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An artist's rendering of Phoenix touching down on Mars NASA

[Phoenix Finds Signs of Clouds and Snowfall on Mars](#)

The find could recreate the planet's water circuit

Whenever people think of the Red Planet, what usually jumps to mind are the arid, barren and sandy landscapes that have been widely circulated over the years in NASA images. But the reality of the Martian surface is a bit different than widely believed, a fact that was evidenced by the last readings sent back by the Phoenix Mars Lander mission, which surveyed the arctic Vastitas Borealis plains on the planet last year for about five months. In its pictures and videos, the probe showed crystals of ice falling to the ground, in what by all accounts and purposes was snow.

The find could have important consequences towards understanding the circuit of water on Mars, which could in turn help explain why the planet is as dry as it is today. Skilled scientists could also gain new knowledge into the past and present action of water, ice, or water-ice on the surface of the Red Planet, and could also offer possible explanations as to why the place went dry, and where all the water went when that happened.

A new study detailing this occurrence, a part of a four-paper group of investigations, appears in the July 2nd online edition of the journal *Science*, published ahead of print, *Space* informs. The scientific readings that led to this conclusion were all accumulated by Phoenix, whose mission on Mars was to dig up some dirt - so as to assess whether water-ice existed under the Martian surface - and then analyze the climate conditions surrounding its drop zone. It was during this mission that it noticed the "ice fog," formations that are somewhat similar in composition and purpose to clouds back on Earth.

The lander used its LIDAR (light detection and ranging) instrument for gaining a deeper insight into the clouds, by splattering them with rapid pulses of amplified light. The lead scientist for Phoenix's meteorological instruments, expert James Whiteway from the York University, in Canada, then determined that the ice fog was similar in composition to the cirrus clouds that appeared on Earth over the polar regions in the winter season. "The thin, wispy clouds up there have a similar water content," he told [Space](#).