

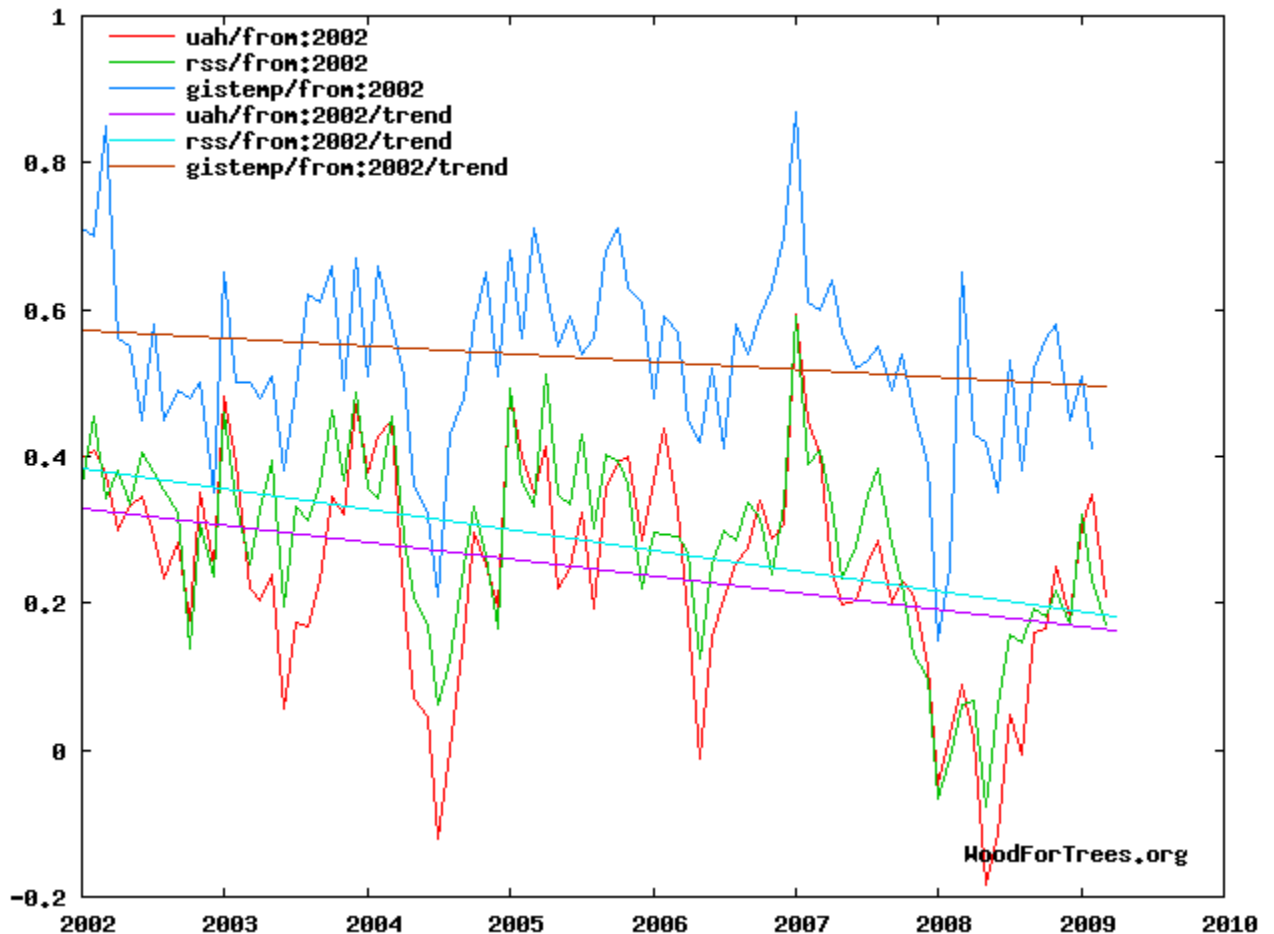
AMO and PDO- The Real Climate Makers In United States?

By Matt Vooro

For decades we have been urged to urgently prepare for unprecedented global warming or there will be gloom and doom for the world. Yet only few years after the issue of the IPCC reports, exactly the opposite is happening. Matter of fact the cooling already started after 2002. The climate data from 3 different major organizations [GISS, UAH and RSS] that monitor temperatures all confirm this cooling trend as shown below.

