

Old Farmer's Almanac Predictions

Recent headlines proclaim that the Old Farmer's Almanac is forecasting global cooling in 2009 and for the next few years.

http://www.usatoday.com/weather/news/2008-09-09-farmers-almanac_N.htm

There were the usual cynical responses from modern scientist, but the public was generally more open and wanted to know if Almanac's forecasts are accurate. It's an important question but should be asked in the larger context of accuracy of any long-term forecasts.

Benjamin Franklin, one of the most interesting men in history, popularized the almanac format when he published Poor Richard's almanac in 1733. He included weather predictions and commented on the success of his venture.

I am particularly pleas'd to understand that my Predictions of the Weather give such general Satisfaction; and indeed, such Care is taken in the Calculations, on which those Predictions are founded, that I could almost venture to say, there's not a single One of them, promising Snow, Rain, Hail, Heat, Frost, Fogs, Wind, or Thunder, but what comes to pass punctually and precisely on the very Day, in some Place or other on this little diminutive Globe of ours; (and when you consider the vast Distance of the Stars from whence we take our Aim, you must allow it no small Degree of Exactness to hit any Part of it) I say on this Globe; for tho' in other Matters I confine the Usefulness of my Ephemeris to the Northern Colonies, yet in that important Matter of the Weather, which is of such general Concern, I would have it more extensively useful, and therefore take in both Hemispheres, and all Latitudes from Hudson's Bay to Cape Horn.

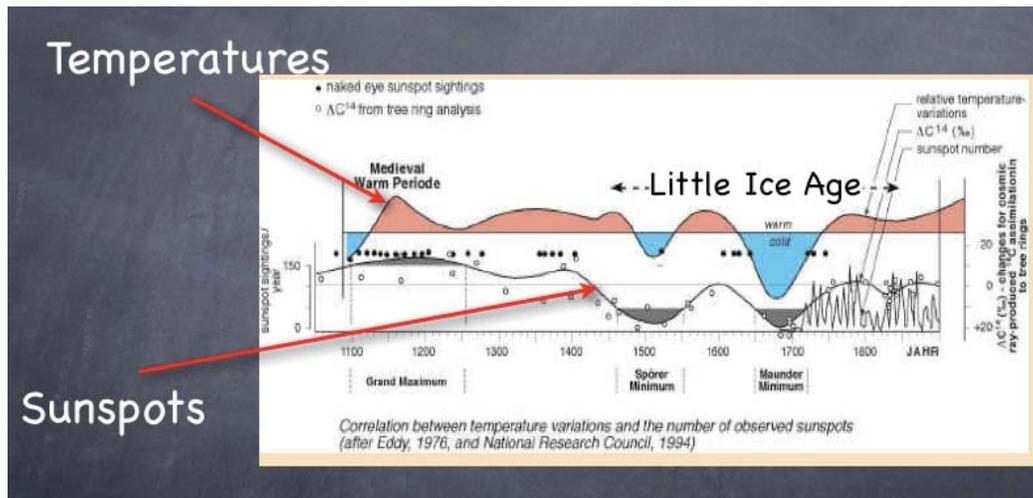
I have dealt with many North American farmers who use the Almanac as a part of their planning. Their commitment varies from total to healthily

skeptical, but as one told me years ago, they are better than government forecasts.

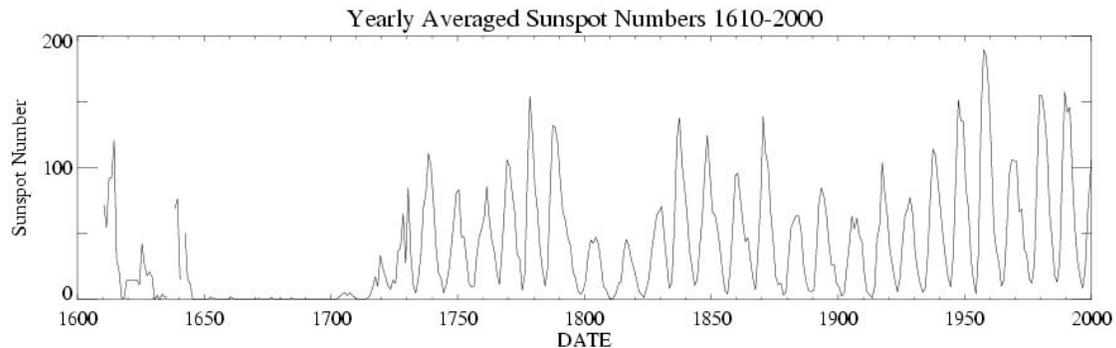
Years ago I was part of a radio discussion on weather for the coming year with editor-in-chief Jud Hale. At that time he protected the secret that is a major part of their prediction process. He was amazed to talk with a climate scientist who believed that there was a very real relationship between sunspot numbers and global temperature. I am pleased the role of sunspots is now central in any discussion. I am also pleased to see they include how major cyclical events such as the Pacific Decadal Oscillation (PDO) of El Nino Southern Oscillation (ENSO). No doubt the participation of meteorologist and climatologist Joe d'Aleo has had a major impact.

