
Creation Answers

Who writes this newsletter?

This newsletter is produced by Wayne Spencer on a Quarterly basis. Its purpose is to bring creation research within the reach of Christians and provide up-to-date reliable information on creation issues. Wayne Spencer is a creation author and former teacher who has presented papers at the International Conference on Creationism and has published in various creation publications, such as the Creation Research Society Quarterly, Creation magazine, the Journal of Creation, and Origins (from the Biblical Creation Society, UK).

This newsletter is meant to help people plug into creation resources and get informed about creation and evolution. It is provided free of charge on request. Using the free Adobe Acrobat Reader is necessary for viewing the newsletter. There are no restrictions in copying this newsletter or passing it on to others. To request to be placed on the e-mail list, send a request to wspencer@creationanswers.net.

More information on Wayne Spencer's education and publications can be found on the creationanswers.net web site. You'll also find many other resources.

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A Personal Note from Wayne Spencer

Greetings,

I'd like to thank everyone again for their interest in my newsletter. This has been the fourteenth year for my newsletter. I would be glad to get your feedback or suggestions for topics to address in it in the future.

The main article in this issue is about the scientific problems with the Big Bang. In spite of how dogmatic most scientists and the media may sound in favor of the Big Bang, there are scientists who don't like it as a theory. It is not just creationists who do not accept it. Not only are there real scientific issues with Big Bang theory, but there is science that supports a creation view. This will be the last in my recent series of articles about the Big Bang.

In recent weeks I spoke on the Long Day of Joshua to a men's meeting in November. There were so many good comments from it that I decided to put it on my Blog. So I hope you will check that out. I have put a new theme on my Blog recently, so it has a different look.

I believe that if you accept God's word then this leads you toward better understanding. If you reject what God's word says on a certain issue, then this leads you away from better understanding. I think this has implications for both theologians and scientists, as well as the average Christian.

This year (2013) has been a good one for me and I wish you all the best.

Wayne Spencer, M.S., Physics

Science and the Big Bang

In previous articles in this series on the Big Bang we have considered how world views relate to Big Bang ideas, and considered the idea of a First Cause of the universe. A Creator-God like the God of the Bible is an adequate First Cause for the formation of the universe. Since in the Biblical concept God is outside of the universe He can act into the universe to create. We considered how the physical laws by which the universe operates and the physical constants must be designed by an intelligent Creator. The Big Bang denies this and says that the beginning of the universe was an uncaused spontaneous event that could have had many outcomes but only by chance has this universe turned out to have the right properties so that we could exist today. In short, the Big Bang Theory says there is no “given” purpose for the existence of anything. Our universe just happened.

We also considered some aspects of the limitations of science when it comes to issues of origins. To give a scientific explanation of something about origins requires that you explain an unknown in terms of something known. Big Bang theories often do not do this because they propose a new unknown to explain another unknown. Thus Big Bang Theory is not really realistically evaluated and it can always seem to adapt to any observation. Thus, many strange add-on concepts have been proposed to explain aspects of the Big Bang. Not only are many of these concepts impossible to verify by any conceivable experiment, they may even go against known physical laws. The Big Bang is promoted usually with dogmatic statements and other views are normally not allowed a hearing in the academic world or in education.

To go to the previous articles in this series on creationanswers.net, use these links:

[Big Bang Theories and the Christian Worldview](#) ,
[What Kind of Universe Is This?](#) , and

Missing Links of Big Bang Theory

On May 22, 2004 *New Scientist* magazine published a statement called “An Open Letter to the Scientific Community.” The letter describes the Big Bang as not being a successful theory. It also is critical of the fact that other views of cosmology are not funded or allowed a hearing in the scientific community. This statement can be read and signed online at cosmologystatement.org . This website lists names of 218 scientists and engineers including 34 scientists who were the original signers when it was published. Understand that these scientists who signed the statement are generally not creationists. I do not know all who signed it but I only know of one in the list that is definitely a young-age creationist. There is a kind of suppression of other views that is a serious problem in astronomy regarding origins. Yet there have always been well qualified scientists with dissenting views who do not accept the Big Bang theory, or at least question some Big Bang ideas. A number of the scientists in the original signers are proponents of either the Steady State Theory or the Plasma Universe Theory. This goes to show that creationists are not the only ones to question Big Bang science. The first paragraph of this letter is reproduced below:

“The big bang today relies on a growing number of hypothetical entities, things that we have never observed-- inflation, dark matter and dark energy are the most prominent examples. Without them, there would be a fatal contradiction between the observations made by astronomers and the predictions of the big bang theory. In no other field of physics would this continual recourse to new hypothetical objects be accepted as a way of bridging the gap between theory and observation. It would, at the least, raise serious questions about the validity of the underlying theory. . . .”

