Notes on the solar cycle properties

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The 11-year sunspot cycle was discovered in 1843. As noted at Poulos, 2015 (1) it has it's origins to planetary gravitational forces on the solar surface. As the three inner planets to have significant tidal effect: Earth, Venus and Mercury have very sort rotating periods, the sunspot cycle is mainly manifested after Jupiter's rotation. All the four planets though participate on how strong the cycle shall finally manifest. As those planets have a mean maximum synodic period of 265 years (calculated at Poulos, 2005 (2)) the solar cycle reaches it's maximum every 265 years. The last time it became maximum was around 1950 when indeed all the four planets where in line at their maximum synodic neighboring as has been described in Poulos, 2014 (3).

Although the 11-year solar cycle was first discovered in 1843, attempts have been made to reconstract prior to 1843 sunspot numbers by the scarce prior to that observations. As sun spots where first discovered by Galileo, the reconstractions dating goes back to 1600. Though those reconstractions are popular and are presented together at one graph usually with modern, after 1850 measurements of the sunspot number, in fact they are invalid. As the norm for modern sun spot numbering was defined around 1850, it is incorrect to compile at one graph with modern measurements the scarced observations that were made before. Prior observers had each his own definition on the sunspot number. As a result of these poor reconstractions we can easily been driven to paradoxes as does NASA here:

http://solarscience.msfc.nasa.gov/SunspotCycle.shtml where it claims that the sun had no spots between 1645-1715. But 1645 was the year Galileo died and it is natural that people did not count sun spots for several decades thereafter, at least as excessively as Galileo did. Moreover those graphs fail to show the 265 year periodicity of the solar cycle, that is present in the after 1850 measurements.

The 265 year periodicity as well as the 251 year Earth-Venus resonance periodicity are documented in the above referenced texts to play a key role on Northern Hemisphere temperatures variability. The 265 year cycle affects climate by the fluctuations in solar luminance derived from varied solar activity due to sun spots, while the 251 year cycle affects climate by solar wind variability.

References

1. Poulos, D. From solar corona formation to earth climate, the solar wind driven climate, Sep 2015

2. Poulos, D. Investigation of periodical astronomical effects on hydroclimatic phenomena, Sep 2005

3. Poulos, D. Planetary orbits' effect to Northern Hemisphere climate, from solar corona formation to the earth climate, Aug 2014