



News from the Boeing world

January 2014

Boeing Australia & South Pacific

Boeing makes leadership changes

Boeing has announced a number of leadership changes to position the business for future growth.

The changes include:

- Dennis Muilenburg named Boeing vice chairman, president and chief operating officer. Muilenburg joins the corporate team in Chicago and will share oversight with McNerney of the day-to-day business operations of the company.
- Raymond Conner was promoted to Boeing vice chairman, president and CEO, Boeing Commercial Airplanes. Conner has led the Commercial Airplanes unit since June 2012 and will remain based in Seattle to continue overseeing that growing business, which now accounts for more than 60 percent of Boeing revenues.
- Christopher Chadwick was appointed Boeing executive vice president, president and CEO, Boeing Defense, Space & Security, replacing Muilenburg.
- Shelley Lavender has replaced Chadwick as the leader of Boeing Military Aircraft.

Ian Thomas to lead Boeing China

Boeing has named Ian Thomas president of Boeing China. Thomas succeeds Marc Allen who has been appointed president of Boeing Capital Corporation, the company's product financing unit, following announcement of Mike Cave's retirement from the position.

Thomas has been president of Boeing Australia & South Pacific since March 2009. His successor will be announced soon.

Flight testing brings 787-9 Down Under



787-9 test aircraft ZB002 arrived in New Zealand on Saturday 4 January after its longest flight to date: 13 hours and 49 minutes from Boeing Field in Seattle to Auckland Airport. Photo: Fraser Newman.

When it comes to flight testing new aircraft, the Boeing flight test team travels the world to find the ideal conditions – and in January, that happened to be Alice Springs.

The second of three 787-9 Dreamliner test aircraft, ZB002, spent a week in Australia's red centre for hot weather flight testing. Making its way to Australia, the aircraft took off from Boeing Field in Seattle on January 3, touching down at Auckland Airport some 13 hours and 49 minutes later. The flight marked the 787-9's international debut and longest flight since the test program commenced.

And the aircraft received a very warm Kiwi welcome from Air New Zealand which will be the first airline to take delivery of the 787-9 later this year.

"Having one of Air New Zealand's 787-9s touch down on Kiwi soil for the first time is hugely exciting," said Christopher Luxon, chief executive officer, Air New Zealand. "It's a real reminder that we will soon welcome the first of these more modern, fuel-efficient airplanes into our fleet." During the two-day stopover in Auckland,

Air New Zealand employees had an opportunity to tour the test aircraft and talk to members of the Boeing test operations team.

The 787-9 will complement and extend the 787 Dreamliner family. With the fuselage stretched by 6 metres over the 787-8, the 787-9 will fly up to 40 more passengers an additional 555 kilometres (300 nautical miles) with the same exceptional environmental performance — 20 percent less fuel use and 20 percent fewer emissions than similarly sized aircraft.

From Auckland, ZB002 flew to Brisbane and on to Alice Springs for hot weather testing.

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Sixth Boeing Wideband Satellite Improves military communications

The sixth Boeing Wideband Global SATCOM (WGS) satellite was delivered on orbit to the US Air Force in December, boosting communications capabilities for the US military and its allies.

WGS6 was funded by the Commonwealth of Australia, the program's first partner outside the US. Australia's funding of the spacecraft provided the Australian Defence Force with immediate access to the WGS network.

Four additional WGS satellites are in production in El Segundo under the program's Block II follow-on contract. WGS-8 and beyond will include an upgraded digital channelizer, which will increase the satellite's bandwidth by more than 90 percent.

RAAF C-17 supports UN in South Sudan

The humanitarian assistance and disaster relief capability of the Boeing built C-17 Globemaster was highlighted when the Royal Australian Air Force provided assistance to the United Nations mission in South Sudan.

"The first C-17 left Australia on 26 December and completed its mission on 3 January," said Director General of Air and Space Operations, Air Commodore Gavin Turnbull. "Overall, the C-17s carried out eight flights from Brindisi, Italy, and Djibouti to deliver more than 175 tonnes of equipment."

The RAAF is a valued Globemaster III customer, operating six aircraft in support of military, humanitarian assistance and peacekeeping missions.



Aussie firms win F-15 supply contracts

Boeing is expanding its relationships with Australian industries with the confirmation that the company will work with Melbourne-based firms Lovitt Technologies Australia and Marand Precision Engineering to make components for the F-15 multi-role strike fighter jet.

