

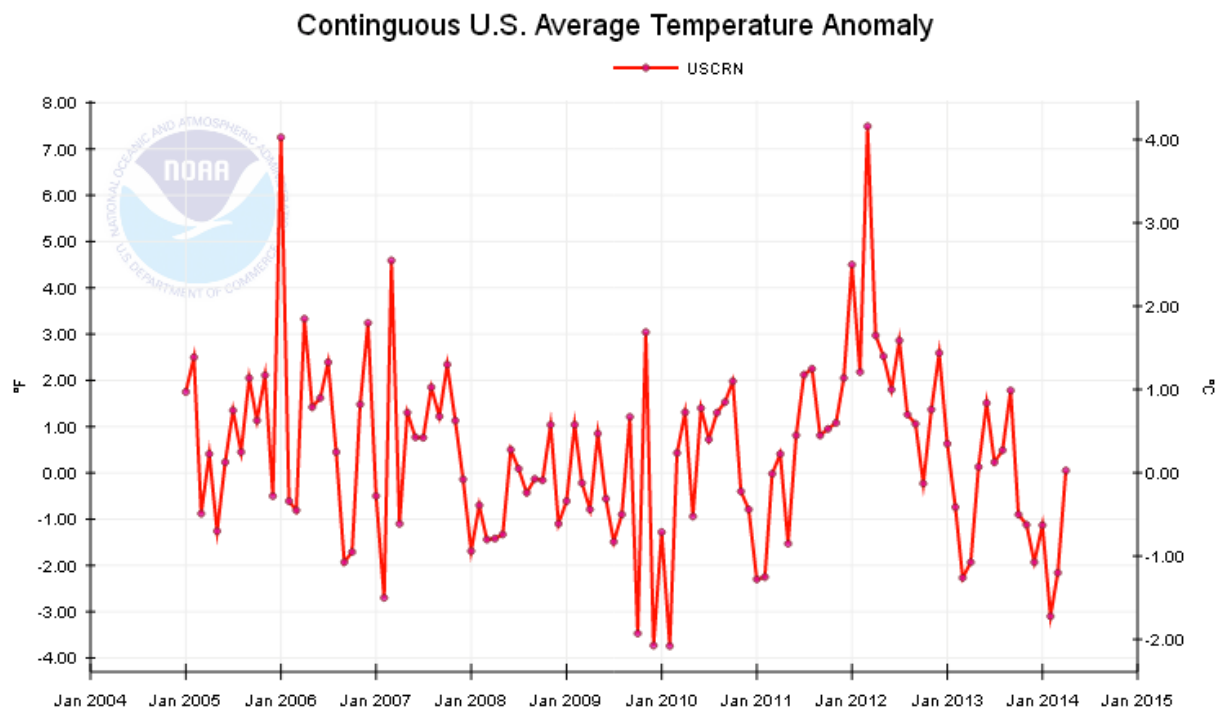
Two Theories an Epilogue

November 10, 2014

There has been some discussion since the original Two Theories report was done in September, about a real man-made warming effect on the global temperature average. This real man-made warming is a reference to the Urban Heat Island effect and not human emissions of CO₂. The latter is a theory that was hopefully discredited in the previous report.

The Urban Heat Island effect (UHI) is a well established phenomenon of elevated surface temperatures found in all urban centers of the world. Some of these major urban centers have as much as 5 or 6 degrees C higher temperatures than rural or uninhabited areas in the surrounding region.

