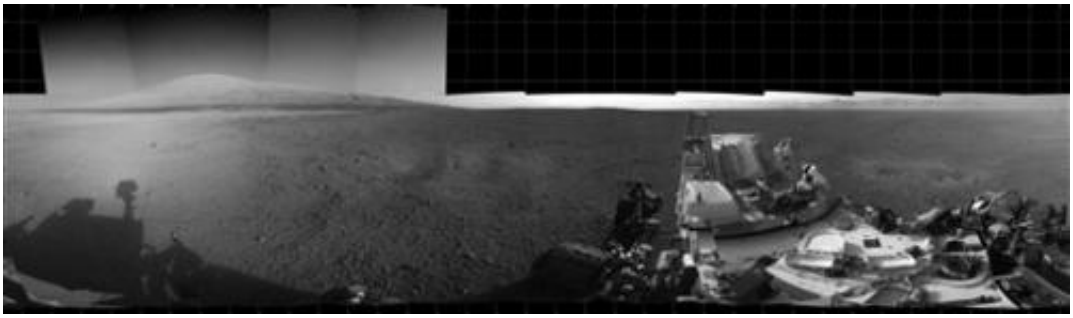
Curiosity rover takes first short spin around Mars (Update 3)

August 22 2012, by ALICIA CHANG



This Aug. 18, 2012 image provided by NASA shows the Curiosity rover's landing site and Mount Sharp in the distance. The six-wheel rover prepared to take its first test drive on Wednesday Aug. 22,2012 as a warm-up for the long trek to the mountain expected later this year. (AP Photo/NASA)

Curiosity took its first test drive around the gravel-strewn Martian terrain Wednesday, preparation for the ultimate road trip to find out if the red planet's environment could have supported life.

The six-wheel NASA rover did not stray far from the spot where it landed more than two weeks ago. It rolled forward about 15 feet (4.5 meters), rotated to a right angle and reversed a short distance, leaving tracks on the ancient soil.

Mission managers were ecstatic that the maiden voyage of the $2.5 billion mission was glitch-free.

"It couldn't be more important," said project manager Peter Theisinger at the NASA Jet Propulsion Laboratory. "We built a rover. So unless the rover roves, we really haven't accomplished anything ... It's a big moment."

The short spin came a day after Curiosity successfully wiggled its wheels to test its steering capabilities.

Curiosity landed in Gale Crater near the Martian equator Aug. 5 to explore whether the environment once supported microbial life. The touchdown site has been named Bradbury Landing in honor of the late "The Martian Chronicles" author Ray Bradbury, who would have turned 92 on Wednesday.

This image dated Wednesday Aug. 22, 2012 and provided by NASA shows the Curiosity rover's wheel tracks on the surface of Mars an image sent from one of the rover's cameras. The image was posted on a Tweet by JPL mission engineer Allen Chen. (AP Photo/NASA)

The rover's ultimate destination is Mount Sharp, a towering mountain that looms from the ancient crater floor. Signs of past water have been spotted at the base, which provides a starting point to hunt for the chemical building blocks of life.

Before Curiosity treks toward the mountain, it will take a detour to an intriguing spot 1,300 (400 meters) feet away where it will drill into bedrock. With the test drive out of the way, Curiosity was expected to stay at its new position for several days before making its first big drive — a trip that will take as long as a month and a half.

Curiosity won't head to Mount Sharp until the end of the year.

Rover driver Matt Heverly said the first drive took about 16 minutes with most of the time used to take pictures. Heverly said the wheels did not sink much into the ground, which appeared firm.

"We should have smooth sailing ahead of us," he said.

After an action-packed landing that delicately lowered it to the surface with nylon cables, Curiosity has entered a slow streak. Since the car-size rover is the most sophisticated spacecraft sent to Mars, engineers have taken their time to make sure the rover is in tiptop shape and that its high-tech tools work before it delves into its mission.

Curiosity joins the rover Opportunity, which has been exploring craters in Mars' southern hemisphere since 2004. Opportunity's twin, Spirit, fell silent in 2010 after getting stuck in a sand trap.

NASA scientists show a panoramic image of the Curiosity touch-down area Bradbury Landing, named after writer Ray Bradbury, showing the first tracks of the rover movements, at the Jet Propulsion Laboratory in Pasadena, Calif., Wednesday, Aug. 22, 2012. The six-wheel rover made its first test drive on Wednesday as a warm-up for the long trek to the mountain expected later this year. Shown from left: Dr. Michael Meyer, lead scientist for the Mars Exploration program at NASA Headquarters; Peter Theisinger, MSL project manger, NASA JPL, Pasadena; Matt Heverly, Lead Curiosity Driver; Roger Wiens, principal investigator of ChemCam and Joy Crisp, MSL deputy project scientist. (AP Photo/Damian Dovarganes)

Earlier this week, Curiosity exercised its robotic arm for the first time, flexing its joints and motors before engineers stowed it again. Weeks of additional tests were planned before it can drill and scoop up Martian soil.

The nuclear-powered rover has been tracking levels of dangerous radiation on the Martian surface in an effort to guide future astronaut

landings. It also powered up its weather station, taking hourly readings of air and ground temperatures, pressure and wind conditions.

Over the weekend, it fired its laser at a humble rock to study what it's made of. Unsurprisingly, the zapped rock was typical of other Martian rocks, made of basalt.

During the checkups, scientists discovered a damaged wind sensor, possibly after it was hit by rocks that landed on the rover's instrument deck during landing. Deputy project scientist Ashwin Vasavada said the broken sensor will not jeopardize the mission since there's a spare.

Since nailing the daredevil landing, the rover team has been acknowledged by President Barack Obama. Gov. Jerry Brown, who declared Wednesday as "Space Day" visited the lab and donned 3-D glasses to view an animation of Curiosity's first drive on a big screen in the control room.