

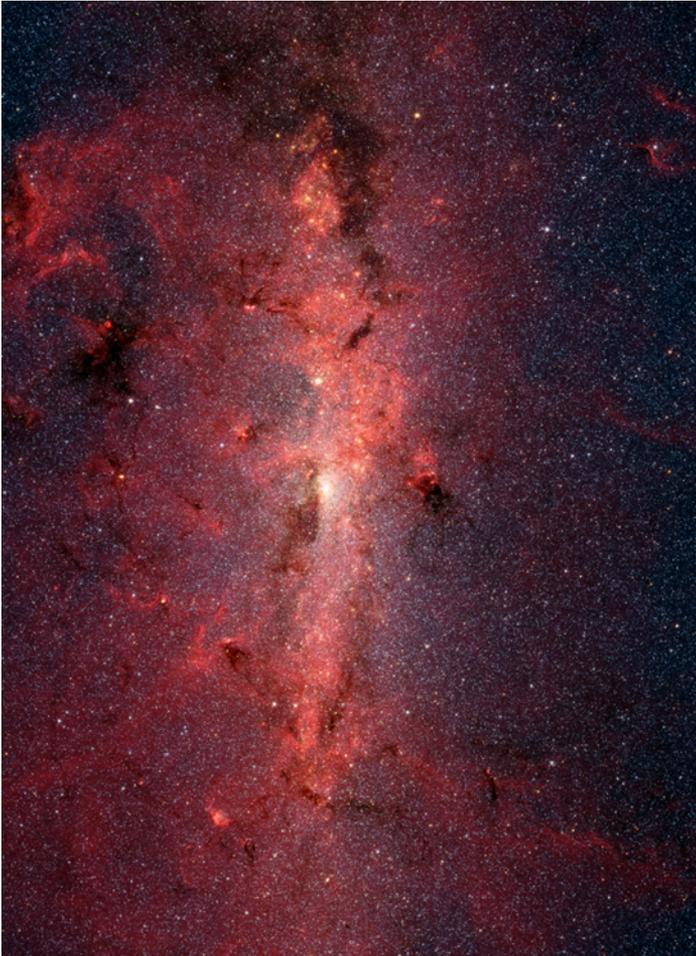
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**THE  
BIBLICAL  
ASTRONOMER**

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**WINTER 2006**



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*Editor:* Gerardus D. Bouw, Ph.D.  
4527 Wetzel Avenue  
Cleveland, Ohio 44109  
U.S.A.

E-mail address: [gbouw@bw.edu](mailto:gbouw@bw.edu)  
<http://www.geocentricity.com/>

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**Front Cover:** An infrared image from NASA's Spitzer Space Telescope shows hundreds of thousands of stars crowded into the swirling core of our spiral Milky Way galaxy. In visible-light pictures, this region cannot be seen at all because dust lying between earth and the galactic center blocks our view. The vertical span is 890 light-years and the horizontal span is 640 light-years. The plane of the Milky Way runs vertically through the center of the photo.

# THE BIBLICAL ASTRONOMER

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## EDITORIAL

We wish our readers a happy and prosperous 2006 in the Lord and in his service. This past year has been truly eventful and fruitful all around. Though both memberships and subscriptions are down, there is an intensified interest emanating from the Internet. The questions posed are becoming more sophisticated and involved. They are so sophisticated that sometimes I think they may be from scientists and philosophers trying to find a chink in our arguments. But that's good, not bad. Contrary to many, we are not afraid of the truth. Should we fear the truth in light of John 14:6? Why should we fear the one who died for us?

### **Aberration-parallax revisited**

As promised, Prof. Hanson has again tackled the observational problems faced by the strict-geocentric model. The strict model holds the earth at the center and all motions, including the yearly one, must be about the earth. This time Jim proposes that space itself refracts light, just as glass does in a lens to produce a rainbow of colors or to produce an image on a photograph.

Prof. Hanson admits that there are problems with his model. The two main problems that a strict geocentric model must meet are aberration and parallax. Aberration is the observed path that every star in the sky exhibits throughout the course of a year. Each star traces out an ellipse whose shape depends on how far north or south of the ecliptic (the belt of constellations called the "Zodiac") lies. The major axis of every star's ellipse is the same size. Related to this phenomenon is a yearly Doppler shift observed for stars. This is indirectly addressed by Jim's models.

The second problem is that of parallax. Not all stars exhibit parallax, but those that do trace out an aberration-like ellipse in the course of a year. Unlike aberration, their ellipses are not all the same size. Aberration and parallax are also 90-degrees out of phase. Some stars, like Alpha Centauri, have a large parallax while others show no parallax at all.

In his model, Prof. Hanson does not speculate on the nature of the medium pervading space, but he assumes that it refracts light. His analysis shows that he can derive two perpendicular terms (that is, they are 90-degrees out of phase) and that potentially they can explain the two phenomena if the  $C_s$  in his last equation of his paper are matched to the major axis of the corresponding ellipse.

Believe it or not, his paper explains aberration in a natural way, but there is still a problem with parallax. If his model is correct, it would require that all stars in the same region of space should exhibit the same parallax, more or less. The solution is to posit that parallax is due to properties of the star itself, and its immediate environment. That is, for example, that the parallax is produced by a star's atmosphere. However, if that were the case, we would expect that all stars with the same spectral type should exhibit the same parallax. This is not observed.

The strict geocentric model is a hard one to reconcile with the appearances. In that respect, it finds itself in about the same position today as geocentrism was in the mid-1800s. All the evidence seems to be stacked against it. It was not but two or three decades later that the evidence was reversed. Perhaps the evidence for the strict geocentric model is now poised in the same position.

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### Gleaned from the Internet

Last week I purchased a burger at Burger King for \$1.58. The counter girl took my \$2 while I pulled 8 cents from my pocket and gave them to her. She stood there, holding the nickel and 3 pennies, while looking at the screen on her register, I sensed her discomfort and tried to tell her to give me two quarters, but she hailed the manager for help. While he tried to explain the transaction to her, she stood there and cried. Why do I tell you this? Because of the evolution in teaching math in America since the 1950s:

**Teaching Math In 1950:** A logger sells a truckload of lumber for \$100. His cost of production is  $\frac{4}{5}$  of the price. What is his profit?

**Teaching Math In 1960:** A logger sells a truckload of lumber for \$100. His cost of production is  $\frac{4}{5}$  of the price, or \$80. What is his profit?

**Teaching Math In 1970:** A logger sells a truckload of lumber for \$100. His cost of production is \$80. Did he make a profit?

**Teaching Math In 1980:** A logger sells a truckload of lumber for \$100. His cost of production is \$80 and his profit is \$20. Your assignment: Underline the number 20.

**Teaching Math In 1990:** A logger cuts down a beautiful forest because he is selfish and inconsiderate and cares nothing for the habitat of animals or the preservation of our woodlands. He does this so he can make a profit of \$20. What do you think of this way of making a living? Topic for class participation after answering the question: How did the birds and squirrels feel as the logger cut down their homes? (There are no wrong answers.)

