

Named for Roman god of war, Mars isn't very kind to visitors

November 23 2018, by Marcia Dunn



This undated photo shows NASA's Viking lander in a Mars simulation laboratory. The two cylinders on the top of the Lander are survey cameras, and below the right hand camera is one of 3 rocket motors used during the final soft landing on Mars. Viking 1 was launched on Aug. 20, 1975 and arrived at Mars on June 19, 1976. Viking 2 was launched Sept. 9, 1975 and entered Mars orbit on Aug. 7, 1976. The twin Vikings were the first successful landers on Mars from planet Earth. (AP Photo)

Mars has a nasty habit of living up to its mythological name and besting Earth when it comes to accepting visitors.

NASA's InSight is the latest spacecraft to come calling, with every intent of landing and digging deeper into the planet than anything that's come before. The lander arrives at Mars on Monday following a six-month journey.

"We've had a number of successful landings in a row now. But you never know what Mars will throw at you," said Rob Grover, lead engineer for the landing team at NASA's Jet Propulsion Laboratory.

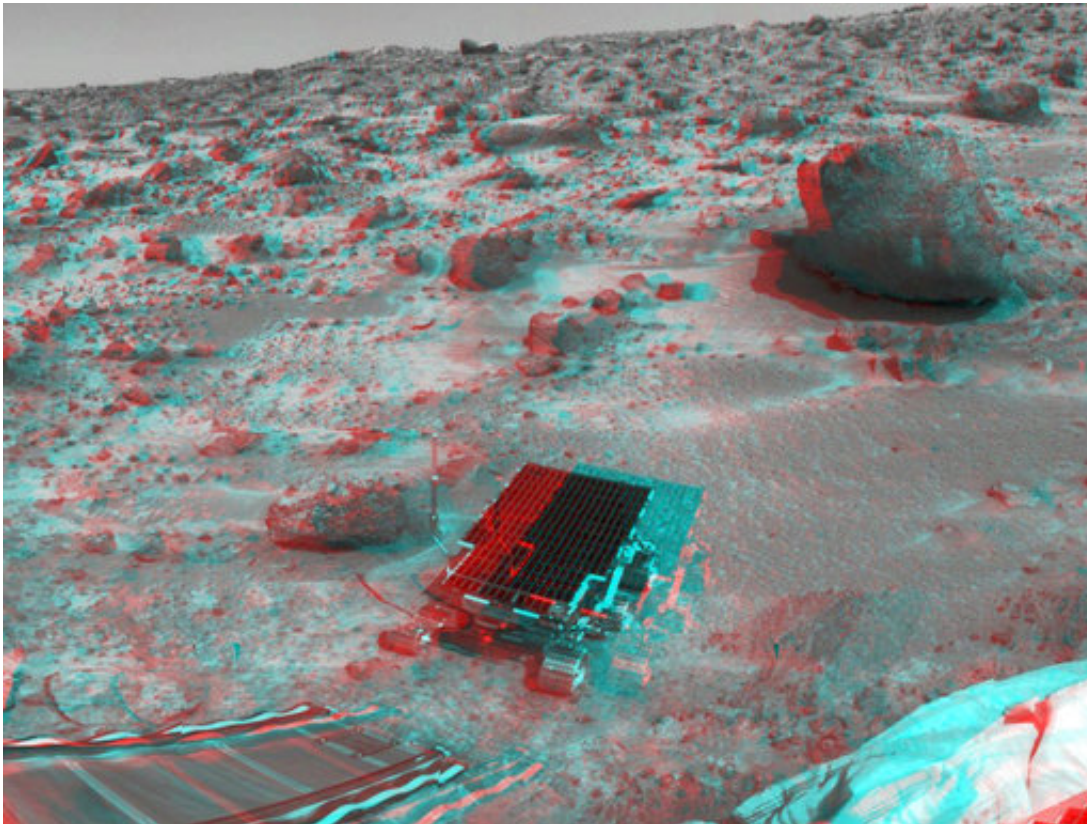
Landing on Mars is always risky, Grover and other experts stress at every opportunity.

"Our job on the landing team is to be paranoid about what could go wrong and make sure that we're doing everything we can to make sure things go right," he said,

The numbers back him up. Only about 40 percent of all missions to Mars—named after the Roman god of war—have succeeded.

