

# WESTERN WATCHMAN

NEWS AND COMMENTARY SUPPLEMENT, JANUARY 2009

*“Except the LORD build the house, they labor in vain that build it; except the LORD keep the city, the watchman waketh but in vain.” Psalm 127:1.*

*Genesis 7:11: In the six hundredth year of Noah’s life ... the same day were all the fountains of the great deep broken up ...*

*Revelation 6:12-14: And I beheld when he 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 heaven departed as a scroll when it is rolled together; and every island and mountain were moved out of their places.*

**Beginning December 27, an unexpected earthquake swarm began in Yellowstone National Park on the eastern flank of the Yellowstone Caldera up to several kilometers under the northern arm of Yellowstone Lake near Fishing Bridge. In view of this, a fresh view of this event from a Biblical and creationist viewpoint is presented here. What science cannot or will not explain to the lay person, the child of God need not fear. God always warns before judgment falls.**

**THE EARTH THAT GOD ORIGINALLY CREATED PERFECT NO LONGER IS.** Everything created by the Lord Jesus Christ under the guidance of God the Father was very good: Genesis 1:31. The fall of one perfectly-created angelic being and later man introduced sin into the created universe and Planet Earth: Isaiah 14:12-14, Ezekiel 28:13-17, Luke 10:18, Genesis 3. As sin overwhelmed the world, judgment on the planet came as expressed by a universal Flood. The structure of the earth’s upper mantle and crust underwent devastating changes that has forever altered the surface of the planet. With sin came the Second Law of Thermodynamics (entropy, progressive disorder and loss of energy). Although much of the original created beauty in the universe remains, galaxies collide, blue super-giant stars explode or collapse to form black holes while smaller stars collapse into tiny neutron stars. On earth, destructive geologic processes such as earthquakes and volcanoes have replaced the quiet period that existed prior to the Flood. When the fountains of the great deep were broken up, mantle plumes and hot spots formed, continents split apart or collided and mountains that did not exist before the Flood were raised several tens of thousands of feet above rearranged oceans. Weather was affected by all these events; rain, snow, ice, dust, bitter cold and blistering heat that did not exist prior to the Flood make up the present, imperfect Earth: Genesis 8:22.

**HOT SPOTS AND MANTLE PLUMES.** Some reading this may have seen photographs of solar prominences erupting from spots on the Sun’s surface, forcing fiery emanations into space. Some of these are large enough to penetrate over one million miles into empty space before dissipating. A similar process of heat transfer (plume

convection) occurs and originates in the Earth's interior, so solar prominence events may be considered as an analogy to illustrate volcanic events here on Earth.

Earthquakes and volcanism occurring in the crust of the earth appear to have a common source in the upper portion of the Earth's mantle. This massive layer, some 1800 miles thick or almost half the Earth's radius is composed of mostly iron- and magnesium-rich silicate minerals in a semi-solid state. A seismic discontinuity called the asthenosphere separates the crust from the mantle. Reduced lithostatic pressure across the asthenosphere permits mantle rock to assume more liquid properties and for crustal rocks above to achieve movement especially along plate margins. These plates range from super-continental dimensions to the size of a small country. Briefly, this is what is called the science of plate tectonics. Above this tenuous semi-liquid layer is the earth's crust, ranging in thickness from about 2 miles in the deepest ocean basins to about 20 miles over the highest points on the continents. Seismic (sound-wave) data has been used to establish the presence of the mantle, asthenosphere, oceanic and continental crust layers. Mantle plumes or hot spots present two expressions of volcanism on the Earth's surface. One, more gentle and producing rivers of hot lava is called a red eruption, while the other more devastating, explosive type is called a gray eruption.

The first type is exemplified by the ongoing 25-year eruption at Kilauea in Hawaii. Here, molten magma rises freely and directly from the mantle to the island of Hawaii on the surface before seeking its own course into the Pacific Ocean. When the volcano is in eruption toxic gases are often present, but Kilauea will probably not damage the island more than that caused when man-made structures are overrun by lava flows.

Yellowstone is an example of the second type. Unlike Kilauea, magma rising from the mantle cannot easily break through a thin layer of continental crust that defines the topographic expression of the Park. Previous earth movements and volcanic super-eruptions contributed to the formation of a sizeable magma chamber inside the Yellowstone Caldera that is fed molten magma directly from the mantle, then trapped. Incoming magma has a higher melting point than the wall rock making up the magma chamber, so over time the chamber degrades and incorporates some of its composition into the liquid. Continued degradation of the chamber may weaken it to a rupture point with or without an associated earthquake. When failure occurs the force of the blast may exceed 50 megatons and the product of the eruption is a rapidly-forming pillar of gray ash and gas above devastating fiery clouds on the surface that incinerate ground vegetation while traveling more than 500 miles per hour away from the newly-formed vent.

