Let the data speak for itself

http://www.guardian.co.uk/commentisfree/2008/oct/14/climatechange-scienceofclimatechange

Despite the message favoured by environmental campaigners, temperatures in this decade have not been worse than expected

Have you noticed how environmental campaigners almost inevitably say that not only is global warming happening and bad, but also that what we are seeing is even worse than expected?

This is odd, because any reasonable understanding of how science proceeds would expect that, as we refine our knowledge, we find that things are sometimes worse and sometimes better than we expected, and that the most likely distribution would be about 50-50. Environmental campaigners, however, almost invariably see it as 100-0.

If we are regularly being surprised in just one direction, if our models get blindsided by an ever-worsening reality, that does not bode well for our scientific approach. Indeed, one can argue that if the models constantly get something wrong, it is probably because the models are wrong. And if we cannot trust our models, we cannot know what policy action to take if we want to make a difference.

Yet, if new facts constantly show us that the consequences of climate change are getting worse and worse, high-minded arguments about the scientific method might not carry much weight. Certainly, this seems to be the prevailing bet in the spin on global warming. It is, again, worse than we thought, and, despite our failing models, we will gamble on knowing just what to do: cut CO2 emissions dramatically.

But it is simply not correct that climate data are systematically worse than expected; in many respects, they are spot on, or even better than expected. That we hear otherwise is an indication of the media’s addiction to worst-case stories, but that makes a poor foundation for smart policies.

The most obvious point about global warming is that the planet is heating up. It has warmed about 1C (1.8F) over the past century, and is predicted by the United Nations’ climate panel (IPCC) to warm between 1.6-3.8C (2.9-6.8F) during this century, mainly owing to increased CO2. An average of all 38 available standard runs from the IPCC shows that models expect a temperature increase in this decade of about 0.2C.

But this is not at all what we have seen. And this is true for all surface temperature measures, and even more so for both satellite measures. Temperatures in this decade have not been worse than expected; in fact, they have not even been increasing. They have actually decreased by between 0.01 and 0.1C per decade. On the most important indicator of global warming, temperature development, we ought to hear that the data are actually much better than expected.

Likewise, and arguably much more importantly, the heat content of the world’s oceans has been dropping for the past four years where we have measurements. Whereas energy in terms of temperature can disappear relatively easily from the light atmosphere, it is unclear where the heat from global warming should have gone – and certainly this is again much better than expected.

We hear constantly about how the Arctic sea ice is disappearing faster than expected, and this is true. But most serious scientists also allow that global warming is only part of the explanation.
Another part is that the so-called Arctic oscillation of wind patterns over the Arctic Ocean is now in a state that it does not allow build-up of old ice, but immediately flushes most ice into the North Atlantic.

More importantly, we rarely hear that the Antarctic sea ice is not only not declining, but is above average for the past year. IPCC models would expect declining sea ice in both hemispheres but, whereas the Arctic is doing worse than expected, Antarctica is doing better.

Ironically, the Associated Press, along with many other news outlets, told us in 2007 that the "Arctic is screaming," and that the Northwest Passage was open "for the first time in recorded history." Yet the BBC reported in 2000 that the fabled Northwest Passage was already without ice.

We are constantly inundated with stories of how sea levels will rise, and how one study after another finds that it will be much worse than what the IPCC predicts. But most models find results within the IPCC range of a sea-level increase of 18-59cm (7-23in) this century. This is of course why the thousands of IPCC scientists projected that range. Yet studies claiming one metre or more obviously make for better headlines.

Since 1992, we have had satellites measuring the rise in global sea levels, and they have shown a stable increase of 3.2mm per year (1/8 of an inch) – spot on compared to the IPCC projection. Moreover, over the last two years, sea levels have not increased at all – actually, they show a slight drop. Should we not be told that this is much better than expected?

Hurricanes were the stock image of Al Gore's famous film on climate change, and certainly the United States was battered in 2004 and 2005, leading to wild claims of ever stronger and costlier storms in the future. But in the two years since, the costs have been well below average, virtually disappearing in 2006. That is definitely better than expected.

