# THE GEOMAGNETIC REVERSAL IS THE ROOT CAUSE OF IT ALL

## (The weakening of Earth's magnetic field as a result of the reversal process is the reason why the poles are warming much faster than the global average)

From time to time, clear observational data come up that entirely expose the wrong foundations of theories which are built on baseless hypothetical notions and pure mathematical modeling. There are so many examples in both geophysics and solar physics where observational data decisively debunk the conventional core theories.

One of the latest observational data that exposes the basic assumptions of a well-known conventional theory is the data regarding the fast warming of the poles. Specifically, it is being observed for more than a decade that the Poles are warming several times faster than the global average. According to, the latest studies the Arctic is warming four times faster than the rest of the planet, while the South Pole is warming three times faster than the global rate https://www.scientificamerican.com/article/the-arctic-is-warming-four-times-faster-than-the-rest-of-the-planet/ https://earth.org/south-pole-is-warming-three-times-faster-than-the-global-rate/

As usual, institutional scientists are coming up with different hypothetical assumptions, in order to insert the observational data to their conventional theory. The latest publication about this issue appeared this month in IOP Publishing's Environmental Research Communications https://iopscience.iop.org/article/10.1088/2515-7620/ac8cd3 and a few years ago a researcher at NASA came up with his own theory explaining why the poles are warming much faster than the global average, https://www.nasa.gov/topics/earth/features/warmingpoles.html

Note that, if you read those research papers, you can easily detect that the researchers are puzzled in spite of their theoretical models and arguments that seem-and only superficially-to support the conventional theory of man-made climate change.

In reality, however, the reasons for the fast warming of the poles are totally different than the assumptions of the conventional theory, and at the same time all those reasons are the consequences of the pole shift (the reversal process of Earth's magnetic field). First of all, it is important to remark that the magnetic field varies in strength over the Earth's surface. It is strongest at the poles and weakest at the equator. And, when the magnetic field of the Earth is not rapidly shifting (stable) the temperature at the poles remains stable for thousands of years, and that is because during this long period of time, the magnetic field remains constantly strong near the poles. In other words, when the field is strong and stable most of the solar-cosmic radiation directed at the poles is deflected, but as soon as the reversal process starts and the field decreases in strength then more and more solar-cosmic radiation reaches those regions. It is assumed, however, in the gravity dominated physics that the higher reflection of solar energy at the poles is due to the so-called **albedo.** The albedo refers to reflectivity of a surface. And it is currently believed that the Polar Regions reflect more solar energy than the regions of lower latitudes because of their high **albedo** (bright white surface).

Actually, the process of **albedo** plays a minor role in the reflection of solar energy at the poles. The strength of the magnetic field contributes to the majority of the reflection rate. In fact, the main reason why the South Pole is colder than the North Pole is because of the strength of its magnetic field, which is stronger than the one of the North Pole. It is worth mentioning that the huge difference in temperature between the two poles cannot only be referred to the high elevation of the South Pole (9000 feet above sea level). The annual average temperature at the North Pole is minus 40 degrees Fahrenheit in winter and 32 F (0 C) in summer. In contrast, the South Pole's averages are far frostier, with an annual average temperature of minus 76 Fahrenheit (minus 60 C) in winter and minus 28.2 C in the summer. That is because the magnetic poles of the Earth are not symmetrical and this is the main reason why there is a big difference in temperature. Also, the asymmetrical of the two poles is the reason why the Auroras in the Southern Hemisphere are different than the ones in the Northern Hemisphere. See, auroras in Northern and Southern Hemispheres are not identical *(Summary: "Researchers*

*present evidence that the auroras in the Northern and the Southern hemispheres can be totally asymmetric. These findings contradict the commonly made assumption of aurora being mirror images of each other").* https://www.sciencedaily.com/releases/2009/07/090723081756.htm

The asymmetric feature of Earth's magnetic field is exactly like in the case of the Sun. Do you know that the temperature of the two poles of the Sun is not identical? See a Cool Solar Mystery https://science.nasa.gov/science-news/science-at-nasa/2007/20feb_coolmystery

The other reason that contributes to the rapid warming of the poles in particular and the climate change of the globe in general, is the shifting of Earth's axis of rotation. It was first observed in the 1990s and it has been accelerating ever since. Now, the weakening of Earth's magnetic field and the wobbling of Earth on its axis as a result of the reversal process has increased where space probes like SWARM can show it in great details.

https://www.esa.int/Applications/Observing_the_Earth/FutureEO/Swarm/Swarm_probes_weakening_of_Earth_s_magnetic_field