Graph of monthly global temperature anomalies 2002-2009

Notice the steady decline since 2002. IPCC predicted unprecedented warming and projected **0.21C in each of the next two decades**. The planet is actually cooling at a trend rate of **-0.195/decade since 2002**.

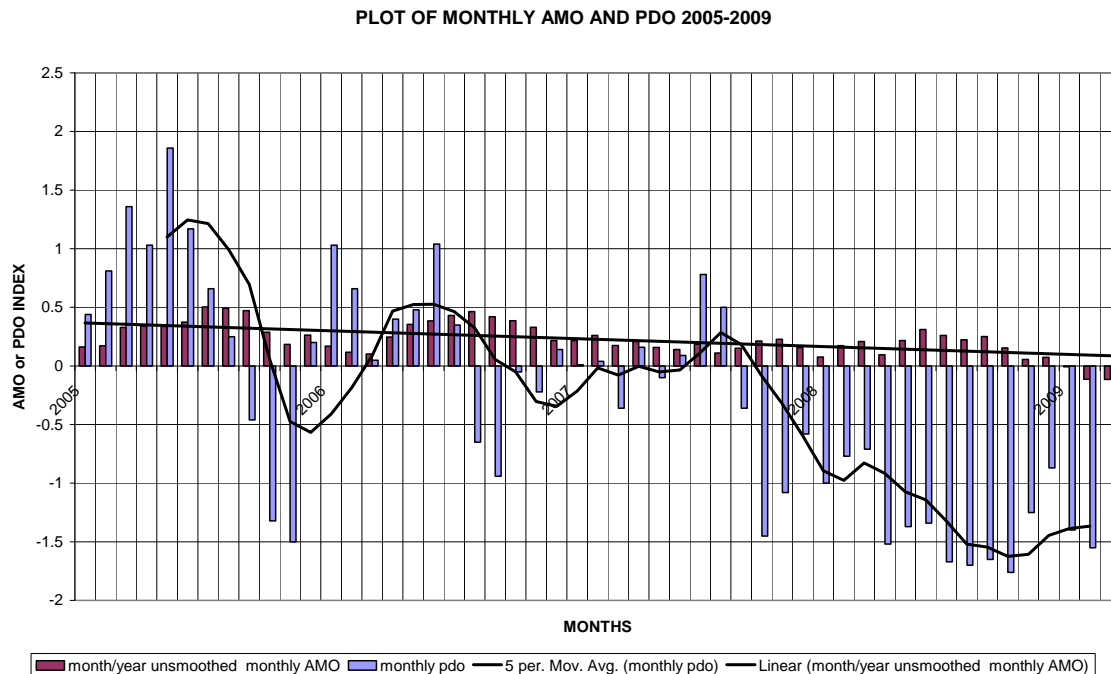


<http://www.woodfortrees.org/plot/hadcrut3vg1/from:1900/to:2009/normalise>

PDO AND AMO -THE KEY INDICATORS

So what went wrong with the AGW science? It seems that despite IPCC claims carbon dioxide does not seem to be a major climate changer. Ocean currents, ocean surface temperatures and ocean heat sinks are. The most significant being the AMO or Atlantic Multivariate Oscillation and PDO or Pacific Decadal Oscillation

The graph below illustrates how both the PDO and the AMO have recently [since Sept/2007] gone in the negative or cool mode and why world climates are cooling and expected to cool for the next 20-30 years



