

Regulatory Guidance, CACRC  
Standards and Related Training  
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Breakout Session

14:15 to 16:15

# Regulatory Guidance Needs

## Advisory Circulars and Policy

1. Composite PSE vs. secondary repair guidelines
2. Guidance for tracking component hours, cycles, repairs, repair approvals & inspections (if it doesn't exist), including guidelines for composite component life extension
3. Policy linking CACRC composite re-build AIR to the associated safety issues (M&P, mfg. practices, substantiation)
4. Policy for directed NDI inspection of minimum-gage sandwich construction with specified design detail
5. Harmonization between and within different divisions of international organizations
6. Composite FCBS repair guidelines

**Listed in order of  
Breakout WG Priority**

# CACRC Standards Needs

## Specifications and Databases

1. More repair material databases that the OEM is willing to share or industry is willing to finance (from material control up to higher level building blocks, with limits defined for specific design detail)
2. See the Materials TG Future Plans
3. See the Repair Techniques TG Future Plans
4. Flag notes outlined technical details of the limits of a spec. and/or database as applied to any structure
5. Guidance statements that qualify the associated standard in the right context

# CACRC Standards Needs

## Guidelines/Reports

1. Guidelines for sandwich design and process detail to avoid the potential debond growth under GAG cycles
2. Guidelines for analysis and test substantiation of repair designs, incl. strength, fatigue and DT
  - Case studies on particular structural details
3. Guidelines on how to assign criticality defined as part of the MSG process
4. Guidelines for composite part paints (colors, thickness, brittleness), primers, sealants, fillers, putties and other coatings
5. Guidelines for recommended industry practices for tracking component hours, cycles, repairs, repair approvals & inspections (if it doesn't exist), including guidelines for composite component life extension

# Training Needs

## Industry Standards, Course Offerings

1. Composite design and process lessons learned
  - a) Sandwich design and process detail to avoid: i) fluid ingress and ii) potential debond growth under GAG cycles
2. Guidelines on training ARP details for technician competency
3. Documented skill requirements and assessment tests/trials that need to be periodically demonstrated to retain the associated skill levels
4. Revisit the notion of a branch of SAE to facilitate industry self-regulation (potential to include Ralph Edwards and Carlos Blohm into the role of leading such an effort)
- 5.
- 6.

# Training Needs

## Course delivery format, accreditation & assessments

1. Repair technician assessments that test competency for noted rating (e.g., bonded sandwich panel repair)
2. Use of Subject Matter Experts (SME) in assessments
3. Realistic case studies in assessments (e.g., re-build examples from proposed CACRC ATG initiative, other CACRC reports and books from past)
4. FAA/EASA Inspector training completed
5. Repair shop and technician certifications (see last page)
6. Accreditation of stationary and mobile training organizations (e.g., Heatcon, Airbus, Boeing, Al Riffel)
  - SAE or other standards organization
7. Practical, hands-on aspects to the training
8. On-line preferred for any parts of training not requiring a laboratory