

## **Mars Curiosity Rover Report (Sept. 13, 2012)**

I'm David Oh, lead flight director for the Mars Curiosity rover and this is your Curiosity rover report.

Over the past seven days, we've been doing checkouts of the arm instruments including the MAHLI imager, which is a very versatile instrument that can focus on things that are close-by and very far away.

The imager has generated some spectacular shots of the underbelly of the rover and its wheels, of a 1909 Lincoln penny that we mounted on the rover for calibration purposes so we can check that the camera is operating properly. And it's also been used to generate a nice self-portrait of the Mastcam on the rover, a portrait that's taken by the arm looking back, the same way you would take a picture of yourself using a cell phone.

We've also been testing the APXS instrument, an instrument for doing contact mineralogy science. It generates spectra that allow us to identify the minerals that are present in a rock.

When the checkout of the arm is complete, we'll be continuing our drive to the scientific target, Glenelg, but we'll be stopping along the way to take some video of the Martian moons, Phobos and Deimos, passing overhead.

We control the rover from Earth, but we have to operate it on Mars time. A Martian day is 39 minutes longer than an Earth day. So every day, the whole operations team comes in 40 minutes later, every single day, to send commands to the rover.

In the month after landing, my whole family joined me on Mars time and we got to jump a time zone a day for 30 days going all the way around the clock.

As we did that, we got to explore Mars here at JPL and to explore Los Angeles at night, and it was a great adventure for the whole family.

This has been your Curiosity rover report. Check back for more updates on what's happening on Mars.