INTRODUCTION TO

CHAPTER TWENTY-EIGHT

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In the last chapter, certain characteristics of the stars were explored, that we could come to a more accurate understanding of them. But now, let us expand our vision outward to the immense magnitude with which God works. Let us jump over hurdles which are higher than we have ever jumped before. This chapter begins to examine a logical process (or a number of processes working together) which would have allowed the solid matter of the stars to be placed at their current locations in space.

This chapter begins to show from whence the stars came, and how they were initially formed. It appears that the stars were a product of that which occurred on Day Two of Creation, as the Earth was set in rotation. But it was not until Day Four of the Creation week (when the sun was ignited) that the stars came into being. Prior to the ignition of the sun (and the light and radiation which is emitted by the sun), there were no reflections and emissions of light from the celestial bodies which are now seen as points of light in the night sky. Prior to the sun, the night sky was black. The solid bodies of the minor planets (which now are stars) were completely hidden from view in the black of space.

The Word of God clearly proclaims, even over and over again, that God spread out or stretched out the heavens. In other words, the heavenly objects were put in place by an expanding type process. But what were the motivating forces behind this expansion process? How did it occur? What was the process like?

Let us now continue onward to examine some very interesting facts about those powerful centrifugal and electrical forces which appear to have been used by God in the placement of the celestial objects. Such simple forces, but when used rightly, what great power.

Chapter 28: CELESTIAL PLACEMENT

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THE LORD HATH DONE IT

The prophet cries out: "Sing, O ye heavens; for the LORD hath done it: shout, ye lower parts of the earth: break forth into singing, ye mountains, O forest, and every tree therein: for the LORD hath redeemed Jacob, and glorified himself in Israel.

"Thus saith the LORD, thy redeemer, and he that formed thee from the womb, I am the LORD that maketh all things; that stretcheth forth the heavens alone; that spreadeth abroad the earth by myself; that frustrateth the tokens of the liars, and maketh diviners mad; that turneth wise men backward, and maketh their knowledge foolish; that confirmeth the word of his servant, and performeth the counsel of his messengers..."

The Lord hath made all things. He alone has stretched abroad the heavens, and what a marvelous work he has done. May we give due honor and glory to Him who has done so many things for us: even as He has, by His great mercy, prepared the way for our eternal salvation.

A REFRESHER



In the previous Chapter, a number of important things about stars were examined. The evidence tends to indicate that the stars may not necessarily be what the evolutionary scientists are claiming them to be. The stars may not be those immense clouds of superheated nuclear gases that they are so often claimed to be. It appears that what the Word of God calls "stars" may, in all reality, be some form of solid matter (which may or may not be shrouded by a gas cloud).

In the last Chapter, it was noted that what were formerly called "wandering stars" are, for the most part, nothing more than solid masses of rocky materials and other substances. It is very obvious that the asteroids (those numerous minor planets which shine in the night sky) are also made of rock-type materials, and possibly even crystal-type materials. With this information clearly in our minds, let us continue with this discussion.

ONE BIG QUESTION

The various major and minor planets (which appear as stars in the night sky) are believed to be made of solid or gaseous materials, or a combination thereof. But, how were all of these planets (or various stars) initially formed and put in place? Where did they originally come from? For a potential answer, let us refresh our memories with something from Chapter 22.

THE FIRST FEW DAYS



On Day One of the Creation week, the Earth was "without form, and void..." The relatively solid portion of the forming Earth did not have the beautiful form which it now has. Originally, it appears to have been an extremely irregularly-shaped mass. It may have contained many rocky protrusions, and even large valleys. It possibly included many deep fractures in the main body of the forming Earth mass. This rock mass, because it was not beautifully formed at this time, may have also included a number of relatively large rocky lobes.

In Chapter 19, it was learned that on Day Two of Creation, the irregularly-shaped 'blob' of the primitive Earth began to rotate around an axis. Throughout that day, the immense mass of solid material steadily increased in rotational speed. At the completion of this process, the surface of the Earth (at that level from the central core which the Earth's equator is currently found) was traveling at a speed of about 1,037.6 miles per hour (1,669.5 km/hr). Let us now ask ourselves: "What would the centrifugal forces involved have done to the irregularly shaped and oversized Earth-blob?" For our answer, let us begin by examining a common engineering formula.

A FORMULA

$$V = \sqrt{10 \times S}$$

There is a formula used for calculating the safe rim velocity for any given flywheel material, at any given diameter. This formula is shown to the left.³ Please note that this formula is intended for use with well-balanced, structurally sound, recognized flywheel materials. Nevertheless, it should serve as a basis for this discussion.

In the above flywheel formula, V is the safe velocity at the outside circumference of a flywheel's rim, in feet-per-second. S is the tensile strength of the material from which the rim is made, in pounds-per-square-inch.⁴

SOME CALCULATIONS

In this discussion, an attempt will be made to roughly determine the tensile strength of material required in order to keep the Earth from being shattered by centrifugal forces, at its current rotational speed. The surface speed of the Earth at the equator is about 1,037.6 miles per hour (1,669.5 km/hr). This translates to 5,478,528 feet per hour, or for use in the above formula: 1,521.8 feet per second. Let us now square the value of 1,521.8, which obtains a value of about 2,315,875. Divide this value by 10 to obtain the required tensile strength for the equatorial band of this Earth.

FINAL ANSWER

Friend, the above flywheel formula indicates that a rather high tensile-strength material is required to hold this Earth together at its current rotational speed. This required tensile strength value (at the equator, at least) is about 231,587 pounds per square inch. In all reality, this value is approaching the strength of High Tensile Steel (which has a value of about 262,000 pounds per square inch).

This Earth is not made out of High Tensile Steel. It is made of rocky materials which have very low tensile strengths. As an example, the average, quality rock-material of this Earth has a tensile strength of only 667 pounds per square inch. This is at the high end of the strength scale of Earthmaterials. Many Earth-materials have tensile strengths which are much below this value.⁵

Friend, this brings us to an important point. It appears that either this Earth has some very special strengthening features imbedded in the outer portion of the Earth (which is highly unlikely), or else the force of gravity, plus other forces (by the mercy of God), play a major part in holding this Earth together at its current rotational speed.⁶

SOBERING CONCLUSION

Friend, in all due sincerity, if it weren't for the powerful force of gravity (and also all the other natural forces which were set in place, and are now sustained by the very powerful Hand of God Almighty), this Earth would virtually be torn apart by the centrifugal forces working upon it. If this Earth were in any manner to get out of balance, it appears that the forces acting upon it could likewise rip it apart, and send the pieces hurtling into space.⁷



Friend, God has done an exceptionally marvelous work in designing and sustaining this Earth. If it weren't for His great love and mercy, we definitely could not even exist! Considering what all He has done, do we give Him the full glory and honor which is truly due Him? As this thought is pondered upon, let us turn to another matter.

