

## **Mars Mission Begins Collecting Data While Still Near Earth**

Voice of NASA Kennedy Space Center announcer George Diller narrating launch of rocket: *"Three, two, one. Main engine start. Zero. And liftoff of the Atlas V with Curiosity, seeking clues to the planetary puzzle about life on Mars."*

Don Hassler: The MSL rover called Curiosity is about the size of a mini cooper and it has 10 instruments on board all designed to measure or search for elements or building blocks of life or to measure factors which limit the ability to sustain life Southwest Research Institute led the development of the Radiation Assessment Detector.

RAD will be the first instrument that will be turned on on the Mars Science Laboratory and it will operate throughout the long journey to Mars.

The primary reason for doing this is we want to characterize the radiation environment inside the spacecraft because it's different than the radiation environment that one would measure in interplanetary space by itself. The radiation hitting the spacecraft is modified by the spacecraft and it changes. It produces secondary particles, which sometimes can be more damaging than the primary radiation itself.

So, measuring the radiation environment in space is not new, but what is new is that RAD will measure, for the first time, the radiation environment inside the spacecraft, which would be very similar to the environment that future astronauts would see inside their spacecraft on a future mission to Mars.

So, we're very excited because RAD will be the first instrument to be turned on, on Curiosity and we'll be taking data throughout the cruise phase, throughout the eight-month journey from Earth to Mars and then next August, when we land on the Red Planet, we'll actually be taking measurements on the surface of another planet for the first time.

NASA Jet Propulsion Laboratory, California Institute of Technology