National Aeronautics and Space Administration

X-PRESS

ARMSTRONG FLIGHT RESEARCH CENTER
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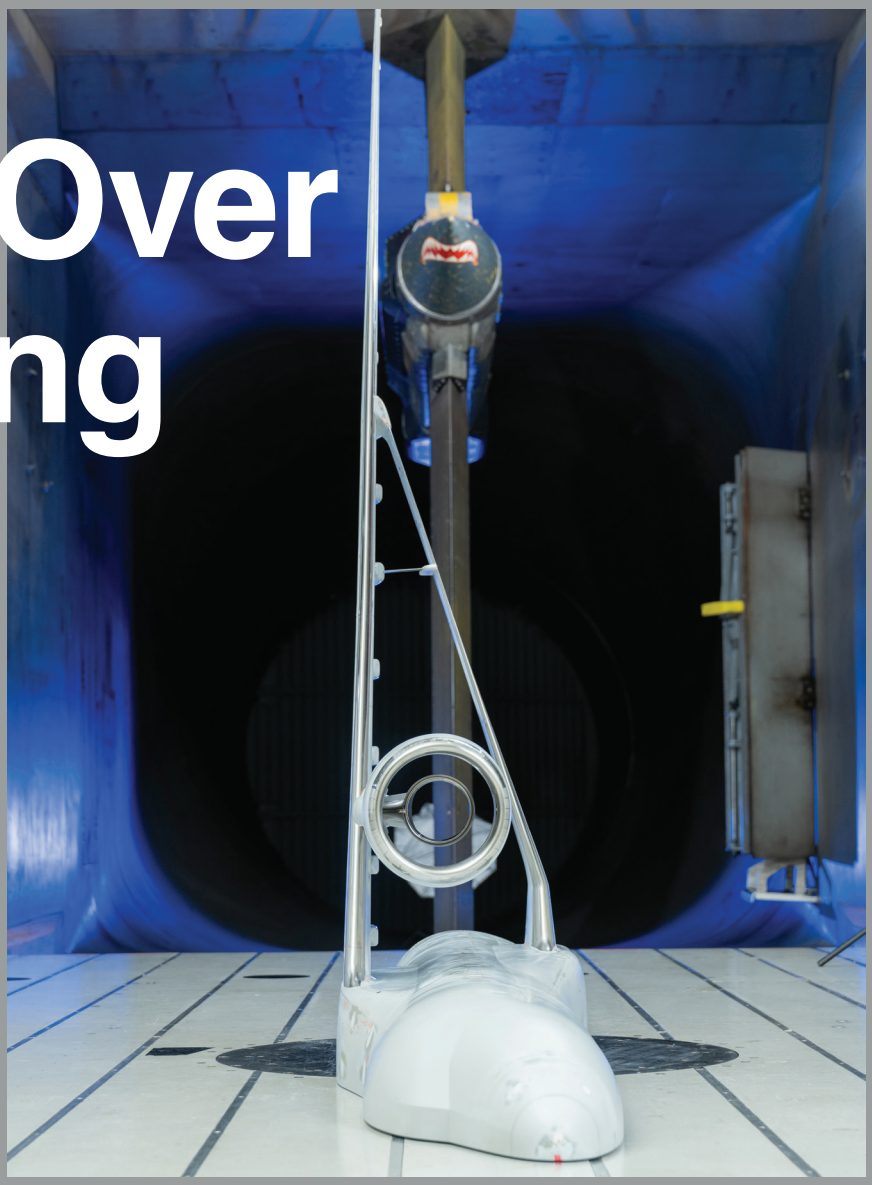
Wind Over Its Wing

NASA's Sustainable Flight Demonstrator project concluded wind tunnel testing in the fall of 2024. Tests on a Boeing-built X-66 model were completed at NASA's Ames Research Center in California's Silicon Valley in its 11-Foot Transonic Unitary Plan Facility. The model underwent tests representing expected flight conditions to obtain engineering information to influence design of the wing and provide data for flight simulators.



NASA/Brandon Torres Navarrete

See what's up at NASA Armstrong

@nasaarmstrong

NASA's X-59 lights up the night sky with its unique Mach diamonds, also known as shock diamonds, during maximum afterburner testing at Lockheed Martin Skunk Works in Palmdale, California. The test demonstrated the engine's ability to generate the thrust required for supersonic flight, advancing NASA's Quesst mission. Lockheed Martin/Gary Tice

NASA's X-59 Aircraft Aces Tests

NASA's X-59 quiet supersonic research aircraft took another successful step toward flight with the conclusion of a series of engine performance tests.

In preparation for the X-59's planned first flight this year, NASA and Lockheed Martin successfully completed the aircraft's engine run tests in January.

The engine, a modified F414-GE-100 that powers the aircraft's flight and integrated subsystems, performed to expectations during three increasingly complicated tests that ran from October through January at contractor Lockheed Martin's Skunk Works facility in Palmdale, California.

NASA PC-12 Aircraft Tests Air Traffic Tech

As air taxis, drones, and other innovative aircraft enter U.S. airspace, systems that communicate an aircraft's location will be critical to ensure air traffic safety.

The Federal Aviation Administration requires aircraft to communicate their locations to other aircraft and air traffic control in real time using an Automatic Dependent Surveillance-Broadcast (ADS-B) system. NASA is currently evaluating an ADS-B system's ability to prevent collisions in a simulated urban environment. Using NASA's Pilatus PC-12 aircraft, researchers are investigating how these systems could handle the demands of air taxis flying at low altitudes through cities.

Equipped with state-of-the-art technology to test and evaluate communication, navigation, and surveillance systems, NASA's Pilatus PC-12 performs maneuvers over a runway at NASA's Armstrong Flight Research Center in Edwards, California. NASA/Steve Freeman