

**Major General Joe Henry Engle  
Inducted 2007**



Major General Joe Henry Engle (USAF and ANG) was born in Dickinson County, Kansas, on 26 August 1932. After attending grade school in Chapman, Kansas, and graduating from Dickinson County High School, he went to the University of Kansas, where he received a Bachelor of Science (BS) degree in Aeronautical Engineering in 1955.

Commissioned through the Air Force Reserve Officer Training Corps (AFROTC) program at the University of Kansas, General Engle entered flight school in 1957. He served with the 474th Fighter Day Squadron and the 309th Tactical Fighter Squadron at George AFB, California. Having received a personal recommendation from Chuck Yeager, he attended the USAF Experimental Test Pilot School and graduated in 1962. He flew as a test pilot in the Fighter Test Group at Edwards AFB, California. During his career, he flew more than 185 different types of aircraft, including 25 different fighters, and logged more than 14,700 hours of flight time.

Considering him "one of the sharpest" in the test-pilot program, Yeager selected Engle for admission to the newly established Aerospace Research Pilot School (ARPS) for training military astronauts. After graduating from ARPS in June 1963, Engle became a research pilot in the X-15 program. He became the eighth pilot to fly the X-15, reaching Mach 4.71 and 77,000 feet altitude on 7 October 1963. He entered the history books on 29 June 1965 when he flew the X-15 to an altitude of 280,600 feet, becoming the youngest person, at age 32, ever to qualify officially as an astronaut. Twice more before that year ended, he would pilot the rocket-powered aerospace plane more than fifty miles above the Earth's surface. Altogether, then USAF Captain Joe Engle flew the X-15 sixteen times and was one of only eight men to qualify for astronaut wings by flying an "airplane" into space.

In April 1966, the National Aeronautics and Space Administration (NASA) selected Engle as one of its nineteen new astronaut candidates, and the only one who already had participated in spaceflight operations. Assigned to the Apollo program, he first served on the support crew for Apollo X and then, as backup lunar-module pilot for the Apollo XIV

mission.

Engle went on to command one of two crews that flew the Space Shuttle Enterprise Approach-and-Landing Test flights during June-October 1977. Those flights, which involved transport atop a Boeing 747 to an altitude of 25,000 feet, then being released for a two-minute glide to landing, evaluated the orbiter's handling qualities and landing characteristics. He and Richard Truly completed the first flight of the Space Shuttle in its orbital configuration. Engle served as backup commander for STS-1, the first orbital test flight of Space Shuttle Columbia and commanded STS-2, the second orbital test flight of Columbia, which launched from Kennedy Space Center on 12 November 1981 and landed at Edwards AFB, CA. That particular mission, the first and only time a winged aerospace vehicle was flown manually from orbit through landing, included 29 flight-test maneuvers which Engle performed during the reentry profile at velocities ranging from Mach 25 to subsonic for extraction of aerodynamic and aero-thermodynamic data.

After a stint as Deputy Associate Administrator for Manned Space Flight at NASA headquarters, March-December 1982, Engle returned to Johnson Space Center in Houston, Texas, to train for command of the STS-511 mission of Space Shuttle Discovery. Launched on 27 August 1985, Discovery deployed three communication satellites. That mission also involved the first manual grapple and redeployment of an on-orbit satellite by a crew member when Discovery successfully rendezvoused with and repaired the ailing 15,000 lb. SYCOM IV-3. By the time he retired from active duty in the Air Force and as an astronaut in November 1986, then Colonel Engle had accumulated 224 hours in space and held the unique distinction of being the only person to have flown two entirely different winged space vehicles-the X-15 and the Space Shuttle.

He subsequently joined the Kansas Air National Guard (ANG) and served during the late 1980s as ANG Assistant to the Commander in Chief, United States Space Command. Before retiring from the ANG, he achieved the rank of Major General. From the 1990s onward, he served as an aerospace-engineering consultant and simulation-evaluation pilot for Space Shuttle modifications and other advanced, piloted reentry vehicles. His military decorations include the DOD Distinguished Service Medal, USAF Distinguished Service Medal and the USAF Distinguished Flying Cross. Other honors and awards include the Clifford B. Harmon International, Robert J. Collier, Lawrence Sperry, Ivan C. Kinchloe, Robert H. Goddard, and General Thomas D. White aviation and space trophies. Joe Engle has been inducted to the Aerospace Walk of Honor, the Kansas Aviation Hall of Fame, the Astronaut Hall of Fame, and in 1992 was enshrined into the National Aviation Hall of Fame.