INTRODUCTION TO

CHAPTER TWENTY-ONE

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In Chapter 19, certain evidence was given which indicates that the Earth began to revolve on its axis on Day Two of Creation. This rotation, in turn, helped bring into existence the magnetic field of the Earth. The expanding magnetic field was instrumental in causing the vast expansion, or spreading out of the paramagnetic oxygen and ozone molecules which form the latticework upon which the Earth's atmosphere is constructed. The expanding magnetic field also separated the waters which were above the firmament, from those waters which were below the firmament.

Let us not simply stop at knowing that *something* was created on Day Two of Creation, but let us continue to explore further. We want know more specifically exactly *what it was* (the very nature of it) which was created on Day Two, and the importance of it to human well-being. With this short introduction, let us continue with an examination of a few very important special-effects brought about by Earth's magnetic field, after it was created on Day Two. Let us especially examine how it relates to the (on Day Two) soon-to-be-created sun.

The following discussion presents a few basic processes which were set in motion at Creation, and are, at present, continually in operation within the magnetosphere. Let us examine the shielding effect, or the protection these processes provide to all life on Earth. Included in this discussion is a short history of modern man's discovery of a few special belts of radiation which are contained within the magnetosphere. But let us not stop here. Let us come to understand what God created to an even greater degree.

The protection to mankind's space vehicles when they are within the magnetosphere is noted in this chapter. A few of the problems which space vehicles can encounter when they are not fully protected within the special magnetic and atmospheric shielding which God created around this Earth are also noted. This whole discussion works to give us a better understanding of the operational characteristics of those great things which God created and set in motion on the second day of Creation.

The latter part of this chapter, once again, brings our attention to the weakening magnetic field of the Earth. Yes, this field is weakening. There is not much, if anything, which mankind can do about it. But there is one thing which each individual can do. That is to make sure that their heart is right with God. May our hearts always be right in the sight of our Creator. May we be what He desires us to be.

Chapter 21: THE INVISIBLE SHIELD

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THE MIGHTY DEFENDER



The psalmist cries: "Sing praises to God, sing praises: sing praises unto our King, sing praises. For God is the King of all the earth: sing ye praises with understanding.

"God reigneth over the heathen: God sitteth upon the throne of his holiness. The princes of the people are gathered together, even the people of the God of Abraham: for the shields of the earth belong unto God: he is greatly exalted." Amen, and amen!

A FEW WORDS

As the Word of God proclaims: "The shields of the earth belong unto God." It is God who has placed all the protective shielding around this Earth. It is also God who can alter or remove these protective shields, at any time, and allow mankind to be devastated because of their wickedness.²

The question may arise as to why life upon this Earth is not damaged or destroyed by the powerful cosmic rays which bombard this Earth from every direction.³ In this Chapter are examined a few of the invisible protective shields of this Earth.

THE FUNDAMENTALS

This Earth is composed of a number of different types of shields. The continental masses are built upon what are called the continental shields. These shields consist of rock-type materials. Surrounding the solid Earth are the magnetically-based shields.



FIRST ENCOUNTERS

In January 1958, the United States sent up the satellite *Explorer-1* to examine the region of space directly adjacent to the Earth. The elliptical orbit of this satellite was from 220 to 1,600 miles (360 to 2,500 km) above the Earth's surface.⁴ and ⁵

In March of 1958, *Explorer 3* was sent up in for further research. Included aboard both *Explorers 1* and 3 were Geiger counters. The scientists desired to examine the strength and location of any ionizing radiation in near-space.⁶

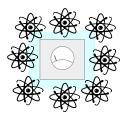
INITIAL OBSERVATIONS

Beyond an elevation of about 450 miles (724 km) above the Earth, the radiation measured by the satellites began to steadily increase with increasing elevation.⁷ Then, to the scientist's initial surprise, it appeared that there was a region suddenly void of all radiation. This region began at an elevation of approximately 620 miles (1,000 km) above the Earth's surface.^{8 and 9}

STRANGE PHENOMENON

As the scientists who were observing Explorer-1 waited, the orbiting satellite suddenly began again to send out readings of intense, high radiation. This phenomenon initially caused great puzzlement among the scientists.¹⁰

DAWNING OF REALITY



It soon became apparent to the scientists that there was an intense region of ionizing radiation surrounding this Earth. The radiation in this region was so intense that it overloaded the circuitry of the Geiger counters which had been sent up for measurement purposes. In such an overloaded state, the counters failed to respond properly. All they could do was give out erroneous null readings. 11 and 12

THE FINDINGS

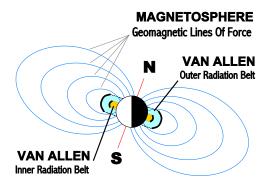
The scientists soon realized that within this strange region of space, the intensity of the ionizing radiation increased very rapidly. Just before the Geiger counters jammed, they indicated the level of radiation to be about 1,000 times greater than that which man had expected from cosmic rays alone. It was ultimately calculated that the maximum level of ionizing radiation in this region was at least several times that maximum ever shown by the counters.¹³

PROTECTIVE SHIELDING

As time went on (and with further research), the scientists began to realize that the Earth has a rather large, protective, magnetic shield built around it.¹⁴ They have since called this magnetic shield the magnetosphere.

The magnetosphere is said to be created, in part, by an interaction of the Earth's magnetic field with the solar wind which is ejected from the sun. It is believed that the magnetosphere extends to more than 60,000 miles (100,000 km) outward from the surface of the Earth. ¹⁵ and ¹⁶

VAN ALLEN RADIATION BELTS



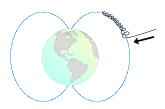
Within the magnetosphere lie the two main doughnut-shaped regions called the Van Allen radiation belts.¹⁷ The lower limit of the Van Allen belts is at about 450 miles (724 km) above the surface of the Earth.

The Van Allen belts extend out to an altitude of about 30,000 to 40,000 miles above the surface of the Earth (48,270 to 64,360 km). ^{18 and 19} This altitude, as shown in reference books, depends on which source-material is used. ²⁰

It should be noted that the main reason for this discrepancy in source materials appears to be the constant motion of the atmosphere. This motion is wavelike, and can greatly effect the size of these belts.²¹ (This movement within the atmosphere was discussed in Chapter 20.)

DEFINITE PURPOSE

The Van Allen belts form part of the magnetic shielding of this Earth. God created these belts for a very good reason. In the last chapter we found that if a shower of high-energy cosmic and solar radiation were allowed to penetrate freely to the surface of the Earth, they would be highly detrimental to all forms of life on this planet, both plant and animal, as well as human.



