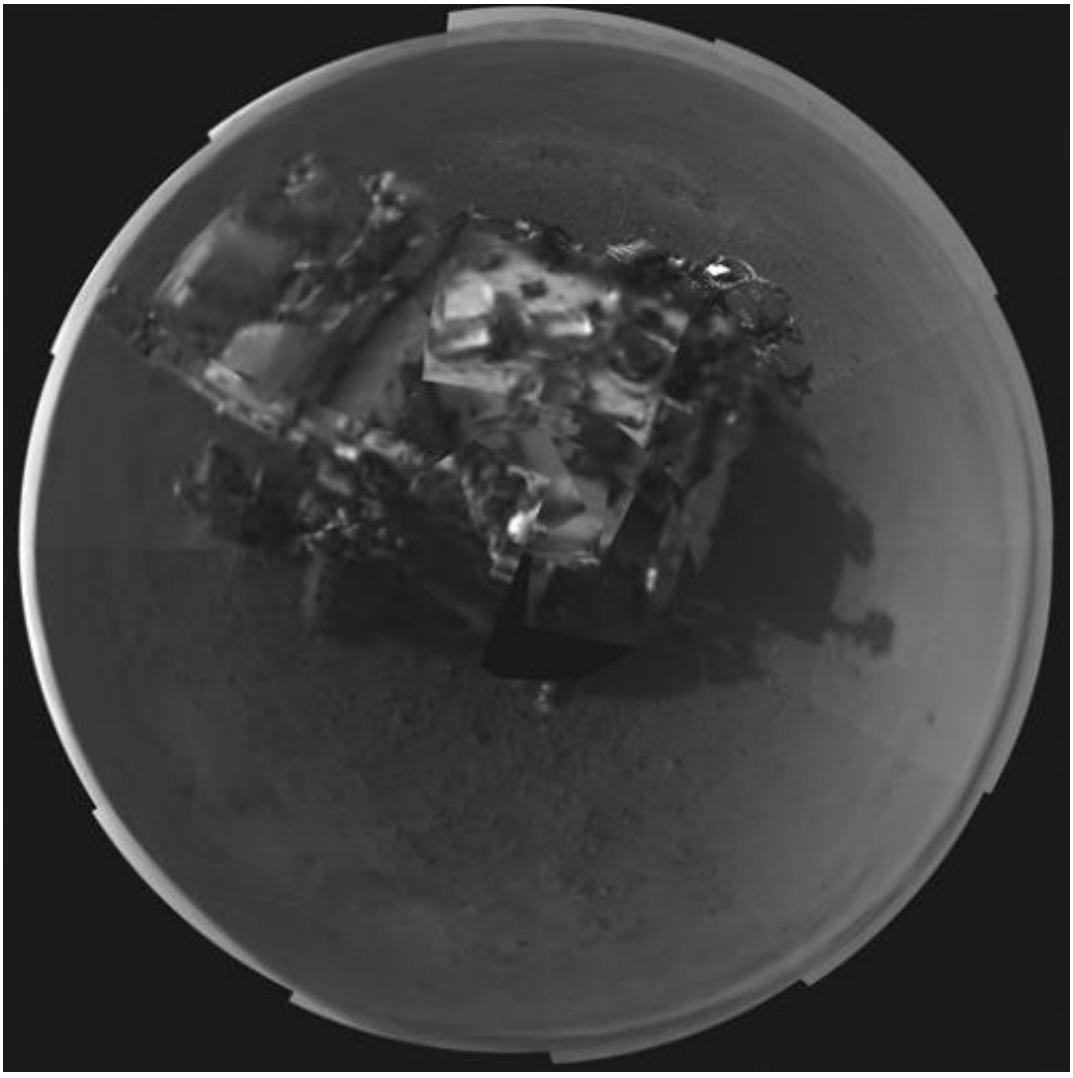
Mars crater where rover landed looks 'Earth-like' (Update 2)

August 8 2012, by ALICIA CHANG



In this image released by NASA on Wednesday, Aug. 8, 2012, a self portrait of NASA's Curiosity rover was taken by its Navigation cameras, located on the now-upright mast. The camera snapped pictures 360-degrees around the rover. (AP Photo/NASA)

(AP) — The ancient Martian crater where the Curiosity rover landed looks strikingly similar to the Mojave Desert in California with its looming mountains and hanging haze, scientists said Wednesday.

"The first impression that you get is how Earth-like this seems looking at that landscape," said chief scientist John Grotzinger of the California Institute of Technology.

