

OEM-CERTIFIED AEROSTRUCTURES SOLUTIONS



BOEING AUSTRALIA COMPONENT REPAIRS (BACR)

29 Jets Court, Melbourne Airport Victoria 3045 AUSTRALIA

+61 03 9095 0600

bacr@boeing.com

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BOEING AUSTRALIA COMPONENT REPAIRS



In the exacting world of aircraft structural support, Boeing Australia Component Repairs, as part of The Boeing Company, offers sophisticated technologies, leading edge equipment and state of the art MRO knowledge and experience. The commitment, innovation and experience of our engineers and technicians ultimately ensure that your expectations will be met and exceeded.

BACR has operated in Melbourne, Australia since 1990 and is equipped with extensive facilities to maintain, repair, overhaul, modify and manage a wide range of composite, bonded and conventional metal aircraft structures for both commercial and military aircraft operators.

BACR is one of the very few MRO's in the Asia Pacific region that is directly related to a primary OEM and as a consequence is able to operate a cost effective, fast turn-around-time (TAT) business. BACR offers a unique, distinctive and sustainable competitive solution for customers around the world. BACR also undertakes OEM service bulletin modifications and warranty repairs.

BACR holds a wide range of MRO specific tooling, equipment and processes. These include comprehensive stocks of advanced composite prepregs, adhesive films, bond tooling, autoclaves, clean room facilities, non destructive testing equipment, robotics and on-wing repair capability.

COMPLETE REPAIR AND OVERHAUL SERVICE

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FAST TURN AROUND TIMES SUPERIOR REPAIR SOLUTIONS

BACR's convenient location within the Melbourne International Airport precinct allows components of both domestic and international origin to be managed through the MRO process with the urgency essential to airline customers. Flexible and customised repair solutions can be tailored to suit the ever-changing requirements of customers.

> **//**BACR provides repair and overhaul services including on-wing repair support for Boeing, Airbus, Embraer, Bombardier and multiple military platforms.

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DREAM)LINER

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Aileron Slat Flap Spoiler LE Flap Rudder Elevator



15

Inlet Cowl

Fan Cowl

Thrust Reverser

- Wing Fixed LE Panels
- Wing Fixed TE Panels
- Landing Gear Doors
- Flap Track Fairing
- Body Fairing
- Radome
- Winglet
- Hori Stab Leading Edge
- Vertical Fin Leading Edge

ACCREDITED SERVICE, **EXPERTISE AND FACILITIES**

TOTAL CUSTOMER SATISFACTION

BACR can offer its customers greater value because of its links to other major OEM capability sites in Australia and beyond, including Boeing Aerostructures Australia, Boeing Research and Technology, and Boeing Defence Australia.

The added value and deep technical backup of this OEM network supplements BACR's already extensive in-house capabilities and provides a practical means to minimising costs and delivering improved value-for-money solutions to our customers.

REPAIR FACILITIES

- » Autoclaves (small to large)
- » Machining facility
- » Clean rooms
- » Computer-controlled ovens
- » Dust extraction booths
- » Computer-controlled hot bonders
- » Flame spray facility
- » Sheet metal fabrication
- » Robotics
- » Painting and finishing facility

ENGINEERING FACILITIES

- » Development of customised maintenance work scopes
- » Design and development of repairs
- » Design and development of modifications
- » Airline line and heavy maintenance support engineering
- » Investigation of defects
- » Computer Aided Drafting
- » Tooling design and manufacture
- » On-line reach back to OEM engineering
- » CASA Part 21M approved persons

ACCREDITATIONS: AIRWORTHINESS REGULATORY APPROVALS

FAA: FAR145 EASA: PART145 CASA: CASR PART145

Certificate No. T0QY719Y Certificate No. EASA.145.0075 Certificate No. 1-QFMJX

AUSTRALIAN DEFENCE FORCE

DASR: DASR PART 145 DASR: DASR PART 21J

Certificate No. AUS.DASR.145.000016 Certificate No. AUS.DASR.21J.0023 SAFETY, HEALTH, ENVIRONMENT AND QUALITY CERTIFICATIONS

Health and Safety

OHSAS18001:2007-191117-2015-AHSO-AUS-JAS-ANZ

Environment Management System ISO14001:2015-191116-2015-AE-AUS-JAS-ANZ

ISO 9001:2015-1191115-2015-AQ-AUS-JAS-ANZ

Quality Management System





BACR's state-ofthe-art autoclave measures 30 ft x 7 ft to accommodate the majority of customer repairs.