According to recent research publications from the University of Utah (UU), besides affecting Yellowstone, the mantle plume is large enough to provide crustal deformation across much of the western United States. One major expression of this deformation is the Teton Fault, presently under great stress according to UU researchers and responsible for up to 7,000 feet of vertical displacement of the 40-mile long Teton Range south of Yellowstone. According to the researchers, the mantle plume remains an active force

contributing magma into the Yellowstone Caldera magma chamber. Some recent estimates claim the chamber has increased in size to about 6,000 cubic miles and is rising toward the surface faster than in recent recorded history.

**WHY THE EARTHQUAKES?** The reason earthquakes occur anywhere on Earth is because of structural adjustments taking place following the judgment of the Flood and the continental separation event of Genesis 10:25 about 100 years later. Over time major earthquakes such as occurred in Genesis have generally wound down to the relatively low levels we see today. However, in the past 20 years some sources, including a reluctant United States Geological Survey (USGS) have admitted the number of worldwide earthquakes, especially those greater than 6.0 on the Richter scale, have increased rapidly with time.

Movement of magma in volcanic systems usually produces some low-level earthquake activity. This may be caused by movement of the magma itself, or by how this movement affects the magma's containment vessel. In the case of Yellowstone, following the last super-eruption at Huckleberry Ridge, the caldera collapsed inward, effectively sealing the mantle plume and the expulsion of additional material from the magma chamber. Neither the plume nor the chamber vanished after this eruption, but over time the magma chamber reconfigured into today's containment vessel, roughly 50 miles long, 30 miles wide and about 4 miles deep, located from 1 to 5 miles below the surface of Yellowstone Lake and Central Volcanic Plateau. In other words, this thing is enormous.

The latest earthquake swarm that began December 26 was probably caused by increased movement of liquid magma within the chamber under increased pressure from the underlying mantle plume and degradation of the walls of the chamber as large chunks of it broke off and were assimilated into magmatic liquid. All the earthquakes that occurred in the chamber are probably not the result of movements at nearby fault zones within the Park. Other earthquakes recorded away from the magma chamber were fault movements probably caused by pressure from the mantle plume, and not by the movements taking place within the magma chamber itself.

Perhaps the most ominous sign of an impending eruption is the occurrence of "harmonic tremors", that is, low-level earthquakes similar to a heartbeat. This usually means that magma is on the move and that an eruption may be imminent.

**WHAT HAPPENS NEXT?** It is not within the scope of this writing to state with certainty if or when an eruption will occur at Yellowstone, how powerful it will be or how long it will last. It is clear that Yellowstone is being set up for a major future eruption, and it is only a matter of time until it occurs. Given this, let's examine two schools of thought that may provide some guidance: old earth versus creation.

**Old Earth.** For the past 200+ years the science of geology has been dominated by Big Bang, Old Earth and evolutionary thinking, instruction and political activism. A growing

Creationist movement has been able to check a number of issues advanced by Old Earth and has received widespread acceptability and acclaim in some religious and secular fields of science. However it is virtually impossible for a sound Creation scientist to acquire employment in a research or professorial position at secular institutions of higher education such as colleges and universities. Consequently his efforts are usually confined to institutions supporting Creation research or a woeful handful of worthy Christian colleges and universities that have not surrendered to old earth thinking and still believe that God said what He meant in the book of Genesis, chapters 1-11.

Using dating methods based largely on presumption and presupposition but without absolutes or a firm foundation in good science, Old Earth scientists generally agree that the Earth is about 4.6 billion years old. This is up from 4.5 billion years taught at universities in 1968, even though scarcely 40 years have passed since this figure was presented as “official.” The doctrine of uniformitarianism undergirds Old Earth, stating that the Earth’s surface we see today is the product of change over long time periods, often measured in millions of years. Consequently, Old Earth thinking assumes that if an event, such as the super-eruption dated at 2 million years before present (BP), followed by two later volcanic events 670,000 years apart, means another similar eruption is either due or overdue. Since eruptions have never been observed or recorded over the two million-year time span, the likelihood that one will occur in any given year is poor, or about 1 in 670,000. So if unexpected earthquakes like the December swarm appear from out of nowhere, Old Earth scientists claim it is business as usual at the Yellowstone Caldera and that there is no reason for the media or the public to be alarmed about an impending eruption. Public safety and bottom line interests profit from this Old Earth scenario at Yellowstone because then they have no reason to prepare for a catastrophe that not only could displace millions of people, but crash once and for all America’s shaky financial and economic systems, bankrupting the interests that profit from this business-as-usual foundation and mindset.