After this letter in 2004, there were two conferences organized for scientists

dissenting with the Big Bang Theory who would like to develop a different approach to the origin of the universe. These conferences are known as “Crisis in Cosmology.” The first was in Portugal in 2005 and the second was in the state of Washington in the USA in 2008. The 2008 meeting was entitled “*Crisis in Cosmology 2: Challenges to Consensus Cosmology and the Quest for a New Picture of the Universe.*” Creationist scientist John Hartnett attended the 2008 conference and wrote an article about it. [CLICK to go to this](#). The people attending the 2008 meeting were not generally creationists. They had various ideas on cosmology but agreed in not being satisfied with Big Bang ideas. This shows there is a growing dissatisfaction about the Big Bang Theory in scientific circles.

Problems with Big Bang Science

I will list some of the most important problems I see with Big Bang theory. New proposals and theories on details do not really change the fact that these are still problems. These have been issues with Big Bang theory for years and modern refinements do not adequately answer these issues, in my opinion. Sometimes more research merely establishes more clearly that there is a problem.

1. Population III stars have never been observed

Theory classifies stars into three broad categories, referred to as Populations I, II, and III. Most stars observed in the universe today are Population I. Population I stars have what you could call a “normal” abundance of metals and high-atomic number elements. Population II stars have a low abundance of metals. Understand that in the Big Bang itself, only Hydrogen, Helium, and traces of Lithium could form. All other elements in the Periodic Table are believed to have formed in the supernova explosions of stars. The first generation of stars in the universe are referred to as Population III.

Population III stars would have only Hydrogen, Deuterium (heavy Hydrogen, with a neutron in the nucleus), Helium, and Lithium. So the Population III stars are believed to have been very large so that they would go through their “lifetime” quickly and then explode so that the higher elements would be ejected into space. The Big Bang then claims that stars would form with Population III stars, followed by Population II stars, followed by Population I stars. Most observed stars are Population I, a few observed stars are Population II. But Population III stars have never been observed. The light spectra from stars allows scientists to determine what elements are present and their abundance.

This issue is a bigger problem than in the past because modern astronomical instruments and telescopes have provided data about more and more distant objects. But even with today’s technology no Population III stars have been observed. Why? The most distant stars and galaxies observed in the universe still contain normal metal abundances. This should not be the case if the Big Bang happened.

There is another issue related to this problem. It would require a very large number of very large stars in the early universe to generate adequate quantities of the heavy elements and metals, so that later stars (Populations I and II) could have observed abundances of metals. The Population III stars should be among these early massive stars that would burn through their nuclear fuel in a few million years and then explode in supernovae. But if there were enough of these large early stars, these objects would often form massive black holes after their supernovae. This implies that there should be about as many Black Holes as stars in the universe. But this is not at all the case. There is good evidence for the existence of Black Holes but they are not as common as they should be from these early stars. For instance in our galaxy, the Milky Way, there is evidence for only a few dozen Black Holes. If the Black Holes were as

numerous as stars this would cause many problems for star formation since much of the available dust and gas in a galaxy would fall into the Black Holes.

2. Evidence for large amounts of antimatter from the Big Bang is missing

In nuclear physics, there are processes that have happened in experiments by which subatomic particles like electrons and protons are created from energy. This takes place in accord with Einstein's famous $E=mc^2$ equation. Generally gamma radiation can generate pairs of particles. So for instance an electron and its antiparticle the positron are both created at the same time. You cannot create an electron from energy without creating a positron at the same time. The antiparticles have opposite electric charge and opposite spin but have the same mass. This is known as quantum pair production. The same can happen with protons and antiprotons and with neutrinos and antineutrinos for example. If a proton collides with an antiproton the result is that the two particles annihilate each other and gamma radiation is produced. You could call this pair destruction though that is not usually how physicists refer to it.