Gore quoted MIT hurricane researcher Kerry Emmanuel to support an alleged scientific consensus that global warming is making hurricanes much more damaging. But Emmanuel has now published a new study showing that even in a dramatically warming world, hurricane frequency and intensity may not substantially rise during the next two centuries. That conclusion did not get much exposure in the media.

Of course, not all things are less bad than we thought. But one-sided exaggeration is not the way forward. We urgently need balance if we are to make sensible choices.

Copyright: Project Syndicate, 2008.
www.project-syndicate.org

*****

Apocalypse Now, via Diorama

http://www.nytimes.com/2008/10/17/arts/design/17clim.html?pagewanted=2&_r=2&ei=5070&emc=eta1

October 17, 2008
Exhibition Review | 'Climate Change'
By EDWARD ROTHSSTEIN

Water, 16 feet of it, smothers the southern tip of Manhattan, covering the landfill of Battery Park City. Tropic coral reefs are stripped of life, their rocks pocked with contusions. Polar bears
rummage in junk heaps seeking food amid construction debris. Glaciers split into ice chips, floods ravage coastlines, droughts parch the Earth and forest fires rage untamable.

If the End of Days were going to be portrayed in a museum exhibition, it might look like the array of natural disasters, both real and imagined, that can be found at “Climate Change,” which opens Saturday at the American Museum of Natural History.

There is something almost biblical about these worst-case scenarios, apocalyptically suggested even in the subtitle: “The Threat to Life and a New Energy Future.” And if the plagues promised with global warming don’t include an onslaught of frogs, there is more than enough to worry about: the exhibition predicts proliferation of malaria and desperate foraging of wildlife.

All this is because of something that can’t be seen or smelled or touched, a gas plentifully found in the natural world: carbon dioxide. Produced in abundance by an industrial urban world that depends on the burning of coal and oil, this gas has so increased its atmospheric presence and has so clear a “greenhouse effect” — preventing heat from escaping the Earth — that, the show argues, the sun’s energy is already raising the planet’s temperature (about 1.4 degrees Fahrenheit in the last century), with doleful consequences to follow.

This exhibition, organized by Edmond A. Mathez, curator in the earth and planetary sciences department at the museum, together with Michael Oppenheimer, a geoscientist at Princeton University who has been active in international efforts to control global warming, is grim and unremitting, but not without hope. Its final gallery is full of alternative energy and conservation proposals, and younger visitors will find some amusement as they try to cut down their carbon footprints with interactive displays.

The show’s focus, however, is on how dire a state of crisis we are in. Emerging from this ambitious and, at times, overwrought show, you almost expect to see a new set of dioramas and fossilized skeletons showing how Homo sapiens once dwelt on this planet in arrogant mastery before the species burned its way to oblivion. This vision of global warming — already globally familiar — will also globe-trot to St. Louis, Cleveland and Chicago, as well as Denmark, the United Arab Emirates, Spain, South Korea and Mexico.

There are real issues to be considered here — questions about probabilities, alternative technologies, industrial evolution, relationships between developed and undeveloped nations — but they are never really explored. The main impression, instead, is of an almost religious urgency. "Repent!" these displays seem to call out, “Repent! Before it’s too late!” And perhaps the religious overtones are no accident. Recently the physicist Freeman Dyson wrote in The New York Review of Books that environmentalism has become a “worldwide secular religion” in which the “path of righteousness is to live as frugally as possible.”

Only here the urgency is not otherworldly. The glimpses of what could happen or what might happen or what “many experts” or “most experts” think will happen — as the exhibition puts it again and again — are meant to be spurs to immediate action. “Climate has changed throughout Earth’s long history,” but this time is different, the exhibition says, because “for the first time, humans are causing it.” A worldwide effort is required, “and it needs to start now.”

