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Velocity

News from the Boeing world | December 2009 | Boeing Australia & South Pacific

Boeing and Korean Air announced an order for five 747-8 Intercontinental jetliners. Korean Air is the first Asian airline to order the passenger version of the new, fuel-efficient 747-8. The new 747-8 Intercontinental is stretched 5.6 m from the 747-400 to provide 467 seats in a three-class configuration, an additional 51 seats. It also offers a range of 14,815 km. Using the new GEnx-2B engines, the 747-8 provides airlines a quieter, more fuel-efficient airplane.

A ground station in Dongara, Western Australia, received the first on-orbit signals from the third of six Boeing Wideband Global SATCOM (WGS) satellites on December 5. The signals indicate that the spacecraft is healthy and ready to begin orbital manoeuvres and operational testing. WGS is the latest U.S. Department of Defense satellite communications system.

Britain is to buy a seventh C-17 Globemaster III for the Royal Air Force (RAF). The aircraft will be delivered in December 2010. The six RAF C-17s have logged more than 50,000 flight hours to date. The C-17 is the world's only tactical airlifter with strategic capabilities that allow it to fly between continents and land on short, austere runways.

Boeing 787 Dreamliner completes first flight

Boeing's 787 Dreamliner took to the sky for the first time on December 15, ushering a new era in air travel in front of more than 12,000 employees and guests at Paine Field in Everett, Washington. The flight marked the beginning of a flight test program that will see six airplanes flying nearly around the clock and around the globe, with the airplane's first delivery scheduled for fourth quarter 2010.

787 Chief Pilot Mike Carriker and Captain Randy Neville tested some of the airplane's systems and structures, as on-board equipment recorded and transmitted real-time data to a flight-test team at Boeing Field.

Powered by two Rolls-Royce Trent 1000 engines, the first Boeing 787 will be joined in the flight test program in coming weeks and months by five other 787s, including two powered by General Electric GEnx engines.

The 787 Dreamliner will offer passengers a better flying experience and give airlines greater efficiency to better serve the point-to-point routes and additional frequencies passengers prefer. The technologically-advanced 787 will use 20 percent less fuel than today's airplanes of comparable size, provide airlines with up to 45 percent more cargo revenue capacity and present passengers with innovations that include a new interior environment with cleaner air, larger windows, more stowage space, improved lighting and other passenger-preferred conveniences.

Fifty-five customers around the world have ordered 840 787s, making the 787 Dreamliner the fastest-selling new commercial jetliner in history.

The Boeing 787 Dreamliner takes to the sky for the first time

A Boeing and a Raytheon employee complete installation of an APY-10 radar antenna on P-8A Poseidon test aircraft T2

Boeing team installs radar antenna on P-8A Poseidon

Boeing and Raytheon completed installation of an APY-10 radar antenna on P-8A Poseidon test aircraft T2 last month at the Boeing Developmental Centre in Seattle. T2 is the P-8A program's primary mission system test article.

Following completion of the next phase of radar installation and additional instrumentation, T2 will enter the U.S. Navy's flight test program in early 2010. During flight test, Navy and Boeing pilots will verify the performance of all aircraft sensors.

The P-8A radar antenna was developed and delivered by Raytheon. Boeing's industry team is building and testing five anti-submarine warfare, anti-surface warfare, intelligence, surveillance and reconnaissance aircraft as part of a System Development and Demonstration contract awarded in 2004.

A derivative of the Next-Generation 737-800, the P-8A Poseidon is a long-range anti-submarine warfare, anti-surface warfare, intelligence, surveillance and reconnaissance aircraft capable of broad-area maritime and littoral operations.

Australian technology companies crack the cyber code in the US

No longer something from spy novels or Hollywood movies - today the growth in cyber crime is a battle being fought by some of the biggest companies in the world.

So when The Boeing Company's Office of Australian Industry Capability and Defence Materiel Organisation invited some Australian technology companies to the United States last month to discuss their offerings, its cyber crime experts were impressed with the high level of expertise offered by these considerably smaller Australian companies.

The Australian companies included Quintessence Labs, BSTTech Consulting and EOS from Canberra and Tier 3 from Sydney, as well as experts from the Queensland University of Technologies who attended a series of meetings in Crystal City, Virginia and Huntington Beach, California where Boeing's cyber security research is focused.

One of the Boeing experts, Dr Jeffrey Hunt said "To be honest, I thought I would see things that were just duplicate versions of what I could find in the US, but the companies I saw had some truly state-of-the-art technologies, particularly in the area of information assurance."

Dr Bill Lyons, general manager for Boeing Research & Technology Australia said, "Most impressive to the group was the fact the Australian companies are working on leading edge capabilities in 'free space quantum cryptology', which is widely believed to be the next generation in unbreakable cipher technologies.

"They also showcased some great work in intrusion detection, enforcing network and system compliance and network monitoring."

The meetings have sparked great interest in the possibility of greater collaboration between the Australian firms and Boeing business units in the United States.

Vikram Sharma, chief executive QuintessenceLabs described the meetings as a terrific opportunity for his business.

"The Boeing Australian Industry Capability conference enabled us to showcase our technology to a number of business units within the Boeing Company, and we're excited about the possibility of translating this opportunity into real business partnerships in the future," he said.

