



## Chapter 05: Flight School Operations

# 08. Flight Simulator Session Management

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Coordinate flight simulator sessions to enhance student training with cost-effective and safe simulation experiences that complement flight training activities.

## Purpose

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Establish procedures for managing flight simulator operations, scheduling training sessions, and maintaining simulation equipment to provide students with valuable training experiences while reducing aircraft operating costs and weather dependencies.

## Roles and Responsibilities

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### Flight Instructor:

- Conduct student assessments and training
- Review training objectives with students
- Coordinate aircraft scheduling for training
- Maintain communication with students on progress
- Ensure safety and regulatory compliance

### Chief Flight Instructor:

- Review student qualifications and training goals
- Assign appropriate flight instructors based on needs
- Conduct flight school orientation and safety briefings
- Approve training program selection and scheduling
- Ensure Part 61 compliance for all training operations

## Process Steps

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### Session Planning Phase

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- **Review training objectives** - Coordinate simulator scenarios with student training goals and progression
- **Schedule simulator sessions** - Coordinate simulator availability with student and instructor schedules

- **Prepare simulation scenarios** - Configure simulator settings and training scenarios for specific learning objectives
- **Brief session objectives** - Review training goals and expected outcomes with student and instructor

## Equipment Preparation Phase

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- **Conduct pre-session inspection** - Verify simulator equipment operation and system functionality
- **Configure training scenario** - Set up simulator for specific training objectives and aircraft type
- **Test system operation** - Verify all simulator systems and controls are functioning properly
- **Prepare instructional materials** - Gather charts, checklists, and reference materials for training session

## Training Session Execution Phase

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- **Conduct simulator briefing** - Review simulator operation and safety procedures with student
- **Execute training scenarios** - Conduct planned training exercises and evaluate student performance
- **Monitor student progress** - Assess learning objectives achievement and provide real-time feedback
- **Document session outcomes** - Record training activities completed and student performance evaluation

## Post-Session Activities Phase

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- **Conduct session debrief** - Review training objectives achievement and discuss learning outcomes
- **Complete usage documentation** - Record simulator time and training activities in student records
- **Perform post-session inspection** - Verify simulator equipment condition and report any discrepancies
- **Schedule follow-up training** - Plan subsequent simulator sessions based on training progression needs

## Process Mapping

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Flowchart showing simulator session workflow from planning through post-session documentation

## Tools and Resources

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### Simulation Equipment:

- Flight training devices and simulators
- Computer-based training systems
- Aircraft-specific simulation software
- Instructional and reference materials

**Documentation Systems:**

- Simulator usage tracking system
- Student training record integration
- Equipment maintenance logs
- Training scenario libraries

**Training Materials:**

- Simulator operation manuals
- Training scenario documentation
- Student evaluation forms
- Instructor training resources

## Success Metrics

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- **Completion Time:** Simulator sessions scheduled within 48 hours of request.
- **Quality Standard:** 95% of simulator training objectives achieved during scheduled sessions.
- **Safety Standard:** Zero simulator equipment failures during training sessions.
- **Client Satisfaction:** 85% of students find simulator training valuable for flight training progression.

## Common Issues and Solutions

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- **Issue:** Simulator equipment malfunctions disrupting scheduled training sessions
- **Solution:** Implement preventive maintenance program and maintain backup training options for equipment failures

**Issue:** Student difficulty adapting to simulator controls and displays

**Solution:** Provide thorough simulator orientation and allow additional familiarization time before training scenarios

**Issue:** Limited integration between simulator and actual flight training

**Solution:** Coordinate simulator scenarios with flight instructors and ensure training objectives align with flight training progression

## Safety Considerations

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- **⚠ WARNING:** Ensure students understand simulator limitations and do not attempt procedures that

would be unsafe in actual aircraft

⚡ **CAUTION:** Verify simulator equipment safety systems are operational before beginning training sessions

i **NOTE:** Simulator training should complement, not replace, actual flight training experience and evaluation

✅ **BEST PRACTICE:** Use simulator training for scenario-based learning, emergency procedures, and instrument training in controlled environment

## Regulatory References

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- 14 CFR Part 61.4 - Qualification and approval of flight simulators and flight training devices
- 14 CFR Part 142 - Training centers using flight simulators and flight training devices
- FAA Advisory Circular AC 61-136 - FAA approval of basic aviation training devices
- 14 CFR Part 61.65 - Instrument rating requirements including simulator training credit
- FAA Order 8900.1 - Flight standards information management system