ANOTHER ANSWER

A couple of pages back, a question was asked. The question was basically this: "How were all of the planets (or various stars) initially formed?" With the information now before us, let us set forth a potential answer for the formation of the various major and minor planets (or Biblical stars).

On Day Two of Creation, the Earth came up to full rotational speed. Throughout this process, it appears that any large or structurally unsound, protruding lobes (or any other large extending masses which may have caused an imbalance) would have been ripped loose. Partly because of the inertia which these large masses contained, they would have started on various trips far into space.⁸

LOOK AGAIN



Friend, does the above answer sound far-fetched to you? If it does, then please note that one of the major, long-standing theories (in the field of science) for the formation of the moon states that the moon was spun off from the Earth when the Earth was very young, and rotating rapidly.

Part of the proof for the above theory is that the moon consists of materials which have the same density as the materials just below the Earth's crust, in the region of the upper mantle. But let us not stop here. There is much more that we need to understand about this picture.

FULL PICTURE

It appears that the moon was not the only mass which was torn loose (on Day Two, or the early part of Creation's Day Three) from the primitive, irregular 'blob' of the forming Earth, as it came up to full rotational speed. It appears that the centrifugal forces caused the Earth to shed all excess materials (and detrimental materials) which God Almighty did not intend for it to keep. During this major shedding of materials, it appears that a great number of other masses were torn loose, and sent on rapid journeys far into space. It appears that these masses were taken by God and formed into the other planets (both major and minor ones). They became those shining objects seen in the night sky.

The places where the masses were torn loose from the primitive Earth caused 'wounds,' or gaping gashes in the outer surface of the original 'blob.' These 'wounds' allowed molten magmas from deep in the Earth to flow outward, and spew swiftly upon the face of the Earth. As these magmas solidified, they effectively sealed the wounds. One of the common magmas formed a layer of basalt, such as we now find paving the bottom of the Earth's oceans. Another type of magma spewing forth on Day Three, was of a granitic nature. It flowed out and solidified rapidly, forming the massive slab (or 'scab') of the first continent.

PRECISE DEFINITION

Before we continue any further into this discussion, let us turn to *The Exhaustive Concordance of the Bible*, by James Strong, (ISBN 0-917006-01-1). Let us obtain as precise of a meaning as possible for the Hebrew words which were translated into the English language Scriptures as the words "star" or "stars." For these two words, the Main Concordance points to definition number 3556 in the Hebrew and Chaldee Dictionary section. Let us examine closely this definition.

Definition number 3556 indicates that the Hebrew word translated as *star* or *stars* "probably comes from the same [meaning] as [definition number] 3522 (in the sense of *rolling*) or [definition number] 3554 (in the sense of *blazing*); a *star* (as *round* or as *shining*)..."

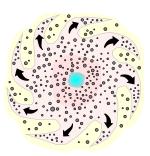
Definition number 3522 is "from an unused root meaning to *heap* up; *hilly...*" Definition number 3554 comes from "a primitive root; properly to *prick* or *penetrate*; hence to *blister* (as smarting or eating into): — burn." Definition number 3554 instructs us also to see definition number 3581, which states that it is "from an unused root meaning to *be firm*; vigor, literally (*force*, in a good or a bad sense)..."

For the word "star," the Main Concordance also points to definition number 792 in the Greek Dictionary of the New Testament, which states that this word is "probably from the base of [definition number] 4766; a *star* (as *strown* over the sky)..." Definition number 4766 contains the following ("...probably akin to [definition number] 4731 through the idea of *positing*); to "*strew*", i.e. *spread* (as a carpet...)" This gives an idea of how the stars were put in place.

ACCURATE TRANSLATION

Let us now put together the available information to obtain an accurate English translation for the nature of at least a portion of the stars. In former times, before there was the knowledge of nuclear science as we have today (or, to be more accurate: during those interim times of ignorance resulting from the Dark Ages), the available information may not have made a lot of sense. But to us of today, it should make a lot of sense.

A portion of the stars are something which is rolling, or tumbling. Their surface may be heaped up into hills.¹⁰ A star may contain a vigorous force, which can be manifest in a bad sense. Certain stars appear to have a blazing or burning nature which is penetrating, and may cause a smarting or eating blister. When originally placed into position, it appears that the stars above were literally strewn across the sky. This indicates that it was a scattering force which effected their placement.



Friend, the definitions above indicate that there are different types of stars. It appears that they contain a firm material. They may be a rolled-together mass of material. They may contain a powerful, burning type of force which can penetrate into the human body and cause a smarting or eating blister (like cancer). This sounds like a rather solid, radioactive type of material. The stars were virtually scattered across the sky. How? As the irregular, oversized 'blob' of Earth-material spun up to full rotational speed, its outer portion fragmented into variously-sized pieces of celestial 'shrapnel.' ¹¹

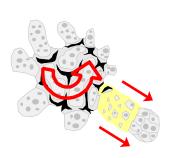
And by the mighty Hand of God, the matter which ultimately formed the stars was explosively spread across the face of the whole sky. On Day Four, the sun began to illuminate the new stars. 12

THE BIG BANG

The scientists speak of a "Big Bang" which started everything. The true 'Big Bang' appears to have been like the sustained explosion of a flywheel. This sustained explosion of the 'Earth-blob' caused layer after outer layer to be shed, as the Earth's rotational speed increased. Friend, let us now examine this process of 'shedding' excess materials from the primitive 'Earth-blob,' as it came up to full rotational speed.

During this period of shedding, the inner portion of the original 'Earth-blob' would have been a churning mass of molten materials. Because of the rapid cooling which occurred at the outer surface, at any point of leakage a rather solid, somewhat irregularly shaped, rigid crust would have quickly formed on the outer surface.¹³

TRAIN OF EVENTS



As the 'Earth-blob' began to revolve around an axis and increase in rotational speed, certain protruding portions of the outer, rigid crust began to break loose. They (along with the smaller-sized debris which followed them) become independent, outbound celestial bodies. (See greatly simplified illustration at left.)

Wherever the large outer portions were broken off, the molten materials from within the 'Earth-blob' were able to rapidly spew forth, and shower out into space. Then, quickly, the molten material at the surface of the Earth would cool, and solidify. By this process, the 'Earth-wound' would heal.

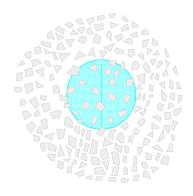
The immense shower of molten materials burst explosively into a myriad of smaller, variously sized, globular orbs. These numerous orbs projected rapidly outward, somewhat like a shotgun blast. Eventually they were propelled all the way to those special locations in space which God had ordained for each and every one of them.

