

1997 Eagles – Men of Mach One

***Maj Gen Fred J. Ascani, USAF(Ret.)***

Fred Ascani entered flight training after graduating from West Point in 1941. After duty as an instructor pilot and with a tow target unit, he joined the 483<sup>rd</sup> Bombardment Group in February 1944 and flew 53 combat missions in the B-17.

Ascani returned to the U.S. in December 1944 and spent the next five years in the Flight Test Division of the Air Technical Service Command at Wright-Patterson AFB. A graduate of the Flight Performance School, class 46B, he was assigned in 1950 to the 3077th Experimental Group at Edwards AFB as director of Experimental Flight Test and Engineering.

During the 1951 National Air Races, Ascani attained a World's Speed Record while flying an F-86F. While at Edwards AFB, Ascani flew more than 50 types of research aircraft, including the X-1, X-4, X-5, XB-42 and XF-92A.

Ascani served as vice commander of the Air Force Flight Test Center and also served in the late 1940s as executive officer for then-Col. Albert Boyd, often credited as the “father of modern Air Force flight testing.” Ascani was honored as an Eagle in 1997.



***De E. Beeler***

In 1941, De Beeler joined the National Advisory Committee for Aeronautics as an aeronautical research scientist. With a double major degree in Mechanical and Aeronautical Engineering and a commercial pilot rating, he arrived at Muroc, now known as Edwards Air Force Base in late 1946. Previously he worked at Langley as project engineer on high-speed research.

At Muroc, Beeler was the project engineer in charge of the aircraft loads program, using the same analytical staff from the XP-51 program. The result of the effort was information vital to development of the X-1. Beeler continued to serve as deputy director as NACA's Muroc facility grew to become NASA's Dryden Flight Research Center. In addition to serving as Director of the Research Division, he was still the Deputy of the Center when he left in 1974 to join Fairchild Republic as Director of that company's flight test facility for development of the A-10 attack aircraft. He was honored as an Eagle in 1997. He passed away on September 11, 2007.



***Brig Gen Robert L. “Bob” Cardenas, USAF (ret.)***

Bob Cardenas began his military career as a Private in the Army Coast Artillery. He then became a pilot as a Cadet in the Army Air Corps. He was commissioned in July 1941 and flew B-24 bombers in World War II. He was shot down over Germany, but escaped into Switzerland and then into France.

After returning home to the United States, he graduated from the Flight Performance School in 1945. In 1947, Cardenas was a key member of the X-1 supersonic test project, as the Operations Officer and pilot of the B-29 that launched the X-1 into supersonic flight for the first time. In 1948, he was assigned as Officer in Charge of Flight Test Division projects at Muroc Army Airfield. Replacing Captain Glen Edwards, he was the chief Air Force test pilot of the YB-49 Flying Wing program and conducted performance and stability testing. In 1949, Cardenas flew the YB-49 from Muroc to Andrews AFB setting a transcontinental record of four hours, 20 minutes covering 2,258 miles at a speed of 511.2 mph.

During the Korean War, Cardenas was at Wright Field and Edwards AFB testing new jet fighters and bombers. He was then Commander of the 51st Fighter Interceptor Wing on Okinawa during the Gulf of Tonkin crisis and flew the F-105 over Southeast Asia. He returned stateside to command the 835th Air Division at McConnell AFB, Kansas, training F-105 crews for combat. He was honored as an Eagle in 1994, 1995, 1997 and 1998.



***Maj Gen Joe H. Engle, ANG (ret.)***

Joe Engle earned a degree in Aeronautical Engineering and an Air Force commission through the University of Kansas.

Upon completion of pilot training, he served in the 474<sup>th</sup> and 309<sup>th</sup> Fighter Squadrons at George AFB, CA, in F-100s. He graduated from the Aerospace Research Test Pilot School at Edwards AFB in Class 61C. Engle remained at Edwards AFB in the Fighter Test Branch and flew fighter test projects. He also flew 16 flights in the X-15, reaching Mach 5.71, and an altitude of 280,600 feet. These feats earned him his astronaut wings for exceeding 50-mile altitudes in three flights.

In 1966, Engle was one of 19 astronauts selected for NASA missions. He was back-up Lunar Module Pilot for the Apollo 14 mission and commanded a crew that flew Space Shuttle Enterprise approach and landing tests in 1977. Engle commanded the second orbital test flight of the Space Shuttle Columbia in 1981. On this flight, he became the first pilot to manually fly an aerospace vehicle during re-entry from Mach 25 to landing. In 1985, Engle was commander of STS-51-1 Discovery.

Engle has flown 183 types of aircraft and logged more than 13,000 flight hours, including 9,700 in jets and 224 in space.

Upon retirement from the Air Force and the Air National Guard, Engle became simulator evaluation pilot on the X-30 National Aerospace Plane. After a career that spanned three decades of super-sonic flight, he continues to consult and travel. He is the only pilot of both the X-15 and the space shuttle and remains the only man to fly into space in two different winged vehicles. He was honored as an Eagle in 1997 and 1999.



