

# Mice, gerbils perish in Russia space flight

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A Soyuz-2.1b carrier rocket, carrying an Bion-M capsule is seen on the launch pad at Russia's Baikonur cosmodrome on April 18, 2013. The Russian capsule filled with 45 mice and 15 newts along with other small animals has returned from a month's mission in orbit with data scientists hope will pave the way for a manned flight to Mars.

A number of mice and eight gerbils sent into space in a Russian capsule destined to find out how well organisms can withstand extended flights perished during their journey, scientists said Sunday as the month-long mission touched back down on Earth.

Most of the 45 mice sent into orbit—along with the gerbils and 15 newts—died on the mission, which nevertheless returned with data that scientists hope will pave the way for a manned flight to Mars.

The animals on board the Bion-M craft died because of equipment failure or due to the stresses of space, scientists said.

The craft itself landed softly early on Sunday with the help of a special parachute system in the Orenburg region about 1,200 kilometres (750 miles) southeast of Moscow.

It was also carrying snails, some plants and microflora.

"This is the first time that animals have been put in space on their own for so long," Vladimir Sychov of the Russian Academy of Sciences announced upon the peculiar crew's return to Earth.

But at the end of the experiment, "less than half of the mice made it—but that was to be expected," Sychov told Russian news agencies.

"Unfortunately, because of equipment failure, we lost all the gerbils."

The TsSKB-Progress space research centre's department head, Valery Abrashkin, said on the day the mission took off in April that the study was aimed at determining how bodies adapt to weightlessness "so that our organisms survive extended flights".

The space adventure has been widely praised by Russian state media as a unique experiment that no other country has yet pulled off.

Russia last sent mice into space in 2007 for a much shorter duration of 12 days.

France's Centre National d'Etudes Spatiales (CNES) space centre said 15 of the 45 mice came from a French research lab that is cooperating with the study.

CNES life science department head Guillemette Gauquelin-Koch said the project took "a further decisive step in human adaptation to weightlessness".

Scientists from both countries said the animals were used as it was impossible to conduct the experiment on the humans who are currently operating the International Space Station (ISS).

They added that the mice would have posed a health risk if simply placed on board the ISS for a month.

The experiment's designers said the tests primarily focused on how microgravity impacts the skeletal and nervous systems as well as organisms' muscles and hearts.

The animals were stored inside five special containers that automatically opened after reaching orbit and closed once it was time to return.

Also on board were over two dozen measuring devices and other scientific objects that measured everything from heart rates and blood pressure to radiation levels.

The capsule spun 575 kilometres (357 miles) above Earth.

Officials at France's CNES said a new mission with microorganisms may be launched by Russia next year.

Russia has long set its sights on Mars and is now targeting 2030 as the year in which it could begin creating a base on the Moon for flights to

the Red Planet.

But recent problems with its once-vaunted space programme—including the embarrassing failure of a research satellite that Moscow tried sending up to one of Mars's moons last year—have threatened Russia's future exploration efforts.

Russia's trials and tribulations are watched closely by other space-faring nations because the Soyuz rocket on which the animals went up represents the world's only manned link to the constantly-staffed ISS.

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