Previous forecasts were for one year so this year's almanac is a distinct departure. However, it is logical given the following:

1. A very high correlation between sunspot numbers and global temperature. Here is a plot of sunspot activity since 1100 AD.



A closer look shows the sunspot data since 1610 and the periods of low numbers.



Source: http://solarscience.msfc.nasa.gov/images/ssn_yearly.jpg

Cycle 1 is the one observed by Galileo in 1610 and we are currently leaving Cycle 23. The period from 1640 to 1710 is called the Maunder Minimum and correlates with the climate period known as The Little Ice Age (LIA). The low period from 1800 to 1830 is called the Dalton Minimum and was another period of cold temperatures. The cold was accentuated by the eruption of Tambora in 1815 that caused the “Year with no Summer” in 1816. There is no name for the lower number from 1880 to 1910 but cooler temperatures prevailed and were accentuated by eruption of Krakatoa in 1883. The world has generally warmed since the LIA as the number of sunspots has increased.

2. We now have a mechanism to explain the relationship between sunspot numbers and temperature known as the Cosmic Theory. The amount of cosmic radiation reaching the earth varies with the strength of the Sun’s magnetic field manifested by the number of sunspots. Low cloud varies with the amount of cosmic radiation reaching the lower atmosphere and that, like a screen in a greenhouse varies the amount of solar radiation reaching the surface. High sunspot numbers means less low cloud and higher temperatures. Low sunspot numbers creates more cloud and lower temperatures.

- The decline in sunspot numbers since 2000 AD and forecasts of continued decline anticipate cooler global temperatures at least through cycle 25 in 2030. Here is a diagram of the projected decline.

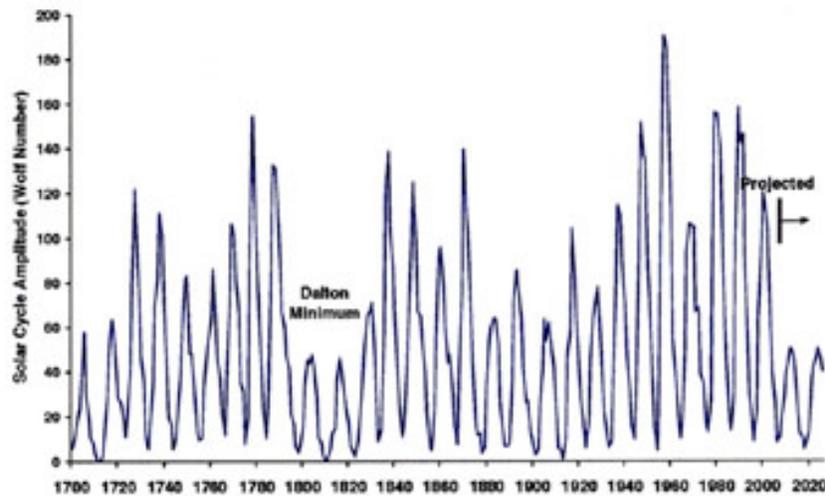
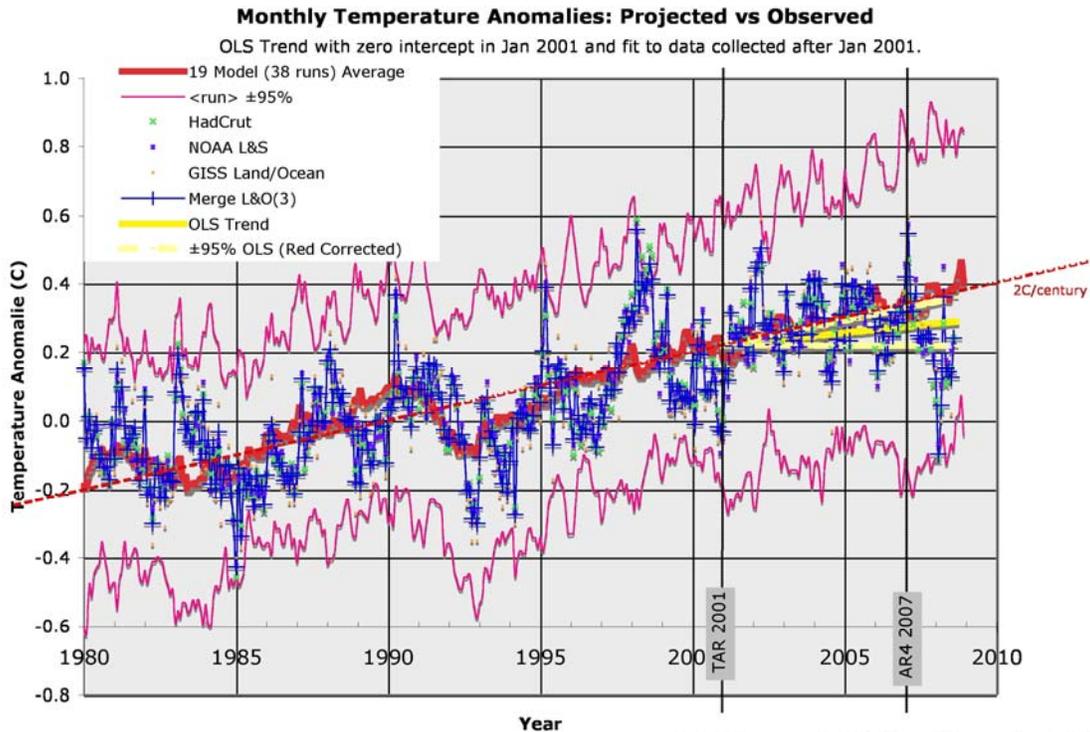


