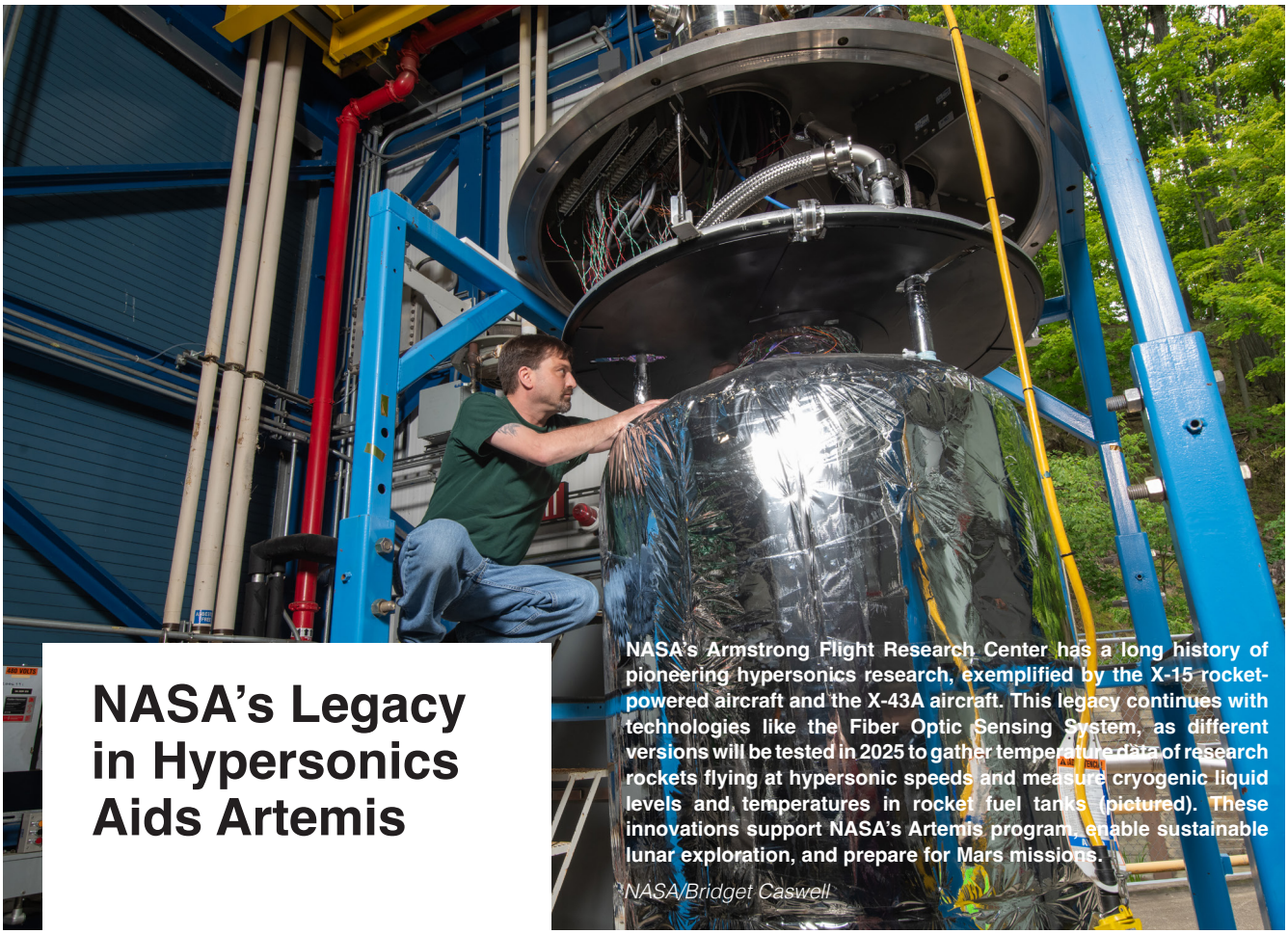
National Aeronautics and Space Administration

