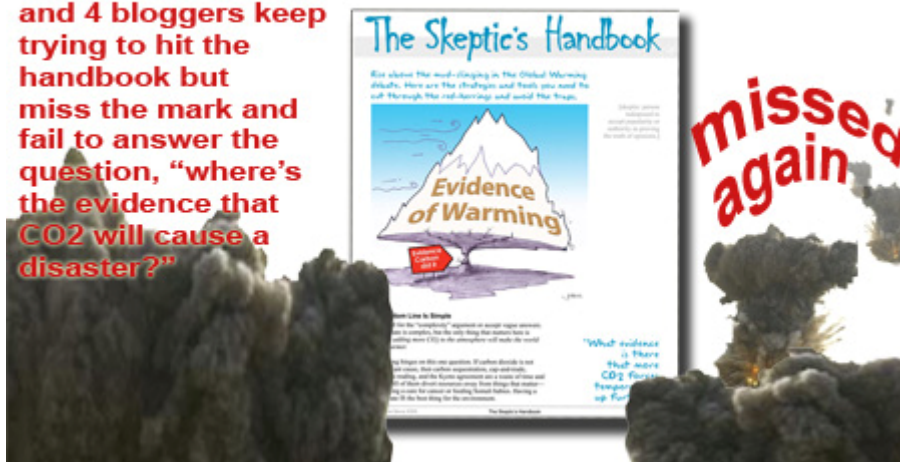


# THE UNSKEPTICAL GUIDE TO THE SKEPTICS HANDBOOK

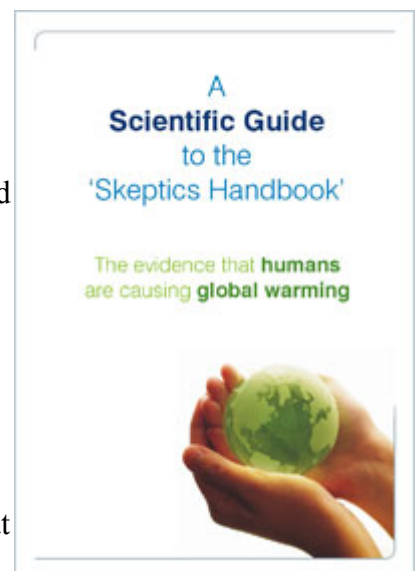
4 profs, 3 almost-profs  
and 4 bloggers keep  
trying to hit the  
handbook but  
miss the mark and  
fail to answer the  
question, “where’s  
the evidence that  
CO2 will cause a  
disaster?”



It’s taken 21 months, four professors, and three associate/assistant professors, and THIS is the best they could come up with? The printed version listed no author (the pdf has been updated with John Cooks name\*) yet wears the logo of the University of Western Australia (UWA), which will embarrass that university as word spreads of the intellectual weakness of their “[Guide](#)”.

Did UWA commission this piece of rather inept, qualitative “feel-good” science and clumsy reasoning? [Stephan Lewandowsky](#) invited John Cook to speak at UWA and “[offer assistance](#)”.

The booklet uses a mislabeled graph with a deceptive scale, won’t show the damning graphs it supposedly debunks, *assumes* positive feedback occurs despite the weight of empirical evidence against it (Douglass, Spencer, Lindzen), and repeats irrelevant information even though *The Skeptics Handbook* describes why rising sea levels and glaciers and ice sheets can’t possibly tell us what causes the warming. It misleadingly discusses a *different* fingerprint — one that isn’t the key point and isn’t disputed by skeptics. Cause and effect are mixed up, and naturally there are strawmen arguments to unnecessarily destroy for the spectacle of being seen to do something. To top it off, Cook still thinks a *measurement* is a force of nature that could affect the climate. It’s just confused.



Most of all, the deceptive shell game continues. The *Guide* offers evidence that supports a *direct effect of carbon* which amounts to one measly degree if carbon levels double. It offers

no evidence that positive feedback will amplify the results up to a wildly high 3 or 4 degrees, and it does not inform readers that there is empirical evidence that the feedback is negative and will thus attenuate that one minor degree. Thus the half-truths are broadcast, but the lies by omission border on deception.

