

# The Longest Leap

Heroism is not limited to combat, but the valor of only a few, like Joe Kittinger, is tested in both peace and war.

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**I**N 1934, the Air Force abandoned, seemingly for all time, its lighter-than-air program that included both balloons and airships. Two decades later, the tremendous advances that had been made in aviation technology called back to active duty a technologically obsolete form of military aeronautics—the balloon.

There may have been a few active-duty Air Force officers who wore balloonist wings, but certainly none young enough for the balloon-borne experiments the Air Force had in mind. By the mid-1950s, high-altitude supersonic fighters were rapidly coming into operational units. The Air Force needed to know whether crew members could parachute safely from disabled aircraft flying in the stratosphere. The balloon was an ideal platform for very-high-altitude parachute jumps that would answer that question and point the way for development of new emergency equipment. A young test pilot, Capt. Joseph W. Kittinger, Jr., was one of those selected to train for experiments under USAF's Project Man High.

On June 2, 1957, Kittinger made the first Man High flight to an altitude of 96,000 feet in a sealed gondola, setting a record for manned balloon flights. He was then named director of Project Excelsior, an investigation of human exposure to stratospheric conditions and of parachute descent from extreme altitude. No one knew with certainty if a man could survive a bailout from several miles above the earth until it was tried.

Kittinger's first high-altitude parachute jump, supported by elab-

orate technology and a team of experts in several fields, came close to being his last. In November 1959, he bailed out of a balloon at 76,000 feet, the highest anyone had been in an open gondola. His small stabilizing chute, which was to prevent a flat spin that could be fatal at rotation speeds of 150 to 200 rpm, malfunctioned and wrapped around his neck. He dropped unconscious to 12,000 feet, where his main chute saved the day. Three weeks later, he jumped without incident from 74,000 feet. In September 1960, President Eisenhower presented the Harmon International Trophy (Aeronaut) for 1959 to Joe Kittinger.

August 16, 1960, was set for the ultimate test. Kittinger rode a four-and-a-half-foot open gondola to 102,800 feet. The ascent, through temperatures that fell to ninety-four degrees below zero, took an hour and a half. Failure of his life-support system above 60,000 feet would have meant almost instant death.

With that and other hazards in mind, he stepped out of the gondola and plunged through the stratosphere, reaching supersonic speed in the rarified atmosphere. Between 90,000 and 70,000 feet, he experienced great difficulty in breathing. At about 50,000 feet, his free-fall speed had dropped to 250 miles an hour in the denser atmosphere. He



At the start of his record jump, Joe Kittinger takes that first big step from his gondola at 102,800 feet up.

was suffering extreme pain in his right hand that was caused by partial failure of pressure in that glove during the ascent.

After he had fallen for four minutes and thirty-seven seconds, Kittinger's main chute opened, and some eight minutes later he landed at the White Sands Missile Range in New Mexico with no permanent injuries but with three world records: the highest open-gondola balloon ascent, the longest free-fall, and the longest parachute descent. He was also the first man to go supersonic in a free-fall. Joe Kittinger had proved that man could function in near-space and that parachuting from very high altitudes was feasible.

For another two years, Kittinger continued balloon-borne experiments for the Air Force before joining the Air Commando Wing at Hurlburt Field, Fla. He flew 483 missions during three combat tours in Vietnam—two in A-26s and the last as vice commander of an F-4 wing. Four days before completing that tour, Kittinger, then a lieutenant colonel and with one MiG-21 to his credit, was shot down over North Vietnam and spent eleven months as senior officer of the "new guy" POWs—those captured after 1970.

Col. Joseph Kittinger retired from the Air Force in 1978, but not from flying either airplanes or balloons. After winning a number of races, including the Gordon Bennett Balloon Race in 1982 and 1984, the fifty-six-year-old Kittinger made the first solo balloon crossing of the Atlantic. (*See National Geographic, February 1985 issue.*) His eighty-three-hour flight from Caribou, Me., to near Genoa, Italy, ended when he was forced down by thunderstorms, breaking a foot as the balloon crashed in trees.

Joe Kittinger—high-altitude research pioneer, combat pilot, and POW leader—is one of those rare people whose skill and heroism in peace and in war have earned them a place in the Air Force hall of valor. ■