

Collaboration and Leadership in Aviation Training



A MESSAGE FROM DAVE RAPLEY, CEO

An aviation company does not endure by remaining static. It endures by reinventing itself, always striving to provide customers with quality products and services that make aviation training efficient and provide a return on investment – whatever the customer's goals are. This collaboration and leadership in aviation training is the story of Aerosim.

The company, founded in 1993, began with the idea of catering to the needs of airlines in North America. Our primary focus was to build a product technology company that supplied aviation training products to airlines. Today, we're a global company with a brand recognized throughout the world by over 200 airlines and training organizations.

We provide the total solution from ab-initio pilot training to technology products and type rating services to our customers. We are focused in a direction of innovation based on three key factors that will continue to drive efficiency in aviation training: customization, mobility/portability, and currency. Our company was founded on innovation and we will never stop delivering a better way to train.

The mission is simple - preparing pilots and maintenance technicians to be better at what they do. We pride ourselves on delivering the most advanced technology, upholding the highest standards in flight training, and customizing it to our customer's needs. But this isn't done without a talented, dedicated team that is passionate about what we do day in and day out. We have some of the most intelligent minds working on product and curriculum development as well as a highly qualified flight training staff with experience stemming from major corporations and airlines all over the world.

As a customer, you can expect we will always uphold the highest standards in flight training and act on our core values:

- ☐ **Bold** – challenging the status quo of aviation training
- ☐ **Imaginative** – creative solutions to complex problems
- ☐ **Collaborative** – keeping our customers' needs in mind to deliver a customized solution
- ☐ **Confident** – in everything we do thereby ensuring success
- ☐ **Disciplined** – providing professionalism and a process that demands perfection

These qualities are ingrained in everyone at Aerosim and we strive to reflect that in our work every day.

I'm proud to lead this company, and humbled to have the opportunity to lead it on to the next phase of our journey. My colleagues and I, at all levels of the company, are committed to making our industry a better one and provide our customers the best product and service imaginable.

Sincerely,
Dave Rapley, CEO



THE AEROSIM STORY

Aerosim was founded based on a discussion with an airline pilot who was explaining how complicated the Flight Management System was in the aircraft. The challenge was that no one could produce an FMS training product on a desktop. The challenge was met and the company was formed to produce the world's first Flight Management System Trainer (FMST). For the next ten years, Aerosim's surge of innovation and growth provided the link between Computer Based Training and Full Flight Simulators by designing new, simulator training technology, equipped with full free-play functions and realistic cockpit environments.

1998 to 2005 marked an incredible growth period that brought the aviation community desktop training software, courseware products, and flight training devices including the Virtual Procedure Trainer and the Aerosim Aviator line of FTDs.

In 2009, Aerosim Technologies acquired Delta Connection Academy thus completing the aviation training continuum by offering ab-initio pilot training, jet transition and type rating training. This rich history of airline training has delivered hundreds of proficient and command ready pilots to airlines across the globe.

Today, Aerosim delivers training solutions and products to three main customer bases:

- ☐ Pilot Training for ab-initio through type rating
- ☐ Civil Aviation training products for pilots and airlines
- ☐ Government and Military

We are meeting the needs of our customers, and ultimately, delivering the most efficient and well prepared pilot for success on their journey of flight. Through partnerships established with airlines and flight training organizations worldwide, Aerosim has the people, talents, and passion to deliver the highest quality training products and services.

Prepared. For Takeoff.



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PILOT TRAINING

Our Philosophy

In the next 10 to 20 years, the demand for pilots will reach unprecedented levels. Airlines won't be competing for airfare, they will be competing for pilots and compromising quality is not an option. These changing times require partnering with an organization that delivers the right amount of pilots, to the right expectation, with the right resources and capabilities. Aerosim has the right resources to deliver exceptional results and we've been exceeding expectations since 1993.

