Volcanic blast influences climate

August 12 2005

The volcanic ash cloud created by a volcanic blast can alter interactions between the atmosphere and sun, affecting climate patterns, say U.S. scientists.

A Sept. 21, 2003, image captured by the Moderate Resolution Imaging Spectroradiometer on NASA's Terra satellite showed a cloud of volcanic ash over Kodiak Island, Alaska -- created by strong winds that picked up old, loose volcanic ash, according to researchers at the Rutgers University's Department of Environmental Sciences, New Brunswick, N.J.

If the volcanic eruption is strong enough it will inject material into the stratosphere, more than 10 miles above the Earth's surface, and these tiny particles called aerosols form when the volcano's sulfur dioxide combines with water vapor.

The aerosols work to alter interactions between the atmosphere and sun, affecting climate patterns.

Research shows location is also important, as major volcanic eruptions far north of the equator affect the world's climate much differently than volcanoes in the tropics, according to a statement by the National Aeronautics and Space Administration.

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Citation: Volcanic blast influences climate (2005, August 12) retrieved 27 April 2024 from https://phys.org/news/2005-08-volcanic-blast-climate.html

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