**Teaching Math In 2000:** Un hachero vende una carretada de madera para \$100. El costo de la producción es \$80....

# PARALLAX-ABERRATION IS GEOCENTRIC — REVISITED

**James Hanson**

In an article on the same subject in a previous issue,<sup>1</sup> I showed how parallax and aberration are not separate effects proving Copernicanism, but instead, are indistinguishable and a property of the space between the earth and an observed star. Specifically, I derived the observed parallax-aberration by assuming space as an ideal fluid and by representing the earth as a sink, a star as a source, and the sun as a doublet (source + sink) - vortex. In this article I will derive (justify) the same result by assuming space is an optically refractive medium obeying Fermat's principle. In either article I do not claim my model actually describes nature (space), but only that one can rational-mechanically obtain the accepted observed results in a geocentric model. The motivation is that geocentricity is the correct cosmology since this is the one that the Bible teaches. In either of my models, space (firmament) is governed by the position of the sun in it. The sun was created to type the LORD Jesus, ruling wherever it shines (Gen 1:14, Ps 19:1-6). Hence we expect it to effect all space since "by him all things consist" (Col 1:16-17). The Sun (Son) comes for us (Mal 4:2), i.e. the Sun (Son) does the moving.

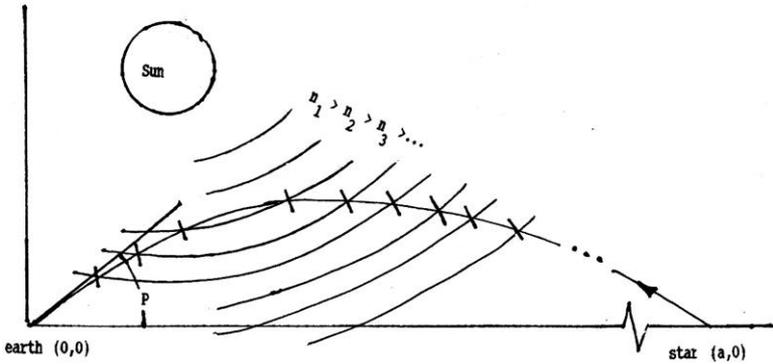
By considering space as an optically refractive medium, we wish to assign space's index of refraction whereby light leaving a star follows a curved path so that it arrives with a prescribed angle (deflection) from the star's direction. This required angle,  $P$ , is the sum of parallax and aberration plus other possible effects. Fermat's principle is the expression of Snell's law for continuous media. The below figure shows how star light would be deflected (refracted) as it reaches the earth, where

$$n_1 > n_2 > n_3 > \dots$$

are the indices of refraction of shells of space, whose time position depends on the location of the sun.

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<sup>1</sup> Hanson, J., 2005. "Stellar Parallax-aberration is Geocentric," *B.A.*, **15**(113):77.



Perpendiculars to each shell interface are shown in order to demonstrate the employment of Snell's law,

$$n_i \sin(\text{entrance\_angle\_to\_shell}_i) = n_{i+1} \sin(\text{exit\_angle\_to\_shell}_i) .$$

Fermat's principle for this problem may be expressed as minimizing the following integral over paths  $y(x)$ , i. e.

$$\min_{y(x)} \int_{x=0}^{x=a} n(x, y(x)) ds$$

where  $ds$  is a differential of arc-length along  $y(x)$ . Let  $I$  represent the integrand, then

$$\begin{aligned} I(x, y, y') &= n(x, y) [ ((dx)^2 + (dy)^2)/(dx)^2 ]^{1/2} dx \\ &= n(x, y) (1 + y'^2) dx \end{aligned}$$

where  $y' = dy/dx$ . The necessary condition for optimality is the Euler-Lagrange equation ( $\partial$  indicating partial differentiation),

$$\partial I / \partial y - (d/dx)(\partial I / \partial y') = 0$$

which on expansion and then solving for  $y''$  gives

$$y'' = [ (1 + y'^2)^2 n_y - (n_x + n_y y') y' (1 + y'^2) ] / n$$

where

$$n_x = \partial n / \partial x, \quad n_y = \partial n / \partial y.$$

In order to simplify we will assume that  $y^2 \ll 1$  and  $n$  is very close to one. Thus

$$y'' = n_y - (n_x + n_y y') y'$$

We will obtain an approximate solution for this differential equation and then choose  $n(x, y)$  such that  $P = y'(0,0)$ . A Taylor series approximation retaining the quadratic term will be employed where the boundary conditions  $y(0)=y(a)=0$  are imposed. Expanding about  $x=a$  gives,

$$\begin{aligned} y(x) &= y(a) + y'(a)(x-a) + 0.5y''(a)(x-a)^2 \\ &= 0 + z(x-a) + 0.5[B - (A - Bz)z](x-a)^2 \end{aligned}$$

where

$$z = y'(a), \quad A = n_x[a, y(a)] = n_x(a, 0), \quad B = n_y(a, y(a)) = n_y(a, 0)$$

Next, invoke the condition  $y(0)=0$  by setting  $x=0$ ,

$$0 = -az + 0.5a^2 [B - (A + Bz)z]$$

or

$$0.5aBz^2 + (0.5aA - 1)z - 0.5aB = 0$$

But for our parabolic approximation,  $-z$  approximates  $P$  and  $|P| \ll 1$ . Then we may ignore the  $z^2$  term as being small compared to the other terms. Assume that in the neighborhood of the star, gradients  $A$  and  $B$  satisfy  $A > 0$  and  $B = -A$ ,

$$z = 0.5aB / (0.5aA - 1) - 0.5aA.$$

We may now compute  $P = y'(0)$ ,

$$\begin{aligned} P = y'(0) &= z + [B - (A + Bz)z](-a) \\ &= -0.5aA + aA = 0.5aA. \end{aligned}$$

Let the accepted time value of  $P$  be denoted by  $f(t)$ , then we have solved our problem by setting

$$A = 2f(t)/a.$$

For example, in the parallax-aberration case set

$$f(t)=C_p \sin(2\pi t) + C_a \cos(2\pi t)$$

where the  $C_p$  and  $C_a$  are the coefficients of parallax (possibly dependent on  $a$ ) and the constant of aberration. To  $f(t)$  one might additively append additional terms having the form  $C\sin(pt+q)$ , where, for example, in the case of the barycentric aberration, or parallax, due to the moon's motion,  $p$  is the synoptic frequency with respect to the sun and  $q$  the angle (longitude) of conjunction. A term for the mechanical effects of Jupiter, Venus and other causes could be incorporated into our geocentric model. We do not necessarily deny the existence of these effects, but insist that they are compatible with a geocentric cosmos. This situation is contrived and approximations somewhat arbitrary. However, I have also preformed a more thorough and accurate solution of our variational equation, but with much more mathematical complexity. This solution depends on  $n(x, y)$  along it's entire path and not just in the neighborhood of the star. But it adds little to our feasibility study. From these two studies one could suspect that by attributing a viscosity to space, the solution of the Navier-Stokes equation<sup>2</sup> would yield a similar justification for geocentricity, or for that matter, any diffusion process might be used.

