

The Earth's magnetic field is about to reverse the polarity?

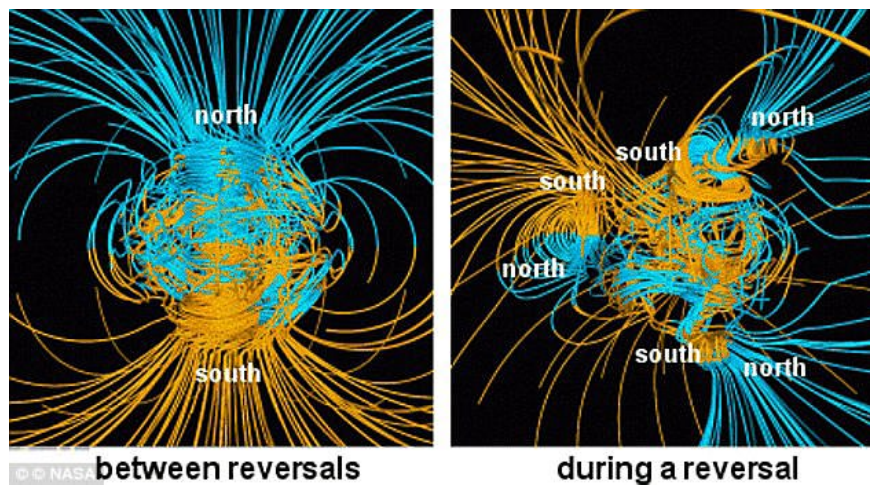
Earth's magnetic pole island will cause many harms to people, even many people consider it Earth's End of the World.

The magnetic field is an invisible force field that surrounds the Earth, reflecting charged particles back into space to protect us from harmful radiation from the Sun. Earth's magnetic pole island will cause many harms to humans, even many consider it Earth's "Apocalypse".

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What is Earth's magnetic pole island?

The Earth's magnetic field is produced by the core layer of molten iron and nickel. Its temperature at the Earth's core is approximately the surface of the Sun, 5.700 degrees Celsius.



The reversal process will cause the South and North extreme positions to change.(Photo NASA.)

In fact, the Earth's magnetic field is constantly changing and in history there have been several times that two poles have reversed, the South Pole has changed into the North Pole and vice versa.

41,000 years ago, at the end of the Ice Age, the Earth's magnetic pole polarity occurred for several hundred years. Then, if there is a compass, its needle will be reversed in the direction!

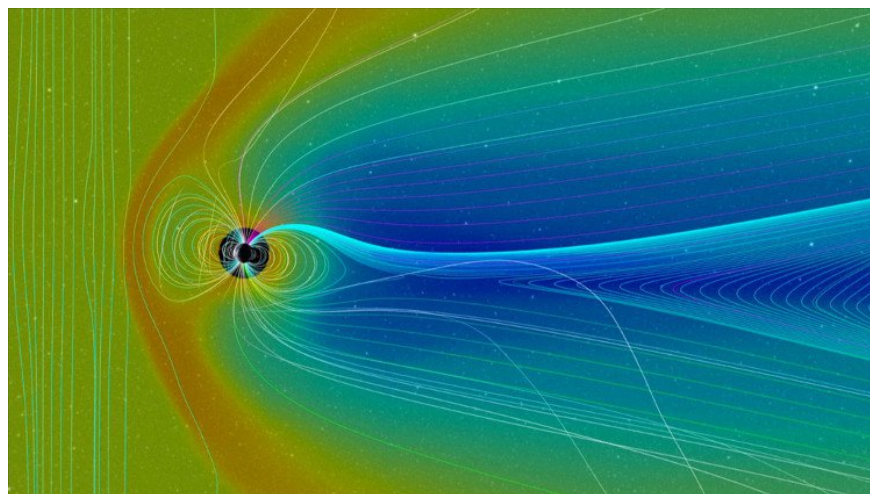
According to recent research by scientists, Earth's magnetic polarity reversal could be recurring, the main cause of which is a giant lava "tube" located above the North Pole of the Earth. Inside this lava tube contains molten solid droplets that move cyclically, causing the Earth's magnetic field to change, even to the extreme.



Lava tube with molten spheres moves up and down.(Artwork: Shutterstock / mikedray.)

Paula Koelemeijer, Global Seismology researcher (Global Seismology) works at Oxford University, England when studying signals from large earthquakes, specifically the shape and speed of seismic waves discovered. The Earth's magnetic field is changing

The polarity process will take place when the magnetic field at the two poles of the Earth weakens and interchanges, then the magnetic field will strengthen again when the process ends. In this process, the Earth will be "weakest" because there is no magnetic field strong enough to prevent solar storms from entering the atmosphere.



