

Failure evidence for all 21 IPCC positive-feedback climate models

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ABSTRACT

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NASA incorrectly claims that any cosmic radiation increases deliver energy directly and cause temperature rises. Because this does not happen (the opposite occurs, see Fig. 5), NASA claims that cosmic radiation does not have any effect on climate. However, increases in cosmic radiation increase high altitude cloud cover by the “Wilson cloud chamber” effect (well proved in nuclear physics), and so have a cooling effect on the earth’s climate by increasing Earth’s albedo. This mechanism is justified by a correlation between temperature and the inverse of the cosmic ray intensity (Fig. 5). The only reason why significant CO2 related temperature rises are predicted by all 21 IPCC climate models is that they all contain the same error: assuming that water vapour absorbs sunlight to amplify the CO2 injection by positive feedback, *ignoring the fact that it would gain buoyancy, rise and condense into cloud cover*. It is easy to prove that any net positive feedback by water vapour (which all IPCC positive feedback climate models assume) would have boiled the oceans off long ago and would have prevented human life from evolving. Since H2O vapour is a greenhouse gas 26 times more powerful in the atmosphere than CO2, it follows that the atmosphere did not need to wait for human CO2 emissions before H2O kicked in. Water positive feedback would have kicked in and endlessly accelerated of its own accord millions of years ago, if it were positive. Whenever the rate of increase of a variable is proportional to that variable, you get self-feedback, thus an exponential rise in that variable. Positive feedback on temperature T implies the rate of rise of temperature, dT/dt , is proportional to temperature, T . Hence $dT/dt = cT$, where c is a constant. Thus: $(1/T)dT = c dt$. Integrating gives $\ln T = ct$. Making both sides powers of e (base of natural logs) then gets rid of the natural logarithm, yielding $T \sim \exp(ct)$. Thus, net positive feedback leads to an exponential temperature rise. This error in all 21 IPCC climate models is not an opinion, or speculation, but a fact of physics, robustly confirmed by evidence. The temperature, *if positive feedback were true*, would have boiled off the oceans hundreds of millions of years ago in a runaway greenhouse effect like that on Venus. *Water does not have positive feedback.*

INTRODUCTION

A January 2012 dated NASA climate change page by James Hansen, Makiko Sato, Pushker Kharecha and Karina von Schuckmann, http://www.giss.nasa.gov/research/briefs/hansen_16/ alleges: **“The measured positive imbalance in 2005-2010 is particularly important because it occurred during the deepest solar minimum in the period of accurate solar monitoring ... If the Sun were the only climate forcing or the dominant climate forcing, then the planet would gain energy during the solar maxima, but lose energy during solar minima. ... it provides unequivocal refutation of assertions that the Sun is the dominant climate forcing.”**

This claim that a solar influence on climate predicts that the Earth would “gain energy during the solar maxima” is the opposite of cosmic radiation effects on climate, which provide no significant energy to the Earth, but instead block sunlight delivery by increasing high altitude cloud cover by the Wilson cloud chamber effect (e.g. cirrus at circa 15,000 ft). The evidence supports the *opposite* conclusion: *during solar minima, the reduced cosmic rays intensity reduces cloud cover, increasing temperature!* NASA explicitly assumes that energy from the sun is the *only* mechanism by which the sun can affect climate, *ignoring the Wilson cloud chamber mechanism for cirrus cloud cover* that is proved in nuclear physics. At high altitudes, dust concentrations are insignificant, so instead the charged air ions (created by ionizing radiation, chiefly cosmic rays) form the nuclei for water vapour to condense into cloud droplets. Cosmic radiation does *not* contribute directly to earth’s energy balance by delivering energy. Instead, a rise in cosmic radiation increases cirrus cloud cover – through the Wilson cloud chamber mechanism (a well-tested key tool of early nuclear and particle physics) – which increases earth’s albedo, cooling rather than warming the Earth (see Fig. 5). The “error” claiming the opposite and dismissing radiation is a pseudoscientific assertion, causing human deaths due to diversion of funding (see <http://youtu.be/cqIYMWIWYt8>). The media obfuscates AGW, by defining *science* as *consensus*.

