

Russia aims for first conquest of Mars

November 7 2011, by Stuart Williams



Russian Federal Space Agency specialists work with the Phobos-Grunt spacecraft as they prepare to mount it on board a Zenit rocket at the Baikonur cosmodrome in Kazakhstan in October 2011. Russia on Wednesday launches a probe for Mars that aims to collect a chunk of a Martian moon and become Moscow's first successful planetary mission since the collapse of the Soviet Union.

Russia on Wednesday launches a probe for Mars that aims to collect a chunk of a Martian moon and become Moscow's first successful planetary mission since the collapse of the Soviet Union.

The Phobos-Grunt probe is to blast off from the Baikonur cosmodrome in Kazakhstan on a Zenit-2SB rocket at 00:16 am Moscow time (2016 GMT Tuesday), Russia's space agency [Roscosmos](http://www.roskosmos.ru) said in a statement.

Russia hopes the mission will mark a triumphant return to interplanetary exploration, a field from which it has been entirely absent over the last

decades even as US probes explored the farthest reaches of the solar system.

If successful, Phobos-Grunt will also help erase the memory of one of Russia's worst ever space failures, when its Mars-96 probe bound for the Red Planet failed to reach orbit and crashed into the ocean in 1996.

Russia is desperate to show it remains a superpower in [space exploration](#) and is still inspired by the daring spirit of first man in space [Yuri Gagarin](#), in the year it celebrated the 50th anniversary of his historic voyage.

"If Phobos-Grunt fully carries out its mission, then this will be a world class achievement," said Igor Lisov, editor-in-chief of the specialist journal Novosti Kosmonavtiki (Space News).

"The problem with Russian space exploration has been that people have forgotten the taste of victory. The task of this mission is to restore confidence in our abilities and the importance of the task," he told AFP.

The voyage also comes as the world's space powers are showing renewed interest in the possibility of sending a man to [Mars](#) in the next decades, possibly in the 2030s.



An undated hand out computer generated image shows a planting unit cowling of the Phobos-Grunt space project. The Phobos-Grunt probe is to blast off from the Baikonur cosmodrome in Kazakhstan on a Zenit-2SB rocket at 00:16 am Moscow time

Last week six men emerged from 520 days in isolation in Moscow after an unprecedented experiment that attempted to test the psychological and physiological effects of a return trip to Mars.

But even in the heyday of Soviet space exploration, Moscow had little

luck with Mars. It sent a number of failed missions as NASA enjoyed great success with its Mariner and Viking probes, the latter of which landed on the Red Planet.

The Soviet Union sent its last probes to Mars -- both named Phobos -- in the late 1980s. But the first failed to reach a Martian orbit and the second failed when contact was lost shortly after its arrival.

Most humiliating was the failure of the ambitious Mars-96 probe in November 1996 which broke up over the Pacific Ocean in a disaster that appeared to symbolise the disintegration of the Russian space programme at the time.

The main aim of the Phobos-Grunt mission is to bring back the first ever soil sample from Phobos, the larger of Mars' two moons (the other is called Deimos).

In a landmark space cooperation between Moscow and Beijing, the probe is also expected to deploy a Chinese satellite, Yinghuo-1, which will go into orbit around Mars and observe the planet itself.

If all goes to plan, Phobos-Grunt should reach Mars in 2012 and then deploy its lander for Phobos in 2013 before returning the sample back to Earth in August 2014.

Phobos, which orbits Mars at a radius of just under 10,000 kilometres, is believed to be the closest moon to its planet anywhere in the solar system and scientists hope it will reveal secrets about the origins of the planets.

The probe is carrying numerous international experiments including a capsule of microbes prepared by the US Planetary Society to see if basic life forms can survive on a long mission in deep space.

Phobos-Grunt was to have been launched in 2009 but the date was put back until 2011, the soonest possible launch window when the planet's relative proximity to Earth makes a voyage feasible.

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