As the rotational speed of the 'Earth-blob' slowly increased, the escalating centrifugal forces caused one after another of the large protrusions to break off and project rapidly into space. This process continued until all the large protrusions were sent on their explosive journeys deep into space.



After all the large projections were broken off, all that was left was the irregularly shaped central portion of the original 'Earth-blob.' (See illustration at left.) This central portion of the original 'blob' was covered in many places by large regions of molten magma which had rapidly cooled to seal the 'wounds' in the Earth. These regions were like 'scabs' on the surface of the forming Earth.

THE GRAND FINALE



The rotational speed of the forming Earth continued to increase greatly. The strong centrifugal forces proceeded to build upward to Earth-shattering proportions. The stresses in the outer materials of the primitive Earth built up to enormous values. Then came that special moment when the emerging Earth was freed from all which encased it. The whole outer casing virtually exploded, somewhat like a shrapnel grenade (see greatly simplified illustration at left).¹⁴

In the process, pieces of rocky material (and other matter) flew deep into space in every direction. This added to the volume of shattered debris in the heavens. Now there were many more objects which would ultimately (on Day Four of Creation) become known as stars. And in the center of it all, in all its glory, resided the 'newborn' Earth.

At last, the Earth was able to take on its spherical form. It was no longer without its special form, as it had been earlier. As the rotational-speed of the Earth continued to increase up to its maximum velocity, and as the basaltic materials flowed out to heal the massive surface 'wounds,' the form of the newly emerged orb was gently massaged into its final shape.

ADDITIONAL FACTORS

As stated above, when the large 'Earth-blob' began to rotate and gain speed (by all of the evidence, on Day Two of Creation), numerous fragments were torn loose by centrifugal force. This tearing loose process simply initiated that magnificent process whereby the fragments were rapidly sent on their lengthy journeys into space. It was another natural force (that God ordained) which appears to have actually caused these fragments to be propelled powerfully and explosively outward into the outer reaches of space.

Please note that in Chapter 19, the outer portion of the Earth was shown to possess a negative electrical charge. Because of the intense nuclear processes which were initiated on Day One of Creation, the flow of negative charge to the outer portion of the Earth may have been extremely large. The pieces which broke loose from the Earth's outer surface (because of the centrifugal forces) would all have initially possessed a strong negative electrical charge. This would have created a very interesting situation in the vicinity of the forming Earth on Day Two of Creation.

The writer believes that the situation which was created, as the Earth-covering exploded, allowed the fragmenting rocky materials to obtain immensely high velocities. All of the forces working together propelled these materials to velocities far above anything which man has been able to obtain.¹⁵

LIKES REPEL







It is a fact that like-polarity electrical-charges repel one another, and unlike charges are attracted to one another. On a small scale, the repulsion of like charges is the force which spreads apart the gold leaves within an old-fashioned electroscope. But please note that electrical-force can easily be raised to billions upon billions of times stronger than the force of gravity.¹⁶

The electrical forces of repulsion and attraction do vary inversely as the square of the distance.¹⁷ In other words, the closer together the like-charged objects, the stronger will be the repulsive force between them (and for opposite charges, the closer together they are, the stronger will be the attractive force between them).

ON A WORLD SCALE

Let us now examine how the powerful force of electrical repulsion would have acted upon the fragmenting shell of the forming Earth. The force of repulsion would have been in effect because all of the outer surface of the primitive Earth initially possessed an extremely powerful negative electrical charge. Just prior to the explosion of Earth's outer casing, the natural forces tended to hold the Earth together as one solid object. But as soon as a rock-mass fragmented, and became independent from the like-charged main body, the powerful force of repulsion came mightily into play.

As the highly-charged pieces broke loose from the main body of the primitive Earth, not only were they strongly repelled by the Earth, but because they all possessed an extremely powerful negative electrical charge, they also strongly repelled one another. As this situation is examined, we find that the fragments were receiving a strong repelling force from all sides, except one. The only way left open was that one which led into space. As the negative charge of the individual pieces worked against the Earth and each other, the individual fragments obtained incredible velocities.

In its effect, all of these repelling forces working together would have produced a situation similar to a world-class rail gun (or truly, a universe-class rail gun), with a myriad of launchers aimed in all directions. (The rail-gun will soon be examined.) Before we continue on, let us look at a simple example of electrical repulsion, and what its capabilities are.

THE COULOMB

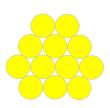
The common unit of electrical charge is called the coulomb. One coulomb represents the amount of charge which passes through a 100-watt lightbulb in slightly over one second.¹⁸ This may not sound like much, but let us now see what this unit of electrical charge can really do.



One source of information indicates that if two like-charges with a value of one-coulomb each are placed 1 meter apart, the force of repulsion between the two charges would be 9 billion newtons. To put this 'picture' into a better prospective, the above value of electrical repulsion means that the two charges would push apart with a force approximately equal to the weight of ten full-sized battleships. (For some perspective, see illustration at left.)

It does not appear that static charges of 1 coulomb commonly exist in our everyday environment. But what was it like at Creation? What was it like when the extremely powerful electromagnetic pulse moved outward from the core of the forming 'Earth-blob?' What was the intense barrage of electrons like which flowed out of the intense nuclear reaction initiated on Day One of Creation? Friend, there are many things to consider as we examine what God has done!

CLUSTERS



Let us now examine one more aspect of repelling charges. Let us begin with small things in nature, and then see how the principles may apply to larger bodies. Let us first see how repelling electrical charges effect clusters. What are clusters? To the chemical physicist, a cluster signifies "a collection of weakly bonded atoms or molecules whose size distribution can readily be altered by changing the techniques used to make them." 20

Clusters are said to have properties which are different from that of ordinary bulk material. They appear to be a form of matter which does not behave exactly like the common solids, liquids, and gases which are usually observed today. Because of their particular characteristics, quantum effects can occur in clusters.²¹

ELECTRICAL EFFECTS

We will now make a general statement. Chemical processes involving electron transfer usually take place quicker than most other chemical processes. After this, in speed of process, appears to come those of the ionic type.²² Let us now turn our vision toward ionized atoms and molecules, such as those which may appear in clusters.

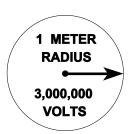
The interaction between ionized particles (such as atoms and molecules) can be very strong. This interaction may also take place at a very high rate of speed. These effects between particles are able to occur even when there is a relatively great distance of separation between them.

