

INTRODUCTION TO
CHAPTER FOURTEEN

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The preceding chapters discussed the main nuclear event in the Creation process which occurred predominately in the early part of Day One. This chapter turns away from all of the immense, direct nuclear processes. From here on out, this book begins turning toward an examination of those things which could be classed as byproducts, once the main nuclear event was restricted to the very nucleus of the Earth, and also to the region beyond the outer extent of the 'Earth-blob.'

The components discussed in this chapter appear to have been created in the latter part of Day One of the Creation week. This discussion should allow the Reader to more readily comprehend the physical size of the inner and outer core of the Earth, plus the mantle. An extremely important, major benefit is shown for having a fluid outer core within the Earth. It is also noted how this particular feature, to a degree, ensures the longevity of the Earth, especially when considering the coming time of massive celestial bombardment which this Earth will experience in the days ahead.

The writer sets forth some potential answers for the internal makeup of the Earth's outer core. He believes that there is much food for thought in this chapter. There is also much room for independent study of the makeup and operation of this Earth. The groundwork is laid. A direction is given. The rest is up to the Reader, as God guides them.

Chapter 14: OUTWARD FROM THE CORE

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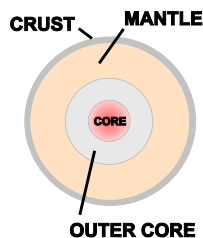
ALMIGHTY GOD

The psalmist cries: *“In my distress I called upon the LORD, and cried unto my God: he heard my voice out of his temple, and my cry came before him, even into his ears. Then the earth shook and trembled; the foundations also of the hills moved and were shaken, because he was wroth.*

“There went up a smoke out of his nostrils, and fire out of his mouth devoured: coals were kindled by it. He bowed the heavens also, and came down: and darkness was under his feet.

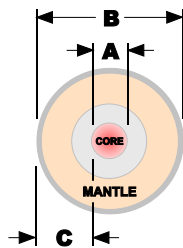
“Then the channels of waters were seen, and the foundations of the world were discovered at thy rebuke, O LORD, at the blast of the breath of thy nostrils.”¹

GENERAL STUDY



This chapter is a general study of the Earth’s construction, outward from the surface of the inner core. The seismic studies of the scientists appear to contain much useful information. By these studies, many things can be learned about the physical structure within the Earth. This chapter also examines the nature of a few of those materials which have spewed forth from the bowels of the Earth in molten form.

TO BEGIN WITH



Seismological research indicates that the inner core of the Earth (A, in illustration at left) has a total equatorial diameter of approximately 1,595 miles (2,566 km).² This diameter is a little farther than the distance between Los Angeles, California, and Houston, Texas. (see map)³

In comparison to the inner core, the diameter of the Earth’s outer surface, at the equator (B, in illustration at left), is about 7,926 miles (12,753 km).⁴

This would leave a layer of material (C, in illustration at left) about 3,166 miles thick (5,094 km) between the outer surface of the inner core, and the outer surface of the whole Earth, at the equator. This thickness is similar to the distance between Seattle, Washington, and Portland, Maine. (see map in References)⁵

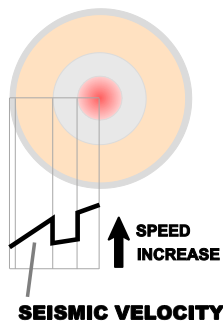
The outer core of the Earth is said to completely envelop the inner core (see illustration, above). This outer core is said to be about 1,305 miles (2,100 km) thick. This thickness is similar to the distance between New York City, New York, and New Orleans, Louisiana. (see Reference map)⁶

Outside of the inner and outer cores, is the mantle of the Earth. The mantle is said to be approximately 1,802 miles thick (2,900 km), and extends outward to the crust of the Earth. The thickness of the mantle is similar to that distance between New York City and Denver, Colorado (map).⁷ It is believed that the mantle contains about 80 percent of the total volume of the Earth.⁸

MAJOR MASS

Most of the Earth's volume may be in the mantle, but the physicists have concluded that most of the mass of this Earth lies close to its center. This conclusion has been reached by calculations which include the rotational speed of the Earth, the degree of equatorial bulging, and the polar flattening of this Earth. Also included in the calculations is the slow change in the tilt of the Earth's axis of rotation. This change is believed to be caused by the gravitational pull of the Sun and Moon.^{9 and 10}

SEISMIC STUDIES



Within the Earth, there are two important seismic discontinuities. At a depth of about 1,802 miles (2,900 km), or at the bottom of the mantle, the seismic shear or S waves disappear. It is a known fact that fluids do not transmit shear waves. This disappearance of S waves is believed to indicate a fluid material at the outer core of the Earth. In this same region, the P waves slow down.¹¹ This slowing down of the P waves indicates a fluid material with a lower density than the mantle material.