"Going to Mars is really, really hard," NASA's top science mission official, Thomas Zurbuchen, told reporters earlier this week. "As humanity, the explorers all over the world, we're batting about 50 percent—or less."

The United States is the only country to successfully operate a spacecraft on the Martian surface. InSight represents NASA's ninth attempt to put a spacecraft on Mars; only one effort failed.



This is the twelfth picture in a series of twenty-two that comprise the three-dimensional panorama of the planet Mars as seen from the Mars Pathfinder in this image released by NASA on Friday, July 11, 1997. NASA's InSight arrives at Mars on Monday, Nov. 26 following a six-month journey. (AP Photo/JPL)

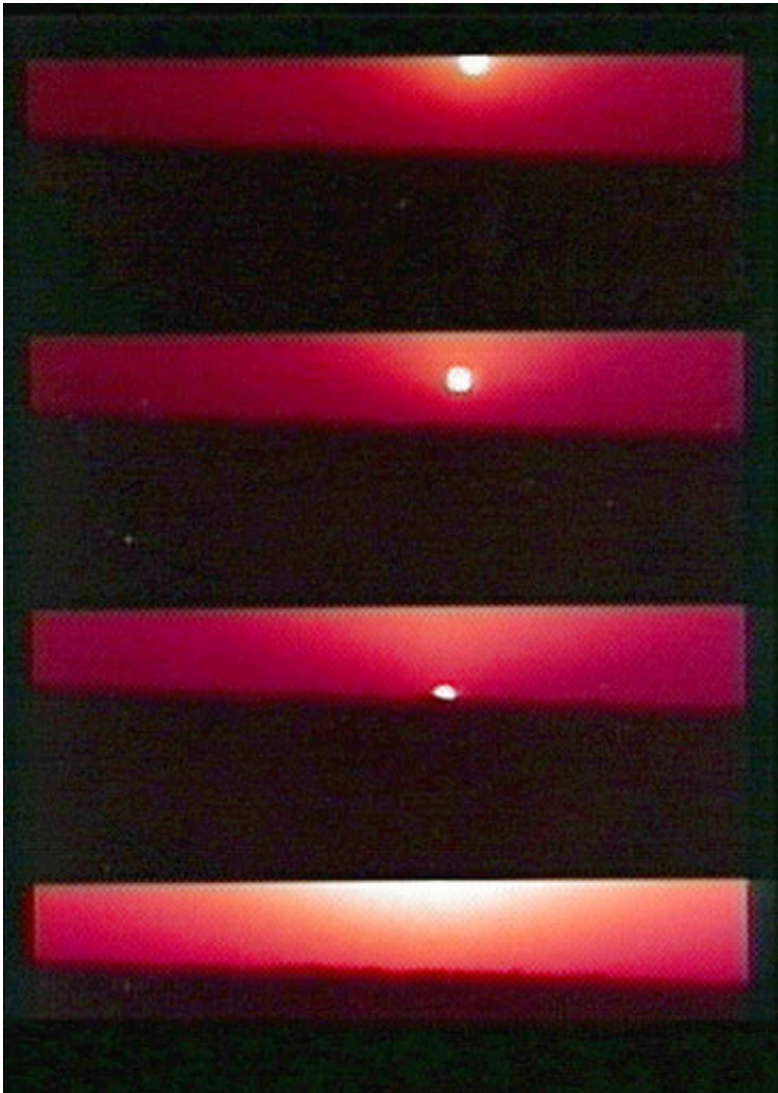
The last one—NASA's Curiosity rover—is still on the move after six years, with more than 12 miles (20 kilometers) on its odometer. The [space agency](#)'s older, smaller Opportunity was roaming around up there until June, when a global dust storm knocked it out of service. Flight controllers haven't given up hope yet that it will be revived.

Humanity's nearly 60-year history of trying to get to Mars includes attempts to fly past the red planet for picture-taking without stopping, as well as the vastly more complicated efforts to put spacecraft into orbit around the red planet and to actually land.

NASA's Mariner 4 performed the first successful flyby of the red planet in 1965, sending back 21 photos.

Mariner 9 made it into orbit around Mars and beamed back more than 7,000 photos.

And NASA's Vikings 1 and 2 not only put spacecraft into orbit around Mars in 1976, but on the surface, too. The twin Vikings were the first successful landers on Mars from planet Earth.



