

Boeing and FAA to Team for Cleaner Skies, Quieter Airplanes

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WASHINGTON, June 24 /[PRNewswire-FirstCall](#)/ -- The Boeing Company (NYSE: BA) and the U.S. Federal Aviation Administration announced today that they will work together to speed the development and application of environmentally progressive technologies for cleaner and quieter jet aircraft.

As part of the FAA's Continuous Lower Energy, Emissions and Noise (CLEEN) program, Boeing and the FAA each will contribute up to \$25 million during the next five years to conduct flight demonstrations of emergent airframe and engine technologies that have the potential of reducing greenhouse gas emissions and community noise.

"By combining our resources and expertise, we believe we can transition promising technologies from development into service more quickly to help reduce the environmental footprint of airplanes," said Matt Ganz, vice president and general manager of Boeing Research & Technology, which is leading the program at Boeing. "We recognize the importance of protecting our ecosystem and are looking forward to working with the FAA on a variety of innovative solutions to help define the future."

The technologies being developed under the CLEEN program will be flight tested aboard two demonstration vehicles, a Next-Generation Boeing 737 in 2012, with a second series of test flights aboard a yet-to-be-determined twin-aisle airplane in 2013.

This flight-test program builds on the success of the company's Quiet Technology Demonstrators, which successfully highlighted a variety of noise reduction technologies during test flights aboard Boeing 777 aircraft from 2001 to 2005.

According to Boeing CLEEN Program Manager Craig Wilsey, the technologies that will be developed and tested during demonstration flights include adaptive wing trailing edges and ceramic matrix composite acoustic engine nozzles.

Adaptive trailing edges pertain to a collection of small controllable devices that are integrated into the aft portion of the wing. Most traditional wings are designed for best performance while at cruise, and have performance compromises during other flight phases. Adaptive trailing edges can help tailor the wing configuration to reduce fuel burn at takeoff, climb and cruise, and to reduce community noise at takeoff and landing.

New-generation engines on commercial airplanes are more efficient, but require materials that are capable of withstanding higher temperatures than previous engines. Ceramic matrix composites offer the potential of better thermal and structural performance, while helping to reduce weight and acoustic footprint.

In addition to Boeing Research & Technology, the company's advanced central research, technology and innovation organization, Boeing's CLEEN team is composed of engineers and support staff from Boeing Commercial Airplanes and Boeing Test & Evaluation.

Boeing continues to take aggressive steps to improve the environmental performance of its products including:

- Producing the world's newest commercial airplanes, the 787 Dreamliner and the 747-8, designed to be significantly more fuel-efficient and have lower emissions than earlier generation jetliners.
- Pioneering research into sustainable aviation biofuel made from biomass sources that do not compete with food crops or land or water use. Aviation biofuels have lower carbon emissions over their lifecycle and help lessen aviation's dependence on fossil fuels.

- Developing ways to improve the efficiency of the global air traffic control network, which will enable passengers to arrive at their gates sooner and reduce the carbon footprint of commercial air travel.

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