

Global Climate Readings

(Books and essays on this topic read by D.N. Anderson)

The earth's climate is subject to constant change. Some of these fluctuations affect the entire globe and some are local, regional, or continental. This reading list is primarily concerned with those changes that are global in extent. The readings concern changes that occur over periods longer than a human life, but evidence of the changes may be evident over periods as short as a decade or two. At present there is much discussion about "Global Warming" and the possibility that it may be caused or at least enhanced by human activities (anthropogenic) such as the burning of fossil fuel and the global increase of carbon dioxide (CO₂) in the atmosphere.

For a brief synopsis of selected titles, hold your mouse over the linked titles. Click on the linked titles of books to reach Amazon.com, the video title to reach the video site, or the Non-technical paper to display the .pdf copy.

Books:

<u>Author</u>	<u>Title</u>	<u>Published</u>
Hayden, Howard	<u>A Primer on CO₂ and Climate</u> A wonderful little book giving a non-technical description of the role of CO ₂ in the atmosphere. The author covers: 1) Is the earth warming? 2) If the earth is warming, is mankind responsible? 3) If the earth is warming is that a bad situation? 4) If the earth is warming, and if mankind's use of fossil fuels is responsible, and if the situation is bad, is there anything we can do to remedy the situation?	2007
Hayden, Howard C.	<u>The Solar Fraud: Why Solar Energy Won't Run the World, Second Edition</u> With the current popular conception that burning fossil fuel is contributing to global warming, a great deal of interest has surfaced in the possibility of supporting our civilization using alternate fuels. Dr. Hayden covers those that are related in fairly direct ways to solar radiation including biomass, hydro power, wind power, direct solar heat, and photovoltaics. His table for the conversion of the many energy units in common use into Joules for easy comparison as well as his many other tables are worth the price of the book. He has an intensely practical outlook and computes the possible energy from each source based on actual operating capabilities rather than nameplate capacities. Hydro power has already taken advantage of many of the most productive locations. The other forms offer small amounts of incremental power but do almost nothing to replace the load currently carried by coal, oil and nuclear. For humor read the negative reviews on Amazon.com.	2005
Lomborg, Bjorn	<u>The Skeptical Environmentalist: Measuring the Real State of the World</u> A careful examination of many of the environmental claims of Julian Simon. Where many commentators assert that wealth and consumption is making the environment worse, Professor Simon claims that it is improving. Dr. Lomborg and his graduate students starting from a position of extreme skepticism end up showing almost all of Simon's claims to be accurate. Contains w wealth of data. Global warming is only one of many topics mentioned.	2001

Michaels, Patrick J. (ed.)	<u>Shattered Consensus: The True State of Global Warming</u>	2005
	<p>This book contains 10 review essays. The first by the editor covers a number of the errors in the 2001 IPCC report. Ross McKittrick tells the fascinating investigation that revealed the errors that led to the infamous "hockey stick" temperature graph. Robert C. Balling discusses the difficulties in surface temperature measurements and modeling, John Christy describes satellite measurements of temperature in the bulk atmosphere, Randall S. Cerveny covers temperature effects on violent weather, and David Legates tells what is known about temperature effects on precipitation. Oliver W. Frauenfeld tells of the attempts to model the El Nino - Southern Oscillation, while Robert E. Davis points out many falsehoods regarding climate change and human health. Sallie Baliunas discusses the possible effects of solar variability on temperature. Eric S. Posmentier and Willie Soon discuss the value of computer predictions of CO₂ effects on global climate. The overall impression left by this book is the overwhelming complexity of the system people are trying to model and the inability of any current models to describe even a small part of the global climate. The politicization of global warming is extremely premature. This book is not for beginner.</p>	
Michaels, Patrick J, & Robert C. Balling, Jr.	<u>The Satanic Gases</u>	2000
	<p>Michaels & Balling provide what in 2000 was the most clear and comprehensive explanation of the role CO₂ plays in our atmosphere and why Kyoto style control is not necessary and in fact is ill advised. Recent (2006) experimental research has further shown their thesis that carbon dioxide is at best a minor player in global temperatures to be correct.</p>	
Singer, S. Fred & Dennis T. Avery	<u>Unstoppable Global Warming: Every 1,500 years</u>	2006
	<p>Singer and Avery describe a 1,500 (+- 500) year cycle in global temperatures. 600 of these cycles have been identified in the last million years using ice cores in Greenland and Antarctica. Identification of these cycles and correlation of the recent cycles with historical events permits us to be relatively confident that we have been moving into the warm phase of a cycle for the last 150 years. It also suggests that we may have one or two degrees more warming if we are to get to the typical high of the warm phase.</p>	
Svensmark, Hendrick & Nigel Calder	<u>The Chilling Stars: A New Theory of Climate Change</u>	2007
	<p>A well written description of the vast topic of cosmic ray influences on the formation of low level clouds. It treats not only the famous Svensmark experiments, but also the history of our planet's cooling and warming since it was formed. It also discusses a number of planned major investigations related to this crucial driver of global temperature.</p>	

