AVIATION TRAINING

eVTOL Training and Operational Solutions

Envisioning the future of flight

Ready to lead a new era in flight

With the emergence of Advanced Air Mobility (AAM), and the new sizeable workforce it requires, CAE sees a clean sheet opportunity to build new training and other operational solutions, from the ground up and at scale across markets worldwide. The industry has seen record-level activity across investments and purchase orders from established airlines and legacy operators in the aviation industry. CAE is leading the charge by applying and adapting its expertise and offerings towards tailored solutions for eVTOL operators and OEMs. We believe our evolutionary innovative technologies and methodologies will shift the training paradigm towards affordability and scalability, while ensuring safety stays paramount among the unique challenges presented by eVTOL aircraft.

CAE is gaining momentum in the AAM market with leading eVTOL OEMs

Five (5) leading OEMs are currently partnering with CAE in the development of various eVTOL products and services, from training and pilot provisioning, to engineering and certification support. Additionally, CAE is actively engaged with regulators and industry groups and released the industries first white paper on eVTOL pilot training.

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Investing, innovating and engaging in what's next – now

Safe, smart, scalable end-to-end AAM solutions, tailored to your aircraft and operations

- High-fidelity simulation & immersive technologies
- Student-centric pilot and technician training solutions & curriculum development
- Remote pilot training
- Pilot and technician workforce resourcing & provisioning
- Engineering simulation and certification support
- Mission planning tools

The CAE difference is where and how we lead

- Largest civil aviation training network that allows for close-to-base-training
- Unmatched engineering expertise from supporting 94% of new aircraft programs in the last 10 years
- Extensive experience in supporting OEMs in attaining necessary certifications and qualifications
- A suite of advanced training solutions with integrated data ecosystems and analytics
- As the largest Remotely Piloted Aircraft System (RPAS) trainer in the world, CAE has demonstrated experience working with highly automated aircraft
- Investments into innovation and new product development tailored for AAM include the CAE 700MXR Mixed Reality eVTOL Flight Simulator

Immersive, high fidelity flight simulator tailored to the eVTOL aircraft

CAE is leveraging upon decades of advancements in extended reality technologies to develop the CAE 700MXR Flight Simulator for the Advanced Air Mobility Market.

Introducing the CAE 700MXR Flight Simulator

Mixed Reality is technology blending physical reality and the virtual world to develop new visualizations and environments. The CAE 700MXR emulates flight characteristics and operational programs for eVTOL aircraft, utilizing enhanced reality, high-precision hand tracking, and the accurate, tactile feel of the aircraft's main instrument panel. Along with the compact mini-motion platform and 360° Field of View visuals that deliver high-fidelity, physics-based simulation, the CAE 700MXR will revolutionize flight training for single-pilot operations in complex urban settings.

Key Features

• CAE's level D aircraft & immersive environment simulation
• Unlimited out-the-window field of view
• High scene density immersive environment with AI-enabled air and land traffic built on high-resolution satellite imagery
• Integrated with exact replica flight deck components or flight deck LRUs for a fully representative tactile experience
• Real-time, predictive head tracking
• Compact motion platform
• Virtualized computing
• Mixed reality head-mounted display
• Combined audio and 3D sound simulation
• Optimized off-board Instructor Operating System (IOS)
• Individualized training feedback and Improved training curriculum using CAE Rise™ data-driven insights

Benefits

• Ease of deployment and global scalability, due to reduced facility requirements and lower footprint
• Modular simulator architecture enables development in parralel to evolving aircraft program
• Optimized for single pilot operation
• Reduced operating costs
• Faster, more efficient and realistic training for eVTOL pilots
• Advanced data analytics to capture live maneuver-based insights for statistical analysis and enhanced pilot training experience

Now begins a new age in aviation, creating unprecedented demand for uniquely trained pilots and technicians to ensure safe operation of eVTOL aircraft, in and around cities of the world.

Leading innovation in the era of Advanced Air Mobility

CAE recently announced Project Resilience which outlines an investment of C$1 billion into innovation over the next five years to develop the aviation technologies of the future. This will be crucial in positioning CAE as a leader in Advanced Air Mobility solutions and help propel the industry forward as we build the workforce of tomorrow. Investments will span into areas of digitally immersive solutions, data ecosystems and artificial intelligence including mixed reality training devices, fixed base simulators and engineering simulators tailored for the eVTOL aircraft.

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