Austrian daredevil succeeds in space jump (LIVE webcast)

October 14 2012

This photo provided by Red Bull Stratos shows pilot Felix Baumgartner of Austria reacting after his mission was aborted in Roswell, N.M., on Oct. 9, 2012. on Sunday, Oct. 14, 2012, mission control officials declared a "weather hold" until 8:15 a.m. MDT, and said that inflation of the balloon wouldn't begin until after that hold is lifted. Earlier, the launch team said they were aiming for the three-hour ascent to begin Sunday at 8 a.m. The jump was postponed twice last week because of high winds.

Austrian daredevil Felix Baumgartner made a record-breaking leap

from the edge of space Sunday, landing safely in the New Mexico desert after freefalling from more than 24 miles above the Earth.

The 43-year-old floated down to Earth on a red and white parachute canopy, which he had opened after reaching speeds of more than 700 miles per hour in freefall.

Mission control erupted in cheers as Baumgartner made a near-perfect jump from a capsule hoisted aloft by a giant helium-filled balloon to an altitude of around 128,000 feet.

"Sometimes you have (go) up really high to (realize) how small you are," Baumgartner said shortly before he jumped, watched in live footage beamed around the world.

He had taken more than two hours to get up to the jump altitude. Baumgartner had already broken one record, before he even leapt: the previous highest altitude for a manned balloon flight was 113,740 feet, set in 1961.

The Austrian had been due to jump from 120,000 feet, but the balloon went higher than expected, to more than 24 miles (39 kilometers).

The Red Bull Stratos mission was the second attempt for the skydiver after an initial bid last week was aborted at the last minute due to winds.

The biggest risk Baumgartner faced was spinning out of control, which could exert G forces and make him lose consciousness. A controlled dive from the capsule was essential, putting him in a head-down position to increase speed.

More gruesomely, the skydiver's blood could have boiled if there were the slightest tear or crack in his pressurized spacesuit-like outfit, due to

instant depressurization at the extreme altitude.

Temperatures of 90 degrees below zero Fahrenheit (minus 68 Celsius) could also have had unpredictable consequences if his suit somehow failed.

The leap went off flawlessly though there was a minor problem as the capsule ascended: a heater failed on Baumgartner's helmet faceplate, meaning it was becoming fogged up when he exhaled.

After considering the options they decided to go ahead with the jump.

Baumgartner's 100-strong backup team includes retired US Air Force colonel Joe Kittinger, who had held one of the records he was trying to break: the highest freefall jump, which he made from 102,800 feet (31,333 meters) in 1960.

"Let the guardian angel take care of you," Kittinger told Baumgartner shortly before he leapt into the void.

The giant balloon—which holds 30 million cubic feet of helium—is needed to carry the Red Bull Stratos capsule, which weighs nearly 1.3 tons, to the stratosphere.

It is made of near transparent polyethylene strips even thinner than a dry cleaner bag, which are heat-sealed together. Very thin material is necessary to save weight.

The Austrian has been training for five years for the jump. He holds several previous records, notably with spectacular base jumps from the Petronas Towers in Kuala Lumpur and the Christ the Redeemer statue in Rio de Janeiro, Brazil.

Speaking before the launch, Baumgartner said he would be proud to be the first person to break the speed of sound in freefall.

"But really, I know that part of this entire experience will help make the next pressure suit safer for space tourists and aviators," the jumper pointed out.

Sunday's launch coincided with the 65th anniversary of American pilot Chuck Yeager breaking the speed of sound.

THIS IS AN UPDATE TO THE PREVIOUS STORY BELOW.

Austrian daredevil Felix Baumgartner lifted off from the New Mexico desert on Sunday in his second attempt to make a record-breaking jump from the edge of space.

Baumgartner was to be transported up to 23 miles (37 kilometers) above the Earth by an enormous balloon, before launching himself into the void, aiming to become the first human to break the sound barrier in freefall.

The capsule rose into the clear blue sky, with organizers holding their breath for the first few thousand feet of ascent, as Baumgartner, 43, would not have had enough time to escape had there been a problem.

But some 10 minutes into flight the balloon—whose progress was streamed live by cameras on the ground and around the capsule itself—was rising at around 1,200 feet per minute, according to mission control.

The Red Bull Stratos mission launch was the second effort by the 43-year-old skydiver, following an initial bid last week that was aborted

at the last minute due to winds.

The giant balloon—which holds 30 million cubic feet of helium—is needed to carry the Red Bull Stratos capsule, which weighs nearly 1.3 tons, to the stratosphere.

It is made of near transparent polyethylene strips about the same thickness as a dry cleaner bag, which are heat-sealed together. Very thin material is necessary to save weight.

The biggest risk Baumgartner faces is spinning out of control, which could exert G forces and make him lose consciousness. A controlled dive from the capsule is essential, putting him in a head-down position to increase speed.

More worrying is the prospect that the skydiver's blood could boil if there were the slightest tear or crack in his pressurized spacesuit-like outfit, due to instant depressurization at extreme altitude.

Temperatures of 90 degrees below zero Fahrenheit (minus 68 Celsius) could also have unpredictable consequences if his suit somehow fails.