has been adopted as a mission by people with the power to cause severe economic harm and divert efforts away from more critical measures involving conservation, population growth, poverty and so forth," he wrote.

Climate Scientist Dr. S. Fred Singer, former director of the U.S. Weather Satellite Service, past vice chairman of the U.S. National Advisory Committee on Oceans and Atmosphere and global warming co-author of the 2006 book Unstoppable Global Warming: Every 1500 Years which details the solar-climate link using hundreds of studies from peer reviewed literature and "shows the earth's temperatures following variations in solar intensity through centuries of sunspot records, and finds cycles of sun- linked isotopes in ice and tree rings." Singer explained on February 14, 2007, "Good evidence confirms that current warming is mostly part of a natural climate cycle, most likely driven by the sun. The available data show that the human contribution from greenhouse gases is not detectable and must be insignificant. It is a non-problem. Trying to mitigate a natural warming (or cooling) is futile and a big waste of money better spent on real societal problems."

Chemist James Hammond, a councilor for the American Chemical Society's San Gorgonio section, refuted man-made climate fears in 2007. "Data published during the past few years show that all other life on Earth contributes 1,000 times as much greenhouse gases as do people and all their activities," Hammond said at an American Chemical Society meeting in Redlands, California, according to a November 16, 2007 article. The article noted that Hammond explained that "all humans and human activity, from driving cars to raising cattle, produce just 14 percent of all carbon dioxide emissions." The article also explained that Hammond noted a single cow "emits about 1 1/3 tons of carbon dioxide a year, while a human on average emits 1 ton - though it depends on a person's size and diet." Hammond continued, "Reasonable sources of extra CO2 would be all other life on Earth, including plants, animals and insects. As the Earth warmed, more food would grow, so people and animal populations could grow, thereby increasing greenhouse gas production. Dead and rotting plants, animals and people contribute carbon dioxide, methane, nitrous oxide, ammonia, sulfurous gases and others that add to greenhouse gases." Hammond concluded, "CO2 is only one part of the problem. We're not looking at the whole picture."

Aeronautical engineer Roy Clark made a presentation at an American Chemical Society meeting in Redlands, California, rejecting man-made global warming fears. "Changes since the 1 950s of surface temperatures of the Earth have nothing to do with CO2," Clark said according to a November 16, 2007 article. "It comes from ocean current circulation," which shifts about every 10 years, Clark added. Clark attributed sun spot activity to warming and other natural factors. "Most global warming models require assumptions," he explained. "We assume global warming is real, so we build it into our models so we can calculate CO2

concentration. It's all a big joke." He concluded, "Water vapor and clouds drive climate temperature."

Dr. Richard Courtney, a UN IPCC expert reviewer and a UK-based climate and atmospheric science consultant, declared the case for man-made climate fears is weakening. "The case for anthropogenic (human-caused) global warming (AGW) is getting weaker and weaker, not ‘stronger and stronger and stronger' as many have claimed," Courtney wrote on November 27, 2007. "To date, no convincing evidence for AGW has been discovered. And recent global climate behavior is not consistent with AGW model predictions. Mean global temperature has not again reached the high it did in 1998 (an El Niño year) and it has been stable for the last 6 years despite an increase in atmospheric carbon dioxide concentration of by 4% since 1998," Courtney explained. "Global temperature has not increased since 1998 because, while the northern hemisphere has warmed, the southern hemisphere has cooled. Global warming was supposed to actually be global, not hemispheric," he added. "Scares of hypothetical ‘tipping points,' run-away sea level rise, massively increased storms, floods, pestilence and drought are simply that, unjustified and unjustifiable scares," he concluded.

Meteorologist Kevin Williams of the New York based WEATHER-TRACK and Chief Meteorologist at WHEC-TV in Rochester is skeptical of man-made climate fears.

"It is said that the one constant in life is change. The same can be said about the Earth's climate," Williams, who holds the American Meteorological Society's Seal of Approval, wrote on June 8, 2007. "For millions of years our planet has undergone colossal climatic upheavals that would make recent storms and heat waves pale in comparison. And while we know these events were not the result of humans burning fossil fuels, some claim that recent miniscule warming portends a coming, man-made catastrophe. While it is my belief that we need to be good stewards of the planet and to develop sound alternative energy sources, I also believe that the climate will continue to warm and cool naturally due to planetary and solar cycles, independent of human activities," Williams, the author of three books about the weather, explained.

The Dean of Pittsburgh's Graduate School of Public Health, Donald S. Burke, rejected climate fears relating to the spread of infectious diseases in 2007. "There are no apocalyptic pronouncements," Burke said, according to a December 5, 2007 *Boston Globe* article. "There's an awful lot we don't know," Burke added. The article explained that Burke "noted that the 2001 study found that weather fluctuation and seasonal variability may influence the spread of infectious disease. But he also noted that such conclusions should be interpreted with caution." The article continued, "Burke said he is not convinced that climate change can be proven to cause the spread of many diseases, specifically naming dengue fever, influenza, and West Nile virus."

Harold Brown, an agricultural scientist and professor emeritus at the University of Georgia and author of The Greening of Georgia: The Improvement of the Environment in the Twentieth Century, mocked global warming fears in 2007. "Global warming is a wonderful environmental disease," Brown said according to a December 7, 2007 article. "It has a thousand symptoms and a thousand cures and it has tens of thousands of practitioners with job security for decades to come unless the press and public opinion get tired of it." Brown also noted that many were worried about "global cooling" in the 1 970s. According to the article, Brown "said some of the direst effects of a warming world, such as an increase in the number of deaths because of heat-related illnesses, might not be as bad as some feared, even if climate change were to continue."

Chief Meteorologist Mark Scirto of Texas TV's KLTV, a degreed Meteorologist who holds the Seals of Approval from both the American Meteorological Society (AMS) and the National Weather Association (NWA), expressed climate skepticism in 2007 and predicted climate fears would eventually fade. "The late 1 800s, early 1 900s, we were so cold parts of Galveston Bay froze over," Scirto said on November 8, 2007. "In parts of the 20th century it was one of the warmest ever, then we cooled off again and then it was the drought." Scirto predicted the fears about man-made global warming will fade. "Eventually, what is going to happen 20, 30 years from now, this is all going to be gone because we will not be warming anymore," Scirto said.

Dr. Sonja Boehmer-Christiansen, of the faculty of science at the University of Hull in the UK who served as a Reader at the University's Department of Geography, is the editor of the science journal Energy & Environment. Boehmer-Christiansen, who has worked with emission modelers and published numerous peer-reviewed articles on the politics of global warming with special reference to the role of science and research lobbies, expressed climate skepticism in 2007. "I am pretty certain that the link between fossil fuel use and climate remains speculative and hypothetical," BoehmerChristiansen wrote on December 10, 2007. "Neither [the] Stern [Report] nor the IPCC final summaries reflect true academic opinion; they are the products of civil servants and UN policy ambitions. They have been exaggerating the climate 'threat' in order to serve the interests primarily of fossil fuel-poor industrialized countries," Boehmer-Christiansen continued. "As it stands, the Climate Change convention and the supporting rhetoric about catastrophe and serious future risks to humanity, and even to 'the creation,' serve a number of political, ideological and now financial interests that far outweigh the influences of 'science,'" Boehmer-Christiansen added. "The UNFCCC did not ask for a scientific examination of climate and climate variability. It did not ask for an examination of the natural influences on climatic variability. As a result the so-called science of climate change consists to a large degree of 'cherry picking,'" Boehmer-Christiansen wrote. Boehmer-Christiansen warned, "Beware of the [UK] Stern Review. This is not an independent piece of academic research, but a UK government document closely tied to a major diplomatic effort."

Canadian biologist Dr. Mitchell Taylor, the director of wildlife research with the Arctic government of Nunavut, dismissed these fears of global warming devastating polar bears. "Of the 13 populations of polar bears in Canada, 11 are stable or increasing in number. They are not going extinct, or even appear to be affected at present," Taylor said in 2006, noting that Canada is home to two-thirds of the world's polar bears. He added, "It is just silly to predict the demise of polar bears in 25 years based on media- assisted hysteria." In September 2007, Taylor further debunked the latest report hyping fears of future polar bear extinctions. "I think it's naive and presumptuous," Taylor said, referring to a recent report by the U.S. government warning that computer models predict a dire future for the bears due to projected ice loss. Taylor also debunked the notion that less sea ice means less polar bears by pointing out that southern regions of the bears' home with low levels of ice are seeing booming bear populations. He noted that in the warmer southern Canadian region of the Davis Strait with lower levels of ice, a new survey will reveal that bear populations have grown from an estimated 850 bears to an estimated 3000 bears. And, despite the lower levels of ice, some of the bears measured in this region are among the biggest ever on record. "Davis Strait is crawling with polar bears. It's not safe to camp there. They're fat. The mothers have cubs. The cubs are in good shape," he said, according to a September 14, 2007 article. He added, "That's

not theory. That's not based on a model. That's observation of reality." [Note: The U.S. Fish & Wildlife Service estimates that the polar bear population is currently at 20,000 to 25,000 bears, up from as low as 5,000-10,000 bears in the 1950s and 1960s. A 2002 U.S. Geological Survey of wildlife in the Arctic Refuge Coastal Plain noted that the polar bear populations 'may now be near historic highs.']

Bryan Leyland, head of the International Climate Science Coalition and an engineer, disputed man-made global warming fears in 2007. "Let us start with a simple question: 'Is the world warming?' The surface temperature records used by the IPCC show that it has warmed by 0.7 deg C since 1900. The world has not warmed since 1998 and temperatures have been steady since 2002. So the only answer can be: 'It warmed between 1900 and 1998. Nobody knows if the current slight cooling trend will soon end or continue,'" Leyland wrote in a November 2007 commentary. Leyland also disputed any link between man-made CO2 and temperature. "Computer models of the climate show that if it did, the largest increase in temperature would be 10 km above the tropics. Radiosonde observations published in 2006 show NO sign of faster warming. Therefore, we can be sure that man-made carbon dioxide is not causing global warming," Leyland wrote.

Aerospace engineer and physicist Dr. Michael Griffin, the top administrator of NASA and former head of the Space Department at Johns Hopkins University's Applied Physics Laboratory, expressed man-made global warming skepticism in 2007. "To assume that [global warming] is a problem is to assume that the state of Earth's climate today is the optimal climate, the best climate that we could have or ever have had and that we need to take steps to make sure that it doesn't change," Griffin said in a May 31, 2007 interview on National Public Radio's (NPR) "Morning Edition." "I guess I would ask which human beings - where and when - are to be accorded the privilege of deciding that this particular climate that we have right here today, right now is the best climate for all other human beings. I think that's a rather arrogant position for people to take," Griffin explained. "I have no doubt that a trend of global warming exists. I am not sure that it is fair to say that it is a problem we must wrestle with," he added.

Research physicist Dr. Tom Quirk, a former University lecturer, fellow of three Oxford Colleges, and a board member of the Australian based Institute of Public Affairs, authored a June 7, 2007 paper questioning carbon dioxide measurements in the atmosphere titled "Everyone is Entitled to Their Own Opinion But Not Their Own Facts." Quirk's paper found that "it is not possible to compare peaks and valleys in CO2 measurements from VOSTOK or EPICA with contemporary atmospheric time series. There is a mismatch in gas age resolutions. Peaks are flattened and valleys are fill of rice core measurements." The paper concluded, "Thus on our contemporary timescale it is not possible to say that CO2 level has not been above 300 ppm for the last 500,000 years. The same comment applies to comparing the 'rapid' run up of contemporary CO2 levels with the ice core records where 'sharp' pulses of less than 100 years may well be smoothed away." http://www.lavoisier.com.au/

Dr. Alex Robson, a professor in the School of Economics in the College of Business and Economics at the Australian National University and a former Economist at the Federal Treasury, ridiculed the notion of taking out an "insurance policy" against manmade global warming. "Simply put, as far as the benefits of emissions reductions are concerned, there is no 'risk' for Australia to 'manage,'" Robson wrote in a paper on June 29, 2007. "As a matter of science, economics and logic this 'insurance policy' analogy is completely inappropriate and indeed grossly misleading. As far as Australia's CO2 emissions reductions are concerned,

the entire ‘risk management' argument simply cannot be sustained," Robson explained. "A policy of emission reductions is like taking out an ‘insurance policy' in which there is never any positive payoff," he added. http://www.lavoisier.com.au

Meteorologist Chris Allen of Kentucky Fox affiliate WBKO dismissed what he termed "consensus nonsense" on global warming. "But, just because major environmental groups, big media and some politicians are buying this hook, line and sinker doesn't mean as a TV weatherperson I am supposed to act as a puppy on a leash and follow along," Allen said in his blog titled "Still Not Convinced" on February 7, 2007. "All of this (global warming alarmism) is designed to get your money and then guilt you in to how you live your life," Allen explained. Allen has the Seal of Approval of the National Weather Association. "As I have stated before, not only do I believe global climate change exists - it has always existed. There have been times of global warming and cooling," Allen concluded. "If there is a consensus among scientists about manmade global warming, then at what temperature would they all agree the earth should be before they say global warming no longer exists? The answer - there is not a scientific consensus and will never be. And if there were one, they would not agree as to what temperature the earth needs to be ‘normal' again," Allen wrote in another blog post on June 5, 2007.

Statistician Dr. Richard Mackey authored a 2007 peer-reviewed study which found that the solar system regulates the earth's climate. The paper was published August 17, 2007 in the Journal of Coastal Research - Excerpt: "According to the findings reviewed in this paper, the variable output of the sun, the sun's gravitational relationship between the earth (and the moon) and earth's variable orbital relationship with the sun, regulate the earth's climate. The processes by which the sun affects the earth show periodicities on many time scales; each process is stochastic and immensely complex."

New York's WABC-TV Senior Meteorologist Bill Evans, who has won the Outstanding Meteorologist Award from the National Weather Service and hosted the National Hurricane Conference, expressed man-made global warming skepticism in 2007. "There is climate change. The planet is warming. But we're coming off an ice age. So you would expect naturally the planet is warming," Evans said in an interview on Fox News Channel on August 19, 2007. "There's really no data to just show that man is causing the warming in the atmosphere or contributing to the mass of CO2 that's in the atmosphere. We are seeing changes in the planet, but the planet changes all the time," Evans said.

Nuclear physicist Dr. Dennis Jensen, a PhD-trained scientist and a former researcher for Australia's Commonwealth Scientific and Industrial Organization (CSIRO) and the Defense Science and Technology Organization (DSTO), questioned man-made climate fears in 2007. "It has been found that warming is occurring on Pluto, Mars, Jupiter and Triton," Jensen said on February 27, 2007. "The last time I looked, there were no evil greenhouse gas belching industries on those planets, subplanets and moons," he said, which clearly indicated that increased solar activity was a significant factor," Jensen explained. He also noted that studies of ice core data reveals that warming precedes rising CO2 levels in the atmosphere. "In other words, it would be more correct to say that temperature changes cause CO2 concentration changes," he said.

Environmental scientist and flood hydrologist Robert Ellison, an expert on environmental risk assessment, the movement of pollutants through soils, water, and the atmosphere, and hydrology and hydraulics, noted the impact of natural climate factors on warming temperatures. "We have moved into a cool (referring to sea surface temperatures) La Niña

Phase of the Pacific Decadal Variation - this should lead to lower global surface temperatures over a couple of decades. The lack of increase in average surface temperature over a decade certainly suggests that there is some other process in play - it is fitting the pattern of ENSO variation," Ellison wrote to EPW on December 17, 2007. "Superimposed on the alternation of La Niña and El Niño are longer- term variations in the frequency and intensity of El Niño and La Niña. A period of more frequent and intense La Niña between the mid forties and 1975 was followed by more frequent and intense El Niño between 1976 and 1998. The pattern appears in centuries of proxy data - that is in tree and coral rings, sedimentation and rainfall and flood records," Ellison wrote on November 28, 2007 in a commentary titled "ENSO Variation and Global Warming." "Global surface temperatures have a similar trajectory. Falling from 1946 to 1975, rising between 1976 and 1998 and declining since," Ellison explained. "It is difficult to explain how ENSO variations have been neglected by so many for so long. ENSO involves 97% of greenhouse gases. The surface temperature impacts are significant. Note the 0.25 0C difference between 1998 and 2000. ENSO variation goes in both directions. The indications are that ENSO variation added to global surface temperatures between 1976 and 1998. It has been almost 10 years since temperatures peaked in1998. The planet may continue to be cooler over the next few decades as a cool La Niña phase of ENSO emerges," he concluded.

