



Advanced Simulation Technology Inc.

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SERA

SIMULATED ENVIRONMENT FOR REALISTIC ATC

SERA is ASTi's automated ATC and traffic environment for flight simulators and training devices, no matter how simple or complex.

Most simulators reduce the ATC environment to one instructor on one radio in one aircraft in an empty sky. SERA places crews inside a fully populated airspace and ATC radio environment.

By automating ATC, SERA allows curriculum designers to focus on what matters—building targeted training events—while freeing instructors to observe and assess crew performance.

SERA's scenario-based design allows training for events that cannot be safely replicated any other way, including runway incursions, ground collision threats, and airborne proximity events. SERA provides controlled, repeatable exposure to high-stakes situations before pilots encounter them in real life.



**NO MORE
INSTRUCTOR ROLE-PLAY**



**AVAILABLE ANYTIME;
SKIP SCHEDULING
BOTTLENECKS**



**TRAINING EVENTS
MIRROR REAL THREATS**



**SEAMLESS SWITCHING
BETWEEN VOICE AND CPDLC**



**TRAIN AT MORE THAN
10,000 AIRPORTS AND
HELIPADS WORLDWIDE**



AUTOMATED ATC AND TRAFFIC ENVIRONMENT

SERA's automated controllers issue clearances, instructions, and traffic calls that respond intelligently to pilot transmissions. The radio environment is active, demanding, accurate, and meets fidelity requirements for Line-Oriented Flight Training (LOFT). Simulated radio transmissions match traffic in the visual system, creating a coherent, immersive experience on the ground and in the air.



SPEECH TECHNOLOGY

ASTi's aviation-specific speech recognition engine is built for aviation English phraseology, accent-tolerant, and proven with both native and non-native English speakers. High-fidelity digital voices respond with regionally appropriate accents, ensuring crews train against the comms environment they'll actually encounter.

INSTRUCTOR TOOLS

Instructors and curriculum designers retain full control. Real-time scenario modifications, traffic conflicts, ATC instructions, and weather changes can be scripted or triggered manually. Optional speech transcription and audio recording capabilities are also available.



INTEGRATION

SERA integrates with all classes of flight training devices and is platform-agnostic by design. It supports desktop trainers, VR devices, FTDs, and certified Level D simulators. SERA outputs AI aircraft in both standards-compliant and vendor-specific formats. SERA supports most image generation systems; contact ASTi for a list.

COMPLIANCE

SERA meets or exceeds the core functionality requirements for SATCE systems defined in:

ICAO Doc. 9625, Ed. 4

Manual of Criteria for the Qualification of Flight Simulation Training Devices

ARINC Specification 439b

Simulated Air Traffic Control Environments in Flight Simulation Training Devices

EASA CS-FSTD Issue 1

Certification Specifications for Flight Simulation Training Devices



Visit seraatc.com or contact ASTi at info@asti-usa.com to arrange a demonstration.

SERA

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