The logical argument we use is *reductio ad absurdum*: we disprove positive water vapour feedback by showing that – were positive feedback true – water vapour would have caused a runaway greenhouse

effect, boiling the oceans and making Earth a Venus like planet hundreds of millions of years ago, far too hot for life to evolve. The lack of any water vapour feedback, or negative feedback (which has evidence presented in the previous paper), eliminates the AGW threat because all 21 IPCC models utilize positive water vapour feedback in order to amplify carbon dioxide emission effects into dramatic predictions. Negative feedback from water vapour consists of increased cloud cover, which cools low altitudes below the clouds by reducing the direct transmission of sunlight. The Hockey Stick curve is based extensively on the analysis of proxies like tree ring growth rates and the differing rates of sublimation of water vapours with oxygen molecules of differing masses (16 and 18). The lighter water molecules with oxygen-16 are more liable to sublimation from ice or evaporation from water than the heavier molecules containing oxygen-18. The problem for both tree ring and oxygen isotopes in ice cores as “temperature proxies” is that these proxies are not functions of temperature alone, but are functions of not just air temperature but *cloud cover*. Sunlight falling on ice provides energy for sublimation, and sunlight powers tree photosynthesis. Therefore, if negative feedback from water vapour exists, it means that cloud cover increases with air temperature, which automatically invalidates both temperature proxies, so the temperature proxies are less accurate than earlier historically-based temperature reconstruction (e.g. the “warm medieval period” and the “little ice age”). When real world air temperature increases, trees do not grow as rapidly as “greenhouse” data show, *because greenhouse data fails to include the increase in average cloud cover that accompanies the increased temperature.*

“... studying climate change could be a way of satisfying my humanitarian ideals, born out of my Christian beliefs. ... Climate change also provided me with the gateway into my first professional appointment, as a lecturer in geography at the University of Salford in 1984. This was to be the stepping stone to me later securing a post-doctoral research position under the inspiring Professor Tom Wigley at the Climatic Research Unit in the School of Environmental Sciences at the University of East Anglia in Norwich, UK. ... Embedded within this analytical period was another important stage of my journey, in which I came to see climate change in terms of ‘Political Ideology’ (c. 1984-90). I came to view global climate change caused by greenhouse gas emissions as a manifestation of a free-market, consumption-drive, capitalist economy – an ideology to which I was opposed. I recollect now that this opposition was an explicit ideological frame which I used when teaching my course on contemporary climate change to final-year undergraduate geography students at the University of Salford between 1985 and 1988. This way of relating to climate change was a formative influence on (or reflection of) my political thinking during the decade of Thatcherite conservatism in the UK. I subsequently joined the British Labour Party in 1990.”

– Professor of Climate Change Mike Hulme, University of East Anglia, *Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity*, Cambridge University Press, 2009, pp. xxx- xxxi.

SCIENCE

The Cooling World

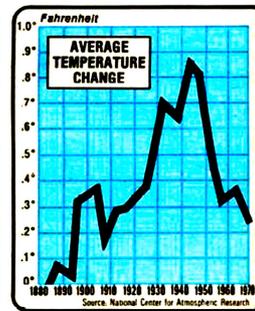
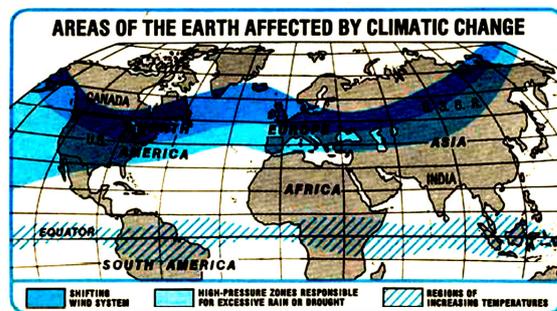
There are ominous signs that the earth's weather patterns have begun to change dramatically and that these changes may portend a drastic decline in food production—with serious political implications for just about every nation on earth. The drop in food output could begin quite soon, perhaps only ten years from now.

A survey completed last year by Dr. Murray Mitchell of the National Oceanic and Atmospheric Administration reveals a drop of half a degree in average ground temperatures in the Northern Hemisphere between 1945 and 1968. According to George Kukla of Columbia University, satellite photos indicated a sudden, large increase in Northern Hemisphere snow cover in the winter of 1971-72.

To the layman, the relatively small changes in temperature and sunshine can be highly misleading. Reid Bryson of the University of Wisconsin points out that the earth's average temperature during the great Ice Ages was only about 7 degrees lower than during its warmest eras—and that the present decline has taken the planet about a sixth of the way toward the Ice Age average. Others regard the cooling as a reversion to the “little ice age” conditions that brought bitter winters to much of Europe and northern America between 1600 and 1900—years when the Thames used to freeze so solidly that Londoners roasted oxen on the ice and when iceboats sailed the Hudson River almost as far south as New York City.

Climatologists are pessimistic that political leaders will take any positive action to compensate for the climatic change, or even to allay its effects. They concede that some of the more spectacular solutions proposed, such as melting the arctic ice cap by covering it with black soot or diverting arctic rivers, might create problems far greater than those they solve. But the scientists see few signs that government leaders anywhere are even prepared to take the simple measures of stockpiling food or introducing the variables of climatic uncertainty into economic projections of future food supplies. The longer the planners delay, the more difficult will they find it to cope with climatic change once the results become grim reality.

