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MOSCOW 6 Nov 2011 Crewmembers return home after simulated Mars mission

Crewmembers returning to Earth after their simulated sojourn on the Red Planet can count on a soft landing: the mission never left the ground. The Mars500 project takes place in twin isolation chambers in Moscow. It is designed to explore the challenges to Man of multi-year missions beyond Low Earth Orbit. The data is expected to reveal ways the hazards and isolation of Space and confined quarters could affect the operational capacity of crewmembers.

Part of the chamber simulates the spacecraft that would transport them on their journey to and from Mars and another part will simulate the landing module that would transfer them to and from the martian surface.

For the first full-duration simulation of a manned flight to Mars, the crew of six men departed from Earth orbit on 14 Jun 2010 to arrive on the planet on 27 Jan 2011. Their surface operations last until 8 Mar 2011. Their return trip begins on 17 Apr 2011. The Russian news agency, RIA Novosti, reported in July that the crewmembers will receive 3 million rubles (US \$100,000) after the experiment.

The Moscow Institute of Medical and Biological Problems, with support from the European Space Agency, aims to simulate almost all aspects of a journey to the Red Planet, with a 250-day outward trip, a 30-day stay on its surface, and a 240-day return flight. The present simulation is the last phase of an experiment that began in 2007. The first phase of 14 days tested the facilities and operational procedures. The second phase followed in 2009, when four Russian and two European crewmembers were shut into the facility for 105 days. The present phase brings together Russian engineer Alexei Sitev, Russian surgeon Sukhrob Kamolov, Russian general practitioner Alexander Smolevsky, Italian Diego Urbina, China's Wang Yue and Roman Charles from France.