So running through the show is a thread mixing urgency and blame. That same combination is what gives the issue of global warming so political an edge right now: the urgency is directed toward particular policies and the blame toward particular parties. The politicization makes it all the more difficult to talk about global warming; a lot of money — perhaps hundreds of billions of dollars across the globe — is also at stake in the changes being sought. And while there is a scientific consensus about global warming, there is also a significant minority of skeptics about one portion or another of the theory, and the issues are notoriously complex. Mr. Dyson said the
minority of scientific skeptics and the majority of scientific believers now engage in a passionate “dialogue of the deaf,” in which very little debate or convincing goes on.

It would have been helpful had the exhibition taken such disagreements and passions into account and made its case less sensational. Though its sweep is an order of magnitude more sober than Al Gore was in the film “An Inconvenient Truth,” the exhibition’s insistence inspires wariness. That begins even in the opening gallery where a red neon line stretches across two walls showing the increase of the “heat-trapping gas carbon dioxide” in the atmosphere over the last 400 years. The graph provides a powerful image of a rising line overlaying images of technological change and heading steeply upward after 1950.

But the graph is set up so the line begins at a level below a child’s knees and ends when it is far over an adult’s head. The numbers tell us that the increase over 400 years was about 40 percent; the image makes it seem as if the increase was perhaps 600 percent. One gets a similar sensation from a table showing month-by-month warming in recent years, when compared to average monthly temperatures between 1951 and 1980. That interval seems arbitrary and includes periods of falling temperatures (which help make the contrast greater). Yet when illustrating that “temperature and CO2 march in lockstep,” the show chooses intervals of centuries instead. Why not make the case with more consistency instead of seeking greatest effect? That would also require some explanation of seeming anomalies, for example, the way the monthly table shows increases in temperatures between 1900 and 1940, followed by decreases until the late 1970s — facts that don’t seem in lockstep with the graph of carbon dioxide concentrations.

And why show a model of Lower Manhattan with the stark consequences of a five-meter rise in ocean level? That would happen, we are told, if there were a complete “polar ice-sheet meltdown,” something that “experts consider unlikely to happen anytime soon.” The model “doesn’t predict the future,” the text acknowledges, but “it does illustrate one possible outcome,” though perhaps “thousands of years in the future.” In other words this is something so unlikely that it is unconnected to either immediate threat or practical concern. The image is used to stir advocacy.

Such tendencies are troubling. One of the controversies about global warming, after all, recently raised by Bjorn Lomborg in his “Skeptical Environmentalist’s Guide to Global Warming,” called “Cool It,” is that policies adopted to deal with climate change must be weighed according to their costs. Some measures may be extremely expensive yet almost inconsequential. But how can a policy be assessed if its alternative is presented as apocalypse?

Apocalypse is too easy a prediction when there is so much still uncertain; no one has succeeded in completely modeling climate’s past, let alone its future. “Many experts think,” we are told, that warmer ocean waters will make hurricanes more powerful. But “it is difficult to predict how much more intense hurricanes could become.” That makes it seem as if this is some rough guess, when the claims being made for climate change are in the precision of the observations and conclusions. And are the “many experts” even correct about hurricanes? The scientist (and global-warming skeptic) Roy W. Spencer has pointed out that experts at the National Hurricane Center have been warning for decades that there had been a lull in hurricane activity and that a natural 30-to-40-year cycle would bring on a resurgence, something having no connection at all to global warming.

Some dangers and data are beyond question, but some seem not to be, given the hedging and uses of “likely” often invoked here. Yes, there is reason for concern and conservation. But what we need from a museum is not proselytizing but a more reflective analysis. An interactive display shows how carbon dioxide emissions can be decreased by altering habits, for example, but what impact will that actually have on changes in global temperature? And if there are counterarguments to be made about aspects of global warming, why can’t they be addressed here? Take a look at the two sides of the Web site climatedebatedaily.com to see how much disagreement there can be.
This exhibition, in other words, made me feel like an agnostic attending church and listening to sermons about damnation. It may all be true — some of it assuredly is — but from a museum, particularly one devoted to natural science, it is reasonable to seek more revelation.

“Climate Change: The Threat to Life and a New Energy Future,” opens Saturday and continues through Aug. 16 at the American Museum of Natural History, Central Park West and 79th Street, (212) 769-5100, amnh.org.