COULOMB EXPLOSION

Let us now examine what can happen when ionized particles are close together. In this case, if a strong like-charge is produced suddenly on all of the particles, the force of repulsion can suddenly become so large that the particle-clusters can explode. When this occurs, it is called a Coulomb explosion. This explosion shatters the cluster and sends the component particles rapidly in every direction.²³

It should be noted that the individual particles resulting from a Coulomb explosion can possess various levels of charge.²⁴ This also appears to be the case for the planets in our Solar System.

MAXIMUM CHARGE

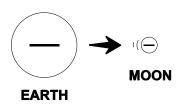


A source states that a sphere with a radius of 1 meter can have its electrical potential raised to 3 million volts in air, before electrical discharge occurs. Please note that this holds true only in an ordinary air environment. If the environment is different, so will be the maximum charge obtainable.²⁵ Moreover, if the radius of the sphere is increased, the electrical charge (in volts) can also be increased.²⁶

High-voltage charges are commonly used in particle accelerators. These charges are able to turn particles into high-speed projectiles for brutally penetrating to the nuclei of atoms. Friend, consider this thought for a moment. What an excellent method for hurling the stars and planets into orbit during the process of Creation!

The writer believes that there were more than just centrifugal and electrical forces in effect, when the planets and stars were placed at the locations ordained by God. But these forces in themselves, and what can be accomplished with them, truly gives us much 'food for thought.' It gives us a basis for understanding how the planets and stars were spread forth from the forming Earth.

SPHERICAL RADIUS



Earth's moon is said to be about 2,160 miles (3,480 km) in diameter.²⁷ Therefore, the moon has a radius of about 1,080 miles (1,740 km). Prior to becoming pock-marked, the moon may have had a relatively smoother surface. A relatively smooth sphere with a radius the size of the moon could hold a considerable charge of electricity. A highly charged sphere of this size could be thrust away with an incredible amount of force, if it was worked against a like-charged Earth.

A SIMPLE OBSERVATION

Please note that the Earth's moon is highly pock-marked by the impact of a myriad of smaller objects. To the writer, it appears that the moon may have been one of the larger lobes which broke loose from the original, oversized 'Earth-blob' early in its rotational history. When the final outer casing of the Earth exploded all at once, the moon (which may have been rotating rather rapidly at that time) had its entire surface blasted (like from a shotgun) with rocky material.

God does not leave His people in darkness. He leaves the evidence to what He has done, and the train of events as they occurred, lying all around for us to readily see. What a marvelous and loving God which we have! He even wants us to be able to understand His very ways!

INSIDE THE BELT

Let us examine the planets which are said to reside inboard of the asteroid belt. The planet Mercury is said to be the smallest of the inner planets. Its cratered surface (which shows it was released from the 'Earth-blob' before the shrapnel barrage) has a diameter of about 3,030 miles (4,875 km).^{28 and}
²⁹ This makes Mercury about three-eights the diameter of the Earth. Next, the planet Venus is said to have a diameter of about 7,520 miles (12,100 km). This makes it slightly smaller than the Earth.³⁰

For comparison purposes, Earth has an equatorial diameter of 7,926.42 miles (12,756.34 km).³¹ Outboard of Earth is said to reside Mars (with its cratered southern hemisphere).³² This planet appears to have a diameter of about 4,213 miles (6,780 km), which makes it about half the size of Earth.³³ Outboard of this is said to be the debris field of the asteroid belt.³⁴

OUTSIDE THE BELT

Jupiter (the most massive of the planets) is said to consist mainly of a dense ball of hydrogen and helium gases. Deep inside is thought to reside a relatively small molten or rocky core, or even a metallic core. The extent of the gaseous ball is said to have an equatorial diameter of 88,700 miles (142,800 km).³⁵ and ³⁶ What is important to note at this time about Jupiter is that the solid core region is most likely much smaller than the diameter of the Earth.



What is commonly said to be the next outboard planet, Saturn, is thought to consist mainly of a gaseous cloud of hydrogen. A source claims that the gaseous atmosphere is thought to contain a small metallic core.³⁷ The equatorial diameter of this planet is said to be about 74,980 miles (120,660 km). Another source claims that Saturn is believed to have an extremely thick, gaseous atmosphere which surrounds a very small silicate core.³⁸ Please keep this small core-size in mind as this discussion continues.

The atmospheric sphere of Uranus is said to have an equatorial diameter of about 31,771 miles (51,120 km). This atmosphere is thought to extend inward to a depth of about 5,000 miles (8,000 km). Within the atmosphere is claimed to exist an extremely deep, liquid ocean, which surrounds an Earth-sized molten or compressed-liquid core. Please remember this core material as this discussion continues.

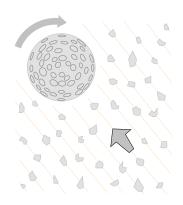
Neptune is claimed to have a diameter of about 30,750 miles (49,500 km). It is said to consist mainly of a gaseous cloud of hydrogen and helium, with a relatively tiny solid core surrounded by some type of liquid.⁴¹ and ⁴² Once more we have encountered a tiny solid mass as the base of a planet. Please remember this fact.

The atmospheric envelope of Pluto is said to have an equatorial diameter of about 1,440 miles (2,320 km). There is speculation in the science community that within this atmosphere lies a silicate-rock core which has a diameter of about 1,100 miles (1,770 km). The solid mass within the gaseous envelope of Pluto appears to be much smaller than the diameter of Earth.

FINAL EFFECTS

It appears that the solid portions of the other, individual planets in our solar system are smaller than the size of the present Earth. The planet Uranus, as mentioned above, appears to have a non-solid core which is about the same size as the Earth. Because the other planets are generally smaller than the Earth, it appears that the original, greatly oversized 'Earth-blob' could have been large enough to act as a launch-platform for these smaller masses.⁴⁵

Once the relatively small, main cores of the other planets arrived at their ordained locations in space, they could have easily obtained additional mass by gravitationally attracting materials from the immense amount of small-sized debris and dust which surrounded them.⁴⁶ This process could have allowed relatively small planets to grow even larger than their original size.



There is also one more thing which could have allowed the other planets to increase in size. The intense shrapnel barrage from the finale of the exploding Earth-covering could have added a considerable amount of material to any particular planet, as God ordained (please see illustration at left).

Friend, the intense cratering on the surface of a number of planets does, very clearly, tell a big story. We do not see a large amount of ongoing cratering occurring today. Why? The evidence indicates that the cratering of the planets occurred during a relatively short period of time. Furthermore, this cratering declares that a considerable amount of material was added to the planets by this process.

