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FAA to Test Ability of Foam Beds to Stop Airplanes in Emergencies; UD Researchers Work to Help Develop the Airplane of the Future

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FAA TO TEST ABILITY OF FOAM BEDS TO STOP AIRPLANES IN EMERGENCIES

During an emergency, a "foam bed" made out of material similar to styrofoam and installed at the end of an airport runway's overrun area could stop an 820,000-pound Boeing 747 without harming passengers or seriously damaging the aircraft.

That's the assessment of researchers in the UD Research Institute, which performed computer simulations for the Port Authority of New York and New Jersey, the operator of the John F. Kennedy International Airport. In 1984, a Scandanavian airliner overran the 600-foot safety area of the wet runway and plunged into the Thurston Basin, causing no fatalities but $20 million damage.

The Federal Aviation Administration plans to test the performance of the foam bed next September at an FAA technical center outside Atlantic City. If the tests are successful, a prototype system is expected to be installed at one of the nation's airports. Within three or four years, foam beds could be a common sight at U.S. airports--particularly those like JFK that lack a 1,000-foot safety overrun area, according to Bob Cook, a UDRI research engineer.

"Overruns happen most often when there is ice or snow on the runway," Cook said. "Statistics indicate that during every million flights, four or five airplanes will go off the runway."

UDRI's research was featured in "Aviation Week & Space Technology" on Oct. 31. For media interviews, contact Bob Cook at 229-3015 or 845-1258.

UD RESEARCHERS WORK TO HELP DEVELOP THE AIRPLANE OF THE FUTURE

UD's Mechanical and Aerospace Engineering Department is conducting research on an airplane designed to fly eight times faster than any existing Air Force plane.

James N. Scott, Kevin P. Hallinan and Louis I. Boehman, with the help of six graduate and five undergraduate students, are conducting research for the National Aerospace Plane Program (NASP), headquartered at Wright-Patterson Air Force Base (WPAFB). The NASP program will develop an experimental vehicle (X-3) capable of flying at a top speed of Mach 25, or five miles a second, and going single stage to orbit.

Boehman, whose research began nearly two years ago, is testing liquid hydrogen fuel tanks. Hallinan's focus is on managing the heat transfer of various heat pipes, while Scott will work on the combustion process.

UD's work is sponsored, in part, under contract to Anamet Laboratories, Inc., of Hayward, Calif., which is under contract to the Department of Defense, Air Force Wright Aeronautical Laboratories at WPAFB. The vehicle, which will be designed to take payloads into outer space, is scheduled for its first flight in 1993.

For more information about the project, contact James Scott at 229-3845.