This combination of Thursday, July 31, 1997 color-enhanced images made available by NASA shows the sunrise on the planet Mars, taken by the Mars Pathfinder. (AP Photo/NASA TV)

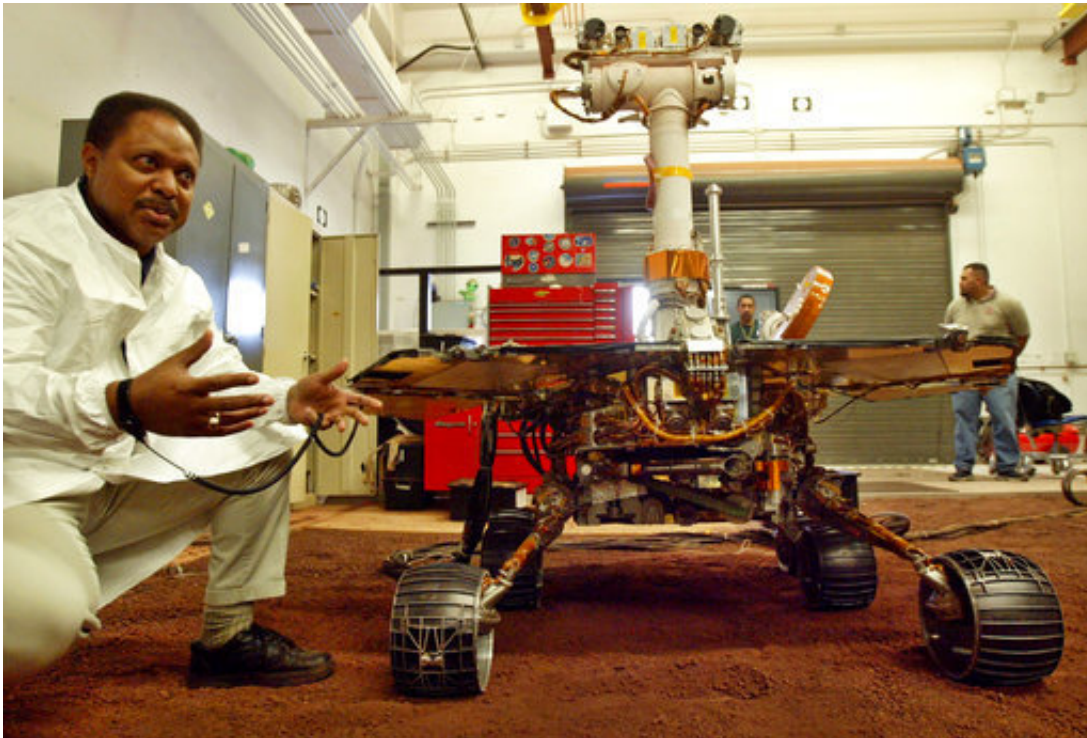
The 1990s weren't as kind for NASA. A humiliating English-metric conversion screw-up doomed the Mars Observer in 1993. Another U.S. orbiter later was lost, as well as a lander and two accompanying probes meant to penetrate the surface.

Despite decades of trying, Russia, in particular, has had lousy luck at Mars.

The then Soviet Union was the first to attempt a flyby of Mars, in 1960. The spacecraft never reached Earth orbit. After more launch failures and flight mishaps, the Soviets finally got a pair of spacecraft into Mars orbit in 1971 and got back real data. But the companion landers were a total bust.

And so it's gone for the Soviets/Russians through their most recent attempt with China in 2011. The daunting goal was to land a spacecraft on Mars' moon Phobos to collect and return samples, and to put a second spacecraft into orbit around Mars. Neither made it out of Earth orbit.

Europe also has been snake-bitten at Mars, as has Japan.



