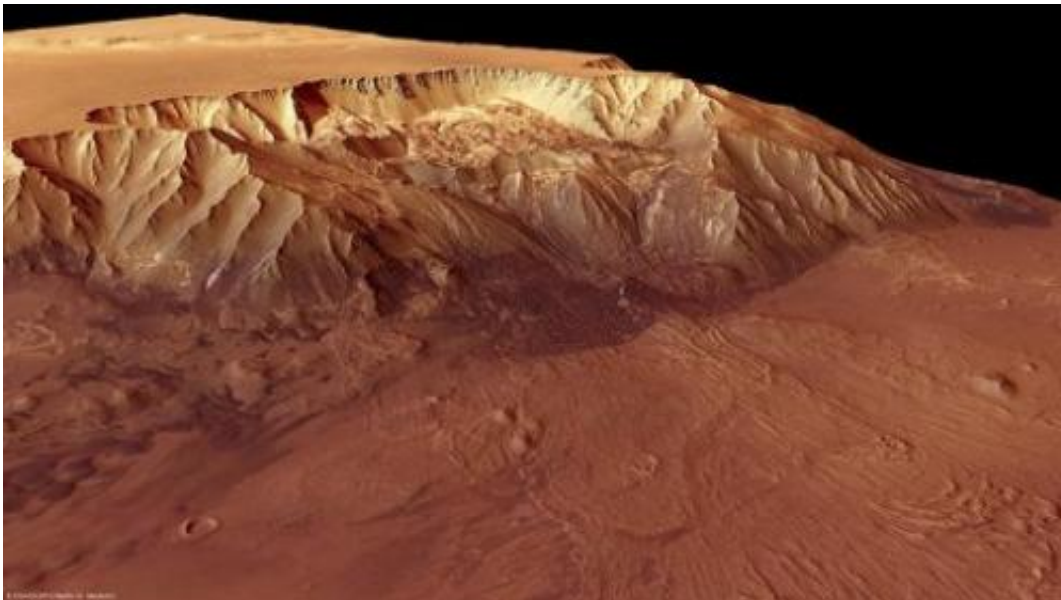


Europe, Russia ink deal on double mission to Mars

March 14 2013



A picture released by the European Space Agency on October 8, 2010 shows Melas Chasma, a part of the huge Valles Marineris rift valley, which stretches for more than 4000 km across the face of Mars. The European Space Agency (ESA) said it signed a deal on Thursday with its Russian counterpart to launch two unmanned missions to Mars, a quest that was rocked by a US pullout last year.

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Called ExoMars, the scheme entails sending an orbital probe to the Red Planet in January 2016 to look for atmospheric traces of [methane gas](#), a pointer to the existence of [microbial life](#).

It will also send down a small stationary lander to test key technologies for the second mission—the launch of a six-wheeled rover in 2018.

A seven-instrument science lab on wheels, the rover will be the first able to drill to a depth of two metres (7.5 feet), where astrobiologists see a good chance of finding microbes that would be destroyed by harsh conditions at the surface.

"Establishing whether life ever existed on Mars is one of the outstanding scientific questions of our time and the highest scientific priority of the ExoMars Programme," ESA said in a statement.

Under the deal, the Russian agency Roscosmos will provide heavy-lift Proton launchers for both missions as well as the descent module for the rover.

The descent module will include a surface platform, also provided by the Russians.

"Both partners will supply scientific instruments and will cooperate closely in the scientific exploitation of the missions," ESA.



Jessica Housden adjusts the ExoMars project's rover 'Bridget' at Leicester University, England. The European Space Agency (ESA) said it signed a deal on Thursday with its Russian counterpart to launch two unmanned missions to Mars, a quest that was rocked by a US pullout last year.

EXoMars was born in December 2005, and more than 400 million euros (\$520 million) has been spent on it so far.

The project was badly hit in February 2012 when the US [National Aeronautics and Space Administration](#) (NASA) pulled out, prompting Europe to turn to Russia for help.

ESA ministers endorsed the Russian deal at their meeting in Naples, Italy, last November, pending the signing of a formal contract with Roscosmos.

ExoMars marks a further step in [space cooperation](#) between Europe and

Russia.

The medium-life veteran of space, the [Russian Soyuz](#) launcher, is deployed at ESA's base in Kourou, French Guiana, to help extend Europe's range of satellite launch services.

On Tuesday, NASA said its Martian rover Curiosity had detected hydrogen, carbon and oxygen—the building blocks of life, and evidence that the planet was once awash with water.

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