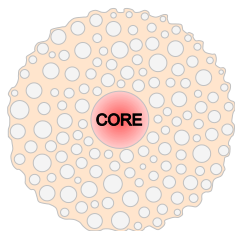
At a depth of about 3,107 miles (5,000 km), or near the surface of the Earth's inner core, the P waves speed up again.¹² This increase in P wave velocity indicates a material of higher density at the inner core of the Earth. Our studies indicate that the inner core of this Earth is composed of the relatively dense, heavier metals.

ANOTHER EXAMINATION

As both P and S seismic waves penetrate deeper into the Earth, starting at the surface, there is a steady increase in their velocity. This is believed to indicate a material of relatively uniform composition which is being compressed ever greater as depth within the Earth is increased. This characteristic of the seismic waves holds true to a depth of about 1,802 miles (2,900 km), at which point the fluid outer core of the Earth is reached.¹³

Scientists generally believe that the outer core of the Earth is made up of molten iron.¹⁴ It should be noted that this belief is based (to a degree) upon conjecture. Let us examine a few facts. They may help to find the real truth of what occurred during the Creation of the inner core of this Earth. This may also lead to the potential materials of which the outer core is currently composed.

A REMINDER



In this discussion, please remember that the inner core of the Earth was created in a massive nuclear reaction. During this nuclear reaction, the forming Earth was possibly at a temperature similar to the current Sun.

After the inner core was formed, for a certain period of time on the first day of Creation, outside of this core was a deep, superheated, violently churning and bubbling fluid layer. This layer was composed of the byproducts of the main nuclear reaction.¹⁵

PARTIAL PERIODIC TABLE

As an aid to further discussion, below is included a portion of the Periodic Table. This table has been modified to include the specific gravities for the elements. The specific gravities of the solids are in relation to water, and the gases to air.

Atomic Number	Element	Symbol	Atomic Weight	Specific Gravity
01	Hydrogen	H	1.0079	(gas, .089)
02	Helium	He	4.00260	(gas, .1664)
03	Lithium	Li	6.941	0.53
04	Beryllium	Be	9.01218	1.85
05	Boron	B	10.81	2.35
06	Carbon	C	12.011	3.52
07	Nitrogen	N	14.0067	(gas, 1.251)
08	Oxygen	O	15.9994	(gas, 1.429)
09	Fluorine	F	18.998403	(gas, 1.510)
10	Neon	Ne	20.179	(gas, .6959)
11	Sodium	Na	22.98977	0.97
12	Magnesium	Mg	24.305	1.74
13	Aluminum	Al	26.98154	2.7
14	Silicon	Si	28.0855	2.33
15	Phosphorus	P	30.97376	2.34
16	Sulfur	S	32.06	2.06
17	Chlorine	Cl	35.453	(gas, 1.410)
18	Argon	Ar	39.948	(gas, 1.379)
19	Potassium	K	39.0983	0.86
20	Calcium	Ca	40.08	1.54
21	Scandium	Sc	44.9559	3.0

SCANDIUM

It appears that the outboard region of the Earth's inner core contains the element called scandium. As a point of reference, the element scandium has been included at the bottom of the Partial Periodic Table found above.

MODIFIED TABLE

The table below is a modification of the one on the preceding page. The gases are eliminated on this new table. The elements are then reorganized according to specific gravity. Scandium is also eliminated from this new table. By comparing this table to the one above, the vertical movement of the elements within the boiling fluid (which covered the primitive Earth) becomes clear.

