

SOME CALCULATIONS  
OF THE SPEED AND  
DECELERATION OF  
LIGHT.

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CALCS

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SOME CALCULATIONS OF THE SPEED AND DECELERATION  
OF LIGHT.

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In 1880, George Forbes made a determination of the speed of light. His result?

$$301.382 \times 10^6 \text{ m / sec}$$

This result is interesting, because it is given to six significant figures.

George Forbes had improved on Armand Fizeau's method of measuring light speed. Improvements generally lead to greater accuracy.

Please refer to the bulletin: "Calculus (Don't Panic!) and the Deceleration of Light".

(Or "DECEL", for short.) "DECEL" is available on:

[www.lollo.org.nz](http://www.lollo.org.nz)

On page 3 of DECEL, a little speed formula is given:

$$\text{speed} = \frac{1}{2 \cdot \sqrt{x}} \quad \text{where } x \text{ is the time.}$$

Using this formula, we can compare light speed in m / sec with years elapsed since \*cdk began.

Even though these are mixed units, we can introduce a constant, "k", into the speed formula.

$$\text{speed in m / sec} = \frac{k}{2 \cdot \sqrt{\text{years elapsed since cdk.}}}$$

\* cdk = "speed of light decay", or a slowing light speed.

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We can assign a value to this constant,  $k$ .  
Since we know the speed at 1880, we need only to find the number of years elapsed since cdk at this date. The lollo team has every confidence in the cdk timeline first proposed; some 6224 years of slowing light speed as at 2006 A.D. And, for the purpose of comparative calculations, within the last 130 years or so, this starting date should suit our comparative purposes! (See DECAY, page 5, idea 3.)

So, in 1880, how many years had elapsed?

$$2006 - 1880 = 126 \text{ years}$$

$$6224 - 126 = 6098 \text{ elapsed years}$$

Thus, we may write:

$$301.382 \times 10^6 = \frac{k}{2 \cdot \sqrt{6098}}$$

and  $k = 4707 \times 10^7$

So we can now write,

$$\text{speed} = \frac{4707 \times 10^7}{2 \cdot \sqrt{\text{years}}} \quad \dots\dots (i)$$

$$\text{years} = \left( \frac{4707 \times 10^7}{2 \times \text{speed}} \right)^2 \quad \dots\dots (ii)$$

where speed is in m / sec, and years are years elapsed since cdk began.

Light speed in 1945: the dawn of the atomic age...

The speed of light today is regarded as absolutely fixed and constant. And it has been fixed and unchanging ever since it was told that it would be! (sometime in the 1970's)

For some time now, light speed has been measured with laser beams and atomic clocks. Because light speed and the rate of radio-decay are directly connected, any slowing in the speed of light results in an equal slowing in the atomic clocks! Slower speed, slower clocks; time of travel recorded as the same for any given distance. Tricky stuff!!

The speed of light is "fixed" at.....

$$299.792 \times 10^6 \text{ m / sec}$$

We can use our "years" formula on page 2 to work out when light speed had this value:

$$\text{years} = \left( \frac{4707 \times 10^7}{2 \times 299.792 \times 10^6} \right)^2$$

$$= 6163 \text{ years after cdk began}$$

$$\text{And, } 6224 - 6163 = 61$$

$$2006 - 61 = 1945 \text{ A.D.}$$

It would appear that the speed of light quoted as "today's" may be somewhat out-of-date!

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The Speed of Light, 2006 A.D.

The speed of light for 2006 is as follows:

From our speed equation on page 2....

$$\begin{aligned} \text{Speed}_{2006} &= \frac{4707 \times 10^7}{2 \times \sqrt{6224}} \\ &= 298.318 \times 10^6 \text{ m / sec} \end{aligned}$$

The Speed of Light, 2007 A.D.

$$\begin{aligned} \text{Speed}_{2007} &= \frac{4707 \times 10^7}{2 \times \sqrt{6225}} \\ &= 298.294 \times 10^6 \text{ m / sec} \end{aligned}$$

The Deceleration of Light, 2006 - 2007.

