



AMTAS/JAMS: Status and Future Plans

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AMTAS Participants

- AMTAS currently consists of:
 - Four academic partners
 - Eleven industrial partners
 - Welcome to Andy Thomas and Mark Chris of Bell Helicopter Textron (Fort Worth, TX); Bell will participate in future AMTAS activities
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AMTAS Participants

Academic Partners

- University of Washington (UW)
 - main campus in Seattle, WA
 - 35,000 students
 - <http://www.washington.edu/>
 - Washington State University (WaSU)
 - main campus in Pullman, WA
 - 22,500 students
 - <http://www.wsu.edu/>
 - Oregon State University (OSU)
 - main campus in Corvallis, OR
 - 18,000 students
 - <http://oregonstate.edu/>
 - Edmonds Community College (EdCC)
 - Lynnwood, WA
 - 11,000 students
 - <http://enr.edcc.edu/>
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AMTAS Participants

Current Industry Partners





AMTAS Participants

Administered by the UW

- Prof. Mark Tuttle, Director
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 - Prof. Kuen Lin, Co-Director
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 - Ms. Ellen Barker, Assistant to the Director
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Current AMTAS Projects

(1st year results/2nd year goals presented later today)

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- Reliability-based Damage Tolerant Composite Design Methodologies (K. Y. Lin, PI)
 - Combined Global/Local Variability and Uncertainty in Integrated Aeroservoelasticity of Composite Aircraft (E. Livne, PI)
 - Improving Adhesive Bonding of Composites through Surface Characterization (B. Flinn, PI)
 - The Effects of Surface Pretreatment on the Degradation of Composite Adhesives (L. Smith, PI)
 - Short-Course Development: Maintenance/Repair of Composite Aircraft Structures (C. Seaton, PI)
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AMTAS Administrative activities

- Formal AMTAS meetings:
 - 29 Jan '04: UW campus; 35 attendees
 - 10 Nov '04: UW campus; 40 attendees
 - 14 April '05: EdCC campus; 53 attendees
 - 13 Oct '05: UW Campus; ~58 attendees
 - Informal working meeting every 2-3 weeks, usually on the UW campus (10-12 persons, representing Boeing, Heatcon, Cytek, Intec, C&D Zodiac, UW)
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AMTAS Administrative activities

- Website updated regularly:

<http://depts.washington.edu/amtas>

- Reports provided to Curt Davies, JAMS Program Manager:
 - Monthly progress reports for all AMTAS projects
 - Quarterly fiscal reports for all AMTAS projects
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AMTAS/CECAM-JAMS Meetings

- 1st Annual AMTAS/CECAM-JAMS Mtg hosted by WiSU; 24-26 May 2005 (Wichita, KS)
 - 2nd Annual AMTAS/CECAM-JAMS Mtg to be hosted by UW; 20-22 June 2006 (Seattle, WA)
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AMTAS Budget

- FAA is providing “Phase I” funding for AMTAS/JAMS:
 - ~ \$500k cash for 3 yrs
 - FAA funds must be matched 1:1 by non-federal sources, over the 3-yr Phase I period
 - AMTAS fiscal year (defined “locally”) begins on Sept 1 and ends Aug 31
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AMTAS: 1st Year Budget

1 Sept '04 through 31 Aug '05

- FAA: \$647k (cash)
 - Boeing: \$172k (cash)
\$671k (in-kind)
 - UW: \$100k (cash)
 - Heatcon: \$77k (in-kind)
 - Intec: \$6.3k (in-kind)
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AMTAS: 2nd Year Budget

1 Sept '05 through 31 Aug '06

- FAA: \$550k (cash)
 - UW: \$100k (cash)
 - No new cash received or in-kind support reported since 1 Sept '05
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Budget Summary To Date

- FAA: \$1.197M (cash)
 - AMTAS: \$372k (cash)
\$754.3k (in-kind)

Total: \$1.126M
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Action Items from Spring 2005 AMTAS Meeting

- Background: FAA funding is currently used (in part) to support AMTAS administrative costs
 - Objective: Develop alternate funding model to support administration costs (AMTAS must become “self sufficient”)
 - Strategy to become self-sufficient:
 - Evolve into a Regional Center for Composite/Advanced Materials and Manufacturing, supporting multiple industrial segments
 - Develop annual dues structure to support administrative costs
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Action Items from Spring 2005 AMTAS Meeting

- Action Item 1: Form an ad hoc committee to poll various industrial segments (aerospace, marine, infrastructure, sporting goods, etc), to identify:
 - Common needs across industries
 - Factors inhibiting increased use of advanced composites/materials(ad hoc committee chaired by Rob Albers was formed, met via teleconferences during summer 2005, and will lead a panel discussion this afternoon)
 - Action Item 2: Develop a draft dues structure for presentation and discussion at this meeting
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AMTAS Dues Structure

Goals:

- (a) Develop dues structure to support AMTAS Administration without FAA funding

 - (b) Clearly define how both public domain and proprietary AMTAS projects can be accommodated
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AMTAS Dues

- Current administrative budget is ~\$150k/yr
 - FAA: \$75k
 - UW: \$75k
 - These funds support:
 - Salaries and benefits (\$130k)
 - Admin Assistant (Barker) - 12 mos
 - Director (Tuttle), Co-Director (Lin) – 1 mo each
 - Meeting costs (\$9k)
 - Travel costs (\$10k)
 - Software, office supplies, misc items (\$1k)
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AMTAS Dues

- Assumptions:
 - Administrative budget remains roughly constant
 - UW continues to provide 50% match (likely)

...Annual dues must sum to ~\$75k/yr



AMTAS Dues *Proposal*

- Group companies according to size:
 - Category I: >5000 employees
 - Category II: 500-5000 employees
 - Category III: 50-500 employees
 - Category IV: <50 employees
 - Dues:
 - Category I: \$10k/yr
 - Category II: \$5k/yr
 - Category III: \$1k/yr
 - Category IV: \$500/yr
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AMTAS Dues

Based on current/potential industrial partners

Cat I: Boeing, Hexcel, Toray,
Cytek, Bell, PACCAR, DOT: 7@\$10k = \$70k

Cat II: Triumph Comp: 1@\$5k = \$5k

Cat III: Zodiac, Janicki,
Electroimpact: 3@\$1k = \$3k

Cat IV: Intec, Heatcon,
Comp Sol, Stoddard Int: 4 @ \$500 = \$2k

Total = \$80k



Public/Proprietary AMTAS Projects

- Public Domain
 - Eligible for 1:1 matching FAA funds
 - Results reported at AMTAS and other professional meetings
 - Reports posted on AMTAS website and distributed to all AMTAS members
 - Proprietary
 - Ineligible for 1:1 matching FAA funds
 - Subject to IP agreement between industrial partner(s) and academic partner(s)
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Membership Benefits

- Recent research presented at AMTAS meetings, prior to widespread dissemination
 - Professional networking
 - Influence selection of FAA-sponsored AMTAS research & educational projects
 - Leverage R&D funds
 - Exposure on AMTAS website, reports, etc
 - Recruitment of students/new employees
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Proposed Implementation

- Implement dues structure effective 1 September 2006
 - During intervening months:
 - Obtain commitments from industrial partners
 - Redirect corresponding portion of 3rd year FAA funding originally intended to support administrative costs to other research/educational projects
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