

Green aviation project tests shape changing wing flaps

May 15 2015, by Sarah Loff



Credit: Boeing/John D. Parker Credit: NASA

A NASA F-15D flies chase for the [G-III Adaptive Compliant Trailing Edge \(ACTE\)](#) project.

This photo was taken by an automated Wing Deflection Measurement System (WDMS) camera in the G-III that photographed the ACTE wing every second during the [flight](#). The ACTE experimental flight [research project](#) is a joint effort between NASA and the U.S. Air Force Research Laboratory to determine if advanced flexible trailing-edge wing flaps, developed and patented by FlexSys, Inc., can both improve aircraft aerodynamic efficiency and reduce airport-area noise generated during takeoffs and landings.

The experiment is being carried out on a modified Gulfstream III (G-III) business aircraft that has been converted into an aerodynamics research test bed at NASA's Armstrong Flight Research Center. The ACTE project involves replacement of both of the G-III's conventional 19-foot-long aluminum flaps with the shape changing flaps that form continuous bendable surfaces.

Provided by NASA

Citation: Green aviation project tests shape changing wing flaps (2015, May 15) retrieved 23 June 2024 from <https://phys.org/news/2015-05-green-aviation-wing.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.