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## Quotable Quote

Even in the sixteenth and seventeenth centuries, the leading scientific figures were overwhelmingly devout Christians who believed it their duty to comprehend God's handiwork. My studies show that the "Enlightenment" was conceived initially as a propaganda ploy by militant atheists attempting to claim credit for the rise of science. The falsehood that science required the defeat of religion was proclaimed by self-appointed cheerleaders like Voltaire, Diderot, and Gibbon, who themselves played no part in the scientific enterprise—a pattern that continues today. I find that through the centuries (including right up to the present day), professional scientists have remained about as religious as the rest of the population—and far more religious than their academic colleagues in the arts and social sciences.

—Rodney Stark, "False Conflict: Christianity is not Only Compatible with Science—it Created it," *The American Enterprise*, Oct-Nov 2003.

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<sup>2</sup> Navier-Stokes equations are the foundation of fluid mechanics. They are used to describe the flow of liquids. (—Ed.)

# THE WHYS AND WHEREFORES OF GLOBAL WARMING<sup>1</sup>

In January 1999, the National Oceanic and Atmospheric Administration (NOAA) announced that 1998 was the “warmest year on record.” A year earlier NOAA had declared 1997 the “warmest year on record.” Then in January 2000, NOAA proclaimed 1999 the “second warmest year on record.” With so many records being broken, something unusual must be happening with earth’s climate. Or is it? When told that a year was the warmest on record, the critical mind might ask, “How long is the record, and how accurate is it?”

## Limits to Measuring Temperature in the Recent Past

Meteorologists have estimated the average temperature of the earth back to the year 1860. However, the database on which these estimates are premised is incomplete and contains significant uncertainties and inconsistencies. Before 1900 there were no reliable temperature records for more than 50 percent of the globe. Interpretation of the climatic record is confused by changes in instrumentation, station location, observation times, and the urban heat island effect.

Temperatures in the Southern Hemisphere, which is 80 percent ocean, are particularly hard to capture. Measurements of sea surface temperature exemplify the problem. Oceans cover 71 percent of earth’s surface, yet the accurate estimation of sea-surface temperatures is problematic. Historically, these measurements have been made by collecting water in canvas buckets. Since the early 1940s, measurements have been taken in the pipes that draw in water to cool a ship’s engines. When measurements are made on the same body of water at the same time, comparisons of the two methods differ from 0.5°F to 1.3°F. The modern method routinely yields higher temperatures, because water collected in canvas buckets cools by evaporation. Meteorologists attempt to correct for this, but the magnitude of uncertainty in the correction is as large as the total warming they see in the global record.

## Measuring Long-term Temperature: What Does the Record Say?

Prior to 1860, the global record of recorded temperatures is so spotty that no meaningful estimates of worldwide climatic conditions

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<sup>1</sup> This article is plagiarized from the Internet. The original source has been lost, so no permission could be requested. Still, the article reflects such a great deal of sanity that it has been reprinted here with a few emendations. The figures were not part of the original article.

can be made. Yet the past is the key to understanding the present. earth's climate system is complex and poorly understood. Natural changes and trends in temperature exist at all time scales. Without the benefit of a longer perspective, it is impossible to conclude whether the record warmth of the 1990s is truly anomalous or is simply part of the natural cycle.

In the past few years a new methodology has been developed that allows us to infer past temperatures from measurements of temperatures in wells or boreholes. This method relies upon the fact that temperature changes at the earth's surface are captured in the subsurface and preserved there. Measurements of temperatures in boreholes can be used to reconstruct climatic conditions at the surface for the past several thousand years.

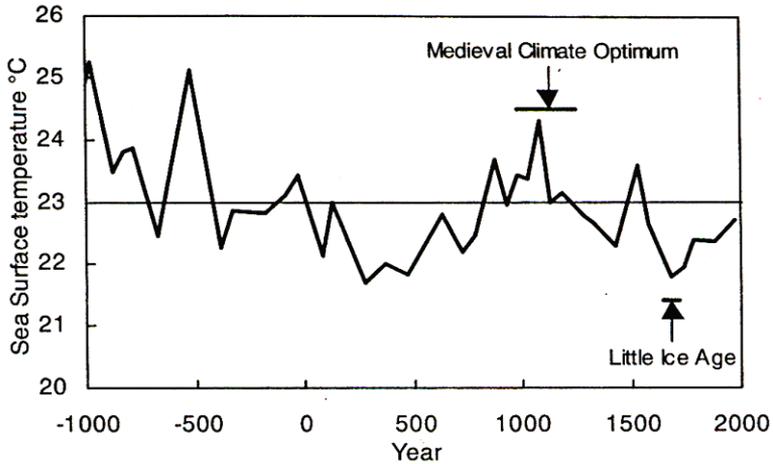
The procedure is simple. A well is drilled and allowed to stand for several months so that the thermal disturbances or temperature changes caused by drilling can dissipate. A thermometer is then lowered into the well and the temperature recorded at different depth intervals. These temperature measurements are combined with information on the thermal properties of the local bedrock in a mathematical analysis that estimates how the ground surface temperature has changed over hundreds or even thousands of years.

When the geologic context is understood, the past century's warming is inconsequential. In August 1997, Professor Henry Pollack and his colleagues at the University of Michigan published a study in the *Geophysical Research Letters*. They estimated mean global temperatures for the last 4200<sup>2</sup> years from temperature measurements in more than 6,000 boreholes around the world.

Pollack and his colleagues found that the modest 1.0°F temperature rise recorded by meteorological instruments over the last 140 years is present in the borehole measurements. However, the borehole data also showed that present-day climatic conditions are in fact colder than average when compared to climatic conditions that prevailed over the rise of human civilization. The average global air temperature in modern times is 57.2°F. For the last 4,000 years, the mean planetary temperature was more than 1.0°F warmer. The warming of the last 140 years is a recovery from a period of unusually cold temperatures in the 19th century.

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<sup>2</sup> All radiocarbon dates greater than 3,000 years in the past have been corrected by the editor (GDB) for the earth's stronger magnetic field in the past. This correction is ignored in the literature. A C<sup>14</sup> age correction graph is presented after this article.



#### Sea surface temperatures plotted over the last 3,000 years

The horizontal line is the average temperature over the entire figure. Note that the overall trend actually shows a decrease in temperature over the last 3,000 years. At present, we are still below the average temperature.

In 1998 these results were confirmed in the most accurate study of ancient temperatures ever conducted. As part of the Greenland Ice Core Project (GRIP), research scientists from Denmark and the U.S. Geological Survey measured temperatures in two deep boreholes drilled near the summit of the Greenland Ice Sheet. Although these temperatures were not necessarily representative of global conditions, the climatic history inferred from them was largely consistent with the global record obtained by the University of Michigan scientists. The results, published in *Science* in October 1998, were ignored by major media in the United States. The Greenland and the University of Michigan findings agree in several important respects. Both show that long before man was capable of influencing earth's climate, natural cooling and warming trends lasting hundreds and thousands of years were present. For instance:

- The temperature rise seen in meteorological measurements of the last 140 years is a recovery from a cold period in the 19th century.
- Even after the modest 1.0°F global warming of the last 140 years, present-day global temperatures remain cooler by about 1.0°F than they were when the Vikings settled Greenland in medieval times.

- For more than 4,000 years, temperatures have been higher than today.

For at least 3,800 years, the mean global temperature was about 1.5°F warmer than today.

