

# Advanced Composite Fabrication and Damage Repair-Phase 1

## 5 DAY COURSE

### COMPOSITES

Abaris Training Resources, in cooperation with FlightSafety International is pleased to offer a wide variety of Composite Training Options for today's Aircraft Maintenance Technicians. These programs include: Engineering / Design, Manufacturing, and Repair classes to meet your composites education requirements.

This course is a mix of both active classroom lecture and hands-on lab exercises, designed to boost the student's fundamental understanding of composite materials and processes, as related to fabrication and repair of structural components.

The course contains a balance of theory and practical application, with much of the time spent in the lab performing panel layups, vacuum bagging, curing, and introduces basic composite repairs.

This course is a prerequisite for follow-on repair and manufacturing courses and is highly recommended for technicians seeking a better understanding of advanced composite materials and processes.

### THEORY COURSE MODULES

- History of composites
- Introduction to advanced composite materials/structures
- Health and Safety considerations
- Resin/adhesive systems
- Principles of resin cure and viscoelastic properties
- Fibers and fabric forms
- Laminate orientation, balance, & symmetry
- Fabrication methods and processes
- Cure process methods and equipment
- Adhesive bonding overview
- Tooling types and applications
- Drilling and fastening composites
- Repair design considerations
- Nondestructive inspection (NDI)

### PRACTICAL COURSE MODULES

- Prepreg tape layup (symmetry vs asymmetry)
- Vacuum bagging exercises
- Wet panel layup and vacuum bagging
- Evaluation of wet layup panels
- Prepreg sandwich panel layup and vac bagging
- Evaluation of prepreg layup panels
- Wet layup repair to sandwich panel
- Oven curing of prepreg panels and repairs
- Hot-bond repair equipment demonstration
- Final repair inspection and evaluation

**Total Days** ..... **5.0**

### APPROVALS AND LIMITATIONS

#### FAA IA renewal Accepted

Accredited for IA refresher training under Title 14 CFR part 65, § 65.93(a)(4)

#### Transport Canada Approved

**FOR MORE INFORMATION, CONTACT:** +1 201.528.0170 or [sales@flightsafety.com](mailto:sales@flightsafety.com)

Internal Use Only:  
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### TRAINING LOCATIONS

Wichita, Kansas