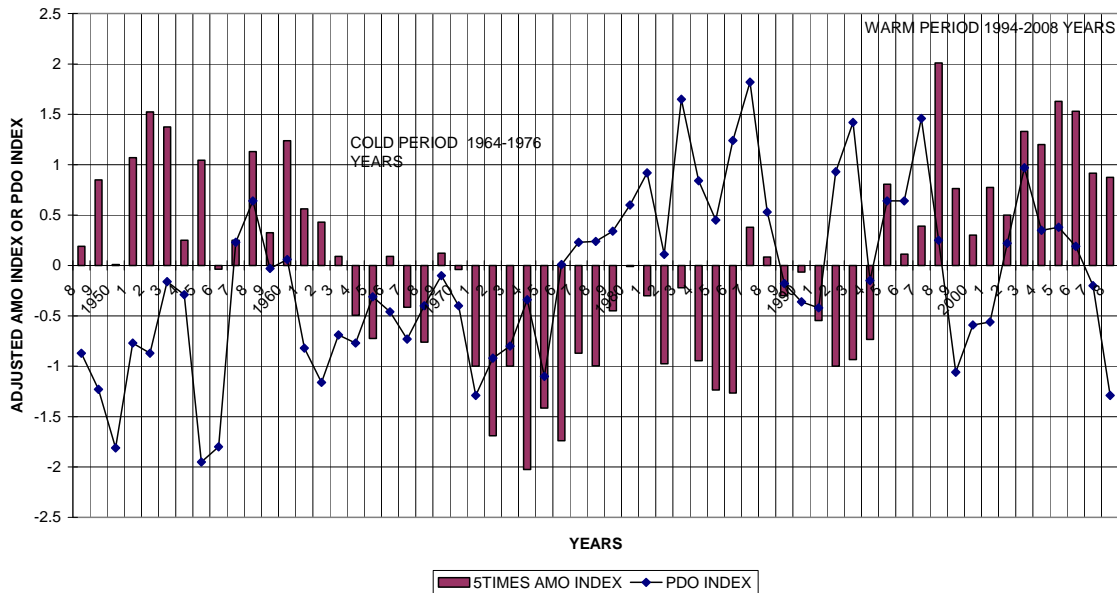
With both the AMO declining since September 2003 when it was at $[+ 0.504]$ but now negative at $[-0.114]$ in March 2009 and the PDO has gone negative since December 2002 when it was $[+2.1]$ and now at $[-1.59]$ in March 2009 we have the similar climate situation that existed in the early 1970's which were characterized by record cold temperatures and generally cooler weather. Refer to the graph further down that illustrates this.

The graph below shows the periods that were cool and those that were warm

- 1900-1925 COOL- AMO AND PDO BOTH NEGATIVE OR COOL**
- 1926 -1944 VERY WARM - AMO AND PDO BOTH POSITIVE OR WARM**
- 1964- 1976 VERY COOL- AMO AND PDO BOTH NEGATIVE OR COOL**
- 1994 2007- VERY WARM- AMO AND PDO BOTH WARM [so called global warming period]**
- 2009 - COOL- AMO AND PDO BOTH NEGATIVE OR COOL**

On the graph below we have plot of annual AMO [red bars] and annual PDO[line] for the years 1948 -2008. Since the PDO index is about 5 times larger than AMO, the AMO Index has been multiplied by a factor of 5 to make it more visible. Warmer global temperatures existed when AMO and PDO were both positive [1994-2008] and colder temperatures existed when both were negative [1964-1976]