### **Global Climate Hysteria Redux**

Sometimes it is difficult to remember that nature operates on a geologic time scale. Human beings have a tendency to take short-term trends and extrapolate them to ominous doomsday scenarios.

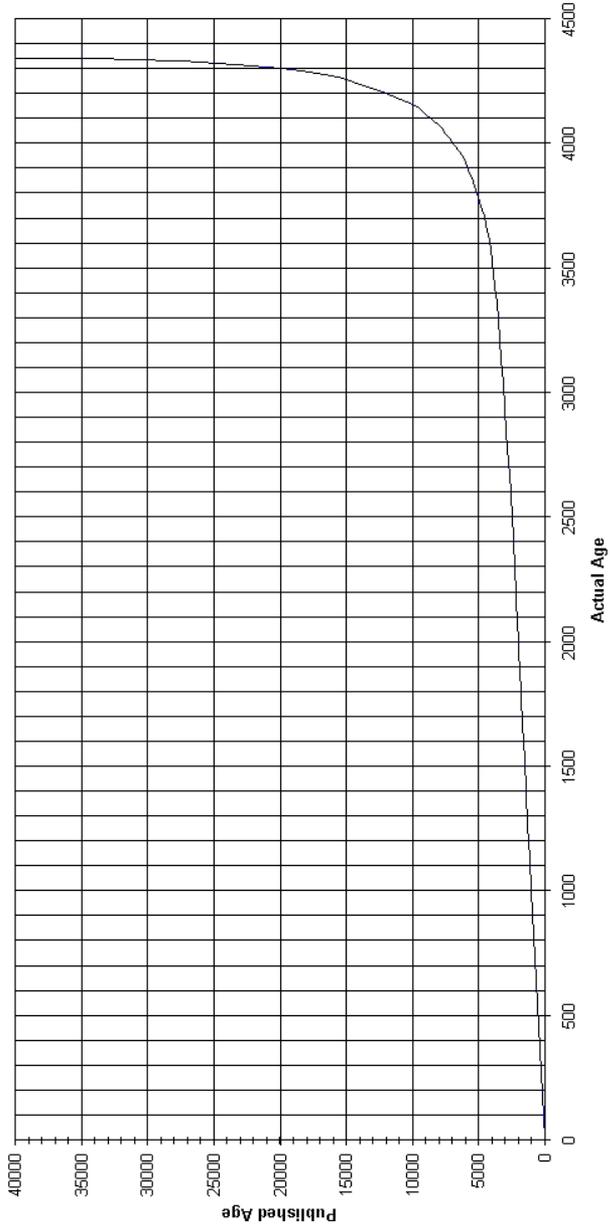
From about 1945 to 1975, average land temperatures in the Northern Hemisphere fell by a very small amount, about 0.4°F. This led to a wave of speculation concerning global cooling. In 1975, reporter Peter Gwynne, wrote in *Newsweek*, “The central fact is that after three-quarters of a century of extraordinarily mild conditions, the earth’s climate seems to be cooling down.” Gwynne went on to warn of “profound climatic change” with “catastrophic famines” and said that meteorologists were “almost unanimous” in their view that a cooling trend would reduce agricultural productivity. The article concluded by warning, “The longer the planners delay, the more difficult will they find it to cope with climatic change once the results become grim reality.” The hysteria was taken a step further that same year by Nigel Calder in an article titled “In the Grip of a New Ice Age?” in the National Wildlife Federation’s journal, *International Wildlife*. Calder warned that “the threat of a new ice age must now stand alongside nuclear war as a likely source of wholesale death and misery for mankind.”

### **Conclusion**

Although the menace of “global cooling” has abated, the last 25 years have not seen any moderation in the tendency of the media to focus on the bizarre, the unusual, and the speculative in relation to climate science. The geological evidence demonstrating that 20th-century warming is nothing unusual has been ignored, while hysteria over “global warming” has been pushed relentlessly. With important policy decisions depending on an informed public, this is journalistic negligence.

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C-14 Age Correction Graph



## READERS' FORUM

### Is earth's mass decreasing?

Is the earth's mass decreasing? Someone said that, and I thought it didn't sound right. I know the gravitation pull is decreasing, but I wasn't sure about the mass.

—Chris H.

Reply:

That depends. According to the first law of thermodynamics — that energy can neither be created nor destroyed — if the earth's mass is decreasing, then the speed of light must increase. Since there is some evidence that the speed of light was higher in the past, it thus follows that the mass was less, (from  $E = mc^2$ ). According to that, the earth's mass has increased.

I know of no evidence that says the earth's gravitational pull is decreasing.

### Earthquakes and the rest of the universe

Is it ... true ... that the recent earthquake affected the earth's rotation? Or, if it is, how would it square with the geocentric view? The usual answer is to simply reverse the picture, but in this case that would mean that the rest of the universe or some part of it slipped, jiggled, or whatever, and that caused the quake on earth. Obviously, then, it would now be the rest of the universe that is revolving at a modified rate rather than the earth rotating differently. Let me know your thoughts when and if convenient!

—Jim M.

Reply:

There are two ways to address the connection between earthquakes and the length of the day. The oldest is that of Paul Gerber, who, in 1898, published a paper in German in the *Zeitschrift für Mathematik und Physik*, 43:93-104. The paper's title translates as "The Propagation of Gravity in Space and Time."

In his paper, Gerber treats gravity as an advanced potential, meaning that, in the earthquake case, the gravitational wave came in from the edge of the universe and "hit" the earth to cause the earthquake. By the same token, the strain on the rocks was due to the gravitational influence of the distant stars, which generated the wave that caused the rocks to slip, which slippage manifested itself as the quake.

Gerber's approach may seem to put the cart before the horse in the sense that he claims no difference whether the earth's rotation slowed or sped up because of the quake or whether the universe's change of rotation caused the quake.

This problem in causality is not new or unique to gravity. Consider a radio wave generated in the transmitting antenna of a radio station. In the usual approach the wave is described as sinusoidal, that is an oscillating wave like that generated by tying a string at one end and bouncing the free end up and down. The equation describing that motion is written as  $A \sin(\omega t)$  where  $A$  is the amplitude of the wave,  $\omega$  is its frequency, and  $t$  is the time elapsed since the wave's start (usually taken as a zero point). The problem is that the same wave also exists in negative time, that is, the time before the wave was generated by the antenna-driving equipment. The signal looks as if it came in from infinity, "tickled" the antenna to generate the radio wave, which then propagated out in a way we can receive it in our radios and television sets. We think only of the wave coming from the antenna as "real," but the wave coming into the antenna from the past is equally "real."

The same thing holds for all events describable as waves, such as seismic waves, ocean waves, etc.

The second approach stems from Arthur Compton's concept of particle wavelengths. In this model, each particle at rest has a characteristic wavelength defined as  $h/mc$ , where  $h$  is Planck's constant,  $m$  is the particle's mass, and  $c$  is the speed of light, which is also the speed of sound in the firmament. Planck's constant is well known to rule in the realm of small particles, but it also becomes important again for large objects, such as the universe.