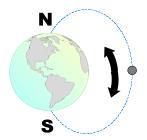
Research indicates that the ionized particles within the Van Allen belts consist mainly of incoming high-energy cosmic and solar particles. These charged particles become trapped within the lines of the vast magnetic shielding. These particles are then forced into orbits around the magnetic lines of force. ²² and ²³

BASIC FACTS

The density of the main inner radiation belt is said to be greatest at an altitude of about 2,000 miles (3,200 km) above the surface of the Earth.²⁴ This altitude is subject to some variation, depending upon prevailing conditions. The scientists have found that most of the high-energy protons (those with energy levels between 10 Mev and 1,000 Mev) are trapped within this inner belt.²⁵ and ²⁶

The density of the main outer radiation belt is said to be greatest from an altitude of about 10,000 to 12,000 miles (16,000 to 19,300 km) above the surface of the Earth.²⁷ Again, this altitude is subject to variation. It is claimed that this outer radiation belt consists mostly of electrons.²⁸

ELECTRIFIED MOTION



The energetic protons and electrons which are trapped within the two main Van Allen radiation belts are in a spiral path around the Earth's magnetic lines of force. They also oscillate rapidly back and forth between the north and south poles of the Earth. Each oscillation from the north to the south pole takes from 0.1 to 3 seconds.²⁹ and ³⁰

Not only are the protons and electrons spiraling around the Earth's magnetic lines of force, and oscillating between the north and south poles, it is also claimed that there is a general movement of the inner and outer belts. The proton belt is slowly rotating around the Earth in a westerly direction, while at the same time, the electron belt is slowly moving in an easterly direction.³¹

RING CURRENT

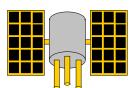
Outside of the two main, powerful Van Allen radiation belts exists another belt of lower energy protons. It is located at an altitude of roughly 3-9 Earth radii above the surface of the Earth, and is called the "ring-current" belt. The protons within this belt are claimed to possess energies of about 50,000 eV, and are drifting slowly westward. This causes a very intense electrical current to be produced in this region. 32, 33 and 34 The Lord God has indeed created quite an impressive system!

CAUSE AND EFFECT

The current in the outer ring-belt creates a peculiar phenomenon. It is said to cause the magnetic field to be reduced near the surface of the Earth. Looking to other phenomenon: during magnetic storms, the ring-current belt becomes the most energetic of all the Van Allen belts.³⁵ and 36

The region of the ring-current belt also includes another interesting phenomenon. Transposed within this belt is claimed to be a large belt of electrons. These electrons possess energy levels from 10,000 to 50,000 eV, and are slowly drifting in an easterly direction.³⁷

GLOBAL POSITIONING



Turning to another subject, according to sources, the 24 satellites (plus two spares) of the Global Positioning System (GPS) for the United States orbit the Earth on one of six separate pathways. These orbital pathways are claimed to be at an altitude of about 12,550 miles (20,200 km) above the surface of the Earth.^{38 and 39}

The above indicated orbital paths of the GPS satellites appear to be located just outside of the main outer electron belt of the Van Allen radiation belts. These orbital paths lie between the main belts and the outlying ring-current belt.⁴⁰ This ring-current belt and the outer magnetosphere provides powerful protection to the GPS satellites from a considerable portion of space radiation.

Another source indicates that the GPS satellites of the United States, and those of the similar Russian system, are all in a medium altitude Earth orbit (MEO). An MEO is at an altitude of about 6,000 miles (10,000 km) above the surface of the Earth. Certain private communications satellites also are claimed to operate at this altitude.⁴¹

Medium Earth Orbit altitudes reside directly between the inner high-energy proton belt and the outer high-energy electron belt of the Van Allen system. In this position, these satellites would receive even better protection from ionizing space radiation.

WEATHER OBSERVERS

The United States has installed a number of weather satellites in space. These satellites are usually geostationary.⁴² This means that their orbits are synchronized with the rotation of the Earth, therefore they remain stationary above a particular point on the surface of the Earth.

The weather satellites are often positioned at an altitude somewhere between 435 and 1,050 miles (700 to 1,700 km) above the surface of the Earth.⁴³ This places the weather satellites just outside of the friction zone created by the Earth's air,⁴⁴ but somewhat below the altitude of the innermost, harmful,⁴⁵ high-energy proton belt of the Van Allen radiation system.

In the position indicated above, the weather satellites appear to be generally protected from all ionizing space radiation by the full thickness of the Van Allen belts. They are also protected by all of the other magnetic lines of force surrounding this Earth, which lie outboard of their location.

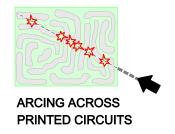
TELEVISION SIGNALS

Satellites providing television service are commonly in stationary orbit at about 22,200 miles (35,800 km) above the Earth. Some military and weather satellites may also orbit at this altitude.⁴⁶ These orbital paths are well within the protection offered by the magnetosphere of the Earth.

SUMMARY OF FACTS

Friend, the orbits of mankind's common space vehicles are located well within the protection of the magnetic shielding of the Earth.⁴⁷ This magnetic shielding, to a large degree, protects space vehicles from the devastating effects of high-energy cosmic particles, such as found in deep space.

OUTSIDE THE SHIELDS



Cosmic ray penetration definitely alters the results of electronic control commands transmitted to vehicles in space.⁴⁸ It also alters data transmitted from spacecraft which venture outside of the Earth's atmospheric and magnetic shielding.^{49 and 50} Space radiation may cause conductive paths between the conductors of printed circuits. This can damage or completely destroy electronic components.^{51 and 52} It also appears that ionizing space radiation may effect the electrical charges and flows within solid-state devices, such as integrated circuits.

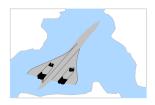
There are other space problems which occur outside of the natural protection created around the Earth. One problem is solar storms. These storms can cause a space version of static electricity to build up on spacecraft. This static electricity is known to cause sparking within these craft.⁵³

Sparking within spacecraft can cause severe problems and damage to onboard electronics.⁵⁴ and ⁵⁵ This can cause onboard guidance systems to fail, and send the craft out of control.⁵⁶ and ⁵⁷ Special design and protection of the electronic systems has somewhat reduced the chances of this type of damage. But experience has proven that the problem has not been eliminated.⁵⁸ and ⁵⁹

MORE DOWN TO EARTH

Even with the protection given by the magnetic shielding of the Earth, let us examine the detrimental effects of space radiation, even at lower levels. In 1976, the British and French governments put the Concorde Supersonic Transport (SST) into commercial service. This passenger aircraft flies at approximately twice the speed of sound. The Concorde SST normally cruises at an altitude of about 59,000 feet (about 11 miles or 18 km). This cruising altitude lies well within the lower level of the stratosphere, still far below even the ozone layer.

AIRCRAFT REQUIREMENTS



There are special aircraft regulations in force. A high-speed, relatively high-flying aircraft such as the Concorde SST is required to drop altitude when it receives an incoming radiation dosage of only 10 millirems, or one-hundredth of one rem. ⁶² and ⁶³ (see Chapter 10 for discussion on rems and millirems.)

When the SST receives a radiation dosage of 100 millirems, or one-tenth of a rem, it is required to alter its flight plan, and change course to avoid further excessive radiation.⁶⁴ It must be carefully noted that all of this radiation penetration is occurring within the lower portion of this Earth's atmosphere. This occurs even though there is still a great protective layer of atmosphere above.