At Aerosim, we believe in going beyond the minimum standards and providing excellence in flight training to our customers. We deliver the world with pilots that are better prepared for an airline career starting day one. The training process is deeply rooted in professionalism, discipline, and preparation designed to provide airlines a pilot who possesses leadership, effective communication skills, and commands authority – qualities of future captains built to airline standards.



ABOUT AEROSIM FLIGHT ACADEMY

Aerosim Flight Academy is a top-tier flight school originally created by the airlines (Delta/Comair). Our training is rooted in the discipline required to turn students into successful airline pilots and meet the expectations of airlines.

The main campus, located at the Orlando/Sanford International Airport was established in 1989 by Comair Airlines and has been training professional airline pilots for the past two decades. In 2000, Delta Air Lines purchased Comair Airlines and began a partnership with supplying first rate pilots to Delta Connection carriers. In December 2009, Aerosim Technologies acquired Delta Connection Academy to expand the vision of supplying airlines with a total aviation training solution – student pilots to type rated first officers delivered to an airline.

Throughout the years, the Academy has always remained true to its original mission: deliver high quality flight training to produce professional airline pilots.





PILOT TRAINING PROCESS

Our Objective

Collaborate with airlines for the purpose of preparing for pilot shortages through flexible and customized pilot recruitment, screening, selection, training, and placement - providing the right pilot for your airline.

Our Approach

The Aerosim Pilot Provisioning Program is designed to produce excellent results through five critical phases:

Recruitment ▶ Screening ▶ Selection ▶ Training ▶ Placement

1 Recruitment

With marketing efforts designed to reach and engage next generation pilots, Aerosim utilizes a vast network of resources designed to find and recruit new student pilots.

2 Screening

Based on a pre-determined pilot profile and hiring minimums, we partner with you to establish requirements and expectations in order to recruit the right pilot. We then screen this candidate with a face-to-face interview and written test.

3 Selection

In the selection process, our goal is to find the right pilot for your organization based on the approved pilot profile. When we have identified the right candidates for review based on interviews and referrals, Aerosim works with you to make the right selections.

4 Training

From ab-initio to type rating, the Aerosim Airline Cadet Program is always customized to meet your profile and provide efficient training options and locations. We offer both traditional and MPL paths for flight training.

5 Placement

Partnering with Aerosim ensures a successful outcome to your most important asset – a highly qualified pilot that fits seamlessly into your organization.

PILOT PROVISIONING PROCESS & TRAINING CONTINUUM

Recruitment ▶ **Screening** ▶ **Selection**

▶ **Training**

Aerosim and airline collaborate to define the right candidate profile, set expectations, and strategy to fit the needs of the organization in order to deliver the qualities needed for command authority:

Character, Discipline, Responsibility, and Respect

The process begins with:

1 Recruitment

2 Screening

3 Selection

End Result:

- Desired Pilot Profile
- Language and Skills Testing
- Future Pilot Placement
- Airline commitment with no financial obligation

Ab-Initio Training *(Traditional)*

- Certificates
 - FAA approved curriculum
 - CAAC approved curriculum
 - JAA/EASA program
- Pilot Training Offered
 - Airline Cadet Program
 - Jet Direct Program
 - Professional Pilot Program
 - College Degree Programs

Multi-Crew Pilot License

Pilot training for tomorrow:
Aerosim provides pilots, training and state-of-the-art equipment to match your airline crew requirements in a multi-crew environment

❑ State-of-the-art Equipment



AATD – Cirrus SR20

FTD – Cirrus SR20

FTD – CRJ200



Aircraft:
Cirrus SR20,
Cessna 172, Piper
Seminole & Arrow,
King AirC90



Jet Transition/MCC/Type Rating



- ❑ Jet Transition – a 2-week course that includes 40 hours of classroom instruction and 26 hours in a Flight Training Device. The purpose of this course is to prepare students for the jet training they will receive at an airline