ONE MORE FACTOR

When considering the immense forces which hurled the planets and stars to their locations in space, there is one more factor to consider. That factor is the rapidly expanding magnetic field which occurred on Day Two of Creation (as discussed in Chapter 19). This expanding field produced the magnetosphere, which surrounds this Earth. As noted in Chapter 21, it appears that the magnetosphere extends outward at least 60,000 miles (100,000 km) from the surface of the Earth.⁴⁷

To have expanded out to its full extent in a twenty-four hour period would indicate that the magnetic lines of force were moving outward from the surface of the Earth with an average speed (measured over a 24-hour period) of approximately 2,500 miles per hour (4,022 km/hr). In all reality, there was possibly a slower, initial startup period. And again, this process shifted to a slower rate of expansion as the magnetosphere neared its full intended size. This could allow for a period of extremely rapid expansion during the mid-portion of the process, in which the magnetic lines of force moved exceptionally fast away from the Earth.⁴⁸

NECESSARY INFORMATION

It appears that the magnetic field of this Earth is currently very weak. But what was it like during the early days of Creation? What was the strength of the magnetic field when there was an immense, outward-moving flow of electricity (which flow was initiated by nuclear Creation), and a highly charged outer surface on the Earth? Does not a powerful, outward moving electric field also create a powerful magnetic field?



Please note that in nature, even weak forces can have quite an effect on things. Let us consider the relatively weak force of gravity. This force is indeed extremely small when compared to that which can be done with electrical or magnetic forces.

Nevertheless, consider the potential of a weak force like gravity if you were to fall or jump out of an airplane at an altitude of 18,000 feet (5,486 m). In the mean time, let us examine another matter.

PROPELLING FACTS

A modern rail gun (such as being developed by the military) uses a magnetic field which interacts with a dynamic electric field. The interaction of these fields produces Lorentz forces, which propel a projectile to its ultimate muzzle velocity. Rail gun systems currently under development are expected to have muzzle velocities in the range of 1.5 to 3.7 miles per second (2.5 to 6 km/sec). Stated another way: this muzzle velocity is 5,400 to 13,320 miles per hour (8,688 to 21,432 km/hr). But what is the full potential of this system?

MAXIMUM VELOCITY

Theoretically, a terrestrially based rail gun has no upper limit on muzzle velocity. This gun also spreads the acceleration out over a much longer period of time. Therefore, it is relatively gentle on its cargo. ⁵⁰ This would be an important consideration, especially when launching stars and planets!

Friend, there is one more thing to consider. If mankind's relatively short-barreled rail guns can reach velocities of about 5,400 to 13,320 miles per hour (8,688 to 21,432 km/hr), what would be the attainable velocity from a world-class (or universe-class) rail gun which has an effective barrel length of thousands, or even tens of thousand of miles long?

CLOSING STATEMENT

Indeed, only a few of the natural forces which God readily has at His disposal have been considered. All of these forces would have been working together to launch the stars and planets to their current locations in space. Nevertheless, it appears that there are still many natural forces and phenomenon which mankind has not yet discovered, therefore has no clear understanding of. Of this unknown group (unknown only to man), the Lord God used all that was necessary to accomplish His desire.

SIMPLE QUESTIONS

Considering the fundamentals of rail gun technology (as introduced above) and electrical repulsion, what could God have very easily done at Creation, when He spread abroad all the stars and planets? What could our loving Creator have done with just those powerful natural forces which mankind already knows about? Isn't it about time that arrogant mankind quite fighting against God, and simply turned to believe in His faithful Word? Friend, what are your thoughts on these things?

ONE FINAL THOUGHT

It appears that man, with his space programs, is in a frantic search for signs of life on other celestial bodies. The scientists appear to believe that eventually they will discover the source of all life. The writer could not end this chapter without commenting on the source of any signs of life which may be found on these other celestial bodies.

From the Word of God, we know that mankind was created from the materials which are found upon the Earth. From the evidence shown throughout this chapter, it becomes very evident that the other celestial bodies were derived from the original 'Earth-blob' which was formed on Day One of the Creation week. Because the other bodies were derived from the Earth, upon them should also be found the basic ingredients for life. But that is as far as things will go on these other bodies, for it appears that God took these ingredients and created physical, living life-forms on Earth only.

THE MISSING INGREDIENT

It is realistic to believe that the basic building-blocks for life may be found all over the physical Universe. But these components of which mortal life-forms are composed are not life itself, because they are missing one very important ingredient.

On Earth, "God formed man of the dust of the ground..."⁵¹ But there is one more thing which needed to occur before there could be true life. After God formed man, the Word of God records that He "breathed into his [man's] nostrils the breath of life; and man became a living soul."⁵² Friend, if God is removed from the 'picture,' there cannot be true, wholesome life. In relation to this, please note the following passages from the Holy Scriptures.

It is written: "In the beginning was the Word, and the Word was with God, and the Word was God. The same was in the beginning with God. All things were made by him; and without him was not any thing made that was made. In him was life; and the life was the light of men." ⁵³

Again, it is written: "God that made the world and all things therein, seeing that he is Lord of heaven and earth, dwelleth not in temples made with hands; neither is worshipped with men's hands, as though he needed any thing, seeing he giveth to all life, and breath, and all things..."⁵⁴

Yes, dear Friend, God is the giver of life. Without God, there is no true life. Without God, there are only the truly dead 'signs of life.'

Friend, so ends another Chapter in this FIRST EDITION of

Listen To The Earth, Volume One, THE CREATION, by David E. Sakrisson and Ariends
in 34 Chapters, plus README, Preview, Start, and End files
with References following each Chapter