Dr. Klaus P. Heiss formerly of Princeton University and Mathematica, and a space engineer who has worked with NASA, the U.S. Atomic Energy Commission and the Office of Naval Research. Heiss received the NASA Public Service award for unique contributions to the U.S. Space Program and is a member of the International Astronautics Academy. Heiss dissented from what he termed the “alleged climate catastrophe” in 2007. “The 20th Century increased the amount of carbon dioxide in the atmosphere continuously. Man-made CO 2 grew exponentially; however, global temperatures fell between 1940 and 1975, during the time span as the global industrial production almost exploded. Then [temperatures] rose strongly to 1990 and they have since stagnated, with the exception of El-Nino 1998 – at roughly the same level, although CO 2 emissions are still rising,” Heiss wrote in a September 7, 2007 commentary titled “No Reason For Hysteria.” “The entire atmospheric carbon dioxide, of which man-made CO 2 is only a fraction of, is not to blame for global warming,” Klaus explained. “Carbon dioxide is not responsible for the warming of the global climate over the last 150 years. But what then? For more than 90 percent are changes in the Earth-Sun relationship to the climate fluctuations. One is the sun's activities themselves, such as the recently discovered 22-year-cycles occur and sunspots,” Heiss continued. “Looking at the climate history of our planet, it is clear to see - and quite reassuring with regard to the possible consequences of global warming as predicted by the IPCC – that we are now (more precisely, in the last two to three million years ago) in a very cold climate period. Any warming would give us only the best long-term climate of the last 560 million years back,” he added. “Moreover, despite all the proposed measures and their enormous costs, most professional economic studies indicate that warmer times are generally better,” he concluded. (translated) [Updated 12/24/2007]

Economist Dr. Arnold Kling, formerly of the Federal Reserve Board and Freddie Mac, expressed man-made climate skepticism in 2007. “I am worried about climate change. In one respect, I may be more worried than other people. I am worried because I have very little confidence that we know what is causing it,” Kling wrote in a December 21, 2007 commentary. “One of my fears is that we could reduce carbon emissions by some drastic

amount, only to discover that--oops--it turns out that climate change is being caused by something else," Kling explained. "I am not a skeptic about the rise in average temperatures. Nor am I skeptical that the amount of carbon dioxide in the atmosphere has been increasing. However, I remain skeptical about the connection between the two," he wrote.

Meteorologist Thomas B. Gray is the former head of the Space Services branch at the National Oceanic and Atmospheric Administration (NOAA) and a researcher in NOAA's Space Environment Laboratory and Environmental Research Laboratories. Gray also served as an aviation meteorologist for the United States Air Force. Gray asserted that "climate change is a natural occurrence" and dissented from the view that mankind faces a "climate crisis" in 2007. "I was awarded my MS in meteorology from Florida State University and I became interested in paleoclimatology," Gray wrote to EPW on December 25, 2007. "Nothing that is occurring in weather or in climate research at this time can be shown to be abnormal in the light of our knowledge of climate variations over geologic time," Gray explained. "I am sure that the concept of a 'Global Temperature' is nonsense," he added. "The claims of those convinced that AGW (anthropogenic global warming) is real and dangerous are not supported by reliable data," Gray concluded.

Physical chemist Dr. Peter Stilbs, who chairs the climate seminar Department of Physical Chemistry at the Royal Institute of Technology (KTH) in Stockholm, has authored more than 165 scientific publications in refereed journals since 1970. Stilbs coordinated a meeting of international scientists and declared his skepticism about manmade climate fears. Stilbs wrote on December 21, 2006 that "by the final panel discussion stage of the conference, there appeared to be wide agreement" about several key points regarding man-made climate fears. Stilbs announced that the scientists concluded, "There is no strong evidence to prove significant human influence on climate on a global basis. The global cooling trend from 1940 to 1970 is inconsistent with models based on anthropogenic carbon dioxide emissions. Actual claims put forward are that an observed global temperature increase of about 0.3 degrees C since 1970 exceeds what could be expected from natural variation. However, recent temperature data do not indicate any continued global warming since 1998." Stilbs also noted, "There is no reliable evidence to support that the 20th century was the warmest in the last 1000 years. Previous claims based on the 'Mann hockey-stick curve' are by now totally discredited." Stilbs noted that the team of international scientists concluded: "There is no doubt that the science behind 'the climate issue' is far from settled. As so many cosmic effects are omitted from climate models, there is no credibility for arguments such as 'there is no other explanation' [than anthropogenic generation of carbon dioxide]. This must be remembered when making future political decisions related to these matters." Stilbs also was one of the signatories of the December 13, 2007 letter critical of the UN IPCC's climate view. "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," the letter Stilbs signed explained.

Geography professor Dr. Randy Cerveny of Arizona State University oversees the university's meteorology program and was named to a key post at the UN's World Meteorological Organization in 2007. Cerveny, who has written nearly 100 scientific papers and magazine articles, is in charge of developing a global weather archive for the UN. He

was also a contributing author to the skeptical climate change book Shattered Consensus: The True State of Global Warming, edited by climatologist Dr. Patrick Michaels. Cerveny rejected catastrophic fears of man-made climate change in 2007. "I don't think [global warming] is going to be catastrophic," Cerveny said according to an October 7, 2007 article. "Hopefully, our grandkids are going to have a lot better weather information than we did, and they will be able to answer a lot of the questions we're just in the process of asking," Cerveny explained.

Paul C. Knappenberger, a senior researcher with New Hope Environmental Services, has published numerous peer-reviewed studies related to climate change, including a 2006 study questioning the linkage between global warming and severe hurricanes. Knappenberger also serves as administrator for the skeptical climate change website www.WorldClimateReport.com. The website's stated goal is to "point out the weaknesses and outright fallacies in the science that is being touted as 'proof' of disastrous warming." The website also describes itself as the "definitive and unimpeachable source for what [the journal] *Nature* now calls the 'mainstream skeptic' point of view, which is that climate change is a largely overblown issue and that the best expectation is modest change over the next 100 years."

Climatologist Dr. Robert Balling of Arizona State University, the former head of the university's Office of Climatology, has served as a climate consultant to the United Nations Environment Program, the World Climate Program, the World Meteorological Organization, and the United Nations Educational, Scientific and Cultural Organization. Balling, who has also served in the UN IPCC, would have preferred former Vice President Al Gore had won the presidency in 2000. He has authored several books on global warming, including The Heated Debate and The Satanic Gases. Balling expressed skepticism about man-made climate fears in 2007. "In my lifetime, this global-warming issue might fade away," Balling said in a November 11, 2007 interview with the *Arizona Republic* newspaper. Noting the pressure he feels as a skeptical scientist, Balling explained, "Somehow I've been branded this horrible person who belongs in the depths of hell." He added, "There's just no tolerance right now." The article explained, "Balling's research over the years has explored sun activity, pollution from volcanoes, the urban-heat-island effect and errors in past temperature models as possible causes of rising temperatures." [Updated 12/26/07]

Meteorologist Brad Sussman, a member of the American Meteorological Society (AMS) and Seal holder and past officer of the National Weather Association (NWA), is currently with WJW-TV in Cleveland, Ohio. Sussman, a meteorologist for over 21 years, proudly calls himself a "denouncer of the very-flawed man-made global warming theory." Sussman wrote to EPW on December 29, 2007 and explained that he "debunks [global warming] theory by using logic and humor." According to Sussman, "global warming has been happening on and off for millions of years. Millions of years when mankind wasn't driving around in SUVs and using coal for electric power!" "Believing that mankind is unequivocally responsible for global warming is the ultimate arrogance. Sorry to be humble, but we're not that special. When global warmers talk, listen to their words. The new catch phrase is: 'The debate is over.' The only people who say 'The debate is over' are people who are afraid to debate," Sussman wrote. "'The debate is over?' If we used that line of thinking, man would have never gone to the moon, the Wright Brothers would have never flown, and we'd still think the Sun rotated around the Earth," he concluded.

Hydrologist and geologist Mike McConnell of the U.S. Forest Service is a professional Earth scientist who has studied atmospheric pollution, post-wildfire mitigation planning, and

groundwater surface water modeling. In 2007, McConnell dissented from the view that mankind has created a climate crisis. "Climate change is a climate system that we have no real control over," McConnell wrote on December 27, 2007. "Our understanding on the complexities of our climate system, the Earth itself and even the sun are still quite limited. Scaring people into submission is not the answer to get people to change their environmental ways," McConnell explained. He also dismissed claims that the human race was "the cause of our global warming." McConnell wrote, "There is no real basis for this. There is a growing body of scientific literatures outlining that this not to be the case." He concluded, "Now, if Earth was suffering under an accelerated greenhouse effect caused by human produced addition of CO2, the troposphere should heat up faster than the surface of the planet, but data collected from satellites and weather balloons do not support this fundamental presumption even though we are seeing higher CO2. We ought to see near lockstep temperature increments along with higher CO2 concentration over time, especially over the last several years. But we're not."

Physicist F. James Cripwell, a former scientist with UK's Cavendish Laboratory in Cambridge who worked under the leading expert in infra red spectroscopy – Sir Gordon Sutherland – and worked with the Operations Research for the Canadian Defense Research Board, recently dissented from man-made climate change fears. "It seems fair to believe that this new model (from the UK' s Climate Research Unit) assumes that if CO2 concentrations in the atmosphere increase, temperatures will go up. Since some of us know this is wrong, it seems quite likely that the 2008 forecast will be as badly wrong as the 2007 one was. What will the media do then? Maybe if the Northwest Passage does not open up this summer, as seems quite likely, people may start to realize that AGW (Anthropogenic Global warming) is a myth," Cripwell wrote to CCNET on January 8, 2008. In a note to CCNET on April 7, 2006, Cripwell explained, "I am reminded of a quite well-known commercial in North America from Wendy's, 'Where's the beef?' When it comes to the [UN] IPCC claim that the increased level of CO2 in the atmosphere is the cause of global warming, where's the science?" Cripwell continued, "Throughout the discussion of doubling the concentration of CO2, there is absolutely no reference to the concentrations of CO2 in the atmosphere over which the increased amount of radiative forcing is supposed to increase linearly when the concentration of CO2 doubles. Presumably if you halved the concentration of CO2, you would decrease the radiative forcing by some linear amount. If you go on halving the CO2 concentration, then as the concentration of CO2 approached zero, it would appear that the CO2 was rapidly cooling the earth!! Clearly any claim that the doubling of the CO2 concentration results in a linear increase in the level of radiative forcing can have no credibility unless the range of CO2 concentrations in the atmosphere, over which the relationship is claimed to exist, is clearly established from sound scientific principles." Cripwell concluded, "If there is no scientific basis for the claim that doubling the concentration of CO2 in the atmosphere increases the radiative forcing linearly, then any claim to put a numerical value on this increase has no basis in science. Such a number, e.g. 4 Wm-2, is irrelevant and meaningless. I am reminded of a discussion I had many years ago on the differences between astronomy and astrology. Both use the same data of the relative positions and motions of the earth, sun, moon, planets and stars; both have long complex calculations; both result in numerical answers. In the case of astronomy, the numbers have a scientific meaning; in the case of astrology, they do not. It seems to me that this claim of doubling the concentration of CO2 in the atmosphere resulting in a linear addition to the

radiative forcing is more akin to astrology than it is to astronomy." In another interview in 2005, Cripwell said, "Whatever is causing warming, it is not an increase in levels of carbon dioxide. A more plausible theory is that it is water put into high altitudes by aircraft; this would have roughly the same time line," Cripwell said.

Chemist and Biochemist Dr. Michael F. Farona, an emeritus professor of Chemistry at the University of Akron and the University of North Carolina at Greensboro, critiqued the news media for inadequate reporting about global warming and expressed climate skepticism. "Data, numbers, graphs, trends, etc., are generally missing in supposedly scientific reports on global warming. These articles are usually long on opinions and short on hard data. Phrases such as 'scientists agree that ...' scientists doubt that ...' do not belong in a scientific article. There are more data in Michael Crichton's novel *State of Fear* than in all the global warming articles combined that I have read," Farona wrote on January 3, 2008. "There have been at least four interglacial periods, where the glaciers have advanced and retreated. The last ice age ended about 10,000 years ago and, in the case of North America, left the Great Lakes in the glacier's retreat. The glaciers are still retreating, so there should not be any great surprise that the sea level is rising. The industrial revolution is about 150 years old, compared to 10,000 years of warming. Can human activities have really made a significant contribution to rising temperatures in that amount of time?" Farona asked. "We know that the east coast of the U.S. was flooded during the previous interglacial period, so sea level rising and coastal flooding are not unique to this interglacial period. Why now the draconian predictions of coastal flooding as if this has not happened before?" he continued. "What is the relationship between an increased level of carbon dioxide and temperature? Can it be predicted that an increase of so many parts per billion of carbon dioxide will cause an increase of so many degrees? I have not seen any answers to the questions posed above, leading me to adopt a somewhat skeptical view of blaming global warming on human activities. What puzzles me is the reluctance of climatologists to provide scientific data supporting their dire predictions of the near future if we don't change our ways," Farona concluded.

Award-winning Meteorologist Brian Sussman, a member of the American Meteorological Society (AMS), former member of the AMS Education Advisory Committee, and formerly of KPIX-TV CBS in San Francisco, is the author of the forthcoming book Global Whining: A Denier's Handbook. "Mankind's burning of fossil fuels is allegedly warming the planet. This hypothesis couldn't stand the test of an eighth grade science fair. And if you dare poke holes in the hypothesis you're branded a 'denier,'" Sussman told EPW on January 3, 2008. "Well fine. I'd rather be called a 'denier' than try to push a scheme that would make Karl Marx green with envy," Sussman added.

Climate statistician Dr. William M. Briggs, who specializes in the statistics of forecast evaluation, serves on the American Meteorological Society's Probability and Statistics Committee and is an Associate Editor of Monthly Weather Review. Briggs, a visiting Mathematics professor at Central Michigan University and a Biostatistician at New York Methodist Hospital, has a new paper coming out in the peer-reviewed Journal of Climate which finds that hurricanes have not increased in number or intensity in the North Atlantic. Briggs, who has authored numerous articles in meteorological and climatological journals, has also authored another study looking at tropical cyclones around the globe, and finds that they have not increased in number or intensity either. Briggs expressed skepticism about man-made global warming fears in 2007. "There is a lot of uncertainly among scientists about what's going on with the climate," Briggs wrote to EPW on December 28, 2007. "Most

scientists just don't want the publicity one way or another. Generally, publicity is not good for one's academic career. Only, after reading [UN IPCC chairman] Pachauri's asinine comment [comparing scientists skeptical of man-made climate fears to] Flat Earthers, it's hard to remain quiet," Briggs explained. "It is well known that weather forecasts, out to, say, four to five days, have skill; that is, they can beat just guessing the average. Forecasts with lead times greater than this have decreasing to no skill," Briggs wrote. "The skill of climate forecasts---global climate models---upon which the vast majority of global warming science is based are not well investigated, but what is known is that these models do not do a good job at reproducing past, known climates, nor at predicting future climates. The error associated with climate predictions is also much larger than that usually ascribed to them; meaning, of course, that people are far too sure of themselves and their models," he added. Briggs also further explained the inadequacies of climate models. "Here is a simplified version of what happens. A modeler starts with the hypothesis that CO2 traps heat, describes an equation for this, finds a numerical-approximate solution for this equation, codes the approximation, and then runs the model twice, once at 'pre-industrial' levels of CO2, and once at twice that level, and, lo!, the modeler discovers that the later simulation gives a warmer atmosphere! He then publishes a paper which states something to the effect of, 'Our new model shows that increasing CO2 warms the air,'" Briggs explained. "Well, it couldn't do anything *but* show that, since that is what it was programmed to show. But, somehow, the fact the model shows just what it was programmed to show is used as evidence that the assumptions underlying the model were correct. Needless to say---but I will say it---this is backwards," he added.

Physics professor Dr. Frederick Wolf of Keene State College in New Hampshire has taught meteorology and climatology courses for the past 25 years and will be undertaking a sabbatical project on global warming. Wolf recently declared he was skeptical of man-made climate fears. "Several things have contributed to my skepticism about global warming being due to human causes. We all know that the atmosphere is a very complicated system. Also, after studying climate, I am aware that there are cycles of warm and cold periods of varying lengths which are still not completely understood," Wolf wrote EPW on January 10, 2008. "Also, many, many of the supporters (or believers) of human induced warming have not read the IPCC report AND Al Gore is NOT a climate scientist!" Wolf added. He also rejected the claim that most scientists agree mankind is driving a "climate crisis." "I am impressed by the number of scientific colleagues who are naturally skeptical about the conclusion of human induced warming," Wolf added. [Updated 01/15/2008]

Biologist Dr. Matthew Cronin, a research professor at the School of Natural Resources and Agricultural Sciences at the University of Alaska Fairbanks, called predictions that future global warming would devastate polar bear populations "one extreme case hypothesis." "We don't know what the future ice conditions will be, as there is apparently considerable uncertainty in the sea ice models regarding the timing and extent of sea ice loss. Also, polar bear populations are generally healthy and have increased worldwide over the last few decades," Cronin said in March 2007. "Recent declines in sea ice and indications that polar bears in some areas may be negatively impacted are cause for concern, but in my opinion do not warrant designation of the species as threatened with extinction," Cronin said. "I believe that consideration of multiple hypotheses regarding the future of sea ice and polar bear populations would provide better science than reliance on one extreme case hypothesis of loss of sea ice and associated drastic declines in polar bear populations," Cronin said.