Atomic Number -----	Element -----	Symbol -----	Atomic Weight -----	Specific Gravity -----
03	Lithium	Li	6.941	0.53
19	Potassium	K	39.0983	0.86
11	Sodium	Na	22.98977	0.97
20	Calcium	Ca	40.08	1.54
12	Magnesium	Mg	24.305	1.74
04	Beryllium	Be	9.01218	1.85
16	Sulfur	S	32.06	2.06
14	Silicon	Si	28.0855	2.33
15	Phosphorus	P	30.97376	2.34
05	Boron	B	10.81	2.35
13	Aluminum	Al	26.98154	2.7
06	Carbon	C	12.011	3.52

HYDROGEN PRODUCTION

CALCIUM

A portion of the calcium (atomic number 20) reacted spontaneously with the water and acid mixture which formed around the core of the primitive Earth. During this reaction, as a portion of the calcium went into solution, a considerable amount of heat and hydrogen gas was liberated.¹⁶

The hydrogen gas from the calcium and acid reaction was not wasted. God definitely is not a waster of any valuable resource. This hydrogen gas appears to have been used by God in another of His very special creations. This special creation is discussed later in this book.

POTASSIUM

Potassium, atomic number 19, reacts violently with water, and explosively with acid mixtures, as it goes into solution.¹⁷ When potassium reacts with water, heat and hydrogen gas are given off. The end result is potassium hydroxide.¹⁸

The hydrogen gas from the violent potassium and acid reaction goes into spontaneous combustion if in the presence of oxygen, thereby creating more water.¹⁹ If no oxygen is available in the reaction zone, hydrogen gas will be liberated. Any hydrogen gas produced by this reaction was not wasted. It was very likely included in that great creation which God made a few days later.

WATER COMPOUNDS

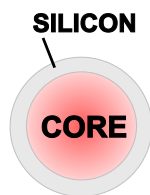
Argon (atomic number 18 on the Partial Periodic Table) does not appear to form true compounds, but it does form a hydrate.²⁰ A hydrate is a crystalline solid compound which contains molecular water.^{21 and 22} Its appearance is somewhat similar to ice.



Part of the chlorine (atomic number 17) reacted with other metallic elements. In these reactions, metallic chlorides were formed. Another portion of the chlorine reacted with sodium, and was converted into salt. Yet another part of the chlorine produced hydrochloric acid.

A portion of the sulfur (atomic number 16) was converted into sulphuric acid. The remainder produced compounds with other elements. Phosphorus (atomic number 15) combined with oxygen to create oxides. These oxides reacted with water to form phosphoric acid.

SILICON



In the churning nuclear inferno, a portion of the silicon (atomic number 14) may have intermixed with the elements at the outer portion of the Earth's inner core. Silicon is not attacked by such common things as nitric, hydrochloric, or sulfuric acids. It can be dissolved by hydrofluoric acid.²³ But this should not be a concern in this case, for it does not appear that hydrofluoric acid is in the vicinity of the Earth's inner core.

Silicon is classed as a semi-metallic element. It comes directly after oxygen in terms of abundance upon the face of this Earth. Silicon is the second most common element on the outer portion of this Earth. The scientists believe that silicon constitutes approximately 28 percent of the Earth's crust. Silicon melts at a temperature of about 2570°F (1410°C), and boils at approximately 4271°F (2355°C).

SPECIAL STEEL

**15%
SILICON**

There is a special steel alloy called duriron. This alloy contains approximately 15 percent silicon. The duriron alloy is very hard, brittle, and resistant to corrosion. Duriron was designed for use in industrial equipment which must be in contact with corrosive chemicals.²⁴

NATURAL DEDUCTION

At the outer surface of the core of the Earth (during the initial, massive nuclear reaction) some of the silicon may have been mixed and alloyed with the iron. The conditions existed whereby a portion of the silicon may have been altered, thereby becoming a true chemical shield on the outer surface of the Earth's inner core.

**SILICON
CARBIDE**

Silicon reacts with carbon at extremely high temperatures, such as those temperatures present during the initial nuclear reaction, and shortly thereafter. Under high temperature conditions, these two elements can readily form a compound called Carborundum.