Overnight, the car-size rover poked its head out for the first time since settling in Gale Crater, peered around and returned a black-and-white self-portrait and panorama that's still being processed.

It provided the best view so far of its destination since touching down Sunday night after nailing an intricate choreography. During the last few seconds, a rocket-powered spacecraft hovered as cables lowered Curiosity to the ground.

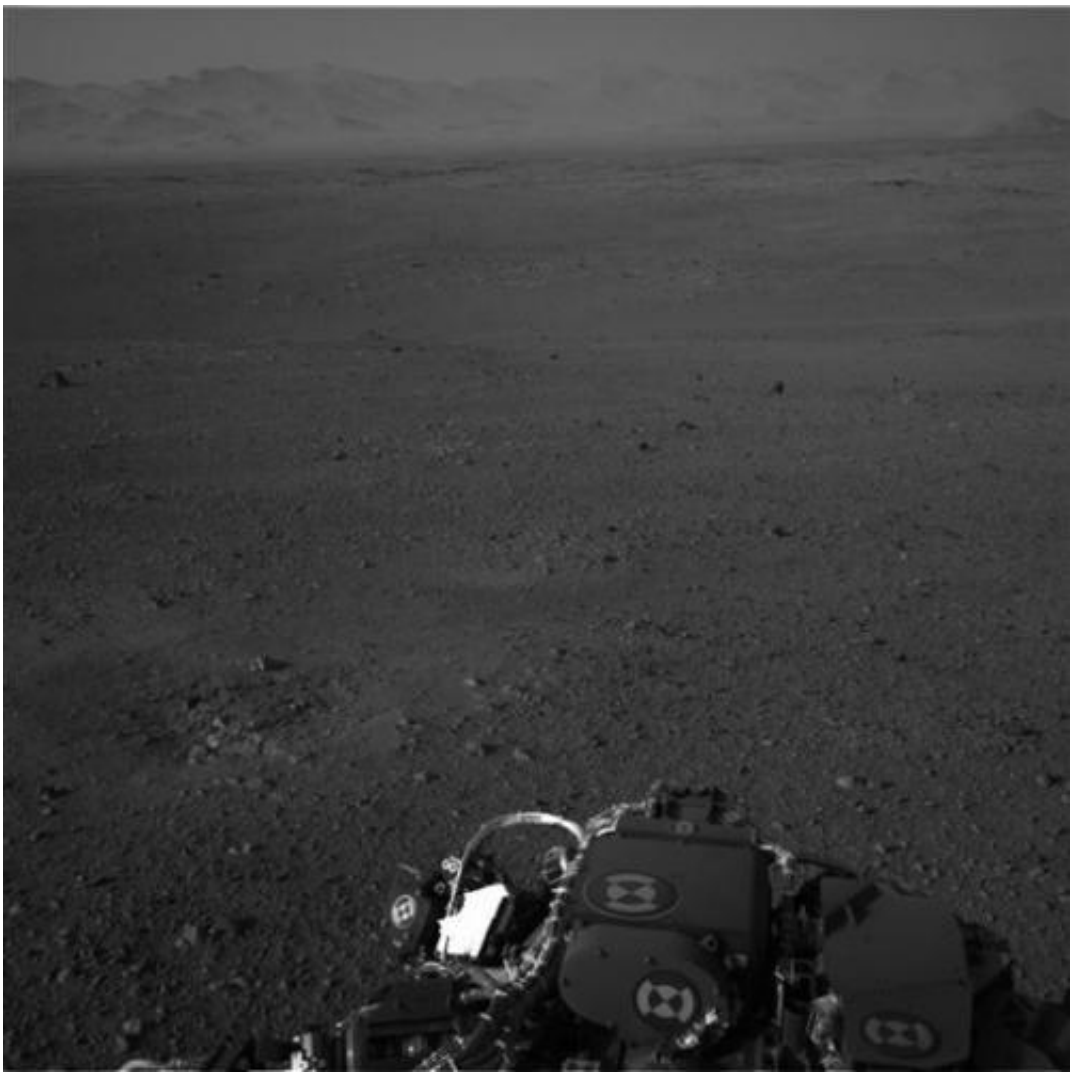
Mars Science Laboratory scientists from left: Jennifer Trosper, MSL Mission Manager, JPL; Justin Maki, MSL Imaging Scientist, JPL; John Grotzinger, MSL project scientist, Cal-Tech and Michael Malin, principal investigator, Mars Descent Imager on MSL, Malin Space Science Systems, discuss the Curiosity's images at NASA's Jet Propulsion Laboratory in Pasadena, Calif., Wednesday, Aug. 8, 2012. Top image is a mosaic of the first two full-resolution images of the Martian surface from the Navigation cameras on Curiosity. (AP Photo/Damian Dovarganes)

In the latest photos, Curiosity looked out toward the northern horizon. Nearby were scour marks in the surface blasted by thrusters, which kicked up a swirl of dust. There were concerns that Curiosity got dusty, but scientists said that was not the case.