***Robert A. "Bob" Hoover***

As an Army Air Corps Spitfire pilot, Bob Hoover was shot down in 1944 on his 59th mission in World War II, and was held a POW by Germany for 15 months. He escaped from the camp two weeks before the war ended, trekked through Germany and hijacked a German aircraft to fly to safety in the Netherlands.

Hoover's accomplishments span over five decades of test and aerobatic flying. He set a coast-to-coast record flying a P-51 Mustang from Los Angeles to Daytona Beach, Fla., was the first pilot to make a dead stick landing in an F-100, and continues to amaze air show crowds around the world.

Hoover conducted flight tests on the P-51 and P-80 and was the first to fly the XFJ-2 Fury jet and the Navy's T-28 trainer. He tested every type of Sabre Series aircraft and set three climb-to-altitude records at the Hanover Air show. He is the only test pilot to have served twice as President of the Society of Experimental Test Pilots.

Hoover's long and distinguished career includes being backup pilot for the X-1 Mach One flight. He flew the F-80 chase plane on the historic day when the sound barrier was finally broken. He was honored as an Eagle in 1993 and 1997.



***Brig Gen Charles E. "Chuck" Yeager, USAF (Ret.)***

Chuck Yeager retired from the Air Force in 1975 after a brilliant 34-year career that took him from enlisted obscurity as a mechanic and crew chief to international acclaim as the test pilot who shattered the sound barrier.

Yeager earned his wings in 1943 and was posted to Europe where he flew the P-51 Mustang. Shot down on his eighth combat mission, he evaded capture in German-occupied France and made his way to Spain with the help of the French Maquis. Returning to England, Yeager won permission from Gen Dwight Eisenhower to return to combat flying. As a result of that decision, Yeager ended his tour with 64 combat missions in which he scored 13 aerial victories, including five enemy aircraft on one mission alone.

Because of his flying skills and intuitive engineering instincts, Yeager was selected in 1947 as Project Pilot on the Bell X-1 at Muroc Air Base. On Oct. 14, 1947, he flew the X-1 past the so-called sound barrier to become the world's first supersonic pilot. Later he made a ground takeoff in the X-1 to become the first American to do so in a fully rocket-powered aircraft. Over succeeding years, Yeager flew every type of experimental aircraft at Edwards AFB. In 1953, he flew the X-1A to a record 1,650 mph or Mach 2.44.





**Col Joseph F. "Joe" Cotton USAF (Ret.)**

Joe Cotton entered the Army Air Corps as a Flying Cadet in 1942. After earning his wings, he waited for combat training and assignment to a fighter unit. Heavy losses in bomber units suddenly changed his assignment to that of B-17 co-pilot in North Africa.

On his first mission, his plane was shot down over the Greek Island of Corfu. Ten crew members survived the crash and spent four and a half months evading German capture. After rescue and recuperation in Italy, Cotton returned to the United States in 1944 to instruct new pilots for B-17s.

The true beginning of Cotton's test piloting career was flying the Bell RP-63A, the "flying pinball machine," being developed as a flying target for bomber crew gunnery practice. He went on to do weather testing of various aircraft, and in 1952 was graduated from the Empire Test Pilots' School in Farnborough, England.

Returning to the United States, Cotton headed a unit that put the B-58 through final testing for the Strategic Air Command. In 1962, he became the Air Force Chief Test Pilot on the XB-70 at Edwards AFB. He flew the first flight and remained with the project through the last flight of the Development Test and Evaluation program.

Cotton retired from the Air Force in 1968 with 11,580 hours piloting some 76 types and models of military aircraft. He was honored as an Eagle in 1996.



**Brig. Gen. Frank K. "Pete" Everest, USAF (Ret.)**

After flying 161 combat missions in World War II, being shot down and held as a POW, Pete Everest returned to become a 1946 graduate of the Flight Performance School. He eventually logged over 10,000 hours in over 170 different aircraft types and models.

During his tour as a test pilot, Everest established an unofficial and unannounced world's altitude record of

73,000 feet in the Bell X-1. During one of his 10 flights in the X-1 he inadvertently became the first pilot to be saved by the T-1 pressure suit when the canopy cracked during a test above 63,000 feet. In 1951, the X-1D blew up with Everest in the cockpit. He jumped into the bomb bay of the B-29, which jettisoned the burning rocket plane. In 1953, Everest set a new world speed record of 755.15 mph in the YF-100A. It was the last world absolute speed record to be set at low altitude.

Everest may be best known for his test flights in the X-2. He flew the first powered flight in 1955 and by the following year had flown it to a record-breaking Mach 2.87. He was the pilot on eight of the 13 powered flights of the X-2.

During his Air Force career, Everest served as director of Aerospace Safety, director of Operations for Test and Evaluation in the Department of Defense, and commander of Aerospace Rescue and Recovery. After retirement, he was chief test pilot and chief of flight operations for Sikorsky Aircraft. Everest was honored as an Eagle in 1996.



**Brig Gen Charles E. "Chuck" Yeager, USAF (Ret.)**