Variation in Dowsing Measurements due to the Combined Vorticity in the Ecliptic Plane of the Earth's Orbit around the Sun, and the Spin of the Earth around its Tilted Axis

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Abstract

Many published papers have proved that dowsing is affected by some local astronomical and physical forces. This paper details the effects on dowsing measurements over a period of one year, due to the changes in vectors caused by the spin of the earth (1) on its tilted axis, and (2) in its elliptical orbit around the sun.

Via the use of a standard yardstick, significant turning points in curves representing measurements of length occur at equinoxes and solstices. Vector lengths affected by the radial spin vector pointing towards the sun have maxima and minima at equinoxes. This coincides with maximum vorticity in the radial vector as the earth's plane of spin passes through the ecliptic plane. Lengths affected by the tangential spin vector in the direction of the earth's orbit have a minimum during June and July. This is expected as the earth is furthest from the sun at aphelion, and hence at minimum vorticity. Solstices produce perturbations to the main curves.

Introduction

From ancient times, solstices and equinoxes have had a perceived significance: One example was that their importance provided sufficient motivation for the construction of substantial megalithic structures, incorporating astronomical alignments to mark these events. More recently, it has been known that energy lines and dowsing measurements are affected by equinoxes and solstices. In particular, *References 2 and 3* demonstrate that dowsing measurements are affected by annual, lunar month, and daily variations due to the earth, sun and moon's gravitational attraction. *Reference 4* details the effects of vorticity on dowsing measurements in laboratory conditions. This paper develops these findings and details the effects on dowsing measurements over a period of one year, due to the combined changes in spin vectors caused by the spin of the earth on its tilted axis, and the earth's elliptical orbit around the sun. Figures 1 and 2 illustrate the concepts.

Protocol

A standard yardstick and protocol (*See Reference 1)* involves dowsing pure geometry and the measurement of the perceived length of a dowsable line generated by the simplest geometry - a dot. This technique has been adopted as the basis for the experiments detailed in this paper. The effects of ecliptic plane spin were detected and measured by extending and adapting the above with the following protocol and dowsing intent. Using the diagram in Figure 1 as a guide, the solar system was visualised looking down on the ecliptic plane, and the earth spinning on its tilted axis, with the top of its axis gradually tilting towards and away from the sun, together with the plane of the earth's spin crossing the ecliptic plane.

The radial spin vector in the plane of the earth's spin was then visualised, leading to the component of this vector in the ecliptic plane. Simultaneously visualised was the path of the static observer/dowser located at a point on earth being affected by a vector combination of the earth's daily spin, plus the annual orbit of the earth around the sun.

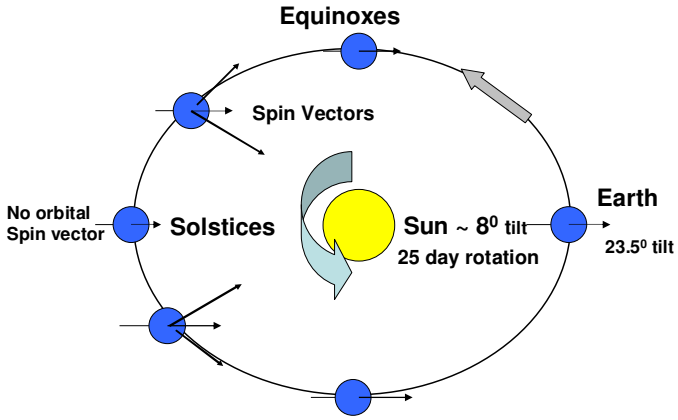

Figure 1

Using the dot yardstick, the mind requests that the radial vector being measured affects the local Information Field interfacing with the dot, which in turn, affects the dowsed line. The length of the perceived line was measured when intent was focussed solely on the combined radial orbit and spin vector in the ecliptic plane.

As part of the intent it is important to positively ignore all the other known causes that affect the length of the dowsed line. These include the daily, monthly and annual variations due to astronomical and gravitational changes, the sun and moon's gravity, tides, and hours of day light.

The above protocol was then repeated for the tangential vector.