Lovitt and Marand are part of the Defence Materiel Organisation's Global Supply Chain (GSC) Program, which works with the Boeing Office of Australian Industry Capability (OAIC) to match Boeing to the capabilities of Australian industry.

"Boeing continues to develop tremendous value in Australia by working with local defence industry partners to build capability and deliver products into our global supply chain," said Ian Thomas, president of Boeing Australia & South Pacific. "Through the OAIC, Boeing has issued contracts totalling more than US\$285 million to highly skilled Australian companies over the past five years."

"The fact that Lovitt has been able to break into a program for which Australia is not a current customer is evidence that the GSC program is working really well," said Marcus

Ramsey, Lovitt Technologies managing director.

Lovitt will manufacture trailing edge fairings for the F-15. The company also makes components for the Boeing P-8A Poseidon maritime reconnaissance aircraft, F/A-18E/F Super Hornet fighter, the CH-47 Chinook helicopter and the Bell Boeing V-22 Osprey tiltrotor.

Marand, in its first defence contract with Boeing, will supply fuel tank installation equipment, specialised hand tools and structural support pieces.

In addition to the F-15 work, both companies support activities at Boeing Aerostructures Australia producing flight control surfaces for commercial aircraft.



First C-17 Cargo Compartment Trainer arrives

Boeing has delivered Australia's first C-17 Globemaster III Cargo Compartment Trainer, enabling the Royal Australian Air Force (RAAF) to train personnel in Australia.

Previously, the RAAF was required to send C-17 loadmasters to training facilities in the United States to learn the procedures for securing equipment, supplies and passengers safely inside the aircraft. Now Australian crew members will train at home, in a dedicated facility at RAAF Base Amberley, home of Australia's C-17 fleet.

"This facility establishes a whole new capability for the RAAF customer. All the scenarios a loadmaster would face on a real mission can be practiced with this device so they can build their skills safely and efficiently," said Ted Clever, lead loadmaster for C-17 training.

The trainer is a full-scale replica of the C-17 fuselage and cargo compartment, offering

a realistic environment in which to teach critical loading, tie-down, and airdrop tasks.

The new facility includes the ability to simulate night-time conditions and comes with large loading vehicles, simulated cargo loads and other training assets for loadmaster, aeromedical evacuation and aeromedical specialist training.

The trainer was commissioned late last year at a ceremony attended by dignitaries including Head Aerospace Systems Division Air Vice Marshal Leigh Gordon and Air 8000 Project Director GPCAPT Warren Bishop, who said the project had exceeded expectations from a capability perspective while being delivered ahead of schedule and under budget.

The RAAF operates six Boeing-built C-17s to support military, humanitarian assistance and peacekeeping missions around the world.

Record year for Boeing aircraft deliveries



Alice Springs local Thomas Barnetson got a special tour of the 787-9 during its time in the Red Centre.

787-9 Dreamliner a star in Alice Springs

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The arrival of the 787-9 test aircraft in Alice Springs created quite a bit of excitement within the local community - none more so than six-year-old aviation enthusiast Thomas Barnetson.

Thomas was given a special tour of the aircraft by the Boeing test team, describing the opportunity as being "infinity exciting" and one he is not likely to forget in a hurry.

Twenty-six customers from around the world have ordered 404 787-9s. Boeing is on track to deliver the first 787-9 to Air New Zealand in mid-2014.

8,000th 737 aileron milestone for BAA

Last month, Boeing Aerostructures Australia (BAA) delivered the aileron package for the 8000th 737 - a culmination of more than 30 years' association with the Classic and Next-Generation 737 aircraft program.

The 737 program was BAA's first introduction into robot automation in the 1990s.

The 737 work package was successfully transitioned from BAA's Bankstown facility to the Fishermans Bend site last year, with the installation of a second automation robot to support the 737 program's current 38 aircraft a month production rate.



Jetstar's first 787-8 Dreamliner was one of 648 commercial aircraft delivered by Boeing in 2013. Photo: Chris Raezer.

Increases in production rates for all Boeing commercial aircraft contributed to a company record for the number of aircraft deliveries in a single year, with 648 aircraft delivered to customers in 2013.

The company's unfilled commercial orders stood at 5,080 at the end of the year - also a new Boeing record.

Boeing booked 1,531 gross commercial orders, another company record, with 1,355 net commercial orders for the year the second-largest number in company history.

