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Phoenix has ultimately succumbed to Martian winter
NASA / JPL / University of Arizona

Phoenix Is Now Flat-Lined

The long-lasting Mars lander has ultimately succumbed to Martian winter

It seems that for the Phoenix Lander, the spacecraft many have come to be attached to, the end is indeed nigh. Technicians lost contact with the craft on November 2nd, but hoped to be able to resume communication with the lander. But it appears that this is no longer possible, since the Sun does not provide enough energy for the craft to stay alive anymore.

It "was the last time we actually heard form Phoenix," explained Barry Goldstein, the Phoenix project manager from NASA's Jet Propulsion Laboratory in Pasadena, California, quoted by **Space**. "At this time we're pretty convinced that the vehicle is no longer available for us to use. We knew this would happen eventually," he added. Phoenix landed on the northern plains of a Martian area called Vastitas Borealis, which, compared to a position on the Earth, would be situated approximately in the region of Alaska. During a $475 million mission which lasted over two more months than scheduled (and cost only $55 million more for about a double length), Phoenix confirmed the presence of water ice (and snow) just beneath the Martian surface and indicated the existence of perchlorate (a possible bed for past life). It also found that the soil in that zone was more alkaline than the one from the regions explored by the two Mars rovers, Opportunity and Spirit, and provided a huge amount of data that is not analyzed yet, largely improving scientific knowledge of our closest neighbor besides the Moon. "NASA's gotten what they wanted out of this mission," admitted Doug McCuistion, the director of the Mars Exploration Program at NASA Headquarters in Washington, D.C., although the lander's "demise is a little earlier than we'd hoped". "Phoenix has given us some surprises, and I'm confident we will be pulling more gems from this trove of data for years to come," also shared Phoenix Principal Investigator Peter Smith of the University of Arizona in Tucson, adding that the project was "definitely the thrill of my life".

Unfortunately, the last sequence of tasks that was scheduled to be uploaded into Phoenix's computer and performed before the probe froze to death had to be canceled due to the somewhat unexpected demise of the device. The next period of time when the lander could receive enough energy from the Sun in order to come alive once more is only October 2009, but none of the researchers believe that the craft will be able to stay true to the legend of its name, given the extremely low temperatures and the carbon dioxide ice it will have to face. Still, as Goldstein believes, it remains a tiny "hope that the vehicle will surprise us again". Who knows, perhaps next year, the probe will be able to make breakthrough discoveries and tests. For more information, please check out the related articles below.