Still, Old Earth thinking must be tested on how it stands up to the Word of God. Old Earth scientists mock the idea that the earth is no more than 10,000 years old or, in Biblical terms, about 6,000 years old from the time of the creation of Adam. Worse, Old Earth proponents deny the Creator and usually worship and serve the creation: Romans 1:21-25. The theology of Old Earth is universalist in doctrine and application; hugging trees has replaced protecting unborn children. If living things, including humans, exist by chance or accident through evolution, they have no purpose and therefore no accountability to a higher Being. Rejection of the Creator eventually brings His judgment: Romans 1:18-20. II Peter 3:1-7, Jude 10-18. Old Earth thinkers pride their existence in the ivory tower and do not desire accountability to someone greater than themselves.

**Creation.** A growing number of scientists across the world have reached the conclusion that the Earth is much younger than claimed by Old Earth advocates. Those who follow the Word of God have agreed that everything was created and designed with divine purpose and if God said it, it must be so. Faith in the person of God through Jesus Christ

has opened up many avenues of research previously closed to scientific investigators. Simply taking God at His Word has settled the matter of Creation for this writer.

Opposing the Old Earth doctrine of uniformitarianism is the Creationist doctrine of catastrophism, this is, that the Earth's surface is actually a product of rapid changes over short time periods. One need not go any further than the Mount St. Helens eruption in 1980 to discover why this is so. The eruption itself (Volcano Explosive Index, or VEI 5) and the processes of erosion that followed demonstrated catastrophism in action. Mount St. Helens literally blew uniformitarianism into the stratosphere and forced the scientific community at large to woefully rethink the ever-present possibility of similar catastrophic events at volcanic sites elsewhere. It is no accident that researchers discovered the Yellowstone Caldera magma chamber two years later. Still, the lack of many such catastrophic events in modern times tends to support the mindset of Old Earth that just because a devastating eruption isn't happening right now, it never will as long as the present generation is alive and kicking. Understand that Old Earth proponents have rejected the Creator and the cause of man's sin that brought catastrophic consequences to the entire surface and subsurface of this planet in the first place. By not fearing an eternal Father God that will one day hold them accountable, and by rejecting the Savior Who alone can save them from final judgment, they have virtually assured themselves eternal damnation. How sad: II Thessalonians 1:8, II Peter 3:5-7 and Jude 7.

**THE FUTURE.** Again, no attempt is made here to predict what, when and where the next major catastrophic eruption will take place. Yellowstone is clearly a candidate for not only an eruption greater than St. Helens (VEI 5), but a super-eruption (VEI 8) that could kill millions and place much of the planet into the shadow of a volcanic winter. The entire Cascade Range in the United States has large volcanoes like St. Helens that could erupt with little or no warning. The San Francisco Peaks volcanic field in Arizona that produced Sunset Crater a little over 900 years ago is listed by the USGS as ripe for a future eruption. Meanwhile in a January 14 report from the Southern Hemisphere, the Chilean volcano Chaiten that experienced a Mount St. Helens-type eruption last spring, is rapidly building up a lava dome that, according to one expert, could produce an eruption on par with Tambora (VEI 6+) Indonesia in 1815. The Tambora eruption produced enough atmospheric dust to reduce sunlight and create "the year without a summer" in 1816 New England. Mercury froze in thermometers the following winter (-40°F). This list is not exhaustive, but should require careful thought and planning.

If one of these things erupts, all the talk about old earth, evolution, man-made global warming or climate change, carbon footprints and cap-and-trade will vanish in a Yellowstone minute. Then Al Gore and company will blame the eruption on global warming and run for cover or face the music: Revelation 6:14-17.

Scientists and lay persons do not ensure their salvation by simply having an unopened Bible, going to church, being a Creationist or ascribing to Creation. Salvation comes only by the person, shed blood and bodily Resurrection of the Creator, the Lord Jesus Christ: Romans 10:9-13; I Corinthians 15:1-28. He awaits your decision. Good day.

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