REFERENCES

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- 1. The Holy Bible, Book of Isaiah, chapter 44, verses 23-26.
- 2. The Holy Bible, Book of Genesis, chapter 1, verse 2.
- 3. The formula for calculating the safe rim velocity for flywheels made of any given material, at any given diameter, was obtained from *Machinery's Handbook 26*, by Oberg/Jones/Horton/Ryffell, on pages 178-180. This formula can also be used as a starting point for calculating the safe rim velocity (or even the safe rotational speeds) for virtually any type of concentric, well balanced, structurally sound, rotating mass.
- 4. There are a number of things which can be learned from studying the flywheel formula. First, as already stated, this formula is meant to be used only for concentric, well-balanced, structurally sound flywheel materials, which are free of any defects (such as cracks, or major nicks and gashes) which would weaken the flywheel. Once we are working with a good, safe, well-balanced flywheel, the formula then tells us a few other things. It is the tensile strength of our chosen flywheel material which governs the safe rim velocity. The higher the tensile strength of our material, the higher will be the safe rim velocity. The lower the tensile strength of the material, the lower will be the safe rim velocity. After a given strength of material is decided upon for our flywheel, the formula tells us another very important fact. For any given strength of material, the bigger the diameter of the flywheel, the lower will be the safe revolutions-per-minute (RPM's) of the flywheel system. Translating this to our discussion of the Earth: its large diameter means that it can safely have only a very low RPM, otherwise the overall system would disintegrate, and shower outward.
- 5. The stated tensile-strength value of 667 pounds per square inch (PSI) for the average rock material of this Earth is the result of some calculations made from information contained in an article called "Electrohydraulic Rock Blasting for Mining in Urban Areas," by Silva/Stellin/Costa/Hennies (found in a periodical called *Environmental Management and Health*, the 2001 Edition, Volume 12, Issue 1, page 26). This article states that the indirect tensile strength test (using the Brazilian method) gave a value of 4.6MPa for rock tests conducted at the Rock Mechanic Laboratory (LMR) of the Mining Engineering Department of the Polytechnic School of the University of Sao Paulo (EPUSP). A value of 4.6MPa multiplied by the conversion factor of 145 equals 667 PSI. But there is more to this issue, for the value obtained in these rock tests related to mining in relatively hard, dense rock. But the Earth is far different, for it contains various bedding planes and faults, plus other features which degrade its structural integrity. Then there is the matter of lower strength rock-type materials. Therefore the writer looked to a couple of other sources which may help to give a better understanding of the strength of some of these other common rock-type materials.

An article called "The Mineralogical and Petrographic Analysis of Concrete Aggregates," by Marc-Andre Berube (found in the periodical called *JOM*, the December 2001 issue, page 45) states that the tensile strength of ordinary (structurally sound) concrete is approximately 2 to 3 MPa. Multiplying these values by the conversion factor of 145 gives a range for the tensile strength of ordinary concrete of only 290 to 435 pounds per square inch (PSI). It appears that the tensile strength of ordinary concrete is much less than the average strength of structurally-sound, good quality Earth-rock. But the writer wanted to go further with this investigation, for the Earth is not made up of just high-quality rock. It also contains fractured rock, and other weaker rock materials.

An article called "Shale Tectonics and Deformation Associated with Active Diapirism: The Jerudong Anticline, Brunei Darussalam," by Morley/Crevello/Ahmad (in the *Journal of the Geological Society*, May 1998, page 475) states that the tensile strength of weak shale is about 5 to 15 bars. Multiplying these values by the conversion factor for bars (which is 14.50) gives a range of 72.5 to 217.5 pounds per square inch (PSI) tensile strength for weak shale.

Friend, the strengths of the rock materials of this Earth, in themselves, are indeed very weak. At their best, it appears that their strength is only about 1/347 of that required to hold together at the current rotational speed of the Earth. It appears that it is only by the various other forces which our loving God and Father set in place and maintains (gravity being but one of them) that this Earth even has a chance at holding together at its current rotational speed. As this situation is considered, an analogy comes to mind. We, in our carnal flesh, are indeed very weak. Our carnal nature would love to indulge itself in many things which are completely contrary to the true way of God. If left to ourselves, we would be easy targets for Satan to bring to utter destruction for all eternity. If it were not for all things which our loving Heavenly Father has set in place (by the sacrifice of His dear Son Jesus Christ, and by the manifestation of the true life of Christ through us, as we walk in communion with Him day by day), there would be no chance for us to ever be able to hold true to that path which God has set before us: that only path which leads to eternal life.

6. There is also the strong attraction between positively and negatively charged materials within the Earth (and upon its surface) that helps to hold things together at the current rotational speed of the Earth.

- 7. In relation to this thought, let us examine a passage of Holy Scripture. It is written (in the Book of Isaiah, chapter 24, verses 19-20): "The earth is utterly broken down, the earth is clean dissolved, the earth is moved exceedingly. The earth shall reel to and fro like a drunkard, and shall be removed like a cottage; and the transgression thereof shall be heavy upon it; and it shall fall, and not rise again."
- 8. It is time to make an observation. Suppose the 'blob' of the primitive Earth-system had been a perfect sphere which was structurally uniform throughout its mass, and its axis-of-rotation allowed for a concentric rotation. If this system was spun up over its safe RPM, the fragmenting pieces may have tended to shower out in all directions somewhat uniformly. If the system was not structurally uniform throughout its mass, when it was rotated too fast, the initial disintegration would occur on the structurally weak portion of the sphere. In this case, a greater portion of the debris may tend to project out in one given direction. Now, let us look at another case.

Suppose that the axis of rotation for the erratically shaped 'Earth-blob' did not pass through the exact center-of-gravity for the mass. Suppose an axis of rotation was selected which was far from the 'blob's' center-of-gravity. This would produce a great imbalance within the rotating system. The further away from the exact center-of-gravity for the selected axis of rotation, the greater would be the imbalance of the rotating system. In this case, when the rotating system reached to the point of disintegration, the debris would tend to project out in one direction.

We now have something to ponder on, as we examine the Creation of the whole solar system, plus all the stars. Did the designated axis-of-rotation for the erratically-shaped 'Earth-blob' produce a balanced or an imbalanced rotating system? Was the debris showered out somewhat uniformly in all directions, or was it initially sent out in one direction?

- 9. *Microsoft Encarta 98 Encyclopedia*, "Moon." PLEASE NOTE: This reference source states further that the currently accepted theory (of the evolutionary scientist's) for the moon's creation (called the "planetesimal impact theory") appears to be greatly lacking in supporting evidence. The planetesimal impact theory states that the Earth was impacted by a large celestial body. The massive impact blasted portions of the Earth and the impactor into Earth orbit. This theory states that the debris ultimately united to form the moon. A major problem of this theory is that it would have required a thorough melting of the solid portion of the Earth following the impact. The Earth's geochemistry does not indicate any such radical melting having ever taken place after its initial formation. Friend, there is another obvious problem with the planetesimal impact theory. To produce the solid moon from the impact debris would have required a thorough melting of this debris at a later date. The scientists have yet to produce evidence for such a later melting.
- 10. A rolling or tumbling motion in the stars may cause the light coming from them to be constantly changing in brightness. This rolling motion, coupled with the various materials composing the star's surface, may also cause colorshifts in the light which we observe from these stars. A hilly surface on the star may only work to intensify these phenomenon.

As already indicated in this Chapter, a great portion of what we observe in the night sky as 'stars' (the asteroids, for example) are actually rather solid, dark colored masses of rocky material. Other 'stars' may be made of different solid materials, such as various crystals (pure quartz, etc.). These crystals may interact with space radiation, which causes them to emit what is observed as visible light.

