International Journal of
Science and Engineering Investigations
vol. 9, issue 101, June 2020
Received on June 15, 2020
ISSN: 2251-8843

What Is Solar Wind?

Dimitris Poulos
Civil Engineer NTUA, MSc Hydrologist NTUA
(dimispoulos@gmail.com)

Abstract-Solar wind is an infinite oscillation, the result of Earth-Venus orbital resonance. Solar wind variations show in climate data series and accurately predict climate variations. As solar wind drives away cosmic dust, it makes the Sun shine brighter, warming Earth.

Keywords- *Solar Wind, Tides, Resonance, Climate, Cosmic Dust, Ice Age*

I. EXPLANATION

Orbiting planets exert tidal forcing to the solar surface. The four planets with the greater tidal intensity to the solar surface are Mercury, Venus, Earth and Jupiter. The other planets force is much weaker. Various researchers have attempted in the past to connect solar activity to the tidal forces of orbiting planets. Takahashi (1968) is a pioneer of the concept though he did not have much success to showing the requested. Recently Stefani et al (2019) pondered on the idea. But he oddly left Mercury out of the equation. Moreover he claimed some solar dynamo to justify his claims. But this is quite odd since tidal forces are very weak to have any effect to the solar interior. Anyway the phenomena take place to the solar surface, not core. Poulos (2005) hypothesized some interference of planetary tides to the solar photosphere and connected with success the derived solar activity variations to climate data series. As the photosphere is a very low density gas in a marginal balance state between collapsing due to gravity and expanding due to thermal volume, one is expecting that minimal external forcing like planetary tides may play a key role manipulating it.

Indeed Hung (2007) showed that most solar flares were observed to start when one or more tide-producing planets (Mercury, Venus, Earth, and Jupiter) were either nearly above the event positions or at the opposing side of the Sun.

Poulos (2016) argued that the apparent connection between tidal forcings and the climate where because of solar activity and solar wind variations dictated by the two cycles of 265 and 251 years calculated at Poulos (2005). But what is solar wind? Solar wind seems to be an infinite oscillation, the result of Earth-Venus orbiting resonance. Solar particles leave the photosphere at escape velocity to reach infinite. As they are only slowing down by the drug force of the external photosphere layer, solar wind intensity seems to be the composite of the 265 and 251 year cycles (as well as the 11 year short solar cycle).

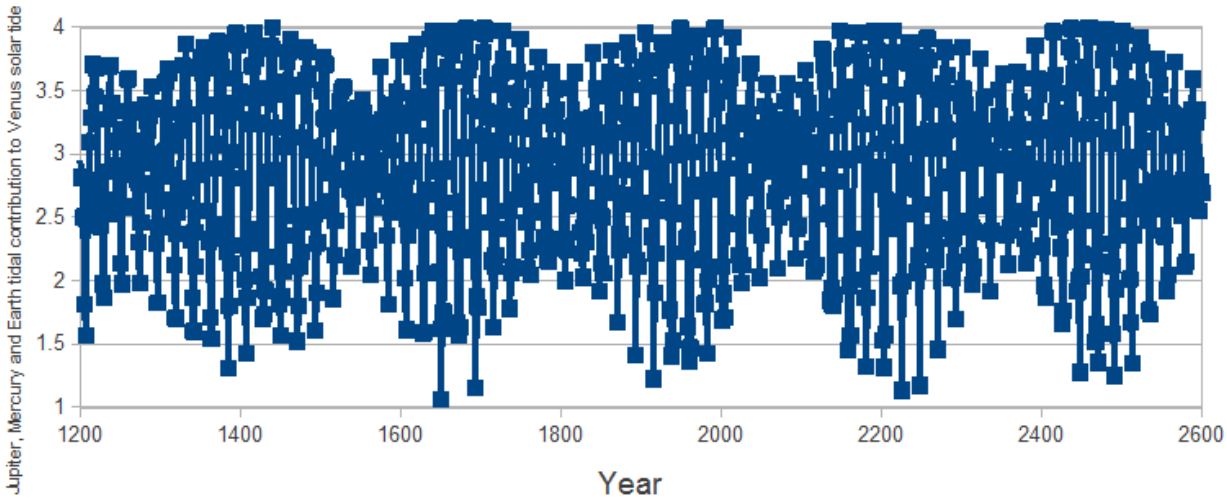

Figure 1. Depicting the 265 year solar cycle as well as the 22 year solar magnetic cycles resulting from planetary tides.

Figure 1 depicts the tidal contribution of the two other planets to the Venus tide, when Earth is aligned with Venus. This shows how much Mercury and Jupiter tidally contribute to the solar wind resonance. The two periodicities of 265 and 22 years are revealed. Together with the 251 year period of the Earth-Venus orbiting resonance, they form the main three stimulation frequencies of the solar activity cycles.

As Poulos (2005) has shown the 251 and 265 year periodicities show in climate data series. Specifically they accurately describe the last 1000 years climate as reconstructed by Jones et al (1998). Especially if you add the AMO index oscillation of about 70 years periodicity, that counts for internal system variability, you get an extremely accurate climate prediction.

Various researchers have found evidence that connect the late 20th century high temperatures to increased solar wind intensity and the derived geomagnetic manipulation. Carslaw et al (2002) clearly depicts this. But rather than searching in a cosmic ray intensity or cloudiness variation to explain the climate variations mechanisms, other proposals have arisen.

Indeed solar wind variations correlate to climate variations, but what is the reason?

In LaViolette (1985) there is evidence that cosmic dust concentrations where two orders of magnitude greater in the last glacial age than they are nowadays. It is stated that this high concentration of cosmic dust during the last ice age, should have changed the light transmitting properties of our solar system. Increased cocalsmic dust prevents light from reaching Earth, driving it into an ice age. Strong solar wind drives away cosmic dust, making the Sun shine brighter, and warm Earth. Solar wind variations are followed by cosmic dust variations that alter the Earth climate.

Solar wind intensity should not be constant. As the orbiting resonance of Earth and Venus changes in duration, solar wind forms in different depths in solar photosphere, that correspond to different thermal natural frequency durations. As the Earth-Venus resonance becomes say of 1000 years periodicity, solar wind should originate very deep in the solar photosphere. As a result the whole wind should be absorbed by the outer photosphere layers. The Earth-Venus resonance should be that long for certain long intervals. As the orbital eccentricity of Earth changes in an 100k years periodicity, this resonance is disturbed, driving to shorter resonance periodicities. During these periods, solar wind should be strong to drive away cosmic dust, making the Sun shine brighter and warm Earth. During an ice age solar wind is absorbed in the photosphere, becomes weak and the Sun dims in between volumes of cosmic dust making Earth fall in an ice age.

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How to Cite this Article:

Poulos, D. (2020). What Is Solar Wind?. International Journal of Science and Engineering Investigations (IJSEI), 9(101), 27-28. http://www.ijsei.com/papers/ijsei-910120-04.pdf