Senior Meteorologist Dr. Wolfgang P. Thuene was a former analyst and forecaster for the German Weather Service in the field of synoptic meteorology and also worked for the German Environmental Protection Agency. Thuene currently works in the Ministry of Environment and Forests of Rheinland-Pfalz. In 2007, Thuene rejected the idea that mankind is driving global warming. "All temperature and weather observations indicate that the earth isn't like a greenhouse and that there is in reality no 'natural greenhouse effect' which could warm up the earth by its own emitted energy and cause by re-emission a 'global warming effect'. With or without atmosphere every body looses heat, gets inevitably colder. This natural fact, formulated by Sir Isaac Newton in his 'cooling law', led Sir James Dewar to the construction of the 'Dewar flask' to minimize heat losses from a vessel. But the most perfect thermos flask can't avoid that the hot coffee really gets cold. The hypothesis of a natural and a man-made 'greenhouse effect', like eugenics, belongs to the category 'scientific errors," Thuene wrote on February 24, 2007. "The infrared thermography is a smoking gun proof that the IPCChypothesis cannot be right. The atmosphere does not act like the glass of a greenhouse which primarily hinders the convection! The atmosphere has an open radiation window between 8 and 14 microns and is therefore transparent to infrared heat from the earth's surface. This window cannot be closed by the distinctive absorption lines of CO2 at 4.3 and 15 microns. Because the atmosphere is not directly heated by the Sun but indirectly by the surface the earth loses warmth also by conduction with the air and much more effectively by vertical convection of the air to a very great part by evaporation and transpiration. Nearly thirty percent of the solar energy is used for evaporation and distributed as latent energy through the atmosphere," Thuene wrote. "Summarizing we can say: Earth's surface gains heat from the Sun, is warmed up and loses heat by infrared radiation. While the input of heat by solar radiation is restricted to the daytime hours, the outgoing terrestrial radiation is a nonstop process during day and night and depends only on the body temperature and the emissivity. Therefore after sunset the earth continuous to radiate and therefore cools off. Because the air is in physical contact with the ground it also cools off, the vertical temperature profile changes, and we get a so called surface inversion which inhibits convection," Thuene explained. [Updated 01-17-2008]

Chemist and Nuclear Engineer Robert DeFayette was formerly with NASA's Plum Brook Reactor in Ohio and the Nuclear Regulatory Commission (NRC) at its headquarters office near Washington, DC. DeFayette, who earned a masters degree in Physical Chemistry, also worked at the NRC's Regional Office near Chicago where he was a Director of the Enforcement staff. He also served as a consultant to the Department of Energy. DeFayette wrote a critique of former Vice President Al Gore's book, *An Inconvenient Truth*, in 2007. "I freely admit I am a skeptic," DeFayette told EPW on January 15, 2008. "I take umbrage in so-called 'experts' using data without checking their sources. My scientific background taught me to question things that do not appear to be right (e.g.-if it sounds too good to be true, it probably is). That is one reason I went to such detail in critiquing Gore's book. I also strongly object to the IPCC and its use of so-called 'experts,'" DeFayette explained. In his March 14, 2007 critique of Gore, DeFayette dismissed Gore's claim that "the survival of our civilization" is at stake. DeFayette wrote, "Nonsense! Civilization may one day cease to exist but it won't be from global warming caused by CO2. I can think of many more promising scenarios such as disease, nuclear war; volcanic eruptions; ice ages; meteor impacts; solar heating." DeFayette asserted that Gore's book was "a political, not scientific, book. There is absolutely no discussion about the world's climate history, effects of the sun, other planets,

precession, eccentricity, etc." DeFayette disputed Gore's notion of a "consensus." "Until a few months ago, scientists believed we had 9 planets, but now we have 8 because Pluto was demoted. In the 1 600s scientists believed we lived in an earth- centered universe but Galileo disagreed and proved we lived in a sun-centered universe. At the time of Columbus, the scientific consensus was that the earth was flat but obviously that was wrong. In the late 18th century, 'Neptunists' were convinced that all of the rocks of the Earth's crust had been precipitated from water and Robert Jameson, a British geologist, characterized the supporting evidence as 'incontrovertible,'" DeFayette wrote. "In each of these cases there was 'scientific consensus' that eventually was rejected," he added.

Nuclear Physicist and Chemical Engineer Dr. Philip Lloyd, a UN IPCC co- coordinating lead author on the Technical Report on Carbon Capture & Storage, was in charge of South Africa's Chamber of Mines' Metallurgy Laboratory and was a former professor at University of Witwatersrand where he established a course in environmental chemical engineering. Lloyd has served as President of the South African Institution of Chemical Engineers, the Federation of Societies of Professional Engineers, and the Associated Scientific and Technical Societies of Southern Africa. Lloyd, who has authored over 150 refereed publications, currently serves as an honorary research fellow with the Energy Research Centre at the University of Cape Town. Lloyd rejects man-made climate fears. "I have grave difficulties in finding any but the most circumstantial evidence for any human impact on the climate," Lloyd wrote to EPW on January 18, 2008. "The quantity of CO2 we produce is insignificant in terms of the natural circulation between air, water and soil. I have tried numerous tests for radiative effects, and all have failed. I have tried to develop an isotopic method for identifying stable C12 (from fossil fuels) and merely ended up understanding the difference between the major plant chemistries and their differing ability to use the different isotopes. I have studied the ice core record, in detail, and am concerned that those who claim to have a model of our climate future haven't a clue about the forces driving our climate past," Lloyd wrote. "I am particularly concerned that the rigor of science seems to have been sacrificed on an altar of fundraising. I am doing a detailed assessment of the IPCC reports and the Summaries for Policy Makers, identifying the way in which the Summaries have distorted the science. I have found examples of a Summary saying precisely the opposite of what the scientists said," he concluded. [Updated 01/18/2008]

Award-winning Paleontologist Dr. Eduardo Tonni, the principal investigator for the Committee for Scientific Research of the province of Buenos Aires (CIC) and head of the Paleontology Department at the University of La Plata, dissented from the global warming "consensus" in 2007. "There is no denying a warming; the discussion is whether it was created by man or whether it is natural. There are effects of human action, but it is much more likely to be a natural product," Tonni said, according to a December 2, 2007 article in the Argentine publication Perfil.com. [translated] "Many of us think so (warming is natural), but of course, this is not politically correct. I know that I am saying this and I am without [industry] subsidies," Tonni said in the article titled "A Group of Argentine Scientists Skeptical of Climate Change." Tonni, who received the "Merit Award" in 2003 by the Argentina Paleontologist Association, also dismissed the linkage of natural disasters to man-made climate change. "There are countless historical records of disasters, but it is very difficult to estimate if the frequency is greater. Perhaps we are more informed. The El Niño event is known only from some 30 years ago," Tonni said. "The scaremongering has its justification in the fact that it is something that generates funds. If you say that global change

is produced by natural effects, we would sit and see what happens. Thus, we have more things to do. I would say that, unfortunately, this is another product of the market," he added.

Economist Dr. George Reisman, an Emeritus Professor at Pepperdine University and author of Capitalism: A Treatise on Economics, dismissed man-made climate fears and rejected calls for global warming inspired cap-and-trade regulations in 2007. "Global warming is not a threat. But environmentalism's response to it is," Reisman wrote on May 30, 2007. "In fact, if it comes, global warming, in the projected likely range, will bring major benefits to much of the world. Central Canada and large portions of Siberia will become similar in climate to New England today. So too, perhaps, will portions of Greenland. The disappearance of Arctic ice in summer time will shorten important shipping routes by thousands of miles. Growing seasons in the North Temperate Zone will be longer. Plant life in general will flourish because of the presence of more carbon dioxide in the atmosphere," Reisman wrote. "Even if global warming is a fact, the free citizens of an industrial civilization will have no great difficulty in coping with it—that is, of course, if their ability to use energy and to produce is not crippled by the environmental movement and by government controls otherwise inspired. The seeming difficulties of coping with global warming, or any other large-scale change, arise only when the problem is viewed from the perspective of government central planners," he explained. "All of the rising clamor for energy caps is an invitation to the American people to put themselves in chains. It is an attempt to lure them along a path thousands of times more deadly than any military misadventure, and one from which escape might be impossible. Already, led by French President Jacques Chirac, forces are gathering to make non-compliance with emissions caps an international crime. According to an *Associated Press* report of February 5, 2007, 'Forty-Five nations joined France in calling for a new environmental body to slow global warming and protect the planet, a body that potentially could have policing powers to punish violators.' Given such developments, it is absolutely vital that the United States never enter into any international treaty in which it agrees to caps on greenhouse-gas emissions," he added. "In previous centuries it was common for religion to threaten those whose way of life was not to its satisfaction, with the prospect of hellfire and brimstone in the afterlife. Substitute for the afterlife, life on earth in centuries to come, and it is possible to see that environmentalism and the rest of the left are now doing essentially the same thing. They hate the American way of life because of its comfort and luxury. And to frighten people into abandoning it, they are threatening them with a global-warming version of hellfire and brimstone," he concluded.

Victor Pochat, president of the Argentine Institute of Water Resources and a teacher of water resources planning at Universidad del Litoral, is a member of the South American Technical Advisory Committee of the Global Water Partnership. Pochat questioned man-made global warming fears and pointed out that many scientists disagree. "There are voices on the causes and reasons for the warming, but we hear from some more than others," Pochat said, according to a December 2, 2007 article in the Argentine publication Perfil.com. [Translated] Pochat believes "it is not clear that increases of a few degrees in average temperature of the planet is directly related to human activity but could be due to cyclical effects," according to the article. "Scientists that deserve credit for their background say global warming is a climatic variability associated to cycles of warming and cooling of the Earth," Pochat explained. The article was titled, "A Group of Argentine Scientists Skeptical of Climate Change."

Geophysicist Robert Woock is a senior geophysicist at Stone Energy in Louisiana and past president of the Southwest Louisiana Geophysical Society. Woock, who earned a masters in geology, has published on hydrocarbon detection techniques in the publication of the American Association of Petroleum Geologists (AAPG). Woock recently declared himself skeptical of man-made climate fears. "I am a Geophysicist by education and practice with over thirty years in practice. Having studied the paleoclimate and environment for over thirty-five years I have come to some fundamental conclusions about our current conditions. The global warming debate is not over. I do not see any evidence in nature or data to suggest that we are in any anthropologic climate cycle," Woock told EPW on December 21, 2007. "We have certainly created local climes, hot cities and deforestation that affect certain areas, but these are reversible to a large degree. I also agree with the point that weather is not climate. It is difficult to accept, and probably impossible to prove that manipulation of second order effects such as CO2 content could have any climatic impact. Climate is driven by first order processes, *i.e.*; solar flux and planetary environments. All the rest, including CO2 content, is driven by the first order processes," Woock explained. "All the data used to 'support' the global warming theory can better demonstrate this relationship. Put me down as a serious skeptic on anthropologic global warming," he concluded.

Senior Chemist Glenn Speck of the Oklahoma City Isotek Environmental Lab, who has over 35 years of laboratory experience in the government and private sectors, testing air, water, fuel, and soil for pollutants and other chemicals, including CO2, dissented from man-made climate fears in 2007. "Although much of the liberal press and the liberal politicians endorse man-made global warming as a complete, irrefutable reality, there are a substantial number of us scientists that strongly disagree. There is little disagreement that some warming has likely occurred, but many of us think that most, if not all of that change is due to natural planetary processes," Speck wrote in a June 14, 2007 letter. "The public has been repeatedly misled that there is a scientific consensus on global warming. Totally false. Unfortunately, man-made climate change, or anthropogenic global warming as it's more commonly known, has become a political issue rather than a scientific one. Those who want you to accept that humans have caused climate change have a not-so-hidden agenda of imposing carbon taxes here in the United States that will cripple our economy and make us even more unable to compete with other nations," Speck explained. "Those of us who don't believe the anthropogenic global warming claims also have to live on this planet, and we want it environmentally in good condition for our children and grandchildren. We can and should be better stewards of our ecosystems," he added.

Field Geologist Louis A.G. Hissink is the editor of The Australian Institute of Geoscientists Newsletter and is currently working on the ore-reserve feasibility study of the Koongie Park Base Metals project in Western Australia. Hissink, who earned a masters in geology, recently dissented from man-made climate fears. "The assumption that humanity, from its burning of hydrocarbons, is raising the surface temperature of the earth by affecting its greenhouse effect, is not supported by theory nor the physical evidence. No gas is capable of storing heat so the assumption a gas could is to misunderstand basic physics and the greenhouse effect," Hissink told EPW on January 21, 2008. "The global mean temperature derivations from the surface meteorological stations confuse the thermal state of the measuring instruments with unspecified volumes of air nor are those temperatures linked to any discrete physical object; in geostatistics this is known as a data set lacking sample support and no more a metric of the earth's thermal state as the mean calculated from the telephone

numbers of the meteorological stations producing the temperature readings," Hissink explained. "Recent discoveries by NASA in the area of space exploration show that the earth is connected to the sun electromagnetically where tens of millions of amperes of electric current are routinely measured during polar aurora displays by satellites - this enormous source of energy, and thus heat, is completely ignored as a factor affecting the earth's thermal balance in global climate models. It is this electromagnetic connection that underpins the solar factor that modulates the earth's climate," Hissink added.

Jerome J. Schmitt is a Yale University-educated engineer who studied fluid mechanics and gas dynamics, founded the Jet Process Corporation and invented the Jet Vapor Deposition (JVD) process for thin films and coatings. Schmitt, who served as Vice President for Research and Development at MicroCoating Technologies, holds five patents and has authored 30 technical publications. Schmitt, currently president of NanoEngineering Corporation, questioned the validity of computer climate model predictions of man-made global warming. "While mankind cannot experiment on the global climate, these models can be used retroactively to see how well they 'model' the past. The UN's 2001 Climate Change report distorted the historical record by eliminating the Medieval Warm Period in the famous 'Hockey Stick Curve' which, by many accounts, unreasonably accentuated temperature rise in the 20th century. Such distortion of the historical data undercuts the credibility of the models themselves, since this is the only 'experimental data' available for testing the fidelity of the models to the actual climate," Schmitt wrote on February 28, 2007. Schmitt detailed the multitude of inputs that he believes makes climate models unreliable. "Let's list some of the factors that must be included (by no means an exhaustive list): Solar flux; Gravity; Pressure; Temperature; Density; Humidity; Earth's rotation; Surface temperature; Currents in the Ocean (e.g., Gulf Stream); Greenhouse gases; CO2 dissolved in the oceans; Polar ice caps; Infrared radiation; Cosmic rays (ionizing radiation); Earth's magnetic field; Evaporation; Precipitation; Cloud formation; Reflection from clouds; Reflection from snow; Volcanoes; Soot formation; Trace compounds; And many, many others. Even if mathematics could be developed to accurately model each of these factors, the combined model would be infinitely complex requiring some simplifications. Simplifications in turn amount to judgment calls by the modeler. Can we ignore the effects of trace compounds? Well, we were told that trace amounts of chlorofluoro compounds had profound effects on the ozone layer, necessitating the banning of their use in refrigerators and as aerosol spray propellants. Can we ignore cosmic rays? Well, they cause ions (electrically charged molecules) which affect the ozone layer and also catalyze formation of rain-drops and soot particles. As with all models, it is perilous to ignore factors in the absence of complete experimental data which might otherwise have significant effect," he wrote. "Unless we know how the greenhouse-limiting properties of precipitation systems change with warming, we don't know how much of our current warmth is due to mankind, and we can't estimate how much future warming there will be, either," he added. "In my view, we should adopt the private sector's practice of placing extremely limited reliance on numerical models for major investment decisions in the absence of confirming test data, that is, climate data which can be easily collected just by waiting," he concluded.

Former IPCC author and El Niño expert Rosa Compagnucci, the author of two IPCC reports in 2001 (Working Group II – Latin America Chapter), is a researcher with the National Science and Technology Commission who has published peer- reviewed papers. Compagnucci is also a professor in the Department of Atmosphere Sciences in the University

of Buenos Aires. Compagnucci refuted man-made climate claims in 2007. "Is global warming something unusual, say, the last two thousand years?" Compagnucci said, according to a December 2, 2007 article in the Argentine publication Perfil.com. [Translated] The article was titled, "A Group of Argentine Scientists Skeptical of Climate Change." Compagnucci believes humans have only contributed a few tenths of a degree to warming on Earth and that solar activity is a key driver of climate, according to the article. "There was a global warming in medieval times, during the years between 800 and 1300. And that made Greenland, now covered with ice, christened with a name [by the Vikings] that refers to land green: 'Greenland.'"

Meteorologist Karl Bohnak of WLUC TV6 in Michigan holds the American Meteorological Society's Seal of Approval and authored the book So Cold a Sky, Upper Michigan Weather Stories. Bohnak also recently dissented from man-made global warming fears. "Water vapor accounts for about 95 percent of earth's natural 'greenhouse' effect. Carbon dioxide gets all the attention because that is what is released in the burning of fossil fuels. Yet it accounts for less than 4 percent of the total greenhouse effect. For the anthropogenic global warming argument to work, water vapor must increase along with CO2. CO2's contribution - natural and manmade - is just not enough to raise global temperatures as much as climate models predict," Bohnak wrote on January 28, 2008. "On the other hand, [Climatologist Roger] Pielke, Sr. coauthored a paper... In it, lower-tropospheric temperatures over North America had indeed increased between 1979 and 2006, but precipitable water vapor and total precipitable water content had not. This suggests that climate model assumptions of constant relative humidity in a warmer world may be all wet," Bohnak explained.