"We do see a thin coating of dust, but nothing too bad," said Justin Maki, imaging scientist at NASA's Jet Propulsion Laboratory, which manages

the $2.5 billion mission.

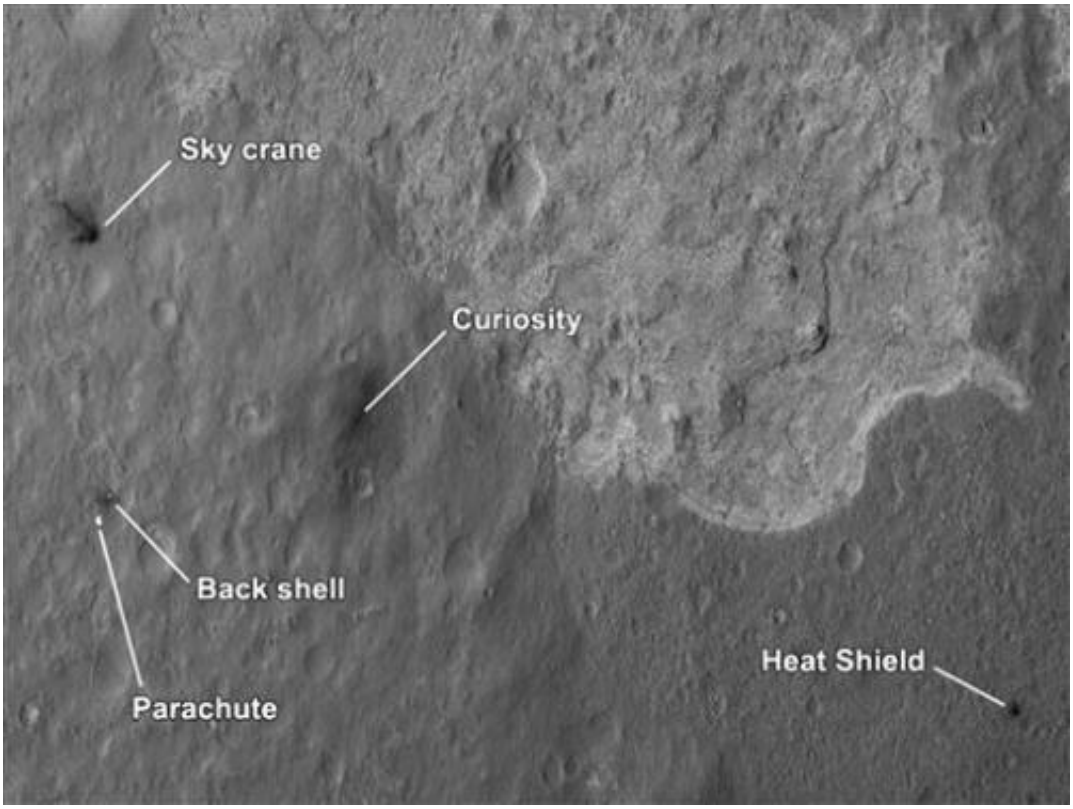
Scientists were giddy about the scour marks because they exposed bedrock below — information that should help them better understand the landing site.



This image released by NASA on Wednesday Aug. 8, 2012 taken by cameras aboard the Curiosity rover shows the Martian horizon. It's one of dozens of images that will be made into a panorama. Curiosity landed on August 5, 2012 on a two-year mission to study whether its landing site ever could have supported microbial life. (AP Photo/NASA)

Since landing, Curiosity has zipped home a stream of low-resolution pictures taken by tiny cameras under the chassis and a camera at the end of its robotic arm, which remained stowed. It also sent back a low-quality video showing the last 2 1/2 minutes of its descent.

