

Global-Warming Slowdown Due to Pacific Winds, Study Shows

By Alex Morales Feb 9, 2014 1:00 PM ET

In a recent article, see reference list, England et al [1], have suggested that the recent stalling of global warming, over the last 15 plus years (or since the 21st century started) can be explained by the intensification of the Pacific trade winds. The strong circulation due to these winds has caused the penetration of the heat deep into the ocean with the cooler water from deep inside the ocean being forced to the surface (and the warmer surface water being simultaneously pushed into the depths of the oceans), giving rise to the 'pause' in the global warming, or the lack of any significant uptick in the global temperatures, even as greenhouse gas emissions have continued to increase.

The article has prompted a lot of discussion [1-3], including the following Bloomberg News (Bloomberg Sustainability).

<http://www.bloomberg.com/news/2014-02-09/global-warming-slowdown-due-to-pacific-winds-study-shows.html#comment-1243320266>

I posted a comment today (on Feb 13, 2014) calling attention to my scribd.com articles [4, 5] which prompted a response and then I and got into a discussion with Mark Schaeffer. (From other comments, I gathered that Mark is now publishing a book on Climate Science.) Anyway, during this exchange, I came across the following discussion between one with the screen name Bodhisattva and another with the name VendicarDecarian0.

Vendicar posts the temperature-time data from NASA GISS for the years 2008 to 2013 and asks "Where is the cooling?"

The discussion of the global average temperature-time data prepared in what follows here use the data posted by Vendicar; see the exchange below.

[Bodhisattva](#)

• [9 hours ago](#)

EVIDENCE IS BEFORE YOUR EYES, MORON!

I got a guy who keeps claiming I'm not posting any evidence.

Well there's the article above, for starters:

“The net effect of these anomalous winds is a cooling in the 2012 global average surface air temperature of 0.1–0.2 degree Celsius, which can account for much of the hiatus in surface warming observed since 2001,” the researchers wrote. They’re led by Matthew England, a professor of oceanography at the University of New South Wales in Australia.

Then there's this:

<http://www.livescience.com/432...>

Then there's the fact that the Antarctic has set multiple new 'coldest temperature ever measured' records (which those who are determined to save the myth that humans are now more powerful than nature refuse to allow to become 'official', of course, and yet they were still measured and are still out there) and the attempts by the liars to rewrite history and eliminate the hottest temperature ever measured by historic revisionism since nature would not cooperate and give them a newer 'hottest ever'.



[VendicarDecarian0](#) [Bodhisattva](#)

• [7 hours ago](#)

The net effect of these anomalous winds is a cooling in the 2012 global average surface air temperature of 0.1–0.2 degree Celsius" - BogBoy

Where is this cooling again? I just don't see it...

NASA GISS 2008 to present J-D

2008 14.49

2009 14.60

2010 14.67

2011 14.55
2012 14.58
2013 14.61

Where is it, BogBoy?

Please also see my exchange with Mark Schaeffer which is interesting since Mark says what matters is what we are going to do about all this – the trends have been studied for decades. (I tried to say that we can still learn and the idea of a work function that I have proposed also appears in the T-t data that Vendicar has posted, as we will see below.)

My general comment about the article on the effect of Pacific trade winds was to call attention to the article posted at scribd.com and Mark joined with his comments.



• [vlaxmanan](#) • [7 hours ago](#) (as of 10:43 PM on Feb 13, 2014)

Here's my take - it too lies buried like the heat in the ocean.

