

NewsRelease



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FLYING LABORATORY COMES TO O'HARE

NASA uses former airliner to test technology

From the outside it looks much like any other Boeing 757 passenger jet. But there are some clues ... in its markings ... that it is no airliner.

It's a NASA laboratory on wings, designed to test next generation aviation technologies to make flying safer, quieter and more efficient.

NASA's Airborne Research Integrated Experiments System (ARIES) aircraft, normally based at NASA's Langley Research Center in Hampton, Va., will be in Chicago at O'Hare International Airport the week of September 16. The jet and its flight researchers will test an airborne computer system for airliners that could help decrease air traffic delays and help reduce air traffic controllers' work loads.

It's called ATAAS or Advanced Terminal Area Approach Spacing. It would give pilots automatic speed information and guidance so that planes can be precisely spaced on their final approach into the airport.

The NASA jet will test the technology with the help of two other aircraft, a Rockwell Collins Sabreliner and a Piper Chieftain, owned by Chicago-based Aviation Navigation Satellite Program. The three aircraft will fly approaches at O'Hare over four nights.

"NASA is excited about working with the Chicago Department of Aviation, the Federal Aviation Administration and the air traffic controllers at O'Hare to test this new airborne technology," said Wayne Bryant deputy director of the NASA Aviation Systems

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Capacity Program at NASA Langley. “We hope this is the beginning of a long relationship with the city of Chicago as it continues to upgrade its airports.”

“Before any new systems can make it into airliners they need to be tested in a real world environment. As the busiest airport in the world, O’Hare certainly fits that criteria,” added Terry Abbott, lead researcher of the ATAAS system.

“The Chicago Department of Aviation is constantly working to make its airports the safest and most efficient in the world,” said City of Chicago Aviation Commissioner Thomas R. Walker. “We believe by embracing new aviation technologies developed by NASA we can help keep O’Hare moving forward to meet the demands of the future.”

NASA’s ARIES 757 has a five-year history as a technology laboratory and demonstrator. The aircraft has been used to test systems and procedures:

- that would decrease the chance of runway collisions
- that would virtually eliminate accidents caused by limited visibility
- that would give pilots better weather information
- that could reduce noise near airports
- that would improve approach spacing on parallel runways

The NASA jet has conducted flight tests at a number of major airports including Atlanta’s Hartsfield International, Dallas/Fort Worth International and Minneapolis-St. Paul International, but this month’s trip to O’Hare is the first time the ARIES 757 will evaluate technology in Chicago.