SPACE TRAVEL

As we near the end of this chapter, let us consider another matter. We live at a time in history when distant space travel is considered by the general public to be a reality. It is said that mankind's unmanned space probes have gone to a number of the other planets in our solar system. Yet mankind has never set foot on any of the other major planets. But there is more to the story to consider than this.

It should be noted that there is a growing number of people who question (possibly with good reason) whether man has even set foot on the moon. Friend, what do you think on this matter? Is there a way for man to travel to distant places in space, without being adversely effected by the brutal barrage of ionizing space radiation?⁶⁵ Friend, let us now turn to the truth, that we may learn more about the protection and environment which God has created around this Earth!

A RENEWED CALL



It appears that a number of space enthusiasts are once again calling to the United States, and asking for NASA missions to Mars. But it is now time to get realistic. Americans should pay heed to the urgent voice of a team of physicists and biologists at the new \$34-million NASA particle-accelerator laboratory on Long Island. (This laboratory is part of Brookhaven National Laboratory.)

The NASA-Brookhaven scientists are demonstrating an important fact, through the use of their particle accelerator. It appears that succeeding with a Mars mission would be extremely expensive and, for the most part, very improbable. One important reason they give for this belief is the very detrimental effects of ionizing space radiation upon man and material. ⁶⁶

A REALITY CHECK

It appears that heavy ions "from distant stars" are one of the culprits for the scientist's concern. These ions are "zipping through everything in their path." Dr. Derek I. Lowenstein (chairman of Brookhaven's collider accelerator department) states that a Mars mission means "trying to live in an environment that human beings were not built to live in." He states further: "Space is not 'Star Trek,' but the public certainly doesn't understand that." Friend, it appears the general public is living in a Hollywood-induced fantasy (and yes, there has been some instigation of this deadly fantasy from the scientific community and the institutions of learning). 68

ULTIMATE EFFECTS

According to our source, "a round trip to Mars...puts the [radiation] exposure at 130,000 millirems over two and a half years." The sources states further: "That [exposure level] is equivalent to [the amount received in] almost 400 years of natural exposure [on Earth]." "On a trip to Mars and back, probably every cell in the body would be hit by an ionized particle or a proton." "Up to 100 percent of nerve cells could be hit by ions on a Mars mission." A big question about such a trip, expressed by Dr. Lowenstein, is "if every neuron in you brain gets hit, do you come back being a blithering idiot, or not?" ⁶⁹



Instead, the writer would most likely ask: "In what altered state, and in what altered form, would the components of the astronauts bodies be returned to Earth, if they returned at all? And of what radioactive elements would their bodies be composed, if they were ever able to be returned to Earth from Mars?" Friend, God set the bounds of mankind's existence, and these bounds were not meant to be violated. If the bounds which God has set are violated, there could be an enormous price to pay.

EXPLORATORY POTENTIALS

What can survive in the brutal barrage of space radiation? It appears that those types of objects which could commonly survive the concentrated, local emissions of a neutron bomb explosion (here on Earth) could survive outside of the magnetic protection which God has so lovingly placed around the Earth. This includes things which are made of metal or stone, but not things which are endued with life. There also appears to be "hardened" electronic components which could (to a degree) survive in this type of environment, but even these may not survive under certain conditions.

Friend, all of the evidence indicates that man cannot readily venture outside of the magnetic protection which God has provided around this Earth. We understand that there are many reckless space-fantasies propagated today, but please note one fact. It appears that unless a celestial object enters within the magnetosphere, or its extended magnetotail, a manned space mission does not appear to possess the potential of reaching it. Therefore, it does not appear that carnal mankind will ever be able to venture to the other major planets of our solar system, and live to tell about it.⁷²

It does not appear that mankind is doing anything extremely special when he ventures out into near-Earth space. He is only venturing out into those special confines which God has set in place around him. Man is only exploring in those areas which God will allow. But, it does not appear that mankind shall be able to go beyond the bounds which God has ordained, and readily survive. Therefore, it may not be mentally healthy to harbor fantasies of carnal human beings traveling to 'distant galaxies.' Friend, it is only mentally healthy to live in reality.

COUNTERFEIT PROTECTION

The thinking Reader may have noted something earlier in this chapter which may cause them to wonder if mankind could create his own counterfeit, magnetic space-protection. It was shown earlier that incoming, high-energy cosmic and solar particles become trapped in the lines of the vast magnetic shielding which God has placed around this Earth. Could some type of artificial magnetic shield be placed around a space vehicle and its crew, which would allow mankind to safely travel to distant places in space? This is a logical question. Now, for a logical answer.

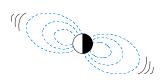
The immense size of the magnetic shield which our loving Father⁷³ has placed around this Earth gives the high-speed, high-energy cosmic particles plenty of space in which to alter or completely change their course, and go into a large, spiral pathway. But those magnetic fields which mankind is capable of creating are nowhere near the size (or the intensity) of the vast magnetic array with which the Earth has been endowed. In the tiny magnetic networks which man is capable of producing in space, the direction of high-speed cosmic particles is not able to be altered much.

If the direction of cosmic particles is not able to be greatly altered by man's devices, then, for all practical purposes, these particles will impact the object toward which they are traveling. As long as the particles can impact space vehicles (and the occupants inside), some type of devastating (and possibly deadly) reaction will likely take place within the impacted atoms.

Friend, it does not appear that man will solve those problems which stand in the way of extended space travel. Indeed, let us be content with this Earth on which God has placed us.⁷⁴

STEADY REDUCTION

Before this chapter ends, let us turn to another very important matter. There is something very interesting (and possibly disturbing) said to be happening to the main, protective geomagnetic field of this Earth. It is worth noting and considering the true implications of this phenomenon.



The geomagnetic field of the Earth is a major shield and protector from incoming projectiles and deadly radiation from space. But the scientists have found that this geomagnetic field is definitely shrinking. It is steadily losing its strength. According to one source, the strength of the geomagnetic field is currently declining at the rate of about 6 percent every 100 years. ⁷⁵ and ⁷⁶

According to another scientific source, the magnetic field of the Earth was considerably stronger 2,000 years ago than it is today. This source proclaims that over the past 150 years, the magnetic field of the Earth has steadily been reducing at the rate of about one-percent per decade.⁷⁷ This figure amounts to about 10 percent every 100 years! This is far greater than the 6 percent stated by the first source, shown above!

The second source of information (noted above) proclaims another amazing phenomenon. It appears that the Earth's magnetic field has experienced at least 300 reversals. After examining the evidence, it appears to some scientists that the Earth is long overdue for another complete reversal of its magnetic field!⁷⁸ Friend, it may not be long before all mankind becomes cognizant of the natural forces which cause reversals of the Earth's magnetic field.

