



# FSEMC 2010

September 20-23, 2010 | Brighton Hilton Metropole | Brighton, UK

Hosted by **THALES**



# Welcome to FSEMC 2010



On behalf of your FSEMC Steering Committee and this year's host, Thales, I would like to extend an invitation to all professionals

involved in the Flight Simulation and Training industry to attend the 2010 FSEMC in Brighton, England, UK, on September 20-23, 2010. In addition, I would like to add my personal invitation to participate in this annual event. Please join us in Brighton for what I am sure will be a most rewarding conference. I know that our hosts are planning to make this conference a memorable experience for all of us.

The Mission Statement of the FSEMC is:

"To be recognized as the international authority on the Aviation Training Device industry. To enhance the safety and operational efficiency of aviation worldwide through the dissemination of engineering, maintenance, and associated technical information including the development of consensus standards. To promote and advance the state of the art of the Aviation Training Device industry."

What does this mean and how do we do it? This upcoming FSEMC conference is one of the major steps we take to achieve those objectives. This conference allows the users, operators, and suppliers in our industry to get together to discuss issues of concern to all of us. We work together in a non-competitive environment to resolve

existing problems, to review the current state of the art, and to discuss and plan future trends and growth in the industry.

We are always asking questions such as, "How do we make the devices more effective?" We achieve this by making the devices more realistic and more capable, thereby improving the transfer of training, by making them more reliable, thereby improving the amount of training that can be done, and by making them more cost-effective, thereby improving the accessibility of training. All these things are at the root of what we do to make aviation safer. Poor realism, limited capability, poor reliability, and increasing costs are the enemies of our mission. We solicit your participation in exposing those areas that need improvement and that need action. We work together to eliminate these enemies of our progress.

Through the Working Groups that we establish, we create and maintain standards that guide the future of the industry. Many of you have participated in these groups in the past and have helped to write the standards that govern our industry. If you have not yet participated, please feel free to join one of the working groups and provide your valuable insights. A good base of participation ensures that the standards that we write reflect a broad consensus within the industry. You will gain valuable insight into how you can use these standards to your benefit.

I strongly encourage you to attend the upcoming FSEMC conference in September. In the current state of the aviation industry, we rely on the participation of the simulation professionals to be able to continue to maintain and improve our excellent safety record. What will you get out of attending? You'll get insight into improvements in technology or processes that will help make your operation more effective, either through improved realism and capabilities, better reliability, or more cost-effective operation. You will meet people who have had some of the same challenges you have and have already solved them or can work with you to help solve them. You can obtain the combined brainpower of hundreds of simulation professionals working on resolving your issue. You can find out what the current and upcoming trends are in the industry and how they may affect you. You can find out what industry standards are available to help you do your job better. You can help guide the future course of your industry.

Your personal contribution to aviation safety cannot be underestimated. I thank you for showing your dedication to the safety of the aviation industry.

Thank you and see you in Brighton.

*Mike Jackson*  
*FSEMC Chairman*

## Steering Committee

Mike Jackson, FedEx –  
Chairman

Barry Gaines, Thales –  
Vice Chairman

Sam Buckwalter, ARINC –  
Executive Secretary

Scott Smith, ARINC –  
Assistant Executive Secretary

Alain Brault, Airbus

Howard Gallinger, Air Canada

Asok Ghoshal, American Airlines

Brandon Mazzacavallo, The Boeing Company

Jean Bergeron, CAE

Patrick Cleary, Continental Airlines

Steve Wortman, Delta Airlines

Mohammed Bary, EgyptAir

George Brady, FlightSafety International

Takashi Nukui, Japan Air Lines

Stefan Nowack, Lufthansa Flight Training

Bob Doucette, Opinicus

Lars Gran, Oxford Aviation Academy

Marc Cronan, Rockwell Collins

Greg Puckett, United Airlines

Pat Windham, AIR – AAI Liaison

# About the FSEMC

## MEETING

FSEMC, held annually every fall, provides simulator users an opportunity to openly and collectively discuss simulator engineering and maintenance questions. Prior to the meeting, simulator users submit discussion items that are discussed during the meeting.