Pair production is supposed to be how subatomic particles that make up the atom were formed in the Big Bang as the initial "fireball" cooled. But if this is so, what happened to the antimatter? The universe contains very little antimatter. Practically all matter that occurs naturally in the universe is normal matter, not antimatter. So how could you get so much more matter than antimatter? This problem has never been adequately addressed. It is often proposed that perhaps there was very slightly more matter than antimatter and over long periods of time in the early universe the normal matter built up. But if this were the case there should be evidence for intense gamma radiation in the universe that is just not there. There is a gamma radiation background but it is weak. If particles came from pair production, then intense gamma radiation

would be produced by all the resulting pair destruction. But there is no evidence of this.

It has also been proposed that perhaps there are regions of the universe that somehow contain only antimatter, possibly even with antimatter galaxies. But there is no means known that could segregate matter from antimatter so completely to allow for this. Galaxies can interact with each other and pull matter off of each other sometimes. Thus there would still be evidence of intense gamma radiation that we do not observe. [CLICK](#) to see an article about antimatter regions in the universe. It seems better to assume that atoms were created by God in the beginning. They did not form in the Big Bang.

3. The CMBR and the Horizon Problem

CMBR stands for Cosmic Microwave Background Radiation. This is a faint radiation that is almost perfectly uniform coming from all directions in space. It has been taken to be evidence for the Big Bang. However, there have been a number of theories proposed to explain it so the Big Bang is not the only way to understand it. Big Bang theory says that the initial flash or hot "fireball" from the initial expansion would be very uniform (especially with Inflation theory added to the Big Bang). There is intense radiation early in the Big Bang expansion. The matter in the fireball cools to close to absolute zero and the light becomes redshifted, so it would reduce to a faint microwave background "noise." There are a number of technical aspects of what this radiation is that I will not address here. See also my article on "Missing Links of Big Bang Theory" for more on the CMBR radiation. But the microwave background radiation does exist, the issue is whether it is really evidence for the Big Bang.

What is relevant is the astronomy research project known as WMAP, the Wilkinson Microwave Anisotropy Probe, from 2002. This effort did a high precision measurement of variations in the CMBR. Though reports often claimed that the data

confirmed the Big Bang, there were aspects of it that do not agree with the Big Bang. There is a pattern evident in a certain way of mapping the WMAP results that implies there is a North and South pole to the universe, and an equator. It seems clear in the data. [CLICK HERE](#) to read an article on this. This data does not fit Big Bang theory well but it may support our galaxy being near the center of the universe. There is more evidence that may support us being near the center of the universe also.

There is another aspect to the CMBR that must be mentioned, called the Horizon Problem. Big Bang scientists claim that in the early expanding universe the radiation was very uniform. But how does radiation become uniform in all directions? There is a problem explaining how this could be in the Big Bang. Assume that at a time 5 billion years after the Big Bang begins expanding, the universe is 5 billion Light-Years (LY) in diameter. Imagine it as a sphere. On one side of the sphere you have an atom at one temperature giving off radiation. On the opposite side of the universe you have a second atom at a different temperature giving off radiation. If the two atom's radiations can cross the universe and "communicate" then the two atoms could come to the same temperature. But this is impossible because the two atoms are not 5 billion LY apart but 10 billion LY apart. At 5 billion years after the beginning light and radiation has not had time to cross space so that all regions could "even out." Using a different amount of time since the beginning does not change the problem. So how could the radiation become uniform? This problem is a light travel time problem in Big Bang theory. It has not been solved. So why should we consider the microwave background radiation to be evidence for the Big Bang?

