



ESA / IBMP

Crew members participating in the Mars500 simulated mission to the Red Planet strike a pose in their mock spaceship while wearing red-tinted glasses.

By Alan Boyle

A top space official says Europe and Russia will follow up on their simulated 520-day mission to Mars with a real flight to Mars and back — although there's not yet any time frame set for the mission.

The pledge came on Wednesday from Jean-Jacques Dordain, head of the European Space Agency, during his visit to Russia's MAKS air show near Moscow. He said ESA and the Russian Federal Space Agency would "carry out the first flight to Mars together," according to a [report from the RIA Novosti news agency](#).

Dordain was quoted as saying that the Mars500 simulation was a factor in preparations for a human mission to the Red Planet. Mars500's six crew members, all male, have been cooped up for 14 months inside an isolation chamber at Russia's Institute of Biomedical Problems. This week, the European-Russian-Chinese crew passed the 437-day milestone set by Russian cosmonaut Valery Polyakov aboard Russia's Mir space station in 1995. Polyakov holds the record for the longest continuous time spent in space, and if the Mars500 sextet had actually been in space, [they would now be the champs](#).

Mission planners consider 500 days or so to be the most realistic time frame for a round trip to Mars, given the orbital mechanics involved in making the trip. The [Mars500 experiment](#) went through a [simulated Red Planet landing](#) in February, and the crew is due to come out of isolation at the end of the mission in November.

An actual mission to Mars would face [many more hardships](#), including a prolonged period of reduced gravity as well as the potential for exposure to space radiation. There'd be lots of other logistical challenges, such as generating power on Mars (probably with a mini-nuclear reactor) and having enough food and water to sustain the crew. NASA's current vision for space exploration calls for sending a crew to Mars and its moons in the mid-2030s, and the first trips would likely involve just going there and back without landing on the planet itself.

The [Voice of Russia website](#) quoted Igor Lisov, an analyst for the Moscow-based journal Novosti Kosmonavtike (Cosmonaut News), as saying that any mission to the Red Planet would have to be an international venture with participation from Russia and ESA.

"If they decide to implement an emergency program, the mission may be carried out in 10 years," Lisov said. "If it is an ordinary one, then it will take 20 years. This is a long period of time."

Who do you think will take on a human mission to Mars? And when will it happen? Cast your vote, and feel free to weigh in with your comments below.

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When will humans first walk on Mars?

- By 2029.
- During the 2030s.
- Sometime after 2039.
- Never.

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