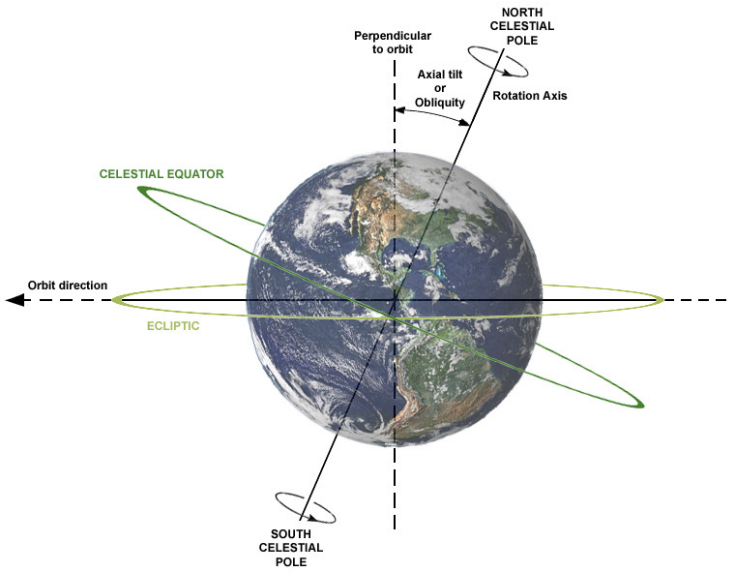

Figure 2

Findings

The graphs in Figure 3 summarise the findings, with the x-axis giving dates, and the y-axis representing the length of the yardstick line in mms. The curve with the blue line and circular brown data points are the lengths associated with the radial vector pointing towards the sun. The curve with the red line and yellow triangular data points are the lengths resulting from the tangential vector in the direction of the earth's orbit around the sun. Each of these curves is discussed below.

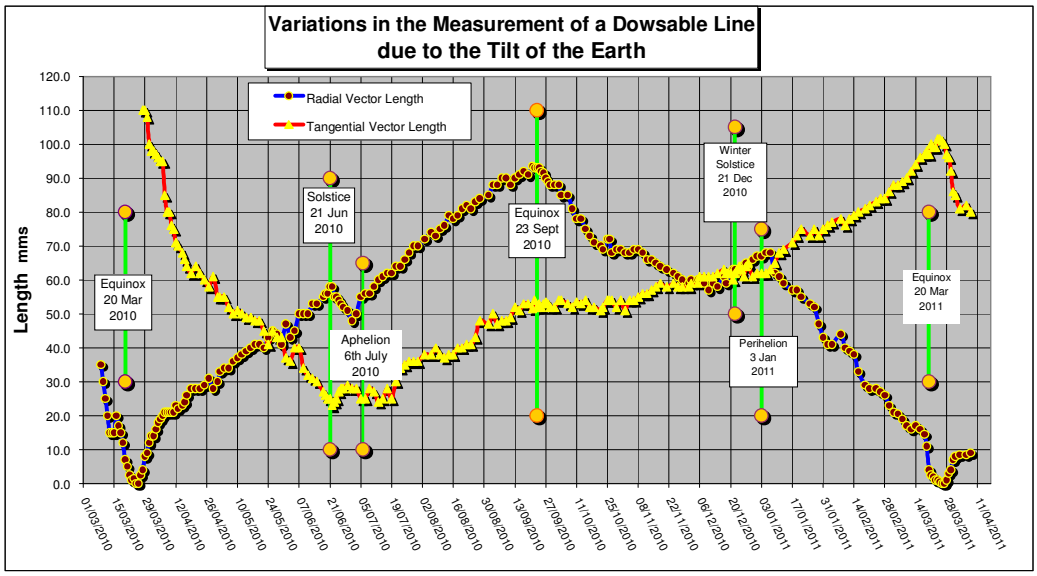

Figure 3

Brown/Blue curve: radial vector pointing at sun

There are 2 well defined turning points on the radial vector curve that coincide with the March (2010 and 2011) and September 2010 equinoxes. At equinoxes the plane of the earth's spin is crossing through the ecliptic plane. The curve suggests that the dowsing measurements are obeying an approximation to a cosine vorticity rule, plus positive and negative vectors.

However, the effects of vorticity at the September equinox should be the same as at the March equinox. Why therefore are there higher values at the September equinox and lower values at the March equinox?

It looks as if dowsing has been very clever and got around representing a negative length and direction of vectors by moving the x-axis down from about y=50mms, so that the minimum value of the radial vector length equals 0. If so, the Information Field/Consciousness/the Mind must have known well in advance the results found on the 26th March, based on the initial intent on the 8th March!

The higher values between the summer and winter solstices are due to the representation of positive vectors, with the culmination of maximum vorticity at the September equinox. Similarly, the negative vectors are represented by the lower values between the winter and summer solstice, culminating in the minima in March 2010 and 2011.

Confidence in this vorticity technique is increased because this experiment was continued by the author whilst in the Canary Islands during a week in October and in the middle-east in December. In both cases the measured lengths became greater, due to increased vorticity nearer the equator.