—PETER GWYNNE with bureau reports



Above: Peter Gwynne’s 28 April 1975 *Newsweek* article “The Cooling World” reported the falsehood that pollution was blocking sunlight (this hype was before global warming): “There are ominous signs that the earth’s weather patterns have begun to change dramatically ... The drop in food output could

begin quite soon ... A survey completed last year by N.O.A.A. reveals a drop of half a degree ... between 1945 and 1968. ... satellite photos indicated a sudden, large increase in ... snow cover in the winter of 1971-72. ... the present decline has taken the planet about a sixth of the way toward the Ice Age average. ... Climatologists are pessimistic that political leaders will take any positive action to compensate for the climate change, or even to allay its effects. ... The longer the planners delay, the more difficult will they find it to cope with climate change once the results become grim reality."

Nigel Lawson, former U.K. Chancellor of the Exchequer, in 2008 wrote a book called, *An Appeal to Reason: A Cool Look at Global Warming*, which contains a serious but widespread error on page 10:

"Far and away the most important of these gases – thought to account for at least two-thirds of the greenhouse effect – is water vapour, including water suspended in clouds."

This is obfuscating nonsense because water vapour is a strong greenhouse gas, a wide band absorber of infrared radiation, *but in the form of water droplets in clouds, water behaves in exactly the opposite way: reflecting most incoming solar radiation back into space.* When a cloud passes in front of the sun, the intensity of the warmth (infrared radiation) is diminished. Infrared radiation is predominantly a radial-line of sight effect. In order for significant re-radiation (scatter) of infrared radiation, the medium would need to heat up to an immense temperature until it is hot enough to become a Planck radiation source in its own right. The cloud bases do not become hot enough to do this. The relatively small amount of sunlight energy absorbed by clouds (rather than reflected back) just creates positive cloud buoyancy which keeps that warmed air away from earth's surface: hot air rises instead of falling.

On page 13, having conflated the positive and negative feedback mechanisms of water in the atmosphere by ignoring the most elementary facts about clouds, Lawson persists in mistaking "clouds" for "water vapour," unaware of the difference between water in the forms of gas and liquid. (Does he also believe that ice and water have precisely the same properties, because both are made of water? Does he believe that a shield and a sword are the same, because they are both made of steel?)

Lawson then quotes the IPCC 2007 report as follows: "Cloud feedbacks remain the largest source of uncertainty," and then he quotes the Hadley Center on page 14: "There are many of these feedbacks, both positive and negative, many of which we do not fully understand. This lack of understanding is the main cause of the uncertainty in climate predictions; this applies particularly to changes in clouds."

In a greenhouse, you have water vapour that amplifies the greenhouse effect from carbon dioxide (positive feedback) but you can never have any cloud cover (negative feedback). So the analogy clearly shows where the IPCC computer models are plain wrong (all 21 IPCC models *assume* positive feedback from water). On page 18, Lawson quotes Dr Phil Jones's 21 February 2005 (pre-Climategate) CRU email to an Australian researcher: "Why should I make the data available to you, when your aim is to try and find something wrong with it."

Lawson makes on page 32 points out the insignificance of the actual "sea level rises" measured in the Maldives, Tuvalu, and coral atolls, as contrasted to scare-mongering projections. Coral atolls grow upwards to offset sea level rises, while sand and soil dredged from the sea bed can be used to protect coasts from the sea, or even to expand land areas, as in Holland. On page 118, Lawson explains that successive IPCC predictions in its four reports of the sea level rise by 2100 have *fallen*; in 1990 they predicted a rise of 3.67 m, dropping to 1.24 m in 1995, 0.77 m in 2001, and 0.59 m in 2007. *The public scare-mongering over this period has been increasing, however, not falling.* The IPCC's 2001 report claimed that malaria deaths would soar due to AGW, and Lawson argues on page 32:

"In its 2001 Report, the IPCC focussed heavily on a projected increase in the incidence of malaria brought on by warming. However, malaria experts pointed out that, in fact, temperature has little bearing on the spread of the disease ... malaria was endemic in Europe until the late 17th century, even during the Little Ice Age [P. Reiter, "Malaria in England in then Little Ice Age," *Emerging Infectious Diseases*, vol. 6, no. 1, January-February 2000]..."

On page 118 of *An Appeal to Reason*, Nigel Lawson states:

"The malaria scare is among the many featured in the film, *An Inconvenient Truth*, in which Mr Gore claims that the Kenyan capital, Nairobi, was 'originally located just above the mosquito line,' but that 'now, with global warming, the mosquitoes are climbing to higher altitudes.' The really inconvenient (for Mr Gore) truth is that Nairobi was

malaria-ridden from the start. The city's first medical officer, a Dr Boedeker, recorded that it 'had always been regarded as an unhealthy locality swarming with mosquitoes' and that, in 1904, a committee of doctors 'petitioned that the entire municipality be relocated, simply because it was a spawning ground of disease. A substantial reduction in the incidence of malaria occurred during the 1950s, with the introduction of DDT ... there has been some resurgence over the past 20 years, largely due to the effective ban on DDT ...'