BASIC QUESTIONS

Friend, at what point will the magnetosphere weaken to a value where it can no longer give proper protection to life on this Earth? Is there a point at which it will simply fail or collapse completely? What will it be like should the magnetic field become compromised?⁷⁹ Is there anything in the Word of God which may give light to this subject?

IN THAT DAY

The subject of this weakening geomagnetic field once again brings to mind a particular passage in the Word of God. Please examine it closely for that which it may truly indicate.

It is written: "And when he [the Lamb of God] had opened the fifth seal, I saw under the altar the souls of them that were slain for the word of God, and for the testimony which they held: and they cried with a loud voice, saying, 'How long, O Lord, holy and true, dost thou not judge and avenge our blood on them that dwell on the earth?'

"And white robes were given unto every one of them; and it was said unto them, that they should rest yet for a little season, until their fellowservants also and their brethren, that should be killed as they were, should be fulfilled.

"And I beheld when he [the Lamb] had opened the sixth seal, and, lo, there was a great earthquake; and the sun became black as sackcloth of hair, and the moon became as blood; and the stars of heaven fell unto the earth, even as a fig tree casteth her untimely figs, when she is shaken of a mighty wind. And the heaven departed as a scroll when it is rolled together; and every mountain and island were moved out of their places.

"And the kings of the earth, and the great men, and the rich men, and the chief captains, and the mighty men, and every bondman, and every free man, hid themselves in the dens and in the rocks of the mountains; and said to the mountains and rocks, 'Fall on us, and hide us from the face of him that sitteth on the throne, and from the wrath of the Lamb: for the great day of his wrath is come; and who shall be able to stand?'"80

PROCESS EXAMINATION

Friend, what does it mean in the preceding passage when it states: "And the heaven departed as a scroll when it is rolled together?"

What would cause the Heaven to depart from around this Earth? Will it be the manipulation of the ionosphere by mankind, or will it be by natural causes? Is our atmosphere somehow held in place by the magnetic field? (To answer this question, please look again at Chapter 19.) Is the weakening magnetic field part of the cause for the thinning and the hole in the ozone layer: which hole seems to cause concern in many people? What is the threshold level at which the magnetic field will no longer be strong enough to contain the atmosphere? One way or another, according to the prophecies, it appears that our atmosphere shall be greatly compromised in the days ahead!

FINAL QUESTIONS

Please reread the passage of Holy Scripture on the preceding page. Why do you suppose all of the kings of the Earth, all of the powerful people, and every bond and free man will be looking for a hiding place; one which will hide them from Him that sits on the throne and the wrath of the Lamb?

It is obvious from the passage of Scripture that these people know what they want to be hidden from. They clearly know that they want to be hidden from the face of God, Who sits on the throne of Heaven. It is also clear that they desire to avoid the wrath of the Lamb, or more clearly, the mighty judgment which will be performed by Jesus Christ. But how do these people know of these things?

These people know of God and His final judgment because they have been forewarned. They have been forewarned by God's prophets, but they have refused to heed the warning. Instead, they live in the ungodly ways of this world. Furthermore, a portion of these people will have a reasonable understanding of the natural sciences. They will quickly recognize the signs of an immense change beginning to take place in nature: one which will signal the end of life on Earth, as we now know it. For this reason, and because these people are not properly prepared for eternity, they are afraid.

A PARTING WORD

Friend, there should be no need to fear. The Lord God has fully prepared the way for your salvation. May you always be ready to meet your Creator face to face. May your sins truly be repented of and completely washed away in the precious blood of the Lamb. May you fully turn away from the ungodly ways of this world, and be clothed upon with the righteousness of Christ. May you always be found willingly doing those things which are pleasing to God the Father, by the power of Jesus Christ. May you do this out of love for that which He has done for you. May you not be ashamed in that day when God the Father sends Jesus Christ to judge this Earth.

Remember the words of the Lord Jesus Christ: "Behold, I come as a thief. Blessed is he that watcheth, and keepeth his garments, lest he walk naked, and they see his shame." 82

Friend, so ends another Chapter in this FIRST EDITION of

Listen To The Earth, Volume One, THE CREATION, by David E. Sakrisson and Griends
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 Psalms, chapter 47, verses 6-9.
- 2. In relation to this, the Word of God proclaims (in the Book of Psalms, chapter7, verses 11-13): "God judgeth the righteous, and God is angry with the wicked every day. If he turn not, he will whet his sword; he hath bent his bow, and made it ready. He hath also prepared for him the instruments of death; he ordaineth his arrows against the persecutors."
- 3. The question may also arise as to why mankind's satellites surrounding the Earth are not destroyed by the powerful barrage of cosmic particles and ionizing space radiation coming in from virtually every direction.
- 4. *The Story of the Earth*, Cattermole and Moore, 1985, page 49.
- 5. *Microsoft Encarta 98 Encyclopedia*, "Satellite, Artificial."
- 6. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 7. The Genesis Flood, Henry M. Morris/John C. Whitcomb, Jr., 1962, pages 353-354.
- 8. *The Story of the Earth*, Cattermole and Moore, 1985, page 49.
- 9. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 10. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 11. The Story of the Earth, Cattermole and Moore, 1985, page 49.
- 12. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 13. The Genesis Flood, Henry M. Morris/John C. Whitcomb, Jr., 1962, pages 353-354.
- 14. At this point, it should be noted that there is also another type of shield built into the upper atmosphere. An article in the July-August 2002 issue of *Electromagnetic News Report* (called "Earth's Space Storm Shield," which is an anonymous article on page 6) declares that "Earth's space storm shield is a tenuous layer of the outer ionosphere 180-620 miles (300-1,000 km) high that includes electrically charged atoms." This layer operates by "absorbing energy from space storms, reducing their ability to heat the lower atmosphere." But in return, "a billion-degree cloud of electrified gas, or plasma," is created around the Earth. The article further states that "the plasma cloud is so ferociously hot that its particles act like radiation, occasionally disrupting satellites in mid to high orbits." Indeed, the article calls the cloud "a dangerously hot plasma cloud." Friend, what effect would this "billion-degree cloud of electrified gas, or plasma" have upon any astronauts who may pass through this many-hundred-mile-thick region of Earth's outer atmosphere?
- 15. Microsoft Encarta 98 Encyclopedia, "Geophysics."
- 16. The Earth's magnetosphere is not symmetrically shaped, but is actually very distorted by the solar wind. An article which appeared in the April 2001 issue of *Scientific American* magazine (called "The Fury of Space Storms," by James L. Burch, on page 86) indicates that on the side pointing toward the sun, the boundary of the magnetosphere "is usually located about 64,000 kilometers [about 39,775 miles] from the planet's center, although the distance varies with changes in the solar-wind pressure." On the side away from the sun, the magnetosphere is distorted into a great magnetotail. According to the article, "this magnetotail extends more than one million kilometers [more than 621,500 miles] past the earth, well beyond the orbit of the moon." Once again, this distance can vary greatly, depending on the strength of the solar-wind.