Some stars may be like brilliant light emitting diodes. Other stars may have 'clouds' of pulverized rock materials (dust) surrounding them. Because of space radiation, these dust clouds can become brightly illuminated. Certain stars may have gaseous clouds around them. These gaseous clouds may also become greatly illuminated, as occurred with the Earth in the latter part of the first day of Creation (this process was examined in Chapter 18). The gaseous clouds around the solid star have the ability to produce diverse colors of light, depending upon their composition.

There is another celestial object which is composed in a similar manner as the solid, somewhat stationary stars which are surrounded with a cloud of gases. This other celestial object is called a comet. The head of a comet consists of a solid object which is surrounded by a great cloud of brightly illuminated gases. A comet may be likened to a star which is rapidly traveling through space. On the other hand, certain stars may be likened to stationary comets.

11. Because the Earth is composed of many various materials, so also are the stars. Within the various regions of this Earth are found concentrations of certain types of minerals or materials. This phenomenon would have a great effect on the nature of the individual stars which were created when the outer portion of the initial 'Earth-blob' fragmented outward as it spun up to full rotational speed. One star may have a concentration of gold; another may have a concentration of copper; while yet another may have a concentration of sodium; and so on. The composition of materials which form the solid portion of a star would effect the chemical nature of the dust or gas cloud which surrounds this solid portion. The chemical nature of the surrounding cloud would effect the spectra of the visible light which is emitted by these stars. In other words, the various chemical natures of these clouds would effect the color of the light which we observe coming from the stars.

12. It appears that during Days Two and Three of Creation, the numerous pieces of solid material spun off from the original 'Earth-blob' were on rapid transits to their ultimate locations in space. These numerous pieces of solid material became the foundations upon which the stars were made. As noted earlier, around a number of these cores of solid material appear to be a cloud of gases or dust (something like the head of a comet).

During Days Two and Three of Creation, the sun had not yet been fully formed and ignited into the brilliantly shining nuclear inferno which we observe today. Because there was no brilliant light or other ionizing radiation spewing forth across the expanse of space during this time, there was no reflection from, or interaction with the materials which formed the stars. For this reason, had human eyes been able to observe the situation at this time, there would have been no tiny lights (or stars) in the night sky.

Once the sun was ignited on Day Four of Creation, a myriad of tiny, bright reflections could be seen in the night sky. These tiny bright lights, which we see with our eyes, came to be called stars. (Please note that if man has never seen something, and is ignorant of its presence, he does not come up with or need a name for it. At Creation, once the tiny points of light began to shine in space, there was something which could have been seen with human eyes. At this time, these points of light needed a name. Therefore, they became known as stars.)

- 13. Please note that the surface of the original 'Earth-blob' was covered by a relatively deep layer of water.
- 14. When the outer surface 'exploded,' basalt flowed over the face of the Earth to seal the 'wounds.'

The letter k in the upper-right formula is the proportionality

- 15. Since these newly-formed independent objects were traveling outward in space, they did not have the air resistance working against them, as occurs within our atmosphere. Because they were outside of any atmosphere, they could freely obtain incredible velocities without bringing harm to their structures. There would be not heating or oxidizing of their outer surfaces, as would occur within our atmosphere.
- 16. Conceptual Physics, Paul G. Hewitt, 6^{th} Edition, 1989, pages 370-371 & 391. Page 373 of Conceptual Physics shows the formula for Coulomb's Law. This formula (shown to the right) gives the attractive or repulsive force (F in the formula) which is acting along a straight line between two charged particles (q_1 represents the quantity of charge on one particle, and q_2 represents the quantity of charge on the other particle). The unit of charge used for this formula is the coulomb (a charge of one coulomb represents the flow of approximately 6.25×10^{18} electrons, or 6.250,000,000,000,000,000,000 electrons). The distance between the charged particles is represented by d, in the upper-right formula. As noted in Conceptual Physics, this formula states that for charged objects that are much smaller than the distance between them, the force between the two charges varies directly as the product of the charges and inversely as the square of the separation distance.

constant. It represents the electrical attractive or repulsive force in newtons. As stated on page 374 of *Conceptual Physics*, the electrical proportionality constant k is a very large number. The approximate value for k is calculated by the lower-right formula. In this formula, the letter N represents newtons. The letter m represents meters of separation between charge particles, and the letter C represents coulombs of charge.

17. Conceptual Physics, Paul G. Hewitt, 6^{th} Edition, 1989, pages 370-371 & 391. Page 373 of Conceptual Physics shows the formula for Coulomb's Law. This formula (shown to the right) gives the attractive or repulsive force (F in the formula) which is acting along a straight line between two charged particles (q_1 represents the quantity of charge on one particle, and q_2 represents the quantity of charge on the other particle). The unit of charge used for this formula is the coulomb (a charge of one coulomb represents the flow of approximately 6.25×10^{18} electrons, or 6.250,000,000,000,000,000,000 electrons). The distance between the charged particles is represented by d, in the upper-right formula. As noted in Conceptual Physics, this formula states that for charged objects that are much smaller than the distance between them, the force between the two charges varies directly as the product of the charges and inversely as the square of the separation distance.

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18. *Conceptual Physics*, Paul G. Hewitt, 6th Edition, 1989, page 373.

- 19. Conceptual Physics, Paul G. Hewitt, 6th Edition, 1989, page 374.
- 20. This quote comes directly from an article in the July/August 2002 issue of *American Scientist*, called "Cluster Dynamics: Fast Reactions and Coulomb Explosion," by Poth/Wisniewski/Castleman, which begins on page 342.
- American Scientist, July/August 2002, "Cluster Dynamics: Fast Reactions and Coulomb Explosion," Poth/ Wisniewski/Castleman, page 342.
- American Scientist, July/August 2002, "Cluster Dynamics: Fast Reactions and Coulomb Explosion," Poth/ Wisniewski/Castleman, page 342.
- American Scientist, July/August 2002, "Cluster Dynamics: Fast Reactions and Coulomb Explosion," Poth/ Wisniewski/Castleman, page 342.
- 24. American Scientist, July/August 2002, "Cluster Dynamics: Fast Reactions and Coulomb Explosion," Poth/Wisniewski/Castleman, page 342. Let us look further into what occurs in a Coulomb Explosion. First, these explosions give off highly-charged particles in a uniform manner, in all directions. In highly-charged systems, the tiny fragmented particles (resulting from the explosion) can possess kinetic energy levels up to several thousand electron-volts, and in some cases, this energy level can be as high as millions of electron-volts. Another product of Coulomb explosions can be the release of x-rays.
- 25. The maximum stated charge for a given diameter of sphere holds true only for an individual sphere which is surrounded by what was originally relatively neutral air (electrically speaking). If the environment surrounding the charged sphere has a like-charge which is sustained by some source, the sphere should then be able to be charged to a much higher level. This appears to be what happens in a Coulomb explosion. An extremely high, like-charge is induced rather instantaneously in all of the individual components. The elevation of charge obtained by the individual components is usually much greater than can be obtained in ordinary environments.
- 26. Information from: *Conceptual Physics*, Paul G. Hewitt, 6th Edition, 1989, page 388.