Questions over the effects of clouds on temperature go back to an article written in April 1975, climatologist Dr William W. Kellogg (who in the 1950s developed an early RAND Corporation fallout prediction computer code for nuclear explosions), stated in his article "Quest for long-term solutions to old problems" (Environmental Health Perspectives, v10, pp. 197-201, April 1975):

"[The] steady rise of the aerosol content over the whole U.S., at a rate of about 4% per year prior to 1968, poses some interesting questions regarding our future climate. The effect of adding more smog and smoke particles over land is to lower the albedo, thereby raising the temperature. (Over the darker ocean these aerosols probably work in the opposite direction and cause a small cooling. ... We are still not sure what that effect will be, in spite of some rather confident statements by some of our colleagues that have received a lot of publicity lately who claim low level aerosols as a cooling agent. Theoretically, this is very questionable."

In order to get excellent levels of research funding, you have to have to produce politically correct "science," which doesn't involve honest caveats, which is why "big science" turns into a dogmatic religion. AGW is a NASA goupthink failure, just like the 1986 Challenger prediction that the rubber O-rings would fail (<http://nige.wordpress.com/2011/02/15/holocaust-denial-and-ex-vice-president-al-gore>) or Dr Bindshafter's NASA deception on the 2011 BBC2 programme "Horizon: Science Under Attack" that humans emit 86% of the annual CO2, or 7 times more than nature, contrary to the 2007 IPCC report which states only 3.6% of the CO2 output is related to human beings and the rest is natural (see <http://vixra.org/abs/1211.0156> for the inaccurate response of BBC Horizon producer Emma Jay).

The satellite temperature data biased against recording the effect of negative feedback under cloud cover. Satellites measure the reflection and Planck emission from the warmed upper cloud surfaces, while satellite measurements of microwave emissions from air molecules only gives the mean temperature of the troposphere and doesn't properly distinguish between air above and air below cloud cover. Thus, the satellite data is prejudiced implicitly to produce the results which *exclude negative feedback from shadowing by cloud cover*. Satellites can't even assess surface temperatures under cloud cover: they simply measure the temperature at the top of the clouds from the radiation intensity and spectrum. Therefore, the satellite data are not unbiased for assessing the temperature below the cloud. This is something that isn't even included by people like Dr Roy Spencer, who relies on satellite data.

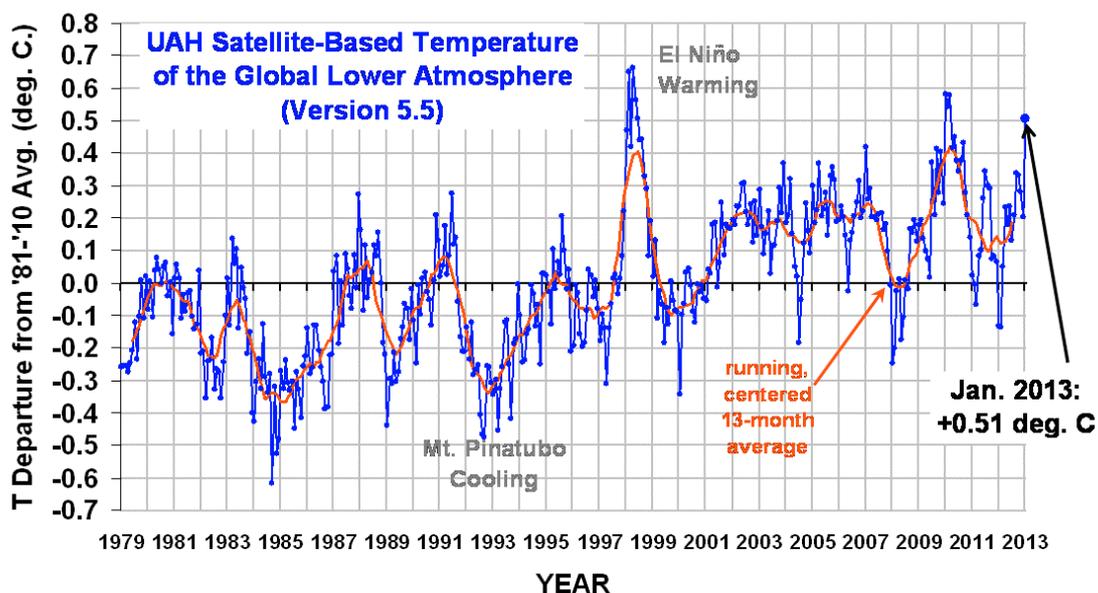


Fig. 1: UAH satellite-based temperature of the global lower atmosphere (from Dr Roy Spencer, <http://www.drroyspencer.com/2013/02/uah-global-temperature-update-for-january-2012-0-51-deg-c/>). The error is in the satellite data: it averages the global lower atmosphere, conflating (joining together) the temperature data from warming air above cloud cover, with the cooling air below clouds. Because