X-PRESS

ARMSTRONG FLIGHT RESEARCH CENTER

Edwards, California, September 2025



NASA's Legacy in Hypersonics Aids Artemis

NASA's Armstrong Flight Research Center has a long history of pioneering hypersonics research, exemplified by the X-15 rocket-powered aircraft and the X-43A aircraft. This legacy continues with technologies like the Fiber Optic Sensing System, as different versions will be tested in 2025 to gather temperature data of research rockets flying at hypersonic speeds and measure cryogenic liquid levels and temperatures in rocket fuel tanks (pictured). These innovations support NASA's Artemis program, enable sustainable lunar exploration, and prepare for Mars missions.

NASA/Bridget Caswell

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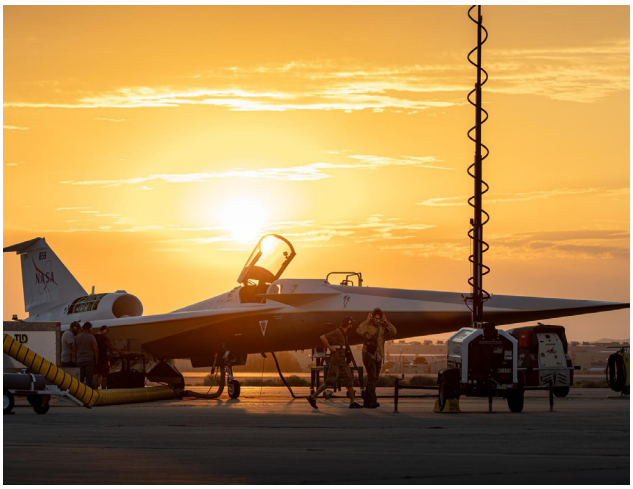
NASA's X-59 Aircraft Approaches First Flight

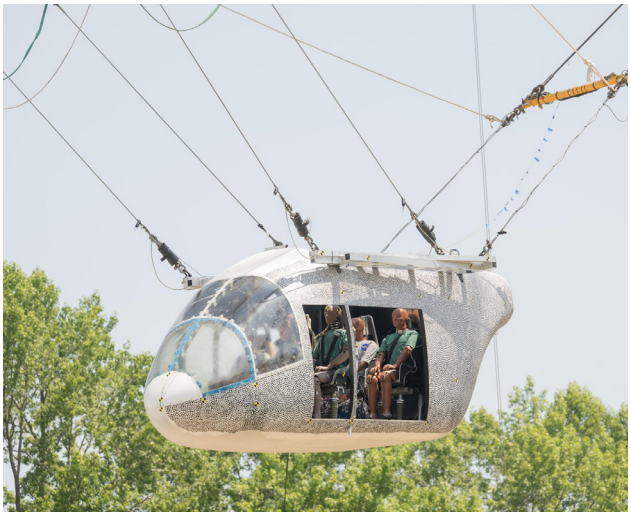


Lockheed Martin Corporation

NASA's X-59 is preparing to push the boundaries of what's possible in air travel. The quiet supersonic aircraft's historic first flight is on the horizon, with final ground tests about to begin.

Following completion of low-speed taxi tests in July 2025 in Palmdale, California, medium- and high-speed taxi tests mark the final steps before the aircraft takes to the skies for the first time. The X-59's initial flight will kick off a first phase of flight testing focused on verifying the aircraft's airworthiness and safety. The X-59 will reach speeds of approximately 240 mph at an altitude of about 12,000 feet.

NASA Drop Test Supports Safer Air Taxi Design



NASA/Mark Knopp

As the aviation industry works to develop new air taxis and other electric aircraft made from innovative, lightweight materials, there's a growing need to understand how those materials behave under impact. That's why NASA is investigating potential air taxi materials and designs that could best protect passengers in case of a crash.

On June 26 at NASA's Langley Research Center in Hampton, Virginia, researchers dropped a full-scale aircraft body modeled after an air taxi from a tall steel structure, known as a gantry.

The NASA researchers investigated materials that best absorb impact forces, generating data that will enable manufacturers to design safer aircraft.