Research scientist William Hunt has worked for the National Oceanic and Atmospheric Administration and served as a wildlife biologist and a geologist. Hunt produced a 2007 audio series titled "Global Warming Exposed!" and is set to release a book titled Global Warming Challenged-Science or Myth? Hunt dissented in 2007. In 2007 Hunt dissented from the view that mankind is driving a climate crisis. "Scientists and activists alike have jumped on the [global warming] bandwagon. It's become a fad, a trend, a wave of enthusiasm and the scientists are going along with the fad to get research grants and the media limelight," Hunt wrote on January 22, 2007 in an article titled "The Nonsense of Global Warming." "The facts, such as we can observe and calculate them, do not support the idea of man-made global warming. Natural processes completely eclipse anything that man can accomplish- a minor rainstorm expends more energy than a large nuclear explosive releases and the lowest category of hurricane expends more energy than all of the nuclear weapons ever produced in a short time," Hunt wrote. "Most geologists and indeed, most scientists in the U.S., do not accept the idea that global warming resulting from human activities is a viable theory - because most have an appreciation for the kind of power inherent in natural systems. Conversely, most biologists do accept the idea of man-caused global warming and quote scientists in other fields, without understanding those other fields sufficiently to make a logical judgment as to whether the studies were reasonable in their methods and claims. They simply take it on faith that the scientists propounding global warming are correct in their methods and assumptions," Hunt explained. "The problem with computer [climate] modeling is that only a tiny percentage of the literally millions of variables involved can be written into a program. It's currently impossible for us to accurately model Earth's climate and we are not aware of all of the variables yet," he added.

Professor of Ecological Studies, Dr. Terry Wimberley of Florida Gulf Coast University teaches courses on environmental health, risk assessment, and epidemiology. Wimberley, who is a professor in the Division of Marine Sciences and Ecological Sciences at the University, is the author of the forthcoming book Nested Ecology. Wimberley dissented from man-made climate fears in 2007. "At issue is how big of a problem is human produced CO2 emissions. Undoubtedly to some marginal degree - which scientists debate about - it is a problem, but is it the major cause of global warming? No," Wimberley wrote said on Nov. 1, 2007. "More important is the interaction of solar activity (solar winds) with penetrating cosmic rays into the earth's atmosphere. When cosmic ray activity is great a large volume of rays penetrate the earth's lower atmosphere and contribute to cloud formation and cool the earth. However, when there is a lot of solar activity, solar winds tend to blow away just enough of the cosmic rays to thwart cloud formation at the lower levels resulting in fewer clouds and global warming. This phenomenon can be documented over hundreds if not thousands of years - well before humans were able to affect atmosphere," Wimberley explained. "Scientists do not dispel the problem of global warming – that is real – but rather the CO2 theory of global warming, which unfortunately is not verified by geological and climate records going back thousands of years or by observed fact. The CO2 theory of climate change is based upon a computer simulation model and flawed data that has been widely criticized in scientific literature. The theory has acquired 'political legs' because there are interests who see benefit to be derived from their ideological positions by pursuing some of the policies that can be justified by aggressively responding to a global warming threat," he added.

Geologist Dr. Francis T. Manns, who earned his Ph.D from the University of Toronto and currently runs Artesian Geological Research, expressed skepticism of a man-made "climate crisis." "As a stratigrapher/paleogeographer, I have been aware throughout my career of the wide variations in the climate of Earth as recorded in the rocks. Climate change is the norm for the planet," Manns wrote to EPW on January 20, 2008. "I am unaware of any CO2 research that demonstrates a temperature anomaly that corresponds to CO2 flux in the atmosphere. On the contrary, everything I read from the refereed side of science shows CO2 to trail warming, probably due to the property of gases of retrograde or inverse solubility in water," Manns explained. Manns also disputed the CO2 caused ocean acidification fears. "Ocean pH is not governed by physicochemical rules. Marine organisms control their calcium carbonate properties organically behind membranes. Increased CO2, in any case, evolves from sea water because of inverse solubility. CO2 dissolves in cold water and bubbles out of warm water. That's why CO2 trails natural warming," Manns wrote on January 14, 2008 on the *New York Times* website. "Objective scientists realize that coral, foraminifera and shellfish have deep mechanism that have evolved over 100s of millions of years as CO2 has fluctuated far wider than we see in the atmosphere today. Google Ernst-Georg Beck for a synoptic paper on 180 years of CO2 measurements in the atmosphere, some by Nobel Prize-winning chemists. The UN IPCC has cooked the books. CO2 was as high as 400 ppm on 1940 before the recent cooling period," Manns wrote.

Chemist and Chemical Engineer Dr. William L. Wells is an Adjunct Professor of Chemistry at Murray State University who has studied air pollution control technologies and spent over 16 years in SOx (Sulfur Oxides)and NOx (Nitrogen Oxides) scrubber technology development and clean coal research. Wells expressed skepticism about man-made climate change. "Scientific measurements confirm the CO2 concentration in the atmosphere is increasing. There is some evidence that the earth may be warming, but to what degree and its

cause are not clear," Wells told EPW on January 23, 2008. "Beyond that there is little that can be said with certainty at this point. Correlation is not cause and effect," Wells explained. He further urged "being cautious and avoiding precipitous actions until more is certain in the scientific sense." Wells also dismissed U.S. efforts to reduce greenhouse gases. "Many in Congress promoting these measures for CO2 control mandates fail to appreciate that the atmosphere is global, hence emissions must be considered world-wide. One source indicates that China has plans to add 500 coal-fired plants in the next decade, while India is right behind with 200 plants on the drawing board. Restricting U.S. anthropogenic emissions, only a small part of the CO2 released into the environment, is a way of cutting off our economic noses to spite our faces," Wells wrote. "Without global reductions there is very little that the US can do to impact CO2 levels in the atmosphere, besides, of course, political posturing," he concluded.

Environmental Scientist Professor Delgado Domingos of Portugal, the founder and director of the Numerical Weather Forecast group, has more than 150 published articles in the research fields of Thermodynamics, Numerical Methods in Fluid Mechanics and Energy Transfer, Energy System Analysis, Energy and Environment Policy, and Meteorological Forecast. Domingos, an honorary member of the editorial boards of several international scientific journals, recently called CO2 related climate fears “dangerous nonsense.” “There are measurable climate changes but there is also an enormous manipulation in reducing everything to CO2 and equivalents. The main gas producing the green house effect is water vapor. The present alarm on climate change is an instrument of social control, a pretext for major businesses and political battle. It became an ideology, which is concerning,” Domingos said in an interview in Sabado Noticias [Saturday News] magazine on January 26, 2008. “There are three realities: one scientific – that shows the observed data – another of virtual reality – based on computer models – and another public. Between the three there are big contradictions,” Domingos explained. “Everything made to reduce carbon dioxide emissions is positive, because it implies a reduction in energy consumption. But creating an ideology pegged to carbon dioxide is a dangerous nonsense,” Domingos added.

The following Scientists May not be Referred to as "Skeptical" but they Make very Important and Noteworthy Points: (Note: The below Scientists are not Included in Total Tally of Skeptical Scientists)

Paleoclimatologist Dr. Amy Frappier labeled climate fears oversimplified. Boston College's professor of Geology and Geophysics Frappier explained in a February 1, 2007 article in Boston College's newspaper The Heights, "The geologic record shows that many millions of years ago, CO2 levels were indeed higher - in some cases many times higher - than today." Frappier noted that greenhouse gas concentrations in the atmosphere do not consistently continue to have a warming effect on Earth, but gases instead stabilize in the atmosphere and cease having a warming effect. "At some point the heat-trapping capacity of [the gas] and its effect get saturated," said Frappier, "and you don't have increased heating." According to the article, Frappier, who believes mankind is having an impact on the climate, criticized Gore because "his movie fails to mention any ancient incongruity between carbon dioxide and temperature."

Scientists Claim Computer Model Predictions are 'Useless Arithmetic' - Orrin H. Pilkey, a coastal geologist and emeritus professor at Duke and his daughter Linda Pilkey-Jarvis, a geologist in the Washington State Department of Geology, wrote a book in 2007 entitled Useless Arithmetic: Why Environmental Scientists Can't Predict the Future. Thought the authors stress their book does not specifically address man-made global warming fears, it does present "an overall attack on the use of computer programs to model nature," according to a February 20, 2007 *New York Times* book review. The *Times* book review explained how these models "may include coefficients (the authors call them ‘fudge factors') to ensure that they come out right. And the modelers may not check to see whether projects performed as predicted." "Nature is too complex, they (the authors) say, and depends on too many processes that are poorly understood or little monitored - whether the process is the feedback effects of cloud cover on global warming or the movement of grains of sand on a beach," the *Times* article explained. "And instead of demanding to know exactly how high seas will rise or how many fish will be left in them or what the average global temperature will be in 20 years, they argue, we should seek to discern simply whether seas are rising, fish stocks are falling and average temperatures are increasing. And we should couple these models with observations from the field. Models should be regarded as producing ‘ballpark figures,' they write, not accurate impact forecasts," the *Times* article continued. The coastal models are so flawed that Pilkey recommends dredging up a lot of sand and dumping it on the beach "willy-nilly" and he predicts you would end up with the same result, minus the "false mathematical certitude."

Climatologist/seismologist Dr. Jose Rial of the University of North Carolina is studying glacial seismic activity in Greenland and has chastised the media and criticized a proponent of man-made climate fears for presenting a "falling-sky" view of Greenland's climate. "I also know that there is no evidence to suggest that these quakes [linked to ice melt on Greenland] ‘are happening far faster than ever anticipated' [as Robert Corell of The Heinz Center claimed]," wrote Rial in a September 13, 2007 letter to the UK *Guardian*. Rial criticized the UK newspaper for presenting a ‘falling-sky' alarmist perspective and added that "it will take years of continued surveying to know whether anything here [in Greenland] is ‘accelerating' towards catastrophe, as the article [featuring Corell] claims." Rial concluded, "I believe that to battle global climate change effectively we need the strong support of a well-informed, actively engaged public. There is great urgency indeed in all these climate matters and I understand the threat of climate change to society; but the evidence needs to be there before we needlessly alarm the public who sustain our research."

Oceanographer and Meteorologist Bill Patzert of NASA's Jet Propulsion Laboratory detailed how land use changes impact the climate. "Everybody's talking about the carbon coming out of the SUV exhaust or the coal plant, but in the past 50 years in California the bigger impact has been urbanization and suburbanization," Patzert said in a March 30, 2007 Reuters article. The article noted, "Average temperatures across California rose slightly from 1950 to 2000, with the greatest warming coming in the state's big cities and mostly caused by urbanization – not greenhouse gases – authors of a study released on Wednesday said." Patzert believes mankind's C02 emissions and land use changes are key factors in climate change. "The study found that average temperatures in California rose nearly 2 degrees Fahrenheit (nearly one degree Celsius) in the second half of the 20th century, led by large urban centers such as San Francisco and Southern California," Reuters explained. "This (warming) has already had a huge impact on the state of California. It's changed the way we

do agriculture, it's changed the energy and water demands, it's changed the number of days we've had frost or extreme heat," Patzert said.

Prominent environmentalists Ted Nordhaus and Michael Shellenberger broke ranks with their counterparts on key aspects of man-made global warming fears and environmentalism in 2007. In their book Break Through: From the Death of Environmentalism to the Politics of Possibility they argue that any potential warming may have some beneficial impacts. "Global warming could bring drought, disease and war - and it could bring prosperity, cooperation and freedom," they wrote. Nordhaus and Shellenberger chastised the green movement for engaging in what they termed "quasi- authoritarian politics" that "aims to short-circuit democratic values" and "is hobbled by its resentment of human strength." An October 5, 2007 book review in the *San Francisco Chronicle* noted, "Environmentalists, the authors suggest darkly, are partially morally culpable for the human suffering in disasters such as Hurricane Katrina." Nordhaus and Shellenberger wrote, "Environmentalists have attacked adaptation and preparedness in the belief that taking steps to prepare for global warming - for instance, by building higher seawalls and levees or identifying new water supplies for regions likely to be affected by drought - would undermine their arguments for carbon reductions."

In an October 14, 2007 *San Francisco Chronicle* op-ed titled "Look who's in denial about global warming now," Nordhaus and Shellenberger explained how the green movement is in denial about global warming. "The problem isn't that the voters don't care about global warming. They do. It's that they don't care all that much. Consider that despite extensive publicity, Al Gore's movie, *An Inconvenient Truth*, had almost no impact on public opinion. The Pew Center for People and the Press conducted a telephone survey in June 2006, at the height of media attention for the movie, and found that ‘out of a list of 19 issues, Republicans rank global warming 19th and Democrats and independents rank it 13th.' After six more months of high-profile coverage, the relative importance of global warming had declined even further," they wrote. "There are political consequences to all of this. In November 2006, months after the supposed ‘tipping point' for global warming, voters in California - a relatively liberal state - rejected a ballot initiative that would have taxed the state's oil production in the name of global warming," they added.

Alex Gourevitch, a Doctoral candidate at Columbia University, compared the environmental movements' promotion of global warming and other eco-concerns to the same "politics of fear" he believes marks the war on terror. "Let's say it: Environmentalism is a politics of fear. It is not a progressive politics. When I say it is a politics of fear, I don't mean that it just deploys hysterical rhetoric or that it exaggerates threats, which I think it does. I mean it in a much deeper sense," Gourevitch stated according to an October 31, 2007 article in the *New York Times*. "What the science cannot tell you is what our political and social response should be," he explained. "Environmentalism is not just some politics. It's a political project, a full-bodied ideology, and one that presents itself in terms of progress and aspiration. But when you look at what this ideology is built on, it's built on the idea that a collective threat that makes security the basic principle of politics and makes the struggle for survival the basic and central aim of our social and political life. This, to me, is not a progressive politics at all," Gourevitch added. "What is it that moves us? It's not actually ideals. We're not stirred to action by ideals. We're compelled by the force of circumstances. It's the sheer spur of necessity that drives us forward. What's more, this ostensible politics is really anti-politics, because the idea is that we should put to one side the conflicts of interest and ideals that are the real cut and thrust of politics," he said. Yale educated Dr. Mark Greif, co-editor of journal

n+1 agreed with Gourevitch during the panel discussion at Columbia University. Greif argued that "the politics of global warming produces the possibility of left-wing fantasies of a state of emergency in which we wouldn't have to go through normal politics in order to get things done."

Sampling of Inconvenient Scientific Developments in 2007 for Proponents of Catastrophic Man-made Global Warming: [Updated - 12-24-2007]

A September 26, 2007 report from the international group Institute of Physics' found no "consensus" on global warming. Excerpt: "As world leaders gathered in New York for a high-level UN meeting on climate change, a new report by some of the world's most renowned scientists urges policymakers to keep their eyes on the 'science grapevine', arguing that their understanding of global warming is still far from complete. Recognizing that powerful computer-based simulations are a key element in predicting climate change, a new Institute of Physics (IOP) report, published on 26 September 2007, shows that leading climate-physicists' views on the reliability of these models differ. The IOP is also urging world leaders 'to remain alert to the latest scientific thought on climate change.'"

A November 3, 2007 peer-reviewed study in the Journal of Geophysical Research found that "solar changes significantly alter climate." Scafetta and West conclude that: "if we assume that the latest temperature and TSI secular reconstructions, WANG2005 and MOB ERG05, are accurate, we are forced to conclude that solar changes significantly alter climate, and that the climate system responds relatively slowly to such changes with a time constant between 6 and 12 years. This would suggest that the large- scale computer models of climate could be significantly improved by adding additional Sun-climate coupling mechanisms."

A December 2007 peer-reviewed study recalculated and halved the global average surface temperature trend between 1980 - 2002. The analysis appeared in the Journal of Geophysical Research and was authored by Climatologist Dr. Patrick Michaels and Dr. Ross McKitrick, associate professor at the University of Guelph. The study concluded that the temperature manipulations for the steep post-1980 period are inadequate, and the [UN IPCC] graph is an exaggeration. McKitrick believes that the United Nations agency promoting the global temperature graph has made "false claims about the quality of its data." McKitrick reports in this new, peer-reviewed study that data contamination problems "account for about half the surface warming measured over land since 1980."

A December 2007 peer-reviewed study by a team of scientists found that "warming is naturally caused and shows no human influence." Climate scientist Dr. David Douglass of the University of Rochester, co-authored the December 2007 peer-reviewed paper published in the International Journal of Climatology of the Royal Meteorological Society which found the evidence for human influence for warming temperatures lacking in the atmosphere. "The observed pattern of warming, comparing surface and atmospheric temperature trends does not show the characteristic fingerprint associated with greenhouse warming. The inescapable conclusion is that the human contribution is not significant and that observed increases in carbon dioxide and other greenhouse gases make only a negligible contribution to climate warming," said Douglass, the paper's lead author on December 10, 2007. The paper was co-authored with Physicist Dr. S. Fred Singer, Climatologist Dr. John Christy and Benjamin D. Pearson.

A November 2007 study published in Energy & Environment found the Medieval Warm Period "0.3C warmer than 20th century" The study was authored by C. Loehle and titled "A 2000-year global temperature reconstruction based on non-treering proxies."