of the law of convection (hot air rises), it is the *only* the air below the clouds which ends up causing effects we experience like rising sea levels, or melting ice. Satellites can only probe temperatures *below* cloud tops by measuring the emission of *microwave radiation by air molecules*, and this *doesn't distinguish the altitude of the air emitting the microwaves*. Almost *all* of the effects from negative feedback caused by cloud cover increases are therefore *implicitly excluded* by these defective “data.”

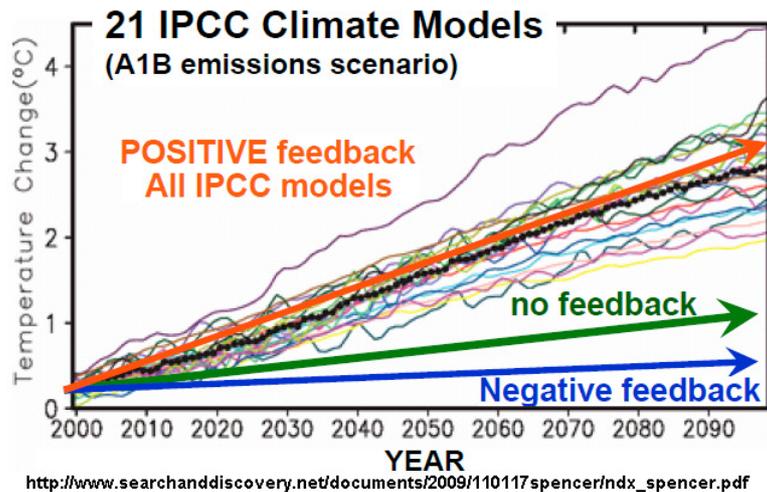


Fig. 2: negative H₂O feedback negates dire climate change predictions, from Dr Roy W. Spencer's presentation: *Satellite Evidence against Global Warming Being Caused by Increasing CO₂*, AAPG Annual Convention, Denver, Colorado, June 7-10, 2009 (http://www.searchanddiscovery.net/documents/2009/110117spencer/ndx_spencer.pdf), based on his peer-reviewed publication, Roy Spencer, et al., “Cloud and Radiation Budget Changes Associated with Tropical Intraseasonal Oscillations,” *Geophysical Research Letters*, vol. 34, 2007.