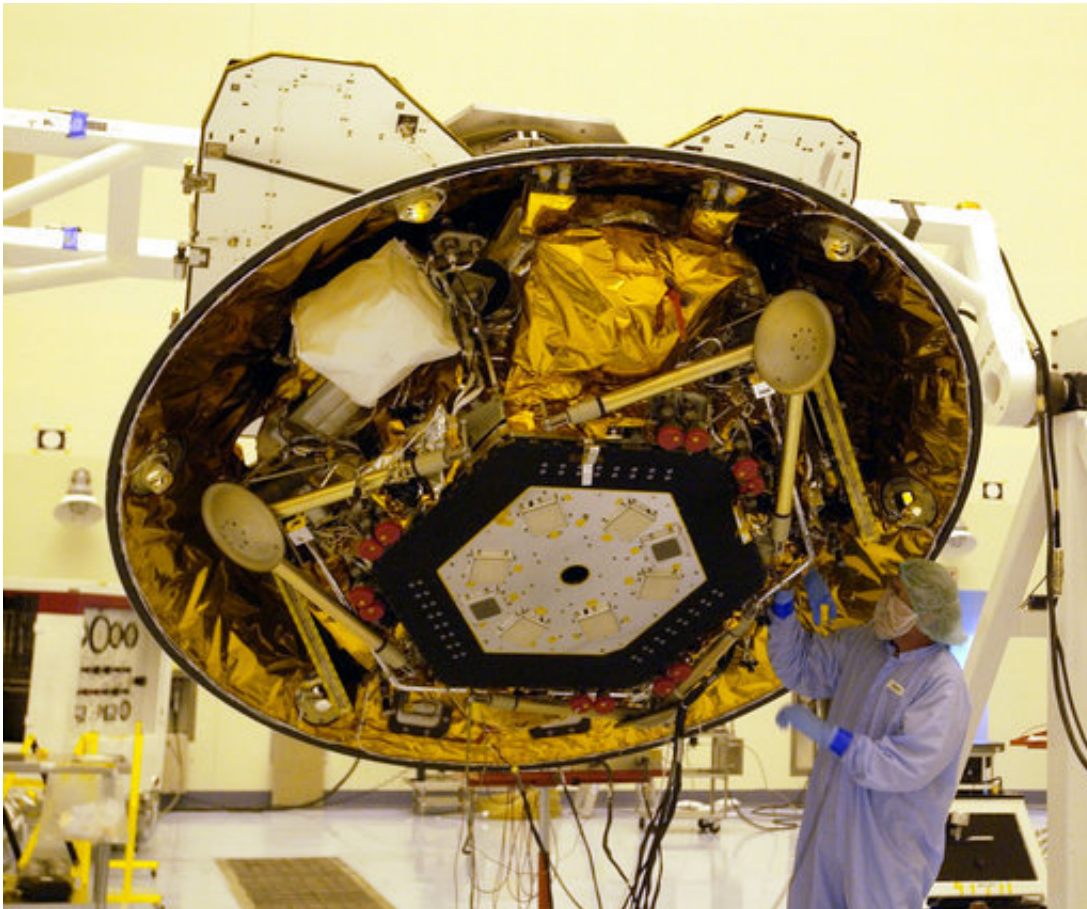
In this Feb. 4, 2004 file photo, Edward Tunstel Jr., left, a mobility engineer, briefs a reporter about the capability of the Mars rovers Spirit and Opportunity using this full-scale working version, at NASA's Jet Propulsion Laboratory, in Pasadena, Calif. Mars has a nasty habit of living up to its mythological name and besting Earth when it comes to accepting visitors. NASA's InSight is the latest spacecraft to come calling, with every intent of landing and digging deeper into the planet than anything that's come before. The lander arrives at Mars on Monday, Nov. 26 following a six-month journey.(AP Photo/Ric Francis, File)

While the European Space Agency has satellites working around Mars, both of its landing attempts have flopped. Just two years ago, its lander hit the surface so fast, it dug out a crater. Japan's sole Mars [spacecraft](#), launched in 1998, didn't make it into orbit.