If we view the universe as a standing wave (the waves generated in stringed instruments), then we find the mass of the universe is of the order of about  $10^{-63}$  gm or one vigintillionth of a gram, in other words, a 1000-trillion-trillion-trillion-trillion-trillionth of a gram. In that model, which will likely change its rotation rate, the  $10^{-63}$  gram universe, or the  $6 \times 10^{27}$  gram earth which appears to be  $10^{90}$  times as massive?

Anyhow, these are the two explanations from a geocentric perspective. Either solution works, and it may well be that these are the same explanation.

### **Geocentricity.com: Real or history?**

Does this website just discuss the history of geocentricity or does it actually advocate that theory? Some articles seem to hint that there are Christians who still believe this. Can that be? Please say no... well, I found

that there are still Christians who believe in a flat earth as well, so I wouldn't be too surprised.

Unfortunately, this can be an effective stumbling block for some who would otherwise embrace Christianity. I can see them saying, "If Christians believe in a flat earth, or geocentricity... well, I can pretty much punt the rest of their beliefs as well." Fortunately, most see this as "backwoods fundamentalists tilting at windmills." But it still does damage to the cause because it's not true, and Christianity is all about the Truth.

It's hard enough defending the historicity of Christ and fighting the relatively easy fight against natural causation. Why defend a very fantastic notion based on a very contrived Biblical interpretation? It seems that some would have the Biblical writers insert astrophysical footnotes in the scriptures because we future folks aren't apparently smart enough to understand context and perspective! Please! There is no more Biblical support for geocentricity than for a flat earth... but for some it must be the pivotal issue upon which the truth of Christ's Kingdom stands. Once we've convinced everyone that our flat earth is at the center of the universe, then we can move along to lesser issues like where they are going to spend eternity.

—jeff

Reply:

Geocentricity.com does advocate a form of geocentric theory, but it is not any of the historical forms you were taught in school. The only reason the site exists, and the only reason that I am a geocentrist, is that either the Bible teaches a stationary earth or God is liar. You can't have it both ways.

The only reason you believe what you do is that your faith in science is greater than your faith in the words of God. The site shows to anyone who will listen and think that the geostationary model is every bit as viable as the current acentric model. Science's position is "Yes, the fundamental experiments all show that the earth is standing still and that either the earth rotates or the universe does, but we now 'know' that relativity saves us from the geostatic model so that the only proof possible is for someone to look at the situation from outside the universe." This latter is stated as "as long as we assume that the universe is the smallest isolated system."

It is easy to show that the Bible does not teach a flat earth; indeed, one of the papers on the web site does exactly that.

As for a stumbling block, well, according to a couple of science literacy surveys conducted in the last decade, at least 40% of Americans still hold to a geocentric universe, despite what they were told in science class.

Finally, yes, it is about where they will spend eternity. In order to be saved, people need to know that they can trust the very words of God. The only, I repeat only, scientific conflict is geocentricity. (Creationism is a

secondary issue since neither creation nor evolution is reproducible.) Most skeptics know that the Bible is geocentric and will not believe your claims to the contrary. They know what it says, yet they rely on science to excuse their skepticism. But when they discover that the rod they lean upon to excuse their unbelief is a broken reed, then their arrogance subsides, and some have come to faith in the Lord Jesus Christ.

G. Bouw

Reply from Jeff:

Thanks for your response. That is truly an interesting position although I don't wholly agree with your assessment of my faith. Both General and Special revelation are from the same Author, and both are subject to the science of interpretation. The Holy Spirit living in us leads us to truth in all things. So it is also reasonable to state that your interpretation of Special revelation makes God a liar through his General revelation. I find this far more plausible given that there is nothing in Scripture that exists for the purpose of defining [any] movement and placement of the earth from any other perspective than a person standing on the surface of the planet. This seems quite obvious to me. If we extrapolate certain statements in Scripture, as some have without considering the writers and audience being addressed by the Holy Spirit at the time of the revelation/inspiration, we can quickly find ourselves on the wrong path and moving away from Truth.

That said, I do understand and see your strong desire to trust God's word as you interpret Scripture.

Respectfully,  
—jeff

Reply:

Our main difference is that I do not recognize an infallible General revelation, only an infallible, preserved, Special revelation. An infallible General revelation requires that our natural minds were not subject to the death or decay that entered into the world through Adam's fall, whereas the Special revelation is perceived spiritually, not carnally.

Thanks for your explanation.

—G. Bouw

More from Jeff:

Again you offer an interesting perspective...

Although not entirely relevant, I disagree that ALL death and decay necessarily entered the world through Adam's fall. Death to all mankind came through the fall, but where do you get the idea the death of ALL THINGS only came because of the fall? If there was NO decay, why did

Adam have to work the garden? Why did Adam have to eat? It's more probable that "decay" was built into the universe for God's very good purpose.

Again, I think too much is being extrapolated from too little scripture.

Special revelation is perceived spiritually... but my carnal eyes perceive carnal photons reflected from carnal paper and ink... or perhaps my carnal eardrums perceive carnal sound waves uttered by carnal voice boxes or speakers... Special revelation is delivered via physical means... so if God entrusts his holy words to the physical, can we not also trust the physical? I don't agree with your position, although I find it thought provoking and stretching.

—jeff

Reply:

I think if you will reread my last reply you'll find that I did not say that death came to all things. I said it came into the world. The term *world*, originally and still, applies to the order of man on the earth. Only in the late 20th century has it become a synonym for earth as its primary meaning. Here is how that came about. Starting about 1964, dictionaries stopped reporting what a word actually MEANS and merely started listing the slang usage as the primary meaning. Thus the 1964 edition of *Webster's Seventh New Collegiate Dictionary*, (one of the pioneering editions of the slang-first genre,) still gave as the first meaning for *world*: "The earthly state of human existence." By the 1994 edition of "The American Heritage Dictionary," *earth* is listed as the first meaning, *universe* is second, and the second meaning in the WSNCD is listed third. WSNCD's first is now listed as fourth. The WSNCD lists *world* as a synonym for *earth* as meaning number 13, its last entry!

If mankind keeps changing the meanings of words at whim, whereas the usage in Scripture does not, how can you trust the physical using the words corrupted by man? Scripture has its own built-in definitions, usually right in context. Did you ever read the appendix to George Orwell's book, "1984"? He documents how the alteration of word meanings can eliminate certain thoughts. God does not trust his holy words to the physical. He preserves them supernaturally through faithful men. It is the Word that is at the core of all knowledge.

—G. Bouw

## Missing Planets

This is a brotherly comment on the view of our beloved fellow-geocentrist Dr. Thomas Strouse in his article, "James and Astronomy" (*BA*

No. 114, p.123), that the noun “planet” cannot be found in the Scripture. It is indeed very surprising that he missed the word written in plural form in the passage of 2 Kings 23:5 of the Holy Bible (KJV): “...them also that burn incense into Ba’al, to the sun, and to the moon, and to the planets (plural), and to all the host of heaven.”

The translators of the King James Bible during their time, probably had in their discretion two or more words to choose from several existing English versions (Geneva, Douay, Coverdale, Matthew, etc., aside from the major sources written in the Hebrew, Greek and Latin), but for the distinction of the earth from the mentioned heavenly bodies, and apparently to avoid confusion, I believe that the 47 learned men who were all prominent Christians including some linguists, were guided by the Holy Ghost in their final decision to pen the appropriate word “planets” as the translation of the Hebrew word “*mazzalah*” or “*mazzaloth*” (Strong’s and Young’s—correct me if I am wrong). Therefore, they could not be mistaken. If they erred, which other English version could be trusted? Which is the genuinely God-preserved Scripture (Psalms 12:6-7)?

