



News from the Boeing world



June 2010

Boeing Australia & South Pacific



Freezin' and fryin' in Florida

The Boeing 787 Dreamliner has undergone a series of extreme-weather tests (*pictured above*) in the United States. In a special hangar at the McKinley Climatic Laboratory at Eglin Air Force Base in Florida the airplane experienced temperatures between 46°C and -43°C. The extreme temperatures allow technicians to prepare the airplane for flight release and operate under these conditions.

737 production rate increase

Boeing will increase production rates on the Next-Generation 737 program to 34 airplanes per month in early 2012. The planned rate increase is aimed at satisfying continued strong demand for the Next-Generation 737. Suppliers for the 737 program are prepared to support the rate increase.

Third environment report out

Boeing has released its third annual environment report. The report focuses on actions Boeing is taking to improve the environmental performance of its products and reduce the environmental footprint of its global operations. Visit www.boeing.com/aboutus/environment to view or download a copy.

High frequency modernisation crosses finish line

Boeing has received final system acceptance from the Commonwealth Government of Australia's Defence Materiel Organisation for its Modernised High Frequency Communications System.

Greg Combet, Minister for Defence Materiel and Science, said acceptance was a significant achievement in the modernisation of Defence's high frequency communications capability. "While there have been challenges in getting to this point, I am pleased to see that the Commonwealth and Boeing have been able to work together to resolve these and achieve this important milestone," Combet said.

Steve Parker, Boeing vice president and general manager for Network & Space Systems – Australia, was pleased with Minister Combet's recognition of Boeing's performance on the project. "Since late 2008, Boeing has achieved every milestone on or ahead of schedule, and we remain on track to complete all activities necessary to achieve the formal 'project complete' signoff this month," Parker said.

MHFCS was developed by Boeing under Joint Project 2043, the High Frequency Modernisation project, to give the Australian Defence Force a single, secure and survivable high frequency information exchange capability for the command and control of deployed forces.

The system securely transmits voice, data, formal military messaging, email, and facsimiles using a nationally distributed network of high frequency radio stations controlled by primary and back up network management facilities.

It is independently recognised as the world's most advanced high frequency communications system due to its levels of automation and performance, long range and clarity, traffic volume and connection speed.



Geoff Watson, Boeing Defence Australia Integration Team Lead, works at a MHFCS console. (Photo: Heidi Snowden)



Old meets new

As if finding a ghost among the cumulus, the Boeing 787 Dreamliner, on May 8 caught up to its ancestor, a Boeing Model 40, in the skies over Mount Rainier, south of Seattle, in the United States (pictured above). The fully restored 1928 vintage Boeing Model 40, owned and flown by Addison Pemberton of Spokane, Washington, is the only flyable Model 40 in the world and the oldest flying Boeing aircraft of any kind. The 787 and Model 40, both the technological leaders of their time, represent 80 years of Commercial Airplanes leadership and illustrate the dramatic progress in airplane design.

Decade of Collins-class submarine support

Boeing Defence Australia has marked a decade supporting communications systems aboard the Royal Australian Navy Collins-class submarine fleet. Since 2000, Boeing has provided through-life engineering support services for the Boeing-produced Internal External Communications systems on the six submarines. Used to communicate critical safety and operational procedures to crew members, RAN authorities and other naval assets, the IEC system is installed, reviewed and updated by Boeing during each submarine's 18-month docking maintenance period in accordance with the refurbishment cycle. Boeing performs the work under subcontract to Australian Submarine Co. and Raytheon Australia.

First Australian media tour a success

Boeing hosted 15 of the world's leading aviation and defence writers from May 24 to 28. The tour was the first of this size and scope hosted by Boeing outside of the United States.

Covering Brisbane, Oakey, Amberley, Williamtown and Melbourne, the journalists were exposed to the breadth and depth of Boeing's operations, some of which had never been visited by media before.

"Australia is often considered a microcosm of the larger Boeing world," said Ian Thomas, President Boeing Australia & South Pacific.

"We are part of the aerospace fabric of Australia and the media tour was a great opportunity to show people what we do, and how well we do it."

Some of the tour highlights included:

- Flying Australia's new C-17 simulator.
- A ScanEagle launch and recovery.

- A tour of Boeing Aerostructures Australia's high tech 787 component production line.
- Kicking tyres on Australia's new Super Hornets with Royal Australian Air Force Group Captain Zed Robertson.
- Seeing a Wedgetail 737 Airborne Early Warning & Control aircraft in the Amberley transformation process.
- Inspecting the Black Hawk and Kiowa aircraft Boeing uses at Oakey to training Australian Army pilots.
- A visit to Production Parts, a small to medium enterprise in Melbourne that recently won a Boeing contract to produce Super Hornet rudder pedals.

"We've wanted to do this best of Boeing tour for quite some time," said Ken Morton, Boeing Director Asia Pacific Communications. "Thank you to the large numbers of people who contributed to the tour's success."



Andrew Duggan (far left), managing director of Insitu Pacific, explains ScanEagle's finer points to journalists after a demonstration flight at Watts Bridge Airfield, two hours northwest of Brisbane, Australia.

First two Wedgetails accepted

The Royal Australian Air Force has officially accepted its first two Project Wedgetail 737 Airborne Early Warning & Control aircraft from Boeing.

The aircraft were accepted during a May 5 ceremony at RAAF Base Williamstown, the main operating base for the Wedgetail fleet.

Acceptance means ground and flight operations and maintenance of the two aircraft now are fully under RAAF control.

"The Wedgetail aircraft is a key component of our future air force," Air Marshal Mark Binskin, chief of the RAAF, said at the ceremony.