However, there are several apparent anomalies. Why is the equinox minimum on 26th March 2010 and 27th March 2011 but not on 20th March which is the predicted date of equinox? What caused the kink in the curve just after the June solstice and before aphelion? There was the same effect at the end of December 2010 between solstice and perihelion.

Yellow/Red curve: tangential vector pointing in the direction of the earth's orbit

The tangential vector curve has a minimum during June and July. This is expected as the earth is furthest from the sun at aphelion, and hence at minimum velocity and vorticity.

The tangential vector curve has maxima at the March equinoxes. However, there are further anomalies as the maximum vorticity should be at perihelion not at equinox? Similarly, why are the maxima on 26th March and not on 20th March, and why does the curve collapse so quickly after the March equinoxes? It is also not obvious why there is a triple dip between the June solstice and 13 days after aphelion?

From Figure 3, the lengths due to vorticity varied between 0 mms and 90 mms. As a comparison to the effects on dowsing by changes in gravity, *(References 2 and 3)*, the length of the same yardstick line varied by about 2 metres. The spin effect of the earth on dowsing is therefore an order of magnitude smaller than gravity.

Analysis and Theory

The objective here is to calculate the Vorticity of a fixed observer on earth due to the combined

1. rotation of the earth on its tilted axis (i.e. 360° in 24 hours) and
2. the earth orbiting the sun (i.e. 360° in 1 year).

The following are order of magnitude calculations for the above angular velocities – the starting point for vorticity.

Angular speed of the Earth's rotation on its axis in radians per second

2π radians in 24 hours (24*60*60 = 86,400 seconds)

2π radians/86,400 seconds = $\mathbf{7.27 \times 10^{-5}}$ **rad/s**

Average angular speed of the Earth around the Sun in radians per second

2π radians in 1 year (365.25*24*60*60 = seconds)

2π radians / (365.25 * 24 * 60 * 60) = $\mathbf{1.99 \times 10^{-7}}$ **rad/s**

As is apparent, the angular speed of the earth's orbit around the sun is two orders of magnitude less than the earth's rotational speed on its axis, so it may have been thought that the former could be ignored. However, from *Reference 4*, we know that auras increase as a function of both **angular velocity** and **distance** from the axis of spin.

Vorticity

The objective of this section is to obtain order of magnitude calculations in an attempt to explain the above findings, and to ascertain if the mind's initial intent for the experiment was realised. Based on *Reference 4*, the simplest but arbitrary definition of Vorticity, **V** is a linear function of radians per second (**ω**) multiplied by radius (**r**). i.e. $\mathbf{V = r \cdot \omega}$. As commented below, this is different from other definitions of vorticity. A further simplification is to ignore all perturbations including the effects of the sun's rotation and tilt, any effects of the moon, tides, planets, or oscillations of the earth's axis, etc.

The vorticity of the location of the experiment due to the spin of the earth on its axis is calculated as follows. The mean radius of the earth is 6,371 km. The latitude of Bournemouth, United Kingdom where the measurements were taken is **50° 43' 0" N.** The cosine of this angle (0.633156) multiplied by the earth's mean radius = 4,033.8 kms, or $\mathbf{4.034 \times 10^6\ m}$. This is the distance of the experiments from the earth's axis.

Therefore, the vorticity of the rotating earth at Bournemouth is

7.27×10^{-5} rad/s * 4.034×10^6 m = $\mathbf{2.9 \times 10^2}$ **m.rad/s**

The vorticity of the location of the experiment due to the earth's orbit of the sun is calculated as follows. The mean radius of the earth's orbit around the sun is 150 million kilometers, or 1.5×10^{11} m. The vorticity of the earth's orbit is therefore

1.99×10^{-7} rad/s * 1.5×10^{11} = $\mathbf{3 \times 10^4}$ **m.rad/s**

Using the above definition of vorticity, the orbital vorticity is 2 orders of magnitude greater than the earth's spin on its axis. So when the distance between the sun and earth is taken into account, the vorticity of the earth's rotation on its axis is insignificant. This difference is 4 orders of magnitude greater if the usual definition of vorticity is adopted, i.e. $\mathbf{V = \frac{1}{2} \cdot r^2 \cdot \omega}$. It is therefore difficult to understand how the mind as depicted in Figure 3 was able to detect and separate out the equinox effects from the greater orbital effects.

