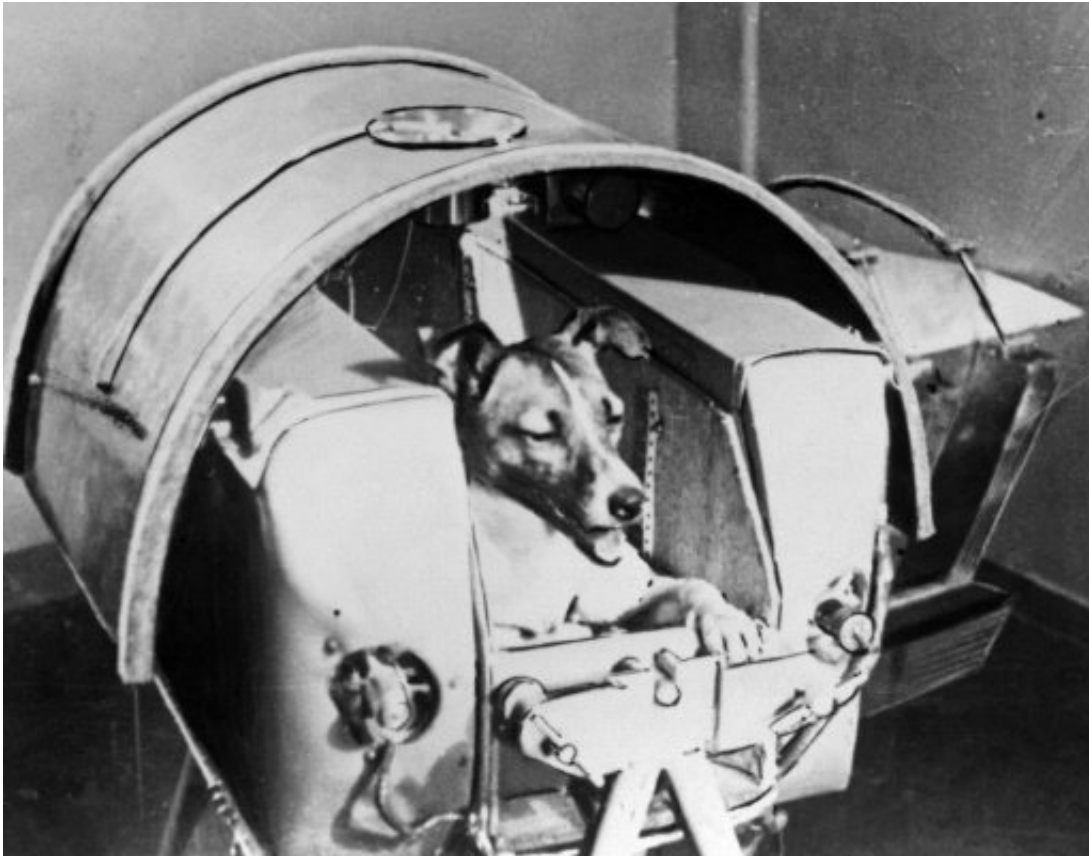


# The Noah's Ark of animals sent in to space

November 2 2017, by Janet Mcevoy

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The Soviet daily Pravda published a photo of Laika, a former stray, onboard Sputnik II

Three and a half years before Russian cosmonaut Yuri Gagarin became the first man in space, a dog called Laika was in 1957 the [first living creature to orbit the Earth](#).

The stray from Moscow is one of many animals who preceded humans in the conquest of [space](#); like most of the others, she did not survive.

"These animals performed a service to their respective countries that no human could or would have performed," the US National Aeronautics and Space Administration (NASA) says on its website.

"They gave their lives and/or their service in the name of technological advancement, paving the way for humanity's many forays into space."

## **First space monkey**

In June 1948, rhesus monkey Albert I was the first mammal to be sent up to space in a rocket, on a NASA mission to test its reaction to weightlessness. He reached 63 kilometres (39 miles) in altitude, just below the start of [outer space](#) at 100 km.

A year before the United States had sent fruit flies to an altitude of 100 km in a V-2 rocket.

## **Canine cosmonauts**

Tsygan and Dezikin August 1951 were the first dogs to be sent into space on a sub-orbital flight for the Soviets, returning alive.

But the first full orbit of Earth by a living being was accomplished by Laika, a small mongrel picked up from the street and sent up in the Soviet Sputnik 2 on November 3, 1957, enclosed in a metal container.



