NewsRelease

National Aeronautics and
Space Administration

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For Release: Oct. 14, 1999

RELEASE NO. 99-072

TEST SET FOR OCT. 15

Engineers will crash plane to enhance safety

Researchers at the NASA Langley Research Center in Hampton plan to drop a small airplane from more than 150 feet to test whether design changes can help pilots and passengers better survive accidents.

The Lear Fan composite aircraft that has been equipped with an energy absorbing sub-floor and seats that can withstand various "g" forces. Technicians have installed six instrumented crash test dummies and more than two dozen acclerometers inside to record conditions on impact.

The plane will be lifted by cable off the ground and suspended from Langley's Impact Dynamics Research Facility. On the afternoon of Oct. 15, engineers plan to use those cables to swing the plane pendulum-style into the ground. Just before impact, pyro-technic devices will release the suspension cables from the aircraft to allow free flight. It will hit the ground at about 60 miles an hour.

Every move the plane and its occupants make will be recorded by 18 high speed film and four video cameras.

Researchers will use the information from the test not only to examine how well the special energy absorbing features performed, but also to help develop a more accurate computer model to predict composite aircraft crashworthiness.

The test, which is part of NASA's Aviation Safety Program, is a follow on to research started five years ago. NASA engineers conducted a previous Lear Fan drop test in 1994.

The NASA Aviation Safety Program, headquartered at NASA Langley, is a partnership with the Federal Aviation Administration, aircraft manufacturers, airlines and the Department of Defense. This partnership supports the national goal announced by President Clinton to reduce the fatal aircraft accident rate by 80 percent in 10 years and by 90 percent over two and a half decades.

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The aviation safety initiative was created in the summer of 1997 by NASA administrator Dan Goldin in response to a report from the White House Commission on Aviation Safety and Security, chaired by Vice President Al Gore. NASA has designated about $550 million over five years for aviation safety research and development, with more funding expected to follow.

Researchers at four NASA field installations are working with the FAA and industry to develop affordable, implementable technologies to make flying safer: Langley; Ames Research Center at Moffett Field, Calif.; Dryden Flight Research Center in Edwards, Calif.; and Glenn Research Center in Cleveland, Ohio.

Because of advances in the last 40 years commercial airliners are already the safest of all major modes of transportation. But with an accident rate that has remained relatively constant in the last decade and air traffic expected to go up significantly over the next 20 years, the U.S. government wants to prevent a projected rise in the number of aircraft accidents.

For more information on the NASA Aviation Safety Program please check the Internet at: http:avsp.larc.nasa.gov

The drop test is scheduled for about 2 p.m., but could be delayed by weather or unforeseen circumstances. If you're planning to attend please call and check between noon and 1 p.m. and expect to be at the NASA Langley Main Gate at the end of Commander Shepard Blvd. by 1:30 if everything is on schedule. Researchers will be available for interviews after the test.

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