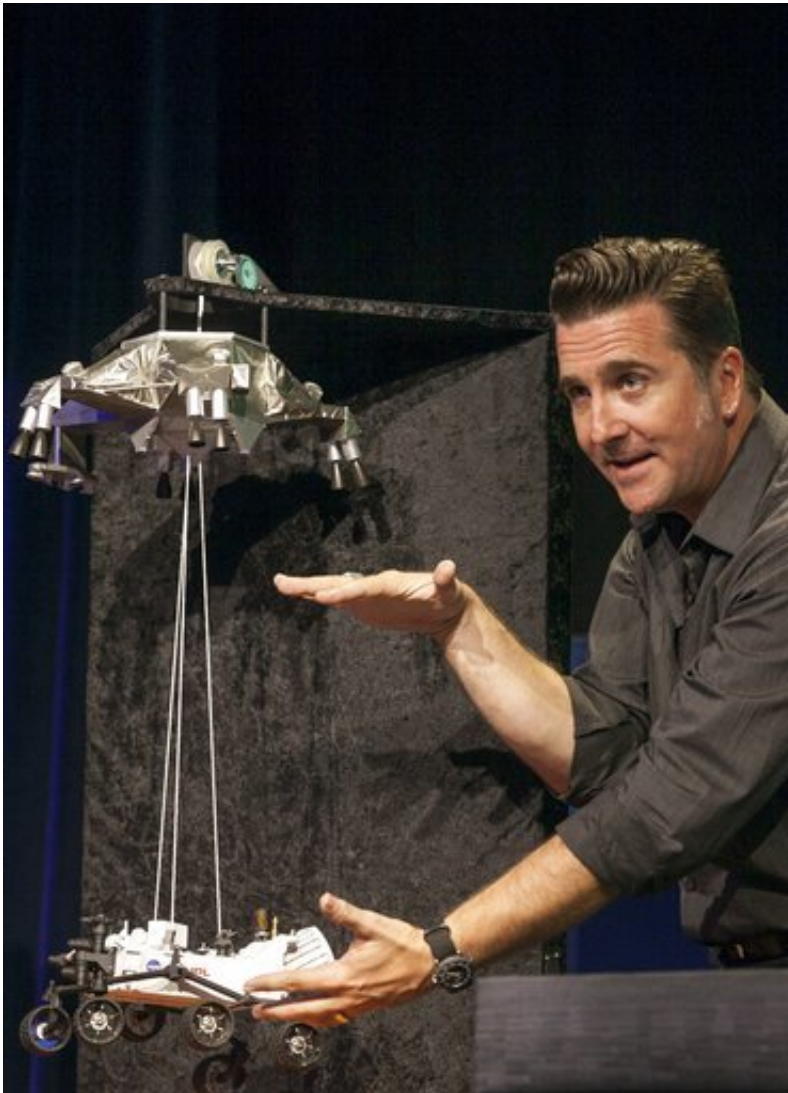
India, meanwhile, has been operating a satellite around Mars for four years, its first and only shot at the red planet.

There's a heavy European presence on NASA's InSight. Germany is in charge of the mechanical mole that's designed to burrow 16 feet (5 meters) into the Martian surface to take underground heat measurements, while France directs the lander's quake-monitoring seismometer.

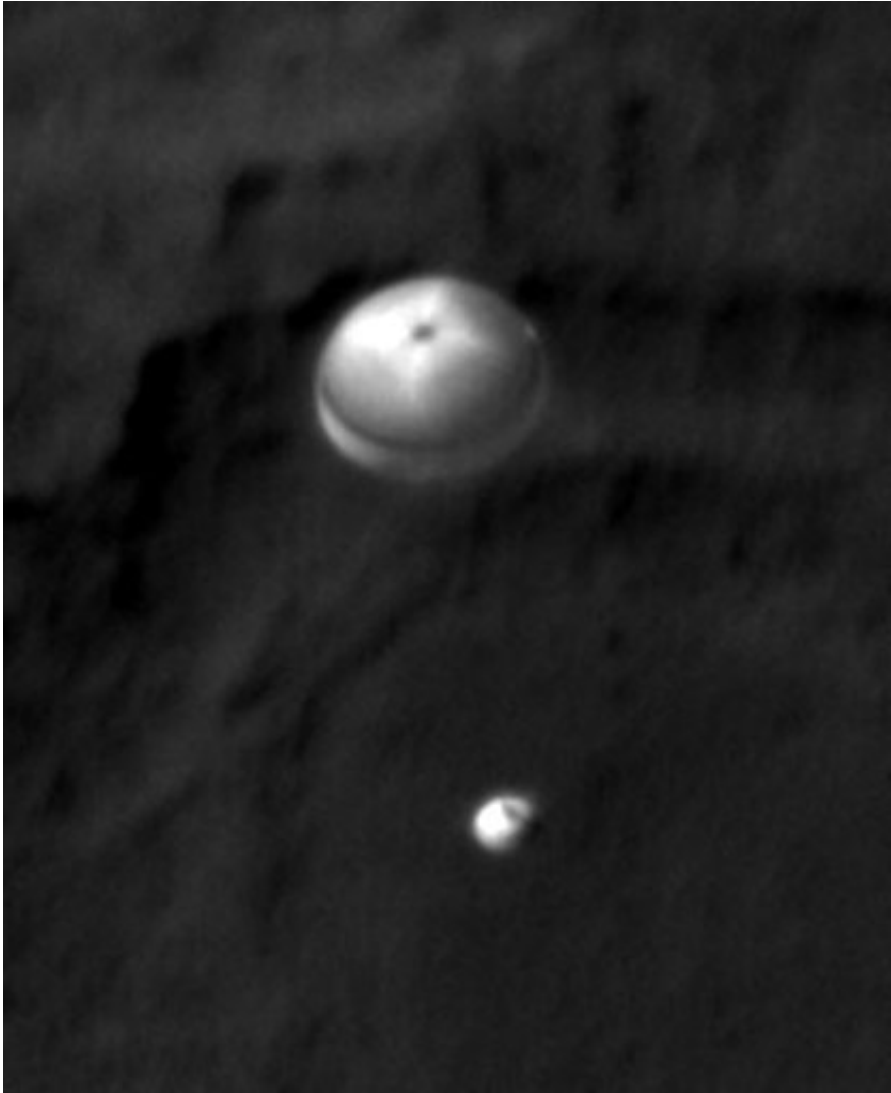
On the surface, Curiosity is the only thing operating on Mars. Currently in [orbit](#): U.S. Odyssey since 2001, Europe's Mars Express (2003), U.S. Mars Reconnaissance Orbiter (2006), U.S. Maven (2014), India's Mangalyaan orbiter (2014) and Europe's Trace Gas Orbiter (2016).