An article on page 26 of the January 13, 2001 issue of *Science News* (called "Stormy Weather: When The Sun's Fury Maxes Out, Earth May Take A Hit," by Ron Cowen) corroborates with the above article. It gives the normal extent of the magnetosphere, on the sun-ward side, at 64,000 kilometers (about 39,775 miles), and then gives one more tidbit of information. During a major solar storm, the thickness of the magnetosphere on the sun-ward side can be reduced to about half its normal thickness (or a reduction to about 20,000 miles or 32,000 km).

- 17. Microsoft Encarta 98 Encyclopedia, "Geophysics."
- 18. The Genesis Flood, Henry M. Morris/John C. Whitcomb, Jr., 1962, page 353.
- 19. Microsoft Encarta 98 Encyclopedia, "Radiation Belts."
- 20. In Chapter 20, it was noted that the outer extent of the atmosphere resides in the region between the two main Van Allen belts. For those with a desire for further self-study, it may be interesting to know why the Van Allen belts are located both inboard and outboard of the outer edge of the atmosphere. Do these belts serve a special function for the atmosphere, or its existence? Do they control the location of the atmosphere's outer extent? Could an alteration of these belts, or the magnetic field which holds them, potentially destroy the Earth's atmosphere?
- 21. The solar wind, and its particular characteristics at any given time, has a great effect on the size and shape of these belts.
- 22. Microsoft Encarta 98 Encyclopedia, "Physics."
- 23. Microsoft Encarta 98 Encyclopedia, "Radiation Belts."
- 24. The World Book Encyclopedia, 1978 Edition, volume 20, page 213.
- 25. Microsoft Encarta 98 Encyclopedia, "Radiation Belts."
- 26. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 27. The World Book Encyclopedia, 1978 Edition, volume 20, page 213.
- 28. *Microsoft Encarta 98 Encyclopedia*, "Radiation Belts." As a side note, could this belt of electrons, by using special equipment, potentially be used as an energy source by mankind?
- 29. Microsoft Encarta 98 Encyclopedia, "Radiation Belts."
- 30. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 31. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 32. An article which appeared in the April 2001 issue of *Scientific American* magazine (called "The Fury of Space Storms," by James L. Burch, on page 86) declares that the Earth's ring current belt is composed of "charged particles circling the planet above its equator at altitudes between 6,400 and 38,000 kilometers [about 3,980 and 23,620 miles]."

 The writer's research indicates that the altitude of the ring current belt (and all of the other radiation belts) can vary, depending on prevailing solar and space-radiation activity.
- 33. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 34. According to *Cross Currents: The Promise of Electromedicine, The Perils of Electropollution* (by Robert O. Becker, 1990, on page 174), enormous electrical currents are generated within the geomagnetic field which amount to billions of watts of electrical power. Indeed, this is a very large amount of electrical production. But let us not stop here. An article in the July-August 2002 issue of *Electromagnetic News Report* (called "Earth's Space Storm Shield," which is an anonymous article on page 6) declares that the energy of space storms "pumps up to a trillion watts of power into the magnetosphere, especially above the polar regions, where the aurora forms."
- 35. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."
- 36. Let us examine the phenomenon of the ring-current belt reducing the strength of the magnetic field near the surface of the Earth. This reduction in field strength at the surface of the Earth has to be balanced out somewhere else in the magnetosphere. Could it be that the magnetic field is, in a manner, warped? Could this cause a higher-than-normal flux density to be exhibited at the altitude of the paramagnetic ozone layer?
- 37. The 1998 Grolier Multimedia Encyclopedia, "Van Allen Radiation Belts."

- 38. The 1998 Grolier Multimedia Encyclopedia, "NAVSTAR."
- 39. *GPS Land Navigation*, Michael Ferguson, 2nd printing, 1997, pages 4-5.
- 40. A short article (called "Radio Waves Could Zap Stormy Space Weather," by Jeff Hecht) found on page 13 of the June 14, 2003, issue of *New Scientist* magazine states that "Global positioning satellites orbit in the Van Allen zone, as do many other communications and imaging satellites..."
- 41. Microsoft Encarta 98 Encyclopedia, "Satellite, Artificial."
- 42. The Grolier Multimedia Encyclopedia, "Satellite, Artificial."
- 43. The Grolier Multimedia Encyclopedia, "Satellite, Artificial."
- 44. *Microsoft Encarta 98 Encyclopedia*, "Satellite, Artificial."
- 45. *Microsoft Encarta 98 Encyclopedia*, "Satellite, Artificial."
- 46. Microsoft Encarta 98 Encyclopedia, "Satellite, Artificial." Furthermore, the book Cross Currents: The Promise of Electromedicine, The Perils of Electropollution (by Robert O. Becker, 1990, on page 187) claims that commercial telephone and television satellites are 25,000 miles (40,225 km) out in space. It also declares that military satellites cruise by every point on Earth once an hour, and are at an altitude of only 250 miles (402 km). From this relatively low altitude (as part of their surveillance operation), these satellites bombard the surface of the Earth with radar beams. So much for the environmental safety of each individual on this planet. Friend, the book Cross Currents: The Promise of Electromedicine, The Perils of Electropollution may be of value to those who are uninformed on this subject.
- 47. A May 3, 2002 article in *Aerospace Daily* (called "NASA To Quadruple Research On Biological Effects Of Radiation," by Jefferson Morris, found on page 6) states that the Space Shuttle and the International Space Station (ISS) operate in a low-earth orbit. The article also states that according to Frank Cucinotta (then Manager for Radiation Health at Johnson Space Center, Houston, Texas), in a low-earth orbit, "Earth's magnetosphere provides enough protection so that astronauts spending four to six months in orbit, at most, don't experience a particularly high risk." Let us now examine the rest of the story.

An article on page F1 of the December 9, 2003, edition of *The New York Times* (called "Mars Mission's Invisible Enemy: Radiation," by Matthew L. Wald) declares that "the astronauts who went to the Moon on Apollo 14 accumulated about 1,140 millirem, equivalent of about three years [of background radiation] on Earth in their nine-day mission. The astronauts on the Skylab 4, who spent 87 days in low Earth orbit, received a dose of about 17,800 millirem (equivalent to a 50-year background dose on Earth)." Please note that the article also declares: "By comparison, nuclear power plant workers are limited by law to exposures no greater than 5,000 millirem a year; [and] in this country they are generally held below 2,000."

Friend, please note that the astronauts on Skylab 4 (who were in a low Earth orbit, and not far out in space) had spent just 87 days on their mission. During this time, it is said that they received about a 17,800 millirem dose of space radiation. If the radiation dosage stated to the general public is at all accurate, then, in only 87 days, the astronauts received a dose of radiation which was about 9 times the amount which a nuclear power plant worker (in the United States) is allowed to receive during the period of one whole year. But let us not be ignorantly comparing "apples with oranges." Let us compare "apples with apples," or "oranges with oranges." Let us now obtain a more accurate comparison by using the rate of radiation dosage received by astronauts and nuclear power plant workers.