Nevertheless, just like all extreme geological events and changes of weather patterns that are currently associated with the Earth and which are blamed for human activities, mainstream science is also blaming the shifting of Earth's axis of rotation for the emission of CO2. One study carried out by researchers at the Institute of Geographic Sciences and Natural Sources Research in China claimed that the melting of glaciers redistributed enough water to cause the direction of polar wander to turn and accelerate eastward during the mid-1990s. S. Deng and follow researchers stated in their per-reviewed paper that "Loss of water on land through ice melting and human-caused factors is changing the movement of the North and South poles. Glacial melting due to global warming is likely the cause of a shift in the movement of the poles" https://scitechc.com/faq/has-the-earth-shifted-on-its-axis/

Sadly, one of the most important facts about the Earth is not fully recognized. Namely, that all energetic events and their intensities on our planet are governed by the rate of solar-cosmic radiation (mainly solar radiation) that reaches its surface and the interior parts. During stable and strong magnetic field, most of the magnetic radiation is blocked by the magnetosphere or more accurately, by the ionosphere which is centered on the Earth's geomagnetic poles. But, during the weakening stages and shifting of the poles, more energy can penetrate our magnetic bubble. And during the acceleration stage of the reversal process the Polar Regions would receive a higher amount of magnetic radiation compared to the period when the field was stable and strong.

The other reason, why the poles are warming faster than the rest of the Earth is the rise of volcanic activity. The volcanoes under the ice in Antarctica have to be considered as a thermal heat source, and in fact, this heat source can be confirmed by modern detection instruments in space and on land. On the other hand, at the North Pole, there is the Gakkel Ridge which extends around 1800 miles from Greenland to Siberia. It is a ridge which is littered with volcanic activity and has uncountable number of hydrothermal vents. Geologists who are not politically-correct consider this ridge as a hotbed of irregular volcanic activity. For instance, just south of the North Pole, there is a supervolcano which was undiscovered until 1999. It is a massive, 80 kilometer long and 40 kilometer wide. It formed during one of the planet's largest explosive eruptions. This depression is called the Gakkel Ridge Caldera and is one of the largest known calderas on the planet, and it is classified as an active volcano. https://www.youtube.com/watch?v=q0_FQeLpXe4 This recent discovery of the Gakkel Ridge Caldera shows just how little current geologists and geophysicists know about the earth's deep oceans and submarine volcanoes. It is direct evidence supporting the arguments present in this article, namely that large volcanic systems are located underwater that have yet to be discovered. Additionally, there are many evidences over the last a few years that show the rise of volcanic activity in the Arctic Ocean as well. See, Scientists Discover Giant Volcanic Eruption in Arctic Ocean. An international team of researchers was able to provide evidence of explosive volcanism in the depths of the ice-covered Arctic

Ocean for the first time. Researchers from an expedition to the Gakkel Ridge, led by the American Woods Hole Oceanographic Institution (WHOI), report in the current issue of the journal Nature that they discovered, with a specially developed camera, extensive layers of volcanic ash on the seafloor, which indicates a gigantic volcanic eruption.)

http://www.longrangeweather.com/ArticleArchives/GiantVolcanicEruption.htm

The increasing activity of those underwater volcanoes is without a doubt, one of the consequences of the geomagnetic reversal process. Note, that according to my geophysical understanding the highest number of underwater volcanoes has to be concentrated close to the Poles. See the links below

"Scottish scientists have detected 91 volcanoes under a massive ice sheet in west Antarctica, potentially revealing one of the largest volcanic regions on Earth. The volcanoes are located in the West Antarctic Rift System, a 2,200-mile valley created by separating tectonic plates. The discovery brings the total number of volcanoes in the area to 138. The heights of the volcanoes range from 300 feet to 12,600 feet, with the tallest as high as Mount Fuji in Japan." https://www.pbs.org/newshour/science/scientists-found-91-volcanoes-under-antarctica, https://volcanofoundation.org/world-largest-volcanic-region-dicovered-antarctica/ Volcanoes erupt beneath Arctic Ice: New evidence deep beneath the Arctic ice suggests a series of underwater volcanoes have erupted in violent explosions in the past decade." https://www.livescience.com/4992-volcanoes-erupt-beneath-arctic-ice.html

