The Close Correlation between Earth's Surface Temperature and its Rotational Velocity as well as the Close Correlation between the Planetary Orbital Periods and the Periods of the Solar Cycles Prove that Climate Changes are Driven by Galactic Gravitational Waves

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***Abstract**: In a previous Note (see Ref.) it was shown that climate change is driven by solar activity which in turn is caused by the action of galactic vacuum density waves on the core of the Sun. Irrefutable proof of the existence of these super-Einsteinian waves is given by the extremely close correlation between the changes in the mean global surface temperature and the small changes in the rotational velocity of the Earth - two physically unrelated geophysical quantities - in the past 150 years (see Fig. 2.2 of www.fao.org/DOCREP/005/Y2787E/y2787e03.htm or Ref.). In the present Note it is shown that the orbital periods of the planets of the Solar System provide further evidence. All periods are very close to integer fractions and multiples of the periods of the Hale and the Gleissberg solar cycles.*

In an excellent paper by the late Dr. Theodor Landscheidt (see www.schulphysik.de/klima/landscheidt/iceage.htm) it was shown that the Sun's Gleissberg activity cycle is closely correlated with the oscillations of the Sun around the center of mass of the solar system. The first and second space derivatives of the gravitational potential of the planets in the vicinity of the Sun are, however, so minute that it cannot be envisaged how the extremely slow motion of the Sun about the center of mass of the solar system could physically influence the processes within the Sun. It is much more likely that a common external agent is driving both the Gleissberg cycle and the related oscillatory barycentric motion of the Sun.

The small motion of the Sun is, of course, determined, almost entirely, by the motion of the large planets Jupiter, Saturn, Uranus, and Neptune that revolve around the Sun with periods of 11.87, 29.63, 84.67, and 165.49 years respectively. Note that the sunspot cycle (Hale cycle) has a mean period of 22.14 years (see T. Niroma in www.personal.inet.fi/tiede/tilmari/sunspot4.html) and in my previous Note **"A Compilation of the Arguments that Irrefutably Prove that Climate Change is driven by Solar Activity and not by CO2 Emission"** of March 6, 2008 (see Ref.), I pointed out that in the past 150 years the mean surface temperature of the Earth changed in a quasi-periodic manner with a mean period of 70 years, approximately, in accordance with the Gleissberg cycle. If one considers all of the documented sunspot cycles, the mean Gleissberg cycle length is 78.5 years (see T. Niroma). If we stipulate for the moment that there exists - in addition to the 78.5-years wave - a galactic vacuum density wave of 22.14 years period that is driving the Hale cycle, then the addition of both

waves leads to a periodic amplitude modulation with a period of 2/(1/22.14 - 1/78.5) = 61.68 years.

If two galactic gravitational wave trains of 22.14 and 78.5 years period were to pass through the solar system, the gravitational action of these waves on the revolving planets would slowly relocate these celestial bodies until the orbital periods were close to 22.14, 61.68, and 78.5 years (the periods given by the combined wave train) or integer fractions and multiples of these values. The orbital periods of Jupiter and Saturn are 1% higher, and 4% lower than one-half of 22.14 and 61.68 years, respectively. The orbital period of Uranus is 8% higher than the period of the Gleissberg cycle. The orbital period of Neptune is 5% larger than 2 times the mean Gleissberg period and that of Pluto is 7% larger than 3 times Gleissberg.

Note that if the period of the long-term Gleissberg cycle were 7% higher, the three basic periods would be 22.14, 60.13, and 84.0 years and the orbital periods of all outer planets would agree with integer fractions and multiples of these basic periods to an accuracy of 1.5% or less.

Now to the remaining planets. The following table shows the ratio of the mean Schwabe sunspot cycle period of 11.07 years to the planet orbital period.

Mars = 6 - 0.11 Earth = 11 + 0.07
Venus = 18 - 0.01 Mercury = 46 - 0.04

With an average error of 6% of an orbital period, the orbital periods are whole-number fractions of the mean Schwabe sunspot cycle period.

As can be seen, the 22.14 years and the 78.5 - 84 years galactic wave trains have brought good order into the Solar System.

In my opinion, the orbital periods of the planets provide -- in addition to the extremely close temperature-rotation-correlation -- further evidence for the existence of galactic vacuum density waves with mean long-term periods of 22.14 and 78.5 - 84 years.

Ref.: www.icecap.us/images/uploads/Lobert_on_CO2.pdf