*****

Arctic sea ice now 28.7% higher than this date last year - still rallying

http://wattsupwiththat.com/2008/10/15/arctic-sea-ice-now-287-higher-than-this-date-last-year-still-climbing/

15 10 2008

10/14/2008 7,064,219 square kilometers

10/14/2007 5,487,656 square kilometers

A difference of: 1,576,563 square kilometers, now in fairness, 2008 was a leap year, so to avoid that criticism, the value of 6,857,188 square kilometers can be used which is the 10/13/08 value, for a difference of 1,369,532 sq km. Still not too shabby at 24.9 %. The one day gain between 10/13/08 and 10/14/08 of 3.8% is also quite impressive.

You can download the source data in an Excel file at the IARC-JAXA website, which plots satellite derived sea-ice extent:

Watch the red line as it progresses. So far we are back to above 2005 levels, and 28.7% (or 24.9% depending on how you want to look at it) ahead of last year at this time. That’s quite a jump,
basically a 3x gain, since the minimum of 9% over 2007 set on September 16th. Read about that [here](http://www.icc.org/arcticseaicenews/2008/050508.html).

Go nature!

There is no mention of this on the National Snow and Ice Data Center sea ice news webpage, which has been trumpeting every loss and low for the past two years...not a peep. You’d think this would be big news. Perhaps the embarrassment of not having an ice free north pole in 2008, which was sparked by press comments made by Dr. Mark Serreze there and speculation on their own website, has made them unresponsive in this case.

From May 5th, 2008:

“*Taken together, an assessment of the available evidence, detailed below, points to another extreme September sea ice minimum. Could the North Pole be ice free this melt season? Given that this region is currently covered with first-year ice, that seems quite possible.*”

See the original story here: http://nsidc.org/arcticseaicenews/2008/050508.html

What I like about the [IARC-JAXA website](http://www.icc.org/) is that they simply report the data, they don’t try to interpret it, editorialize it, or make press releases on it. They just present the data. Here is their top-down pole view:
Roy Spencer interview


New York Times best selling author Dr. Roy Spencer was in the nation’s capital last week to talk about his book Climate Confusion. Read highlights from the book here. Spencer spared a few minutes out of his schedule to talk with The Chilling Effect about the book and the current state of the debate:

TCE: Let’s start off with a very simple question: is the earth getting warmer?

Spencer: The way I phrase it is this: the Earth’s average temperature has not warmed in about 7 years. So, we are all now waiting to see if the warming returns.

TCE: Your position on global warming is in pretty stark contrast to your NASA colleague James Hansen and you talk about him throughout the book. How do your views differ?

Spencer: The major difference between us comes down to one issue: climate sensitivity. Hansen appears to believe that the climate system is very fragile...what we call high climate sensitivity. He bases this mostly on what he thinks happened on the Earth hundreds of thousands, or even millions of years ago.

But I prefer to go by what we know the climate system is telling us TODAY, from NASA’s Earth-observation satellites, rather than what we think might have happened in the distant past. And we have recently found, from five years of our newest measurements, evidence of a very IN-sensitive climate system...less sensitive, in fact, than any of the IPCC climate models show in any five year period in their global warming simulations. This work has been submitted for possible publication in Geophysical Research Letters, and it could have a huge impact on the modeling community.

If the climate system is as insensitive as the satellite data suggest, then manmade global warming is mostly a false alarm. But it also means that the warming we've seen in the last 100 years must be mostly natural, not manmade, most likely part of a natural cycle.

TCE: Is it because of these natural cycles that we're seeing reports of record cold temps in parts of California, Oregon and other states and why glaciers are growing in Alaska?

Spencer: Well, I think that is indeed possible. And our latest research supports what some meteorologists have been saying for a long time...that the Pacific Decadal Oscillation (PDO) might actually be the main culprit in climate change. We have recently used a simple climate model to show how the PDO can, by itself, reproduce most of the temperature behavior over the last century, including two-thirds of the warming, simply through the PDO's modulation of global average cloudiness. And why do I think the PDO affects global cloudiness? Because we have the satellite observations to prove it.
The recent cooling we have seen might be evidence that we have entered into a new, negative phase of the PDO. If so, we could be in for 30 more years of no warming, or even some cooling, a gradual return of more extensive sea ice in the Arctic, and glaciers that start growing again.

