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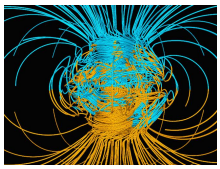
Earth's Poles Are Shifting to New Coordinates

Lava flows underneath the planet's crust show reasons for polar shift



Earth's enormous amount of magnetic lines
National Geographic

Recent researches in our planet's lava flows seem to indicate that the North Pole is becoming weaker and weaker, as the magnetic field Earth generates is decreasing in intensity. According to the September 26 issue of the journal "Science," secondary magnetic sources, other than the constant, turbulent flow of molten iron and rock beneath the ground, exist under the crust. Apparently, they can, at times, influence the magnetic field generated by our planet's poles, usually when the main "generators" are dwindling. Such seems to be the case in recent times, as Brad Singer, a geology professor at the University of Wisconsin-Madison, has discovered that the streaming, molten iron core, which generates most of Earth's magnetic field capabilities, is currently becoming slower and weaker in its output. Apparently, Earth goes through this cycle at various intervals. The last all-time low registered by geologists was about 780,000 years ago, when the North and the South poles came dangerously close to shifting. According to paleomagnetist Kenneth Hoffman, hardened lava from eruption sites in Germany and Tahiti may show us how Earth's magnetic field looked at various times throughout history. When molten rock swirls underneath Earth's crust, it orients metal particles inside towards certain stream lines, which determine the orientation of the magnetic lines, Hoffman explains. This means that, even after lava erupts and hardens, it still retains a sort of "memory" of its orientation while inside the crust. Hoffman and Singer are currently trying to find out ways of determining when and how polar shift occurs. This is very important, because such a shift will have devastating effects on life as we know it. Communication breakdowns and ice ages are just two of the many catastrophic effects we should expect.

While analyzing the sites in Germany and Tahiti, geologists uncovered that, when the poles are weak, there is great potential for extreme anomalies on the globe, including massive storms, hurricanes, very high or subzero temperatures and so on. Though the next low in magnetic activities is still about 1,500 years away, scientists aim at being able to predict when a polar shift occurs and the possible implications it might have for humankind.