On the plus side, Cook has risen above ad homs and argument from authority. It's only taken two years, but at last a critic has managed to stick just to evidence of sorts. That said, [John Cook's post that launched the guide](#) links to a paid bully boy attack site written by a hired professional marketing team. DeSmog's shameful practice of smearing researchers is one of the lowest points in modern science. Yet Cook links to it, apparently endorsing their ad hominem approach. We-the-people are not fooled or intimidated by kindergarten namecalling. If he had any standards of reasoning, he would not promote the attack dogs. If he was a man of principle he would condemn DeSmog for their unscientific behaviour.

Aside from the name-calling, Desmog are scientifically embarrassing. I debunked their first effort: "[Desmog accidentally vindicates the Skeptics Handbook](#)". I've also [debunked Deltoid](#) as well, a post so successful it put this blog on the map. Deltoid had no reply. Cook might be surprised if he read my responses to those pages he linked too. Of all the efforts "debunking" the *Skeptics Handbook*, Cook's is the best — but with the rest of the field stuck in the stone-age, that's no badge of honor.

## Looking for the short guide to “how do I know who is right?”

Try this:

- I quote who-ever-they-are directly, I use their words, their references, and their graphs. I explain the exact reasons why they're wrong. When I paraphrase, I make it clear.
- They rephrase what I say, attack some other point, won't reproduce the graphs I use, nor discuss the references I give. They don't claim they found errors in the *Handbook*, because they can't — just “misunderstandings” which turn out to be theirs.

One of us is talking directly to each point, and the other is engaged in misdirection — shifting the goalposts — to attack something that is not quite what the first said. One of us makes baseless assertions, and the other links to documents from experts on both sides of the fence. One of us uses mislabelled graphs with deceptive scales to make a “point” about science, and the other uses those same graphs but only to point out how meaningless they are.

If their *Guide* was a real debunking, instead of just an excuse to rehash the same generic propaganda, they'd say something like “her graphs have errors, she got the altitude mixed up”. Instead, they talk about everything *except* the killer points I raised in the handbook — and the person who is supposedly “debunked” points out the errors in their graphs instead.

## The Shell Game — pretend evidence for 1 degree is really evidence for 3 degrees

The unskeptical *Guide* claims there are multiple lines of evidence that show humans cause global warming. **But they hide the minor amount of warming this evidence relates to. They don't admit that there is no evidence for catastrophic warming.** Sure there is

evidence that man-made emissions might contribute (by the time CO2 doubles, and if you assume all the extra CO2 is due to man-made emissions) to as much as **1.2°C and no more**. That's according to James Hansen and the IPCC. But the *Guide* doesn't think you need to know that crucial fact. I guess they hope you'll assume this is evidence that applies to all the catastrophic claims you hear about: 1, 3, or 6 degrees, what's the difference?

## Summarizing their Four Points: (my reply in bold)

1. As greenhouse gases stop heat from reaching the upper atmosphere, a distinct greenhouse signature is a warming lower atmosphere and cooling upper atmosphere. This is exactly what's observed by satellites and weather balloons. **(No. The fingerprint that matters includes a hot spot as well. After 10 years of data adjustments by many teams, no one has found the hot spot with weather-balloon data. Both radiosondes and one satellite set are in agreement. The hot spot is the fingerprint of positive feedback, which causes the vast bulk of the warming in the climate models . It ain't there. There's no evidence to support the catastrophic predictions.)**
2. Satellites measure more heat being trapped by CO2. On top of this, ice cores find temperature affects the amount of CO2 in the air. So warming causes more CO2 and more CO2 causes warming. Put these two together and you get positive feedback. **(Amplification is only a major force if the feedbacks are positive. See point one. It's the totality of feedback that matters, and finding that one of the many individual feedbacks is positive says nothing about the total feedback.)**
3. The surface temperature record shows that the number of warm nights are increasing faster than warm days. This is another effect of greenhouse warming. **(Warm nights are more likely due to the urban heat island effect, which is compounded by putting thermometers next to exhaust vents — that was my point. We can't trust these thermometers.)**
4. To find out whether the CO2 effect is saturated, we just have to look at direct measurements – satellites find CO2 is trapping more heat and surface measurements find more heat returning back to Earth. **(I didn't say the effect was saturated, I said "almost" and that there would be warming from CO2, but it was minor. The Wang paper merely tells us what we already knew, that the atmosphere has got a bit warmer, and surprise, it's giving off more infra red. We'd be shocked if it wasn't.**