Figure 1: Past Solar Cycles with a Projection of Solar Cycles 24 and 25

Badalyan, Obridko and Sykora's projection of a solar cycle 24 maximum of approximately 50 is shown with the solar cycle activity back to the end of the Maunder Minimum. Solar cycle 25 is also expected to be weak. The rise in amplitudes prior to the Dalton Minimum mimics the rise in amplitude from the late nineteenth century to the end of the twentieth century.

- The prolonged delay between the end of cycle 23 and the onset of cycle 24, increases the likelihood of a lower number of sunspots for cycle 24 and for the current cooling to least through cycle 25 until 2030. Current conditions reflect the changes that preceded the Dalton Minimum.
- The failure of the Intergovernmental Panel on Climate Change (IPCC) computer model forecasts to predict the cooling since 2000 most likely attributable to the failure to include the relationship between sunspot numbers and temperature in those models. Here is a plot of the temperatures from three different surface sources; HadCrut, NOAA and GISS. They all show the recent cooling, however it is important to note that they differ although ostensibly using the same data. The Yellow line

shows the Ordinary Least Square (OLS) trend since January 2001, while the Red line shows the IPCC prediction at 2 C/century. The IPCC projection is outside the 95% OLS trends, so is falsified.



Lucia Liljegren, The Blackboard September 8, 2008

Many years ago a student did an undergraduate paper examining the accuracy of in the Almanac forecasts. I will not attempt to claim it was scientific in any way; however it did identify some interesting points. The first was the macro forecasts were approximately 80% accurate, that is statements about warmer or cooler than average or waiter and drier than average. Where they failed miserably was in attempts to forecast severe weather in very narrow time periods. It was easy to see why the farmers were favorable because it is the macro weather patterns that concern them.

They simply add their own experience and local knowledge to these patterns.

Recently, a private weather forecasting service provided by Piers Corbyn in Britain has achieved remarkable results with monthly and seasonal forecasts. After establishing the viability of his method in Britain he recently expanded the forecasts for the World. I have spoken at length with Piers and was not surprised to learn that the fundamental measure of his forecasts is solar activity, especially sunspots. You can visit his webpage here;

<http://www.weatheraction.com/>

The mainstream scientists, especially those with government or associated with the IPCC, have attacked and ridiculed Corbyn's work just as they do with the work of the Farmer's Almanac. However, my money is within any forecast that includes the long-established relationship between sunspots and global temperature.

Dr. Tim Ball

September 2008