http://www.friendsofscience.org/assets/documents/E&E_21_4_2010_08-miskolczi.pdf

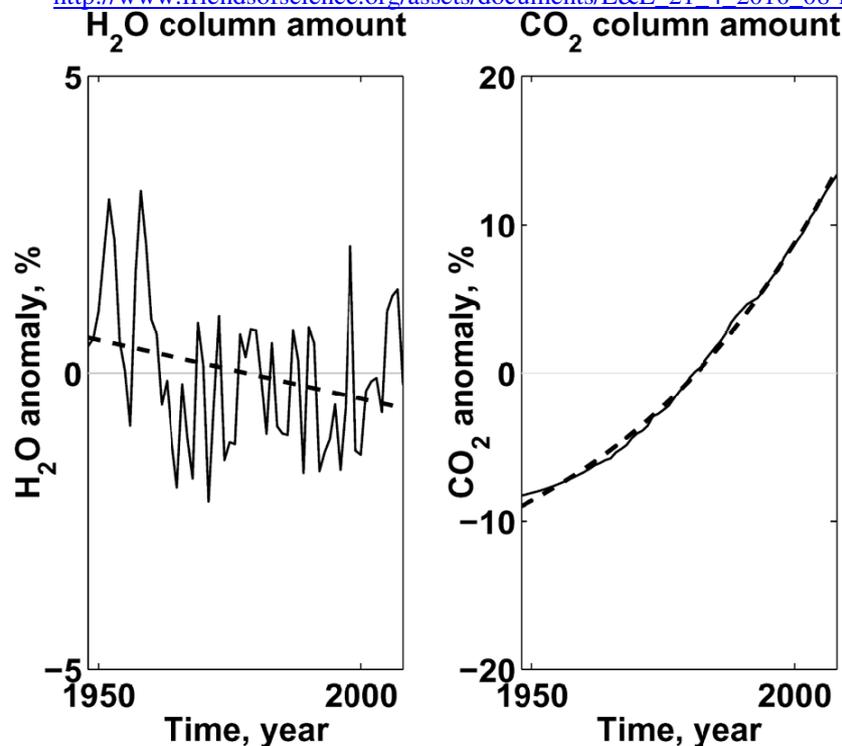
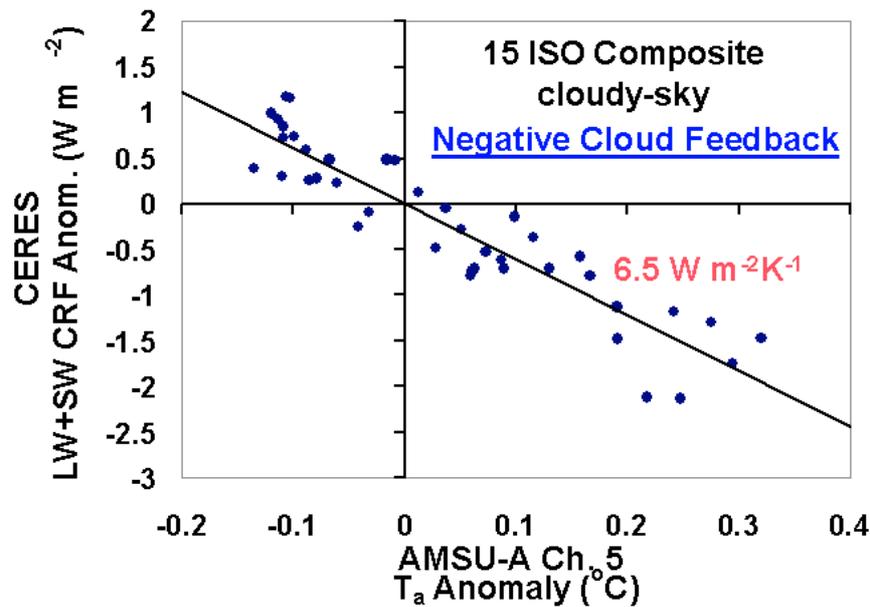


Fig. 3: this graph shows that since 1948 the 1% measured decrease in H₂O vapour (i.e. the “negative feedback” conversion of vapour into cloud droplets which reflect sunlight away from Earth), cancels out the 26% rise in CO₂ because CO₂ as a greenhouse gas is 26 times weaker than H₂O. Instead of H₂O vapour increasing and absorbing more infrared as IPCC positive feedback models predict, it has

instead has cancelled out the greenhouse effect from the rise in CO₂. It is because H₂O vapour is a greenhouse gas about 26 times as powerful as CO₂. This graph is taken from Fig. 9 in Dr Ferenc Miskolczi's peer-reviewed published paper, "The stable stationary value of the earth's global average atmospheric Planck-weighted greenhouse-gas optical thickness," *Energy and Environment*, vol. 21, No. 4, 2010. The ratio of H₂O to CO₂ vapour greenhouse gas strength is from James Delingpole, *Watermelons* (2012 edition), page 48. (Water vapour gives 95% of the greenhouse effect, CO₂ gives 3.62%.) This evidence that the fall in water vapour since 1948 cancels out the increase in CO₂ leaves cosmic rays to vary temperature via the temperature (by the proved nuclear physics tool, the "Wilson cloud chamber" of high altitude cirrus.)

It's the *combination* of the mechanistic need for negative feedback with these facts and data that make the case, not any *single* piece of data. Singling out a particular paper and attacking it, while ignoring the mechanism and other evidence is pseudoscientific. You have to see the big picture. Note that negative feedback loops are not special in regulating Earth's climate but are used in nature all the time, and is generally called "homeostasis." *Homeostasis* is achieved by *negative feedback* mechanisms. E.g., the human body uses a negative feedback loop to regulate parathyroid hormone, which control the level of calcium in the blood. If calcium levels get too high in the blood, the kidneys excrete calcium. If they get too low, parathyroid hormone is released which releases calcium from bone to bloodstream, normalizing the blood calcium level. The scam of the IPCC is to totally omit negative feedback loops in order to fiddle a dramatic false prediction; precisely the same con trick in the computer models of the Club of Rome's "Limits to Growth" propaganda report in the 1970s. They claimed to include negative feedback, but deceived readers and simply omitted the major negative feedback loops (see <http://vixra.org/abs/1211.0156> page 32 for further details).

CERES-Measured Changes In [emitted LW+reflected SW] During the Composite Intraseasonal Oscillation (ISO)



6.5 W m⁻² SW+LW loss per deg. C warming
is MORE than the temperature effect alone (**3.3 W m⁻²**),
so negative feedback

Fig. 4: peer-reviewed published evidence of negative feedback due to cloud cover, a composite analysis of the 15 strongest tropical intraseasonal oscillations from 2000-2005 in tropospheric temperature using weather satellites NOAA-15 and NOAA-16, showing strong evidence that as the air heats up, H₂O has a *negative cloud cover feedback* not the positive feedback assumed in computer models of climate disaster from CO₂. (Source: Fig. 4 in R. W. Spencer, et al., "Cloud and Radiation Budget Changes Associated with Tropical Intraseasonal Oscillations," *Geophysical Research Letters*, vol. 34, 2007.)

