A Center of Excellence
AMTAS
Advanced Materials in Transport Aircraft Structures

AMTAS Autumn 2007 Meeting

October 25, 2007
University of Washington, HUB 310

AGENDA *

8:00 AM	Registration & Coffee	
8:30–8:45 AM	Welcome & Introductions	Mark Tuttle, AMTAS Director Matt O'Donnell, Dean, UW College of Engineering
8:45–9:00 AM	Joint Advanced Materials & Structures (JAMS) Center of Excellence Update	Curtis Davies, FAA
9:00–9:45 AM	AMTAS/JAMS: Status and Future Plans	Mark Tuttle, AMTAS Director
9:45–10:35 AM	Research Projects I *(ongoing)*	
9:45–10:10	• Reliability–based Damage Tolerance Design	Chi Ho Cheung & Kuen Lin, UW A&A
10:10–10:35	• Improving Adhesive Bonding of Composites through Surface Characterization	Molly Phariss for Brian Flinn, UW MSE
10:35–10:55 AM	Coffee break	
10:55 AM –Noon	Research Projects II *(ongoing)*	
10:55–11:20	• Course Development: Maintenance of Composite Aircraft Structures	Charles Seaton, Edmonds CC
11:20–11:45	• Combined Global/Local Variability and Uncertainty in Integrated Aeroservoelasticity of Composite Aircraft	Eli Livne, UW A&A & Francesca Paltera, UW ME Grad Student
11:45–Noon	• Identification and Validation of Analytical Chemistry Methods for Detecting Composite Surface Contamination and Moisture	Tomas Pribanic, Florida Int'l. U.
Noon–12:45 PM	Lunch (box lunch will be provided)	
12:45–1:35 PM	Research Projects III *(new)*	
12:45–1:10	• Failure of Notched Laminates under Out-of-Plane Bending	Tim Kennedy, Oregon State Univ.
1:10–1:35	• Standardization of Numerical & Experimental Methods for Crashworthiness of Composite Materials	Paolo Feraboli, UW A&A
1:35–1:45 PM	Review from AMTAS Spring 2007 Brainstorming Session	Mark Tuttle, AMTAS Director
1:45–2:05 PM	Break	
2:05–4:00 PM	Potential Future Research and Training Topics *(see following page)*	Mark Tuttle, AMTAS Director
4:00–4:15 PM	Wrap Up	Mark Tuttle, AMTAS Director
4:15 PM	Adjourn	

* subject to change

Topic	Focus/Practical Implementation: Near = 1-2 yrs Mid = 2-4 yrs Long = >4 yrs	
Ongoing Projects		
AMTAS Administration	Near	
Crashworthiness [3]	Mid	
Adhesive Bonding [1,2,3]	Near	
Notched Laminates under Out-of-Plane Bending [3]	Near	
Aeroelasticity [3]	Near	
Durability/Probabilistic Design [3]	Near	
Composite Training Courses [1,2,3]	Near	
Potential New Projects preliminary discussion (3–5 min. each)		
Aging/accelerated testing adhesive bonds [1,2,3]	Near	Lloyd Smith, WSU
Aging degradation in composites	Mid	Kuen Lin, UW
Precise control of cure processes during repair [1,2]	Near	Ashley Emery, UW
SIFT [4]	Mid	Mark Tuttle, UW
Structural health monitoring [4]	Mid	Minoru Taya, UW
Nano-reinforced adhesives and multi-functional materials [3,4]	Mid–Long	Russ Maguire, Boeing
Nano-modified repair materials [3,4]	Long	Katie Zhong, WSU
Morphing composite structures [4]	Near	Mark Tuttle, UW
FE Modeling of Composite Structures	Near	Paul Labossiere, UW

1. Included in list of desirable projects from CACRC perspective, presented by Michael Borgman during meeting with Nick Sabatini et al on 15 August 2007.
2. Included in list of "Future Research/Education Areas" developed during brainstorming session, AMTAS Spring '07 Meeting.
3. Suggested in the original FAA RFP that established JAMS/AMTAS.
4. Potential AMTAS project already suggested by Boeing.

* subject to change