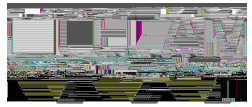
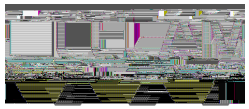
Training Strategy Development:



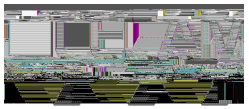
The Joint Advanced Materials and Structures Center of Excellence

Training Strategy Development



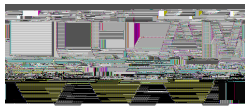
- Motivation and Key Issues
  - Education concerning the safety implications for practitioners interfacing composite materials is becoming a greater priority with the increasing use of

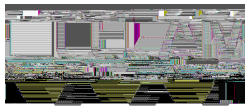
FAA Sponsored Project Information



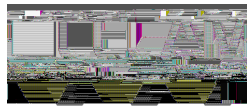
- Principal Investigators & Researchers
  - Charles Seaton
- FAA Technical Monitor
  - Curtis Davies
- Other FAA Personnel Involved
  - Larry Ilcewicz
  - Lester Cheng
  - Michael Shiao
  - DER seminar presenters and participants
- Industry Participation (TBD)


AMTA

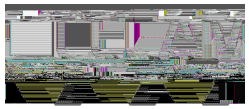




Training Strategy Development Strategies



Specialized Training	→	1. Skill building in specific areas 2. Institutions responsible for training which have subject matter expertise
Safety Awareness (40 - 60 hour classroom equivalent)	→	**1. Safety issues** **2. Hands-on laboratory** **3. FAA guidance and policy**
Introduction to Composites (8 - 16 hour classroom equivalent)	→	1. Basics of composites' technology



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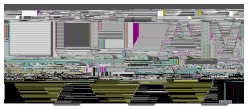
Training Strategy Development Resources



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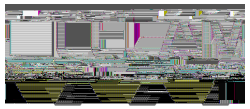

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Training Strategy Development

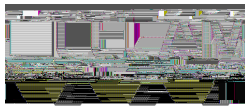
DER Feedback (Five Groups, 200 Participants)

Preferred Course Format (percentage of respondents listing one or more)

Online Teaching	87%
Laboratory	48%
Classroom	37%

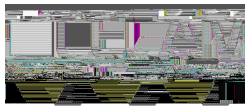
Training Strategy Development
DER Feedback (Five Groups, 200 Participants)

(percentage of respondents listing one or more)

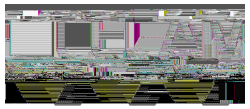


Bonded Composite Repair	68%
Static Strength Substantiation	64%
Fatigue and Damage Tolerance	61%
Allowables and Design Value Development	53%
Structural Bonding (composite and metal)	51%
Laminate Bolted Assembly and Repair	43%
Regulatory Requirements	41%
Damage Types and Sources	33%
Inspection Procedures	32%
Composite Structural Analysis & Test Protocol	32%

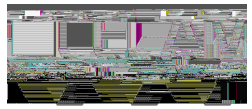
Training Strategy Development
Integrates Initiatives & Course Development



- Composite Maintenance Awareness Course developed by EdCC from 2004 through 2008
- Composite Certification and Compliance Tutorial developed by CMH-17 in 2008
- Composite Manufacturing Course for MIDO engineers in 2001 & 2003
- Composite Module of OK City Airframe Engineers Course in 2007 & 2008

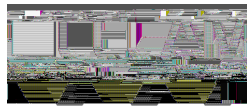


SUMMARY



- Online training was indicated for introductory and foundation courses
- Comments indicated that classroom/laboratory MAY be better for specialized training
- A broad strategic framework for curriculum development has been developed
- The FAA role will be migrating from that of sponsor to facilitator, with the expectation that industry will sponsor specialized training.
- Training can increase industry interface with R&D projects, complementing published technical reports

A Look Forward



- Benefit to Aviation
  - Integrates prior efforts developed through industry consensus into a strategic education framework
  - Establishes a curriculum lesson plan which is flexible and adaptable to the needs of a large practitioner student audience
  - Provides a framework to encourage industry interface with JAMS research and development activities
- Future needs:
  - Formalize training strategy and JAMS institution roles
  - Customize awareness course content and format to Aircraft Certification Office (ACO) personnel
  - Address the needs of other audience groups within FAA; other regulatory agencies such as EASA, TCCA