The Magnetic Solar System

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Abstract

The earth is a self-sustaining magnetic geodynamo that generates a magnetic field, it extends into space protecting the earth from harmful radiation and magnetic pollutants. This geodynamo is generated deep inside the core of the earth by passing iron and magnetic materials past magnetic field lines generating an electric current. Although this magnetic field is self- generated, the magnetosphere is affected by forces outside of the earth's atmosphere. Many different heat and magnetic stresses influence the direction of the magnetic field causing it to weaken, strengthen, or even shift direction. The most catastrophic and puzzling event, however, is the complete reversal of the earth's magnetic poles. The earth's magnetic field reverses every 200,000 to 300,000 years, this magnetic cycle impacts all life forms, land formation, and glacier melting. Polar direction is captured in ancient volcanic lava flows which reveal the magnetic cycle of the earth and its affects. This investigation explores the world outside of the earth's magnetic cocoon to discover how the sun, solar winds, and other planetary bodies influences the earth's constantly changing magnetic field. Research is also conducted using magnetite rocks from the Cranberry Iron Mine and other volcanic and magnetic materials to find the magnetic polarity of the earth at the time of its creation. Hypothesis are also made concerning when the next polar reversal will occur and the effects it will have. The result of this study provides evidence that the sun drives the magnetic reversals of the earth as well as the entire solar system.