<http://www.scribd.com/doc/2068...>

Planning a formal submission to the same journal. :)



• [Mark Schaffer vlaxmanan](#) • [5 hours ago](#)

Get back to us when it passes peer review



o

[vlaxmanan Mark Schaffer](#)

[4 hours ago](#)

Sure. Did you see the link. That pretty much is the submission with some changes for the journal. The main message is in the figure with the five parallels. That is already posted now on the internet and in some other posts like this on. Thanks



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[Mark Schaffer vlaxmanan](#)

• [4 hours ago](#)

Have you reviewed the main literature on the subject going back John Tyndall and Joseph Fourier? What about Svante Arrhenius?



o

[vlaxmanan Mark Schaffer](#)

• [3 hours ago](#)

Yes, Mark, but why the question? It is NOT really relevant to what is being done here, which is to analyze the global average temperature observations and deduce mathematical trends - not why, but what is happening. Anyway, you will make a great peer-reviewer looks like, so just leave your comments here for me on what I have done. :)



▪

[Mark Schaffer vlxmanan](#)

• [2 hours ago](#)

The trend has been looked at for decades and analyzed by thousands of researchers. The globe is warming because of the basic physics of GHG's. **The only relevant question is what does humanity do about this?**



▪ [vlxmanan Mark Schaffer](#)

• [2 hours ago](#)

I posted another comment to above but don't see it here. May be it will appear. BTW, I have NO interest in the politics of this subject of global warming. Want to stay clear from it and focus on what the climate data are telling us. I don't even want to venture into climate modeling, just analyzing data is all I am doing.

The point of calling attention to this is that we have to keep an open mind and study the data, like I tried to do, **in spite of many decades of scholarship and several thousand articles on this topic in the peer-reviewed literature. Even so, I truly believe that the movement of the temperature data along parallels, as shown in the scribd.documents (see links below) and the idea of a work function should be of great interest to climate scientists** and indeed climate models of the future should be able to explain why we observe such a movement. Now, here's what we find from the NASA GISS data for 2008 to 2013, posted by Vendicar.

1. <http://www.scribd.com/doc/206892158/THE-REPORTED-GLOBAL-WARMING-HIATUS-IS-NEITHER-A-RECENT-NOR-A-TEMPORARY-ONE>
2. <http://www.scribd.com/doc/206581016/ON-THE-GENERALIZATION-OF-EINSTEIN%E2%80%99S-IDEA-OF-THE-PHOTOELECTRIC-WORK-FUNCTION-EXAMPLE-FROM-SCANDINAVIAN-CLIMATE-DATA>

The following is the extract from my Microsoft Excel file on this analysis.

		Line I	Line II
		slope	0.09 0.03
NASA GISS 2008 to present	intercept	-166.23	-45.78

Vendicar data is copied and pasted in column A and is then reentered in col. C and col. D

	Time t	Temp T	Line I	Line II	Col. E and Col F are calculations performed to graph lines I and II along with the T-t data in cols. C and D. The graphs are presented in Figures 1 and 2 in what follows here. Note that slope of line I is steeper at 0.09 deg C per year. The slope of line II is shallower, only 0.03 deg C per year.
	years	deg C	2008 to 2010	2011 to 2013	
Col. A	Col. C	Col. D.	Col. E	Col. F	
	2007		14.4	14.43	
2008 14.49	2008	14.49	14.49	14.46	
2009 14.60	2009	14.60	14.58	14.49	
2010 14.67	2010	14.67	14.67	14.52	
2011 14.55	2011	14.55	14.76	14.55	
2012 14.58	2012	14.58	14.85	14.58	
2013 14.61	2013	14.61	14.94	14.61	
	2014		15.03	14.64	
2008 to 2010	2	0.06			
2011 to 2013	2	0.18			