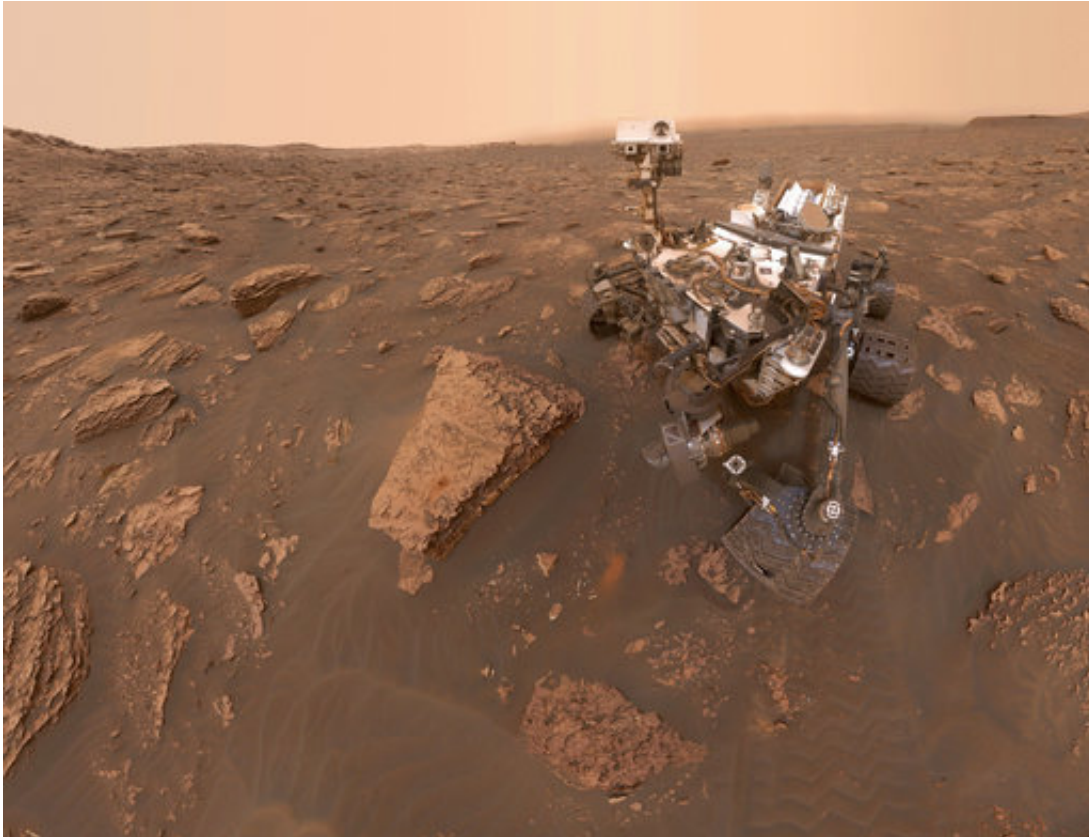
In this June 26, 2007 file photo, a technician makes checks on NASA's Phoenix Mars Lander in the Payload Hazardous Servicing Facility at the Kennedy Space Center in Cape Canaveral, Fla. (AP Photo/Peter Cosgrove, File)



