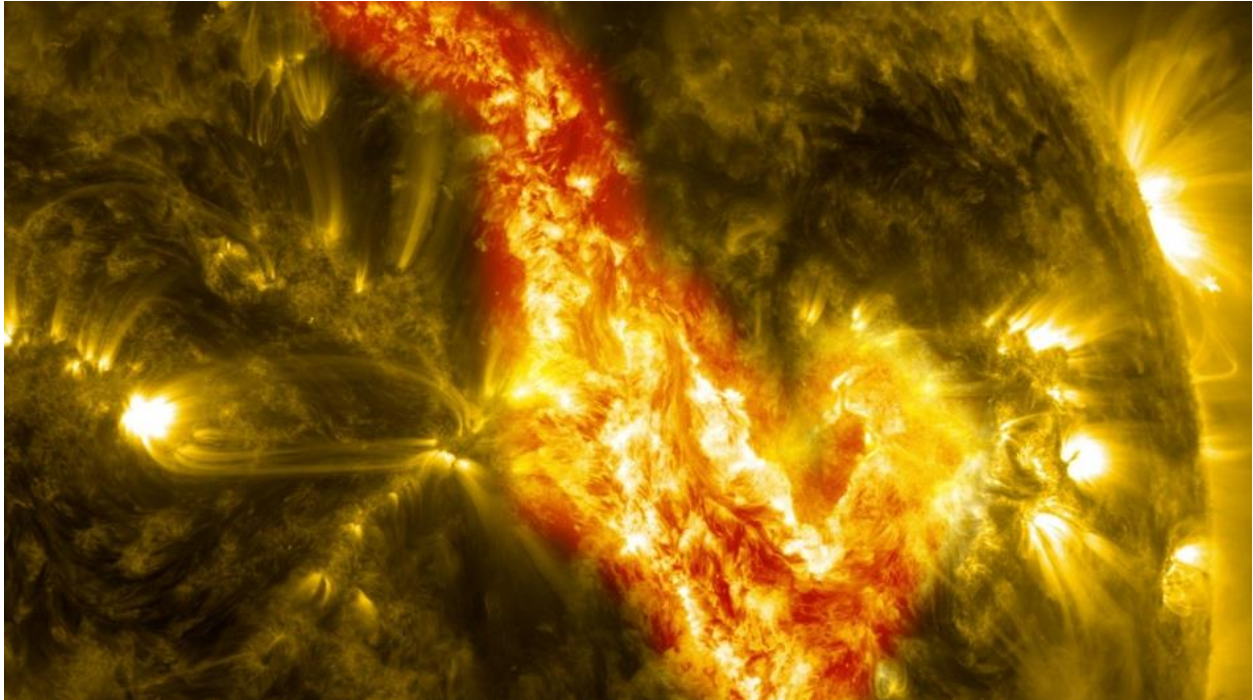


Sunspotters – Canyon of Fire as Sun hits a peak of activity



Filament Eruption Creates 'Canyon of Fire'

“A magnetic filament of solar material erupted on the sun in late September, breaking the quiet conditions in a spectacular fashion. The 200,000 mile long filament ripped through the sun's atmosphere, the corona, leaving behind what looks like a canyon of fire.”

<http://www.nasa.gov/content/solar-filament-eruption-canyon-of-fire/>

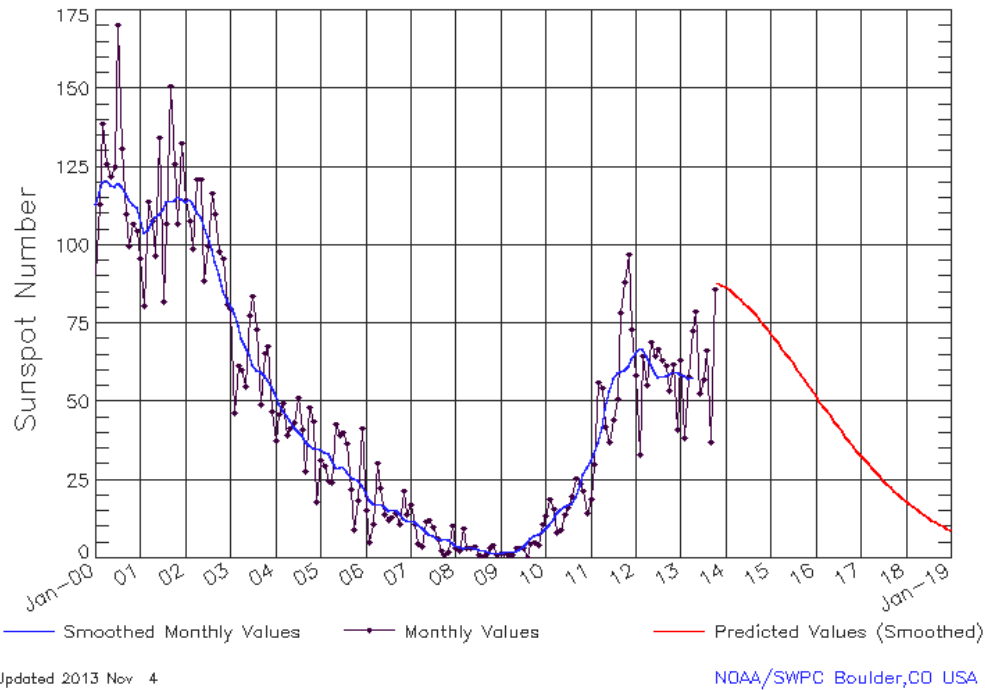
Postings

- **Sunspot Cycle 24 awakens for final Hurrah?**
- **Cycle 24's unusually weak magnetic field**
- **Sun's magnetic field defines climate over the long term**
- **Mystery of the hot solar corona may be solved**
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Final Hurrah?