Carborundum is silicon carbide. It is almost as hard as diamond.²⁵ Carborundum is a very refractory substance. This means that it is very heat-resistant.²⁶ A Carborundum type of material may work very well as part of the protective casing around the inner core of this Earth.²⁷

CARBON RESERVES

At high temperatures, carbon reacts with most metals to form carbides. These carbides all have very high melting points. They are not readily volatilized. For this reason, it appears that there are many carbides within the Earth.²⁸ One example of this class of materials is calcium carbide, which reacts with water to form acetylene gas.²⁹ Another example of this class is the methanide group, which consists of the carbides of aluminum, beryllium, and manganese. When members of the methanide group react with water or acid, they produce methane gas.³⁰

A SWITCH

The above portions of the Periodic Tables should be referred to in this discussion. The sulfur, at the time of atomic Creation, was lower down in the fluid mass enveloping the Earth's inner core, than was the carbon. As the forces of specific gravity began to take over, the superheated sulfur floated upwards, and the superheated carbon sank downwards. Somewhere in the middle, a reaction took place. The result of this high-temperature reaction was carbon disulfide (CS₂).³¹

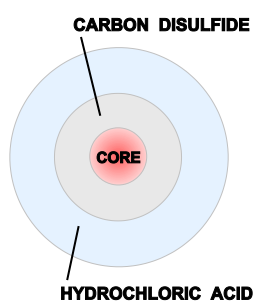
THE SOLVENT

Carbon disulfide burns in the presence of air or oxygen, forming carbon dioxide and sulphur dioxide gases.³² These two gases are normally present in the gases emitted by volcanos.³³

Carbon disulfide has a specific gravity of 1.293, compared to water at 1.000.³⁴ Therefore, the carbon disulfide would sink to the bottom of a watery mixture. Carbon disulfide is also an excellent solvent for sulfur and white phosphorus.³⁵

TWO COLLECTORS

For this discussion, please refer to the two portions of the periodic table which appear earlier in this chapter. The gaseous elements are not included in this discussion. This section examines those elements which go into solution in hydrochloric acid. It also examines those elements which would form a somewhat heavier mixture within liquid carbon disulfide.



Hydrochloric acid has a specific gravity of 1.20, making it of a lighter weight than carbon disulfide.³⁶ The following elements react with, or are readily soluble in water or hydrochloric acid: aluminum, beryllium, boron, calcium, lithium, magnesium, potassium, and sodium.^{37 and 38} It is likely that these elements are contained in a reservoir of acid.³⁹

The following elements are readily soluble in carbon disulfide: sulfur and white phosphorus. In the boiling solution enveloping the inner core of the Earth on the first day of Creation, the heavier carbon disulfide mixture may have settled below the water-based mixture.

THE OUTER CORE

The outer core of this Earth truly appears to contain a liquid. A reasonable share of this liquid may be a solution of carbon disulfide, plus a mixture of various acids. Contained within the carbon disulfide may be a considerable quantity of dissolved sulfur.

YELLOW MATERIAL

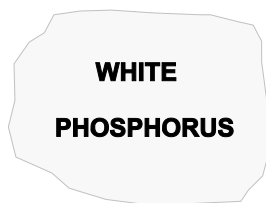


Sulfur (commonly called “brimstone”⁴⁰) is usually a tasteless, yellow colored, nonmetallic element. It is rather odorless, until heated. Sulfur is relatively insoluble in water. The common reference materials indicate that this material melts at a temperature of 246°F (119°C), and begins boiling at 832.3°F (444.6°C).^{41 and 42}

Sulfur occurs in two crystalline forms, both of which are soluble in carbon disulfide. As the temperature of sulfur is raised above 320°F (160°C), it becomes extremely thick and gummy. As the temperature is further raised above 482°F (250°C), the sulfur begins to break down and become a thinner, less viscous liquid.⁴³

Some of the sulfur in the outer core of the Earth appears to be in the form of sulfuric acid. This particular acid has a specific gravity of 1.85.⁴⁴ It displays the property of drying the moisture out of other materials. When added to soil, it causes an increased amount of phosphorus to be available for plant growth.⁴⁵ Sulfur is therefore a valuable product in the operation of this Earth!

REACTIVE ONE



Also contained in the carbon disulfide (along with the sulfur) would likely be the elementary material called white phosphorus. At Creation, God knew that it would be best to keep the white phosphorus beneath a layer of liquid material, deep within the Earth. This would avoid any chance of spontaneous combustion.⁴⁶

Under the proper conditions, phosphorus may react with water vapor to produce phosphoric acid. This acid is important in the production of phosphates. These phosphates are necessary for metabolism in plants, animals, and humans.⁴⁷ These phosphates are also commonly included in fertilizers.