- ❑ Type Rating Program designed for first time jet pilots – a curriculum designed by airline pilots. No other training program comes close to offering the level of instructor-led crew training in an FTD-type of device

Placement
Your Ideal
Candidate

(MPL) - Customized Program *(Progressive)*

- ❑ Technology/Simulator emphasis



- ❑ Airline specific Standard Operating Procedures (SOPs)



- ❑ Multi-Crew Focus and Resource Management



E190 Enhanced Virtual Procedure Trainer



CIVIL AVIATION TRAINING PRODUCTS

Aerosim is the recognized leader in value-driven, high-fidelity simulation-based training products within the civil aviation, government, and military markets. Designing and developing training tools and equipment since the early 90's, Aerosim has earned the reputation as the clear leader in providing true free-play and structured learning capabilities in a fully interactive high-fidelity simulation environment.

All Aerosim training products are developed using aircraft and avionics OEM data. This data is utilized by our staff of simulation engineers to develop real-time simulation models used throughout the Aerosim Product Line.

Aerosim offers a complete family of portable and flexible pilot and maintenance technician training tools for distance learning, ground school, and flight training. These training devices have been applied in classroom and computer lab environments, and on distance learning platforms. While maintaining quality, Aerosim training devices provide cost effectiveness through reduced training footprints demonstrating time and again the ability to produce better prepared, qualified, confident, and safer pilots and technicians.

Aerosim provides training solutions to the commercial air transport, business aviation, and general aviation industries as well as the government and military. Our products are used around the world by aircraft manufacturers, commercial airlines, flight training centers, and universities. Our products have been used for training complex aircraft systems, in-flight operations, and aircraft maintenance.

Aerosim is focused in a direction of innovation through three key factors:

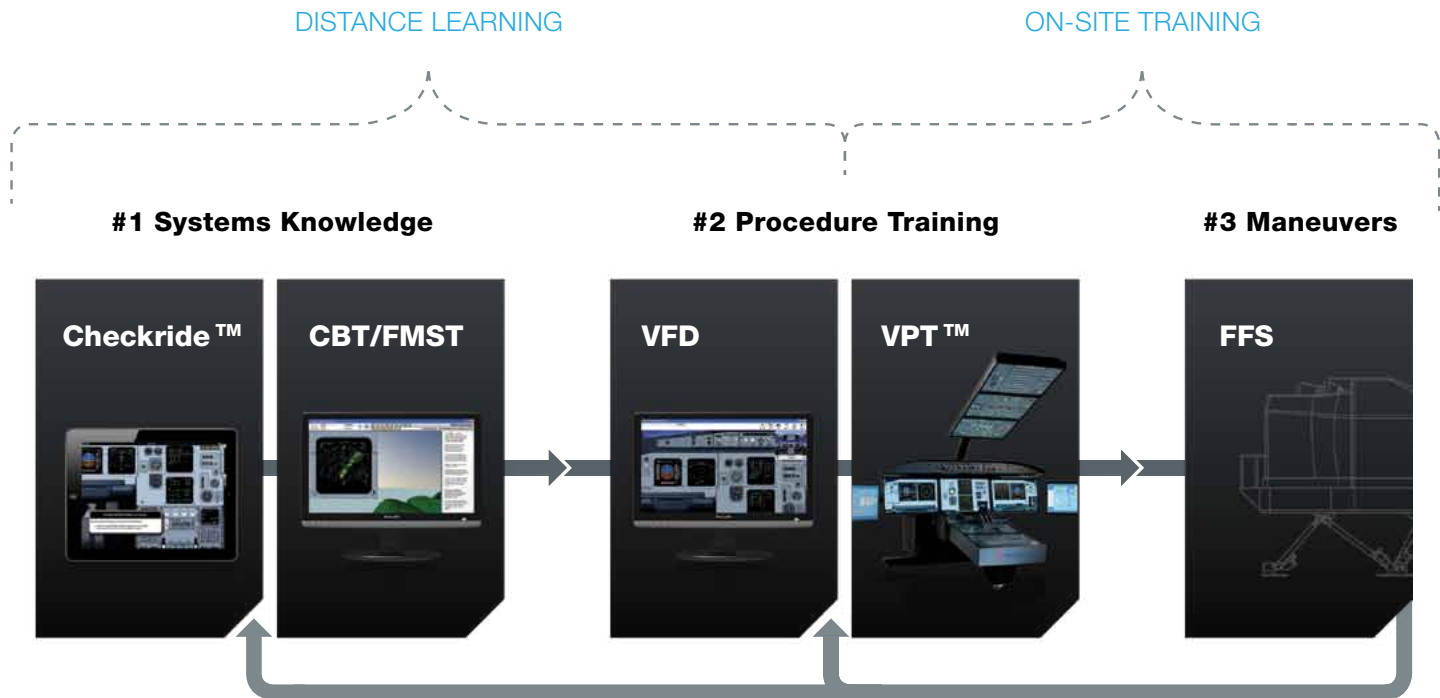
Customization Mobility & Portability Currency

