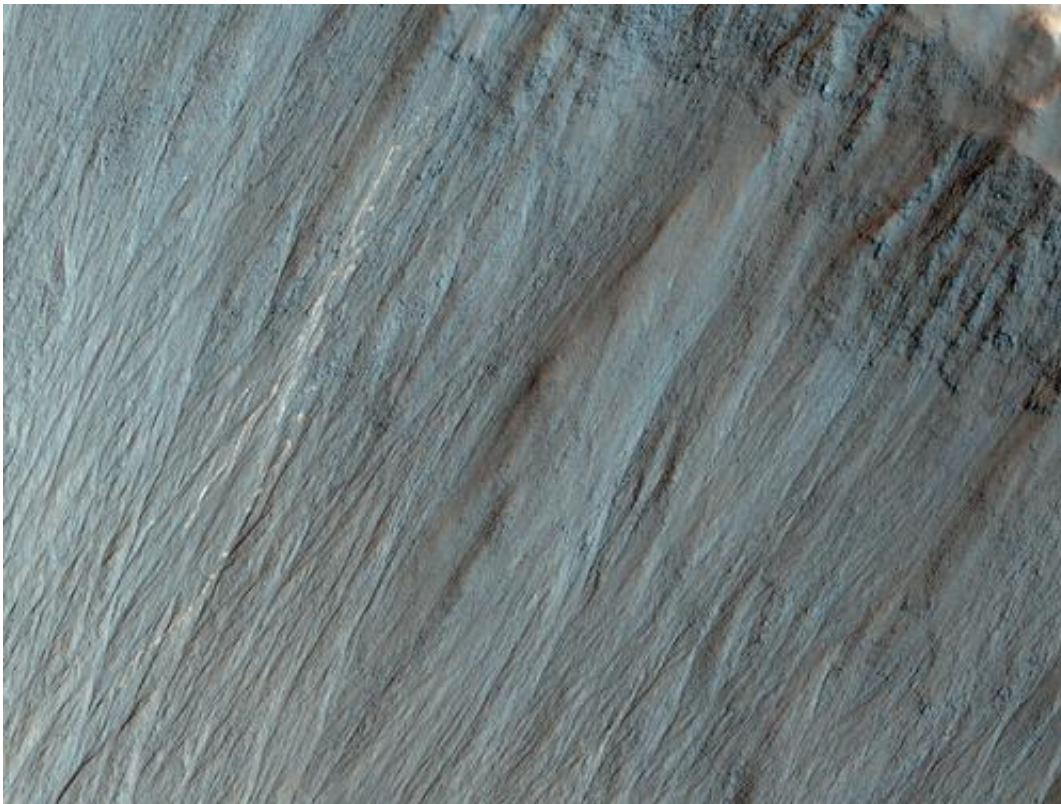


Tell-tale evidence of bouncing boulders on Mars

April 11 2013, by Nancy Atkinson



A closeup of an impact crater shows distinctive bright lines and spots on the steep slope, indicating bouncing boulders have fallen down the incline. Credit: NASA/JPL/University of Arizona.

What are the types of things that happen on Mars when we're not looking? Some things we'll never know, but scientists with the HiRISE camera on the Mars Reconnaissance Orbiter have seen evidence of

bouncing boulders. They haven't actually captured boulders in the act of rolling and bouncing down the steep slope of an impact crater (but they have captured avalanches while they were happening!)

Instead, they see distinctive bright lines and spots on the side of a crater, and these patterns weren't there the last time HiRISE imaged this crater 5 years ago (2.6 Mars years ago), in March 2008.

"The discontinuous bright spots indicate bouncing, so we interpret these features as due to boulders bouncing and rolling down the slope," said HiRISE principal investigator Alfred McEwen, writing on the [HiRISE website](#).

Where did the boulders come from?

"Maybe they fell off of the steep upper cliffs of the crater, although we don't see any new bright features there that point to the source," McEwen said. "Maybe the rocks were ejecta from a new [impact event](#) somewhere nearby."

The trails are quite bright, and McEwen said that perhaps the shallow subsurface soil here is generally brighter than the [surface soil](#), just like part of Gusev Crater, as the [Spirit rover](#) found. McEwen added that the brightness can't be from ice because this is a warm equator-facing slope seen in the summer.

Source: [Universe Today](#)

Citation: Tell-tale evidence of bouncing boulders on Mars (2013, April 11) retrieved 2 July 2024 from <https://phys.org/news/2013-04-tell-tale-evidence-boulders-mars.html>

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