

On the Correction of Time

On the Correction of the Earth's Orbital Speed

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Abstract: The correct values for the 'second', 'minute', and 'hour' are proposed. Based on the corrected values of the units of Time, the correct speed of the Earth's Orbit is discerned. It is also shown that the corrected Orbital Speed of Earth is a factor of Light Speed.

On the Correction of Time

A *tropical year* is defined as the time it takes the Earth to orbit the Sun in the Heliocentric Solar System model, specifically, a *tropical year* is the manual count of days from an Equinox and the time it takes to return back to that Equinox. The count of days has usually been historically accurate, since the only thing one must do is count the number of days, or the period of one cycle of Night and Day.

The current *tropical year* is defined as 365.2425 days, the current definition of one day is 24 hours, the current definition of one hour is 60 minutes with 60 seconds per minute, the division of days into hours, minutes, and seconds are called unites of Time.

During my astronomical studies, taking into consideration our current definitions of Time, I was always curious as to the origin of the division of units of Time. This curiosity has led me to inquiry about every single minute

detail I could find, in consequence of this zealous behavior, I have discovered evidence of human error in the calculation of the units of Time.

The division of the year into days is as accurate as it can be, though the day length changes ever so slightly over the course of some odd years due to the variations of the Earth (as per a Heliocentric model). In general, anyone who wishes to manually count the time it takes the Sun to return to its apparent position can do so and end up with a day length of roughly 365.

The discrepancy for the units of Time this paper address is related to the 'second', 'minute', and 'hour'. The number of seconds in one year is calculated through this equation:

Eq 1a:

$$365.2425 \text{ days} = (365.2425 \text{ days}) (24 \text{ hours/day}) \\ (3600 \text{ seconds/hour}) = 31,556,952 \text{ seconds.}$$

The current second count for one day is 86,400 seconds, one can also arrive at the number of seconds in one year by these two equations:

Eq 2a:

$$(86,400)(365.2425) = 31,556,736$$

The difference between the two equations is 216 seconds, this gives us a mean yearly second count as 31,556,844.

Upon consideration of the number of seconds in one year, I noticed a striking similarity between it and Pi. For if we take the number of seconds in one year from **Eq. 1a**, 31,556,952, and remove the commas while adding a decimal after the number '3' we end up with 3.1556952. This number has an error of 0.0141 from Pi. If we take the number of seconds from **Eq. 2a**, 31,556,736, and do the same conversion, we get 3.1556736 which has an error of 0.0140 from Pi. If we take the mean number of seconds from both **Eq. 1a** and **Eq. 2a**, 31,556,844 and convert it to the decimal of 3.1556844 the error from Pi is 0.0140. Calculating the mean of these errors gives us 0.0140.

The conversion of the number of seconds in one year to Pi has a better accuracy to Pi than the method of the Babylonians who calculated Pi by $25/8 = 3.125^{[1]}$, giving us an error of 0.0165. It also more accurately the ancient Egyptian approximation of Pi by way of $256/81^{[2]} = 3.16049382716049382$, this equates out to an error of 0.018.

The striking closeness of the value of the number of seconds in one year to Pi is too close to be accidental, this is proved by not only by basic mathematics but by the fact that this approximation is better than two ancient societies.

Based on the accuracy of the conversion of the number of seconds in one year into a decimal form to Pi, I conclude that the number of seconds in one year can be ideally expressed as a factor of Pi. Specifically:

Eq. 3a:

$$10,000,00\pi = 31,415,926.535897932384626433832795 \text{ s}$$

From this we can calculate the error from the mean number of seconds in one-year (as calculated above) count:

Eq. 4a:

$$31,556,884 - 31,415,926.535897932384626433832795 = 140,957.464102067615373566167205$$

140,957.464102067615373566167205 s equates out to 39.1 hours of error. Due to the extraordinary accuracy of Pi from the decimal version of the number of seconds in one year the error from $10,000,00\pi$ is relatively low,

Given the above findings, the only logical conclusion is that human error has played a vital role in the failure to acknowledge the total number of seconds in one year to be equal to $10,000,00\pi$. We can discern exactly where this error occurs because we know the exact count of the number of days in one year.