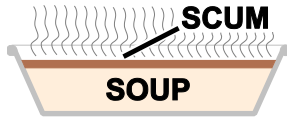
FIRE RETARDANT

Special compounds made with phosphoric acid (or with sulfuric acid) work well to retard fire in materials such as wood, paper, and polymers.⁴⁸ Polymers are those compounds whose molecules are formed in certain reactions which combine many smaller molecules together into one large molecule.⁴⁹

Upon heating, the acid reacts with the material it is protecting, and produces large amounts of carbon-char plus superheated water vapor and carbon dioxide.⁵⁰ These are two products which also spew out of volcanos.

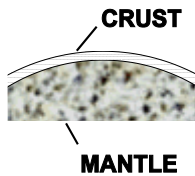
SCUM OF THE EARTH

When the Earth was first formed, the extremely thick layer of acidic brew contained many of the elemental remnants of the Earth's creation. This acidic brew was boiling hot. It was at its saturation point, loaded with the various elements, plus compounds of them.



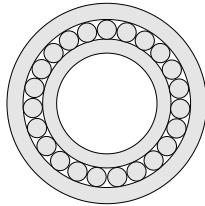
As the heat from the acidic brew began to rapidly radiate out into space, the surface mixture became supersaturated. Soon a scum began to crystalize on the relatively cool surface. The more that this surface of the brew rapidly cooled, the thicker this scum became. This process is similar to that which happens on the top surface of a bowl of soup when it is set out to cool in the air.

THE PLATFORM



The scum which rapidly appeared on the surface of the acidic brew was the very beginning of the Earth's mantle. The solidifying mantle material rapidly grew thicker and thicker. Ultimately, it became many miles thick. As the thick mantle material hardened, it became the platform upon which the upper crust of this Earth was formed.

FLUID BEARING



The liquid outer core of the Earth acts as a fluid bearing sandwiched between the inner core of the Earth, and the outer mantle. The fluid bearing allows the inner core to spin freely, and move independently of the outer portion of the Earth as needed. It appears that this independence allows the inner core of the Earth to spin at a speed which is slightly faster than the outer portion of the Earth.⁵¹

SIMPLE QUESTION

If there is no solid lock-up between the inner core of the Earth and the mantle, what keeps the outer portion of the Earth spinning in a direction and speed which is somewhat similar to the rotation of the inner core? Let us examine an everyday device for a possible answer to this question.

FLUID DRIVE

Early-day automatic and semiautomatic transmissions used a device called a fluid flywheel, or fluid coupling. A fluid coupling tends to operate similar to an automatic clutch. If the inner, driving unit is turning slowly, there is a considerable amount of slippage through the coupling to the outer, driven unit. As the rotational speed of the inner driving unit steadily increases, there is a steady increase in the lock-up with the outer, driven unit.⁵² In the Earth, the inner core spins with an outer surface speed which is more than fast enough to cause a fluid lock-up through the liquid outer core to the mantle unit of the Earth. Therefore the mantle spins at a speed similar to the inner core.

THE SQUIRREL-CAGE

The second type of lock-up between the inner core of the Earth and the mantle appears to be of a magnetic nature. This method of coupling is similar to that which occurs in a squirrel-cage induction motor. An induction motor operates at a speed slightly below that of the spinning magnetic field which drives its rotor. Induction motors are extremely simple in their construction, and are very reliable. They may also be very efficient in their operation. In a squirrel-cage type of induction motor which is under load, there is “slippage.” Therefore the speed of the rotor is about 2 to 5 percent slower than the rotating magnetic field which drives it.⁵³

BENEFICIAL SLIPPAGE

Friend, do the principles of fluid coupling and the squirrel-cage motor have application to the overall operation of the Earth itself? The writer believes that they do. Furthermore, it appears that by both magnetic and fluid coupling of the inner core to the mantle of the Earth, a very important safety feature has been created! This safety feature allows for a certain amount of beneficial slippage. Let us use an illustration to better understand this safety feature. Let us use the common toy called a “top” for the focus of our illustration.