The experimental requirement was that the general vorticity of the rotating earth (as calculated above) needs to be resolved into a vector in the ecliptic plane. i.e. a radial vector pointing at the sun. The diagrams in Figures 1 and 2 illustrate the requirement. The tilt of the earth's equatorial plane of spin relative to the ecliptic plane is zero at both equinoxes, and **23.5**° at both solstices. The vorticity in the ecliptic plane is therefore a maximum at the equinoxes and a minimum at the solstices.

Cos 23.5° = 0.91706 so the assumed vorticity of the earth's spin at Bournemouth in the ecliptic plane varies between $\mathbf{2.9 \times 10^2}$, and 0.91706 * 2.9×10^2 = $\mathbf{2.7 \times 10^2}$. As a first approximation, and assuming the velocity of the earth around the sun is constant, this range of values can be spread over 1 year, with 0.29 at equinox and 0.27 at solstice. Assuming a sine wave distribution, equinox can be taken as 0° and solstice as 90°. Table 1 illustrates the values used to produce a sine wave, with maximum amplitude of 90 mms. This sine wave is superimposed on the findings for the radial vector length, as the dark blue curve with light blue diamonds in Figure 4.

From inspection, this sine wave with its known over simplifications is a close fit to the findings. The main perturbations are between the June solstice and the September

equinox, and the September equinox and the winter solstice. Further analysis is required to explain this anomaly, together with the associated effects of aphelion and perihelion. As previously discussed, the latter are produced by the orbit of the earth around the sun, and their effects are at least 2 orders of magnitude greater than the curve being represented!

	Degrees	Radians	Sine	x 90
01/03/2010	9	0.1571	0.1564	14.0791
20/03/2010	0	0.0000	0.0000	0.0000
08/04/2010	9	0.1571	0.1564	14.0791
27/04/2010	18	0.3142	0.3090	27.8115
16/05/2010	27	0.4712	0.4540	40.8591
04/06/2010	36	0.6283	0.5878	52.9007
23/06/2010	45	0.7854	0.7071	63.6396
12/07/2010	54	0.9425	0.8090	72.8115
31/07/2010	63	1.0996	0.8910	80.1906
19/08/2010	72	1.2566	0.9511	85.5951
07/09/2010	81	1.4137	0.9877	88.8920
23/09/2010	90	1.5708	1.0000	90.0000
15/10/2010	99	1.7279	0.9877	88.8920
03/11/2010	108	1.8850	0.9511	85.5951
22/11/2010	117	2.0420	0.8910	80.1906
11/12/2010	126	2.1991	0.8090	72.8115
30/12/2010	135	2.3562	0.7071	63.6396
18/01/2011	144	2.5133	0.5878	52.9007
06/02/2011	153	2.6704	0.4540	40.8591
25/02/2011	162	2.8274	0.3090	27.8115
20/03/2011	171	2.9845	0.1564	14.0791
04/04/2011	180	3.1416	0.0000	0.0000
20/04/2011	171	2.9845	0.1564	14.0791
12/05/2011	162	2.8274	0.3090	27.8115

Table 1

Author's Comments

I have not used the usual $\mathbf{V = ½ . r^2 . \omega}$ version of vorticity for several reasons. From the work published 5 years ago in Reference 4, it was not obvious that Length squared/Time applies to dowsing vorticity. Similarly, in Reference 4 it was demonstrated that the Cosine rule did **not** apply to dowsed spin vectors. My intention was to keep this paper as simple as possible to try and understand the principles involved. I also wanted to try explaining the 2 factors of sun orbit and earth axis spin differing by many orders of magnitude, but appearing on the same data curve. Moreover, my arbitrary definition of vorticity does not affect the results, or the sine wave fit in Figure 4. The latter is a pure sine wave from 0 to 1 with a normalisation constant of 90 mms, (which I believe is the Information Field's cleaver representation of +45 to -45 dowsed vectors).

It is not obvious why, with the above over simplifications, no physics or vorticity explanation was required to produce a good fit to the data in Figure 4! Similarly, my approach highlighted the perturbations in the top half of the graph (between solstice and equinox) and may give us clue to the link between summer solstice and aphelion,

and winter solstice and perihelion. It seems that after about 4 billion years of interaction, the sun and earth are in some sort of phase.