Eq 5a:

$$10,000,00\pi/365.2425 = 86,013.885393671142828740997646208/24=3,$$

583.9118914029642845308749019253/60=59.
 731864856716071408847915032089/60=0.995
 53108094526785681413191720148

We can see the error here:

Eq. 6a:

1- 0.99553108094526785681413191720148
 =0.00446891905473214318586808279852

Thus, we can see that the total number of seconds in one day is 86,013.885393671142828740997646208, the total number of seconds in one hour; 3,583.9118914029642845308749019253, the total number of seconds in one minute; 59.731864856716071408847915032089. One second is equal to 0.99553108094526785681413191720148. We can see that human have erred in the count of one second by 0.00446891905473214318586808279852, this error is so small that it would not have been noticeable without computation.

On the Correction of Earth's Orbital Speed

In the previous section, I have shown the number of seconds in one year has an error of 0.0140 from Pi when it is converted to a decimal. I also established the corrected value of the total number of seconds in one year to be equal 10,000,000π and made known the human error of 0.00446891905473214318586808279852 for every second.

Given that the number of seconds in one year has been incorrect, the orbital speed of the Earth has, by consequence, been inaccurately calculated. The current measurement of the Earth's Orbital speed is based on this equation:

Eq 1b:

$$\begin{aligned} \text{Avg. radius} &= (152 + 147 \text{ million km}) / 2 = 149.5 \\ &\text{million km.} \\ C &= 2\pi r = 2[\pi](149,500,000\text{km}) = \\ &939,336,203.4\text{km} \\ v &= C/T = 939336203.4 \text{ km}/365.25 \text{ day} \\ &= 2571762.364 \text{ km/day} \\ &= 29.77 \text{ km/s}^{[3]} \end{aligned}$$

Modifying the above equation to utilize the correct number of seconds in one year-also reflected to display meters:

Eq 2b:

$$\begin{aligned} v &= C/T = 939,336,203,400 \text{ m}/10,000,000\pi \\ &= 29,899.999999256804402262298828448 \text{ m/s.} \end{aligned}$$

29.77 km/s equals 29,770 m/s which leaves and error of 129.999999256804402262298828448 m/s. This is fact quite a large error for the Orbital speed of Earth. Of course, this error could only be corrected once the value of the second was established.

The above error is so large that the corrected speed of the Earth is closer to the value of a factor of the Speed of Light, c/10,000 or 29,979.2458 m/s with an error of only 79.2458 m.

Eq 3b: $29,979.2458 \text{ m/s} -$
 $29,899.999999256804402262298828448 \text{ m/s} =$
 $79.245800743195597737701171552 \text{ m/s}$

Conclusion

In the previous section it was determined that the number of seconds in one year is a factor of Pi.

Coincidentally, it is also determined the corrected value for the Orbital speed of Earth is *astronomically* close to $c/10,000$. Based on how close the Earth's orbital speed is to $c/10,000$, it is assumed that, again, a human error was made at some point in history regarding this speed and $c/10,000$, is the *actual* Orbital speed of the Earth.

This error implies the value for 1 IAU is off. The modern measurement of 1IAU is- as it would be so- coincidentally close to being equal to $500c$, if the Orbit of the Earth is determined

by $500c$, moving at a speed of $c/10,000$ the circumference of this orbit produces the correct time as $10,000,000\pi$ as per $t=v/d$. Equally, the diameter of this orbit is equal to $1000c$.

Light from the Sun, moving at speed c traverses $500c$ taking 500 seconds to travel this length to illuminate the Earth that has an orbital velocity of $c/10,000$ which takes exactly $10,000,00\pi$ orbit once? This hardly seems like a coincidence by any stretch of the imagination.

- 1) Romano, David Gilman (1993). *Athletics and Mathematics in Archaic Corinth: The Origins of the Greek Stadion*. American Philosophical Society. p. 78. ISBN 9780871692061. "A group of mathematical clay tablets from the Old Babylonian Period, excavated at Susa in 1936, and published by E.M. Bruins in 1950, provide the information that the Babylonian approximation of π was $3 \frac{1}{8}$ or 3.125"
- 2) Imhausen, Annette (2007). Katz, Victor J. (ed.). *The Mathematics of Egypt, Mesopotamia, China, India, and Islam: A Sourcebook*. Princeton University Press. ISBN 978-0-691-11485-9.
- 3) Callister, Jeffrey. Brief Review in Earth Science. New York: Prentice Hall, 1990: 38.