If the rate of dosage during the 87-day period of the near-Earth mission were entered into an equation for the dosage rate for a one year period (to more accurately compare it to the nuclear power plant workers allowance), the total would be a dosage equivalent to 74,678 millirem of ionizing radiation. Therefore, the rate of radiation dosage which the astronauts on the 87-day Skylab 4 mission received was about 37 times greater than is allowed for a nuclear power plant worker (in the United States) in one full year. Friend, do space missions still sound safe, biologically speaking?

- 48. An article in the June 16, 2000 issue of *Science* (called "The Solar Wind-Magnetosphere-Ionosphere System," by John G. Lyon, on page 1987) speaks of this problem. It declares: "Changes in the radiation environment near Earth can seriously affect satellite operation near Earth through spacecraft charging and generation of false commands." Friend, consider what this article is saying. It is speaking of spacecraft in just near-Earth orbit. What is the extent of this problem for spacecraft which may penetrate outside of the magnetic protection which God created around this Earth?
- 49. The 1998 Grolier Multimedia Encyclopedia, "Space Exploration.."

- An example of this problem is found in an article (called "The Long Goodbye," by Michael Carroll), on page 36 of the October 2003 issue of *Astronomy* magazine. This article speaks of the unmanned Galileo spacecraft mission to Jupiter. It states that "radiation had drastically affected Galileo's [radio] carrier signal." This problem occurred because the oscillator which controls the frequency of the radio signal is effected by radiation and changes in energy fluxes. But there was also another problem on this mission. The article states that "the optical electronics in the mechanism that drives the [tape] recorder's motor had been damaged by radiation." All of this occurred despite the fact that much time and money had been spent on "bulletproofing" the electronics.
- An article (called "Radio Waves Could Zap Stormy Space Weather," by Jeff Hecht) found on page 13 of the June 14, 2003 issue of *New Scientist* magazine states that even in the region of the Van Allen belts (which lie well within the magnetosphere), "the radiation onslaught can damage [the electronic] hardware [on satellites]." The article states that "A few satellites have failed outright during the most severe solar storms. Even when satellites survive, the radiation makes critical electronic components degrade faster, shortening their life times." It further states that "as integrated circuit elements shrink, they become more susceptible to radiation damage. Metal shielding and radiation-hardened components are available, but it's cheaper just to build spare satellites."

Friend, isn't this interesting? Please note that it is cheaper to build spare satellites, than to go to the expense of trying to prevent space-radiation damage by using special metal shielding and radiation-hardened components. But let us consider this picture further. With a spare satellite, there is still the cost of launching it into orbit and properly positioning it. All this is also very expensive. Yet, according to the implications of the above article, it is still cheaper to use the spare satellite method than to go to the expense of fully protecting satellite electronics from devastating space radiation. The truth is that is may be virtually impossible to completely protect satellites against the damaging effects of space radiation. If this type of problem exists with common materials, what types of problems does space radiation present to living human beings?

52. An article in the February 13, 2003 issue of *The New York Times* (called "Scientists Seek Clues In Solar Storm That Enveloped Shuttle On Its Way Toward Earth," by James Glanz, on page A38) states that the particles and radiation contained in solar storms have "disabled or destroyed satellites on dozens of occasions."

Another article (called How To Cope With Space Weather, by Daniel N. Baker) on page 1486 of the August 30, 2002 issue of *Science* magazine states that during space storms, "When high-energy protons and other ions hit orbiting spacecraft, they can leave ionization tracks in microminiaturized electronics. These tracks can upset spacecraft computer memories and otherwise disrupt sensitive space electronics. As a result, satellite solar power panels may be damaged, optical tracker systems may become confused, and spacecraft command-and-control software may be scrambled." Please note that the article further states that "High-energy protons and ions may also hurt, and potentially kill, astronauts who are in space during a major solar particle event." The article also states that very high energy electrons in the space environment "can also be devastating to spacecraft," for "they can readily penetrate even thick spacecraft shielding and bury themselves in the insulating materials [used in the electronic components]," causing "a powerful internal electrical discharge." The article states that "numerous recent spacecraft failures have been attributed to this mechanism. An article on page 26 of the January 13, 2001 issue of *Science News* (called "Stormy Weather: When The Sun's Fury Maxes Out, Earth May Take A Hit," by Ron Cowen) corroborates with the preceding article.

- 53. The 1998 Grolier Multimedia Encyclopedia, "Space Exploration.."
- The writer used the ProQuest Information and Learning database to examine the April 2001 issue of *Scientific American* magazine. It contained an article called "The Fury of Space Storms" (by James L. Burch, on page 86). There was (as of 12/10/03) a sidebar to this article which proclaimed: "When [space] particles strike a satellite, the craft's surface becomes charged. This buildup sometimes triggers sparks that can short-circuit the satellite's electronics." Should the author of the article, James Burch, know what he is talking about? One would hope so, for at the time the article was written, he was vice president of the Space Science and Engineering Division of the Southwest Research Institute in San Antonio, Texas, and the current chairman of the Committee on Solar and Space Physics of the National Research Council. He also appears to be an important figure who has worked directly with NASA on a number of space missions.
- 55. In relation to this, let us consider a simple question, that we may learn from its implications. In real life, what negative effects do sporadic static electric charges and sparking have upon our ground-based computer equipment?
- An article in the February 13, 2003 issue of *The New York Times* (called "Scientists Seek Clues In Solar Storm That Enveloped Shuttle On Its Way Toward Earth," by James Glanz, on page A38) states that "on January 20, 1994, two Canadian communications satellites suddenly began to 'spin out of control' because 'the gyroscopic guidance system of both satellites had mysteriously failed' during a space storm." The article declares that "The problem was traced back to an electrical charge picked up by the spacecraft from the electrically charged gas of space itself."

- 57. An article appearing on page 50 of the March 2000 issue of *Sky and Telescope* (called "Solar Storms: The Silent Menace," by Sten Odenwald) speaks thus: "High-energy electrons can also cause satellite anomalies by altering the digital bits in a crucial data stream, which then triggers an unplanned operating mode." So much for precision control of space vehicles.
- 58. The 1998 Grolier Multimedia Encyclopedia, "Space Exploration."
- An article on page 26 of the January 13, 2001 issue of *Science News* (called "Stormy Weather: When The Sun's Fury Maxes Out, Earth May Take A Hit," by Ron Cowen) speaks about problems which occurred during the July 14, 2000, solar storm. One satellite which suffered damage in this event was the jointly owned European Space Agency-NASA Solar and Heliospheric Observatory (commonly called SOHO). The article states: "One of the craft's solar panels its power source suffered in seconds as much damage as it normally accrues in a year's exposure to the harsh environment of space."

Another casualty of the solar storm was a Japanese X-ray satellite called ASCA. The powerful barrage of charge particles "fried the craft's flight computer, spinning ASCA out of control. The craft never regained power." This expensive satellite was rapidly reduced to a "frozen piece of space junk." The article then turned to casualties on Earth.