NON-DESTRUCTIVE TESTING

QUALITY AND RELIABILITY

The introduction into airline service of all carbon aircraft poses particular challenges for the MRO industry. In response, BACR has invested heavily in developing its capabilities to address these needs by focusing on streamlining the Non Destructive Testing (NDT) services of the process.

BACR repair technicians have been cross trained to perform the NDT process to ensure maximum utility,

THERMOGRAPHIC

» Thermographic equipment (Ideal for inspection of water ingress in composites)

ULTRASONICS

- » Manual "A" units, both contact
- tank scanner » Bondascope and Bondmaster

- » Computer aided immersion

RADIOGRAPHIC

» Static X-ray units

DYE PENETRANT

» Electrostatic fluorescent water washable penetrant processing facilities

MAGNETIC PARTICLE

» Portable MPI equipment for on-site testing

EDDY CURRENT

» Both high and low frequency units available

COST-EFFECTIVE REPAIRS TO THRUST REVERSERS

STREAMLINED REPAIR SOLUTIONS

BACR has more then 10 years experience in maintaining thrust reversers for airlines in the Asia Pacific region and can execute a comprehensive range of complete reverser overhaul solutions that include metallic, metal-bond and composite repair content.

BACR has has made a significant investment in the jigs and special tools required for high precision re-assembly, giving airlines a comprehensive range of secure and cost effective solutions. The Melbourne airport facility also houses state of the art facility including robotics and an autoclave. and has the added support of its link to Boeing Aerostructures Australia which has large autoclaves and additional equipment if required.

Typical capabilities cover Trent 800 reversers, the CF6-80 reverser family, CFM56-7 reversers, V2500 reversers and other similar metalbond and composite reverser types. BACR maintains a range of bond tools for repair of these structures and has an in house capability to fabricate other high temperature autoclave bond tools as required.





BACR offers customers a complete, costeffective thrust reverser overhaul solution.



HEAVY STRUCTURE REPAIRS, MAINTENANCE, OVERHAUL AND ON-WING REPAIR

PROCESSES TO DEAL WITH MORE COMPLEX AIRCRAFT

As new aircraft programs, such as the in-service Boeing 787 and the soon-to-be delivered Airbus A350, drive the use of composites into safety-critical primary structures, one of the major challenges the aerospace industry faces is the design, certification and incorporation of composite repairs. In response, BACR has invested in training, equipment, tools, and materials to address these complexities and challenges.

ON-WING REPAIR

BACR has a specialised repair team with capability to accomplish and certify on-wing repairs of composite structures on new generation aircraft, including the Boeing 787.

Together with Boeing Research and Technology Australia, BACR has developed robotic repair solutions to provide a lower risk, safer, more cost effective and faster on-wing composite repair than the manual repair techniques used today.



OVERHAUL AND MAJOR REPAIR

BACR can perform overhaul on metallic structures and composites inclusive of major repair such as repair or replacement of spars, ribs, stringers, fittings and skins, utilising maintenance jigs, CMM technology, bondforms, and autoclaves as necessary.

BOEING AUSTRALIA COMPONENT REPAIRS

A PROUD HISTORY OF INNOVATION AND COMMITMENT

BACR is a wholly owned Australian subsidiary of The Boeing Company with a proud history spanning over 90 years of operation. BACR has its origins within three companies with great traditions and capabilities in the aircraft industry – Aerospace Technologies of Australia Limited (previously Government Aircraft Factories, 1939), Commonwealth Aircraft Corporation (1936), and Hawker de Havilland (1927).

//BACR and all of its employees are committed to maintaining the highest level of safe operation, well being and protection of the environment.//



BACR's state-ofthe-art facility in Melbourne offers regional airlines comprehensive, efficient and costeffective MRO solutions.