



AGENDA * *(subject to change)*

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

Tuesday, June 17, 2008

AM

- 7:00 Registration
Continental Breakfast — sponsored by A&P Technology
- 8:15 Call to Order/Welcome (Curtis Davies, FAA; Mark Tuttle, AMTAS Director;
John Quinlivan, 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 Composites (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: Maintenance and Repair of Composite Aircraft Structures (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. Kuen 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 Integrated Aeroservoelastic Uncertainty / Damage Tolerance / Reliability of Composite Aircraft (Eli Livne, University of Washington)
- 11:15 Production Control Effect on Composite Material Quality (Beth Clarkson, Wichita State University)

Wednesday, June 18, 2008

AM

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 (Dirk Heider, 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 Methods for the Evaluation of the Fitness of Fiber Reinforced 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

AM

Aviation Industry Perspective on the Presented Research

11:00 Dick Bossi, The Boeing Co.
11:15 Industry Feedback—TBD
11:30 Industry Feedback—TBD
11:45 Industry Feedback—TBD
12:00 Industry Feedback—TBD
12:15 Industry Feedback—TBD

12:30 Concluding Comments and Wrap-up
12:45 Adjourn



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