70 years ago, on October 14, 1947, the X-1 rocket aircraft made history with the first supersonic flight. Traveling around 700 miles an hour, the X-1 was faster than the speed of sound. Piloted by United States Air Force Test Pilot Chuck Yeager, the X-1 was nicknamed Glamourous Glennis for Yeager's wife. Built solely for experimental purposes, the X-1 established research aircraft. X-Planes are experimental aircraft used to test new
aerodynamic concepts and technologies.

Ready to Launch.

50 years ago, on October 3, 1967, the X-15 rocket aircraft set a new speed record. Flying at mach 6.7 or 4,520 miles per hour, William J "Pete" Knight piloted this record breaking flight. Flying faster and higher than ever before, pilots qualified as astronauts reaching the edge of outer
space, as high as 50 miles into the atmosphere.

To push the envelope, NASA pioneered new technologies, engines and materials.

NASA is building on that legacy of experimental aircraft today.

A new X-plane, called the Low Boom Flight Demonstrator (LBFD), is being developed to minimize sonic booms.

A sonic boom is made by shock waves when an aircraft travels through the air faster than the speed of sound.
Current noise regulations restrict supersonic flights overland.

Unique shaping and other design features will diminish the loud sonic boom to the level of a soft "thump".

Another new NASA X-plane is electric and battery powered.

The X-57 is testing new propulsion technology.

12 motors provide extra lift during the take-off and then 2 cruise motors take over.

Distributing energy over the entire wing makes the X-57 more efficient.
Flying above and beyond, NASA continues to push the

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envelope in aerodynamic research.

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