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Mission: Space Jump

Austrian skydiver Felix Baumgartner makes a record-breaking *39 kilometres* jump from space.



JAY NEMETH—RED BULL STRATOS/GETTY IMAGES

Austrian Felix Baumgartner—a pilot, skydiver and high-altitude jumper with the nickname “Fearless Felix”—has jumped from some of the world’s tallest bridges and buildings. But on October 14, he made the jump of his lifetime from a space capsule *39 kilometres* above ground, a **world record-breaking** height. That distance put him on the edge of space in the stratosphere, the second layer of Earth’s atmosphere.

Felix, 42, also broke the record for fastest jump by reaching speeds up to **1,340 kilometres per hour** during his free fall back down to Earth. For comparison, an average Boeing 737 airliner flies at a height of *12 kilometres* at **965 kilometres per hour**. At a press conference following the event, Felix said the experience was humbling and harder than he expected. “Sometimes you have to go up really high to understand how small you are,” Felix said.

A Long Way Down

Felix and a team of scientists, engineers and doctors spent five years preparing and training for the project, called Red Bull Stratos after the project’s sponsor. For the space jump, Felix wore a specially designed space suit and was carried up to his jump point by a large helium balloon from inside the Red Bull Stratos space capsule.

Even with careful planning, the mission had some obstacles. The jump was first scheduled for October 8, but it was postponed several times over the week because of weather

conditions. Felix finally began the ascent from Roswell, New Mexico, on Sunday, October 14. But on the way up, Felix's faceplate began to fog up, making it hard for him to see. The team considered aborting the mission, but Felix was able to fix the problem.

After a smooth initial jump, Felix began to spin out of control while still in the stratosphere, but he eventually steadied himself. After *four minutes and 20 seconds* of free fall—with about 2 kilometres left to go in the jump—Felix released his parachute and landed safely in the desert of New Mexico. From Earth, eight million people watched the space jump event live over a YouTube stream.

Breaking New Barriers

Felix's space jump made headlines for breaking two world records and for making him the **first human to break the sound barrier**. That's the speed at which sound waves are produced in the air. But world records weren't the projects' only goals. Felix wore a monitoring system to help the crew gather scientific data from the jump. They hope the data will benefit future private space programs and high-altitude pilots. "We're going to spend a lot of time going through that data. It's going to break incredible new grounds," Dr. Jonathan Clark, the project's medical director, said.

Joe Kittinger, a pilot who set the previous world records for highest and fastest fall over 50 years ago, mentored Felix for the jump. Kittinger still holds the record for longest free fall at four minutes, 35 seconds. "Records are meant to be broken. And better champions cannot be found than Felix Baumgartner," Kittinger said. With his own goals completed, Felix hopes to mentor someone else to break the records. "I want to inspire the next generation," Felix said.



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