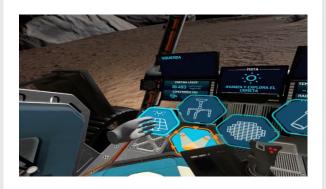
CONVERGING MISSION, INNOVATION, AND TECHNOLOGY

Enhancing FAA Training with Extended Reality and Generative AI

"The Leader in Immersive Experiences"

Transforming Technical Operations, Aircraft Certification & Aviation Safety





WORKFORCE TRAINING

AR/XR Simulations

- Targets FAA operators with experience in airtraffic control and communications & information
- Customized Content & Experiences Latency, Scalability, Innovation Generative
- AI & Web 3.0



FAA SAFETY

Complex Traffic Scenarios

- Targets simulation training and realworld innovation using digital twin environments
- Conducting safety and overcoming challenges
- Web3.0 Interactivity Powered by Generative AI



IMMERSIVE DOMES

SOLUTIONS/SIM C/D

- Utilizing 6 Degress of Freedom with 3D Spatial Audio/Video
- Pre-produced or Live Content experiences using 3D projection Dome Environment's

Transforming Technical Operations, Aircraft Certification & Aviation Safety





Global Nominations & Awards







What Is Extended Reality?



Extended reality is an umbrella term encapsuling augmented reality, virtual reality and mixed reality.

XR enables user experiences that combine virtual content and the reality of users with the safety of the digital twin environment

Find out why Immersive simulations using XR create valuable cost savings and connect your users more emotionally leaving users more confident to act on what they learned after training

Simulation & Certification



Virtual Reality (VR) for Training and Simulation: VR technology can be used for training and certifying pilots and maintenance personnel.



Examples include the simulation of guiding traffic control from taxi to take off in different airport cities and countries with the full safety of the digital twin environment



Other examples can include an XR or Dome simulator replicating the cockpit environment, allowing pilots to practice various flight scenarios, emergency procedures, and instrument training in a safe and controlled virtual environment

Dramatic Improvements in Training



- Advances in training technologies using XR offer massive increases in terms of time and associated costs over traditional training methods.
- Developers and corporations now have the capacity to create customized user experiences and reduce instructor workload by employing adaptive automation.
- Adaptive systems analyze the behavior of a learner for a trigger and then deploy an adaptation to alter the experience



Generative AI Powered





AI-Powered Flight Data Analysis:

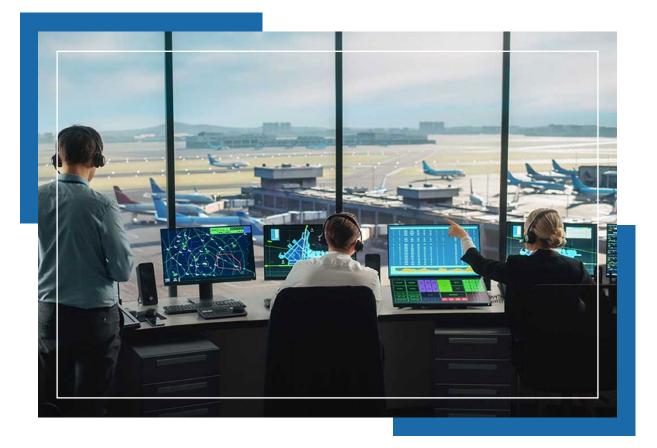
- Al can be employed to analyze vast amounts of flight data for aircraft certification. This can involve using AI algorithms to process and interpret flight data records to assess the performance and safety of the aircraft during various flight conditions.
- AI for Predictive Maintenance: AI can be used to monitor and analyze data from an aircraft's sensors and systems in real-time. Predictive maintenance systems can identify potential issues before they become critical and provide maintenance crews with information to address them, thereby ensuring the aircraft is airworthy.

Generative AI Risk Assessment



- AI can be employed for risk assessment and safety analysis during the certification process. Machine learning algorithms can analyze historical data and simulation results to predict potential safety issues, helping controllers and other industry regulators and manufacturers make informed decisions.
- It's important to note that the use of AI and XR technologies in aircraft certification is subject to rigorous safety standards and regulations set by the Federal Aviation Administration (FAA) in the United States.

These technologies will meet stringent criteria and undergo their certification processes to ensure their reliability and safety in aviation applications.



Immersive 4D Domes





Immersive Simulations:

- 4D Domes are the perfect out of the head set experience for multiple of 1 user training applications.
- Examples can include ground personnel identifying security threats, such as suspicious objects or unauthorized personnel or complex traffic scenarios.
- The environments project up to 8K quality video simulated content where trainees can fully immersive themselves in a single unit or multi user experience where full engagement is offered using real world situations maximizing impact.
- Domes can be portal or permanently installed

Training