## Point 1: Signature, Which Signature?

**It's not important, it's not due to carbon, it's caused by everything, and we found it anyway!**

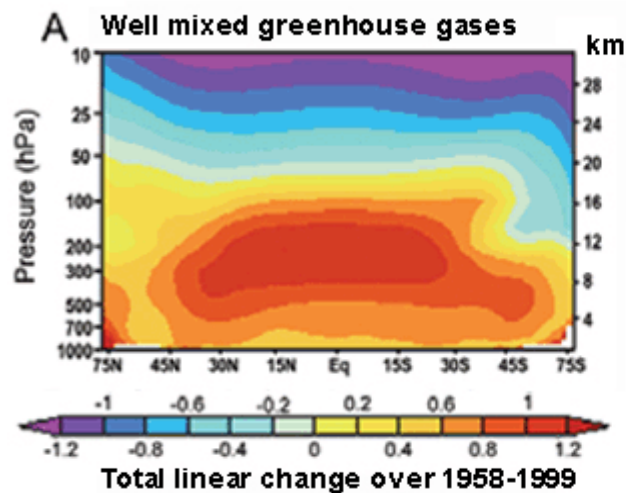
The Big Scare Campaign is so scared of this point they'll use every excuse in the book to pour doubt on it. Methinks they try too hard. First up, they don't want you to see the original fingerprint the CCSP put out, they only want you to see their repolished-whitewashed version:



Tropospheric warming and stratospheric cooling, is the minor "signature". The poor cousin of the signature they hoped to see, because it ignores the feedback effects.

**Again this is the signature that applies to carbon's direct effect. ie. the 1.2°C and not the signature of positive feedback** which creates the disaster of 3 – 6°C in their models (but not in reality). The pure effect of CO<sub>2</sub> is to warm the bottom half (the troposphere) and cool the top layer (the stratosphere). This pattern is not a unique signature of CO<sub>2</sub>. Ozone also absorbs UV way up high as it comes in from the sun (which warms the air up there), so the fingerprint of ozone-levels-*falling* is very similar to the fingerprint of CO<sub>2</sub>-levels-*rising*. Both leave a similar pattern like the one above. Whatever. The critics wail about one form of uniqueness, but ignore the other. **The original graph (A) below** is so much more informative:

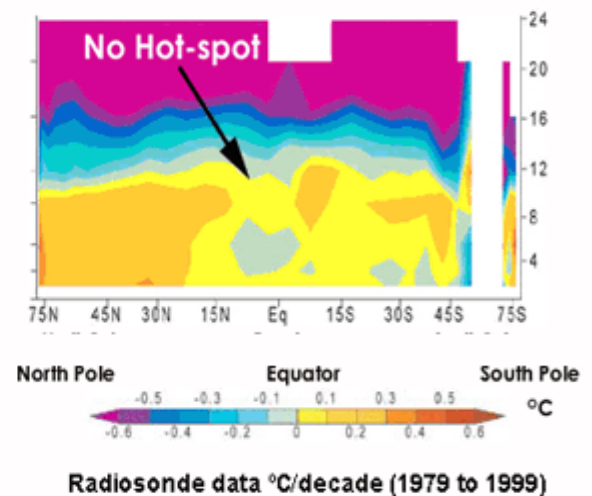
## A Predicted fingerprint



A <http://www.climate-science.gov/Library/sap/sap1-1/finalreport/sap1-1-final-chap1.pdf>

B Hadley Radiosonde record: Synthesis and Assessment Report 1.1, 2006, CCSP, Chapter 5, p116

## B Measured - No Fingerprint



The hot spot is missing from the upper troposphere. Skepticalscience won't show this.