From its quiescent state of the last two years, the sun's activity has spiked in October with an average sunspot number of 86 versus September's 37. This is the highest number in two years.

ISES Solar Cycle Sunspot Number Progression
Observed data through Oct 2013



In a prior posting, the possibility of Twin Peaks of sunspot activity was discussed. This new peak probably confirms that prediction.

Probably??

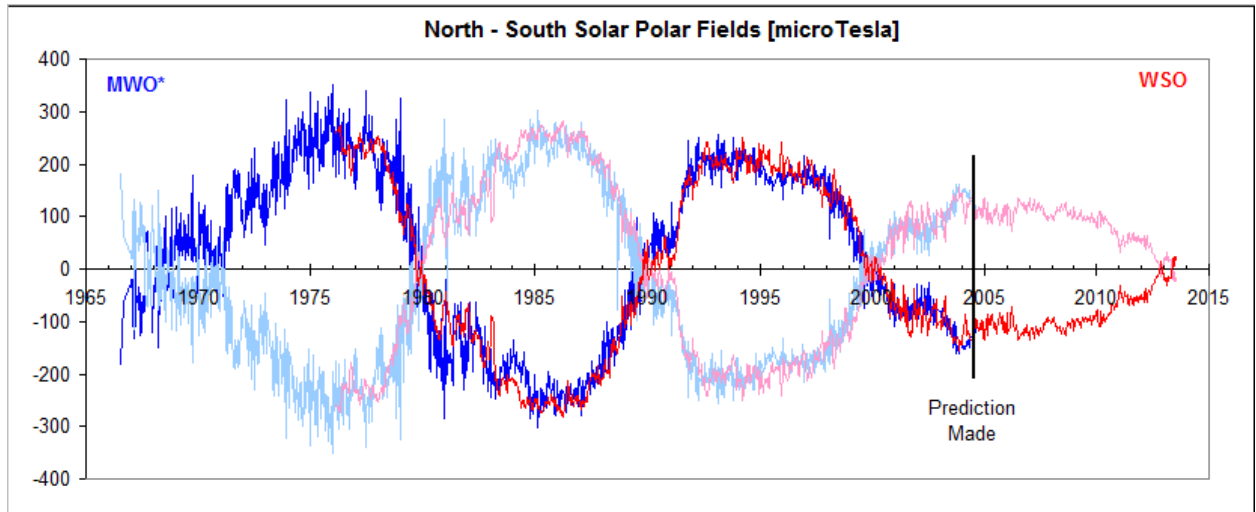
Until it's declared "over" and Cycle 25 is confirmed, there could be other surges of activity.

If this is the final, final peak then the sun activity and magnetic fields will decline over the next 4-6 years until the magnetic poles flip.

Even with this burst of activity, Cycle 24 still ranks as one of the weakest in the last 100 years.

Cycle 24's unusually weak magnetic field

The graph below compares the strength and longevity of the magnetic field of Cycle 24 with prior Cycles.



Sun's magnetic fields defines climate over the long term

“The role of the Sun is one of the largest unknowns in the climate system.”

<http://wattsupwiththat.com/2013/10/31/new-paper-suggests-the-suns-magnetic-fields-defines-climate-over-the-long-term/>

There are several new scientific articles that link the sun's magnetic field intensity to Earth's polar region climate. The recent 17 year pause in global temperature, tornado activity, and other climate factors may be related to low solar magnetic activity. (Graph above)

Lots of correlation of many factors are presented ... but “Correlation is not Causation”. There is a strong statistical correlation of the foot size of children with their math skills.

The arcane discussion in the article of Rossby Waves and Wilcox Effect in a language that I think might be English is impossible for one less endowed than an Einstein to follow.

But the fact that there is another “unknown”, possibly critical Climate factor being explored is very interesting. I guess we may have to revisit the mantra that “the Science is Settled”.

“Where have you gone Carl Sagan, our nation turns its yearning mind to you.”

Where is the next Sagan to write and speak and teach in clear English?

Mystery of the hot solar corona may be solved

<http://wattsupwiththat.com/2013/10/16/70-year-old-conundrum-of-the-hot-solar-corona-may-be-solved/>

“Drs. Michael Hahn and Daniel Wolf Savin, research scientists at Columbia University's Astrophysics Laboratory in New York, NY, found evidence that magnetic waves in a polar coronal hole contain enough energy to heat the corona and moreover that they also deposit

most of their energy at sufficiently low heights for the heat to spread throughout the corona. The observations help to answer a 70-year-old solar physics conundrum about the unexplained extreme temperature of the Sun's corona – known as the coronal heating problem.”

I think I'm being “attracted” to the importance of magnetic fields.

Pot Pourri

When our Earth egos become inflated with our Cosmic Importance, we should gaze on Earth from a distant neighbor planet ... Saturn anyone?

That dot of light is Us.



*A tiny blue dot set in a sunbeam. Here it is. That's where we live. That's **home**.*

*We humans are one species and this is our world. It is our responsibility to cherish it. Of all the worlds in our solar system, the only one so far as we know, graced by **life**.*

(Carl Sagan)