TCE: Your book ‘Climate Confusion’ made the New York Times bestseller list several months ago. Do you think your message is getting through?

Spencer: Yes, I do. I find that many of our citizens – possibly a majority — are quite distrustful of the claim that global warming is mostly the fault of mankind. And our latest work supports their gut instinct. But despite two published papers we have out there supporting our view that the IPCC has overestimated climate sensitivity, the public is largely unaware of our work because the mainstream media refuses to report on anything that contradicts Al Gore, James Hansen, and the IPCC. So, instead, I now have to take my message directly to the people. I’m giving more lectures, as many as 3 per week, including to 10 different colleges and universities this fall.

TCE: How’s the response?

Spencer: It’s been very good so far. Most students are interested to hear that there are a few scientists out there who don’t believe in a man-made global warming Armageddon. I do get the occasional emotional and irrational folks who don’t seem to want to hear any good news, but for the most part everyone seems eager to hear another point of view. Those who disagree seem to be immune to evidence...their faith in Gore’s and Hansen’s new religion blinds them to everything else. Their desire to substantially reduce our carbon dioxide emissions has ignored that fact that, until some new energy technology is developed, we are stuck with fossil fuels as our primary energy source...probably for decades. Yet I still get questions like, “But we can’t continue to pump CO2 into the atmosphere forever, can we?” Well obviously, no, and we won’t. But the new technology we need to reduce CO2 emissions by, say, 50% does not exist, and cannot be simply legislated into existence.

TCE: Speaking of curbing CO2, we’ve been guilted into thinking that we need to sacrifice many of the advancements and indulgences that currently enjoy. But you’ve got a chapter in your book about the benefits that fossil fuels have brought to humanity.

Spencer: Yes, that’s right. Man-made global warming isn’t what threatens the world’s poor—it’s the stupid ideas people have for supposedly ‘fixing’ the global warming problem that threatens them. It’s no accident that worries over global warming are almost entirely restricted to the world’s wealthy, those who have the extra time to invent things to worry about. Meanwhile, it is indisputable that disease, starvation, infant mortality, and a host of other human ills have been greatly alleviated through access to abundant and affordable energy. Affluence also leads to lower population growth, something you would think the Greens would be in favor of. It is also indisputable that environmental restrictions have killed millions of people...mainly children...through international pressure to not use safe and effective pesticides...
that America and Europe used many years ago to essentially eradicate malaria. Are these the people we should now be listening to on the subject of global warming and what to do about it?

TCE: Both presidential candidates have bought in to the idea that climate change poses a serious planetary threat and both have advocated aggressive political action that will have high associated costs. If you could select one item of scientific evidence to present to the candidates that you think best disproves the global warming hype what would it be?

Spencer: I would show them the huge disconnect between the models, which are highly sensitive and produce a lot of warming, and the actual observations published by a number of researchers over the years, which strongly suggest that these climate models are seriously in error.

Sadly the presidential candidates are relying far too much on the reports by the IPCC, a body which has used sloppy science to further specific political and policy goals. It also unfortunate that several professional societies in the U.S. have made political statements in support of the IPCC.

I find it astounding that the IPCC has ignored the potential role of natural climate variability in global warming. In any other realm of science we are careful to look for alternative explanations for some phenomenon…but today, mankind is the only allowable reason for climate change.

I predict that the IPCC experience will end up being the worst case of scientific malpractice in history. Not that the scientists are at fault, I think they have just been led around by some politically savvy, almost charismatic, leaders.

If the new President and Congress are not careful, the resulting ‘sub-prime science meltdown’ we are headed for will have caused carbon dioxide regulations which will make the current financial crisis seen puny in comparison.

TCE: Dr. Spencer, thanks so much for your time. Good luck on the rest of your tour and your efforts!