A June 29, 2007 scientific analysis by Gerd Burger of Berlin's Institute of Meteorology in the peer-reviewed Science Magazine challenged a previously touted study claiming the 20th century had been unusually warm. Excerpt: "Burger argues that [the 2006 temperature analysis by] Osborn and Briffa did not apply the appropriate statistical tests that link the proxy records to observational data, and as such, Osborn and Briffa did not properly quantify the statistical uncertainties in their analyses. Burger repeated all analyses with the appropriate adjustments and concluded "As a result, the 'highly significant' occurrences of positive anomalies during the 20th century disappear." Burger's technical comments in Science Magazine state: "Osborn and Briffa (Reports, 10 February 2006, p. 841) identified anomalous periods of warmth or cold in the Northern Hemisphere that were synchronous across 14 temperature-sensitive proxies. However, their finding that the spatial extent of 20th-century warming is exceptional ignores the effect of proxy screening on the corresponding significance levels. After appropriate correction, the significance of the 20th-century warming anomaly disappears."

A November 2007 peer-reviewed study in the journal Physical Geography found "Long-term climate change is driven by solar insolation changes." Harvard- Smithsonian Center Astrophysicist Dr. Willie Soon, authored the new study. The study concluded: "[L]ong-term climate change is driven by solar insolation changes, from both orbital variations and intrinsic solar magnetic and luminosity variations... There is no quantitative evidence that varying levels of minor greenhouse gases like CO2 and CH4 have accounted for even as much as half of the reconstructed glacial-interglacial temperature changes or, more importantly, for the large variations in global ice volume on both land and sea over the past 650 thousand years. ... [C]hanges in solar insolation at climatically sensitive latitudes and zones exceed the global radiative forcings of CO2 and CH4 by several-fold, and ... [therefore] regional responses to solar insolation forcing will decide the primary climatic feedbacks and changes."

New peer-reviewed study finds global warming over last century linked to natural causes: Published in Geophysical Research Letters: Excerpt: "Tsonis *et al*. investigate the collective behavior of known climate cycles such as the Pacific Decadal Oscillation, the North Atlantic Oscillation, the El Nino/Southern Oscillation, and the North Pacific Oscillation. By studying the last 100 years of these cycles' patterns, they find that the systems synchronized several times. Further, in cases where the synchronous state was followed by an increase in the coupling strength among the cycles, the synchronous state was destroyed. Then a new climate state emerged, associated with global temperature changes and El Nino/Southern Oscillation variability. The authors show that this mechanism explains all global temperature tendency changes and El Nino variability in the 20th century. Authors: Anastasios A. Tsonis, Kyle Swanson, and Sergey Kravtsov: Atmospheric Sciences Group, Department of Mathematical Sciences, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin, U.S.A. See August 2, 2007 Science Daily – "Synchronized Chaos: Mechanisms For Major Climate Shifts."

A September 2007 peer-reviewed study counters global warming theory, finds carbon dioxide did not end the last Ice Age. Excerpt: Deep-sea temperatures rose 1,300 years before atmospheric CO2, ruling out the greenhouse gas as driver of meltdown, says study in Science. Carbon dioxide did not cause the end of the last ice age, a new study in Science suggests,

contrary to past inferences from ice core records. “There has been this continual reference to the correspondence between CO2 and climate change as reflected in ice core records as justification for the role of CO2 in climate change,” said USC geologist Lowell Stott, lead author of the study, slated for advance online publication Sept. 27 in Science Express. “You can no longer argue that CO2 alone caused the end of the ice ages.” Deep-sea temperatures warmed about 1,300 years before the tropical surface ocean and well before the rise in atmospheric CO2, the study found. The finding suggests the rise in greenhouse gas was likely a result of warming and may have accelerated the meltdown – but was not its main cause. < > “The climate dynamic is much more complex than simply saying that CO2 rises and the temperature warms,” Stott said. The complexities “have to be understood in order to appreciate how the climate system has changed in the past and how it will change in the future.”

Harvard-Smithsonian Center Astrophysicist Dr. Willie Soon co-authored with Dr. Art Robinson and Noah Robinson, a November 2007 study that found mankind's emissions are not harming the atmosphere. The paper, published in journal of American physicians and Surgeons was titled, "Environmental Effects of Increased Atmospheric Carbon Dioxide." The study reported: "A review of the research literature concerning the environmental consequences of increased levels of atmospheric carbon dioxide leads to the conclusion that in creases during the 20th and early 21st centuries have produced no deleterious effects upon Earth's weather and climate. Increased carbon dioxide has, however, markedly in creased plant growth." The study also found, "There are no experimental data to support the hypothesis that increases in human hydrocarbon use or in atmospheric carbon dioxide and other green house gases are causing or can be expected to cause unfavorable changes in global temperatures, weather, or landscape."

An August 2007 peer-reviewed study finds clouds may greatly reduce global warming: Excerpt: This study published on August 9, 2007 in the Geophysical Research Letters finds that climate models fail test against real clouds. "To give an idea of how strong this enhanced cooling mechanism is, if it was operating on global warming, it would reduce estimates of future warming by over 75 percent," Dr. Roy Spencer said. "At least 80 percent of the Earth's natural greenhouse effect is due to water vapor and clouds, and those are largely under the control of precipitation systems. Until we understand how precipitation systems change with warming, I don't believe we can know how much of our current warming is manmade. Without that knowledge, we can't predict future climate change with any degree of certainty," Spencer added. The paper was coauthored by University of Alabama Huntsville's Dr. John R. Christy and Dr. W. Danny Braswell, and Dr. Justin Hnilo of Lawrence Livermore National Laboratory, Livermore, CA.

An August 2007 peer-reviewed study finds that the solar system regulates the earth’s climate - The paper, authored by Richard Mackey, was published August 17, 2007 in the Journal of Coastal Research - Excerpt: “According to the findings reviewed in this paper, the variable output of the sun, the sun’s gravitational relationship between the earth (and the moon) and earth’s variable orbital relationship with the sun, regulate the earth’s climate. The processes by which the sun affects the earth show periodicities on many time scales; each process is stochastic and immensely complex.

An October 2007 Danish National Space Center Study concludes: “The Sun still appears to be the main forcing agent in global climate change.” The report was authored by Physicist Henrik Svensmark and Eigil Friis-Christensen. Several other recent scientific studies and

scientists have debunked a media hyped UK study alleging there has not been a solar-climate link in the past 20 years. UK Astrophysicist Piers Corbyn confirmed the Danish study and also debunked the "No Solar-Climate Link Study" on July 14, 2007. Excerpt: "[The study claiming to prove a] 'refutation' of the decisive role of solar activity in driving climate is as valid as claiming a particular year was not warm by simply looking at the winter half of data. The most significant and persistent cycle of variation in the world's temperature follows the 22- year magnetic cycle of the sun's activity," Corbyn, who heads the UK based long-term solar forecast group Weather Action, wrote. Other studies and scientists have found also confirmed the solar-climate link.

An April 2007 study revealed the Earth's climate "seesawing" during the last 10,000 years, according to Swedish researchers Svante Björck, Karl Ljung and Dan Hammarlund of Lund University. Excerpt: During the last 10,000 years climate has been seesawing between the North and South Atlantic Oceans. As revealed by findings presented by Quaternary scientists at Lund University, Sweden, cold periods in the north have corresponded to warmth in the south and vice verse. These results imply that Europe may face a slightly cooler future than predicted by IPCC, the Intergovernmental Panel on Climate Change. We can identify a persistent "seesaw" pattern. When the South Atlantic was warm it was cold in the North Atlantic and vice versa. This is most certainly related to large-scale ocean circulation in the Atlantic Ocean. The main current system - "the Great Ocean Conveyor" - is driven by sinking of dense, relatively cold and salty water in the northern North Atlantic. This results in southward-flowing deep-water that is replaced by warm surface water brought to high northern latitudes from the tropics and ultimately from the South Atlantic, says Svante Björck. < > Our results from Nightingale Island in the Tristan da Cunha island group, between South Africa and Argentina, for the first time give evidence of warming of the South Atlantic associated with cooling in the north. This is a major breakthrough in palaeoclimate research.

Team of Scientists Question Validity Of A 'Global Temperature' – The study was published in Journal of Non-Equilibrium Thermodynamics. Excerpt from a March 18, 2007 article in Science Daily: "Discussions on global warming often refer to 'global temperature.' Yet the concept is thermodynamically as well as mathematically an impossibility, says Bjarne Andresen, a professor at The Niels Bohr Institute, University of Copenhagen, who has analyzed this topic in collaboration with professors Christopher Essex from University of Western Ontario and Ross McKitrick from University of Guelph, Canada." The Science Daily article reads: "It is impossible to talk about a single temperature for something as complicated as the climate of Earth", Bjarne Andresen says, an expert of thermodynamics. "A temperature can be defined only for a homogeneous system. Furthermore, the climate is not governed by a single temperature. Rather, differences of temperatures drive the processes and create the storms, sea currents, thunder, etc. which make up the climate."

Belgian weather institute's (RMI) August 2007 study dismisses decisive role of CO2 in warming: Excerpt: "Brussels: CO2 is not the big bogeyman of climate change and global warming. This is the conclusion of a comprehensive scientific study done by the Royal Meteorological Institute, which will be published this summer. The study does not state that CO2 plays no role in warming the earth. "But it can never play the decisive role that is currently attributed to it", climate scientist Luc Debontridder said. "Not CO2, but water vapor is the most important greenhouse gas. It is responsible for at least 75 % of the greenhouse effect. This is a simple scientific fact, but Al Gore's movie has hyped CO2 so much that

nobody seems to take note of it." said Debontridder. "Every change in weather conditions is blamed on CO2. But the warm winters of the last few years (in Belgium) are simply due to the 'North-Atlantic Oscillation'. And this has absolutely nothing to do with CO2," he added.

Chinese scientists Lin Zhen-Shan, and Sun Xian's 2007 study, published in the peer-reviewed Meteorology and Atmospheric Physics, noted that CO2's impact on warming may be "excessively exaggerated." Excerpt: "The global climate warming is not solely affected by the CO2 greenhouse effect. The best example is temperature obviously cooling however atmospheric CO2 concentration is ascending from 1940s to 1970s. Although the CO2 greenhouse effect on global climate change is unsuspicious, it could have been excessively exaggerated. It is high time to reconsider the trend of global climate change," the two scientists concluded.

An August 2007 NASA temperature data error discovery has lead to 1934 – not the previously hyped 1998 – being declared the hottest in U.S. history since records began. Revised data now reveals four of the top ten hottest years in the U.S. were in the 1930's while only three of the hottest years occurred in the last decade. Excerpt: "NASA has yet to own up fully to its historic error in misinterpreting US surface temperatures to conform to the Global Warming hypothesis, as discovered by Stephen McIntyre at ClimateAudit.org." *[EPW note: 80% of man-made CO2 emissions occurred after 1940.]*

Numerous U.S. temperature collection data errors exposed by team of researchers led by Meteorologist Anthony Watts in 2007 - "The (U.S.) National Climate Data Center (NCDC) is in the middle of a scandal. Their global observing network, the heart and soul of surface weather measurement, is a disaster. Urbanization has placed many sites in unsuitable locations — on hot black asphalt, next to trash burn barrels, beside heat exhaust vents, even attached to hot chimneys and above outdoor grills! The data and approach taken by many global warming alarmists is seriously flawed. If the global data were properly adjusted for urbanization and station siting, and land use change issues were addressed, what would emerge is a cyclical pattern of rises and falls with much less of any background trend," Meteorologist Joseph Conklin wrote in an August 10, 2007.

A July 2007 analysis of peer-reviewed literature thoroughly debunks fears of Greenland and the Arctic melting and predictions of a frightening sea level rise. Excerpt: "Research in 2006 found that Greenland has been warming since the 1880's, but since 1955, temperature averages at Greenland stations have been colder than the period between 1881-1955. A 2006 study found Greenland has cooled since the 1930's and 1940's, with 1941 being the warmest year on record. Another 2006 study concluded Greenland was as warm or warmer in the 1930's and 40's and the rate of warming from 1920-1930 was about 50% higher than the warming from 1995-2005. One 2005 study found Greenland gaining ice in the interior higher elevations and thinning ice at the lower elevations. In addition, the often media promoted fears of Greenland's ice completely melting and a subsequent catastrophic sea level rise are directly at odds with the latest scientific studies." [See July 30, 2007 Report - Latest Scientific Studies Refute Fears of Greenland Melt –]

Antarctic ice GROWS to record levels, in 2007. Excerpt: While the news focus has been on the lowest ice extent since satellite monitoring began in 1979 for the Arctic, the Southern Hemisphere (Antarctica) has quietly set a new record for most ice extent since 1979. This can be seen on this graphic from this University of Illinois site The Cryosphere Today, which updated snow and ice extent for both hemispheres daily. The Southern Hemispheric areal coverage is the highest in the satellite record, just beating out 1995, 2001, 2005 and 2006.

Since 1979, the trend has been up for the total Antarctic ice extent. < > This winter has been an especially harsh one in the Southern Hemisphere with cold and snow records set in Australia, South America and Africa.

A February 2007 study reveals Antarctica is not following predicted global warming models. Excerpt: “A new report on climate over the world's southernmost continent shows that temperatures during the late 20th century did not climb as had been predicted by many global climate models." The research was led by David Bromwich, professor of professor of atmospheric sciences in the Department of Geography, and researcher with the Byrd Polar Research Center at Ohio State University. [See: Antarctic temperatures disagree with climate model predictions -]

A NASA study published in the peer-reviewed journal Geophysical Research Letters on October 4, 2007, found “unusual winds” in the Arctic blew "older thicker" ice to warmer southern waters. Despite the media's hyping of global warming, Ignatius Rigor a co-author of the NASA study explained: "While the total [Arctic] area of ice cover in recent winters has remained about the same, during the past two years an increased amount of older, thicker perennial sea ice was swept by winds out of the Arctic Ocean into the Greenland Sea. What grew in its place in the winters between 2005 and 2007 was a thin veneer of first-year sea ice, which simply has less mass to survive the summer melt." "Unusual atmospheric conditions set up wind patterns that compressed the sea ice, loaded it into the Transpolar Drift Stream and then sped its flow out of the Arctic," said Son Nghiem of NASA's Jet Propulsion Laboratory and leader of the study.

A November 2007 peer-reviewed study conducted by a team of NASA and university experts found cyclical changes in ocean currents impacting the Arctic. "Our study confirms many changes seen in upper Arctic Ocean circulation in the 1 990s were mostly decadal in nature, rather than trends caused by global warming," said James Morison of the University of Washington's Polar Science Center Applied Physics Laboratory in Seattle, according to a November 13, 2007 NASA release. Morison led the team of scientists using data from an Earth-observing satellite and from deep-sea pressure gauges to monitor Arctic Ocean circulation from 2002 to 2006. Excerpt: A team of NASA and university scientists has detected an ongoing reversal in Arctic Ocean circulation triggered by atmospheric circulation changes that vary on decade-long time scales. The results suggest not all the large changes seen in Arctic climate in recent years are a result of long-term trends associated with global warming. < > The team of scientists found a 10-millibar decrease in water pressure at the bottom of the ocean at the North Pole between 2002 and 2006, equal to removing the weight of four inches of water from the ocean. The distribution and size of the decrease suggest that Arctic Ocean circulation changed from the counterclockwise pattern it exhibited in the 1990s to the clockwise pattern that was dominant prior to 1990. Reporting in Geophysical Research Letters, the authors attribute the reversal to a weakened Arctic Oscillation, a major atmospheric circulation pattern in the northern hemisphere. The weakening reduced the salinity of the upper ocean near the North Pole, decreasing its weight and changing its circulation. < > "While some 1990s climate trends, such as declines in Arctic sea ice extent, have continued, these results suggest at least for the 'wet' part of the Arctic – the Arctic Ocean – circulation reverted to conditions like those prevalent before the 1990s," Morison added.

In September 2007, it was announced that a soon to be released survey finds Polar Bear population rising in warmer part of the Arctic. Excerpt: Fears that two-thirds of the world’s polar bears will die off in the next 50 years are overblown, says [Arctic biologist] Mitchell

Taylor, the Government of Nunavut's director of wildlife research. "I think it's naïve and presumptuous," Taylor said. < > The Government of Nunavut is conducting a study of the [southern less ice region of the] Davis Strait bear population. Results of the study won't be released until 2008, but Taylor says it appears there are some 3,000 bears in an area - a big jump from the current estimate of about 850 bears. "That's not theory. That's not based on a model. That's observation of reality," he says. And despite the fact that some of the most dramatic changes to sea ice is seen in seasonal ice areas such as Davis Strait, seven or eight of the bears measured and weighed for the study this summer are among the biggest on record, Taylor said. "Davis Strait is crawling with polar bears. It's not safe to camp there. They're fat. The mothers have cubs. The cubs are in good shape," Taylor said, according to a September 14, 2007 article. *[EPW Note: In a case of observed reality versus unproven computer model predictions, the U.S. Fish & Wildlife Service estimates that the polar bear population is currently at 20,000 to 25,000 bears, up from as low as 5,000-10,000 bears in the 1950s and 1960s.*

A 2002 U.S. Geological Survey of wildlife in the Arctic Refuge Coastal Plain noted that the polar bear populations 'may now be near historic highs.']

In 2007, even the UN IPCC cut sea level rise estimates significantly since 2001 and has reduced man's estimated impact on the climate by 25%. Meanwhile a separate 2006 UN report found that cow emissions are more damaging to the planet than all of the CO2 emissions from cars and trucks.