4. Quantized Redshifts of Light Contradict the Big Bang

Quantized redshifts are an important discovery from recent years. They have been controversial and they seem to support a

creationist viewpoint. Light absorbed by an excited gas such as hydrogen in a laboratory has dark lines at certain frequencies that are characteristic of hydrogen. But when studying the light from stars or other objects in space, the light is shifted on the electromagnetic spectrum. In most cases the light from stars is shifted toward the red, or down in frequency (up in wavelength). For some stars the light may be shifted toward the blue, or up in frequency. This redshift of starlight is part of an important relationship in astronomy known as Hubble's Law. Astronomer Edwin Hubble discovered the law in the 1920's. It can be written with a simple formula of $V=Hr$. V represents the velocity that an object is moving away from Earth. The r represents the distance of the object from Earth. Then H is a proportionality constant known as the Hubble constant. Big Bang scientists relate the value of H to the rate of expansion of the universe, in their view. The inverse of H , or $1/H$, also gives the age of the universe according to Big Bang Theory.

Thus Hubble's Law is a relationship depended on in Big Bang research. But it is fundamentally an observation about redshifts and distances to objects. Hubble's Law can be true as an experimental relationship whether the Big Bang is true or not. The implication of Hubble's Law is that the farther away an object is, the greater it's redshift is. Redshifts are easy to measure from the light of stars, galaxies, and other objects in space. The redshifts are related to various other data that determines distances. When Edwin Hubble first proposed this law, he understood it as being caused by the motion of the star away from or toward the Earth. This is the Doppler effect that makes waves expand when an object moves away and makes them compress when it moves toward you. But in recent years the understanding of the causes of redshifts has become more complex.

Today there are multiple known or possible causes for an object having it's light redshifted. One is it's motion away from or toward us. Another is if the universe is

expanding, this can cause a redshift. This is known as a cosmological redshift and this can be large for very distant objects. There are sometimes objects with redshifts that do not fit existing theories. These are often referred to as discordant redshifts. For example, there are galaxies that may have a low redshift but yet they have a filament of gas connecting them to another object which has a large redshift. Thus, though Hubble's Law generally works, there are special cases of objects which do not fit the Law. Quasars are objects that do not always fit the Hubble Law. They seem to have some other unknown cause of their redshifts.

The expansion of the universe is a key idea in Big Bang theory. Hubble's Law was taken to be an important verification of the Big Bang. Then as data was collected about many stars and galaxies, all this was incorporated into Big Bang theories. In recent years some observations have come to astronomers attention that are leading some to rethink many long-held assumptions.

Today there are some scientists challenging the concept that the universe is expanding. This can be challenged because of the way that explaining observations in astronomy often requires many layers of assumptions based on a certain model of the universe, such as the Big Bang. John Hartnett wrote two technical papers in the *Journal of Creation* examining the issue of what the evidence is that the universe is expanding. His conclusion was finally that the evidence can be interpreted in terms of the universe expanding in size or being static in size. It is possible to take either view. This goes to show how astronomy is dependent on layers of assumptions. Cosmology should be approached with humility about what we know.

The Bible mentions God stretching out or rolling out the heavens. See Isaiah 40:22 for an example verse. This seems to be something God did in the beginning at Creation. It may or may not mean God stretched out space in the beginning. Whether it means the universe is still

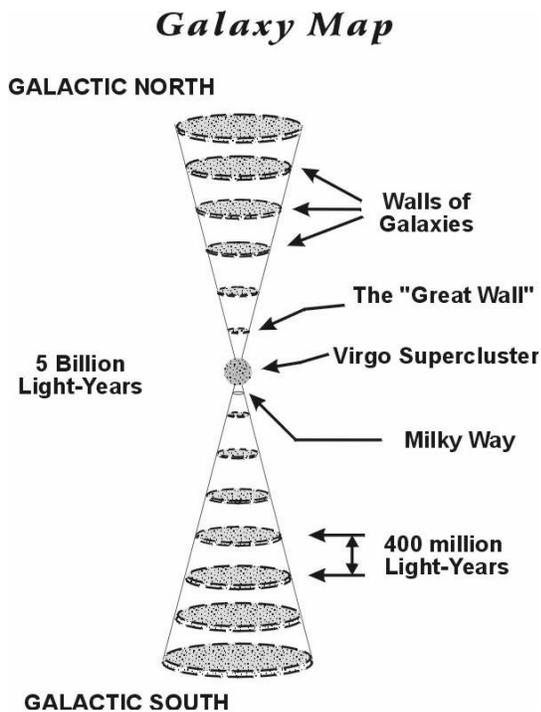
expanding is probably a debatable issue also. This could refer simply to God creating the heavens and not to expansion.

