

Liftoff! Pioneers of space

April 9 2021



A monument to Yuri Gagarin near the Kremlin

Soviet cosmonaut Yuri Gagarin became the first man in space 60 years ago next week.

He was one of several stars of the Cold War space race between the Soviet Union and the United States who would become heroes to

millions.

But the technology that sent them into orbit had less glorious origins in the dying days of Nazi Germany.

The Germans

Many of the key rocket scientists behind both the American and Soviet space programmes were Germans, who had worked on Adolf Hitler's "secret weapons", the V-1 and V-2 rockets.

Some 1,600 German rocket experts were secretly taken to the US in the dying days of World War II, while the Russians rounded up about 2,000 in one night at gunpoint and sent them to work in the Soviet Union.

Wernher von Braun

The inventor of Hitler's V-2 rocket—the world's first guided ballistic missile—was the architect of the US Apollo programme that would put a man on the Moon.

Brought across the Atlantic with his brother Magnus, he came up with the Saturn V rocket that powered the American lunar missions. He died in 1977 still advocating manned missions to Mars.

Kurt H. Debus

A friend of Von Braun, Debus was Hitler's flight test director for the V-1s and V-2s.

In 1952, he began the building of rocket launch facilities at Cape Canaveral in Florida and was later director of operations of what would become the Kennedy Space Centre, overseeing the flight by the first US

astronaut Alan Shepard and the Moon missions.

The Soviets

Yuri Gagarin

The first man in space, Gagarin was chosen from 3,000 candidates.

He completed a single 108-minute orbit aboard Vostok-1 on April 12, 1961 after declaring "Let's Go!"



Yuri Gagarin, then 27, prepares to board Soviet Vostok I spaceship on April 12, 1961 before becoming the first man to travel into space

He died in 1968 at the age of 34 in a still unexplained plane crash.

Guerman Titov

Gagarin's understudy for the historic 1961 flight, Titov, never got over the disappointment.

Four months later, he orbited the Earth 17 times on Vostok-2. He was elected to the Russian parliament in 1995.

Alexei Leonov

The then 30-year-old made the first spacewalk in history from Voskhod 2 in 1965.

It lasted 12 minutes and nine seconds and nearly killed him as his spacesuit inflated due to the lack of atmospheric pressure. He had to bleed off some of the oxygen, risking death.

Leonov later took part in the groundbreaking Apollo-Soyuz mission that opened a new era of space cooperation between the Soviets and the US in 1975.

Valentina Tereshkova

The first woman in space, she spent nearly three days in orbit in June 1963.

She had to overcome a host of problems during the flight, which were not revealed until after the collapse of the Soviet Union.

She remains the only woman to have carried out a solo mission.

Sergei Korolev

Chief Soviet rocket engineer Korolev clocked up successes from the launching of Sputnik 1 to Gagarin's historic flight. His role was only disclosed after his death in 1966.

Vladimir Komarov

Komarov became the first person to die in space on April 23, 1967 after a 26-hour flight on Soyuz 1.

A parachute failed on re-entry, causing his craft to plummet to Earth.



Soviet astronaut Alexei Leonov (C) during the 1975 Apollo-Soyuz mission

The Americans

Alan Shepard

The first American in space, Shepard's flight on Freedom 7 on May 5, 1961 was suborbital, rising to an altitude of 116 miles (186 kilometres).

He later commanded the Apollo 14 in 1971 and became the fifth person to walk on the Moon, where he played golf.

John Glenn

The first American to orbit the Earth in February 1962, he was later elected as a US senator, serving until 1999.

In 1998, at the age of 77, Glenn became the oldest person to go into space when he journeyed aboard the space shuttle Discovery.

Sally Ride

In June 1983, Sally Ride became the first American woman to be sent into space, on the [space](#) shuttle Challenger.

She also took part in a 1986 commission that investigated the loss of the vessel. She died of cancer aged 61 in 2012.

Neil Armstrong

Armstrong was the first human to set foot on the Moon on July 20, 1969.

Despite slightly fluffing his line—"That's one small step for (a) man, one giant leap for mankind"—it has since been etched in history.

His fellow crew members were Edwin "Buzz" Aldrin, who followed 20 minutes later, and Michael Collins, who remained alone in lunar orbit.

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