

PRESS RELEASE



For more information contact:

Institute for Ergonomics, The Ohio State University

Phone: 614-292-4565

Email: ergonomics@osu.edu

FOR IMMEDIATE RELEASE – September 25th, 2003

Report Claims U.S. Air Transportation System is "In Peril"

COLUMBUS, OHIO - A report recently released by the National Research Council found that the nation's air transportation system is "in peril," as is the United States' dominance in world aviation.

"In the past, we have been the world leader in aviation and aviation technology. But that leadership is eroding rapidly," said David Woods, who was a member of the report committee. Woods is a professor in the Institute for Ergonomics and co-director of the Cognitive Systems Engineering Lab at The Ohio State University.

"Without a coordinated national vision, the U.S. aviation system and industry are in peril of falling into the shadow of other parts of the world," he said.

The report, called *Securing the Future of U.S. Air Transportation: A System in Peril*, looked at a broad range of problems in the aviation industry, from safety and security, to the capacity of the air transportation system, to consumer satisfaction.

The report committee concluded that the government should institute a focused national leadership for aviation, guided by a strategic vision that will enable the airline industry to meet increased travel demand in the future.

"While capacity may not seem to be a pressing issue today, as recently as the summer of 2001 extremely high demand for travel caused record delays at airports and dramatically lowered customer satisfaction," said Woods, who is also a professor in Industrial and Systems Engineering at Ohio State.

He continued: "As painful as the present economic situation is for the industry, the current travel slump provides breathing room to step back and coordinate changes across the different parts of the industry and government – before demand for air travel increases again."

The report illustrated the need for strategic coordination among the airlines, as well as all the other stakeholders in air transportation.

Such strategic coordination will require new technology – specifically, computer networks that coordinate decisions among the stakeholders. And one of Woods' areas of expertise – how people interact with computers to make decisions in high-risk environments – will be critical in carrying out the committee's recommendations.

"Computer systems will have to be designed so that airline employees can monitor what is happening in the entire United States air travel system and accurately project the consequences of certain actions. As daunting a task as that sounds, such a system is necessary for the airlines to make appropriate decisions that affect safety and performance," Woods said.

He offered an example. "Say weather in one area begins to delay a few flights. If I'm in charge of dispatching for an airline, I can make certain changes that will help my aircraft minimize delays and schedule disruptions. But what helps me could create bottlenecks for other aspects of the overall system."

To make good decisions, he said, dispatchers must be able to see the big picture, such as what is happening at the other airlines. The system must then be able to adapt to maintain capacity.

Woods' colleagues on the NRC committee included researchers from the Massachusetts Institute of Technology, Georgia Institute of Technology, and Texas A&M University System, as well as members of the military and aviation industry: Durango Aerospace, Inc., Lockheed Martin Air Traffic Management, Flight Safety Technologies Inc., GE Aircraft Engines, United States Air Force, Rolls Royce North America, Airports Council International - North America, The Boeing Co. Phantom Works, RJR Aviation LLC, Aviation Planning and Finance, and RAND Corp.

The group was charged with helping to plan the nation's aviation strategy for the next 50 years.

Written by Pam Frost Gorder (614-292-9475; gorder.1@osu.edu)

David D. Woods, PhD

With nearly 25 years of experience diagnosing the factors behind human error, Dr. Woods has conducted extensive research on how people interact with computers to make decisions in high-risk environments. His work has won awards for improving the safety of automated cockpits. In addition, he is a member of the National Research Council committee that is helping NASA and the Federal Aviation Administration plan the country's next-generation air transportation systems. He recently advised the Columbia Accident Investigation Board on its efforts to diagnose the contributors to the Shuttle disaster. Dr. Woods received his PhD in Cognitive Psychology from Purdue University.