Challenging the Status Quo of Aviation Training

Andrea Arola
Commercial Director, Aerosim

Follow this and additional works at: https://commons.erau.edu/ntas

https://commons.erau.edu/ntas/2016/presentations/21

This Event is brought to you for free and open access by the Conferences at Scholarly Commons. It has been accepted for inclusion in National Training Aircraft Symposium (NTAS) by an authorized administrator of Scholarly Commons. For more information, please contact commons@erau.edu.
Challenging the Status Quo of Aviation Training
The Aerosim Story

In 1993, 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 no one could produce an FMS training solution on a desktop computer.

1998-2005: Incredible growth period with product line
2009: Acquisition of Delta Connection Academy
2010: Aerosim Training Solutions founded (Part 142)

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

- Pilot Training for an ab-initio through Type Rating
- Airlines and Training Centers
- Government and Military
Our Customers, Over 180 Strong

Aeromexico (Boeing)
Aerolíneas Argentinas (Boeing)
Aerostar Training Services
Agusta Westland
Air Astana
Air Canada
Air Canada Jazz
Air China
Air France
Air New Zealand
Air Nippon
AirTran (SWA)
Alitalia
All Nippon Airways (ANA)
Aloha Airlines
American Airlines
Arizona State University
Andrews Air Force Base
Atlas
AVIANCA
Aviation Research Center
Boeing Corporation
British Airways
Bombardier
CanJet
China Eastern
China Southern
Cirrus Aircraft
CommutAir
Copa Airlines
Delta Air Lines
DHL Aero Expreso
Dubuque University
Dubai Aerospace
Flybe
Emirates
Embraer
Embry Riddle University
Envoy
Ethiopian Airlines
EVA Airways
Egypt Air
ExpressJet
Far Eastern Air Transport
FedEx
FlightSafety International
FlyDubai
Finnair Flight Academy
GOL Intelligent Airlines
Hainan
Hawaiian Airlines
Henderson State Univ.
Horizon Air
Island Air
Jacksonville University
Japan Air Commuter
Japan Airlines
Jetstream Aviation
JetBlue
Kansas State University
Kenya Airways
LATAM Airlines Group
Lewis University
Lufthansa
Miami Air
Middle Tennessee State
Minnesota State Mankato
National Airlines
Omni Air International
PSA Airlines
Polar Air Cargo
QantasLink
Shenzhen Airlines
SkyWest (USA)
SkyWest (Australia)
South African Airways
Southwest Airlines (SWA)
Spirit Airlines
St. Cloud State University
Sun Country Airlines
Sun Express
SunWing
TAM Airlines
Thomas Cook Airlines
Tianjin Airlines
TRU
United Airlines
UPS (United Parcel Service)
US Airways
United Parcel Service
University of North Dakota
Virgin Atlantic
Xiamen Airlines
WestJet Airlines
Generational Shift Occurring in Aviation Training

- Management acceptance of new training technology
- Students going to flight academies for a direct career path to become a professional pilot
- New levels of economic accountability forcing a holistic “rethink” of how to best train pilots and technicians
Technology is Advancing

- Improving the quality of simulated training, while creating efficiency and reducing costs
- Lower cost training devices offset time in the Full Flight Simulator
- Distance learning, mobile devices enables training anytime, anywhere
- Reducing costs and footprint
Broader Pressures are at Work

Increasing Global Traffic

Impending Pilot Shortage

Exponential Technology Growth – Unpredictable Rate of Change

New Global Economy Demands More for Less

Regulatory Compliance

Is Aviation Keeping Pace?
The Opportunity

To challenge the status quo of the aviation training continuum.

The Aerosim approach?
Supplying the world with better pilots by harnessing technology to shift training effectiveness earlier in the continuum.

Your pilots don’t just fly. They are on a journey. One, continuous mission to be the best, most consistent pilots they can be. That’s why at Aerosim, we approach training with the same dedication to continuum.
The future requires a new approach.

Integrated Products for Efficiency in Training
Pilot Training

Self-paced Learning/Distance Learning

Instructor-led Training

Systems Knowledge
DISTANCE LEARNING
Knowledge Preparation + FMS Skills

Procedure Training
DISTANCE LEARNING
Procedure Skills Lessons* + Procedure Practice

TRAINING CENTER
Procedure Training
Virtual Procedure Trainer
Systems Knowledge
Systems Knowledge

Cockpit Familiarization

Aircraft Systems & General Subjects

Practice Exam

FMS Skills
Learning Management System (LMS)
All products are designed to interface with an LMS for progress tracking, recording and course completion data. LMS Progress reports available. Content is AICC / SCORM compliant.
Systems Knowledge

Cockpit Familiarization

Study tool to help pilots prepare for their oral exam and checkride by delivering detailed system information for every panel, switch, light, and display in the flight deck.
Arms the APU bottle squib.

Closes the APU bleed air load control valve and turns off the APU fuel pump.

- APU FIRE PUSH (red) light indicates that a fire is detected in the APU enclosure.
Aircraft Systems & General Subjects

Provides structured courseware learning with multiple distance learning deployment methods. Includes aircraft systems and general subjects.
Each engine contains an N1 fan rotor and an N2 compressor rotor.

The N1 rotor consists of a single stage fan connected to a 4-stage low pressure turbine.

The N2 rotor is a 10-stage compressor connected to a 2-stage high pressure turbine.
FMS Skills Lesson

Scenario-based and interactive lesson teaching every step of FMS, autoflight, and navigation during all phases of flight.
Enter 350 into the INTC CRS line and execute the change.

ATC: "Bluestreak 5051, when able, intercept the 350 degree course to HICKI."
Systems Knowledge

Practice Exam
Generates exams based on aircraft system categories and desired number of questions. Start a quick exam or create custom exams, and review, retake, or continue previous exams.
CREATE CUSTOM EXAM

STEP 1
Create exam name  (Limit 20 characters)
Custom Exam 1

STEP 2
Select exam categories
- ACARS
- APU
- Differences
- Electrical
- Fire Protection
- Fuel
- Air Conditioning
- Autoflight
- Doors and Windows
- Emergency Equipment
- Flight Controls
- Hydraulics
- Aircraft Familiarization
- Communications
- EICAS
- Engines
- Flight Instruments
- Ice and Rain Protection

STEP 3
Select the total number of questions  215
(215 available for selected categories)

STEP 4
Create custom exam
(Selecting ‘Cancel’ will return to Welcome screen without saving)
CREATE  CANCEL
Systems Knowledge

Within one application, Systems Knowledge combines the tools necessary to master cockpit familiarization, aircraft systems, general subjects, and FMS skills.

**Benefits:**

- Self-paced Learning/Distance Learning
- Mastery of Aircraft Systems, General Subjects, and FMS
- Reduced in-house Training Costs
- Self-assessment and Testing Capabilities
- Learning Management System (LMS) with Administrative Access (Students Reports)
- Additional options can be added to Suite (ex. ACARS Trainer, Free-Play FMST)
Global Headquarters
**America Sales**
351 Cliff Road East
Burnsville, MN 55337 USA
- +1 952 894 4694
- info@aerosim.com

**Government & Military**
- +1 952 358 7649
- jthompson@aerosim.com

Asia, Latin America, South America & Caribbean Sales
- +1 952 746 8317
- ksandhu@aerosim.com

Europe, Middle East & Africa Sales
- +44 020 3178 4327
- snewcombe@aerosim.com

aerosim.com