Australian companies meet at Boeing's Crystal City, VA facility

Boeing EA-18G Growlers

Growler to advance to full rate production

Full rate production (FRP) of the Boeing EA-18G Growler was approved by the U.S. Department of Defense (DOD) on November 23. The St. Louis-based EA-18G program will now can proceed from Low Rate initial production to FRP quantities of approximately 20 aircraft per year.

"Full rate production for the EA-18G is critical, as it enables Boeing to quickly ramp up production of the U.S. Navy's newest and most advanced airborne electronic attack (AEA) platform, and rapidly get this new capability to the warfighter," said Bob Gower, F/A-18 and EA-18 Programs vice president for Boeing.

The EA-18G's highly flexible design enables warfighters to perform an array of AEA missions, operating either from the deck of an aircraft carrier or from land-based fields. It is the only airborne platform that delivers full-spectrum electronic attack capability, along with targeting and self-defense capabilities derived from the Navy's frontline strike fighter, the F/A-18E/F Block II Super Hornet. The Growler joined the Navy's aircraft fleet in 2008.

Boeing, acting as the weapon system integrator and prime contractor, leads the EA-18G Growler industry team, which also includes Northrop Grumman, Raytheon and General Electric Aircraft Engines.

Boeing delivers two Wedgetail AEW&C aircraft to the RAAF

Boeing delivered the first two Project Wedgetail 737 Airborne Early Warning and Control (AEW&C) aircraft to the Royal Australian Air Force (RAAF) on November 26, 2009.

Attending the ceremony at RAAF base Williamtown, New South Wales, were officials from the RAAF, the Defence Materiel Organisation and Boeing.

As the largest commercial-to-military aircraft modification in Australia's history, these aircraft perform a range of tasks, including battle management, air defence, over-the-horizon targeting, search and rescue, and civil support operations.

"It is the future of a world class air combat capability for Australia and it is the future of AEW&C globally," said Air Marshal Mark Binskin, Australian Chief of Air Force.

The two aircraft and utilisation of the Boeing-provided Operational Flight Trainer, Operational Mission Simulator and Mission Support System allow the RAAF to begin familiarisation training for flight, mission and maintenance crews.

Maureen Dougherty, Boeing vice president of the Airborne Early Warning and Control Program, said Project Wedgetail represented a fundamental shift in airborne surveillance technology.

"Australia is leading the way with the most capable electronically scanned air surveillance radar and battle management system in the world. The worldwide surveillance marketplace has taken notice of Wedgetail's progress, and we're working with several customers to define their future requirements," she said. "We're extremely proud of these first two AEW&C aircraft, our employees who have worked on them, and our many supplier partners on this program."

Three additional Wedgetail aircraft will be delivered to the RAAF by the end of 2010 including one upgraded in the final AEW&C configuration with Electronic Support Measures (ESM). All aircraft in the Wedgetail fleet will be upgraded in the final configuration in early 2011.

Maureen Dougherty speaks at the delivery ceremony

BDA to provide E3 services

Boeing Defence Australia (BDA) has signed a deed of standing offer to provide Electromagnetic Environmental Effects (E3) testing and design services for Australian Defence Force (ADF) aircraft and systems.

The deed will allow any ADF operational unit to contract with the Boeing E3 team to test for electromagnetic interference and its detrimental environmental effects on military platforms and equipment, as well as provide design advice to correct any E3 susceptibilities or problems identified for a platform.

"As the first company in the Southern Hemisphere to receive National Association of Testing Authority certification to conduct E3 tests on military and commercial aircraft, Boeing has the resources and skills to help the ADF maximise the performance and safety of its platforms and equipment," said John Duddy, managing director of BDA.

BDA tests aircraft and other platforms at its E3 facility at RAAF Base Amberley, Queensland, and at customer sites. The tests are completed using software programs developed and written in-house by the Boeing E3 team and cover a range of frequencies.

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New US Ambassador checks Australian 787 work

Barely a month into his assignment, new US Ambassador to Australia, Ambassador Jeffrey Bleich toured the Boeing Aerostructures Australia (BAA) plant at Fishermans Bend, Melbourne.

He spent over an hour meeting employees and inspecting BAA's progress on the Boeing 787 Dreamliner components.

BAA designed and is building the trailing edge control surfaces for the Boeing 787 Dreamliner. It is Australia's largest aerospace contract, worth approximately $4bn over 20 years.

"I flew into Australia on a Boeing aircraft and am happy to have had the opportunity so early in my tenure here to see the great work that an iconic American company like Boeing is doing in Australia," said Ambassador Bleich. "The Boeing team in Melbourne has developed processes here which will advance aerospace technology around the world."

He was guided on the tour by BAA managing director, Mark Ross, who highlighted the company's pioneering work on resin injection techniques for large composite components and a new four-lane paint facility awaiting commissioning.

BAA is highly regarded for its advanced composite carbon fibre technology and in addition to the 787 moveable trailing edge, the high-tech specialisation has led to the company being the sole source of the wholly-composite rudder for the Boeing 777.

Above: (L-R) Ambassador Bleich, Mark Ross, and US Consul Michael Thurston inspect a 787 moveable trailing edge part manufactured by BAA.