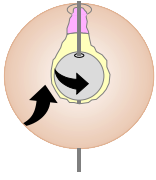
Suppose our “top” is rapidly spinning, and a foreign object sharply strikes the outer surface. What happens? If struck hard enough, the top begins to wobble, or completely falls over! Suppose the top were the Earth instead. If the Earth was solid all the way through, what would happen if it was powerfully impacted by some large celestial object? What type of cataclysmic activity might be propagated by such an event? On the other hand, what happens in this situation if there is a fluid coupling between a rather light-weight outer surface and a large, very heavy, solid rotating mass at the core? In this case, an impact may not cause the top to begin wobbling.

BASIC OBSERVATION

The Lord God Almighty has designed this Earth in a very special manner. He has designed it so that the basic Earth can survive a violent impact by a large celestial object (or even by a number of large objects, one after the other). If the Earth is violently impacted, the outer portion (consisting of crust and mantle) may slip in whatever direction is necessary to ‘roll with the punch,’ completely independent of the inner core. This allows the inner core to readily continue to spin on its normal axis, relatively unaffected, during a major celestial impact upon the Earth.

After the impact, the outer portion of the Earth (because of magnetic and fluid coupling) is able to once again return to its normal rotational speed. The landmasses may have been altered to some degree. They may have moved around to a different location on the face of the Earth. All forms of life may be greatly effected or completely destroyed. But the basic Earth itself would survive. God the Father truly did a magnificent job of planning at Creation! Blessed be His holy name!

OUTER MOVEMENT



The geologists believe that the outer portion of this Earth has shifted independent of the rotation of the inner core at various times in past history. This shifting of the outer portion has occurred while the axis of the Earth's core-rotation remained the same.⁵⁴ Friend, what are the implications of this phenomenon?

SELECTIVE INDEXING

It appears that the outer portion of the Earth may index or shift (even by pure magnetic means) in any direction God desires, at any time He so desires. Then there are the celestial-object impacts which move the outer portion of the Earth around! Some may ask: "Is there anything in the Word of God which indicates that the outer portion of the Earth may be capable of moving in an unorthodox manner?" In answer to this important question, let us examine a passage of Holy Scripture.

RETURN TO THE WORD

The Word of God proclaims: *"Fear, and the pit, and the snare, are upon thee, O inhabitant of the earth. And it shall come to pass, that he who fleeth from the noise of the fear shall fall into the pit; and he that cometh up out of the midst of the pit shall be taken in the snare: for the windows from on high are open, and the foundations of the earth do shake.*

"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.

"And it shall come to pass in that day, that the LORD shall punish the host of the high ones that are on high, and the kings of the earth upon the earth. And they shall be gathered together, as prisoners are gathered in the pit, and shall be shut up in the prison, and after many days shall they be visited.

"Then the moon shall be confounded, and the sun ashamed, when the LORD of hosts shall reign in mount Zion, and in Jerusalem, and before his ancients gloriously."⁵⁵

According to the Word of the Lord, it appears that the outer portion of this Earth has the ability to "reel to and fro like a drunkard." It appears that it has the ability to move around in the most unorthodox manner. It may readily move around, especially when the windows from on high are open, and the celestial objects are brutally pounding the entire surface of the earth! "...And who shall be able to stand?"⁵⁶

Friend, so ends another Chapter in this FIRST EDITION of
Listen To The Earth, Volume One, THE CREATION, by *David E. Sakrison and Friends*
in 34 Chapters, plus README, Preview, Start, and End files
with References following each Chapter

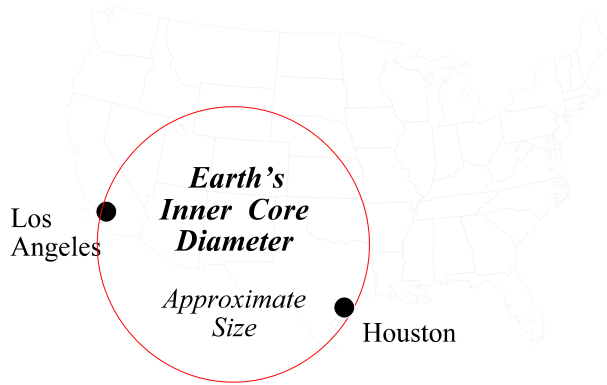
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1. *The Holy Bible*, Book of Psalms, chapter 18, verses 6-9 and 15.