In this Thursday, Aug. 2, 2012 file photo, Adam Steltzner, Mars Science Laboratory's entry, descent and landing phase leader at JPL uses a scale model to explain the process for the Curiosity rover during news briefing at NASA's Jet Propulsion Laboratory in Pasadena, Calif. NASA's Curiosity rover is still on the move after six years, with more than 12 miles (20 kilometers) on its odometer. (AP Photo/Damian Dovarganes, File)



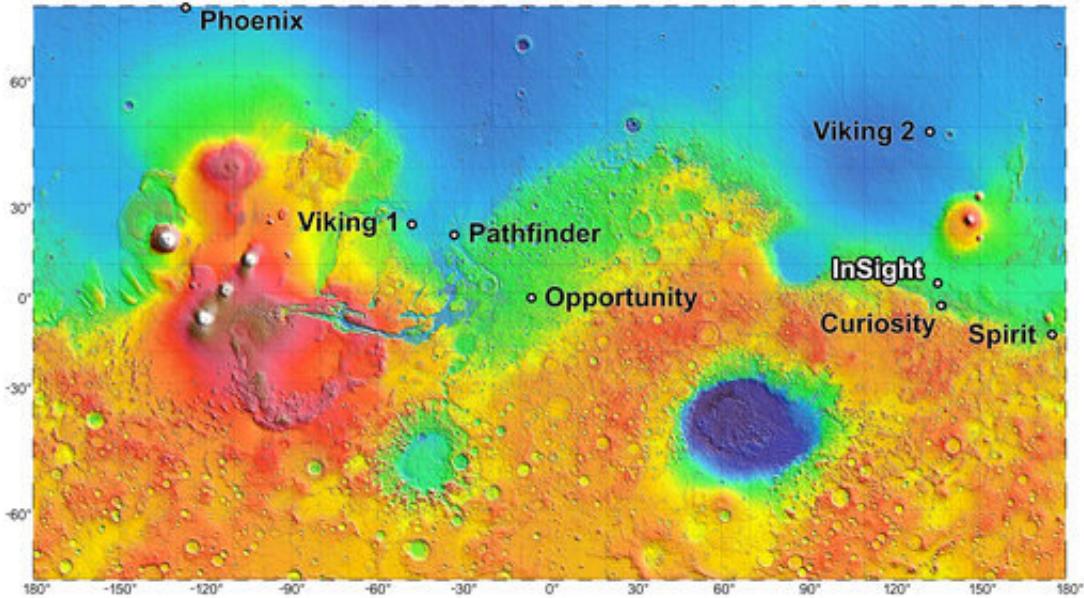
This Sunday, Aug. 5, 2012 photo made available by NASA shows the Curiosity rover, bottom, and its parachute descending to the surface from the vantage point of the Mars Reconnaissance Orbiter. NASA's Curiosity rover is still on the move after six years, with more than 12 miles (20 kilometers) on its odometer. (AP Photo/NASA)



This composite image made from a series of June 15, 2018 photos shows a self-portrait of NASA's Curiosity Mars rover in the Gale Crater. The rover's arm which held the camera was positioned out of each of the dozens of shots which make up the mosaic. A dust storm has reduced sunlight and visibility at the rover's location. (NASA/JPL-Caltech via AP)



This composite image released by NASA shows a panoramic view of Mount Sharp, made from dozens of photos by NASA's Curiosity rover. (NASA via AP, File)



This image made available by NASA shows a map of the landing sites for current and past NASA missions to the planet Mars. (NASA via AP)

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Citation: Named for Roman god of war, Mars isn't very kind to visitors (2018, November 23)
retrieved 17 April 2024 from <https://phys.org/news/2018-11-roman-god-war-mars-isnt.html>

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