## O-the complexity

Why the difference? All greenhouse gases include CO<sub>2</sub>, ozone and *water vapor*. The fingerprint in A, predicted by all the climate models, includes the effects of the (postulated) feedbacks from water — which is why we ought to see the hot spot 10 km above the equator (where evaporation rates are the fastest, and where humidity would make the biggest difference).

*You are not being told the whole story*

## The Lapse in Judgement

*The hot spot... is due to changes in the moist adiabatic lapse rate.* First up, the adiabatic lapse rate is a measurement, not a thing, and measurements don't change the weather. Clouds, radiation and ocean currents change the weather, but "lapse rates" are only numbers on a page, not a force of nature. The term sounds impressive, and only a few people will spot that the sentence is essentially meaningless. There is also no reference here, so it's not just meaningless, it's *baseless* too. If more water vapor existed up on high, it would act as a powerful greenhouse gas and that would change the lapse rate. It's plain silly to pretend that the moist adiabatic lapse rate has got nothing to do with the greenhouse effect.

The attempt to throw in meteorological jargon is either a naked grab to confuse the uninformed, or a sad reflection on the depth of the debate outside skeptical circles. Then watch the contradiction: First they say that "*it's a misconception that the hot spot is a signature of the greenhouse effect— it's not*". Then they say the hot spot is caused by any surface warming and "*is not unique to the greenhouse effect*". Are you feeling informed? Apparently the hot spot is

not *due* to the greenhouse effect, and at the same time it's also not *unique* to the greenhouse effect. Which is it then?

Let's be clear, the hot spot is due (in climate model simulations) to an array of effects. According to the IPCC, the main feedback and most powerful greenhouse gas is water vapor. Another form of feedback is water vapor condensing and dumping latent heat, and then there's clouds which also contribute. Read AR4, Chapter 8, page 632.

What matters to everyone on earth is that, regardless of what is *supposed* to cause the hot spot, there is no hotspot, so the climate just isn't doing what the models predicted. The models are wrong about feedbacks and the hotspot. Since the only "evidence" of impending cataclysm comes from models, it's time to worry about something else. Wait twenty years — maybe the models will have evolved by then and won't be so *outrageously* wrong.

## Deception by any other name

Page 3 of the *Guide*: "Once these effects are taken into account the weather balloon data does find a hot spot above the tropics".

Wait a minute – you mean, it's not important, it's not due to the greenhouse effect, and it's caused by everything, and actually it's *not missing* in any case?! Why didn't you just say so? Why indeed. Because it's just more bluster, and even the pro-catastrophe team aren't convinced. The only reference we get is Sherwood et al 2008, which I [explain in full here](#).

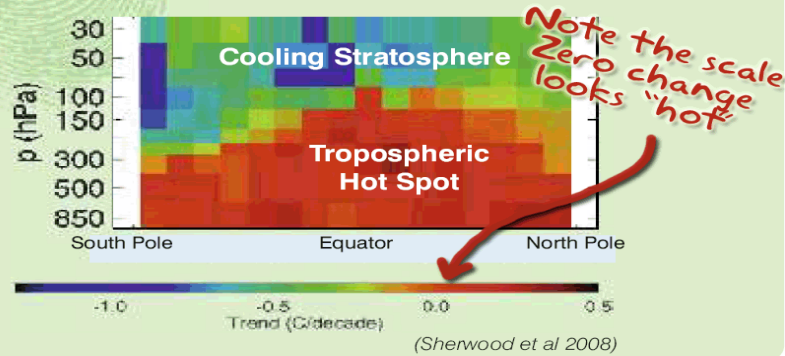
Sherwood doesn't claim to have found the holy-grail-hot-spot, though he put in a superhuman effort to do just that. He "improved the trend", but since it started off as the *opposite* trend to what they'd expected, he hasn't even pushed it into definitively "positive" territory (and that's if you accept all those alterations done years after the data came in).

Then, for decorative effect, the *Guide* shows the graph which wins the prize for the most deceptive scale in the world of global warming. Remember the only relevant feature of this graph is the *trend from the surface to the 150-350 hPa height in the center*. If they found the hot-spot they would have found a big zone where it was warming twice as fast as the surface, smack over the tropics around 200hPa. Only it isn't. It's all red, but is it 3 degrees, 2 degrees, 1 degree or flat zero?! Is it warmer than the surface, or cooler? From this graph: who can tell?