## PARTICIPATION

FSEMC should include users of flight and cabin simulators, both dynamic and static. Users include airlines, commuter airlines, and other simulator users. Other participants should include airframe manufacturers, aircraft equipment suppliers, simulator equipment providers, and regulators.

## PROGRAM

Questions are grouped into the categories listed in the table below.

Once the questions are received, the FSEMC staff forwards them to the named equipment manufacturers. The questions are then prepared and included in the FSEMC program. Once the program is complete, a copy is sent to all pre-registered attendees.

During the meeting, a moderator presents each question for open forum discussion. By design, simulator users have the first opportunity to respond. This approach emphasizes that other simulator users may also be experiencing the same problem. In many cases, another simulator user may already have a solution to offer.

Next, the moderator calls for the manufacturers to respond. Often, a solution is already available.

If the solution is acceptable, the question is closed. If the solution is not acceptable or one is not yet available, the question is usually held open and is so noted in the report of the meeting. Finally, the meeting discussions are taped, transcribed, and produced in final form as the FSEMC Report.

## WELCOME OR WELCOME BACK

For those who attended past FSEMCs, there should be little need to urge your return. For those who are still not convinced, try answering the following questions:

- Does your company have chronic simulator engineering and maintenance questions?
- Would your company benefit from one-on-one access to a broad cross-section of simulator equipment manufacturers and suppliers, service organizations, and airframe manufacturers, in one location?

QUESTION CATEGORIES		
<b>ATA Chapter 115— Flight Simulator Systems</b> <ul style="list-style-type: none"> <li>• Electrical Power</li> <li>• Hydraulic Power</li> <li>• Host Computer and Peripherals</li> <li>• Interface</li> <li>• Instructor Station</li> <li>• Support Infrastructure (Facilities)</li> </ul>	<b>ATA Chapter 116— Flight Simulator Cueing Systems</b> <ul style="list-style-type: none"> <li>• Motion and Control Loading</li> <li>• Visual</li> <li>• Sound</li> <li>• Smoke</li> <li>• Avionics/Instruments</li> </ul>	<b>General</b> <ul style="list-style-type: none"> <li>• Product Support</li> <li>• Data and Simulation</li> <li>• Tools and Test Equipment</li> <li>• Standards</li> <li>• Training</li> <li>• Regulatory/QTG</li> <li>• Other Training Devices</li> <li>• Environmental Impact</li> <li>• Miscellaneous</li> </ul>

# Mission

→ *To be recognized as the international authority on the Aviation Training Device industry.*

→ *To enhance the safety and operational efficiency of aviation worldwide through the dissemination of engineering, maintenance, and associated technical information, including the development of consensus standards.*

→ *To promote and advance the state of the art of the Aviation Training Device industry.*

# Preliminary Agenda/Program of Events

## PRELIMINARY AGENDA

### Industry Session

- Simulator Quality Management Systems Working Group Update
- Import/Export of Data, Hardware, and Intellectual Property Working Group Update
- FSEMC Steering Committee Overview and Elections (Further information about the FSEMC Steering Committee, including the duties and prerequisites, is available at the FSEMC web site)

### Presentations

1. Icing Effects in Simulation
2. International Committee for Aviation Training in Extended Envelopes
3. Real Time Flight Simulations in the Classroom Using Code Ported from Qualified Full Flight Simulators
4. Alternatives to a Level C/D Quality Data Package from the Aircraft OEM
5. New Developments in Motion Testing — Objective Motion Cueing Test
6. Is LCOS Living up to the Expectations
7. Simulator Testing — Past, Present, and Future

### Awards

- The Edwin A. Link Award
- Best Individual Presentation Award
- Roger S. Goldberg Award

