

NASA Spacecraft to Carry Russian Science Instruments

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NASA and the Russian Federal Space Agency Roscosmos have agreed to fly two Russian scientific instruments on NASA spacecraft that will conduct unprecedented robotic missions to the moon and Mars.

NASA Administrator Michael Griffin and Roscosmos head Anatoly Perminov signed agreements in Moscow on Oct. 3 to add the instruments to two future missions: the Lunar Reconnaissance Orbiter, scheduled to launch in October 2008, and the Mars Science Laboratory, an advanced robotic rover scheduled to launch in 2009.

Russia's Lunar Exploration Neutron Detector on the Lunar Reconnaissance Orbiter will search for evidence of water ice and help understand astronauts' exposure to radiation during future trips to the moon. The instrument will map concentrations of hydrogen that may be found on and just beneath the lunar surface.

Roscosmos' Dynamic Albedo of Neutrons instrument on the Mars Science Laboratory will measure hydrogen to analyze neutrons interacting with the Martian surface. The principal investigator for both instruments is Igor Mitrofanov of the Institute for Space Research of the Russian Academy of Science.

"Russia's contribution to the Lunar Reconnaissance Orbiter and Mars Science Laboratory missions continues a rich and long-standing tradition of cooperation between NASA and Russia for scientific research in space," Griffin said. "The Institute for Space Research has a track record

of delivering excellent instrumentation, and we are delighted to have international participation on these missions to explore the moon and send a robotic laboratory to Mars."

The Lunar Reconnaissance Orbiter will circle the moon for at least a year, obtaining measurements necessary to identify future robotic and human landing sites. It also will look for potential lunar resources and document aspects of the lunar radiation environment.

The Mars Science Laboratory rover is a mobile research platform that will explore a local region of the Martian surface as a potential habitat for past or present life. The rover will carry a suite of highly capable analytic and remote sensing instruments to investigate planetary processes that influence habitability, including the role of water.

Source: NASA

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