INTEGRATED PRODUCTS FOR EFFICIENCY IN TRAINING

The Aerosim product line is designed to enhance learning for commercial airline training through our areas of focus: customization, mobility/portability and currency. All products work together to achieve the ultimate goal of providing better results and greater efficiency in aviation training. Each phase of training prepares the pilot for the next while creating better knowledge retention and preparation along the way for productive on-site training.

The Aerosim approach provides:

- ❑ Decreased training footprint and better pilot preparation
- ❑ A better return on investment - decreasing personnel, travel costs, and device usage time
- ❑ Increased distance learning
- ❑ Increased pass rates



SYSTEMS KNOWLEDGE TRAINING SUITE

Combining System Knowledge Computer Based Training (CBT) with the Flight Management System Trainer (FMST), Aerosim provides the student with a valuable integrated distance learning training suite. The student can easily leave the lesson environment and practice FMS skills in a true free-play environment.

- ☐ Distance learning
 - ☐ Toggle between the lesson and free-play FMST
 - ☐ Self-paced learning
 - ☐ Reduced in-house training costs
 - ☐ Testing capabilities
 - ☐ Learning Management System (LMS) providing administrative access and control
-

PROCEDURE TRAINING SUITE

The Aerosim Virtual Flight Deck (VFD)/Virtual Procedure Trainer (VPT) suite provides a valuable resource to pilots in training by integrating procedures training with both products. Students can practice procedures on the VFD where they want, when they want, prior to their VPT session. This combination provides a valuable procedures training platform for the students, increasing airline training efficiency and student success rates.

- ☐ Efficient use of VPT lesson time
 - ☐ Integrated procedures between VFD/VPT
 - ☐ Distance learning of procedures with VFD
 - ☐ Practice procedures prior to VPT lesson
 - ☐ Self-paced procedure review
 - ☐ Lesson Plan Editor (LPE) authoring tool
-

SIMSUITE™

SimSuite™ leasing offers a complete turn-key solution for your systems knowledge and procedures training, providing a full suite of training tools that deliver state-of-the-art technology, customization, and update support services. Your training program will always be current and scalable in today's dynamic training environment.

- ☐ No capital expense – simply a low fixed monthly fee
- ☐ Continuous training needs analysis
- ☐ Reduced travel cost and FFS utilization
- ☐ Full technical support, including online and annual site visits
- ☐ Total equipment suite change when your fleet changes

Systems Knowledge Training Suite

AEROSIM CHECKRIDE

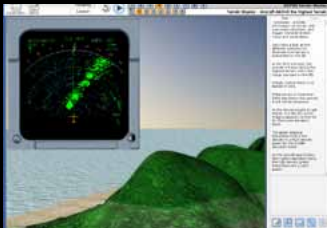
The Aerosim Checkride™ for the iPad®, iPhone®, and iPod touch® is a study tool to help pilots prepare for their oral exams and checkrides. The app delivers detailed system information for every panel, switch, light and display in the flight deck. This tool reduces study time preparations by bringing the aircraft manual information together in an easy-to-use, efficient App that truly prepares the pilot for the oral exam and checkride.