The fall in speed during the year is:

$$(298.318 - 298.294) \times 10^6 = 0.024 \times 10^6 \text{ m / sec}$$

This amounts to a speed loss of 24 km / sec / annum

Number of seconds in one year

$$= 3.15576 \times 10^7 \text{ secs / year}$$

Therefore, the RATE OF DECELERATION is.....

$$\begin{aligned} \text{RATE OF DECELERATION}_{2006 - 2007} &= \frac{0.024 \times 10^6 \text{ m / sec}}{3.15576 \times 10^7 \text{ secs}} \\ &= 7.6 \times 10^{-4} \text{ m / sec}^2 \\ &= 7.6 \times 10^{-2} \text{ cm / sec}^2 \end{aligned}$$

A Comparison of the Current Rate of Deceleration  
of Light Speed with the Anomalous Sunward Acceleration  
(A.S.A.) of Deep-Space Probes.

The A.S.A. is a small sunward acceleration, or a retardation, of very distant robotic spacecraft. The value of the A.S.A. has recently been published as:

$$(8.74 + \text{or} - 1.33) \times 10^{-8} \text{ cm / sec}^2$$

Is this "acceleration" real ?

Could the effect actually be caused by a slowing speed of light?

Please compare the value of the A.S.A. with the current actual deceleration of light,

$$7.6 \times 10^{-2} \text{ cm / sec}^2$$

This is one million times greater than the A.S.A. IS IT POSSIBLE THAT A MEASURED MANIFESTATION OF THE DECELERATION OF LIGHT IS BEING INTERPRETED THROUGH THE BIAS OF BILLIONS? For the "lollo" investigations strongly indicate only THOUSANDS, NOT BILLIONS of years of light-travel! A difference of one million!

A very interesting comparison, and worth following up! More interesting yet, would be an actual determination of light-speed today. In actual seconds and metres, not smoke and mirrors!

ATOMIC CLOCKS.

Atomic clocks are part of the "smoke and mirrors" of modern science. They are used as conjuring devices. Do you know that your wrist watch keeps better time than any atomic clock? Because the speed of light is slowing, atomic clocks are slowing too!

In the year 2006 to 2007, light slowed from 298.318 to  $298.294 \times 10^6$  m / sec. The average speed for the year was  $298.306 \times 10^6$  m / sec. The overall "shortfall of achievement" for 2006 is .012 parts in 298.318. So the loss in time of the atomic clocks in 2006 was  $(.012 / 298.318) \times 3.15576 \times 10^7$  secs = 21 min 10 sec. No wonder that atomic clocks have to be put forward!

CONSTANTS

There are about a dozen physical measurements called "constants" which are dependent upon light speed. Constant tinkering must always be going on to mollify what could well be called a "drift" in these "cosmological constants".

RELATIVITY.

One of the "best tests" of relativity (still a theory after 100 years!) is that atomic clocks are slower at the bottom of a building than at the top. This is said to be because of the greater force of gravity nearer the Earth. Gravity is said to slow time! A more mundane explanation may be that air pressure is causing this effect.

Light speed is 3 parts per 10,000 slower in air at sea level, than in a vacuum. Thus, lessened air pressure, allowing faster light speed, may be causing the speeding-up of higher-placed atomic clocks. That's air pressure, folks! Not gravity!

A REAL TEST OF RELATIVITY would be to place ONE ordinary clock in the basement of a building. Then, a "motorless" clock-face only should be set up in the top of the building.

The clock-face at the top of the building should be driven by a square steel shaft attached to the powered clock in the basement.

IF "relativity" is true, TIME ITSELF should be FASTER at the top of the building!

Thus the CLOCK HANDS at the top of the building SHOULD WIND UP THE SQUARE STEEL SHAFT. The clock hands should wind up the shaft AHEAD OF THE DRIVING IMPULSE!! Relentless, sped-up TIME ALONE should provide the extra POWER!

We await this FINAL PROOF of "relativity". Alas; in vain. For, you see, without TWO, ATOMIC, MAGICAL, CONJURING CLOCKS, the "faster passage of time" can't happen. Not ever!

....the Editor.

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