Geologists Dr. George Chilingar, and L.F. Khilyuk of the University of Southern California authored a December 2006 study in the peer-reviewed journal Environmental Geology which found warming temperatures were due to natural factors, not mankind. "The current global warming is most likely a combined effect of increased solar and tectonic activities and cannot be attributed to the increased anthropogenic impact on the atmosphere. Humans may be responsible for less than 0.01°C (of approximately 0.56°C (1°F) total average atmospheric heating during the last century)," the paper concluded. "Recalculating this amount into the total anthropogenic carbon dioxide emission in grams of CO2, one obtains the estimate 1.003× 1018 g, which constitutes less than 0.00022% of the total CO2 amount naturally degassed from the mantle during geologic history. Comparing these figures, one can conclude that anthropogenic carbon dioxide emission is negligible (indistinguishable) in any energy- matter transformation processes changing the Earth's climate," Chilingar and Khilyuk added. Chilingar is a professor of civil and petroleum engineering at UCLA and is the former president of the U.S. chapter of the Russian Academy Sciences.

(Also See August 2007 Report: "New Peer-Reviewed Scientific Studies Chill Global Warming Fears")

Attachment Number 1: Full Text of December 13, 2007: Over 100 Prominent International Scientists Warn UN against 'Futile' Climate Control Efforts in a December 13, 2007 Open Letter

Complete Letter with all signatories - As published in Canada's National Post on December 13, 2007:

The National Post

Don't Fight, Adapt; We Should Give Up Futile Attempts to Combat Climate Change Dec. 13, 2007

Link to Letter:

Key Quote from Scientists' Letter to UN: "Attempts to prevent global climate change from occurring are ultimately futile, and constitute a tragic misallocation of resources that would be better spent on humanity's real and pressing problems."

His Excellency

Ban Ki-MoonSecretary-General,

United Nations New York, N.Y.

Dear Mr. Secretary-General,

Re: UN climate conference taking the World in entirely the wrong direction

It is not possible to stop climate change, a natural phenomenon that has affected humanity through the ages. Geological, archaeological, oral and written histories all attest to the dramatic challenges posed to past societies from unanticipated changes in temperature, precipitation, winds and other climatic variables. We therefore need to equip nations to become resilient to the full range of these natural phenomena by promoting economic growth and wealth generation.

The United Nations Intergovernmental Panel on Climate Change (IPCC) has issued increasingly alarming conclusions about the climatic influences of human-produced carbon dioxide (CO2), a non-polluting gas that is essential to plant photosynthesis. While we understand the evidence that has led them to view CO2 emissions as harmful, the IPCC's conclusions are quite inadequate as justification for implementing policies that will markedly diminish future prosperity. In particular, it is not established that it is possible to significantly alter global climate through cuts in human greenhouse gas emissions. On top of which, because attempts to cut emissions will slow development, the current UN approach of CO2 reduction is likely to increase human suffering from future climate change rather than to decrease it.

The IPCC Summaries for Policy Makers are the most widely read IPCC reports amongst politicians and non-scientists and are the basis for most climate change policy formulation. Yet these 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.

Contrary to the impression left by the IPCC Summary reports:

- Recent observations of phenomena such as glacial retreats, sea-level rise and the migration of temperature-sensitive species are not evidence for abnormal climate change, for none of these changes has been shown to lie outside the bounds of known natural variability.
- The average rate of warming of 0.1 to 0. 2 degrees Celsius per decade recorded by satellites during the late 20th century falls within known natural rates of warming and cooling over the last 10,000 years.
- Leading scientists, including some senior IPCC representatives, acknowledge that today's computer models cannot predict climate. Consistent with this, and

> despite computer projections of temperature rises, there has been no net global warming since 1998. That the current temperature plateau follows a late 20th-century period of warming is consistent with the continuation today of natural multi-decadal or millennial climate cycling.

In stark contrast to the often repeated assertion that the science of climate change is "settled," significant new peer-reviewed research has cast even more doubt on the hypothesis of dangerous human-caused global warming. But because IPCC working groups were generally instructed (http://ipccwg1.ucar.edu/wg1/docs/wg1_timetable_2006-08-14.pdf) to consider work published only through May, 2005, these important findings are not included in their reports; i.e., the IPCC assessment reports are already materially outdated.

The UN climate conference in Bali has been planned to take the world along a path of severe CO2 restrictions, ignoring the lessons apparent from the failure of the Kyoto Protocol, the chaotic nature of the European CO2 trading market, and the ineffectiveness of other costly initiatives to curb greenhouse gas emissions. Balanced cost/benefit analyses provide no support for the introduction of global measures to cap and reduce energy consumption for the purpose of restricting CO2 emissions. Furthermore, it is irrational to apply the "precautionary principle" because many scientists recognize that both climatic coolings and warmings are realistic possibilities over the medium-term future.

The current UN focus on "fighting climate change," as illustrated in the Nov. 27 UN Development Programme's Human Development Report, is distracting governments from adapting to the threat of inevitable natural climate changes, whatever forms they may take. National and international planning for such changes is needed, with a focus on helping our most vulnerable citizens adapt to conditions that lie ahead. Attempts to prevent global climate change from occurring are ultimately futile, and constitute a tragic misallocation of resources that would be better spent on humanity's real and pressing problems.

Yours faithfully,

The following are signatories to the Dec. 13th letter to the Ban Ki-moon, Secretary-General of the United Nations on the UN Climate conference in Bali [List of signatories]:

Don Aitkin, PhD, Professor, social scientist, retired Vice-Chancellor and President, University of Canberra, Australia

Syun-Ichi Akasofu, PhD, Professor of Physics, Emeritus and Founding Director, International Arctic Research Center of the University of Alaska Fairbanks, U.S.

William J.R. Alexander, PhD, Professor Emeritus, Dept. of Civil and Biosystems Engineering, University of Pretoria, South Africa; Member, UN Scientific and Technical Committee on Natural Disasters, 1994-2000

Bjarne Andresen, PhD, physicist, Professor, The Niels Bohr Institute, University of Copenhagen, Denmark

Geoff L. Austin, PhD, FNZIP, FRSNZ, Professor, Dept. of Physics, University of Auckland, New Zealand

Timothy F. Ball, PhD, environmental consultant, former climatology professor, University of Winnipeg, Canada

Ernst-Georg Beck, Dipl. Biol., Biologist, Merian-Schule Freiburg, Germany

Sonja A. Boehmer-Christiansen, PhD, Reader, Dept. of Geography, Hull University, UK; Editor, Energy & Environment journal

Chris C. Borel, PhD, remote sensing scientist, U.S.

Reid A. Bryson, Ph.D. D.Sc. D.Engr., UNEP Global 500 Laureate; Senior Scientist, Center for Climatic Research; Emeritus Professor of Meteorology, of Geography, and of Environmental Studies, University of Wisconsin, U.S.

Dan Carruthers, M.Sc., wildlife biology consultant specializing in animal ecology in Arctic and Subarctic regions, Alberta, Canada

Robert M. Carter, PhD, Professor, Marine Geophysical Laboratory, James Cook University, Townsville, Australia

Ian D. Clark, PhD, Professor, isotope hydrogeology and paleoclimatology, Dept. of Earth Sciences, University of Ottawa, Canada

Richard S. Courtney, PhD, climate and atmospheric science consultant, IPCC expert reviewer, U.K.

Willem de Lange, PhD, Dept. of Earth and Ocean Sciences, School of Science and Engineering, Waikato University, New Zealand

David Deming, PhD (Geophysics), Associate Professor, College of Arts and Sciences, University of Oklahoma, U.S.

Freeman J. Dyson, PhD, Emeritus Professor of Physics, Institute for Advanced Studies, Princeton, N.J., U.S.

Don J. Easterbrook, PhD, Emeritus Professor of Geology, Western Washington University, U.S.

Lance Endersbee, Emeritus Professor, former Dean of Engineering and Pro-Vice Chancellor of Monasy University, Australia

Hans Erren, Doctorandus, geophysicist and climate specialist, Sittard, The Netherlands

Robert H. Essenhigh, PhD, E.G. Bailey Professor of Energy Conversion, Dept. of Mechanical Engineering, The Ohio State University, U.S.

Christopher Essex, PhD, Professor of Applied Mathematics and Associate Director of the Program in Theoretical Physics, University of Western Ontario, Canada

David Evans, PhD, mathematician, carbon accountant, computer and electrical engineer and head of 'Science Speak', Australia

William Evans, PhD, Editor, American Midland Naturalist; Dept. of Biological Sciences, University of Notre Dame, U.S.

Stewart Franks, PhD, Associate Professor, Hydroclimatologist, University of Newcastle, Australia

R. W. Gauldie, PhD, Research Professor, Hawai'i Institute of Geophysics and Planetology, School of Ocean Earth Sciences and Technology, University of Hawaii at Manoa

Lee C. Gerhard, PhD, Senior Scientist Emeritus, University of Kansas; former director and state geologist, Kansas Geological Survey, U.S.

Gerhard Gerlich, Professor for Mathematical and Theoretical Physics, Institut für Mathematische Physik der TU Braunschweig, Germany

Albrecht Glatzle, PhD, sc.agr., Agro-Biologist and Gerente ejecutivo, INTTAS, Paraguay

Fred Goldberg, PhD, Adj Professor, Royal Institute of Technology, Mechanical Engineering, Stockholm, Sweden

Vincent Gray, PhD, expert reviewer for the IPCC and author of The Greenhouse Delusion: A Critique of 'Climate Change 2001,' Wellington, New Zealand

William M. Gray, Professor Emeritus, Dept. of Atmospheric Science, Colorado State University and Head of the Tropical Meteorology Project, U.S.

Howard Hayden, PhD, Emeritus Professor of Physics, University of Connecticut, U.S.

Louis Hissink M.Sc. M.A.I.G., Editor AIG News and Consulting Geologist, Perth, Western Australia

Craig D. Idso, PhD, Chairman, Center for the Study of Carbon Dioxide and Global Change, Arizona, U.S.

Sherwood B. Idso, PhD, President, Center for the Study of Carbon Dioxide and Global Change, AZ, USA

Andrei Illarionov, PhD, Senior Fellow, Center for Global Liberty and Prosperity, U.S.; founder and director of the Institute of Economic Analysis, Russia

Zbigniew Jaworowski, PhD, physicist, Chairman - Scientific Council of Central Laboratory for Radiological Protection, Warsaw, Poland

Jon Jenkins, PhD, MD, computer modelling - virology, Sydney, NSW, Australia

Wibjorn Karlen, PhD, Emeritus Professor, Dept. of Physical Geography and Quaternary Geology, Stockholm University, Sweden

Olavi Kärner, Ph.D., Research Associate, Dept. of Atmospheric Physics, Institute of Astrophysics and Atmospheric Physics, Toravere, Estonia

Joel M. Kauffman, PhD, Emeritus Professor of Chemistry, University of the Sciences in Philadelphia, U.S.

David Kear, PhD, FRSNZ, CMG, geologist, former Director-General of NZ Dept. of Scientific & Industrial Research, New Zealand

Madhav Khandekar, PhD, former Research Scientist Environment Canada; Editor "Climate Research" (03-05); Editorial Board Member "Natural Hazards, IPCC Expert Reviewer 2007

William Kininmonth M.Sc., M.Admin., former head of Australia's National Climate Centre and a consultant to the World Meteorological organization's Commission for Climatology

Jan J.H. Kop, M.Sc. Ceng FICE (Civil Engineer Fellow of the Institution of Civil Engineers), Emeritus Professor of Public Health Engineering, Technical University Delft, The Netherlands

Professor R.W.J. Kouffeld, Emeritus Professor, Energy Conversion, Delft University of Technology, The Netherlands

Salomon Kroonenberg, PhD, Professor, Dept. of Geotechnology, Delft University of Technology, The Netherlands

Hans H.J. Labohm, PhD, economist, former advisor to the executive board, Clingendael Institute (The Netherlands Institute of International Relations), The Netherlands

The Rt. Hon. Lord Lawson of Blaby, economist; Chairman of the Central Europe Trust; former Chancellor of the Exchequer, U.K.

Douglas Leahey, PhD, meteorologist and air-quality consultant, Calgary, Canada

David R. Legates, PhD, Director, Center for Climatic Research, University of Delaware, U.S.

Marcel Leroux, PhD, Professor Emeritus of Climatology, University of Lyon, France; former director of Laboratory of Climatology, Risks and Environment, CNRS

Bryan Leyland, International Climate Science Coalition, consultant - power engineer, Auckland, New Zealand

William Lindqvist, PhD, consulting geologist and company director, Tiburon, California, U.S.

Richard S. Lindzen, PhD, Alfred P. Sloan Professor of Meteorology, Dept. of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology, U.S.

A.J. Tom van Loon, PhD, Professor of Geology (Quaternary Geology), Adam Mickiewicz University, Poznan, Poland; former President of the European Association of Science Editors

Anthony R. Lupo, PhD, Associate Professor of Atmospheric Science, Dept. of Soil, Environmental, and Atmospheric Science, University of Missouri-Columbia, U.S.

Richard Mackey, PhD, Statistician, Australia

Horst Malberg, PhD, Professor for Meteorology and Climatology, Institut für Meteorologie, Berlin, Germany

John Maunder, PhD, Climatologist, former President of the Commission for Climatology of the World Meteorological Organization (89-97), New Zealand

Alister McFarquhar, PhD, international economist, Downing College, Cambridge, U.K.

Ross McKitrick, PhD, Associate Professor, Dept. of Economics, University of Guelph, Canada

John McLean, Climate Data Analyst, computer scientist, Melbourne, Australia

Owen McShane, B. Arch., Master of City and Regional Planning (UC Berkeley), economist and policy analyst, joint founder of the International Climate Science Coalition, Director - Centre for Resource Management Studies, New Zealand

Fred Michel, PhD, Director, Institute of Environmental Sciences and Associate Professor of Earth Sciences, Carleton University, Canada

Frank Milne, PhD, Professor, Dept. of Economics, Queen's University, Canada

Asmunn Moene, PhD, former head of the Forecasting Centre, Meteorological Institute, Norway

Alan Moran, PhD, Energy Economist, Director of the IPA's Deregulation Unit, Australia

Nils-Axel Morner, PhD, Emeritus Professor of Paleogeophysics & Geodynamics, Stockholm University, Sweden

Lubos Motl, PhD, physicist, former Harvard string theorist, Charles University, Prague, Czech Republic

John Nicol, PhD, physicist, James Cook University, Australia

Mr. David Nowell, M.Sc., Fellow of the Royal Meteorological Society, former chairman of the NATO Meteorological Group, Ottawa, Canada

James J. O'Brien, PhD, Professor Emeritus, Meteorology and Oceanography, Florida State University, U.S.

Cliff Ollier, PhD, Professor Emeritus (Geology), Research Fellow, University of Western Australia

Garth W. Paltridge, PhD, atmospheric physicist, Emeritus Professor and former Director of the Institute of Antarctic and Southern Ocean Studies, University of Tasmania, Australia

R. Timothy Patterson, PhD, Professor, Dept. of Earth Sciences (paleoclimatology), Carleton University, Canada

Al Pekarek, PhD, Associate Professor of Geology, Earth and Atmospheric Sciences Dept., St. Cloud State University, Minnesota, U.S.

Ian Plimer, PhD, Professor of Geology, School of Earth and Environmental Sciences, University of Adelaide and Emeritus Professor of Earth Sciences, University of Melbourne, Australia

Brian Pratt, PhD, Professor of Geology, Sedimentology, University of Saskatchewan, Canada

Harry N.A. Priem, PhD, Emeritus Professor of Planetary Geology and Isotope Geophysics, Utrecht University; former director of the Netherlands Institute for Isotope Geosciences

Alex Robson, PhD, Economics, Australian National University

Colonel F.P.M. Rombouts, Branch Chief - Safety, Quality and Environment, Royal Netherlands Air Force

R.G. Roper, PhD, Professor Emeritus of Atmospheric Sciences, School of Earth and Atmospheric Sciences, Georgia Institute of Technology, U.S.

Arthur Rorsch, PhD, Emeritus Professor, Molecular Genetics, Leiden University, The Netherlands

Rob Scagel, M.Sc., forest microclimate specialist, principal consultant, Pacific Phytometric Consultants, B.C., Canada

Tom V. Segalstad, PhD, (Geology/Geochemistry), Head of the Geological Museum and Associate Professor of Resource and Environmental Geology, University of Oslo, Norway

Gary D. Sharp, PhD, Center for Climate/Ocean Resources Study, Salinas, CA, U.S.

S. Fred Singer, PhD, Professor Emeritus of Environmental Sciences, University of Virginia and former director, U.S. Weather Satellite Service

L. Graham Smith, PhD, Associate Professor, Dept. of Geography, University of Western Ontario, Canada

Roy W. Spencer, PhD, climatologist, Principal Research Scientist, Earth System Science Center, The University of Alabama, Huntsville, U.S.

Peter Stilbs, TeknD, Professor of Physical Chemistry, Research Leader, School of Chemical Science and Engineering, KTH (Royal Institute of Technology), Stockholm, Sweden

Hendrik Tennekes, PhD, former Director of Research, Royal Netherlands Meteorological Institute

Dick Thoenes, PhD, Emeritus Professor of Chemical Engineering, Eindhoven University of Technology, The Netherlands

Brian G Valentine, PhD, PE (Chem.), Technology Manager - Industrial Energy Efficiency, Adjunct Associate Professor of Engineering Science, University of Maryland at College Park; Dept of Energy, Washington, DC, U.S.

