



Moon to Mars

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Summary: 'Astronauts' aboard a simulated mission to Mars have made their first steps on the surface of 'Mars.' The Mars500 project is helping scientists understand the difficulties of designing a human Mars mission. Many astrobiologists hope that human explorers on the surface of Mars will one day aid in the search for life on the red planet.

Three crewmembers of the virtual flight to [Mars](#) have 'landed' on their destination planet and two of them today took their first steps on the simulated martian terrain. The highlight of the Mars500 mission lasted for one hour and 12 minutes, starting at 13:00 Moscow time.

This [Mars](#) is housed in the Institute of Biomedical Problems in [Moscow](#), on the next storey up above the cylindrical modules housing the Mars500 crew. Six men have been already been isolated for more than eight months during the first full-duration simulated flight to Mars.

Three of the crew, Russian Alexandr Smoleevskiy, Italian Diego Urbina and Chinese Wang Yue, entered the lander on 8 February and they 'landed' on Mars four days later.

After this first sortie, they will venture twice more onto the surface simulator wearing Russian Orlan [spacesuits](#).

"Europe has for centuries explored Earth, led by people like Columbus and Magellan," said Diego at the beginning of his three-hour ['Marswalk'](#) with Alexandr.

"Today, looking at this red landscape, I can feel how inspiring it will be to look through the eyes of the first human to step foot on Mars.

"I salute all the explorers of tomorrow and wish them godspeed."

The next sortie, by Alexandr and Yue, will be on 18 February, followed by the last, again by Alexandr and Diego, on 22 February.



Crew training for 'Marswalk' at the simulated martian terrain of the Mars500 experiment. The terrain, about 10 m long and 6 m wide, is covered with reddish sand and is built to resemble the surface at Gusev crater. Credit: ESA / IPMB



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Gusev crater

The terrain, about 10 m long and 6 m wide, is covered with reddish sand and is built to resemble the surface at [Gusev crater](#).

Gusev, an old lakebed filled with sediments, is one of the most interesting targets for investigation by robotic explorers and humans. NASA's Spirit rover landed there in 2004 and has shown the crater holds many clues to the planet's wet history.

Soyuz-like living for 16 days

The three Marswalkers will live in their 6.3 x 6.17 m lander for 16 days, eating the type of food carried on Russia's [Soyuz](#) spacecraft and enjoying only limited exercise.

The lander will return to orbit on 23 February and dock with the mothership the following day. The hatch between the modules will be opened on 27 February for them to rejoin Romain Charles, Alexey Sitev and Sukhrob Kamolov, who have continued to 'orbit' Mars.

Already a successful mission

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manager.

“The science community is very pleased with the quality of the material but, as this is a long experiment, we have to wait for the results until their ‘arrival’ at Earth.

“At this point, everything looks very good.”

The most difficult but the most interesting part of this [psychological](#) study of long flights is still ahead: the crew is now faced with another monotonous ‘interplanetary cruise’ without a highlight like the Mars landing to look forward to.

They will start their eight month journey back home on 1 March, after loading the lander with rubbish and discarding it, as will likely happen during the first real Mars flight.



Photo taken by Diego Urbina during the first EVA. Credits: ESA