However, just two decades ago, earth scientists were thinking that the number of underwater volcanoes cannot be far higher than the number of volcanoes that exist on land. But the number of submarine volcanoes is much, much higher than that. Up to 1990s geophysicists and geologists were assuming that only around 10,000 underwater volcanoes are lurking beneath the seas and oceans. The advocates of man-made climate change were arguing that this number of volcanoes cannot contribute any significant amount of heat to the temperature of the oceans, even if all these volcanoes are active, since oceans cover 71% of our planet. By the middle of last decade, the opinion regarding the number of

submarine volcanoes changed drastically. For instance, Oregon State University (OSU) reported on its website that there may be more than one million underwater volcanoes. "If an estimate of 4,000 volcanoes per million square kilometers on the floor of the Pacific Ocean is extrapolated for all the oceans than there are more than a million submarine (underwater) volcanoes. Most likely as many as 75,000 of these volcanoes rise over half a mile (1 kilometer) above the ocean floor. Technology and hard work by a group of tenacious explorers/geologists have allowed us our first detailed glimpses of submarine volcanoes." **https://volcano.oregonstate.edu/submarine** While other oceanographers estimate that there may be as many as one million volcanoes on the Pacific Ocean floor alone – roughly 750 times the number on dry land. https://www.rmg.co.uk/stories/topics/submarine-volcanoes

Nonetheless, although, the researchers of OSU acknowledged an important fact about our planet that other mainstream institutes did not acknowledge it, they still- in my opinion- intentionally underestimated the impact of these submarine volcanoes on the temperature of the oceans. The problem is in the following quotation "The most productive volcanic systems on Earth are hidden under an average of 8,500 feet (2,600 m) of water. Beneath the oceans a global system of mid-ocean ridges produces an estimated 75% of the annual output of magma. An estimated 0.7 cubic miles (3 cubic kilometers) of lava is erupted. The magma and lava create the edges of new oceanic plates and supply heat and chemicals to some of the Earth's most unusual and rare ecosystems." It is well known fact, that there are around 1500-1511 potentially land volcanoes, with about 500 of them having erupted in historical time. So, how can more than one million submarine volcanoes only release 75% of the amount of lava produced by the potentially active land volcanoes? Absolute nonsense and even if we do not take into consideration that on average land volcano is smaller compared with submarine volcano. This is yet, another example that shows how institutional researchers have to be politically correct no matter what scientific data they have in hands. In fact, what surprised me the most is that even after NASA was persuaded to admit that there might be one million submarine volcanoes, man-made climate change advocates of man-made climate change never wavered? Moreover, the

advocates of global warming theory are saying even if 30% of this huge number of underwater are active, it is still not sufficient to have any impact on the temperature of the oceans. In reality of course, if only fraction of these volcanoes are active they would induce massive amounts of heat and CO2 into the world's oceans.

Nonetheless, the estimated number of underwater volcanoes continued to rise. Timothy Casey, consulting geologist argued in his paper that three million underwater volcanoes “can’t be wrong” His paper was published on June 15, 2014 in Principia Scientific International, titled, Volcanic Carbon Dioxide. Timothy Casey stated in his paper that most estimates of volcanogenic carbon dioxide emission are woefully low. "An enormous and unmeasured amount of carbon dioxide de-gases from volcanoes, mostly submarine. Lava contains a surprising amount of carbon dioxide. In fact, CO2 is the second most abundantly emitted volcanic gas next to steam." Unfortunately, some researchers dismiss not only mid-oceanic-ridge emissions, but all other forms of submarine volcanism altogether, which is a major oversight." Moreover, according to one study, Pacific mid-plate seamounts number between 22,000 and 55,000, of which 2,000 are active volcanoes. And one researcher even dismisses those few, justifying the omission by claiming that mid oceanic ridges discharge less CO2 than is consumed by hydrothermal carbonate systems. However, Casey pointed out, that after surveying 201,055 submarine volcanoes, Hillier & Watts estimated that more than 3 millions submarine volcanoes exist worldwide, of which, Casey estimated, 140,000 are active.

Anyway, the above estimation concerning the number of underwater volcanoes is not the end of the story. Fisher and Wheat believe that the number of hydrothermally active seamounts at somewhere between 100,000 and 10,000,000. Most of these seamounts are huge, as many as a million of them have diameters bigger than 7 km and stand more than 2 km high. The two researchers also stated that a significant number of the seamounts already surveyed appear to be hydrothermally active. Seamounts are undersea mountains formed by volcanic activity were once thought to be little more than hazards to submarine

navigation. Today, scientists recognize these structures as biological hotspots that support a dazzling array of marine life.