Yours with Christian love,  
Brother Erly

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## Quotable Quote: on original Greek usage

A few hundred years ago it was considered very much the thing for ministers preaching in English to interlard their sermons with frequent Greek and Latin words and phrases, always left untranslated by the speaker. His hearers were no doubt duly impressed with his learning but they had not the faintest notion what he was talking about. He has now been displaced by the preacher who knows enough Greek to make him uncomfortable and can never resist the temptation to turn every sermon into a classroom lecture. I have sometimes thought (and I trust not uncharitably) that the knowledge of a little Greek is a great convenience to such a man, for the Greek being a remarkably accommodating language enables him to preach anything he wants without being challenged.

—A. W. Tozer, “Confessions of a New Version Addict,”  
*The Bible Collector*, no. 71, p. 4-5, July-Sept. 1982

# PANORAMA

## A tenth planet?

About the first of August 2005, astronomers announced discovery of what may be a tenth planet. Officially called 2003 UB313, and unofficially nicknamed Xena after the main character in the television show *Xena: Warrior Princess*, the body is the most distant known in the solar system. The candidate planet's estimated diameter is 1,700 miles (2,700 km), a value somewhat larger than the size of Pluto (1430 miles), though the new "planet's" size is based on assumptions about how much light it reflects, not on direct measurements. On September 30 of the same year, the discoverers announced that Xena has a moon, unofficially dubbed Gabrielle, named after the fictional TV character's sidekick. The moon's diameter is about one tenth the diameter of Xena (170 miles).

Another similarly-sized object, known both as 2003 EL61 and Santa, was also found by the researchers to have a moon.

## Two more moons for Pluto

Pluto has a satellite named Charon that was discovered more than a decade ago. Charon's diameter is about 730 miles (1186 km). On the heels of the discoveries in the previous note came an announcement late October that two more moons have been found for Pluto. They are much smaller than Charon and orbit much further out.

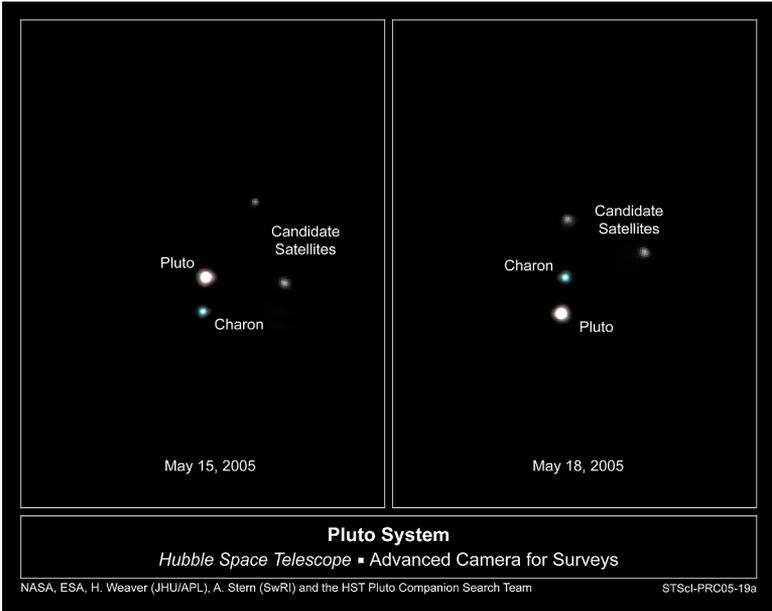
Pluto's two new moons are between 30 and 100 miles (45-160 km) in diameter. They are located about 27,000 miles (44,000 km) from Pluto.

The moons were discovered by the Hubble telescope. For years a group of astronomers had requested using Hubble to search for additional satellites; they were always turned down. When another experiment was cancelled because its instrument failed to work, time was granted. At 23<sup>rd</sup> magnitude, the satellites are well beyond the ability of most telescopes to see, but for Hubble it was easy.

The two satellites present a puzzle for evolutionary astronomers. How could those moons have formed? It is speculated that Charon was formed by a collision, but these two moons, which appear to move in unison, are a real puzzle. They should not exist, evolutionarily speaking.

The picture on the next page, doctored so that the images of Pluto and Charon are not overexposed, shows the problem. The two satellites, along with Charon, are moving counter-clockwise about Pluto, but they seem to share the same orbit. That Charon, being closer to Pluto, orbits

faster is clear, but the separation between the two new, fainter satellites seems neither to have increased nor decreased, although their distance from Pluto has changed.



The evidence presented by the new satellites speaks not only of a recent creation, but also of a special creation. The probability that these two satellites came about by evolutionary processes is extremely low.

### Sir Hermann Bondi: 1919-2005

The cosmologist and mathematician Sir Hermann Bondi died on 10 September 2005 at the age of 85. He was best known for developing the “steady-state” theory of the universe together with Thomas Gold and Sir Fred Hoyle. Bondi also led a successful career as a science administrator, running the European Space Research Organization for four years and spending six years as chief scientist to the UK Ministry of Defense.

Bondi was born in Vienna, Austria, on 1 November 1919 into a Jewish family. Alarmed by the rise of the Nazis in neighboring Germany, and encouraged by the cosmologist Sir Arthur Eddington, he moved to Trinity College, Cambridge, in 1937, where he completed a mathematics degree in 1940. Bondi was interned as an “enemy alien” by the British government in March 1940, spending over a year at camps on the Isle of Man and in Canada, where he first encountered Gold.

Upon his release in autumn 1941, Bondi went back to the UK where he and Gold worked on radar research for the Admiralty under the supervision of Hoyle. After the Second World War, Bondi returned to Cambridge, where in 1948 he, Gold, and Hoyle developed their steady-state theory. It saw no need for an initial singularity (the Big Bang) and proposed instead that the universe has no beginning or end. To account for the continual expansion of the universe, the theory required that matter is being continuously and spontaneously created so that the average density of the universe stays constant.



In 1954 Bondi took up a professorship at King's College, London, where he pioneered theoretical work on how a black hole can accrete matter from surrounding gas. Following the discovery of the cosmic microwave background in 1965, Bondi, unlike Gold and Hoyle, was not afraid to admit that the steady-state theory was probably wrong.

Having advised the British government on construction of the Thames Barrier, Bondi became increasingly attracted to public service.

In 1967 he was appointed director general of the European Space Research Organization in Paris, which was the forerunner of the European Space Agency.

In 1971 Bondi was appointed chief scientist at the UK Ministry of Defense. There he supported Britain's nuclear weapons program by arguing the need for Britain to have its own nuclear deterrent. Six years later he took up the same role at the Department of Energy. In 1980 Bondi began a four-year spell as head of the Natural Environment Research Council and in 1983 was appointed master of Churchill College Cambridge, where he remained until 1990.