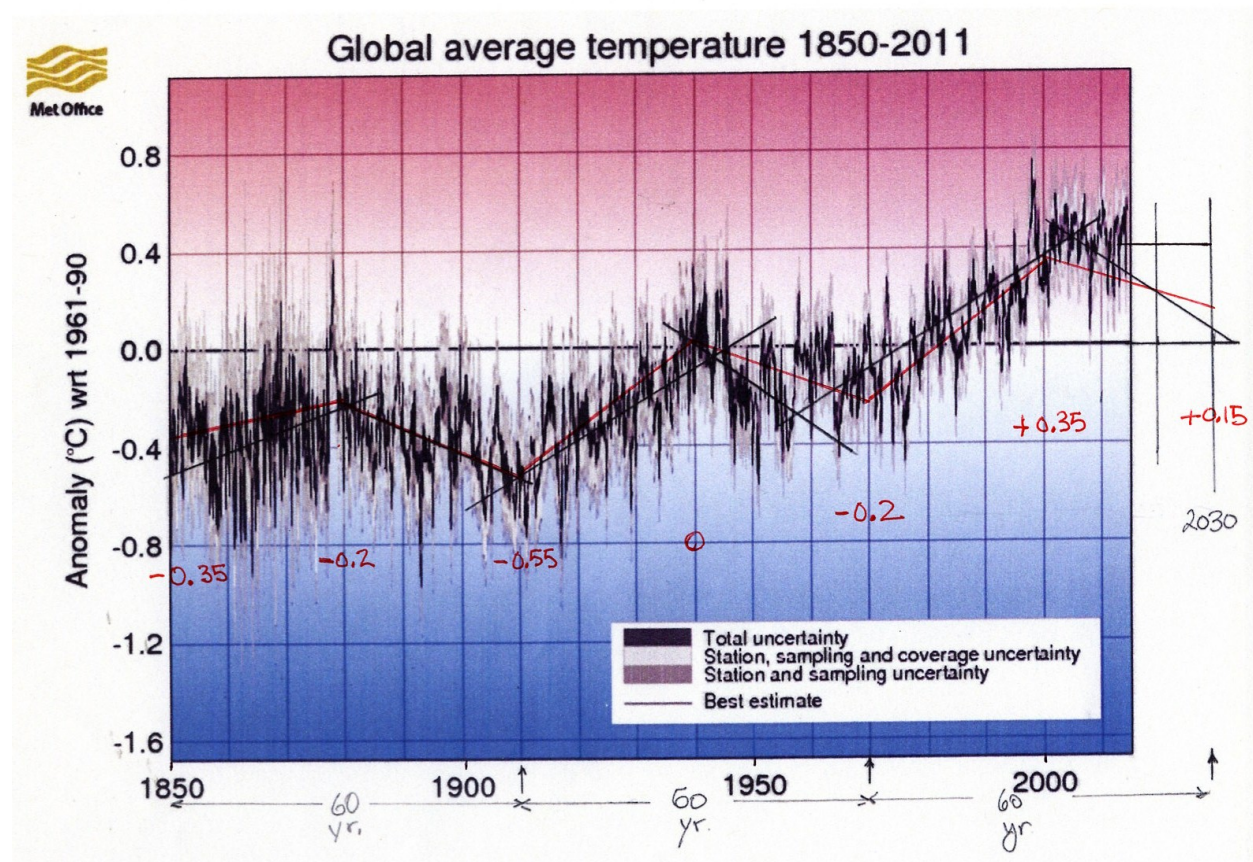
The US has a new network of surface temperature stations (mostly completed in 2005) that are all outside of any sort of UHI and the data from this new network is a compelling view of how urban areas in the past 50 to 60 years have probably artificially elevated global surface station average temperature anomalies. There are now 114 well spaced stations in this network in the continental US and 16 stations now in Alaska with a total in Alaska to be eventually 29 stations. Hawaii has 2 stations.



For a very in depth look at how this station group was developed and where these stations are go to the NOAA website here: <http://www.ncdc.noaa.gov/crn/programoverview.html>

Clearly over the past 10 years the trend is cooling. If you look at the Y axis you see that it may have cooled by up to 2 degrees F. This clearly shows that any sort of warming trend in the cities is not happening in non-inhabited areas of the US as represented by the USCRN.

This brings me back to the chart that I showed in the first part of my earlier Two Theories discussion.



In the 19th and earliest part of the 20th centuries, global average temperature anomalies remained very flat. Beginning sometime around the middle of the 20th century, there seems to be a discernible increase in the base level of station temperature anomaly. In 1945 world population was about 2.5 billion with the vast majority (probably 70%) in a rural environment. Now over half the world population of about 7 billion people is living in an urban environment with a large number of the other less than half of the world population in a suburban environment. The US had about half its population in a rural environment in the mid 20th century while by the 1960s about 70% of the US population had rapidly shifted to an urban/suburban environment.

A plausible case can be made that the slight increases in global temperature anomalies found through the second half of the 20th century on into the 21st century as seen in the above graph could have easily been attributed to UHI from population growth around the old airport and

weather station sites that are now located in many cases near the center or certainly surrounded by the urban environment. These sites clearly should not be used to show global warming trends and cannot be reasonably called climate measurements stations. On the other hand, some people will note that adjustments have been made to those old readings but I would argue that we probably don't really know how nor how much to adjust for this UHI phenomenon and that there are still human UHI effects being measured and reported from these urban sites. The USCRN data can now be used to tell us what long term climate temperature effects actually are at least here in the US. I contend that these temperature drops noted in the USCRN data and drops in even the possibly tainted UK Met data (by UHI effects) if they are sustained will definitely corroborate the natural 60 year cycle climate theory.

If indeed the UHI effect is the cause of an increase in global temperature anomaly and by removing it, most of the 20th century temperature anomaly increase goes away then the final delta from the temperature chart for 1850 through 2030 might be less than a 0.20 degree C increase over the whole period rather than a 0.50 degree C increase that was discussed in the first report. In either case I can see no cause for alarm due to these very modest warming trends over the past 165 years.

I ask again that folks who still believe in the CO₂ warming theory to explain it to me in detail especially in light of the data that I have presented here.