



Flight Operations Simulation Laboratory

WHAT WE DO

We design studies to fit your needs. Test design options include varying weather, wind, ambient lighting and runway lighting. Users can choose from 30 airport environments coast to coast with others possible.

We provide invaluable human factors and safety data for a wide range of end-users. Results are recorded for study and analysis, including pilot debriefing with video recaps and computer data files. If needed, our companion branch, the **Flight Systems Laboratory**, can be looped in to analyze that data.

The **FAA SIM Lab** can also connect via the NextGen prototyping network to facilities and simulators across the country, allowing simultaneous operations from different locations that can test new procedures and prototype equipment. **FAA SIM Lab** services enhance flight operations, standards, capacity, and aviation safety and are available to all FAA Lines of Business and all branches of the federal government at no cost to the user.

We offer flexibility and ease of scheduling. For more information on collaborating with the **FAA Simulation Lab**, visit:

faa.gov/go/simlab



MIKE MONRONEY AERONAUTICAL CENTER



**Federal Aviation
Administration**

LEADING EDGE

It's cutting-edge research in a state-of-the-art facility and it's all happening at the FAA's Flight Operations Simulation (SIM) Laboratory at the Mike Monroney Aeronautical Center in Oklahoma City, home of the only level D aircraft simulators in the country dedicated to research.

LEVEL D CERTIFIED

Level D certification means:

- ▶ Six degrees of freedom motion
- ▶ Minimum 150-degree visual field of view
- ▶ Realistic sounds
- ▶ Special weather, motion and visual effects
- ▶ Replicates the actual aircraft cockpit



OUR SIMS

With our Boeing 737 and Airbus 330 and 320 Flight Dynamics Package simulators and high-fidelity air traffic controller simulator stations, we can create realistic test scenarios for essentially any condition pilots, aircraft, or air traffic controllers might face.

From modeling airspace environments to evaluating aircraft, pilot, and air traffic controller performance, the FAA SIM lab can meet almost any research need a federal government agency might have.

We can link our aircraft simulators to our air traffic control stations for real-time, virtual terminal operations, providing pilot-controller-aircraft interface with sophisticated human-in-the-loop simulations.

OUR CAPABILITIES

The FAA SIM lab tests people, equipment, systems, technologies and procedures including:

- ▶ ADS-B
- ▶ Eye Tracking
- ▶ RNP/RNAV
- ▶ Wake turbulence
- ▶ Closely-spaced parallel operations
- ▶ Air traffic services
- ▶ Low visibility operations
- ▶ Upset recovery
- ▶ Enhanced vision systems
- ▶ Head up displays



Visit us at:
faa.gov/go/simlab



FAA
Aviation Safety