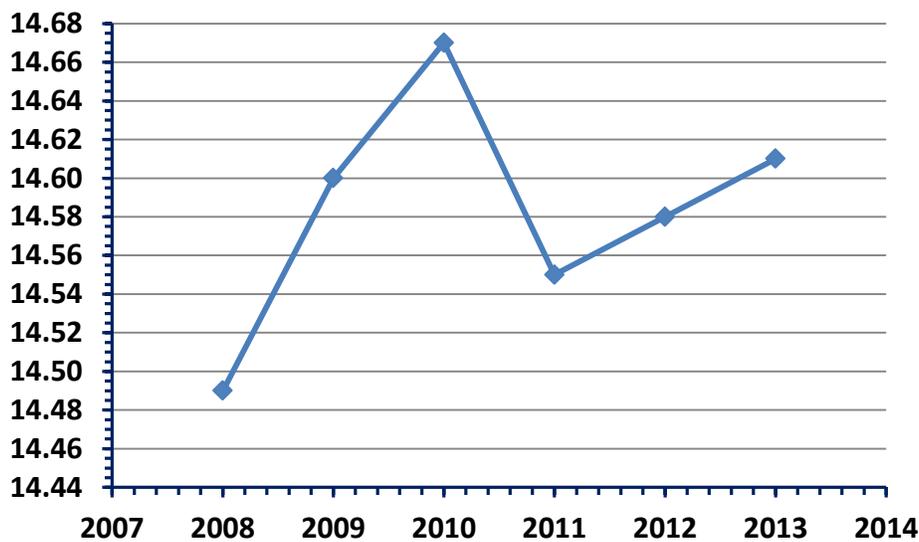


Figure 1: Graph of temperature-time data for 2008 to 2013. Time t is plotted on the horizontal axis and global average temperature T on the vertical axis. A simple joining of the data points by line segments is illustrated. Temperature went up from 2008 to 2010 and then dropped and is now increasing at a slower rate. This can be illustrated with the following two slopes in Figure 2.

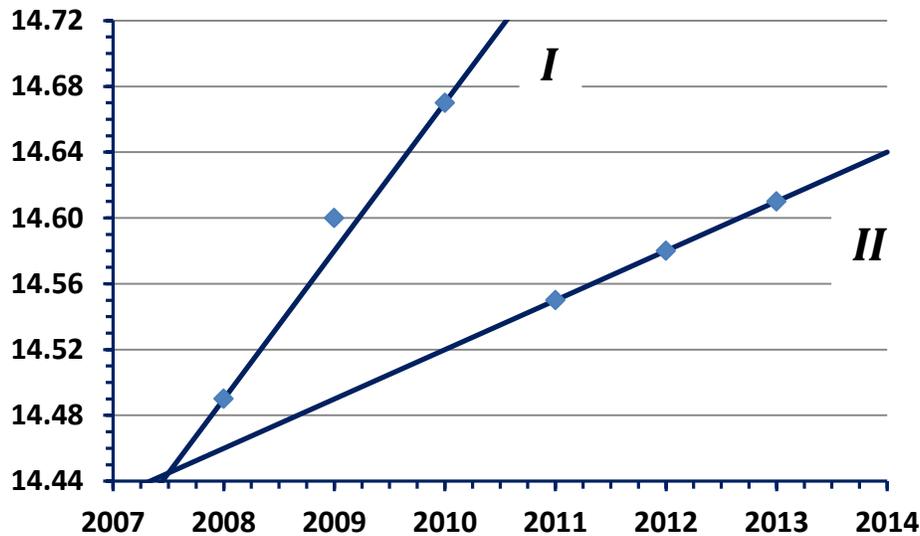


Figure 2: The line joining 2008 to 2010, has the equation $T = A + Bt = 0.09t - 166.23$ with the slope B being obtained from the two data points (2008, 14.49) and (2010, 14.67). The line joining 2011 to 2013 has the equation, $T = 0.03t - 45.78$. Both the slopes here are higher than $B = 0.018$ we get from the analysis of the full NCDC data. For example, for the 36 year period from 1976 to 2012 (consider T values for 1976 and 2013), we get $T = 0.0181t - 21.86$. I have shown there are five such parallels with the slope $B = 0.018$ if we look at various time periods from 1880-2013; see links to scribd documents that I have uploaded.

The idea of a work function is obvious here as well; see also the discussion in Refs. [4, 5]. One could postulate a movement along parallels, with a fixed slope B and each data point then has its own value of A or the work function. This is illustrated in Figure 3, with the slope being taken as the value for the most recent period 2011-2013.