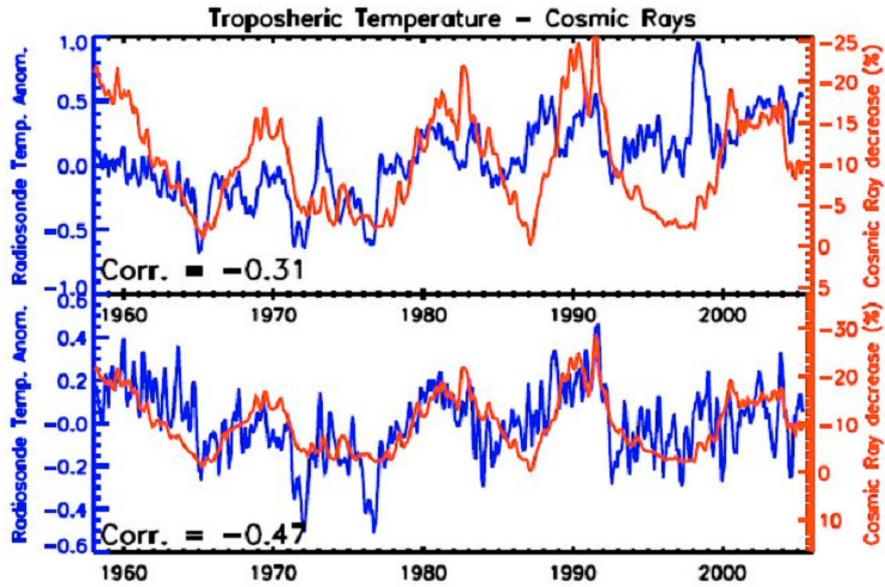


Fig. 5: Henrik Svensmark and Eigil Friis-Christensen's plot of cosmic ray intensity is in red and upside down, so that 1991 was a minimum, not a maximum. Fewer cosmic rays mean a warmer world, and the cosmic rays vary with the solar cycle. The blue curve shows the global mean temperature of the mid-troposphere as measured with balloons and collated by the UK Met Office (HadAT2). The lower the cosmic ray intensity, the greater the temperature. This is precisely what the Wilson cloud chamber mechanism predicts for cloud cover such as cirrus (around 15,000 feet). Cosmic rays boost Wilson cloud cover, increasing Earth's albedo, cooling the planet. Cosmic rays thus have an effect on temperature. (Source: Nigel Calder, via <http://vixra.org/pdf/1211.0142v1.pdf>.)

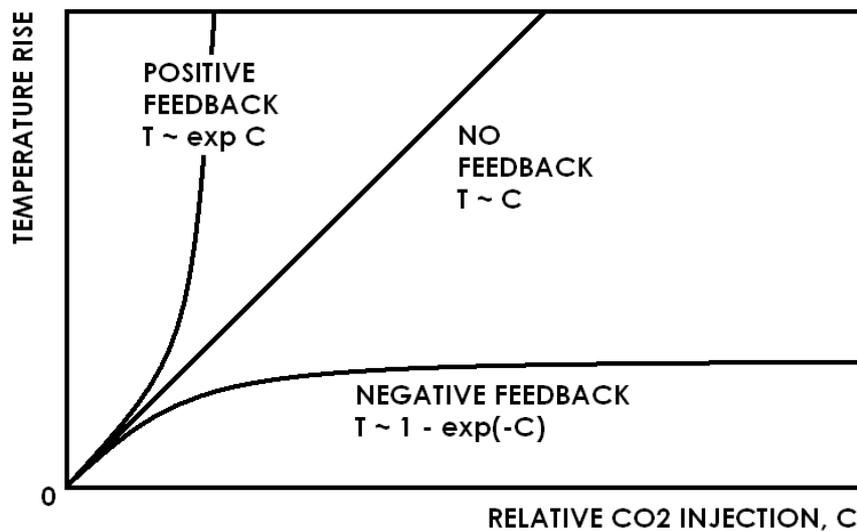


Fig. 6: comparison between effects of positive feedback, no feedback, and negative feedback. Positive feedback causes exponential growth, no feedback may result in an approximately linear response curve, while negative feedback gives a saturation curve where cloud cover starts to increase rapidly as it gets warmed, fogging up the atmosphere and thus keeping the surface from getting too hot. If H2O positive feedback were correct, Earth would have been in a runaway greenhouse effect like Venus for millions of years, with temperatures high enough to boil the oceans and kill all life. Clearly, this is false, which discredits the assumption in every single IPCC model that positive feedback from H2O is correct! (Note that for very small injections of CO2, all three curves approximate to the linear response law.)

