

Aerospace Innovation: NextGen — Revolutionizing ATC



Massive Infrastructure Program Will Revolutionize the U.S. ATC Network

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The nation's aerospace industry is engaged in a major effort to use the latest satellite and communications technology to transform the nation's air traffic control system so it can

meet an expected doubling of demand over the next couple decades. The FAA's Next Generation Air Transportation System (NextGen) program, as the initiative is called, will bring greater precision and accuracy to flight, and at the same time enhance safety while improving aviation's environmental performance through advanced aircraft capabilities and alternative fuels.

The implementation of NextGen will also provide the nation with significant economic benefits. In 2007, for example, delays cost airline passengers more than 320 million hours and more than \$41 billion in airline costs, lost productivity and business revenue opportunities, according to Embry-Riddle Aeronautical University, Daytona Beach, FL. NextGen aims to address that lost productivity.



Courtesy of Embry-Riddle Aeronautical University

Much of the design, manufacturing and implementation of the program is taking place in Florida.

The cornerstone of NextGen is a technology known as Automatic Dependent Surveillance-Broadcast (ADS-B), which uses Global Positioning System (GPS) satellite signals to provide pilots and air traffic controllers with an unprecedented level of accurate and rapidly updated data about aircraft aloft and on the ground.

Over the past couple years, the nation's first ADS-B network was built, installed and tested at 11 ground stations in South Florida. In a major milestone for NextGen, the FAA recently declared the system fully operational. ADS-B prime contractor ITT will now use the lessons learned in developing the South Florida system to expand the technology to hundreds of sites throughout the U.S.

"We are particularly pleased to salute aviation industry and community leaders in South Florida for their commitment to the implementation of ADS-B technology," said Dave Melcher, president of ITT's Defense Electronics and Services business. "Ultimately, the achievements in South Florida help clear the way for national deployment of ADS-B broadcast services, which will help modernize air transportation and decrease delays."

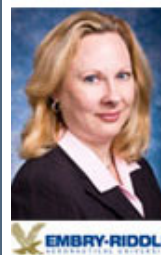
Embry-Riddle is also a key player in the FAA's NextGen project, and is leading a group of aerospace and high-technology companies in a program to model and test new air traffic control technologies at the NextGen Test Facility, located at Daytona Beach International Airport, FL. The other companies include Lockheed Martin, Barco, Boeing, CSC, ENSCO, Frequentis, Harris, Jeppesen, Mosaic ATM, Sensis, and Volpe Center.

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NextGen Key Players Videos



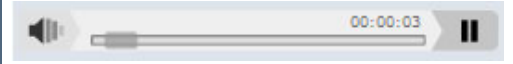
NextGen's Test Bed Podcast



Embry-Riddle Aeronautical University (ERAU) is a key player in FAA's NextGen initiative—it is training the next generation of aviation professionals and testing the next generation of aviation technologies.

Dr. Christina Frederick-Recaschino, VP of Research, discusses the NextGen efforts underway at ERAU.

Press play to listen (6:49 min)



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