Features & Benefits:

- ❑ Pan and zoom capabilities with high resolution graphics
- ❑ Flight deck panel location and familiarization
- ❑ Ideal for practicing cockpit flow patterns



COMPUTER BASED TRAINING (CBT)



Aerosim's CBT provides structured courseware learning with multiple distance learning deployment

methods. Self-paced instruction, demonstrations, continual evaluation, practice scenarios, remediation, and testing are brought together in this comprehensive training tool. These features provide greater knowledge retention when compared to traditional page turning CBT.

Aerosim developed courseware can be customized to your aircraft configuration, procedures and standards. The courseware is deliverable via computer lab or distance learning (iPad,[®] web, CD, USB drive).

Subject areas covered:

- ☐ Aircraft Systems
- ☐ General Subjects
- ☐ Operations & Systems integration training – including normal, abnormal and emergency procedures training

FLIGHT MANAGEMENT SYSTEM TRAINER (FMST)

The Aerosim FMST allows students to develop and practice flight management skills in a true free-play environment. Each FMST can be customized to any aircraft configuration. All required avionics are fully integrated while aerodynamics and engine models offer the capability to set the thrust, flaps, slats, speed brakes and gear to allow for a genuine experience within the aircraft's operating envelope.

Student can practice and become familiar with:

- ☐ Pre-flight and in-flight programming of the flight management system
- ☐ Autopilot functions
- ☐ Electronic Flight Instrument System (EFIS) integration
- ☐ Navigation procedures



LEARNING MANAGEMENT SYSTEM (LMS)

All desktop and mobile courseware provided by Aerosim are designed to interface with an LMS for scoring, recording and course completion data. The full featured LMS included with all courseware will efficiently satisfy all of your distance learning requirements. As an option, Aerosim courseware can interface with an existing AICC/SCORM compliant LMS.



Airbus A320 Virtual Procedure Trainer™

Procedure Training Suite

VIRTUAL FLIGHT DECK (VFD)

The Aerosim VFD is a full simulation of an aircraft's flight deck, brought to life on a PC. The VFD allows real-time interaction with every system in a complete free-play training environment for pilot and maintenance technician trainees. Maintenance aspects of the software range from malfunctions and diagnostics to simulation of the avionics bay and external aircraft components.

The VFD allows the trainee to master:

- ☐ Pre-flight checks
- ☐ Automated flight

Flight Procedures:

- ☐ Normal
- ☐ Non-normal/Emergency



AEROSIM VIRTUAL PROCEDURE TRAINER™ (VPT)

The Aerosim Virtual Procedure Trainer (VPT) is an aircraft reconfigurable crew training device designed to optimize training time and improve the learning process for pilots and maintenance personnel. Theory, practice, technical details, operational issues, and human factors are brought together in a realistic environment.

Training with the Virtual Procedure Trainer is most effective when used for familiarization, systems, and procedures training prior to entering the full flight simulator. Training organizations can schedule numerous hours in a VPT for the cost of just one hour in a full flight simulator. Most instructors prefer the VPT learning environment as opposed to a simulator when it comes to teaching crew concepts, FMC skills, normal flight procedures, and system abnormalities.

The ability to initiate the VPT to a pre-defined snapshot within seconds eliminates wasteful set-up or repositioning time. A user friendly Instructor Operating System (IOS) allows the instructor to focus on his most important task – observing the student's performance.