It is easy to prove that any net positive feedback by water vapour (which all IPCC positive feedback climate models assume) would have boiled the oceans off long ago and would have prevented human life from evolving. Since H2O vapour is a greenhouse gas 26 times more powerful in the atmosphere than CO2, it follows that the atmosphere did not need to wait for human CO2 emissions before H2O

kicked in. It would have kicked in of its own accord millions of years ago. Whenever the rate of increase of a variable is proportional to that variable, you have an exponential rise in that variable. Positive feedback on temperature T implies the rate of rise of temperature, dT/dt , is proportional to temperature, T . Hence $dT/dt = cT$, where c is a constant. Thus: $(1/T)dT = c dt$. Integrating gives $\ln T = ct$. Making both sides powers of e (base of natural logs) then gets rid of the natural logarithm, yielding the solution: $T \sim \exp(ct)$. Thus, net positive feedback leads to an exponential temperature rise. The temperature, if positive feedback were true, would have boiled off the oceans millions of years ago in a runaway greenhouse effect like that on Venus.

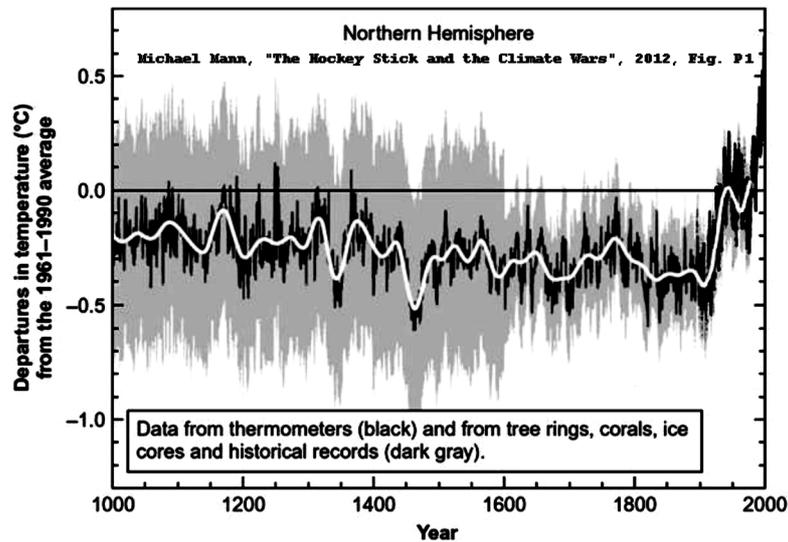


Fig. 7: Dr Michael Mann’s famous IPCC “Hockey Stick Curve” that allegedly proved AGW, by plotting all temperature data on a graph. (Michael Mann, *The Hockey Stick and the Climate Wars*, 2012, Fig. P1.) As we have explained, the temperature deduced from oxygen-16 to oxygen-18 abundances (evaporation rate changes in water, sublimation in ice) are sensitive to infrared energy from sunlight and therefore to *cloud cover* (negative feedback), which the IPCC specifically exclude from their analysis, and likewise tree ring growth rates depend on sunlight and thus *cloud cover* (negative feedback), which the IPCC specifically exclude from their analysis. Since cloud cover increases when the air temperature rises (water rises to become clouds), this negative feedback suppresses the amount of tree ring growth or oxygen-16 evaporation/sublimation that results from a given temperature rise. Consequently, temperature changes deduced from tree ring, coral and ice core data are underestimates. The whole of the hockey stick curve (based on these proxies) underestimates the true temperature fluctuations, proving why the Hockey Stick “average” temperature is so flat prior to about 1900.

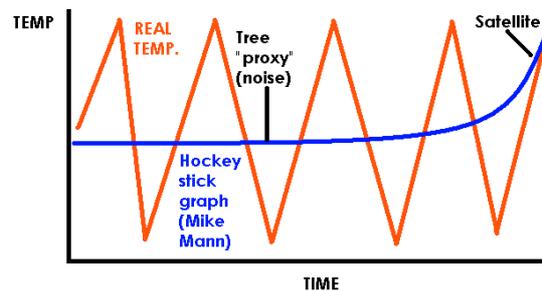


Fig. 8: the tree ring proxy and the oxygen-16/-18 evaporation proxy analyses suppress temperature fluctuations because they ignore the reduced tree ring growth or evaporation that occurs when increasing cloud cover (negative feedback from water) blocks out sunlight. So real temperature variations are greater than the proxies, disproving the Hockey Stick (<http://vixra.org/abs/1211.0156>).