

Red bull stratos project



**ASSIGN
BUSTER**

Red Bull Stratos Project by Mihaly Kiss Project Management Dr. Patricia Nemeth The need for the project The purpose of the Red Bull Stratos mission is to transcend human limits. Supported by a team of experts Felix Baumgartner ascended to 128,100 feet in a stratospheric balloon and made a freefall jump rushing toward earth at supersonic speeds before parachuting to the ground. His successful feat on Oct. 14, 2012 holds the potential to provide valuable medical and scientific research data for future pioneers.

The Red Bull Stratos team brings together the world's leading minds in aerospace medicine, engineering, pressure suit development, capsule creation and balloon fabrication. Retired United States Air Force Colonel Joseph Kittinger, previously held the record jump from 102,800 ft in 1960. This was during a time when no one knew if a human could survive a jump from the edge of space. Joe was a Captain in the U. S. Air Force and had already taken a balloon to 97,000 feet in Project ManHigh and survived a drogue mishap during a jump from 76,400 feet in Excelsior I.

The Excelsior III mission was his 33rd parachute jump. Although researching extremes was part of the program's goals, setting records wasn't the mission's purpose. Joe ascended in helium balloon launched from the back of a truck. He wore a pressurized suit on the way up in an open, unpressurized gondola. Scientific data captured from Joe's jump was shared with U. S. research personnel for development of the space program. Today Felix and his specialized team want to take what was learned from Joe's jumps more than 50 years ago, and combine that with data acquired during Felix's supersonic freefall.

Introduction of the project Red Bull Stratos was a space diving project involving Austrian skydiver Felix Baumgartner. On 14 October 2012, Baumgartner flew approximately 39 kilometres into the stratosphere over New Mexico, United States, in a helium balloon before free falling in a pressure suit and then parachuting to Earth. The total jump, from leaving the capsule to landing on the ground, lasted approximately ten minutes. While the free fall was initially expected to last between five and six minutes, Baumgartner deployed his parachute after 4 minutes and 19 seconds.

Reaching 1,357.64 km/h - Mach 1.25 - Baumgartner broke the sound barrier on his descent, thus becoming the first human to do so without any form of engine power. Preliminary measurements show Baumgartner also broke two other world records. With a final altitude of 38,969 m, Baumgartner broke the unofficial record for the highest manned balloon flight of 37,640 m previously set by Nicholas Piantanida. He also broke the record for the highest altitude jump, set in 1960 by retired USAF Colonel Joseph Kittinger, who was Baumgartner's mentor and capsule communicator at mission control.

These claims were verified by the Federation Aeronautique Internationale. Baumgartner's jump was 65 years to the day after October 14, 1947, when Chuck Yeager broke the sound barrier for the first time in a piloted aircraft. Project Process In January 2010, it was reported that Baumgartner was working with a team of scientists and sponsor Red Bull to attempt the highest sky-dive on record. Baumgartner was going to make the 36,600 m jump from a capsule suspended from a balloon filled with helium, intending to become the first parachutist to break the sound barrier.

This would be possible because while the normal terminal velocity of a skydiver freeflying is about 320 km/h, the high altitude with less dense atmosphere would decrease drag. On 12 October 2010, Red Bull announced it was placing the project on hold after Daniel Hogan filed a lawsuit in California Superior Court in Los Angeles, California, USA in April, claiming he originated the idea of the parachute dive from the edge of space in 2004 and that Red Bull stole the idea from him. The lawsuit was resolved out of court in June 2011 and on 5 February 2012, it was reported that the project would be resumed.

On 15 March 2012, Baumgartner completed the first of two test jumps, from 21, 818 metres. During the jump, he spent approximately three minutes and 43 seconds in free fall, claiming to have reached speeds of more than 580 kilometres per hour, before opening his parachute. In total, the jump lasted approximately eight minutes and eight seconds and Baumgartner became only the third person to parachute safely from a height of over 21. 7 kilometres. On 25 July 2012, Baumgartner completed the second of two planned test jumps, from 29, 460 metres.

It took Baumgartner about 90 minutes to reach the target altitude and his free fall was estimated to have lasted three minutes and 48 seconds before his parachutes were deployed. Baumgartner landed safely near Roswell, New Mexico, USA. His top speed was an estimated 863 kilometres per hour according to Brian Utley, an official observer on site. The jump represented a personal best for Baumgartner. Joseph Kittinger, who parachuted from 31, 300 m in 1960, became involved with the mission to advise Baumgartner and to help gather scientific data on next-generation full pressure suits.