ADJUSTED ANNUAL AMO INDEX[5 TIMES NORMAL AMO INDEX] VS ANNUAL PDO INDEX 1948 TO 2008

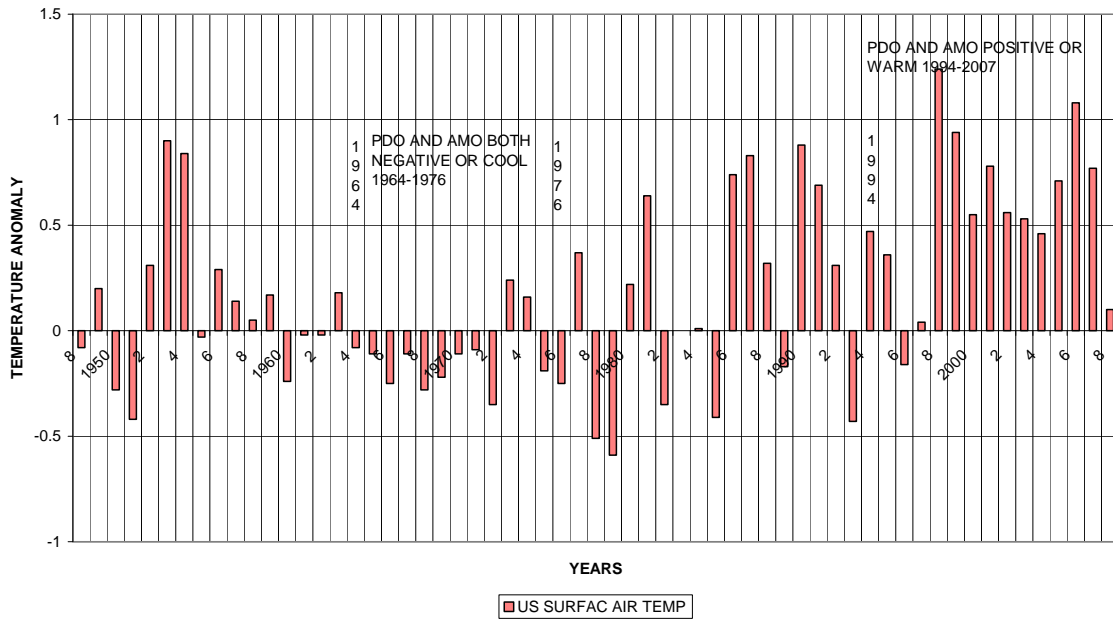


THE US PICTURE

Graph of US SURFACE ANNUAL AIR TEMPERATURE ANOMALY.GISS[C] for the years 1948-2008

Notice the period 1964 -1976 and the cooler temperature anomalies and the period 1994-2008 and the warmer or higher temperature anomalies

PLOT OF GISS US SURFACE AIR TEMPERATURE ANOMALIES 1948 TO 2008

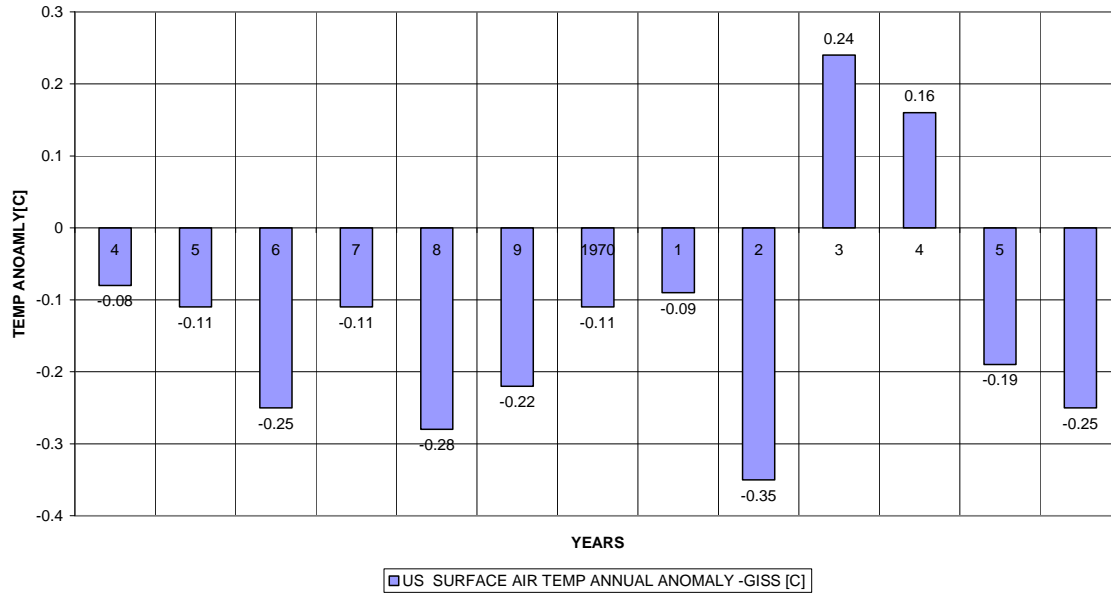


Graph of US SURFACE ANNUAL AIR TEMPERAURE ANOMALY, GISS [C] 1964-1976 [see below]

This was the last period when both PDO and AMO were in the negative or cool mode. Notice that most of the temperature anomalies were in the negative or below average temperatures

A similar cool trend existed in the period 1900-1926 when PDO and AMO were also negative or cool.

