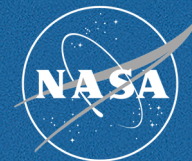


National Aeronautics and Space Administration



X-PRESS

ARMSTRONG FLIGHT RESEARCH CENTER

EDWARDS, CALIFORNIA, JANUARY 2025

Atmospheric probe shows promise in test flight



An atmospheric probe model attached upside down to a quad rotor remotely piloted aircraft ascends with the Moon visible on Oct. 22, 2024. The quad rotor aircraft released the probe above Rogers Dry Lake, a flight area adjacent NASA's Armstrong Flight Research Center in Edwards, California. The probe was designed and built at the center. NASA/Steve Freeman

See what's up at
NASA Armstrong



@nasaarmstrong

www.nasa.gov



Lockheed Martin Corporation/Garry Tice

Engine runs with max afterburner

NASA's X-59 quiet supersonic research aircraft completed its first maximum afterburner test at Lockheed Martin's Skunk Works facility in Palmdale, California. This full-power test, during which the engine generates additional thrust, validates the additional power needed for meeting the testing conditions of the aircraft. The X-59 is the centerpiece of NASA's Quesst mission, which aims to overcome a major barrier to supersonic flight over land by reducing the noise of sonic booms.



NASA flips efficient wing concept

Upside down can be right side up. That's what NASA researchers determined for tests of an efficient wing concept that could be part of the agency's answer to making future aircraft sustainable.



Research from NASA's Advanced Air Transport Technology project involving a 10-foot model could help NASA engineers validate the concept of the Transonic Truss-Braced Wing (TTBW), an aircraft using long, thin wings stabilized by diagonal struts. The TTBW concept's efficient wings add lift and could result in reduced fuel use and emissions for future commercial single-aisle aircraft. A team at the Flight Loads Laboratory at NASA's Armstrong Flight Research Center in Edwards, California, are using the model, called the Mock Truss-Braced Wing, to verify the concept and testing methods.



Researchers test a 10-foot Mock Truss-Braced Wing at NASA's Armstrong Flight Research Center in Edwards, California. Charlie Eloff, left, and Lucas Oramas add weight to the test wing to apply stress used to determine its limits. NASA/Steve Freeman