Furthermore, Fisher and Wheat estimated that another 1 to 10 million smaller hydrothermal features may dot the ocean floor. Those “smaller hydrothermal features” stand some 100 meters high. You can read the whole paper of Fisher and Wheat, entitled, “Seamounts as Conduits for Massive Fluid, Heat, and Solute Fluxes on Ridge Flanks.” At the following link FisherWheat2010_SeamountFluxes.pdf (ucsc.edu)

Many people, including well known earth scientists would view the above predicted number of underwater volcanoes, seamounts and hydrothermal features as an exaggeration, but not in my understanding. In fact, the number has to be much higher and also the concentration of underwater volcanoes close to the Polar Regions must be huge, due to the geophysical property of the Earth. The Earth's interior is feed continuously with external energy and without releasing the excess energy supply the Earth would have blown up billions of years ago. At the same time, if the Earth's inner core does not receive external supply of energy, it would have been dead-cold also billions of years ago and the Earth as a whole would have stopped spinning.

Actually, one can roughly estimate the amount of energy and volcanic materials released as results of earthquakes and volcanic eruptions ever since earth was formed. So, with all those hot materials and energy thrown into the surface and the atmosphere over billions of years how can the temperature of the core remain to be hotter than the surface of the sun? In fact, my argument is valid even if one accepts the notion that half of the heat at the earth's core comes from the decay of radioactive elements, which is of course not true at all since the tiny amounts of radioactive elements are located in the crust, while the core is composed of an iron-nickel alloy.

In addition to the above reasons, the external energy supply is required to maintain the internal magnetic field. Also, the rate of the external energy supply is the determining factor in the reversal of the geomagnetic field. Note, that the

core shifts its direction of the spin when the geomagnetic field reverses its polarity. However, the Earth‘s magnetic field is made up of two main parts; internal and external. The internal part comes from two sources; the Earth‘s lithosphere (magnetized rocks forming the crust and the mantle), while the second source - the dominant one – is the liquid outer core. On the other hand, the external part comes from the plasma currents flowing in the radiation belts (ionosphere and magnetosphere). As a result of the interactions between the Sun‘s magnetic field (magnetized plasma flowing from the Sun) and the geomagnetic field, time-varying magnetic fields are generated. These time-varying magnetic fields in the upper layers (magnetosphere and ionosphere) generate time-varying plasma currents in the crust, mantle and the interior of the Earth (electromagnetically induced fields). The more intense the time-varying magnetic fields in the ionosphere and magnetosphere, the higher is the intensity of the induced plasma current and the deeper is the penetration to the layers of the Earth.

In other words, an intense magnetic radiation induced in the upper layers of the atmosphere mean a deeper penetration inside the Earth and consequently, higher thermal activity. All dynamic activities inside the Earth, whether in the crust and upper mantle or in the interior, depend on thermal activity and its distribution. The Earth‘s magnetic field varies on different timescales, and the most important variation is the one that results in field polarity reversals. Thus, it is obvious that the time-varying external fields are the main factors in the changes that take place in the main geomagnetic field. The electromagnetic radiation induced in the outer layers is the energy supply that keeps the geomagnetic dynamo process functioning. The dynamo process behaves like a magnetic induction coil that allows energy to be produced by electromagnetic induction. When the Earth‘s molten layer (iron and nickel), which make up the outer core, experiencing magnetic stress as a result of magnetic field interactions, this causes a current to flow inside the layer. This current induces its own magnetic field, which is stronger than the field that generated it in the first place. As the molten metal goes through the stronger field, more current is induced that increases the field even further. Nevertheless, this geomagnetic dynamo process needs energy

to keep it running. It takes enormous amount of energy to produce and sustain the magnetic field inside the Earth. Thus, the magnetic field cannot exist at all if the dynamo does not receive an external energy supply. The system cannot sustain itself by using fuel from the Earth‘s core. Huge amount of currents - in the range of billions of Amps - go into and out of the inner core. Those currents are what power the Earth‘s internal magnetic field and cause the Earth to spin. Basically the inner core rotates because it is part of a vast electric circuit connected to the Sun. For more details see my previous article at https://www.gsjournal.net/Science-Journals/Research%20Papers-Climate%20Studies/Download/7186

Finally, I would like to remain you, science lover that I expect a fierce verbal attack on me personally because of this short article, but, I have never wavered or retreated and never will. I am dedicating all my time and energy to show humanity and every honest scientist, why the Sun is misunderstood. And, I will come up with a massive and comprehensive research work that explains in a detailed scientific manner, why our star was misunderstood by all the leading scientists of the 20$^{th}$ century and why it is still misunderstood in our own time. At the same time, however, this comprehensive research work will reveal the physics facts of the Sun and how to reproduce its true nuclear fusion reaction under laboratory conditions. The replication of the true fusion reaction that takes place in the Sun does not require reactor that cost trillions of Dollars, but it can be replicated in a Lab-Scale reactor.

**The Sun that gives us life, can also solve the biggest crises facing us, including the current energy crisis. More importantly, a bright future for humanity is completely out of the question without understanding the physics facts of our star and its real correlation with our planet.**

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