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## AGENDA

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Federal Aviation Administration  
Joint Advanced Materials & Structures (JAMS) Center of Excellence  
4th Annual Technical Review Meeting

Hosted by AMTAS  
Future of Flight  
Forward and Aft Cabin Rooms  
June 17 – June 19, 2008

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**Tuesday, June 17, 2008**

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### AM

- 7:00 Registration  
Continental Breakfast — sponsored by A&P Technology
- 8:15 Call to Order/Welcome  
(Curtis Davies, FAA; Mark Tuttle, AMTAS Director; Barry Smith, Exec. Dir., Future of Flight)
- 8:30 Introduction to FAA Research (Curtis Davies, FAA)
- 8:50 FAA Composite Safety and Certification Program (Larry Ilcewicz, FAA)
- 9:15 Aging of Composite Aircraft Structures: Beechcraft Starship Teardown and  
Decommissioned Boeing 737 Tail  
(Lamia Salah, Wichita State University)
- 10:00 Break
- 10:15 Crashworthiness of Composite Fuselage Structures—Material Dynamic Properties  
(Suresh Keshavanarayana, Wichita State University)
- 10:45 Standardization of Numerical and Experimental Methods for Crashworthiness  
Energy Absorption of Composite Materials  
(Paolo Feraboli, University of Washington)
- 11:15 Damage Tolerance Testing and Analysis Protocols for Full-Scale Composite  
Airframe Structures Under Repeated Loading  
(Waruna Seneviratne, Wichita State University)
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- 11:45 Lunch — sponsored by A&P Technology
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## Tuesday, June 17, 2008

### PM

- 12:45 Fluid Ingression Damage Mechanism in Composite Sandwich Structures  
(Allison Crockett, Wichita State University)
- 1:15 Certification by Analysis I and II  
(Gerardo Olivares, Wichita State University)
- 1:45 Technology Assessment of the Airworthiness of Unmanned Aerial Systems  
(Allison Crockett, Wichita State University)
- 2:15 Course Development: Composites Awareness for the Aviation Safety Inspector  
(Charles Seaton, Edmonds Community College)
- 2:45 Go to Tour boarding location
- 3:00–5:00 Boeing tour — sponsored by The Boeing Company  
(limited to 90; first-come, first-served)
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- 5:00–6:00 Cash bar
- 6:00–8:00 Dinner — sponsored by The Boeing Company  
*Location: Future of Flight StratoDeck*
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## Wednesday, June 18, 2008

### AM

- 7:30 Continental Breakfast — sponsored by Cytec Engineered Materials
- 8:00 Damage Tolerance and Durability of Adhesively Bonded Composite Structures  
(Thomas Siegmund and CT Sun, Purdue University)
- 8:30 Development of Reliability-Based Damage Tolerant Structural Design Methodology  
(Chi Ho Cheung and Kuen Y. Lin, University of Washington)
- 9:00 Damage Tolerance and Durability of GLARE Laminates for Aircraft Structures  
(Jenn-Ming Yang, UCLA)
- 9:30 Structural Health Monitoring for Life Management of Aircraft  
(S. Krishnaswamy, Northwestern University)
- 10:00 Break
- 10:15 Impact Damage Formation on Composite Aircraft Structures  
(Hyonny Kim, University of California San Diego)
- 10:45 Combined Global/Local Variability and Uncertainty in Integrated  
Aeroservoelasticity of Composite Aircraft  
(Eli Livne, University of Washington)
- 11:15 Production Control Effect on Composite Material Quality and Stability  
(Beth Clarkson, Wichita State University)

**Wednesday, June 18, 2008**

11:45 Lunch — sponsored by Cytec Engineered Materials

**PM**

12:45 Evaluation of Friction Stir Weld Process and Properties for Aerospace Application  
(Christian Widener, Wichita State University)

1:15 Failure of Notched Laminates under Out-of-Plane Bending  
(Tim Kennedy, Oregon State University)

1:45 VARTM Variability and Substantiation  
(Josiah Hughes, University of Delaware)

2:15 Development and Evaluation of Fracture Mechanics Test Methods for Sandwich  
Composites  
(Dan Adams, University of Utah)

2:45 Break

3:00 Effect of Repair Procedures Applied to Composite Airframe Structures  
(Lamia Salah, Wichita State University)

3:30 Improving Adhesive Bonding of Composites through Surface Characterization  
(Brian Flinn, University of Washington)

4:00 Adjourn

**Thursday, June 19, 2008**

**AM**

7:30 Continental Breakfast

8:00 Quantifying Methods for the Evaluation of Carbon Based Composite Surfaces for  
Subsequent Adhesive Bonding  
(Bill Stevenson, Wichita State University)

8:30 Identification and Validation of Analytical Chemistry Methods for Detecting Composite  
Surface Contamination and Moisture  
(Xiangyang Zhou, University of Miami for Florida International University)

9:00 Presentation: 787 Dreamliner: Advanced Composite Applications  
(Al Miller, The Boeing Co.)

10:30 Break

**Thursday, June 19, 2008**

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**Aviation Industry Perspective on the Presented Research**

11:00 Dick Bossi, The Boeing Co.  
11:15 Mike Mott, Hawker Beechcraft Corp.  
11:30 Rick Young, NASA Langley Research Center  
11:45 Alain Landry, Bombardier Aerospace  
12:00 Feedback from the audience

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12:15 Concluding Comments and Wrap-up  
12:30 Adjourn



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***Members of the FAA Joint Advanced Material and Structures (JAMS)  
Center of Excellence***