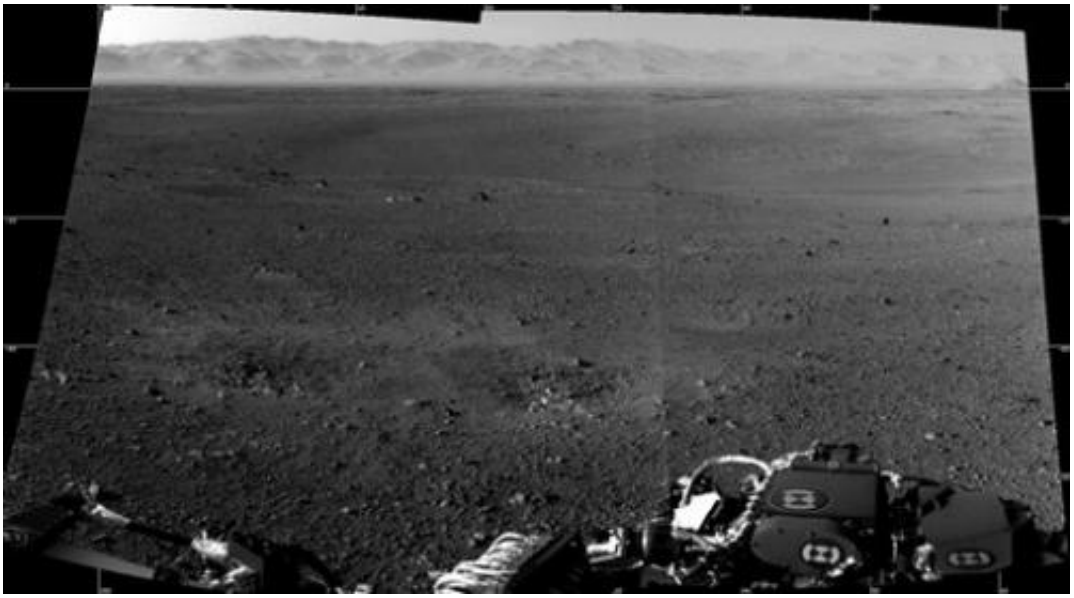
The rover successfully raised its mast packed with high-resolution and navigation cameras. With the mast up, it can begin its shutterbug days in force, including taking a 360-degree color view of its surroundings as early as Thursday.



This image released by NASA on Tuesday Aug. 7, 2012 shows where Curiosity and its supporting hardware: Sky crane, Curiosity, Back shell, Parachute, and Heat Shield landed on the Martian surface after its successful landing last Sunday. (AP Photo/NASA)

Grotzinger said he was struck by the Martian landscape, which appeared diverse. There seemed to be harder material underneath the gravelly surface, he said.

"It kind of makes you feel at home," he said. "We're looking at a place that feels really comfortable."

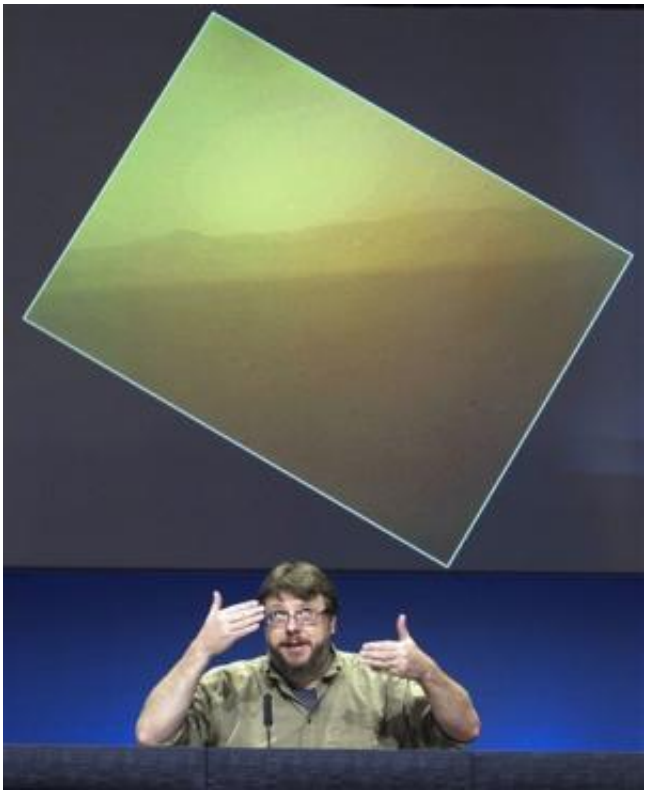


This image released on Wednesday Aug. 8, 2012 by NASA, shows a mosaic of the first two full-resolution images of the Martian surface from the Navigation cameras on NASA's Curiosity rover. The rim of Gale Crater can be seen in the distance beyond the pebbly ground. The foreground shows two distinct zones of excavation likely carved out by blasts from the rover's descent stage thrusters. (AP Photo/NASA)

Mars, of course, is very different from Earth. It's a frigid desert constantly bombarded by radiation. There are geological signs that it was

a warmer and wetter place once upon a time. One of the mission's goals is to figure out how Mars transformed.