LESSON PLAN EDITOR

The most powerful feature of Aerosim's trainers is the ability to provide detailed instruction while in a free-play environment. The Lesson Plan Editor feature allows users to develop detailed lessons that demonstrate solutions to a problem while full free-play allows the student to experience the consequences of incorrect actions. By monitoring student actions, the lesson can provide a means of guidance and evaluation; an important factor in free-play training.

Flight Training Device - Level 5



FLIGHT TRAINING DEVICES

The Aerosim Aviator™ FTD line features an aircraft specific flight deck, offering the form, fit, feel and function of the actual aircraft. The experience is further enhanced by realistic electrical flight control loading, sophisticated sound and audio simulation, and an optional 220° field of view, multi-channel visual system that provides cues in day, dusk and night VFR and IFR conditions. These devices are ideal for training prior to entering Full Flight Simulators or actual aircraft.

Training programs supported include:

- ☐ Jet Transition
- ☐ Initial training
- ☐ Recurrent training
- ☐ LOFT scenarios
- ☐ Crew Resource Management
- ☐ Multi-Crew Coordination (MCC)
- ☐ Pilot proficiency

Effective training for:

- ☐ Flight deck procedures - Normal, Non-Normal/
Emergency
- ☐ Work load management
- ☐ Situational awareness
- ☐ Crew Resource Management
- ☐ Flight deck familiarity



Virtual Maintenance Trainer

MAINTENANCE TRAINING

The Virtual Maintenance Trainer™ is a simulation-based training device designed to optimize training time and improve the learning process for maintenance personnel. The Virtual Maintenance Trainer brings together theory, practice, technical details, and trouble shooting scenarios in a highly realistic environment.

Aerosim brings together the Virtual Flight Deck (VFD) with maintenance capabilities, which include virtual aircraft or other maintenance components. This creates a positive learning experience for the student through a realistic line-oriented experience with full simulation.

Virtual aircraft enable pilots and technicians to perform external component location, walk around inspection, and procedure based interaction. Active schematics show real time system conditions and are tied directly to the simulation in progress. Custom maintenance and troubleshooting functions can be included.

Users are able to perform practical exercises including:

- ☐ Operational tests (systems and BITE)
- ☐ AMM & troubleshooting tasks
- ☐ MMEL maintenance procedures
- ☐ Servicing

Maintenance training functionality can also be built into the Virtual Procedure Trainer



GOVERNMENT & MILITARY TRAINING

PAST PERFORMANCE

US Navy

NAVAIR TSC, P-8A, C40, E6B, E2C

US Air Force

C32, C40, US Air Force Two

FAA

A320 Type-Rating Training

Aerosim is an SBA-certified Small Business (SB) with a solid record of past performance in Aerospace as one of the nation's leading providers of customized aviation training and technical services to government and commercial customers.

Aerosim's core focus is training. We prepare the Warfighter, pilots, maintenance technicians, FAA Technical Research Centers, Air Traffic Management, and training organizations to be better at what they do. We understand the complex, mission-critical challenges military and government agencies face every day. That's why at Aerosim we strive to deliver the highest quality products customized to your personnel needs, and are prepared for whatever challenges lie ahead.

We supply high fidelity, real-time, flight simulation devices, software, air traffic management and training programs to military and government agencies worldwide. Through our innovation in technology and program development, we believe our products and services help deliver efficiency in training and a better return on your investment.

Our capabilities include:

- ☐ Virtual: Training utilizing a simulator, full mission simulator, part-task trainer, mission rehearsal
- ☐ Constructive/C4ISR: Training fully on a computer or OEM equipment
- ☐ Education: Formal training accomplished in a classroom setting, campus, or online computer based training

CUSTOMER SERVICE

We have a strong commitment to providing excellent customer service and technical support. Commitment to quality, dedication to follow through, and post sale service has enabled Aerosim to enjoy an impeccable reputation in the aviation industry.

“We are considered by our most important critics, our customers, to be an innovative company backed by excellent products with reliable and effective customer support” – Dave Rapley, CEO.



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