## Human Fingerprint #1 Cooling stratosphere

Satellite and weather balloons both find warming in the troposphere and cooling in the stratosphere: a distinct greenhouse signature.



The scale deceptively hides the difference in warming by coloring everything above zero "red"

**The "Guide" to confusion. There is no hot-spot here, the label (Cook's) is in the wrong place, that one faint brown square is too low to qualify. Sherwood didn't find the hot spot.**

It gets worse. The hotspot (that doesn't matter, right?) is actually mislabeled on the graph over the one weakly brown-red square there is — but the altitude is too low and the area too small. The real hot spot would cover about 8-12 of those squares and it would start at 150 hPa. (See the original graph in A above.) So the graph we see tells us what we already knew from other better sources, that there is a pattern which *might* be due to CO<sub>2</sub>'s direct effects, but there are no visible signs of positive feedback from water vapor so we aren't going to get more than a single dribbling degree-celsius of warming over 200 years.

## Point 2: The Ice Cores and the Theoretical Amplification

It works for every Earth-like planet *that doesn't have any water*.

Cook doesn't show the damning ice core graph I use. Instead there's just the usual poster-boy generic this-is-how-greenhouse-gases work schematic. The reply "bk bk bk" comes to mind. Then look for the grade-school science project logic: "So warming causes more CO<sub>2</sub>, and more CO<sub>2</sub> causes more warming. Put these two together and you get positive feedback." Sure, that works for every Earth-like planet *without* water. Let's pretend we don't have oceans, rivers, clouds, rain or humidity.

In a watery Earth-world you only get positive feedback as a NET thing if water doesn't rise up, make a few extra low clouds and rain on your parade. Darn. Remember how the hot spot *is still missing*? How no one can find it no matter how many adjustments they make? That's the (total) feedback, and most of it is due to humidity. So this idea that we can explain all the parts of the ice core graphs that don't quite add up, rests on the *assumption* that there is net positive feedback. (Got any evidence? Didn't think so.)

Sure, CO<sub>2</sub> on it's own is a positive feedback, but it's insignificant, piddling and not the elephant in the kitchen compared to the water-related feedbacks. Remember, temperatures cause the uptick, and temperatures cause the downtick. CO<sub>2</sub> might do a little bit of "boosting" in the middle, but when there is a big climate shift, CO<sub>2</sub> doesn't seem to have much to do with causing it.

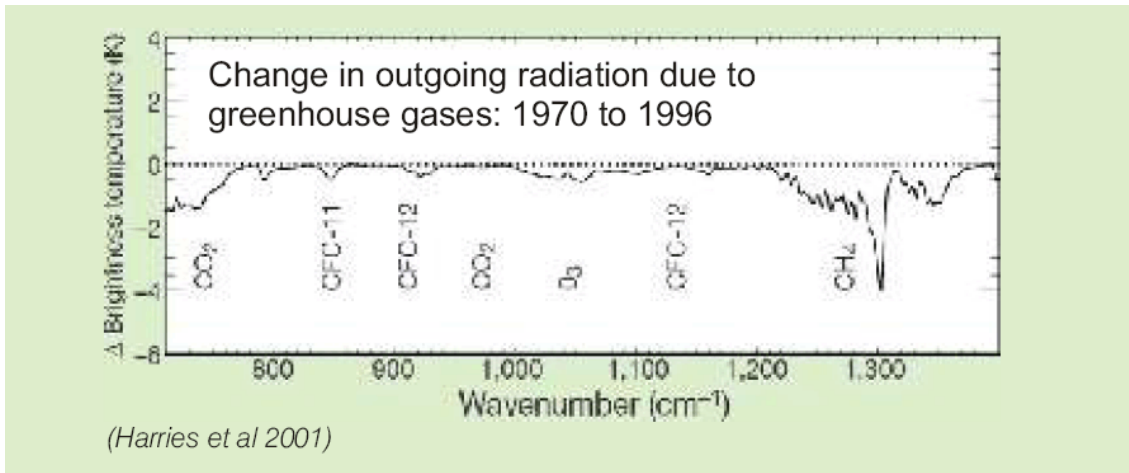
Saying that the ice cores show evidence of (insert trumpet) "A Climate Feedback" ignores the point that what matters is *NET* climate feedbacks, not just one minor component of the total feedback. The assumption that CO<sub>2</sub> is powerful is loaded into every paragraph. CO<sub>2</sub> "Explains" dramatic changes in temperature. No sir. We know temperatures *control* carbon, because the oceans give it up as they warm, so we'd be shocked if there was no past correlation. The past correlation is "consistent" with carbon *following* temperatures.

