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# Will Geomagnetic Pole Reversal Effects Cause a Worldwide Blackout?

BY [KELLY MCSWEENEY](#) | JUN. 27, 2020

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Geomagnetic pole reversal effects are natural and spectacular, but they could also destroy the world as we know it.

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# What is an Electromagnetic Field?

While magnetism is fascinating, it has also been historically misunderstood. According to [Physics.org](#), Earth's magnetic field exists because the planet's solid iron core is surrounded by liquid metal.

According to [NASA](#), the flow of liquid iron in Earth's core creates electric currents that generate the magnetic field. This electromagnetic field provides an invisible shield that blocks solar and cosmic rays.

## Flip-flopping Poles

Earth's magnetic poles have reversed many times in the past, but scientists can't predict when the next reversal will occur. In other words, a magnetic field flip is coming, we just don't know when.

To find evidence of the magnetic past, scientists examine ancient rocks. Certain minerals in lava flows are sensitive to Earth's magnetic field as the lava cools; scientists analyze the rock samples to uncover a record of Earth's magnetic field, according to [National Geographic](#).

[Scientific American](#) noted that in the past 200 million years, reversals

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