## More on the moon and Hasselblads

In the previous issue we published an article entitled “Van Allen Belts and Hasselblads.”<sup>1</sup> Here are some corrections and still more information about the cameras the astronauts took to the moon.

First, the cameras were modified. The lens and hood were custom-built, eventually becoming the commercial Zeiss Biogon wide-angle lens. The lens rings had paddles attached to assist in rotation. The focus ring had detents for zone focusing. The shutter release button was greatly enlarged and articulated in some cases with the custom pistol grip trigger release. The leatherette cover was eliminated and substituted with a thermal coating similar to the classic Thermos bottle coating. The viewfinder was deleted. The standard Hasselblad reseau plate was given a very thin coating of metal in order to reduce static discharge. The magazine walls were thickened to provide thermal and radiation protection.

The camera was rigidly attached to the chest pack on a bracket. It could be removed easily from the suit attachment, which was by no means a “rigid” connection. The front panel of the remote-control unit (RCU) contained a set of vertical rails that received a bayonet on the rear of the custom pistol-grip bracket attached to the bottom of the camera body. To attach the camera, the astronaut simply slid the bracket down into the rails. It was held in place by gravity and friction. To remove it, the astronaut lifted up on the pistol grip and the camera slid free with little resistance.

The RCU itself was not rigidly attached to the suit front. The top rear edge of the RCU featured hooks at the left and right corners. The straps met at a loop in the middle of the chest. Because of the loose nature of the hooks, the RCU could rotate upward freely and could be swung side to side in a limited range of motion.

The author of the article from which this news note was taken had personally held and inspected the Apollo 12 training Hasselblad lunar surface camera and operated its controls. He reports that, “It was non-functional for photography, however. I have used a Hasselblad MK/70—the modern successor to the 500/EL—from which the viewfinder was removed, and which was fitted with the standard reseau plate and a 60mm lens. I had no problem framing shots under those circumstances with no practice.” In other words, when those who claim that the lunar landings are a hoax talk about insurmountable difficulties with astronauts’ cameras, they do not know of what they are talking.

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<sup>1</sup> Bouw, G., 2005. “Van Allen Belts and Hasselblads,” *B.A.* 15(114):133.

## Barycenters and geocentricity<sup>2</sup>

One of the challenges frequently made against geocentricity is the “barycentric argument:” “. . . that things revolve around a point in space that is closest to the heaviest object.” How can the Sun, which is one billion times more massive than the earth, orbit it yearly?

This is discussed by Sir Fred Hoyle in his book *Nicolaus Copernicus*. Hoyle points out that the earth does *not*, technically, revolve around the sun, but rather, the earth and sun both revolve around the barycenter, the *center of mass* of the earth-sun system, which is quite a few miles from the sun’s central axis (though still well inside the sun). Hoyle points out that one must factor in *all* objects, starting with the nearest stars, to recalculate the true center-of-mass of the earth-sun-universe. Hoyle speculates that once one has properly applied the barycentric argument to all other entities in the universe (known as “widening the view angle of one’s telescope to avoid self-serving tunnel vision”), the center-of-mass may easily be at the earth’s location, making it *impossible* to disprove the geocentric hypothesis.

Hoyle says the barycentric argument is only properly applied when *every* object in the universe has been factored into the center-of-mass calculation, a calculation that has never been done. He believes that consistent application of the barycentric argument, layer by layer, places the center-of-mass farther away from the sun and closer to the earth and concludes that the barycentric argument can easily and fully support pure geocentricity.

## Dust on the moon thwarts theory

A couple of issues ago we reported on the problems that moon dust poses for astronauts on the moon.<sup>3</sup> The dozen Apollo astronauts who walked on the moon between 1969 and 1972 were all surprised by how “sticky” moon dust was. Dust got on everything, fouling tools and spacesuits. Equipment blackened by dust absorbed sunlight and tended to overheat. It was a real problem.

Many researchers believe that moon dust has a severe case of static cling: it’s electrically charged. In the lunar daytime, intense ultraviolet (UV) light from the sun knocks electrons out of the powdery grit. Dust grains on the moon’s daylit surface thus become positively charged. Eventually, the repulsive charges become so strong that grains are

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<sup>2</sup> Contributed by Amnon Goldberg of Israel.

<sup>3</sup> Panorama, 2005. “Visit the moon & planets, but don’t inhale the dust,” *B.A.*, 15(113):101.

launched off the surface like cannonballs, arcing miles above the moon's surface until gravity makes them fall back again to the ground. The moon may have a virtual atmosphere of this flying dust, that sticks to astronauts from above and below.

Mian Abbas of the National Space Science and Technology Center in Huntsville, Alabama has been studying moon dust returned by the Apollo astronauts. He has discovered two things thus far. [Aside: By the way, if the landings were a hoax, what is Abbas studying? Why does the dust the astronauts are said to have brought back from the moon not behave in the least like terrestrial dust? —*Ed.*] First, ultraviolet light charges moon dust 10 times more than theory predicts. Second, bigger grains (1 to 2 micrometers across) charge up more than smaller grains (0.5 micrometer), just the opposite of what theory predicts.

The next question of study is, what happens at night when the sun sets and the ultraviolet light goes away? Theory predicts that lunar dust may acquire a *negative* charge at night because it is bombarded by free electrons in the solar wind—that is, particles streaming from the sun that curve around behind the moon and hit the night-dark soil. That's the second half of Abbas's experiment, which he hopes to run in early 2006. Instead of shining a UV laser onto an individual lunar particle, he plans to bombard dust with a beam of electrons from an electron gun.

### **Evolution is in the Bible, says Vatican**

About 7 November 2005, Cardinal Paul Poupard, head of the Pontifical Council for Culture, said the Genesis description of how God created the universe and Darwin's theory of evolution were "perfectly compatible," as long as the Bible is read correctly. He could not elaborate on how one reads the Bible "correctly."

"The fundamentalists want to give a scientific meaning to words that had no scientific aim," he said at a Vatican press conference. He said the *real* message in Genesis was that "the universe didn't make itself and had a creator," as if that exempts the six days of Genesis from being literal days. Poupard dismissed the two chapters by invoking the Augustinian saw that the precise details of how creation and the development of the species came about belonged to the realm of science, which must take precedence over the Holy Bible. Poupard offered no explanation of how one ascertains that claim. Poupard said that it was important for Catholic believers to know how science sees things to "understand things better." It is crystal clear that Poupard's expertise in *culture* eminently qualifies him to ferment such ignorant verbiage. His "science" believes that man evolved from apes in the last 2.5 million years, but after more than

100,000 generations of trying to turn a fruit fly into something that is not a fruit fly (gnat), they remain fruit flies just as they have always been. That's at least three million years in human life spans.

His statements were interpreted in Italy as a rejection of the "intelligent design" view, which says the universe is so complex that some higher being must have designed every detail. So much for compromise.

### **Speaking of intelligent design**

"Most people probably take for granted that science books impart the most up to date information about the world's workings, and try to instill in their children a love of learning and inquisitive minds. In many states, 'communities have published science texts not written by scientist educators alone,' warns the National Center for Science Education. The group said at a meeting of the American Association for the Advancement of Science, that sitting along side of textbook editors and writers are 'religious activists,' who fear an inquisitive mind, preferring instead to rely on the literal text of the Bible to define the boundaries of human knowledge." (All sic.)