Redshifts can tell us about the structure of the universe, assuming the basic validity of the Hubble Law. In 1984 scientists by the names of W. G. Tifft and W. J. Cocke (not creationists) published evidence that galaxy redshifts tend to have certain preferred values and not others. These values are periodic multiples of certain numbers. So this has been called quantized redshifts. There were a number of papers confirming it in the 1990's.

Creationists Russell Humphreys and John Hartnett have mentioned the quantized redshifts as evidence that our galaxy the Milky Way is near the center of the universe. The quantized redshifts, if this is correct, would then mean God created the universe with galaxies in a concentric shell structure. This seems to support a creation viewpoint. Our galaxy the Milky Way would then be near the center of the universe. This seems to be the most straightforward way to look at the quantized redshifts. It treats at least some aspects of the large scale structure of the universe as being a result of intelligent design.

Quantized redshifts were treated skeptically at first but now it is seen as more of a mystery by the scientific community. It does not agree with Big Bang theory. There is no reason there would be preferred positions of galaxies or values of redshift from the Big Bang expansion. The only way this could happen in the Big Bang would be if there were an oscillating expansion rate. In an important paper published in both secular and creationist peer-reviewed scientific journals John Hartnett and K. Hirano did a mathematical analysis of galaxy redshift data from the Sloan Digital Sky Survey (SDSS). This analysis was done on data including hundreds of thousands of galaxies. It shows clear periodic spacings of the redshifts. This analysis of the SDSS data does not support an oscillating expansion rate for the Big Bang because that would be centered exactly on

our location. But the center of the concentric shells by this analysis is not exactly at our location. It makes our galaxy near the center of a very large supercluster of galaxies. To read more about this study from the SDSS data [CLICK HERE](#). This strongly supports quantized redshifts for galaxies across the universe. This is more plausible in a creation view than in a Big Bang view. The graphic below was done based on some of the early quantized redshift data, which was somewhat limited around 1994. I presented this on the Origins Television program on Cornerstone Television in 1994. The SDSS data establishes this much better now.



5. The Existence and Motion of Galaxy Superclusters does not fit Big Bang Theory

The Big Bang Theory is mainly about how the universe allegedly began and expanded. It leads you to an expanding cloud of matter. There are many mysteries regarding how galaxies, stars, and other

objects formed after the initial expansion. Much could be said about the problems in forming one galaxy or one star, one planet, one moon, etc. But these are not really addressed in Big Bang theory, they are separate issues.

There are special issues with explaining the formation of star clusters and galaxy clusters. I will mention galaxy clusters because they are so large that they do relate to the Big Bang. There are clusters of clusters of galaxies that are so large and are moving at such velocities that it does not fit Big Bang theory. The issues are 1) How could such large clusters form by gravity since the beginning? and 2) How could these clusters get accelerated to the observed speeds? They are sometimes so large that even 14 billion years since the beginning of the universe would not be enough time. There is also difficulty in identifying any other large clusters massive enough to explain the cluster motions. Also, the individual galaxies in some clusters would move fast enough that in 14 billion years the cluster should not still be "together" as an identifiable cluster. As an example of some of these issues see this article about the [Shapley Supercluster and the Virgo Supercluster](#) (from October 2013, be sure to read the comments at the end).

Conclusion

These are a selection of some of the scientific problems with the Big Bang. So many exotic theories have been put forward to deal with problems with the Big Bang that it is not believable in my opinion. Often unverifiable ideas about things we don't know exist are proposed to explain processes that we don't know actually happened. The Big Bang Theory does not agree with the Bible either. Even if it did agree with the Bible, Christians should not believe an idea like this. I suspect the dissatisfaction with it among scientists will grow. Creation scientists are making progress on addressing cosmological questions from a Biblical young-age perspective. We must remember how limited

we really are in our understanding and how infinite our Creator is. The Bible will not directly answer all our cosmology questions, but it gives us a sound foundation to build our thinking on.

I would like to mention again that the book Dismantling the Big Bang - God's Universe Rediscovered has been an important source for me in this issue. I'd highly recommend this book. If you would like to get your own copy of the book you can order one from <http://creation.com>.

