

Mar 15th, 1:15 PM - 3:15 PM

Panel 4 (Session C): OEM, Simulation, & Training Support

Peter Morton

Moderator: President, PMM Inc

Andrea Arola

Panelist: Commercial Director, Aerosim

Gary Morrison

Panelist: Manager, CAE

James Champley

Panelist: Asst Manager, Flight Safety Vero Beach Flight Academy

Todd Scholten

Panelist: Fleet Sales Chief Pilot, L-3

See next page for additional authors

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Presenter Information

Peter Morton, Andrea Arola, Gary Morrison, James Champley, Todd Scholten, and Ed Hardick

NTAS/PS&DS 2016 Supplemental Notes

Panel 4 (Session C): OEM, Simulation, & Training Support

Aerosim

- Andrea Arola (Commercial Sales North America)
 - *See Aerosim Arola PowerPoint Presentation*
 - Flagship products : Flight management computer trainer, procedures trainers
 - ATP/CTP course; 500th student finished 3/2016; Based ORL / Las Vegas
 - Training technologies for Universities/Flight academies,Airlines Govmt.
 - Training pilots through technology
 - Increasing efficiency and safety
 - Advancements in technology moves training from FFS to more accessible training devices
 - Reducing cost and training footprint
 - Mitigating issues in Airline industry through simpler training
 - AeroSim ETHOS streamlines pilot training for airlines, providing
 - Cockpit familiarization
 - FMS skills
 - Aircraft Systems knowledge
 - Customized to better suit the fleet that the provider is flying

CAE

- Gary Morrison
 - *See CAE Morrison PowerPoint Presentation*
 - Simulation and Training Over 100,000 pilots a year trained
 - Military training and manufacturing also
 - Goals
 - Better instructor training tools
 - Enhancing the instructor stations; make job easier and more effective
 - Get simulation to the next level of realism

Flight Safety International

- James Champley Assistant Manager FSI Vero Beach (*no presentation*)
 - FSI Background
 - 150 Airplanes in training fleet
 - 20 piper warriors & 6 arrows on order
 - 70,000+ hours a year
 - Over 400 students
 - Installed GDL-88 in fleet for ADS-B IN/OUT capabilities
 - Extensive use of TIS-B and FIS-B
 - Upgraded 8 PA-44 Seminoles
 - ADS-B IN and OUT
 - Inputs, insight, feedback – ADS-B
 - Inherent problems with ADS-B
 - Does not always show every piece of traffic in the area
 - Has resulted in some close calls in practice areas
 - Tremendous tendency to have “head down” in airplane

- Need focus on dividing in and out of the cockpit
- Operational Considerations
 - New automation puts responsibility on training provider to use the systems correctly
 - Information needs to be used correctly by crew to make safe decisions
- Looking for industry feedback; troubles, successes
- Has in fact helped in avoiding near misses and traffic conflict incidents
- Ground training technologies have involved as well
 - AATD / FTD training introduces students to these technologies
- Taking conscious approach to meet the 20/20 mandate with data

L-3

- Todd Scholten
 - *See L-3 Scholten-NTAS PowerPoint Presentation*
 - ADS-B Mandate
 - Brings enhanced safety into the cockpit
 - Prices have become more reasonable than they were a year ago
 - Q: Why were 1090 and 978 divided? A: FAA concerned with too much traffic on the frequencies, so they split it up
 - Purpose of ADS-B Mandate?
 - Intended to get rid of Radar service
 - Why equip?
 - Subscription free traffic and weather
 - More information in the cockpit for the pilots
 - Beat the impending backlog of non-equipped aircraft

Talon Systems

- Ed Hardick
 - *See Hardick TalonNTAS 2016 PowerPoint Presentation*
 - ADS-B and Software Solutions
 - Software for training management, safety management
 - Could we do more? Users are collecting data during flights (in some form or another)
 - What extent can ADS-B data be captured in flight?
 - Potential of packaging data after a flight and connecting it to a training record...
 - Possibilities in 2017: Software and Training
 - New layout for ETA system and training systems
 - More streamlined and user-friendly
 - Trend analysis

Discussion

- Q: Peter Morton – The app demographic suggest that the phoenix area is pretty intensive in training... does that raise any questions in your mind about what you might be able to get out of that data?

- A: Dr. Dan (ERAU) – It peaked my interest. I would be curious to see what the pattern is for all use. There could be different demographics and different training environments. I know how busy it is here I just don't know how widely employed a mobile app is here.
- A: Ed Hardick (Talon)- Our friends at Google make it easy for us to compile the data for the app... right now there is about 40k students whose training is being managed by Talon, about 2/3 are being allowed to use the app. It would be interesting to get data from desktop logins.
- Peter - Florida is in a sense a constrained airspace... it would be interesting to overlay training traffic with other traffic that has nothing to do with training to see a neighborhood airplane density.
- Q: Barbara (FAA) – This may be for the panelist or anyone in the room, a couple presenters have mentioned AOA indicators. We talked about technology and how important it is how to use them. What kind of training programs do you technology providers have for the students or instructors? If so, what sort of training is performed?
- A: Tony Cihak (Liberty University) – We installed AOA indicators on our entire fleet. An important part of the flight-training program is being able to integrate these indicators into checklists. We teach it on a 1 on 1 basis with instructors. It's incorporated into the syllabus and ground lessons. Each instructor goes through an instructor-training week; the AOA indicators (hands on) were part of that training.
- A: Gary Morrison (CAE) – AOA indicators are widely misunderstood and not necessarily taught. Our training is quite extensive on AOAs, it includes academic theory and practical use.
- A: James (Flight Safety) – We installed on the 26 new planes I referenced and the 8 that we retrofitted. The key is using it properly and we have an instructor standardization program. When a warning/buzzer goes off in any phase of flight it demands an immediate acknowledgement and an immediate corrective action. The effectiveness can get lost if not.
- A: Jeremy Brown (Frasca) – Liberty University requested we implement AOA indicators on their level 5 flight training devices. They are looking at training on the ground as well as in the aircraft.
- A: Todd (L3) - We don't produce an AOA, only experimenting for the future. We've looked at the displays intuitiveness and think we can make improvements.