### Less Heat is escaping to space?

Yet again, here's another paper that sort of supports the **1.2°C rule**. This might show some direct greenhouse effect but it tells us *nothing* about the feedbacks. **I've added the original caption to the graph which the "Guide" did not:** "Component of simulated spectrum due to trace gas changes only." In other words, they used a *model* to draw out and remove what they reckoned are the emissions due to water-vapor.

Everything the trace gases *might* do can be out-done by the most important greenhouse gas that is omitted from this graph. Sure CO<sub>2</sub> might be absorbing IR, but if water vapor changes to allow more energy to escape at other bands, then it's not going to warm the planet much. Not Net.





Let's ignore water vapor OK? The "Guide" doesn't list the original caption: "component of simulated spectrum due to trace gas changes only. Brightness temperature on the ordinate indicates equivalent blackbody brightness temperature."

[John Daly described](#) how the the results from the Harries 2001 paper were weak, and the only significant result was *due to methane* in any case and **not CO2**. Daly also found a media report where Harries said:

*“There is no evidence in the report on whether or not the surface temperature of the Earth is actually rising. Harries said this is because the greenhouse effect could start a climate cycle that forms more clouds, keeping more of the Sun’s rays from reaching Earth.”*

**ie. Harries himself acknowledges that his paper can’t tell us much about whether minor greenhouse gases will make much difference to the world’s temperature.** David Stockwell at [Niche Modelling](#) also had some interesting thoughts on this paper. See the [AGW Smoking Gun](#) article for more info on this. (Thanks to Cohenite).

## Point 3: Is our Surface Temperature Record Ok?

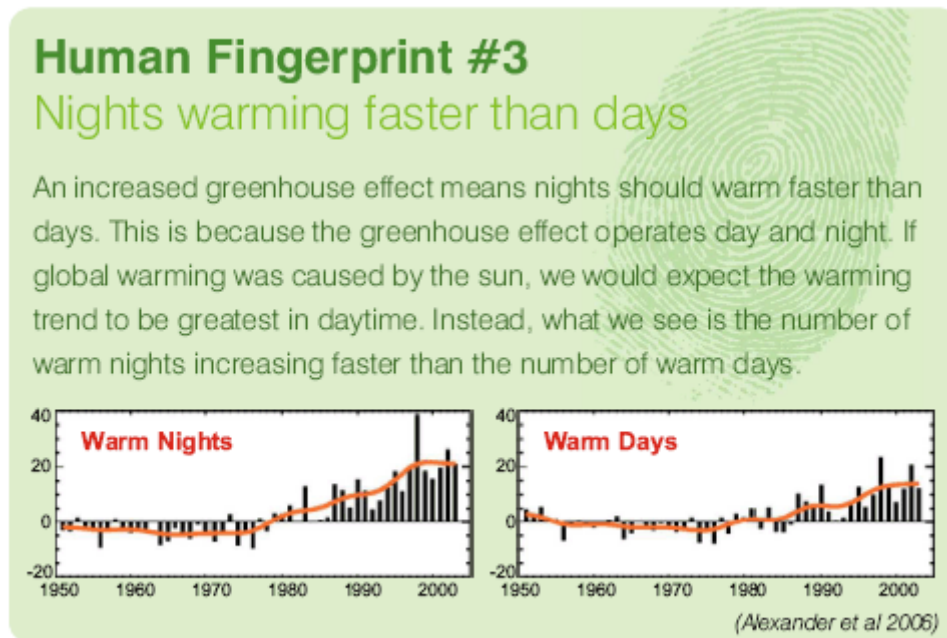
Once again, the Guide won't show you the photos of thermometers above asphalt, lest you are part of the 90% of the population that know that it's a dumb place to put a thermometer. Cook doesn't deny that thermometers are next to air-conditioners. Instead he claims that (by implication) it doesn't matter that we're measuring the global temperature next to hot tarmacs because:

1. We compared good and bad stations and they're both warming. Here "good" and "bad" become meaningless – when most of the data is adjusted and then homogenized, and when even remote rural sites often have poor siting just like the city ones do, this is like comparing two bowls of fruit salad which are both full of brown mouldy fruit. NOAA didn't do a site survey of each site. They're not comparing the original raw data. We're looking for changes of around 0.2 degrees a decade and they want us to believe that a thermometer next to an exhaust fan doesn't matter? (Read [Anthony Watts page](#) for more info).
2. If we compare surface records to satellite ones, the surface ones have risen more than the satellite ones have since 1979. Again, they don't show the graph that I did — which was measured from a 1979 baseline, and shows that most of the time the surface data records have higher anomalies than the satellite records.
3. The *Guide* tells you that records have been broken lately, but doesn't tell you that's due to a record El Nino. The same crowd howl at skeptics who mention 1998 (and I'm not one of them BTW) the last big El-Nino year, then shamelessly use the latest El Nino year (2010) themselves.
4. The *Skeptics Handbook* explains why evidence for global warming tells us nothing about what *caused* the warming, but the authors of the *Guide for the Gullible* can't resist — they have to mention sea levels, ice sheets and glaciers, thus proving they don't understand "cause and effect". Point 3 in the handbook was about grave concerns with surface thermometers that supposedly measure fractions of a degree, yet the authors of the *Guide* think we are so silly we'll believe those thermometers next to warm sewage ponds are accurate because some glaciers have melted? (I didn't realize glaciers were calibrated to a fraction of a degree?)

Where are the quantitative arguments? We skeptics are trying to debate the finer details (like 1.2 degrees versus 3.5 degrees) and all the fan-club respond with is "it's warming, it's warming" — as if any number above zero will do. Try reading this concept with a straight face: *Thermometers over hot car-parks are accurate because we know species are migrating to the poles.*

## It's "man made", but it's not CO2

Here's another non-sequitur to support the idea that it doesn't matter how badly the thermometers are placed.



**Nights warming more than days could be caused by the urban heat island effect.**

Sure the "greenhouse effect" works day and night, but cloud cover also warms us at night while it can cool us during the day, and the urban heat island effect is an [excellent candidate](#) to raise night time temperatures. The sheer growth of cities, with vast areas of concrete that act as heat-sinks through the day, and release that heat at nighttime, keep things much warmer after dark.

As Cohenite points out in comments, daily minimum temps are not a record of night time temperatures in any case since they are usually set when the sun is up, 6 – 9 am.

Once again, the double standards abound. Even though their team (The CCSP) called the pattern with a hot spot a "fingerprint", one-eyed critics howl that it's not unique (after they didn't find it), then they offer 4 fingerprints, none of which inform us about the feedback effects, and some of which aren't even unique anyhow. We're looking for the fingerprint of the *positive* feedback.

## Point 4: “Carbon dioxide is already absorbing almost all it can”

The “debunkers” of *The Skeptics Handbook* do all they can not to discuss the points I actually made. In my point 4 I merely describe the obvious point that CO<sub>2</sub>'s effect is *logarithmic, or declining*, which the IPCC and their climate modelers completely agree with. I don't claim it's “saturated”, because no log curve ever flattens out entirely.