You never saw such a twisted slant in all your life. Do you know who fears an "inquisitive mind"? Why, it's evolutionists. You know who prevents certain fellows from getting graduate degrees in college? Evolutionists. Do you know who keeps people from getting on graduate faculties at colleges? Evolutionists. Do you know who refused to pass doctoral candidates and confer doctoral degrees on men who were qualified? Evolutionists. Do you know who has the most closed, narrow-minded, bigoted outlook on the world possible? Evolutionists.

Do you know what is jeopardizing the American public school system? The theory of evolution. It teaches that you came from animals. That is why the American public education system is an animal system for animals, and that is why animals are in it. And what animal is interested in "science and engineering"?

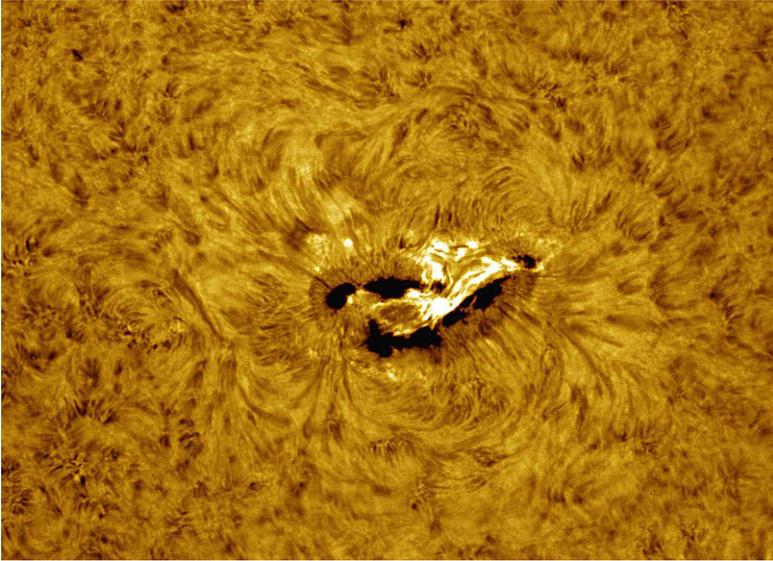
### **New kind of storm appears on the sun<sup>4</sup>**

With little warning, a giant spot materialized on the sun and started exploding. Between January 15th and 19th, sunspot 720 produced four powerful solar flares. When it exploded a fifth time on January 20<sup>th</sup>, onlookers were not surprised.

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<sup>4</sup> Science@NASA News press release, June 10, 2005.

They should have been. Researchers realize now that the January 20<sup>th</sup> blast was something special. It has shaken the foundations of space weather theory and, possibly, changed the way astronauts are going to operate when they return to the moon in 2018. Sunspot 720 unleashed a new kind of solar storm.



**Sunspot 720**

Scant minutes after the flare, a swarm of high-speed protons surrounded Earth and the Moon. Thirty minutes later, the most intense proton storm in decades was underway. “We’ve been hit by strong proton storms before, but [never so quickly],” says solar physicist Robert Lin of the University of California at Berkeley. “Proton storms normally develop hours or even days after a flare.” This one began in *minutes*.

Proton storms cause all kinds of problems. They interfere with ham radio communications. They zap satellites, causing short circuits and computer reboots. Worst of all, they can penetrate the skin of space suits and make astronauts feel sick.

“An astronaut on the moon, caught outdoors on January 20<sup>th</sup>, would have had almost no time to dash for shelter,” says Lin. The storm came fast and “hard,” with proton energies exceeding 100 million electron volts. These are the kind of high-energy particles that can do damage to human cells and tissue.

“The last time we saw a storm like this was in February 1956.” The details of that event are uncertain, though, because it happened before the Space Age. “There were no satellites watching the sun.”

The storm caused astronomers to reexamine space weather theory, which currently models the storm as follows: It begins with an explosion, usually above a sunspot. Sunspots are places where strong magnetic fields poke through the surface of the sun. For reasons no one completely understands, these fields can become unstable and explode, unleashing as much energy as 10 billion hydrogen bombs.

From Earth we see a flash of light and X-rays. This is the “solar flare,” and it’s the first sign that an explosion has occurred. Light from the flare reaches Earth in only eight minutes.

Next, if the explosion is powerful enough, a billion-ton cloud of gas billows away from the blast site. This is the coronal mass ejection or “CME.” CMEs are relatively slow. Even the fastest ones, traveling one to two thousand miles per second, take a day or so to reach earth. You know a CME has just arrived when you see auroras in the sky.

En route to earth, CMEs plow through a lot of gaseous material, first in the sun’s atmosphere and then out in interplanetary space. The void between planets is filled with protons and other particles from the solar wind. Shock waves in front of the CME can accelerate these protons in our direction—hence the proton storm.

“CMEs can account for most proton storms,” says Lin, but *not* the proton storm of January 20. According to theory, CMEs cannot push material to earth quickly enough.

So it’s back to the drawing board: if a CME didn’t accelerate the protons, what did? “We have an important clue,” says Lin. “When the explosion occurred, Sunspot 720 was located at a special place on the sun: 60° west longitude. This means the sunspot was magnetically connected to earth.” He explains: “The sun’s magnetic field spirals out into the solar system like water from a lawn sprinkler. The magnetic field emerging from solar longitude 60° west bends around and intersects earth. Protons are guided by magnetic force fields so, on January 20<sup>th</sup>, there was a super-highway for protons leading all the way from sunspot 720 to our planet.”

And so we have a new danger facing those who would live and travel in space. Though God has not forbidden space travel, he certainly has not made it safe or easy.

## CREDO

The Biblical Astronomer was founded in 1971 as the Tychonian Society. It is based on the premise that the only absolutely trustworthy information about the origin and purpose of all that exists and happens is given by God, our Creator and Redeemer, in his infallible, preserved word, the Holy Bible commonly called the King James Bible. All scientific endeavor which does not accept this revelation from on high without any reservations, literary, philosophical or whatever, we reject as already condemned in its unfounded first assumptions.

We believe that the creation was completed in six twenty-four hour days and that the world is not older than about six thousand years. We maintain that the Bible teaches us of an earth that neither rotates daily nor revolves yearly about the sun; that it is at rest with respect to the throne of him who called it into existence; and that hence it is absolutely at rest in the universe.

We affirm that no man is righteous and so all are in need of salvation, which is the free gift of God, given by the grace of God, and not to be obtained through any merit or works of our own. We affirm that salvation is available only through faith in the shed blood and finished work of our risen LORD and saviour, Jesus Christ.

Lastly, the reason why we deem a return to a geocentric astronomy a first apologetic necessity is that its rejection at the beginning of our Modern Age constitutes one very important, if not the most important, cause of the historical development of Bible criticism, now resulting in an increasingly anti-Christian world in which atheistic existentialism preaches a life that is really meaningless.

**If you agree with the above, please consider becoming a member. Membership dues are \$20 per year. Members receive a 15% discount on all items offered for sale by the *Biblical Astronomer*.**

*To the law and to the testimony: if they speak not according to this word, it is because there is no light in them.*

– Isaiah 8:20

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