



Update on AMTAS/JAMS

Summary prepared by

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AMTAS Director



FAA Center of Excellence Program

Background for 1ST-time Attendees

FAA Centers of Excellence (CoEs):

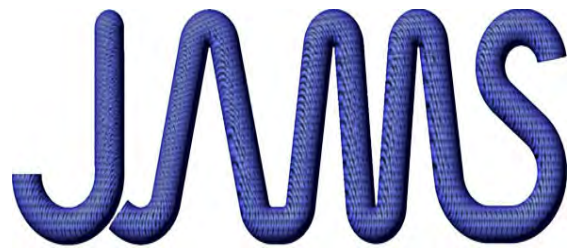
- Overall CoE program administered by Dr. Patricia Watts of the W. J. Hughes Res Ctr (Atlantic City, New Jersey)
- CoEs are funded through cooperative agreements among academic institutions, their affiliate industrial partners, and the FAA
- FAA provides funds that must be matched 1:1 by non-federal sources
- Funded in three phases over a total period of 3-10 yrs
- Five FAA CoEs are currently active: www.faa.gov/go/coe (6th CoE will be established soon)



"Acronyms," etc

Background for 1ST-time Attendees

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- The FAA Joint Advanced Materials and Structures (JAMS) Center of Excellence was formed in 2003 and consists of two university teams:
 - AMTAS ('A'dvanced 'M'aterials in 'T'ransport 'A'ircraft 'S'tructures)
 - CECAM ('Ce'nter for 'C'omposites and 'A'dvanced 'M'aterials)
 - Curt Davies is the FAA-JAMS Program Manager
 - JAMS is in Phase II of the ~10-yr funding cycle
 - All JAMS projects are related in some manner to safety and/or certification issues



JAMS CoE Member Schools

AMTAS (Advanced Materials for Transport Aircraft Structures)

- University of Washington, Lead
- Washington State University
- Oregon State University
- Edmonds Community College
- Florida International University
- University of Utah



CECAM (Center for Composites and Advanced Materials)

- Wichita State University, Lead
- Northwestern University
- Purdue University
- Tuskegee University
- University of Delaware
- University of California at Los Angeles





CoE for Commercial Space Transportation

New CoE to be Established Soon

- Public Meetings held 9 Feb and 25 Feb 2010 (~55 attendees)
- Final solicitation issued 15 March...Proposals due 30 April
- FAA Funding ~\$1M/yr for 10 yrs
- 1:1 match required from non-federal sources
- Four areas listed in solicitation:
 - Space traffic management and launch operations
 - Launch vehicle systems and technologies (*some advanced materials work here*)
 - Human factors
 - Space commerce



AMTAS Administrators

- Prof. Mark Tuttle, UW
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- Prof. Kuen Lin, UW
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- Ms. Ellen Barker, UW
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AMTAS Administrative Activities

- Website updated regularly:
<http://depts.washington.edu/amtas>
- Monthly technical progress reports from all AMTAS PIs assembled and submitted to FAA
- Quarterly financial reports from all AMTAS academic partners assembled and submitted to FAA
- Organize/schedule/host meetings
- AMTAS "news" - updates on AMTAS/JAMS activities e-mailed to interested persons every 3-4 months (about 1,000 persons presently)
- Oversee 5-day short course and (potentially) facilitate new ones



AMTAS/JAMS Meetings

- Semi-annual AMTAS meetings
 - Spring & Fall; typically 60-80 attendees representing 6 AMTAS universities, industrial partners, and the FAA
 - One-day mtg, usually (but not always) held on UW campus
 - 82 registrants for today's meeting
- Annual JAMS meeting
 - Late spring/early summer; UW and WiSU rotate as hosts
 - Typically ~100 attendees, representing 12 JAMS universities, industrial partners, and the FAA
 - 2010 JAMS Meeting will be hosted by UW and held *in conjunction with the 2010 SAMPE in Seattle (week of May 17)*



2010 JAMS Meeting

Held in conjunction with SAMPE 2010

- SAMPE 2010:
 - Washington State Convention Center, 17-20 May (Mon-Thurs)
 - 1st time the SAMPE Spring Conference and Exhibition has been held in Seattle
 - Key SAMPE-JAMS connection:
Dr. Bill Avery, SAMPE Int'l President 2008-09 and active AMTAS-JAMS participant
- 2010 JAMS meeting:
 - Washington State Convention Center, 19-20 May (Wed-Thurs)
 - SAMPE hotel room block available for JAMS participants
 - Separate SAMPE-AMTAS registration



2010 JAMS Meeting

Held in conjunction with SAMPE 2010

- To register for SAMPE Mtg (payment req'd):
www.sampe.org/events/2010Seattle.aspx
- To register for JAMS Mtg (no cost):
depts.washington.edu/amtas/events/jams_10
- SAMPE hotel room block available for JAMS participants
*** April 22 cut-off date ***



Semi-Annual AMTAS Meetings *Objectives*

"Generally":

Autumn Meeting agenda devoted to

- Overall status of AMTAS-JAMS
- Research results presented by AMTAS PIs

Spring Meeting agenda devoted to

- Overall status of AMTAS-JAMS
- Discussion/brainstorming of future research & education projects (funding for continuing or new AMTAS projects usually received during summer months)
- Developments of interest to AMTAS members



The Meeting Today

Early Morning Agenda

9:00-10:15 am

- FAA Perspectives on Future Research Requirements
(40 min presentation and 20 min discussion) Larry Ilcewicz
FAA
- Boeing Perspectives on Future Research Requirements
(15 min presentation) Mostafa Rassaian
Boeing

10:15-10:30 am - Coffee Break



The Meeting Today

Mid-Morning Agenda

10:30-11:30 am

- Impact of AMTAS Projects at The Boeing Company
Mostafa Rassaian
Boeing
- Industry Perspectives on Past and Future Research
Eric Casterline
Heatcon

11:30 am-12:15 pm - Lunch



The Meeting Today

Early-Afternoon Agenda

(15-minute presentations followed by 5 min Q/A)

12:15-2:15 pm – Student Presentations

- Probabilistic Damage Tolerant Design C. H. Cheung, A&A
- Crashworthiness of Composite Structures F. Deleo, A&A
- Aeroelastic Response of Composite Structures F. Paltera, ME
- Characteristics of Adhesively-bonded Composite Surfaces M. Phariss, MSE
- Certification of Discontinuous Fiber Composite Structures T. Shifman, ME
- Certification of Discontinuous Fiber Composite Structures M. Ciccu, A&A

2:15-2:35 pm - Break



The Meeting Today

Late-Afternoon Agenda

(20-minute presentations followed by 10 min Q/A)

2:35–3:35 pm: Emerging Applications

- Advanced Cellular Core Composite Structures
Bill Rodman
InVision Composites, Inc
- Aeroengine Vane Cellular Core Application & Other Braiding Developments
Dave Kehrl
A&P Technologies

3:35-3:45 pm: Next Steps/Wrap-up/Adjourn



Let's Get Started!

- We need your ideas and suggestions
....please participate in the discussion
throughout the day!
- Any questions for me?
- Enjoy the day!