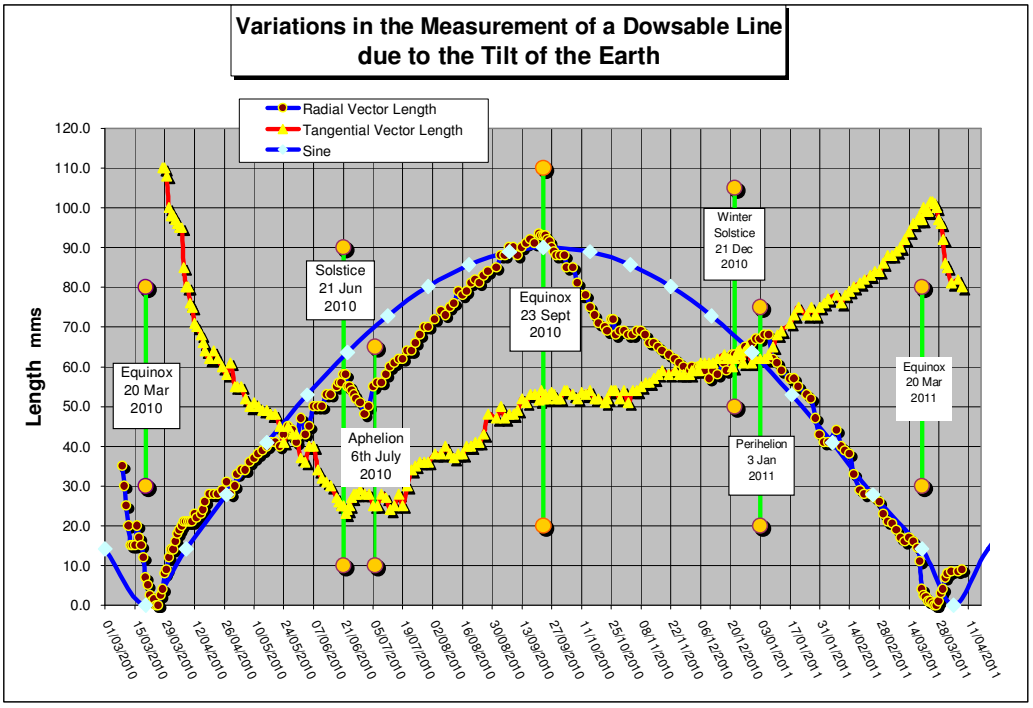

Figure 4

Summary of Conclusions

A major achievement of this paper is that experimental results when dowsing the earth's spin have, for the first time, been measured, analysed and documented. The findings here have not only been shown to be repeatable, but have demonstrated a strong link between consciousness and the solar system.

Although the effects of aphelion and perihelion were first demonstrated in *Reference 3,* these new findings demonstrate quantitatively the effects on dowsing by equinoxes and solstices via the radial spin vector in the equatorial plane due the earth's spinning on its tilted axis.

These are significant results not only in investigating how dowsing works, but possibly more importantly, for adopting the use of dowsing in scientific research and furthering the study of consciousness and the structure of the universe. As all the above proven astronomical factors influence people's perceptions, further research is justified into whether there are linked physical and health implications as well.

This article is only a summary. Further details can be obtained on the author's website http://www.jeffreykeen.co.uk/

The Way Forward, and Suggestions for Future Research

As always, discoveries in research generate more questions than answers. Interesting questions and suggested topics for future research include the following:

1. There are several apparent anomalies. Why is the equinox effect minimum on 26th March 2010 and 27th March 2011 but not on 20th March which is the predicted date of equinox?
2. What caused the kink in the curve just after the June solstice and before aphelion? There was the same effect at the end of December 2010 between solstice and perihelion.
3. What is the theoretical explanation for the yellow and red curve of tangential vector lengths over the course of a year?
4. Why does the tangential vector length curve have maxima at the March equinoxes but is not affected by the September equinox?
5. Similarly, why is this curve affected by aphelion but not by perihelion?
6. There are further anomalies as the maximum vorticity for a consistent explanation should be at perihelion, not at equinox?
7. Similarly, for the tangential curve, why are the maxima on 26th March and not on 20th March, and why does the curve collapse so quickly after the March equinoxes?
8. It is also not obvious why is there a triple dip between the June solstice and 13 days after aphelion?
9. Why does the tangential vector length curve contain the above two phenomena of equinox and solstice, when their effects are at least 2 orders of magnitude apart?
10. If the two main components of ecliptic plane spin are at least 2 orders of magnitude apart, how does the mind deal with this?
11. The simplest formula for vorticity, $\mathbf{V = r \cdot \omega}$, was used in the above analysis. What is the exact formula for $\mathbf{V = Fn\ (r\ ,\ \omega)}$ that explains Vorticity and the mind?

Acknowledgements

Acknowledgements are due to Jim Lyons who suggested the theoretical explanation for dowsing changes at equinox and solstice, including the diagram in Figure 1.

References

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