The space storm "dumped the equivalent of 1,500 gigawatts of power into the atmosphere." This surge of energy "severely damaged two large power transformers and disturbed electric power systems, shutting down voltage-regulating devices all along the East Coast."

Friend, space radiation can indeed be very devastating. The article indicates that "power grids are more vulnerable [today, to radiation damage,] than they were 10 years ago." This is truly a matter to take seriously. As mankind appears to make himself more technologically advanced, he leaves himself more vulnerable to the devastating forces which God commonly has at His disposal.

An article on page 52 of the October 1999 issue of *Risk Management* (called "Space Storms: Solar Explosions Can Wreak Havoc On Earth," by Douglas Strickland and Ann Deering) states: "Several industries are directly impacted by space storms, including electric utilities, satellite operations, telecommunications, transportation, navigation, broadcasting, oil and gas and geophysical surveying."

- 60. The 1998 Grolier Multimedia Encyclopedia, "Concorde."
- 61. The 1998 Grolier Multimedia Encyclopedia, "Concorde."
- 62. Suppressed Inventions & Other Discoveries, Jonathan Eisen, 1999, page 404.
- An article appearing on page 50 of the March 2000 issue of *Sky and Telescope* (called "Solar Storms: The Silent Menace," by Sten Odenwald) states: "In a Concorde flight to Europe at higher altitudes, a solar storm can give you a dose [of space radiation] equal to about one chest X-ray each hour!" This equals a dosage of about two-hundredths of one rem per hour, which is double the radiation level which, by regulations, requires the aircraft to drop altitude to avoid further radiation exposure.
- 64. Suppressed Inventions & Other Discoveries, Jonathan Eisen, 1999, page 404.
- 65. Please note that a May 3, 2002 article in *Aerospace Daily* (called "NASA To Quadruple Research On Biological Effects Of Radiation," by Jefferson Morris, found on page 6) states that "astronauts on their way to the moon...face greater exposures [to space radiation] than their colleagues in low-earth orbit, although the radiation levels aren't enough to kill cells or tissues outright." Friend, this is the environment which faces astronauts even when they are supposedly on the way to the moon (possibly by using a corridor within the magnetotail portion of the extended magnetosphere, with its relatively strong magnetic shielding). What would be the effects if an astronaut were to completely exit the magnetic protection which God has created around this Earth, and travel into deep space?
- 66. The New York Times; December 9, 2003; "Mars Mission's Invisible Enemy: Radiation," Matthew L. Wald, page F1.
- 67. *The New York Times*; December 9, 2003; "Mars Mission's Invisible Enemy: Radiation," Matthew L. Wald, page F1. The article states further that space radiation experienced on Earth is not the same as that radiation experienced in space. We quote: "On Earth the dose is mostly made up of gamma rays, which have far less energy than the heavy charged particles of space. But beyond Earth's protective atmosphere and magnetic field, the radiation is mostly ions of every element on the periodic table up to iron (No. 26), moving at a substantial fraction of the speed of light, and

(Reference note 67, continued on next page)

approaching from distant stars in all directions. Astronauts in low Earth orbit get some protection from the magnetic field."

Outside of the protective shield which God created, man is exposed to the brutal assault of space radiation. It should be noted that a portion of this radiation consists of ions of the heavier elements on the periodic table. Friend, how would you like to be blasted with a high-speed projectile of non-depleted uranium? Would you survive intact?

- 68. There are those individuals upon this Earth who would willingly perpetrate a deception to the general public, in order to preserve their high-paying positions in the science community. But in the process, they have truly plundered the general public. Yes, they have, in essence, stolen from every citizen, with the added tax burden. Furthermore, the money could have been much better spent by providing for the worthy citizens-in-need.
- 69. The New York Times; December 9, 2003; "Mars Mission's Invisible Enemy: Radiation," Matthew L. Wald, page F1.
- 70. With all of the ionizing space radiation which would be acting upon the bodies of any astronauts who would attempt to reach Mars, what kind of massive and grotesque tumors may be formed on their bodies (and also inside their bodies)? With all of the intense radiation involved during a mission to Mars, could the astronaut's bodies become cooked in a manner similar to a slab of meat which has been left for a long period of time inside of a microwave oven set on high power? Could the radiation convert certain portions of the astronaut's bodies into a jelly-like substance, destroying all trace of their former structure? Please consider also that we are speaking, on a Mars mission, of devastating, cell and tissue altering, space radiation. This radiation does more damage than those mere microwaves used in our ovens.
- 71. Please remember the lessons learned in Chapters 10 and 11 of this book. Let us first note that the bones of the human body are composed mainly of calcium and phosphorus. All of the organic molecules in the human body contain carbon. Let us next note that ionizing radiation or the bombardment of protons and neutrons can split atoms. During the ensuing nuclear disintegration, the original atoms are converted into radioactive isotopes of other lighter-weight elements.

The nuclear disintegration of calcium in the bones and teeth of an astronaut could replace this calcium with combinations of such radioactive isotopes as sulfur and beryllium, or chlorine and lithium, or sodium and fluorine, or argon and helium, or phosphorus and boron. Truly, from the original calcium could be produced any lighter-weight elemental combinations whose atomic numbers add up 20, which is the atomic number of the original calcium. Friend, the fumes or dust of beryllium are extremely toxic to the human body. What would be the results if an astronaut had a beryllium factory in operation right within his or her body? Likewise, fluorine gas is highly reactive and poisonous to the human body. Friend, the writer would not want any portion of his innards being converted into fluorine gas!

During the nuclear disintegration of phosphorus (atomic number 15) in the bones of the human body, combinations of such radioactive isotopes as aluminum and helium, or magnesium and lithium, or neon and boron, could be formed in place of the phosphorus. Friend, an excess of boron within the human body is toxic.

When the carbon (atomic number 6) in the organic molecules of the human body experiences nuclear disintegration, combinations of such radioactive isotopes as boron and hydrogen, or beryllium and helium, can replace the original carbon. Friend, the byproducts left after the radioactive disintegration of carbon within the body do not appear to promote good health. But the horror does not stop here.

There is a large percentage of water in the human body. When water is irradiated which such things as neutrons, it becomes radioactive. Please consider what effect it would have on the existence of life, if all of the water within our body were converted into a radioactive material. Would all of the radiation be altering or destroying the structure within the cells of our body? Friend, would you like to be one of the astronauts on a mission to Mars, who personally has the opportunity to experience all of the detrimental effects of space radiation, firsthand? Then a question: "Does man even know the full extent of the effects of devastating space radiation? What does he have to compare it to?"

According to an article on page F1 of the December 9, 2003 edition of *The New York Times* (called "Mars Mission's Invisible Enemy: Radiation," by Matthew L. Wald), mankind cannot reproduce the devastating barrage contained within space radiation. In man's best particle accelerator, the radiation environment created is "vastly different" from that radiation environment which exists in space. Compared to real-life space radiation, the environment within man's particle accelerators "resembles playing a symphony by mimicking one instrument at a time."