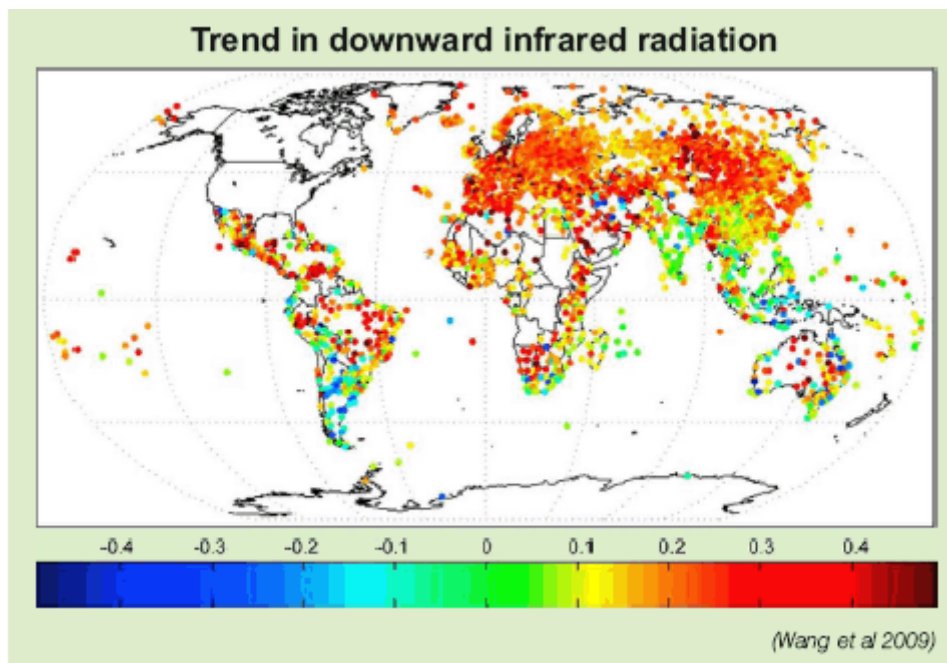
The *Guide for the Gullible* pretends this is black and white, and sort of suggest that I talked about Venetian blinds (which I didn't), and that I said it was saturated (when I said it was *almost...*). If he cut and pasted, he'd have to discuss what I actually said instead of attacking things someone else might have said sometime, somewhere.

*The Skeptics Handbook* says:

*“Every CO<sub>2</sub> molecule will increase warming ad infinitum, but it has less effect than the CO<sub>2</sub> that's already up there”.*

The *Guide* ignores the point yet again, and just says effectively that Humans emit of a lot of CO<sub>2</sub>, and its all adding to the warming. Which is exactly like I what I said, but with less information. They call this “debunking”? She's right, but we're *vaguer*?

Then they need to throw in another meaningless graph:



### Another irrelevant graph telling us the obvious

It all looks so fancy and “scientific” eh? But what does Wang mean? Figure it out — if the atmosphere warmed and it didn't emit more IR, we'd be shocked. Once again, the graph tells us what we already know, that there are more minor greenhouse gases up there, and that the

atmosphere has warmed. But it doesn't give us information about the climate feedbacks. It doesn't tell us whether there will be a disaster in 35 years time.

*Wang says: "The rising trend results from increases in air temperature, atmospheric water vapor, and CO2 concentration."*

There is no mention of the altitude of water-vapor in this study. So it won't tell us if there is more humidity higher up. It's the upper troposphere which is important.

Carbon on it's own causes 1 measly paltry pathetic degree of warming if carbon doubles. If feedbacks are negative, which Douglass, Spencer, and Lindzen show from three independent data sources, then the world will warm by around half a degree over 200 years. Carbon dioxide could well be warming the planet, but the entire quantitative effect is not worth worrying about. And yes, I'm aware of criticisms of Lindzen and Choi, but I've seen the update for 2010, and the results still suggest feedback is negative.

That's why the numbers matter so much. 1 is not "broadly consistent" with 3.

UWA will need to address the use of it's logo in a document so scientifically weak.

## **The last word?**

*"The Guide says: Global Warming skepticism often focuses on narrow pieces of the puzzle while neglecting the full picture"*

Too rich. The full picture is that the IPCC and western governments want to push our sweat, tears and money into something that they call "90% certain", and "well backed by science". Yet unbacked bloggers can point out flaws that four Professors, and three assistant Profs, don't have any good answers to ([Dr Glikson didn't have an answer either](#)). The simulations of disaster depend on assumptions that the empirical evidence does not support. Evidence for 1 degree is not evidence for 3.

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