## TENTATIVE PROGRAM OF EVENTS

### Monday, September 20

1300–1900	Early Registration
1830–2030	FSEMC Exhibit/Reception

### Tuesday, September 21

0745–1645	Registration
0830–1000	Opening Session
1020–1145	FSEMC Discussion
1315–1400	Industry Session
1400–1630	FSEMC Discussion
1700	Visit Manufacturers

### Wednesday, September 22

0745–1645	Registration
0830–1145	FSEMC Discussion
1315–1630	FSEMC Discussion
1700	Visit Manufacturers

### Thursday, September 23

0745–1545	Registration
0830–1145	FSEMC Discussion
1315–1600	FSEMC Discussion
1600–1630	Open Q&A Session
1630	Adjourn

Open Q&A Session—FSEMC will include an open Q&A session at the end of each ATA Chapter for a limited time and for 30 minutes prior to adjourning the meeting. This is intended to provide an open exchange of information.

## ARINC Standards Developed by the FSEMC

- ARINC Report 432  
Training Equipment Support Personnel
- ARINC Report 433  
Flight Simulation Metrics
- ARINC Report 434  
Synthetic Training Devices Support
- ARINC Report 435  
Cabin Training Devices
- ARINC Report 436  
Electronic Qualification Test Guide
- ARINC Report 437  
Guidelines for Training Facilities
- ARINC Report 440  
Training Equipment Data
- ARINC Report 441  
Binary Format Software
- ARINC Report 442  
Chart Driven Models and Source Code
- ARINC Report 443  
Data Collection for Visual Databases
- ARINC Report 610C  
Simulator Software in Training Devices



# Membership & Sponsorship/Hospitality Suites

## FSEMC MEMBERSHIP AND ARINC INDUSTRY ACTIVITIES CORPORATE SPONSORSHIP

Is your organization an FSEMC Member Organization or ARINC Industry Activities Corporate Sponsor? If your organization is interested in becoming an FSEMC Member Organization or ARINC IA Corporate Sponsor, please visit <http://www.aviation-ai.com/MembershipAndSponsor/index.html>.

FSEMC Membership or Corporate Sponsorship enables you to fully participate in ARINC IA activities and gain access to ARINC Standards and many other valuable products.

## FSEMC AND AAI



FSEMC welcomes

the Airline Avionics Institute (AAI), an independent organization of simulator, airframe, and avionics suppliers.

AAI sponsors an exhibit/reception, which gives smaller simulator and avionics

manufacturers an opportunity to display their products and services and provides a place and time for all conference delegates to come together in a congenial atmosphere to discuss business and to socialize.

The FSEMC Steering Committee encourages simulator, airframe, and avionics suppliers to join AAI and participate in the sponsorship of FSEMC coffee breaks and the FSEMC Exhibit/Reception.

The FSEMC Exhibit/Reception will take place on Monday, September 20, 2010.

For further information on AAI, contact:

Mr. Phil Wright  
AAI Business Manager  
tel +1 (941) 313-0471  
[phil@airlineavionics.org](mailto:phil@airlineavionics.org)  
[www.airlineavionics.org](http://www.airlineavionics.org)

## HOSPITALITY SUITES

Tuesday evening has been designated "Suite Night" for suppliers to exhibit using hospitality suites. FSEMC blocks several suites for this purpose. The Hilton Brighton Metropole hotel assigns available suites on a first-come, first-served basis to any supplier. To reserve a hospitality suite, contact:

Mr. Jon Allan  
Senior Events Manager  
Hilton Brighton Metropole  
106-121 Kings Road  
Brighton BN1 2FU  
United Kingdom  
[Jon.allan@hilton.com](mailto:Jon.allan@hilton.com)  
tel +44 (0)1273 715 116

## Brighton, UK



## For More Information

Contact:

## ARINC

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Web site:

<http://www.aviation-ia.com/fsemc/>

# A Look Back at Last Year's FSEMC



Craig Phillips, recipient of the 2009 Edwin A. Link Award

