



THE BLOG 09/02/2016 04:19 pm ET | **Updated** Dec 06, 2017

Waiting For The Next Sunspot Cycle: 2019-2030



By Dr. Sten Odenwald

or the beginning of a century-long absence of sunspots and a rise in colder climates?

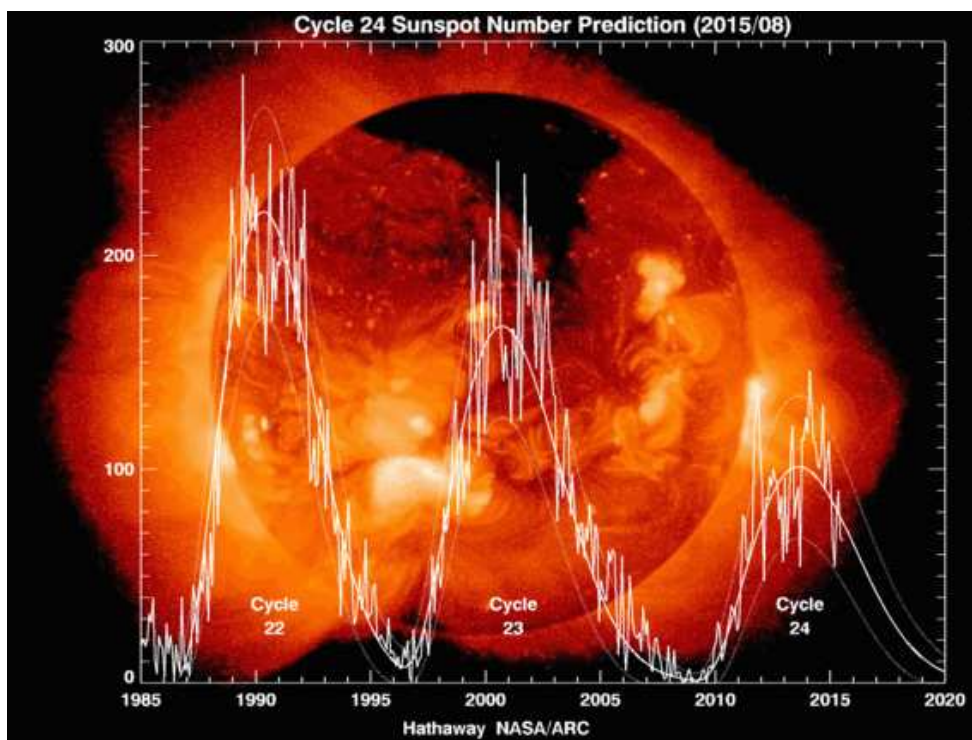


Figure showing the sunspot counts for the past few cycles.

(Credit: NASA/ARC: Hathaway)

Ever since Samuel Schwabe discovered the 11-year ebb and flow of sunspots on the sun in 1843, predicting when the next sunspot cycle will appear, and how strong it will be, has been a cottage industry among scientists and non-scientists alike. For solar physicists, the sunspot cycle is a major indicator of how the sun's magnetic field is generated, and the evolution of various patterns of plasma circulation near the solar surface and interior. Getting these forecasts bang-on would be proof that we indeed have a 'deep' understanding of how the sun works that is a major step beyond just knowing it is a massive sphere of plasma heated by thermonuclear fusion in its core.

So how are we doing?

For over a century, scientists have scrutinized the shapes of dozens of individual sunspot cycles to glean features that could be used for predicting the circumstances of the next one. Basically, we know that 11-years is an average and some cycles are as short as 9 years or as long as 14. The number of sunspots during the peak year, called sunspot maximum, can vary from as few as 50 to as many as 260. The speed with which sunspot numbers rise to a maximum can be as long as 80 months for weaker sunspot cycles, and as short as 40 months for the stronger cycles. All of these features, and many other statistical rules-of-thumb, lead to predictive schemes of one kind or another, but they generally fail to produce accurate and detailed forecasts of the 'next' sunspot cycle.



Years Of U.S. Government Lies Could Soon Result In A Kurdish Massacre

A Suspected Serial Killer May Have Targeted Toronto's Gay Village For Years

Goose Hunter Knocked Unconscious By Dead Bird Falling From Sky

A 'Fifty Shades Of DeVito' Film Would Make The World A Better Place

WHAT'S HOT

Nassar Reportedly Abused Over 2 Dozen Girls And Women During Sluggish FBI Investigation

Trump Administration Takes Aim At Protections For California Desert

Husband Of Former Trump Household Staffer Now An EPA Official

These Patriots Offensive Linemen Say They'd Support A Gay Teammate

Lady Gaga Cancels Rest Of World Tour Because Of 'Severe Pain'

Inside Michael Stuhlbarg's Heartbreaking Monologue From 'Call Me By Your Name'

[ABOUT US](#)

[Contact Us](#)

[Careers](#)

[Privacy Policy](#)

[ADVERTISE](#)

[RSS](#)

[Archive](#)

[Comment Policy](#)

[About Our Ads](#)

[FAQ](#)

[User Agreement](#)