*****
Thirty years of warmer temperatures go poof


by Lorne Gunter:

In early September, I began noticing a string of news stories about scientists rejecting the orthodoxy on global warming. Actually, it was more like a string of guest columns and long letters to the editor since it is hard for skeptical scientists to get published in the cabal of climate journals now controlled by the Great Sanhedrin of the environmental movement.

Still, the number of climate change skeptics is growing rapidly. Because a funny thing is happening to global temperatures -- they're going down, not up.

On the same day (Sept. 5) that areas of southern Brazil were recording one of their latest winter snowfalls ever and entering what turned out to be their coldest September in a century, Brazilian meteorologist Eugenio Hackbart explained that extreme cold or snowfall events in his country have always been tied to "a negative PDO" or Pacific Decadal Oscillation. Positive PDos -- El Ninos -- produce above-average temperatures in South America while negative ones -- La Ninas -- produce below average ones.

Dr. Hackbart also pointed out that periods of solar inactivity known as "solar minimums" magnify cold spells on his continent. So, given that August was the first month since 1913 in which no sunspot activity was recorded -- none -- and during which solar winds were at a 50-year low, he was not surprised that Brazilians were suffering (for them) a brutal cold snap. "This is no coincidence," he said as he scoffed at the notion that manmade carbon emissions had more impact than the sun and oceans on global climate.

Also in September, American Craig Loehle, a scientist who conducts computer modelling on global climate change, confirmed his earlier findings that the so-called Medieval Warm Period (MWP) of about 1,000 years ago did in fact exist and was even warmer than 20th-century temperatures.

Prior to the past decade of climate hysteria and Kyoto hype, the MWP was a given in the scientific community. Several hundred studies of tree rings, lake and ocean floor sediment, ice cores and early written records of weather -- even harvest totals and censuses --confirmed that the period from 800 AD to 1300 AD was unusually warm, particularly in Northern Europe.

But in order to prove the climate scaremongers' claim that 20th-century warming had been dangerous and unprecedented -- a result of human, not natural factors -- the MWP had to be made to disappear. So studies such as Michael Mann's "hockey stick," in which there is no MWP and global temperatures rise gradually until they jump up in the industrial age, have been adopted by the UN as proof that recent climate change necessitates a reordering of human economies and societies.

Dr. Loehle's work helps end this deception.

Don Easterbrook, a geologist at Western Washington University, says, "It's practically a slam dunk that we are in for about 30 years of global cooling," as the sun enters a particularly inactive
phase. His examination of warming and cooling trends over the past four centuries shows an "almost exact correlation" between climate fluctuations and solar energy received on Earth, while showing almost "no correlation at all with CO2."

An analytical chemist who works in spectroscopy and atmospheric sensing, Michael J. Myers of Hilton Head, S. C., declared, "Man-made global warming is junk science," explaining that worldwide manmade CO2 emission each year "equals about 0.0168% of the atmosphere's CO2 concentration ... This results in a 0.00064% increase in the absorption of the sun's radiation. This is an insignificantly small number."

Other international scientists have called the manmade warming theory a "hoax," a "fraud" and simply "not credible."

While not stooping to such name-calling, weather-satellite scientists David Douglass of the University of Rochester and John Christy of the University of Alabama at Huntsville nonetheless dealt the True Believers a devastating blow last month.

For nearly 30 years, Professor Christy has been in charge of NASA's eight weather satellites that take more than 300,000 temperature readings daily around the globe. In a paper co-written with Dr. Douglass, he concludes that while manmade emissions may be having a slight impact, "variations in global temperatures since 1978 ... cannot be attributed to carbon dioxide."

Moreover, while the chart below was not produced by Douglass and Christy, it was produced using their data and it clearly shows that in the past four years -- the period corresponding to reduced solar activity -- all of the rise in global temperatures since 1979 has disappeared.

It may be that more global warming doubters are surfacing because there just isn't any global warming.

lgunter@shaw.ca

National Post

**LOWER TROPOSPHERE GLOBAL TEMPERATURE: 1979-2008**

Since 2005, global temperatures have given back most of the warming that had occurred since 1980.