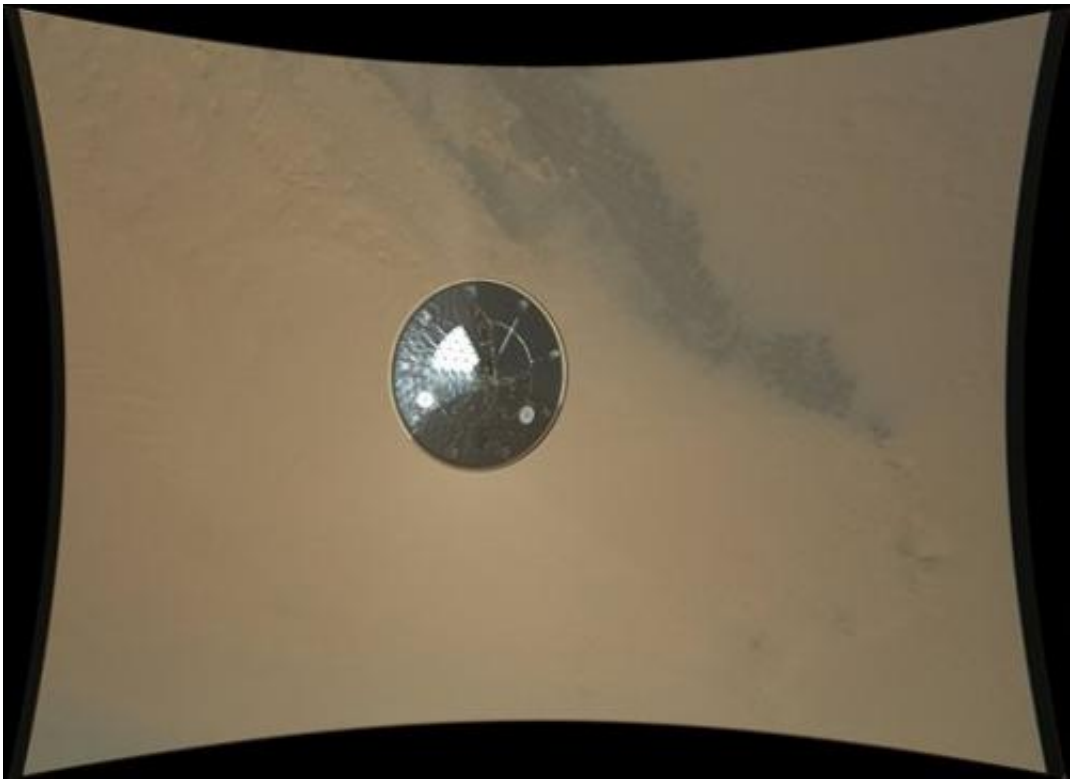
After sailing 352 million miles (566 million kilometers) and eight months, Curiosity parked its six wheels near the Martian equator, where it will spend the next two years poking into rocks and soil in search of the chemical ingredients of life. It is the most expensive and ambitious mission yet to Mars.



Ken Edgett, principal investigator, Malin Space Science Systems, describes the first view of the north wall and rim of Gale Crater, top, where NASA's rover Curiosity landed Sunday night, during a news briefing at NASA's Jet Propulsion Laboratory in Pasadena, Calif., Tuesday, Aug. 7, 2012. The picture was taken by the rover's camera at the end of its stowed robotic arm and appears fuzzy because of dust on the camera. (AP Photo/Damian Dovarganes)

Its ultimate destination is a mountain towering from the center of the crater floor. Preliminary estimates indicate Curiosity landed four miles away from the base of Mount Sharp, thought to contain intriguing signs of past water — a starting point to learning whether microbial life could exist.

Before the 1-ton, nuclear-powered Curiosity can start roving, it has to undergo several weeks of tedious but essential health checks.



In this image released by NASA on Wednesday, Aug. 8, 2012, an image showing the heat shield of NASA's Curiosity rover, obtained during descent to the surface of Mars. The image was obtained by the Mars Descent Imager instrument known as MARDI and shows the 15-foot diameter heat shield when it was about 50 feet from the spacecraft. (AP Photo/NASA)

Since it was too heavy to land using traditional air bags, it used a heat shield, parachute, rockets and cables. An orbiting spacecraft spotted the discarded spacecraft hardware, including the ballast weights that were shed soon after atmosphere entry.