



**ROYAL  
AERONAUTICAL  
SOCIETY**

AUSTRALIAN DIVISION  
SYDNEY BRANCH INC

# NEWSLETTER

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Vol 2014-4 PO Box 573, Mascot, NSW 2020 ABN 75 134 058 731 Email: [sydneybranch@raes.org.au](mailto:sydneybranch@raes.org.au) <https://www.facebook.com/groups/RAeSSydney/> [www.raes.org.au](http://www.raes.org.au)

**Date: Wednesday, 25<sup>th</sup> June 2014**  
**Time: 18:00 for 18:30 hours sharp**  
**Speaker: ADAM BURFORD**  
**Vice President Air Traffic**  
**Management, Thales Australia**  
**Title: 'Increased Air Traffic and**  
**Increased Safety –**  
**Meeting the Challenge'**  
**Venue: Lecture Theatre 145**  
**Level 1, Old Main Building**  
**The University of New South Wales,**  
**Kensington**

Refreshments will be available prior to the commencement of the presentation.  
Attendance will attract 1 CPD hour.

## Adam Burford

**Profile:** Following 10 years with Robert Bosch in the development, production management and project management of large scale projects throughout Asia and Europe, in 2004 Adam joined Thales Australia's Air Traffic Management division to manage significant ATM programs in Taiwan and Thailand.



In 2010 he was appointed General Manager Export Programs, which included Project Director of the LORADS Singapore ATM project. In 2012 he was appointed Vice President, Air Traffic Management for Thales Australia. In 2013 he was appointed Chairman of the Aviation Aerospace Association of Australia. Adam holds a Degree in Electronic Engineering (Honours) from University of South Australia and a Graduate Diploma of Business Management from Monash University."

**Synopsis:** Over the next 20 years air traffic growth, particularly in the Asia-Pacific region, is expected to increase by more than 5% per annum (some recent growth is closer to



10%) and the number of aircraft movements will more than double, creating real constraints on air-routes and challenges for airports and airlines. Ultimately, the increased growth will require changes to the way we manage and

control air traffic, both on the ground and in the air. More than ever before, in an industry that can easily be damaged by accidents and incidents, one of the key considerations is safety.

**RSVP:** Registration for the presentation is essential. Please register by copying and pasting into your URL this link: <https://raesjun14.eventbrite.com.au>

Your registration will be confirmed by email with an attached ticket. **You must print the ticket and present the ticket at the door to gain entry to the event. Please note:** Non members should enter the code **NM** if requested to enter a RAeS membership number.

**Dinner:** After the presentation Adam has indicated that he will join us for dinner as the guest of the committee. Members and visitors are invited to attend the dinner to be held at Giovanna Italian Restaurant, 285 Anzac Parade, Kingsford. (approx \$35 pp including soft drink wine.)

**Parking:** Limited parking is available in surrounding streets with paid parking within the University of NSW car park tower, entry from Barker Street. Please observe parking restrictions and allow time to drive to the University of NSW, park and walk to the venue. (Refer map).

**Public Transport:** Regular buses (391, 392, 393, 394, 396, 397, 399, M10) leave from outside Museum train station in Liverpool Street, and the 395 and M50 in Elizabeth St, opposite Central Station. Please allow time to travel by public transport, including waiting time, and time to walk to the venue from the UNSW bus stops. There are number of other buses such as the 400 and 370 that travel to and from suburbs on the outskirts of the CBD and stop at the UNSW. Please refer for further details:

<http://www.sydneybuses.info/routes/timetables-route-maps>

### Continuing Professional Development (CPD) Activities

Engineers Australia requires that Chartered Professional Engineers and those aspiring to that status, demonstrate 150 hours of CPD in each three years (an average of 50 hours per year). CPD includes attendance at our monthly technical lectures, conferences and site visits, as well as personal research and professional study. It is important to keep an up to date log of CPD activities, as this will be reviewed and audited from time to time once Chartered Professional Engineer status is achieved. An example log is available at (CPD log web link), or an on-line log can be kept at the Engineers Australia web page.

For further details visit: [www.raes.org.au/cpeng-and-cpd-2/](http://www.raes.org.au/cpeng-and-cpd-2/)

**Boeing 787 – 330 Minute ETOPS:** The U.S. Federal Aviation Administration approved additional extended operations (ETOPS) for the Boeing 787 Dreamliner on 28<sup>th</sup> May 2014. The move will allow 787s to be operated up to 330 minutes from a landing field and signals continued confidence in the airplane's technical capabilities. Previously, Dreamliners have been allowed to operate up to 180 minutes away from a landing field since they were introduced into service in 2011. Granting of the expanded operational permission will allow airlines to introduce additional routes after they meet the proof of capabilities

requirements and receive approval from their own regulatory agencies for such operations. "Our customers are eager to expand their 787 operations," said Larry Loftis, vice president and general manager, 787 program, Boeing Commercial Airplanes. "We're delighted that this capability, which was designed into the airplane from the very beginning, has been certified." ETOPS operations will make the 787 even more efficient in operations as they enable more direct flight paths, which can save thousands of pounds of fuel and reduce carbon emissions.

More than 1,030 787s have been ordered by 60 customers to date. Boeing has delivered 146 Dreamliners to 19 customers. The 787 Dreamliner is a super-efficient twin-jet airplane that offers passengers a unique flying experience with bigger windows, cleaner air, a lower cabin altitude and higher humidity.