"With solid execution on our numerous production rate increases, the Boeing team

performed extremely well in 2013," said Boeing Commercial Airplanes President and CEO Ray Conner.

"We delivered more advanced, fuel-efficient aircraft to our customers than ever before, and it's a great example of what our team can accomplish."

Boeing's leadership position in the twin-aisle market continued in 2013 with the launch of two new aircraft programs: the 777X launched in November at the Dubai Air Show with 259 orders and commitments worth more than US\$95 billion at list prices; and the 787-10 Dreamliner was launched at the Paris Air Show in June..

777X starts high-speed wind tunnel tests

This month saw the start of high-speed wind tunnel testing for the Boeing 777X at Boeing's Transonic Wind Tunnel in Seattle. The tests will complement low-speed wind tunnel testing currently underway at QinetiQ's facility in Farnborough, UK.

"This is another important step forward in the development of the 777X," said Terry Beezhold, vice president and chief project engineer of the 777X program. "Data from these tests will allow us to validate our aircraft cruise performance models in support of our ongoing design efforts."

The data will help engineers with the configuration development of the aircraft, validate computational fluid dynamics predictions and support preliminary loads cycle development.

Subsequent rounds of low-speed and high-speed testing will provide further design

refinement and validation of overall airplane performance predictions. Also, wind tunnel tests for noise, icing and propulsion are scheduled in the coming years.

Boeing continues to make progress on the 777X program and is on track to reach firm configuration in 2015. The 777X program has 280 orders and commitments from five customers worldwide.



Boeing collaborations make progress towards sustainable aviation biofuels



Boeing supports student engineers with carbon fibre car development

Boeing has demonstrated the advantages of carbon fibre manufacturing to young engineers from the University of Melbourne by supporting an international educational motorsport program.

Boeing Aerostructures Australia engineers provided carbon fibre materials, equipment and expertise to support final year engineering students in the design and manufacture of a carbon fibre car. This included the design and fabrication of carbon fibre panels to fabricate the structural flooring and body components for the vehicle.

In mid-December, the MUR Motorsports team competed with teams from Australia, New Zealand and Asia at the four-day Australian Formula Society of Automotive Engineers Australasia (SAE) competition, placing third, the best result to date for the University of Melbourne.



Boeing is at the heart of research efforts around the world to develop sustainable aviation biofuel supply chains, with partnerships and projects underway in the United States, Middle East, China, Brazil, Europe and Australia. And good progress is being made.

This month, Boeing announced it has identified "green diesel," a renewable fuel used in ground transportation, as a significant new source of sustainable aviation biofuel. The company also announced a project with Etihad Airways, Takreer, Total and the Masdar Institute of Science and Technology on an initiative to support a sustainable aviation biofuel industry in the United Arab Emirates.

BIOjet Abu Dhabi: Flight Path to Sustainability will engage a broad range of stakeholders to develop a comprehensive framework for a UAE biofuel supply chain. The initiative will focus on research and development and investments in feedstock production and refining capability in the UAE and globally.

Etihad Airways showed the promise of this homegrown effort on January 19 with a 45-minute demonstration flight in a Boeing 777 powered in part by UAE-produced sustainable aviation biofuel.

On the "green diesel" project, Boeing is working with US Federal Aviation

Administration and other stakeholders to gain approval for aircraft to fly on green diesel, further reducing the aviation industry's carbon emissions.

Boeing researchers performed analysis that found green diesel, which is made from oils and fats, to be chemically similar to today's aviation biofuel. If approved, the fuel could be blended directly with traditional jet fuel.

"Green diesel approval would be a major breakthrough in the availability of competitively priced, sustainable aviation fuel," said Dr. James Kinder, a Technical Fellow in Boeing Commercial Airplanes Propulsion Systems Division. "We are collaborating with our industry partners and the aviation community to move this innovative solution forward and reduce the industry's reliance on fossil fuel."

Significant green diesel production capacity already exists in the US, Europe and Singapore that could supply as much as 1 percent - about 600 million gallons - of global commercial jet fuel demand. The wholesale cost - about US\$3 a gallon with U.S. government incentives - is competitive with petroleum jet fuel.

Boeing, the F.A.A., engine manufacturers, green diesel producers and others are now compiling a detailed research report that will be submitted to key stakeholders in the fuel approvals process.

Velocity

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