Laika, whose picture was published in the Soviet daily Pravda in 1957, preceded man in becoming the first living being sent in to space

Initial reports said she had withstood the 1,600 kilometre (1,000 mile) journey from Earth but it emerged that she died after a few hours due to a malfunction in the rocket's equipment.

In August 1960 the Soviet Union sent something of a Noah's Ark into space, including dogs Belka and Strelka, a rabbit, 40 mice, two rats and

15 flasks of fruit flies and plants.

It was the first orbital flight from which animal passengers returned alive.

Strelka later gave birth to a litter of six puppies, one of which was given to US president John F. Kennedy as a gift for his children.

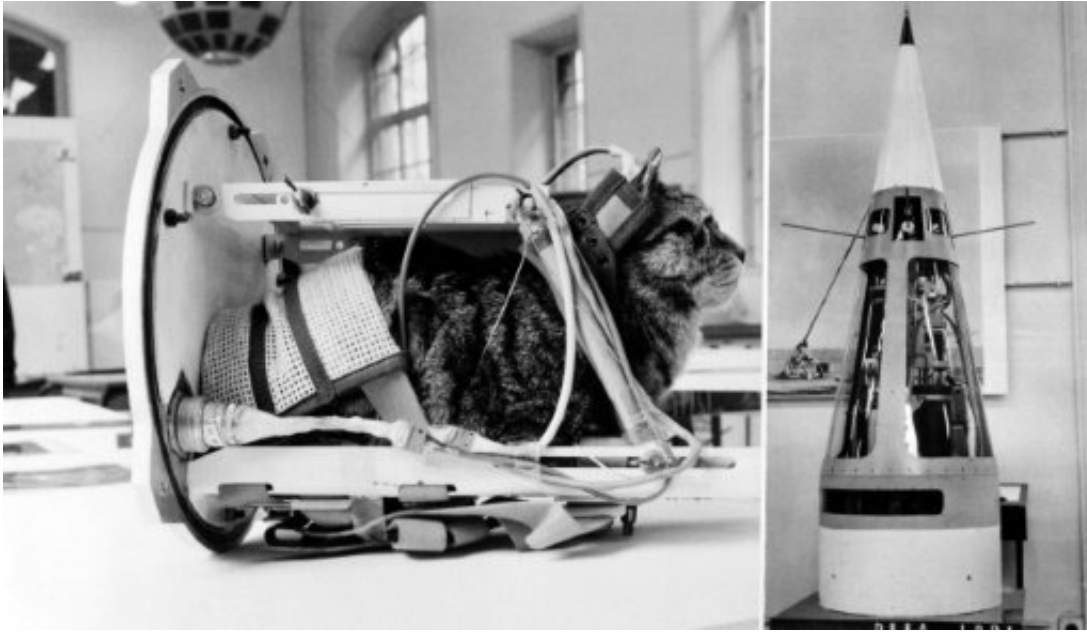
## **Space chimps**

Research with Ham, the first chimpanzee in space, in January 1961 paved the way for the first [space flight](#) by an American, Alan Shepard, one month after Gagarin's historic mission in April 1961.

Fellow-chimp Enos became the only animal from the United States to be sent into orbit in late 1961, just before John Glenn circled the Earth.

## **Other countries join in**

In October 1963 France became the first country to send a cat into space, named Felicette. She replaced Felix, who ran away on the eve of the departure.



A cat shows how the first feline in space would have looked once fitted with equipment, at the National Conservatory of Arts and Crafts in Paris in 1964

The French also sent up the first rat, Hector, who reached a height of about 150 km in 1961.

In January 2001 China, seeking to become part of the small club of space powers, sent a spacecraft into orbit with rats aboard. In 2003 it sent its own astronauts into space.

In 2010 Iran, which wants to send a man into space, announced it had successfully tested a locally manufactured rocket containing several animals including a rat, tortoises and worms.

## **Pushing the limits**

As global space agencies work furiously towards propelling people to Mars by the 2030s, questions of survival in deep space are also being

explored with the help of animals.

In September 2007 researchers said miniscule eight-legged invertebrate creatures known as "water bears", or tardigrades, can survive the vacuum, extreme temperatures and ultra-violet radiation of open space.

And in 2014 Japanese scientists announced the survival of mouse sperm which had been freeze-dried and sent for nine months to the International Space Station, which orbits about 400 kilometres above the planet.

Back on Earth, the sperm was used to fertilise embryos in vitro to produce healthy offspring that grew into normal adult mice.

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