Gerrit J. van der Lingen, PhD, geologist and paleoclimatologist, climate change consultant, Geoscience Research and Investigations, New Zealand

Len Walker, PhD, power engineering, Pict Energy, Melbourne, Australia

Edward J. Wegman, Bernard J. Dunn Professor, Department of Statistics and Department Computational and Data Sciences, George Mason University, Virginia, U.S.

Stephan Wilksch, PhD, Professor for Innovation and Technology Management, Production Management and Logistics, University of Technology and Economics Berlin, Germany

Boris Winterhalter, PhD, senior marine researcher (retired), Geological Survey of Finland, former professor in marine geology, University of Helsinki, Finland

David E. Wojick, PhD, P.Eng., UN IPCC Expert Reviewer, energy consultant, Virginia, U.S.

Raphael Wust, PhD, Lecturer, Marine Geology/Sedimentology, James Cook University, Australia

Zichichi, PhD, President of the World Federation of Scientists, Geneva, Switzerland; Emeritus Professor of Advanced Physics, University of Bologna, Italy.

Attachment Number Two: 60 Prominent Scientists Came forward in 2006 to Question the So-called "Consensus" that the Earth Faces a "Climate Emergency"

Open Kyoto to debate, 60 Scientists call on Harper to revisit the science of global warming (The Financial Post)

April 6, 2006

An open letter to Prime Minister Stephen Harper: Dear Prime Minister:

As accredited experts in climate and related scientific disciplines, we are writing to propose that balanced, comprehensive public-consultation sessions be held so as to examine the scientific foundation of the federal government's climate-change plans. This would be entirely consistent with your recent commitment to conduct a review of the Kyoto Protocol. Although many of us made the same suggestion to then-prime ministers Martin and Chretien, neither responded, and, to date, no formal, independent climate- science review has been conducted in Canada. Much of the billions of dollars earmarked for implementation of the protocol in Canada will be squandered without a proper assessment of recent developments in climate science.

Observational evidence does not support today's computer climate models, so there is little reason to trust model predictions of the future. Yet this is precisely what the United Nations did in creating and promoting Kyoto and still does in the alarmist forecasts on which Canada's climate policies are based. Even if the climate models were realistic, the environmental impact of Canada delaying implementation of Kyoto or other greenhouse- gas reduction schemes, pending completion of consultations, would be insignificant. Directing your government to convene balanced, open hearings as soon as possible would be a most prudent and responsible course of action.

While the confident pronouncements of scientifically unqualified environmental groups may provide for sensational headlines, they are no basis for mature policy formulation. The study of global climate change is, as you have said, an "emerging science," one that is perhaps the most complex ever tackled. It may be many years yet before we properly understand the Earth's climate system. Nevertheless, significant advances have been made since the protocol was created, many of which are taking us away from a concern about increasing greenhouse gases. If, back in the mid-1990s, we knew what we know today about climate, Kyoto would almost certainly not exist, because we would have concluded it was not necessary.

We appreciate the difficulty any government has formulating sensible science-based policy when the loudest voices always seem to be pushing in the opposite direction. However, by convening open, unbiased consultations, Canadians will be permitted to hear from experts on both sides of the debate in the climate-science community. When the public comes to understand that there is no "consensus" among climate scientists about the relative importance of the various causes of global climate change, the government will be in a far better position to develop plans that reflect reality and so benefit both the environment and the economy.

"Climate change is real" is a meaningless phrase used repeatedly by activists to convince the public that a climate catastrophe is looming and humanity is the cause. Neither of these fears is justified. Global climate changes all the time due to natural causes and the human impact still remains impossible to distinguish from this natural "noise." The new Canadian government's commitment to reducing air, land and water pollution is commendable, but allocating funds to "stopping climate change" would be irrational. We need to continue intensive research into the real causes of climate change and help our most vulnerable citizens adapt to whatever nature throws at us next.

We believe the Canadian public and government decision-makers need and deserve to hear the whole story concerning this very complex issue. It was only 30 years ago that many of today's global-warming alarmists were telling us that the world was in the midst of a global-cooling catastrophe. But the science continued to evolve, and still does, even though so many choose to ignore it when it does not fit with predetermined political agendas.

We hope that you will examine our proposal carefully and we stand willing and able to furnish you with more information on this crucially important topic.

CC: The Honourable Rona Ambrose, Minister of the Environment, and the Honourable Gary Lunn, Minister of Natural Resources

Sincerely,

Dr. Ian D. Clark, professor, isotope hydrogeology and paleoclimatology, Dept. of Earth Sciences, University of Ottawa

Dr. Tad Murty, former senior research scientist, Dept. of Fisheries and Oceans, former director of Australia's National Tidal Facility and professor of earth sciences, Flinders University, Adelaide; currently adjunct professor, Departments of Civil Engineering and Earth Sciences, University of Ottawa

Dr. R. Timothy Patterson, professor, Dept. of Earth Sciences (paleoclimatology), Carleton University, Ottawa

Dr. Fred Michel, director, Institute of Environmental Science and associate professor, Dept. of Earth Sciences, Carleton University, Ottawa

Dr. Madhav Khandekar, former research scientist, Environment Canada. Member of editorial board of Climate Research and Natural Hazards

Dr. Paul Copper, FRSC, professor emeritus, Dept. of Earth Sciences, Laurentian University, Sudbury, Ont.

Dr. Ross McKitrick, associate professor, Dept. of Economics, University of Guelph, Ont.

Dr. Tim Ball, former professor of climatology, University of Winnipeg; environmental consultant

Dr. Andreas Prokoph, adjunct professor of earth sciences, University of Ottawa; consultant in statistics and geology

Mr. David Nowell, M.Sc. (Meteorology), fellow of the Royal Meteorological Society, Canadian member and past chairman of the NATO Meteorological Group, Ottawa

Dr. Christopher Essex, professor of applied mathematics and associate director of the Program in Theoretical Physics, University of Western Ontario, London, Ont.

* Dr. Gordon E. Swaters, professor of applied mathematics, Dept. of Mathematical Sciences, and member, Geophysical Fluid Dynamics Research Group, University of Alberta (* Note: Swaters later recanted his signature on the open letter)
Dr. L. Graham Smith, associate professor, Dept. of Geography, University of Western Ontario, London, Ont.
Dr. G. Cornelis van Kooten, professor and Canada Research Chair in environmental studies and climate change, Dept. of Economics, University of Victoria
Dr. Petr Chylek, adjunct professor, Dept. of Physics and Atmospheric Science, Dalhousie University, Halifax
Dr./Cdr. M. R. Morgan, FRMS, climate consultant, former meteorology advisor to the World Meteorological Organization. Previously research scientist in climatology at University of Exeter, U.K.
Dr. Keith D. Hage, climate consultant and professor emeritus of Meteorology, University of Alberta
Dr. David E. Wojick, P.Eng., energy consultant, Star Tannery, Va., and Sioux Lookout, Ont.
Rob Scagel, M.Sc., forest microclimate specialist, principal consultant, Pacific Phytometric Consultants, Surrey, B .C.
Dr. Douglas Leahey, meteorologist and air-quality consultant, Calgary Paavo Siitam, M.Sc., agronomist, chemist, Cobourg, Ont.
Dr. Chris de Freitas, climate scientist, associate professor, The University of Auckland, N.Z.
Dr. Richard S. Lindzen, Alfred P. Sloan professor of meteorology, Dept. of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology
Dr. Freeman J. Dyson, emeritus professor of physics, Institute for Advanced Studies, Princeton, N.J.
Mr. George Taylor, Dept. of Meteorology, Oregon State University; Oregon State climatologist; past president, American Association of State Climatologists
Dr. Ian Plimer, professor of geology, School of Earth and Environmental Sciences, University of Adelaide; emeritus professor of earth sciences, University of Melbourne, Australia
Dr. R.M. Carter, professor, Marine Geophysical Laboratory, James Cook University, Townsville, Australia
Mr. William Kininmonth, Australasian Climate Research, former Head National Climate Centre, Australian Bureau of Meteorology; former Australian delegate to World Meteorological Organization Commission for Climatology, Scientific and Technical Review
Dr. Hendrik Tennekes, former director of research, Royal Netherlands Meteorological Institute
Dr. Gerrit J. van der Lingen, geologist/paleoclimatologist, Climate Change Consultant, Geoscience Research and Investigations, New Zealand
Dr. Patrick J. Michaels, professor of environmental sciences, University of Virginia
Dr. Nils-Axel Morner, emeritus professor of paleogeophysics & geodynamics, Stockholm University, Stockholm, Sweden
Dr. Gary D. Sharp, Center for Climate/Ocean Resources Study, Salinas, Calif.
Dr. Roy W. Spencer, principal research scientist, Earth System Science Center, The University of Alabama, Huntsville
Dr. Al Pekarek, associate professor of geology, Earth and Atmospheric Sciences Dept., St. Cloud State University, St. Cloud, Minn.

Dr. Marcel Leroux, professor emeritus of climatology, University of Lyon, France; former director of Laboratory of Climatology, Risks and Environment, CNRS

Dr. Paul Reiter, professor, Institut Pasteur, Unit of Insects and Infectious Diseases, Paris, France. Expert reviewer, IPCC Working group II, chapter 8 (human health)

Dr. Zbigniew Jaworowski, physicist and chairman, Scientific Council of Central Laboratory for Radiological Protection, Warsaw, Poland

Dr. Sonja Boehmer-Christiansen, reader, Dept. of Geography, University of Hull, U.K.; editor, Energy & Environment

Dr. Hans H.J. Labohm, former advisor to the executive board, Clingendael Institute (The Netherlands Institute of International Relations) and an economist who has focused on climate change

Dr. Lee C. Gerhard, senior scientist emeritus, University of Kansas, past director and state geologist, Kansas Geological Survey

Dr. Asmunn Moene, past head of the Forecasting Centre, Meteorological Institute, Norway

Dr. August H. Auer, past professor of atmospheric science, University of Wyoming; previously chief meteorologist, Meteorological Service (MetService) of New Zealand

Dr. Vincent Gray, expert reviewer for the IPCC and author of The Greenhouse Delusion: A Critique of 'Climate Change 2001,' Wellington, N.Z.

Dr. Howard Hayden, emeritus professor of physics, University of Connecticut

Dr Benny Peiser, professor of social anthropology, Faculty of Science, Liverpool John Moores University, U.K.

Dr. Jack Barrett, chemist and spectroscopist, formerly with Imperial College London, U.K.

Dr. William J.R. Alexander, professor emeritus, Dept. of Civil and Biosystems Engineering, University of Pretoria, South Africa. Member, United Nations Scientific and Technical Committee on Natural Disasters, 1994-2000

Dr. S. Fred Singer, professor emeritus of environmental sciences, University of Virginia; former director, U.S. Weather Satellite Service

Dr. Harry N.A. Priem, emeritus professor of planetary geology and isotope geophysics, Utrecht University; former director of the Netherlands Institute for Isotope Geosciences; past president of the Royal Netherlands Geological & Mining Society

Dr. Robert H. Essenhigh, E.G. Bailey professor of energy conversion, Dept. of Mechanical Engineering, The Ohio State University

Dr. Sallie Baliunas, astrophysicist and climate researcher, Boston, Mass.

Douglas Hoyt, senior scientist at Raytheon (retired) and co-author of the book The Role of the Sun in Climate Change; previously with NCAR, NOAA, and the World Radiation Center, Davos, Switzerland

Dipl.-Ing. Peter Dietze, independent energy advisor and scientific climate and carbon modeller, official IPCC reviewer, Bavaria, Germany

Dr. Boris Winterhalter, senior marine researcher (retired), Geological Survey of Finland, former professor in marine geology, University of Helsinki, Finland

Dr. Wibjorn Karlen, emeritus professor, Dept. of Physical Geography and Quaternary Geology, Stockholm University, Sweden

Dr. Hugh W. Ellsaesser, physicist/meteorologist, previously with the Lawrence Livermore National Laboratory, Calif.; atmospheric consultant.

Dr. Art Robinson, founder, Oregon Institute of Science and Medicine, Cave Junction, Ore.

Dr. Arthur Rorsch, emeritus professor of molecular genetics, Leiden University, The Netherlands; past board member, Netherlands organization for applied research (TNO) in environmental, food and public health

Dr. Alister McFarquhar, Downing College, Cambridge, U.K.; international economist

Dr. Richard S. Courtney, climate and atmospheric science consultant, IPCC expert reviewer, U.K.

In: Disputing Global Warming ISBN 978-1-60741-235-9
Editors: Anton Horvath and Boris Molnar, pp.217-224

Chapter 3

TESTIMONY OF ROY W. SPENCER BEFORE THE SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE ON 22 JULY 2008*

Roy W. Spencer

I would like to thank Senator Boxer and members of the Committee for allowing me to discuss my experiences as a NASA employee engaged in global warming research, as well as to provide my current views on the state of the science of global warming and climate change.

I have a PhD in Meteorology from the University of Wisconsin-Madison, and have been involved in global warming research for close to twenty years. I have numerous peer reviewed scientific articles dealing with the measurement and interpretation of climate variability and climate change. I am also the U.S. Science Team Leader for the AMSR-E instrument flying on NASA's Aqua satellite.

1. WHITE HOUSE INVOLVEMENT IN THE REPORTING OF AGENCY EMPLOYEES' WORK

On the subject of the Administration's involvement in policy-relevant scientific work performed by government employees in the EPA, NASA, and other agencies, I can provide some perspective based upon my previous experiences as a NASA employee. For example, during the Clinton-Gore Administration I was told what I could and could not say during congressional testimony. Since it was well known that I am skeptical of the view that mankind's greenhouse gas emissions are mostly responsible for global warming, I assumed that this advice was to help protect Vice President Gore's agenda on the subject.

This did not particularly bother me, though, since I knew that as an employee of an Executive Branch agency my ultimate boss resided in the White House. To the extent that

*

my work had policy relevance, it seemed entirely appropriate to me that the privilege of working for NASA included a responsibility to abide by direction given by my superiors.

But I eventually tired of the restrictions I had to abide by as a government employee, and in the fall of 2001 I resigned from NASA and accepted my current position as a Principal Research Scientist at the University of Alabama in Huntsville. Despite my resignation from NASA, I continue to serve as Team Leader on the AMSR-E instrument flying on the NASA Aqua satellite, and maintain a good working relationship with other government researchers.

2. GLOBAL WARMING SCIENCE: THE LATEST RESEARCH

Regarding the currently popular theory that mankind is responsible for global warming, I am very pleased to deliver good news from the front lines of climate change research. Our latest research results, which I am about to describe, could have an enormous impact on policy decisions regarding greenhouse gas emissions.

Despite decades of persistent uncertainty over how sensitive the climate system is to increasing concentrations of carbon dioxide from the burning of fossil fuels, we now have new satellite evidence which strongly suggests that the climate system is much less sensitive than is claimed by the U.N. 's Intergovernmental Panel on Climate Change (IPCC). Another way of saying this is that the real climate system appears to be dominated by "negative feedbacks" – instead of the "positive feedbacks" which are displayed by all twenty computerized climate models utilized by the IPCC. (Feedback parameters larger than 3.3 Watts per square meter per degree Kelvin ($Wm^{-2}K^{-1}$) indicate negative feedback, while feedback parameters smaller than 3.3 indicate positive feedback.)

If true, an insensitive climate system would mean that we have little to worry about in the way of manmade global warming and associated climate change. And, as we will see, it would also mean that the warming we have experienced in the last 100 years is mostly natural. Of course, if climate change is mostly natural then it is largely out of our control, and is likely to end – if it has not ended already, since satellite-measured global temperatures have not warmed for at least seven years now.

2.1. Theoretical Evidence that Climate Sensitivity has been Overestimated

The support for my claim of low climate sensitivity (net negative feedback) for our climate system is two-fold. First, we have a new research article [1] in-press in the *Journal of Climate* which uses a simple climate model to show that previous estimates of the sensitivity of the climate system from satellite data were biased toward the high side by the neglect of natural cloud variability. It turns out that the failure to account for natural, chaotic cloud variability generated internal to the climate system will always lead to the illusion of a climate system which appears more sensitive than it really is.

Significantly, prior to its acceptance for publication, this paper was reviewed by two leading IPCC climate model experts - Piers Forster and Isaac Held-- both of whom agreed that we have raised a legitimate issue. Piers Forster, an IPCC report lead author and a leading

expert on the estimation of climate sensitivity, even admitted in his review of our paper that other climate modelers need to be made aware of this important issue.

To be fair, in a follow-up communication Piers Forster stated to me his belief that the net effect of the new understanding on climate sensitivity estimates would likely be small. But as we shall see, the latest evidence now suggests otherwise.

2.2. Observational Evidence that Climate Sensitivity has been Overestimated

The second line of evidence in support of an insensitive climate system comes from the satellite data themselves. While our work in-press established the existence of an observational bias in estimates of climate sensitivity, it did not address just how large that bias might be.