Let us now examine the relationship between coulombs and volts. In the formula to the right, Electrical Potential is in volts (V). The electrical potential energy is in joules (J) of energy (according to *Fluid Power Design Engineers Handbook*, by Parker Hannifin Corporation, 1973, section k, page b-28, a joule equals 2.778 x 10⁻⁴ watt-hours, or simply 0.0002778 watt-hours). The amount of charge is in coulombs (C).

Electrical Potential = amount of charge

From the above formula, we can calculate how many joules of energy per coulombs of charge equal how many volts. From page 688 of the book *Conceptual Physics*, we find that 1 joule is equal to the amount of work done by a force of 1 newton acting over a distance of 1 meter. A joule is also called the newton-meter $(N \bullet m)$. The newton-meter is simply the combination of the force in newtons (N) with the distance in meters (m).

- 27. Microsoft Encarta 98 Encyclopedia, "Moon."
- 28. *Microsoft Encarta 98 Encyclopedia*, "Mercury (planet)." For the time being, we will simply pass along the claimed dimensions for the planets. The claimed dimensions appear reasonable enough to be used at this time.
- 29. The 1998 Grolier Multimedia Encyclopedia, "Mercury (planet)."
- 30. The 1998 Grolier Multimedia Encyclopedia, "Venus (astronomy)." Considering another matter from another source, Microsoft Encarta 98 Encyclopedia, under the heading of "Venus (planet)," states that the surface of Venus presents "a vast array of meteorite craters." This information indicates that Venus was another of the large lobes from the original, primitive Earth-blob which broke away as the large mass began to revolved on Day Two of Creation. Then, as the Earth increased in rotational speed, in the ensuing shrapnel barrage the surface of Venus was blasted by a myriad of smaller rocky masses. These created the "vast array of meteorite craters" on the surface of Venus.
- 31. Microsoft Encarta 98 Encyclopedia, "Earth."

- 32. *Microsoft Encarta 98 Encyclopedia*, "Mars (planet)." The southern hemisphere of Mars is said to contain many impact craters. This indicates that Mars may have been one of the large lobes of the original Earth-blob which was released into space as the Earth's rotation began to increase in speed. The impact craters on Mars are believed to be the result of the intense shrapnel barrage which emanated from the Earth as its final outer casing exploded because of the centrifugal and electrical forces acting upon it.
- 33. The 1998 Grolier Multimedia Encyclopedia, "Mars (planet)." Furthermore, because of the earlier discussion in this Chapter, it should come as no surprise to the Reader that this source states that Mars "shares characteristics of both the Moon and Earth," and that "Mars is similar in composition to both bodies." If all of these bodies were originally part of the same primitive Earth-blob, this all makes great sense. Friend, it truly is much easier to just believe the Word of God and its record of Creation. Then, and only then, will all that surrounds us make good sense. On the other hand, when man tries to do things his own way, while totally disregarding God, the state of science becomes extremely confusing and rather unbelievable.
- 34. The asteroid belt may possibly be a collection of the major portion of those smaller fragments which were shed during the controlled "Earth-explosion."
- 35. Microsoft Encarta 98 Encyclopedia, "Jupiter (planet)."
- 36. The 1998 Grolier Multimedia Encyclopedia, "Jupiter (planet)."
- 37. Microsoft Encarta 98 Encyclopedia, "Saturn (planet)."
- 38. The 1998 Grolier Multimedia Encyclopedia, "Saturn (astronomy)."
- 39. Microsoft Encarta 98 Encyclopedia, "Uranus (planet)."
- 40. The 1998 Grolier Multimedia Encyclopedia, "Uranus (astronomy)."
- 41. Microsoft Encarta 98 Encyclopedia, "Neptune (planet)."
- 42. The 1998 Grolier Multimedia Encyclopedia, "Neptune (planet)."
- 43. Microsoft Encarta 98 Encyclopedia, "Pluto (planet)."
- 44. The 1998 Grolier Multimedia Encyclopedia, "Pluto (planet)."
- 45. The size of the Earth in relation to the size of the other masses thrown off from the Earth may not need to be of any consideration at all. If equal masses on opposite sides of the 'Earth-blob' were shot away at the same time by electrical repulsion, then the repulsive forces acting from opposite sides would have, in net effect, canceled (or neutralized) each other out. The final result (during the launching of the other planets, plus what we call stars) would have been that no force was acting to push the Earth into some other position in space. Then again, this launching of the planets and stars could have resulted in pushing the Earth into its orbit around the sun. Yes, there are a number of options. Only God knows the complete truth on these matters.
- 46. God left us some indication of the process of gravitational attraction, which formerly operated at a very escalated scale. The record of this process is shown in the cratered surfaces of a number of planets, and also in the surfaces of a number of asteroids. It appears that there was a period of time in which intense and massive celestial collisions occurred within our solar system. This period of major collisions appears to have occurred early in the history of Creation. Each celestial impact had the potential of creating fewer, but more massive celestial bodies. Nevertheless, some of the impacts may have virtually shattered larger bodies into numerous fragments. There is a fundamental truth which comes out of all this. That truth is: Only God knows the full history of all Heaven and Earth. Only He knows all the details of what happened.
- 47. *Microsoft Encarta 98 Encyclopedia*, "Geophysics."
- 48. The rapidly expanding lines of magnetic force could have acted upon the highly-charged, separating fragments of the Earth as does a bow-string upon an arrow. The rapidly expanding lines of magnetic force literally catapulted the minor planets (stars or asteroids), and helped send them on journeys to their ordained locations in space. As with the expanding lines of magnetic force, a bow string begins its movement very slowly, and then its speed increases steadily (and rapidly), until the midpoint of its travel. From midpoint of the bow-string's travel and outward, its speed of outward movement steadily decreases, while the arrow moves away from the string on its rapid outbound flight.

- 49. United States Naval Institute. Proceedings, February 2003, page 34.
- 50. Electronics Now, December 1998, "Experimenting With Rail Guns, And More," Don Lancaster, page 57.
- 51. *The Holy Bible*, Book of Genesis, chapter 2, verse 7.
- 52. *The Holy Bible*, Book of Genesis, chapter 2, verse 7.
- 53. *The Holy Bible*, Book of John, chapter 1, verses 1-4.
- 54. *The Holy Bible*, Book of Acts, chapter 17, verses 24-25.