

REPAIR OF ADVANCED COMPOSITE STRUCTURES

in partnership with



Date:

3 - 7 May 2010

Venue:

Level 4, 210 Kings Way
South Melbourne
Victoria

Recognised for **Continuing Professional Development**
in accordance with Engineers Australia guidelines.

REPAIR OF ADVANCED COMPOSITE STRUCTURES FOR ENGINEERS

Boeing Training and Flight Services

Effective airline maintenance is the result of performance-oriented innovative training – and the key to any successful airline operation. The courses offered by Boeing Training & Flight Services (formerly Alteon) are the most current and comprehensive in the world. With an established global network, Boeing delivers training to maintenance technicians and engineers to support their operations, regardless of fleet mix.

The Repair of Advanced Composite Structures for Engineers Short Course is another example of Boeing delivering on its mission to enhance safe, efficient airline operations, while satisfying ATA 104 Level IV objectives.

The course is presented by an industry experienced professional engineer from Boeing Training & Flight Services.

FOR FURTHER INFORMATION CONTACT:

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ABN: 56 127 766 689

REPAIR OF ADVANCED COMPOSITE STRUCTURES FOR ENGINEERS

- Course times are 8 am to 4 pm (Monday to Friday)
- Morning tea, a light lunch and afternoon tea will be provided each day.
- Course notes will be provided on the first day.
- The course has a maximum of 30 students.
- The course fee is \$4,400 per person plus 10% GST (\$4,840 GST inclusive).
- Participants will receive a course photo and certificate on completion of the course.
- Registration forms along with payments, purchase orders, and/or invoice requests must be received at QTT by **1 April 2010**.

Registration will be confirmed either on attainment of class capacity or, alternatively, one month before course start date. Further course information will be sent directly to the participants after the registration cut off date. QTT advises that attendees wait to book travel and accommodation until receipt of course confirmation letter.

Refer to the QTT website (www.qttraining.com.au) for full terms and conditions, including cancellation and privacy policy.

COURSE OVERVIEW

This five-day course prepares the trainee to design a composite repair for aircraft damage beyond Structural Repair Manual limits and have a reasonable level of assurance of receiving approval from Boeing or regulatory agencies. The topics include detailed information on composite material properties and behaviour, stress analysis, design requirements, inspection and repairs.

Prerequisites

Engineering degree; matrix algebra and calculus; Composite/Metal Bond Part I, Part II or equivalent experience; and one year of airline experience. Candidates that do not meet the recommended prerequisites may have difficulty successfully completing this course.

Learning Outcomes

This course satisfies ATA 104 Level IV objectives. Upon completion of this course the students will be able to:

- reduce the time necessary for the repair design and approval process
- verify repairs with stiffness calculations and sound composite design principles
- describe details of stress analysis, such as micro-mechanics and laminated plate theory
- identify the best composite repair option from SRM

COURSE OUTLINE

Day One

- Introduction
- Materials
- Processing

Day Two

- Mechanics of Materials review
- Macro-Mechanics
- Macro-Mechanics problem
- Micro-Mechanics

Day Three

- Additional Stress Analysis Topics
- Loads problem
- Design Conditions
- Fasteners
- Solid Laminate/Sandwich Structure
- Composite Drawings

Day Four

- Inspection
- Repair Stiffness
- Repair Processing
- Exposure Units problem
- Fibreglass Repair
- Kevlar Repair

Day Five

- Carbon Fibre Repairs
- Review
- Final Examination

Registration Form

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3–7 May 2010

\$4,400 + 10% GST (\$4,840 GST Inc)

First Name _____

Surname _____

Company/Military Group/Agency/Organisation _____

Job Title _____

Postal Address _____

Phone _____

Mobile _____

Fax _____

Email _____

Privacy: Your personal information may be used as follows:

- Tick if you do not want your name and email address to be included in the contact list which is provided to your fellow course participants.
- Tick if you do not want to be added to our confidential emailing list which will advise you of future QTT courses.
- Tick if you do not give permission for QTT to use your group course photo in course promotions.
- Tick if you do not give permission for QTT to give your information to its parent company QinetiQ Pty Ltd for marketing purposes.

Form must be returned to QTT by 1 April 2010

METHOD OF PAYMENT

- Cheque
- Purchase Order No. _____
- Credit Card: Authorisation form available at www.qtttraining.com.au or by ringing +61 3 9694 1084. Please note a 1% surcharge applies to all card payments.
- Please Invoice: For invoice please provide name, full address and contact number.

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CANCELLATION

Should you be unable to attend, a suitable substitute is always welcome. Alternately, a refund less a \$150 administration fee will be made for cancellations received in writing prior to 1 April 2010. Refunds will not be given after 1 April 2010, however for exceptional circumstances some credit may be given towards another QTT course.