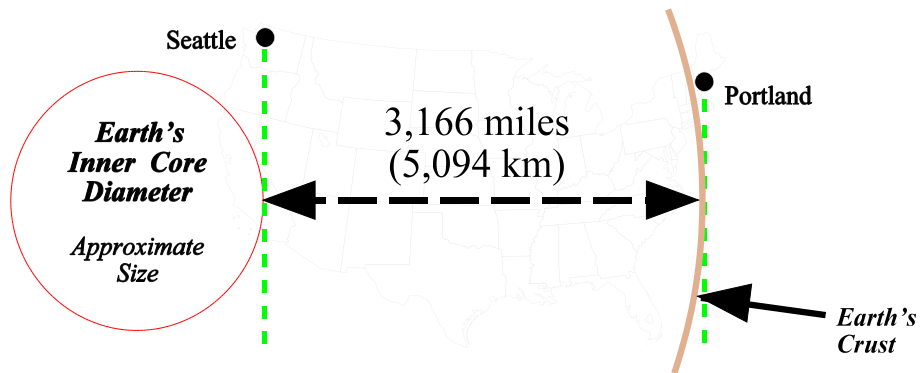
2. *Microsoft Encarta 98 Encyclopedia*, "Earth."

3.

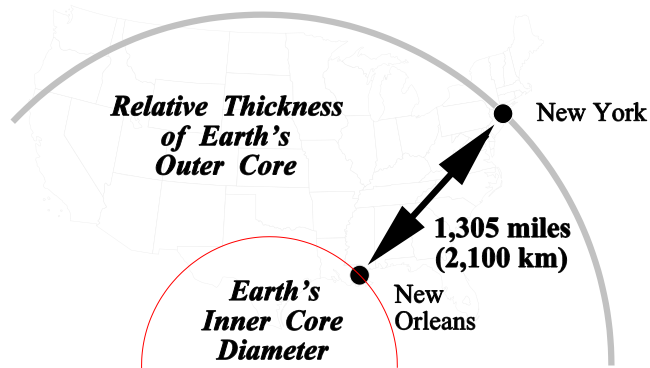


4. *Microsoft Encarta 98 Encyclopedia*, "Earth."

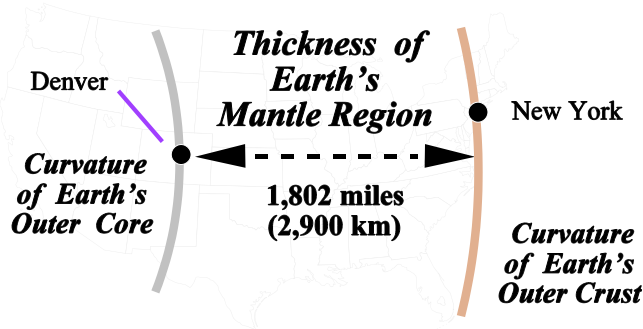
5.



6.



7.



8. *Physical Geology*, Longwell/Flint/Sanders, 1969, page 443.

9. *Physical Geology*, Longwell/Flint/Sanders, 1969, page 441.

10. Note: Most of the mass lies close to the center of the Earth because most of the heavy, high density elements reside in this location.

11. *Physical Geology*, Longwell/Flint/Sanders, 1969, page 441.

12. *Physical Geology*, Longwell/Flint/Sanders, 1969, page 441.

13. *Physical Geology*, Longwell/Flint/Sanders, 1969, page 441.

14. *Microsoft Encarta 98 Encyclopedia*, "Earth."

15. As the superheated gases of Creation rose away from the surface of the molten and forming 'Earth-blob,' they released their load of heat into the deep cold of space. Upon being rapidly cooled, these gases condensed into liquid form. This liquid then created an immense, torrential downpour of super-cooled liquid and ice to the outer surface of the primitive Earth. As this liquid and ice reached the region of the Earth's superheated surface, it was instantly converted into a superheated vapor. This superheated vapor would once again rise away from the Earth into the deep cold of space. As this continuous cycle progressed, the surface of the Earth rapidly became cooler. As the Earth rapidly cooled, the altitude at which the liquid condensed became lower (or closer to the surface of the 'Earth-blob.' As this cycle continued, there came a point when a deep layer of rapidly boiling liquid was able to remain in contact with the surface of the whole Earth.

16. *The 1998 Grolier Multimedia Encyclopedia*, "Calcium."