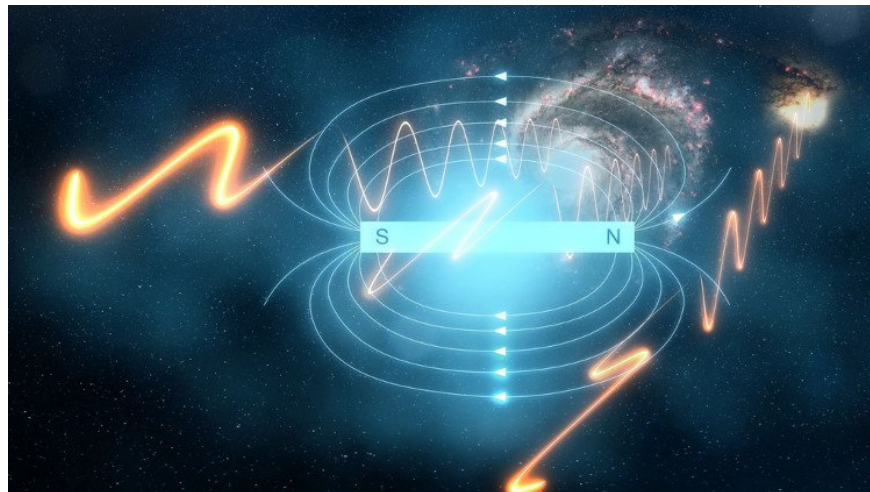
About a few million years or tens of millions of years, the Earth's magnetic field will be reversed once and its abnormality is something that our scientific level is still unpredictable.

Many experts predict that the Earth will reverse again in the next 2000 years.

So what will the Earth's magnetic pole island affect us?

Earth's magnetic pole island will affect human activity, especially the communication system will be devastated, the economy and many other areas are also affected.

First, the change in the Earth's magnetic field will cause the radiation level of sunlight to fall below the surface of the Earth. High levels of charged particles reaching the Earth could affect the operation of satellites, the aviation industry and underground electrical infrastructure. When the Earth's magnetic field weakens, it can cause storms from the field.



The magnetic field will be about 10% weaker than normal when the polarity phenomenon occurs.

Halloween, a magnetic storm that occurred in 2002 that caused widespread power outages in Sweden, flights had to change directions to avoid the risk of losing contact and radiation exposure, satellite systems and many systems. Other contact information is broken. However, scientists have not been able to accurately estimate the impact of a large-scale storm on today's electronic infrastructures.

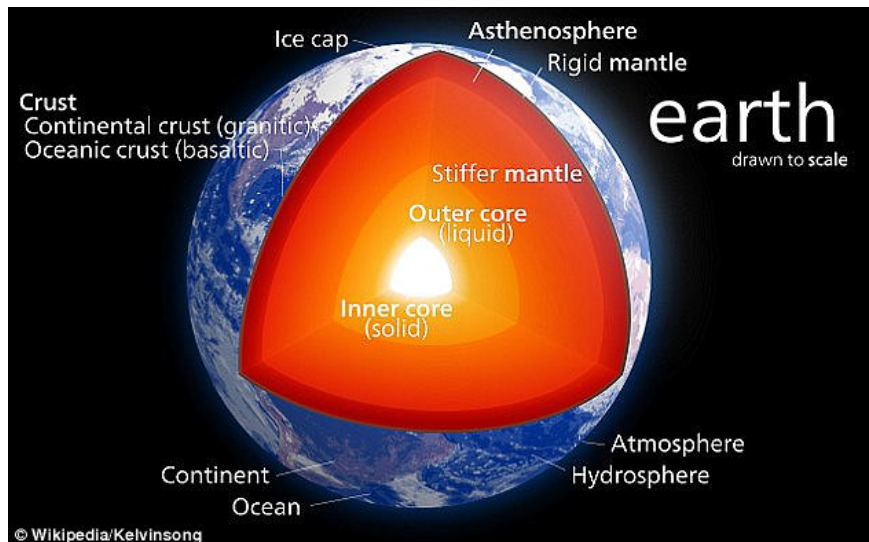
But human life will be greatly affected if there is no electricity, no Internet, no air conditioning, no heating, no GPS, even the economy will suffer heavy losses.

Since the last magnetic field reversal occurred, humans have not yet appeared on Earth, so scientists cannot predict anything about the extent of its impact on nature and humans.

Can we predict polarity?

According to scientists predict, the magnetic field will island over the next 2000 years. But they have not been able to predict when exactly that event will take place.

Because the Earth's magnetic field is made up of a molten iron core inside the Earth, we can monitor the motion of the iron core to predict its behavior similar to how the atmosphere and atmosphere are observed positive for weather forecast.



Structure inside the Earth.(Photo of Kelvinsong.)

But the Earth's core, which is 3,000 kilometers deep beneath dozens of layers of rocky soil, makes tracking its activity very difficult and can only be carried out indirectly.

Currently, we can understand somewhat the movement of the core by measuring the degree of change of the magnetic field thanks to a network of global observatories and satellite systems orbiting the Earth.

In 2000 years, this phenomenon happened. We can fully believe that people will predict the time of magnetic field reversal in the future thanks to the rapid development of predictive models and experiments of kinetic dynamics. liquid inside the planet.

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