US SURFACE AIR TEMP ANNUAL ANOMALY -GISS [C] 1964-1976[PDO & AMO BOTH COOL OR -
VE]

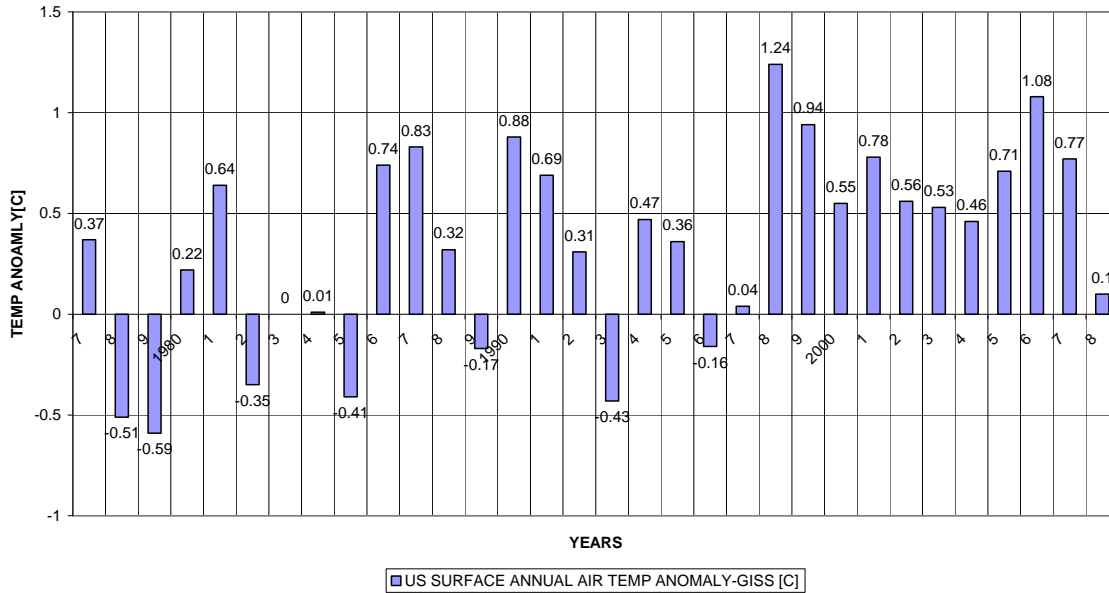


Graph of US SURFACE ANNUAL AIR TEMPERATURE ANOMALIES, GISS[C] 1976-2008

This is the period of so called “global warming”. This was caused by having both the PDO and the AMO in the warm or positive mode. PDO was in the warm mode throughout the period. AMO was positive 1994-2009. Notice the rapid rise in the temperature anomalies especially after 1994. See the next graph for more detail on this period.

There was a similar warming period in 1926-1944 .So global warming existed well before manmade green house gases started to rise after the 1940’s

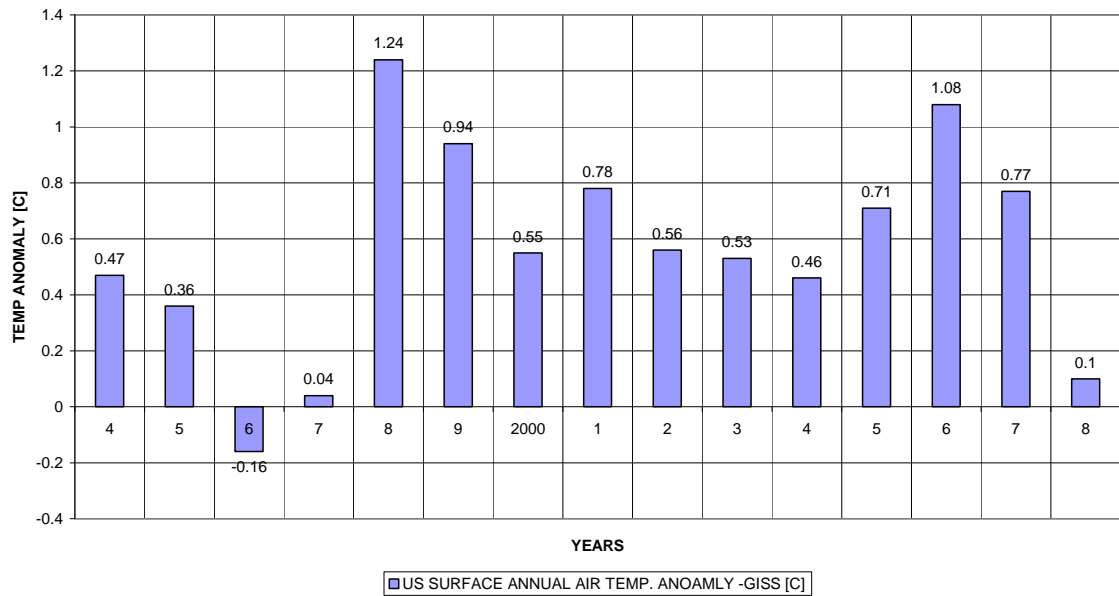
**US SURFACE ANNUAL AIR TEMP ANOMALY-GISS [C]1976-2008 PDO POSITIVE 1976-2007 WARM ,
AMO NEGATIVE 1976-1994 AND POSTIVE 1994-2008**



