

Mars GRS Education and Public Outreach Products

J.M. Keller¹, W.V. Boynton¹, H.L. Enos¹, & GRS Team

¹LPL, University of Arizona, Tucson, AZ 85721

During the summer of 2004, the Mars Gamma Ray Spectrometer (GRS) team worked with three science teachers to develop five classroom activities related to water and water ice on Mars. At the end of that summer, these lessons were presented to a group of 25 science teachers who field-tested the activities in their classrooms during the subsequent school year. These lessons will be revised during the summer of 2005 and submitted for review as a NASA educational product. In addition, a FLASH animation was developed that demonstrates both the physics of gamma ray production at the surface of Mars and the concept of gamma ray spectroscopy conducted by GRS. This animation is available for public use at the following website:

<http://grs.lpl.arizona.edu/content/learning/simulator>

We will present both the animation and the results of field-testing during our talk. Further questions about the Mars GRS education and public outreach program can be directed to either John Keller (jkeller@lpl.arizona.edu) or Heather Enos (heather@lpl.arizona.edu).

Macromedia Flash Player 6
File View Control Help

2001 Mars Odyssey

Mars Gamma Ray Spectrometer
GRS Simulator

Introduction Demo
Simulator Evaluation

Mars GRS Detection:
Detecting gamma ray photons and neutrons.

The Gamma Ray Spectrometer (GRS) instrument suite aboard the Mars 2001 Odyssey orbiter can detect both gamma ray photons and neutrons released from the surface of Mars. This animation shows gamma ray photons and neutrons being released from the surface of the planet. If GRS is in the right location, it can collect these particles and help us map the surface composition of the planet.

Cosmic Ray Event
Radioactive Event
Cosmic / Radioactive Event
Mars GRS Simulation

neutron
proton
gamma ray

Multiple Events
Play
Mars GRS Detection