"Not only will it enhance our surveillance, fleet support and force coordination but it also will form a critical node in our movement toward network centric operations."

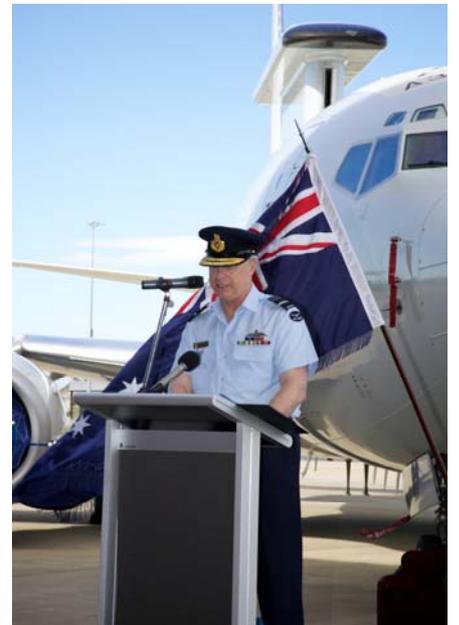
Maureen Dougherty, Boeing vice president of the AEW&C Program, said the milestone demonstrated that the system is ready operational and training use.

"It also represents the culmination of years of design, development,

modification and testing by the Boeing-led team to bring this complex system - the first of its type - to our first AEW&C customer," she said.

Boeing will deliver three more Wedgetail aircraft to the RAAF by the end of this year, including one upgraded in the final AEW&C configuration.

All aircraft in the fleet will be upgraded to the final configuration in early 2011.



Top right: Air Marshal Mark Binskin, chief of the RAAF, speaks during the acceptance ceremony. Above: The RAAF rolled out the red carpet for the first two Wedgetail aircraft accepted into their fleet. (Photos: Heidi Snowdon)



Airplanes 101 instructor Michael Garret explains the principles of flight.

Learning the basics of flight

Ever wanted to know the basic principles of flight or how Boeing designs, manufactures and tests commercial jetliners?

Twenty-five media, communications specialists and airline customers found out after attending Airplanes 101 in Sydney last month.

Mike Garrett, Director of Airplane Performance for Boeing Commercial Airplanes, was the main instructor for the day.

"We all learned so much, and really enjoyed ourselves," Lucinda Holdforth of Qantas. "Michael was a fantastic presenter and we all felt privileged to have access to so much generous expertise."

The day-long training prompted a wide range of discussion among participants.

Areas of particular interest included biofuel use in the aviation industry, how slats and flaps work to create lift on an airplane wing, what needs to be altered on an airframe to increase range and how passenger-to-freighter conversions work.

Since 1997, more than 1,000 journalists and aviation industry communications professionals have taken the course taught by senior Boeing technical experts.

\$2 million grant fuels research

A research consortium including Boeing has received \$2 million from the Queensland Government to research aviation biofuels production.

Queensland Premier Anna Bligh made the announcement in Chicago last month at the world's biggest biotechnology conference, Bio 2010.

"With a growing focus on making our skies greener, this is big business and good for jobs and the environment," Bligh said.

Boeing has also committed \$450,000 to the project and Amyris, a major United States green company, is investing more than \$1 million in it.

Led by the University of Queensland's Australian Institute for Bioengineering and Nanotechnology, the research project also brings together partners in the Sustainable Aviation Fuel Initiative.

UQ Professor Lars Neilson said the holy grail of global aviation and international research was focusing on finding a biofuel that could be produced sustainably and in the quantities to feed jets' enormous appetite, and that was as cheap, if not cheaper, to produce as fossil fuels.

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Velocity

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Boeing's support helps RMIT student win fellowship

A RMIT University student undertaking aircraft structures research supported by Boeing Research & Technology-Australia has won a globally prestigious fellowship.

Lauren Burns, from RMIT University's School of Aerospace, Mechanical and Manufacturing Engineering, has been awarded a US\$10,000 Amelia Earhart Fellowship.

The Fellowship was established in 1938 after the pioneering United States aviator Amelia Earhart, who was a Zonta club member. The Fellowship is awarded annually by Zonta International, an organisation committed to advancing the status of women worldwide.

Bill Lyons, Boeing Research & Technology – Australia, congratulated Lauren on her efforts. "Her research has the potential to contribute significantly to the design of composite aircraft structures," he said.

"She is analysing and adopting the design of plant and animal joints, which have undergone millions of years of evolutionary adaptations and improvements."

Her research project is titled "Biomimetic Design of Aerospace Composite Joints". She said: "I am thrilled to be a recipient of the Amelia Earhart Fellowship and have my Boeing supported work recognised by an international organisation.

"I am currently making and testing prototype joints based on the principles of how tree branches – comprised of the natural composite wood – achieve high toughness and strength."

RMIT is one for four Australian universities Boeing supports through its university relations program with funds used for student projects, travel bursaries, scholarships, awards and student outreach programs.

Boeing exhibit connects dreams

Boeing is staging a multimedia exhibit in the United States pavilion at Expo 2010 Shanghai China, which opened May 1 and runs through October 31.

Called the "Boeing Dreamscape", the exhibit is a wall with interactive features that shows images and other content uploaded from www.boeingdreamscape.com, a website launched together with the wall that invites people around the world to share their travel and cultural experiences with pictures and short messages.

Visit www.boeingdreamscape.com to upload your own images and see photographs that have been submitted.



A visitor manipulates images on the "Boeing Dreamscape" wall at Expo 2010 Shanghai. It is an interactive mosaic of photographic images co-created by people from all over the world. (Photo: Yukui Wang.)