

The MITRE Corporation

Center for Advanced Aviation System Development



Our Mission

To serve the public interest by advancing the safety, security, effectiveness, and efficiency of aviation in the United States and around the world by conducting a continuing program of research, development, and engineering in collaboration with the aviation community.

Resolving Global Aviation Issues Through Research and Development

The Center for Advanced Aviation System Development (CAASD) is a federally funded research and development center (FFRDC) sponsored by the Federal Aviation Administration (FAA).

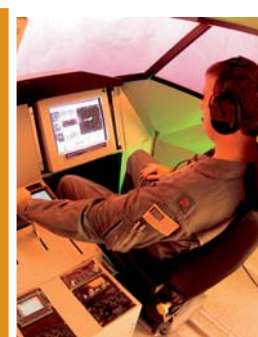
CAASD is part of The MITRE Corporation, a not-for-profit company that provides expertise in systems engineering, research and development, and information technology that addresses the needs of its government sponsors and international customers. CAASD supports the FAA and other civil aviation authorities from its facilities in McLean, Virginia, about 20 minutes from Washington, D.C.

CAASD carries out highly technical engineering and operational analyses, system development, and system specification activities to help the FAA and our other sponsors plan, develop, test, and field new capabilities that help modernize air traffic management (ATM) systems and practices to improve the safety, efficiency, and security of air travel. CAASD's innovations have been adopted in critical ATM programs such as conflict probe and resolution, Automatic Dependent Surveillance-Broadcast (ADS-B), Global Positioning System (GPS) modeling, the National Airspace System Report Card and other performance measuring capabilities, and the Traffic Alert and Collision Avoidance System (TCAS).

CAASD's leadership on these and other projects is made possible by world-class experts who have built a long and distinguished history of providing leadership in the field of ATM. CAASD understands the complex challenges that our customers face, and it tailors creative solutions to their most critical needs. Those solutions place an emphasis on quality, integrity, and objectivity, and it takes a long-term perspective focused on the public interest, and seeks ways to merge operational, technical, and program expertise.



Progress in aviation is built on collaboration, engineering, ingenuity, and innovation. These are principles we cherish at CAASD and that serve as the foundation of our work.



Dedicated to Improving Aviation Worldwide

As the federally funded research and development center for the Federal Aviation Administration (FAA), CAASD is dedicated to improving aviation system safety, security, and performance. In addition to the FAA, our customers include the Transportation Security Administration, NASA, the Federal Communications Commission, and other government organizations. CAASD also performs work for international clients and conducts collaborative research with industry.



CAASD's focus areas include the following:

- Architecture and Systems Engineering
- Transportation Safety and Security
- Airport Capacity Improvements
- Airspace Redesign
- Advanced Decision Support Systems
- Global Communications, Navigation, and Surveillance
- Collaborative Decision Making
- Modeling, Simulation, and Advanced Concept Development

In addition to supporting the FAA, CAASD works with civil aviation authorities around the world to help develop harmonized and integrated systems that can interoperate with one another, within the context of international standards. This enables CAASD to increase its knowledge of best practices—in areas such as airport safety, airspace design, equipage, and ATM—and apply them to the unique circumstances that characterize each country's civil aviation situation.

CAASD is also applying its expertise and operational knowledge to help the Transportation Security Administration (TSA) in the Department of Homeland Security tackle some of the nation's most critical security issues. At TSA, for example, CAASD has supported programs to help screen passengers, flight crews, and transportation workers, while protecting civil liberties and facilitating the flow of commerce. To be successful, these programs need to enable the screening of millions of passengers and workers each month, while at the same time minimizing disruptions to the flying public and commercial customers.

One of the most critical challenges facing the nation's air transportation system is the need to develop and implement the Next Generation Air Transportation System, known as NextGen. According to a report by the Commission on the Future of the United States Aerospace Industry, the inability of today's system to meet future growth could end up costing consumers as much as \$30 billion annually. To address this problem, and recognizing that NextGen will require active participation across many governmental agencies, Congress and the President established the Joint Planning and Development Office (JPDO) to manage this cross-agency effort. As a strategic partner in JPDO, MITRE is working with the FAA, NASA, the White House Office of Science and Technology Policy, and the Departments of Commerce, Defense, Homeland Security, and Transportation to develop the vision, strategy, operational concepts, architecture, and roadmaps for research and implementation investments needed to achieve NextGen.

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