17. *The 1998 Grolier Multimedia Encyclopedia*, "Potassium."

18. *Microsoft Encarta 98 Encyclopedia*, "Potassium."

19. *Microsoft Encarta 98 Encyclopedia*, "Potassium."

20. *The 1998 Grolier Multimedia Encyclopedia*, "Argon."

21. *The 1998 Grolier Multimedia Encyclopedia*, "Hydrate."

22. It should be noted that hydrates may be in the form of ice. One member of the hydrate family, methane hydrate, appears as ordinary ice. It may be found as large masses lying on the deep sea floor, or it may be buried below hundreds of feet of mud. This information came from *Platt's Oilgram News*; September 11, 2002, page 3; "Canadians find big frozen gas deposits. But years of evaluation remain."; by Gary Park.

23. *Microsoft Encarta 98 Encyclopedia*, "Silicon."

24. *Microsoft Encarta 98 Encyclopedia*, "Silicon."
25. *The 1998 Grolier Multimedia Encyclopedia*, "Carborundum."
26. *The 1998 Grolier Multimedia Encyclopedia*, "Refractory Materials."
27. If an extremely hard material like Carborundum is part of the outer casing of the inner core of this Earth, that may explain why a number of scientists believe that the inner core consists of a very dense material.
28. *Microsoft Encarta 98 Encyclopedia*, "Carbon" and "Carbides."
29. *The 1998 Grolier Multimedia Encyclopedia*, "Acetylene."
30. *Microsoft Encarta 98 Encyclopedia*, "Carbides."
31. See: *Smith's Introductory College Chemistry*, James Kendall, 1931 Edition, page 355.
32. *Smith's Introductory College Chemistry*, James Kendall, 1931 Edition, page 355.
33. *Physical Geology*, Longwell/Flint/Sanders, 1969, page 457.
34. *The 1998 Grolier Multimedia Encyclopedia*, Table, "Liquids, Densities of Various."
35. *Concepts of General Chemistry*, McLellan/Day/Clark, 1966, page 339.
36. See: *Microsoft Encarta 98 Encyclopedia*, "Hydrogen Chloride."
37. *Concepts of General Chemistry*, McLellan/Day/Clark, 1966, pages 96-100.
38. *Chemistry*, James V. Quagliano, 2nd Edition, 1963, pages 793-795.
39. This liquid reservoir of the Earth's outer core may also contain a certain percentage of nitric and sulfuric acids.
40. The name "brimstone" for sulfur appears to result from the fact that sulfur deposits are often found at the rim or brim of a volcano's crater.
41. *The 1998 Grolier Multimedia Encyclopedia*, "Sulfur."
42. *Microsoft Encarta 98 Encyclopedia*, "Sulfur."
43. *The 1998 Grolier Multimedia Encyclopedia*, "Sulfur."
44. Because of its higher specific gravity of 1.85, sulfuric acid would lie below the layers of hydrochloric acid (S.G. of 1.20) and carbon disulfide (S.G. of 1.293). If any nitric acid is present in this liquid region, because of its specific gravity of 1.54, it would lie between the carbon disulfide and the sulfuric acid.
45. *Microsoft Encarta 98 Encyclopedia*, "Sulfuric Acid."
46. See: *Smith's Introductory College Chemistry*, James Kendall, 1931 Edition, pages 344-345.
47. See: *Microsoft Encarta 98 Encyclopedia*, "Phosphoric Acid."
48. *The 1998 Grolier Multimedia Encyclopedia*, "Flame Retardants."
49. *Chemistry*, James V. Quagliano, 2nd Edition, 1963, page 873.

50. *The 1998 Grolier Multimedia Encyclopedia*, “Flame Retardants.”
51. See: *The 1998 Grolier Multimedia Encyclopedia*, “Earth, Structure and Composition of.”
52. *Motor Service’s Automotive Encyclopedia*, William K. Toboldt and Larry Johnson, 1968 Edition, page 549.
53. *Microsoft Encarta 98 Encyclopedia*, “Electric Motors and Generators.”
54. *Microsoft Encarta 98 Encyclopedia*, “Earth.”
55. *The Holy Bible*, Book of Isaiah, chapter 24, verses 17-23.
56. *The Holy Bible*, Book of Revelation, chapter 6, verse 17.