Audios:

Author	Title	Published
Riverina ABC	<u>Interview with Prof Ian Plimer</u>	2007
	<p>Geologist Ian Plimer after a few preliminary remarks on scams in Turkey, recounts his examination of the science surrounding anthropogenic global warming. He description is very articulate and he packs more honest information into 15 minutes than Al Gore can manage in several hours.</p>	

Videos (links tend to be transitory. Notify Dr. Anderson if the link fails):

Author	Title	Published
Wag TV	<u>The Great Global Warming Swindle</u> A number of scientists and others involved in the controversy over global warming report the real results of their work, rather than the very selective and dramatic stuff in Al Gore's pseudo documentary. It shows many aspects of the controversy, but importantly shows the reasons anthropogenic warming via CO2 is either trivial or non-existent. It also shows the motivations for the distortion of the scientific record. This documentary is 1 hour, 13 minutes long, however it is well worth every minute. Alaskans will note the appearance of our own Professor Syun-Ichi Akasofu, Director, International Arctic Research Center.	2007

Non-technical papers:

Author	Title	Published
Akasofu, Syun-Ichi	<i>Is the Earth still recovering from the "Little Ice Age"?</i> (14 pages overall, 12 figures, 2 pages of references .pdf) A very long term student of the arctic describes the one to five hundred year history of arctic warming trends and shows why there is considerable doubt that warming is caused by recent (20th century) increases in greenhouse gases. He also shows the failure of the 2006 IPCC report or the climate models (GCMs) to correctly describe the situation. Well illustrated.	2007
Solomon, Lawrence	<i>The Deniers</i> (33 columns from the National Post) A number of promoters of the anthropogenic (human caused) global warming hypothesis (AGWH) started claiming that the science was settled and only a poorly informed "denier" could dissent from the prevailing consensus published in the political summaries of the IPCC reports. Many scientists found the comparison with Holocaust Deniers very insulting and began to speak. To demonstrate the unsettled nature of the climate science on which the hypothesis was based, Solomon decided to write a half dozen columns about very prominent critics of some aspect of anthropogenic global warming. The number of Deniers columns has since expanded enormously.	2006-2007
Svensmark, Henrick	<i>Influence of Cosmic Rays on the Earth's Climate</i> (5 page .pdf) The very few cosmic rays that reach sea-level play a big part in everyday weather. They help make low-level clouds which largely regulate the Earth's surface temperature. The decrease in cosmic rays during the 20th century, decreased low-level cloudiness and allowed the Earth to warm slightly. We know that cosmic rays were intense during the little ice age (peaking about 300 years ago) based on the production of radiocarbon atoms (C ¹⁴).	1998
Svensmark, Henrick	<i>The SKY experiment in Copenhagen</i> (3 page .pdf)	2006

A non-technical explanation (with diagrams) of a portion of the experiment conducted on the role of ions in particle nucleation under atmospheric conditions. (SKY is cloud in Danish). Elections formed by cosmic rays entering the cloud chamber act as a catalyst to allow unstable water -sulphuric acid particles to grow to a stable size suitable for cloud condensation nuclei. A more detailed explanation may be found in the technical paper listed below.

Technical papers:

Author	Title	Published
Robinson, Arthur B., Sallie L. Baliunas, Willie Soon, and Zachary W. Robinson	<p><i>Environmental Effects of Increased Atmospheric Carbon Dioxide</i></p> <p>This is the classic review paper setting out the evidence debunking anthropogenic global warming. It was circulated as part of the "Petition Project" which gathered over 17,000 signatures of scientifically trained individuals who were skeptical about human-caused global warming. It also summarizes the advantages of increased atmospheric carbon dioxide for the growth of plants. Some of the short term temperature trends have changed in recent years but the conclusions still remain valid.</p>	Jan-98
Svensmark, Henrick; Jens Olaf P. Pedersen, Nigel D. Marsh, Martin B. Enghoff and Ulrick I. Uggerhøj	<p><i>Experimental evidence for the role of ions in particle nucleation under atmospheric conditions</i></p> <p>Experimental studies of aerosol nucleation in air, containing trace amounts of ozone, sulfur dioxide and water vapor at concentrations relevant for the earth's atmosphere, are reported. The production of new aerosol particles is found to be proportional to the negative ion density and yields nucleation rates of the order of $0.1 - 1 \text{ cm}^{-3} \text{ s}^{-1}$. This suggests that the ions are active in generating an atmospheric reservoir of small thermodynamically stable clusters, which are important for nucleation processes in the atmosphere and ultimately for cloud formation. Cosmic rays provide ion formation.</p>	17-Aug-06