Comets and the Oort Theory

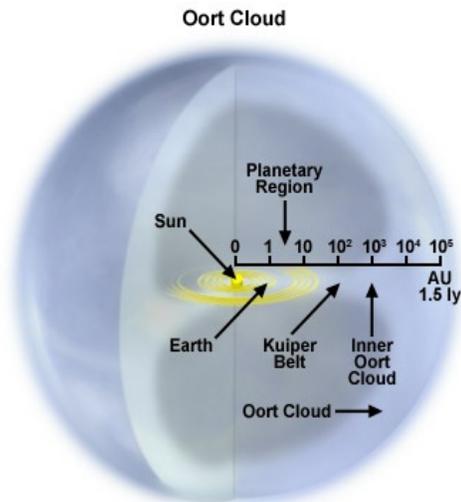
Recently I submitted a paper called "A Critique of Modern Oort Comet Theory" to the Creation Research Society Quarterly. This is a major paper on a topic I have not published on before. The Oort Comet theory has become almost common knowledge and has good support among astronomers. Creationists have addressed the observable lifetime of short-period comets as an evidence of a young age. I agree with this as a young-age argument but in this paper I update the issue. I address short-period comets as two groups, the Jupiter-Family comets (JFCs) and the Halley-Type comets (HTCs). There are differences in these two types of comets but both are consistent with a young age. Halley-Type comets often have more inclined orbits than the Jupiter-Family comets. This has implications about where they come from.

This new paper addresses long-period comets and the broader issue of the basis for the Oort Theory. There has been a great deal of research in computer studies on comet orbits and what would happen to objects in the Oort cloud. In addition, today it is possible to observe more comets using automated CCD cameras that can detect faint objects. So in this paper I try to update all of this and critique the basis of the Oort theory regarding how the various type of comet orbits relate to the theory. The "Oort" theory of today is not exactly the same as Jan Oort

proposed it in 1950.

The Oort comet theory depends on what I would call the comet distance ladder. There are different types of comet orbits that are of different distance scales in how long the comet orbits are. The Oort Theory depends on comets forming first near the outer planets over four billion years ago, then being ejected out to long orbits that put them in the Oort cloud. Then the various comet orbits get modified from one type to another over long periods of time.

Observations have not fit this scenario in some respects and the Oort cloud would lie far outside what can be seen in any type of telescope. I would say what we have learned tells us about the comet orbits but it does not tell us the Oort cloud exists. We do not need to attempt to explain all comets as coming from other comets. Some orbit changes can happen on short time scales of tens of years, such as for the Jupiter-Family comets. But I suspect for the long-period comets they were generally created somewhere along their current orbits and most of them are on their first trip toward the Sun (if we haven't already seen them pass the Sun). So I think comets can be dealt with in a young-age creation perspective. I will likely be writing other articles on comets related to this. Below is a graphic showing what scientists think the Oort would look like if we could see the whole thing.



Joshua's Long Day

On my blog on November 23rd I wrote about the Long Day of Joshua. After doing a presentation at my church to a men's meeting I received many encouraging comments so I put it on my blog. Christians often feel unsure how to understand this account in the book of Joshua in the Old Testament. Many do not take it as an actual event with a real long day. So I explain how I look at this as a real event. [Go to the AnswersBlog](#) For details.

I believe this is about a real long day that actually happened. It was a miracle. In this God intervened into history in an amazing way to help his people. If you do not take it as a literal long day, then the story no longer makes sense. If you look at the details of Joshua 10 carefully, there were too many things the Israelite army did in one day, for it to be a normal 24-hour day. After a very large battle with possibly hundreds of thousands of soldiers at the city of Gibeon, the Israelite army traveled about 30 to 40 miles, stopping along the way to take several small cities. The account in Joshua 10 does indicate when the day changed to a second day.

The most important thing for us to do regarding this story in the Bible is to believe it and realize this is what God did to help his people. The issue of *how* it happened is not as important but I make a suggestion on my blog for how this may have happened. I don't try to explain it by some natural physical explanation because it was a miracle. But I try to suggest at least one possible way the miracle could have been done. There may be other possibilities as well. The Bible describes what happened from the perspective of an eyewitness who was there. It doesn't explain the science of how it took place.