**Sydney Airport upgrade to Cat II:** It was recently announced by Sydney Airport Chief Executive Officer, Kerrie Mather that Sydney Airport's main north-south runway can now be used in lower visibility conditions, following the installation of new high intensity approach and strobe lights at both ends of the runway. "We've made a multi-million dollar investment in works to enhance operations for low visibility conditions such as fog and poor weather. Our new runway lighting system will enable more aircraft to land safely at Sydney Airport in adverse weather conditions, instead of being diverted to other Australian cities. Safety is a key priority for Sydney Airport and we're pleased that this upgrade will deliver improved safety outcomes. This is also great news for passengers, who will now experience fewer diversions and knock-on delays", stated Kerrie.

Airservices Australia has upgraded the Instrument Landing Systems (ILS), a radio navigation aid that helps to guide air traffic to the airport, particularly during weather events. Authorised aircraft will now be able to land in visibility conditions down to 350 metres, compared to 550 to 1,500 metres previously. The works were undertaken over the past year and have been approved by Australia's aviation safety regulator CASA, which has now upgraded Sydney Airport to a 'Category II' airport. **Breaking News:** Last Friday 30<sup>th</sup> April Sydney Airport was approved to receive GLS (GNSS Landing System) Cat I approaches from suitably qualified and equipped aircraft after an eight year trial.

**Membership Information:** "To join the RAeS or to UPGRADE your current membership standing or to see membership GRADE INFORMATION go to [www.raes.org.au](http://www.raes.org.au) or email [austdivision@raes.org.au](mailto:austdivision@raes.org.au). Annual memberships commence at only \$126 or \$27 for Students. Being a member helps us sustain a vibrant activities programme and opens the way to access restricted 'member-only' events.

**Aerospace Futures:** is a three day conference being held in Brisbane at the Stamford Plaza on 7-9 July, 2014 with the launch night on 6<sup>th</sup> July. It is designed to expose over 150 university students to opportunities in aerospace industry. During the conference, delegates will hear from a variety of Australian aerospace industry representatives speaking on topics including the latest developments within the aerospace industry, and job opportunities. The presentations will be focused on guiding delegates on their career paths. The delegates will be selected on a competitive basis and will comprise predominantly Australian university students studying an aerospace related degree, and all disciplines are encouraged to apply. Applications, which close 23<sup>rd</sup> June, are available from: [www.ayaa.com.au/AeroFutures](http://www.ayaa.com.au/AeroFutures)

Aerospace Futures provides fantastic networking opportunities for delegates to not only meet fellow students in the aerospace disciplines but also gives them the chance to meet in person and liaise with the industry professionals. The RAeS Australian Division is a sponsor for the conference.

**Quickstep focuses growth:** On 29<sup>th</sup> May, 2014 Quickstep announced that it would be expanding its patented carbon fibre composites technologies and products into the automotive sector such as the Quickstep Process and Resin Spray Transfer which is an automated composite process which works with the Quickstep Process to rapidly cure composite components. This innovative technology is in the early stages of commercialisation in the automotive and aerospace industries and the company now wants to accelerate this development and bring it to the market. Members who visited Quickstep last year would remember seeing some of the 'prototypes'.

**Northrop: Global Hawk Sets Flying Hours Record:** The Global Hawk family of unmanned systems set a record for flying hours in February, 2014 according to a release by contractor Northrop Grumman. The company claims the Air Force, NASA, Navy and others combined to fly 665 hours of operations and exercises between Feb. 16 and Feb. 23, setting the new record. The Air Force makes up 87 percent of the missions flown on the machine. "The weekly record of 665 hours set in February 2014 is 53 percent above last year's average" of 433.8 hours a week, the company said in a statement. "That is the equivalent of almost four Global Hawks in the air around the clock for an entire week." Increased use for an unmanned system isn't normally news, but additional flying hours for the Global Hawk are of note in the ongoing budget fight between the Air Force and Congress. The Air Force spent the last three years trying to retire the Global Hawk, only to be blocked by Congress. In the 2015 budget, the Air Force relented and moved to instead cut the U-2 spy plane; that decision has also faced resistance from the Hill. What caused the flip in positions? The service points to a drop in cost per flying hour for the Global Hawk, one driven primarily by increased flying hours for the unmanned machine. In fiscal 2012, Air Force cost per flying hour for the Global Hawk was about \$32,000, comparable to the U-2. In fiscal 2013, Global Hawk's cost dropped to \$24,000. If the Air Force continues to use the Global Hawk at anywhere near these February figures, expect to see that total drop even more.

A total of 42 Global Hawk unmanned aircraft are currently in use around the world with 32 in the USAF inventory. Northrop Grumman expects a contract for three more this year. The Global Hawk performs intelligence, surveillance and reconnaissance operations. The GH Block 40 (current version) is equipped with improved radar that will provide wide-area surveillance of stationary and moving targets in near real-time imagery.

#### **RAeS Ties, Coffee Mugs and Lapel Pins**

Variety of Ties \$20 each, Sydney Branch coffee mugs & lapel pins available at Branch meetings for \$10 each.

**2014 Diary:** **14-15 June:** The Powerhouse Discovery Centre Open Weekend entitled 'Flight'. Refer: [castlehill.powerhousemuseum.com/planning-your-visit](http://castlehill.powerhousemuseum.com/planning-your-visit)

**7-9 July:** AYAA Conference at the Stamford Hotel, Brisbane. Refer: [www.ayaa.com.au/AeroFutures](http://www.ayaa.com.au/AeroFutures)

**24-26 Sept:** Asia-Pacific International Symposium on Aerospace Technology (APISAT) in Shanghai. For details refer: [apisat2014.csa.org.cn](http://apisat2014.csa.org.cn)