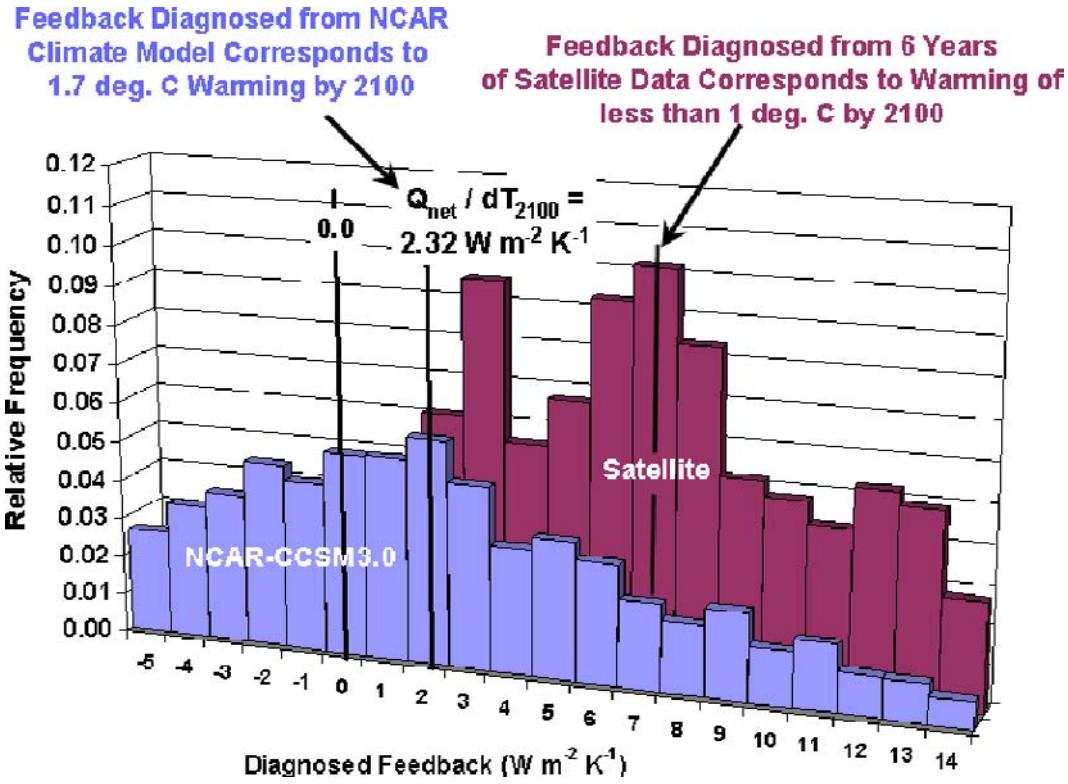


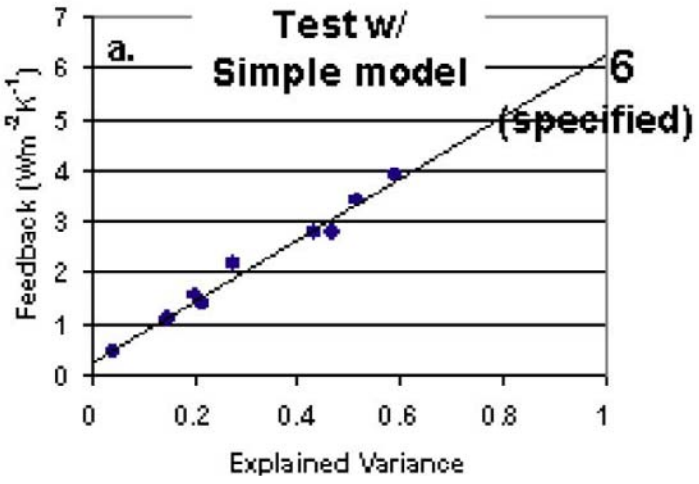
Figure 1. Frequency distributions of feedback parameters (regression slopes) computed from three-month low-pass filtered time series of temperature (from channel 5 of the AMSU instrument flying on the NOAA-1 5 satellite) and top-of-atmosphere radiative flux variations for 6 years of global oceanic satellite data measured by the CERES instrument flying on NASA's Terra satellite; and from a 60 year integration of the NCAR-CCSM3.0 climate model forced by 1% per year CO2 increase. Peaks in the frequency distributions indicate the dominant feedback operating. This NCAR model is the least sensitive (greatest feedback parameter value) of all 20 IPCC models.

But in the last several weeks, we have stumbled upon clear and convincing observational evidence of particularly strong negative feedback (low climate sensitivity) from our latest and best satellite instruments. That evidence includes our development of two new methods for extracting the feedback signal from either observational or climate model data, a goal which has been called the "holy grail" [2] of climate research.

The first method separates the true signature of feedback, wherein radiative flux variations are highly correlated to the temperature changes which *cause* them, from internally-generated radiative forcings, which are uncorrelated to the temperature variations which *result* from them. *It is the latter signal which has been ignored in all previous studies, the neglect of which biases feedback diagnoses in the direction of positive feedback (high climate sensitivity).*

Based upon global oceanic climate variations measured by a variety of NASA and NOAA satellites during the period 2000 through 2005 we have found a signature of climate sensitivity so low that it would reduce future global warming projections to below 1 deg. C by the year 2100. As can be seen in Figure 1, that estimate from satellite data is much less sensitive (a larger diagnosed feedback) than even the least sensitive of the 20 climate models which the IPCC summarizes in its report. It is also consistent with our previously published analysis of feedbacks associated with tropical intraseasonal oscillations [3].

A Simple Climate Model forced with various amounts of radiative and non-radiative heat fluxes shows that the true feedback parameter can be estimated by extrapolating the different diagnosed feedback parameter estimates to 100% explained variance.



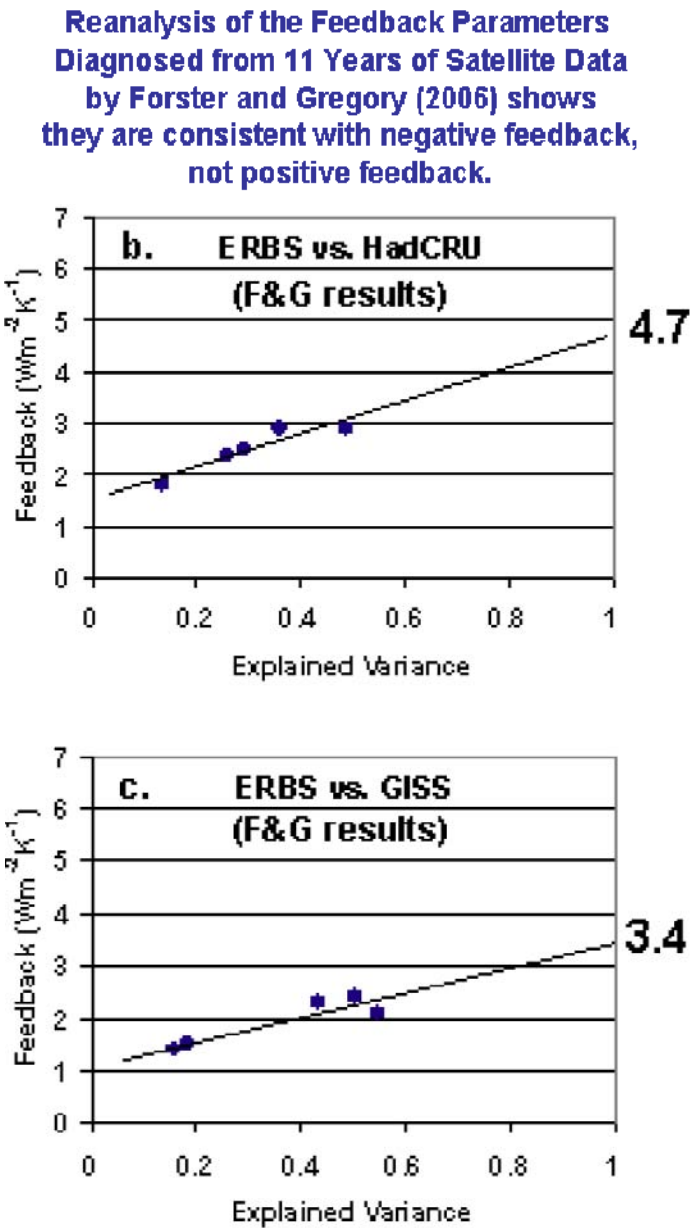


Figure 2. Re-analysis of the satellite-based feedback parameter estimates of Forster and Gregory (2006) showing that they are consistent with negative feedback rather than positive feedback (low climate sensitivity rather than high climate sensitivity).

A second method for extracting the true feedback signal takes advantage of the fact that during natural climate variability, there are varying levels of internally-generated radiative forcings (which are uncorrelated to temperature), versus non-radiative forcings (which are highly correlated to temperature). If the feedbacks estimated for different periods of time involve different levels of correlation, then the "true" feedback can be estimated by extrapolating those results to 100% correlation. This can be seen in Figure 2, which shows

that even previously published [4] estimates of positive feedback are, in reality, supportive of negative feedback (feedback parameters greater than 3.3 $Wm^{-2}K^{-1}$).

2.3. Why do Climate Models Produce so much Global Warming?

The results just presented beg the following question: If the satellite data indicate an insensitive climate system, why do the climate models suggest just the opposite? I believe the answer is due to a misinterpretation of cloud behavior by climate modelers.

The cloud behaviors programmed into climate models (cloud "parameterizations") are based upon researchers' interpretation of cause and effect in the real climate system [5]. When cloud variations in the real climate system have been measured, it has been assumed that the cloud changes were the *result of* certain processes, which are ultimately tied to surface temperature changes. But since other, chaotic, internally generated mechanisms can also be the cause of cloud changes, the neglect of those processes leads to cloud parameterizations which are inherently biased toward high climate sensitivity.

The reason why the bias occurs only in the direction of high climate sensitivity is this: While surface warming could conceivably cause cloud changes which lead to either positive or negative cloud feedback, causation in the opposite direction (cloud changes causing surface warming) can only work in one direction, which then "looks like" positive feedback. For example, decreasing low cloud cover can only produce warming, not cooling, and when that process is observed in the real climate system and assumed to be a feedback, it will always suggest a positive feedback.

2.4. So, what has Caused Global Warming over the Last Century?

One necessary result of low climate sensitivity is that the radiative forcing from greenhouse gas emissions in the last century is not nearly enough to explain the upward trend of 0.7 deg. C in the last 100 years. This raises the question of whether there are natural processes at work which have caused most of that warming.

On this issue, it can be shown with a simple climate model that small cloud fluctuations assumed to occur with two modes of natural climate variability – the El Nino/La Nina phenomenon (Southern Oscillation), and the Pacific Decadal Oscillation – can explain 70% of the warming trend since 1900, as well as the nature of that trend: warming until the 1 940s, no warming until the 1 970s, and resumed warming since then. These results are shown in Figure 3.

While this is not necessarily being presented as the only explanation for most of the warming in the last century, it does illustrate that there are potential explanations for recent warming other that just manmade greenhouse gas emissions. *Significantly, this is an issue on which the IPCC has remained almost entirely silent. There has been virtually no published work on the possible role of internal climate variations in the warming of the last century.*

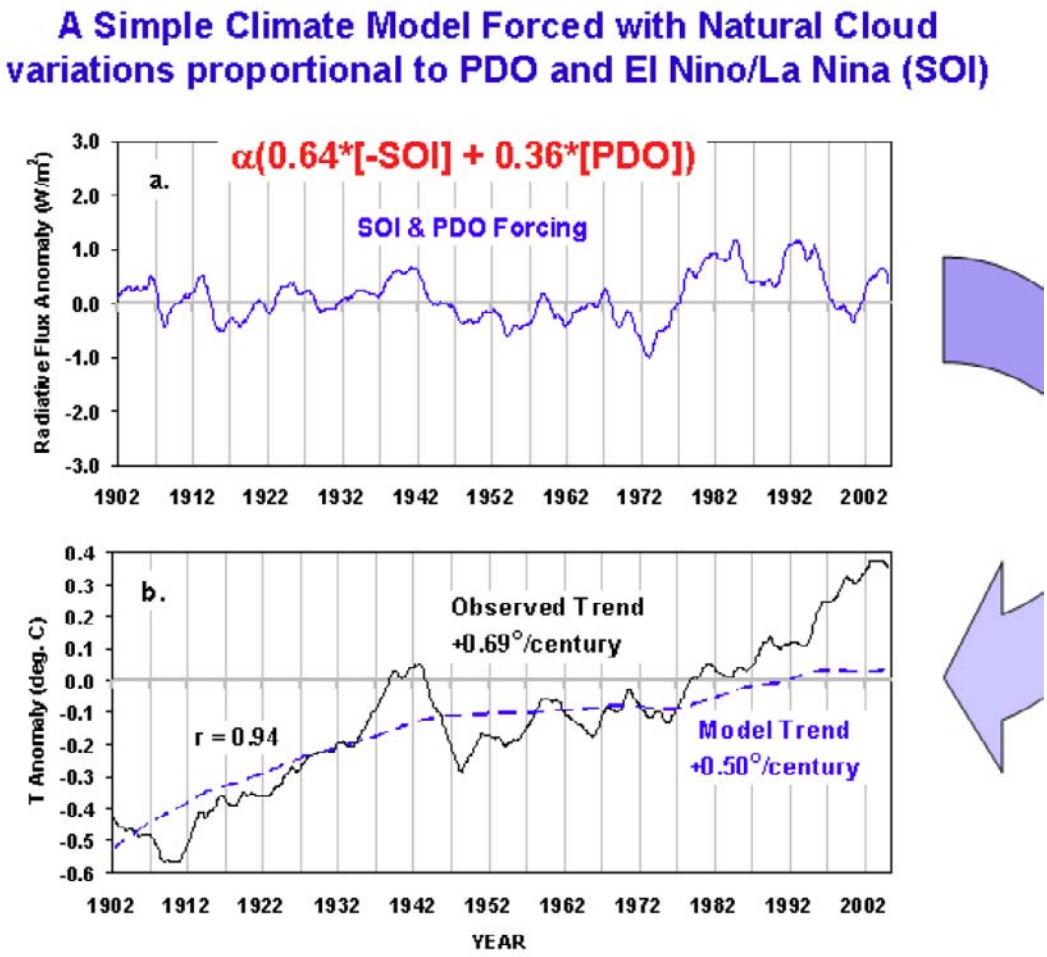


Figure 3. A simple climate model forced with cloud cover variations assumed to be proportional to a linear combination of the Southern Oscillation Index (SOI) and Pacific Decadal Oscillation (PDO) index. The heat flux anomalies in (a), which then result in the modeled temperature response in (b), are assumed to be distributed over the top 27% of the global ocean (1,000 meters), and weak negative feedback has been assumed (4 W m-2K^{-1}).

3. POLICY IMPLICATIONS

Obviously, what I am claiming today is of great importance to the global warming debate and related policy decisions, and it will surely be controversial. These results are not totally unprecedented, though, as other recently published research [6] has also led to the conclusion that the real climate system does not exhibit net positive feedback.

While it will take some time for the research community to digest this new information, it must be mentioned that new research contradicting the latest IPCC report is entirely consistent with the normal course of scientific progress. I predict that in the coming years, there will be a growing realization among the global warming research community that most of the climate change we have observed is natural, and that mankind's role is relatively minor.

While other researchers need to further explore and validate my claims, I am heartened by the fact that my recent presentation of these results to an audience of approximately 40 weather and climate researchers at the University of Colorado in Boulder last week (on July 17, 2008) led to no substantial objections to either the data I presented, nor to my interpretation of those data.

And, curiously, despite its importance to climate modeling activities, no one from Dr. Kevin Trenberth's facility, the National Center for Atmospheric Research (NCAR), bothered to drive four miles down the road to attend my seminar, even though it was advertised at NCAR.

I hope that the Committee realizes that, if true, these new results mean that humanity will be largely spared the negative consequences of human-induced climate change. This would be good news that should be celebrated – not attacked and maligned.

And given that virtually no research into possible natural explanations for global warming has been performed, it is time for scientific objectivity and integrity to be restored to the field of global warming research. This Committee could, at a minimum, make a statement that encourages that goal.

REFERENCES

[1] Spencer, R.W., and W.D. Braswell, 2008: Potential biases in cloud feedback diagnosis: A simple model demonstration. *J. Climate*, in press.

[2] Allen, M.R., and D.J. Frame, 2007: Call off the quest. *Science*, 318, 582.

[3] Spencer, R.W., W. D. Braswell, J. R. Christy, and J. Hnilo, 2007: Cloud and radiation budget changes associated with tropical intraseasonal oscillations. *Geophys. Res. Lett.*, 34, L1 5707, doi: 1 0. 1 029/2007GL029698.

[4] Forster, P. M., and J. M. Gregory, 2006: The climate sensitivity and its components diagnosed from Earth Radiation Budget data. *J. Climate*, 19, 39-52.

[5] Stephens, G. L., 2005: Clouds feedbacks in the climate system: A critical review. *J. Climate*, 18, 237-273.

[6] Schwartz, S. E., 2007: Heat capacity, time constant, and sensitivity of the Earth's climate system. *J. Geophys. Res*., 112, D24S05, doi:10.1029/2007JD008746.

INDEX

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

Y