(Reference note 71, continued on next page)

(Reference not 71, continued from previous page)

Friend, the reaction and interaction of all the various elements contained in the real-life space environment will produce vastly different effects than those which can ever be observed within mankind's lowly particle accelerators. The combinations of reactions which will be experienced on a distant space mission will be far more devastating than anything even imagined. Those foolish enough to be party to such a mission, and those who willingly drag a nation and its citizens into being party to their folly, truly deserve the consequences of it.

- 72. It appears that there is a lot of talk and a lot of hype. Yes, the scientists and NASA experts desire to keep an image of distant space travel before the eyes of a rather ignorant general public. Friend, this is the only way in which they can keep great amounts of money coming into their pockets. If the people knew the truth about the limitations of space travel, and the only corridor open to manned space flight, many of the funds to the space scientists (and their organizations) could quickly "dry up." Friend, it appears to be a situation of doing anything to keep one's cushy job (and the big paycheck which comes with it), no matter what it takes. Friend, history shows that the general public has been duped many times over. Why should it be any different today? Carnal human nature is still the same!
- 73. Concerning the fact that God is our Father, it is written (in the Holy Bible, Book of Acts, chapter 17, verses 24-31): "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; and hath made of one blood all nations of men for to dwell on all the face of the earth, and hath determined the times before appointed, and the bounds of their habitation; that they should seek the Lord, if haply they might feel after him, and find him, though he be not far from every one of us: for in him we live, and move, and have our being; as certain also of your own poets have said, 'For we are also his offspring.'

"Forasmuch then as we are the offspring of God, we ought not to think that the Godhead is like unto gold, or silver, or stone, graven by art and man's device. And the times of this ignorance God winked at; but now commandeth all men every where to repent: because he hath appointed a day, in the which he will judge the world in righteousness by that man whom he hath ordained; whereof he hath given assurance unto all men, in that he hath raised him from the dead."

Indeed, God the Father is our true Father, for He created us. Because He created us, we are His legitimate offspring. Please note further that mankind was made in the very image and likeness of God, for it is written (in the Holy Bible, Book of Genesis, chapter 1, verses 26-27): "And God said, 'Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth.' So God created man in his own image, in the image of God created he him; male and female created he them." Indeed, we are the offspring of God. Therefore, He is our only rightful Father. Let us therefore be His true, obedient children.

- 74. Friend, let us not run away from this Earth, but let us rather turn to the true way of God, that this Earth may be a more bearable place to live.
- 75. The 1998 Grolier Multimedia Encyclopedia, "Earth, geomagnetic field of."
- What could be causing this steady decline in the Earth's geomagnetic field? As a partial answer, the writer will first present information from an article which appeared in the April 2001 issue of *Scientific American* magazine (called "The Fury of Space Storms," by James L. Burch, on page 86). The author of the article declares that during the solar flare of July 15, 2000, there was a sharp increase in the intensity of x-rays emanating from the effected region of the sun's surface. As a result of the solar flare, a geomagnetic solar storm was created on Earth. During this storm "the magnetic field strength on the earth's surface fell precipitously, dropping 300 nanoteslas below its normal value." The article also indicates that for about a week prior to the solar flare, the effected region of the sun's surface was very turbulent, and displayed a "rolling" nature. As the flare was waning, there formed "a bright, expanding cloud that surrounded the sun like a halo. It was a coronal mass ejection (CME), an eruption in the corona --- the sun's outer atmosphere --- throwing billions of tons of electrically charged particles into interplanetary space. The halo signature meant that the particles were heading directly toward the earth, at an estimated speed of 1,700 kilometers per second." How may all of this information fit into the shrinking magnetic field of the Earth? Furthermore, how may it fit into Bible prophecy?

The above article indicates that the magnetic field strength at the Earth's surface can fall precipitously during a solar induced geomagnetic storm. Could the ongoing reduction in the Earth's geomagnetic field strength indicate a

(Reference note 76, continued on next page)

steady rise in activity and strength of the solar wind which is emitted by the sun? Could the volume and intensity of radiation and electrically charged particles bombarding the Earth's geomagnetic field constantly be increasing? Could this be signaling some type of change in the nature of the sun? What Bible prophecy may be related to this phenomenon?

It is written (in the Holy Bible, Book of Isaiah, chapter 30, verse 26): "Moreover the light of the moon shall be as the light of the sun, and the light of the sun shall be sevenfold, as the light of seven days, in the day that the LORD bindeth up the breach of his people, and healeth the stroke of their wound."

For the light of the sun to be increased sevenfold, there would have to be an immense increase in solar activity. This increase in solar activity would cause a brutal assault of radiation and electrically charged particles to bombard the Earth's geomagnetic field. The resulting geomagnetic storm, in turn, could totally devastate mankind's electrical power grids upon the face of the Earth. There would be electrical blackouts throughout all nations. The ensuing barrage of solar emissions would also put a major portion, if not all, of mankind's satellites out of commission. Radio, television, and telephone communications would be greatly compromised, if not totally destroyed. The computers which control a great portion of modern mankind's transportation vehicles (both aircraft and land-based) will be completely ruined. All motorized forms of travel will come to a halt. At a time like this, civilization, as we now know it (with all of its electronics and modern conveniences), would be devastated and brought completely to its knees.

Friend, our modern electronic age is only preparing us to be "sitting ducks" in that day when the above prophecy shall be fulfilled. When the prophecy is fulfilled, in a very short period of time, the advanced nations will be reduced to a state which will be much worse than that of the most primitive peoples upon this Earth. All of this will come about because of mankind's disobedience toward God and His true ways.

- 77. Plate Tectonics: Unraveling the Mysteries of the Earth, Jon Erickson, 1992, page 83.
- 78. Plate Tectonics: Unraveling the Mysteries of the Earth, Jon Erickson, 1992, page 83.
- 79. See: *The Story of the Earth*, Cattermole and Moore, 1985, page 55. The scientists believe that if the magnetic field of the Earth became very weak, or disappeared completely, the protective shield of the Earth would also be withdrawn. Such an event, they believe, would be disastrous to life upon this Earth.
- 80. The Holy Bible, Book of Revelation, chapter 6, verses 9-17.
- 81. The Holy Bible, Book of Romans, chapter 5, verses 6-11, declares: "For when we were yet without strength, in due time Christ died for the ungodly. For scarcely for a righteous man will one die: yet peradventure for a good man some would even dare to die. But God commendeth his love toward us, in that, while we were yet sinners, Christ died for us. Much more then, being now justified by his blood, we shall be saved from wrath through him. For if, when we were enemies, we were reconciled to God by the death of his Son, much more, being reconciled, we shall be saved by his life. And not only so, but we also joy in God through our Lord Jesus Christ, by whom we have now received the atonement."
- 82. *The Holy Bible*, Book of Revelation, chapter 16, verse 15.