Graph of US SURFACE ANNUAL AIR TEMPERATURE ANOMALIES, GISS[C] 1994-2008

This was the period when both AMO and PDO were positive or warming. This was the period where bulk of global warming took place and when there were most of the record warm years.

US SURFACE ANNUAL AIR TEMP. ANOAMLY -GISS [C] 1994 2008 [PDO & AMO BOTH WARM OR +VE]



An almost identical period existed during 1925 -1944

PDO AND AMO BOTH IN COOL PHASE –IS GLOBAL COOLING AHEAD?

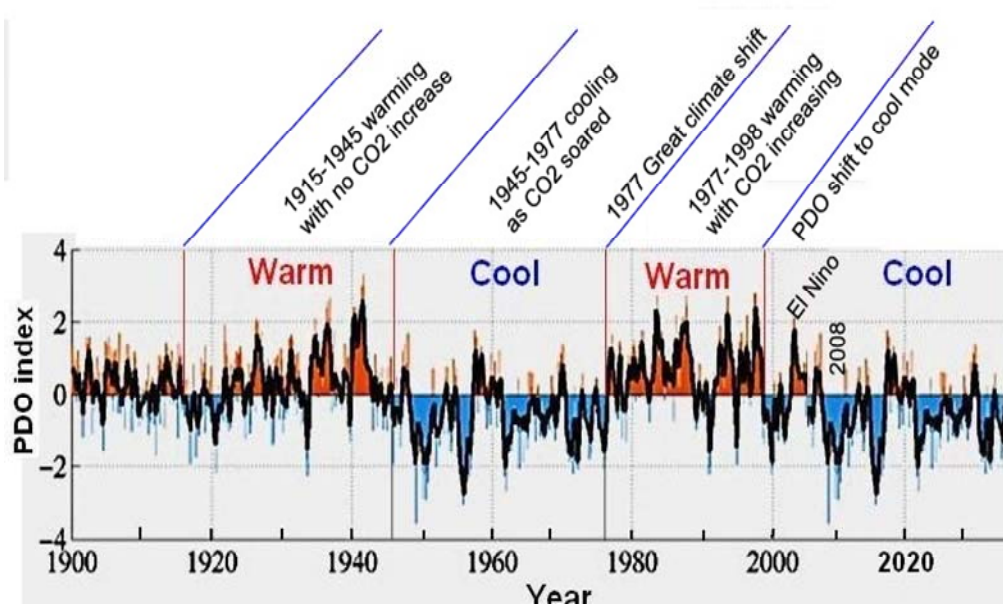
Similar graphs can be prepared for Canada and the globe as a whole.

It would appear that with the PDO and AMO now both in the cool phase again and this cycle can last up to 20-30 years, we are headed for global cooling. We seem to be in the same climate cycle that we were back in 1964-1976. The last two winters have been very similar to those we had back then with all the extra snow and cold temperatures. Could the flooding of the Red River this year due to the extra snow and cold temperatures be a warning of cooler weather to come?

To advise people and the nation to prepare for global warming when global cooling is underway and expected to continue for many more decades is truly tragic when we have so many other more pressing problems.

This cooling is exactly what Professor Don Easterbrook of WESTERN WASHINGTON UNIVERSITY also predicts. See his power point presentation [here](#).

Past and predicted PDO



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REFERENCES:

http://www.heartland.org/bin/media/newyork09/PowerPoint/Roy_Spencer.ppt

http://www.heartland.org/bin/media/newyork09/PowerPoint/George_Taylor.ppt#301,1,Slide%201

http://www.heartland.org/bin/media/newyork09/PowerPoint/Don_Easterbrook.ppt

<http://www.pnas.org/content/101/12/4136.full.pdf+html>

<http://www.intellicast.com/Community/Content.aspx?ref=rss&a=167>

http://www.heartland.org/bin/media/newyork09/PowerPoint/Tim_Patterson.ppt#621,1,Slide