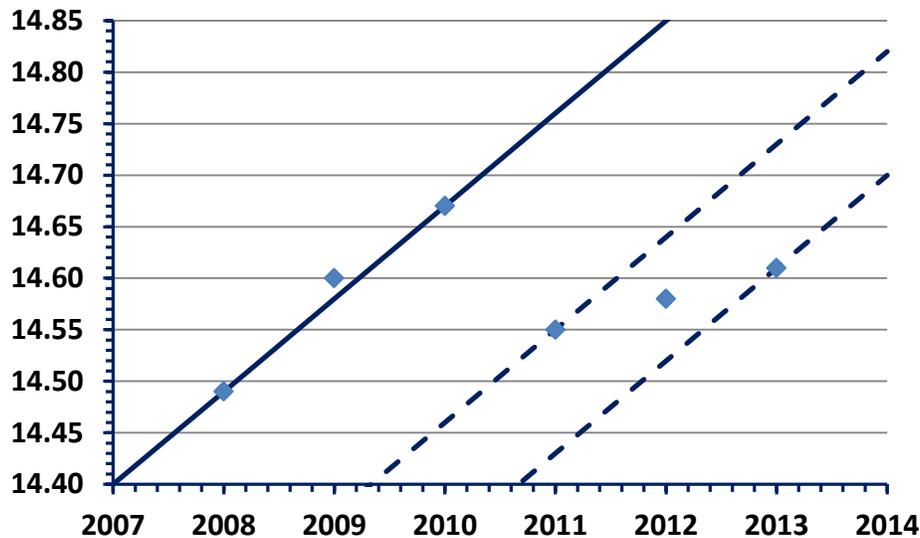


Figure 3: The alternative view of the idea of a work function and movement of the temperature-time data along parallels is illustrated here. One could postulate a movement along parallels, with a fixed slope B , defined by the response of the earth's climate system between 2008 to 2010 data. This yields the same solid line I , $T = 0.09t - 166.23$, with the slope $B = 0.09$ deg C per year.

Then we impose parallels through the data for 2011 and 2013. Since $B = 0.09$, we can determine the nonzero intercept A knowing the (T, t) values from the equation $T = A + Bt$. The parallel through 2011 has the equation $T = 0.09t - 166.44$ and the parallel through 2013 has the equation $T = 0.09t - 166.56$. This is illustrated above. The changing value of the nonzero intercept A from the initial value of $A = -166.23$ for 2008-2010, to $A = -166.44$ for 2011 and to $A = -166.56$ has actually reduced the global average temperature T to below the values it would have reached in 2013, had the climate system continued to operate along the solid line I . Hence, there has indeed been a "stalling" of the global warming and the idea of the "work function" captures this complexity in a simple way. Many complex factors are responsible for the perceived hiatus in the global warming as many climate scientists are now trying to understand, with the England et al analysis being the latest in this series of various explanations, which have also been noted by critics, see references cited.

REFERENCES

1. England, M., et al, Recent intensification of wind-driven circulation in the Pacific and the ongoing warming hiatus, Nature Climate Change (2014) doi:10.1038/nclimate2106
2. Marc Morano, New Paper find excuse #8 for the 'pause' in global warming: Strengthening of Pacific trade winds, Climate Depot, February 9, 2014, <http://www.climatedepot.com/2014/02/09/new-paper-finds-excuse-8-for-the-pause-in-global-warming-pacific-trade-winds/>
3. Anthony Watts, "The Reason for the 'pause' in global warming, excuse #37 in a series: trade winds, February 9,2014, <http://wattsupwiththat.com/2014/02/10/the-reason-for-the-pause-in-global-warming-excuse-37-in-a-series-trade-winds/>
4. V. Laxmanan, The Reported Global Warming Hiatus is Neither a Recent Nor a Temporary One, <http://www.scribd.com/doc/206892158/THE-REPORTED-GLOBAL-WARMING-HIATUS-IS-NEITHER-A-RECENT-NOR-A-TEMPORARY-ONE>
5. V. Laxmanan, On the Generalization of Einstein's Idea of the Photoelectric Work Function: Example From Scandinavian Climate Data, <http://www.scribd.com/doc/206581016/ON-THE-GENERALIZATION-OF-EINSTEIN%E2%80%99S-IDEA-OF-THE-PHOTOELECTRIC-WORK-FUNCTION-EXAMPLE-FROM-SCANDINAVIAN-CLIMATE-DATA>