



**ROYAL
AERONAUTICAL
SOCIETY**

AUSTRALIAN DIVISION
SYDNEY BRANCH INC

NEWSLETTER

MARCH 2013

Vol 2013-2 PO Box 573, Mascot, NSW 2020 ABN 75 134 058 731 Email: sydneybranch@raes.org.au <https://www.facebook.com/groups/RAeSSydney/> www.raes.org.au

REMINDER

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Date: **Wednesday, 27th February 2013**

Time: **18:00 for 18:30 hours**

Eminent Speaker: **John Faulkner AM, FRAeS**

Adjunct Associate Professor

Department of Aviation,

The University of New South Wales

Topic: **'A new synthesis in aviation safety'**

Venue: **Rupert Myers Theatre**

The University of New South Wales, Kensington

Refreshments will be available prior to the commencement of the meeting

Our first lecture this year is a must attend event for anyone interested in a realistic view of airworthiness and aviation safety and especially those involved in aviation safety or risk activities or engineering in passenger transport. We are fortunate to have John Faulkner to present a lecture he recently gave to the Farnborough Branch UK as their named 'Roger Green Lecture'.

Career in aviation lands David Forsyth an AM appointment



After nearly half a century working in Australian aviation, David Forsyth was on Saturday appointed a Member in the General Division of the Order of Australia (AM). The Castle Cove resident started his career at Qantas as an engineering cadet and rose through the ranks to become a senior management executive taking on aircraft operations and regional airlines. "I'd always wanted to be a pilot but my eyesight wasn't good

enough," Mr Forsyth said. "When I got an offer of a cadetship at Qantas, I said yes, I want to do that." Mr Forsyth has also served on a number of committees and boards and represented South Eastern Australia on the board of the Royal Flying Doctors Service. With 33 years at Qantas under his belt, Mr Forsyth presided over the engine room during the strikes of the 1990s and saw the airline weather a number of storms. "Qantas will always be around but it has to adapt. The world of airlines are changing," he said. "People who have worked for Qantas for a long time want it to stay the way it's always been. But it can't afford to be. It has to change." The new AM also called on the government to "get on with" building a second airport in Sydney. "Sydney airport is bang up against capacity. The Government need to make the decision on Badgerys Creek and get on with it or they risk wrecking our reputation as a tourist destination and world city," Mr Forsyth said.

EMINENT SPEAKER

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Date: **Tuesday, 5th March 2013**

Time: **18:00 for 18:30 hours**

Eminent Speaker: **Dr Takashi Ishikawa**

Professor, Aerospace Department

Graduate School of Engineering

Nagoya University and Director of National

Composite Center in Japan, Nagoya

University

Topic: **'An Overview of the**

Aerospace Technical Program at the Japan

Aerospace Exploration Agency'

Venue: **Engineers Australia**

Sydney Division, Level 3

8 Thomas Street, Chatswood

Hosted by: **The Joint Board for Aerospace**

Engineering, Engineers Australia and the

Royal Aeronautical Society, Australian

Division



ENGINEERS
AUSTRALIA

Refreshments will be available prior to the commencement of the meeting

Speaker Profile



Prof. Takashi Ishikawa has been a director of National Composite Center in Japan being built in Nagoya University since April 2012. Before this appointment, he served as the executive director of

the Aeronautics Research Directorate of the Japan Aerospace Exploration Agency (JAXA) since April 2008. He led the policy setting in Japan's aeronautics research communities and was appointed as the president of the Japan Society for Aeronautical and Space Sciences (JSASS) for 2008 and 2009. Born and schooled in a town near Nagoya, Prof. Ishikawa graduated from the Aeronautics Department of the Engineering School of the University of Tokyo in 1972. He obtained his PhD at the University of Tokyo in 1977 and joined the National Aerospace Laboratory (NAL), the former name of one part of current JAXA in 1978. His background is in the mechanics of composite materials, structural mechanics of composites and development of new composite materials. After he joined JAXA, he obtained a temporary position as a post-doc at the University of Delaware in USA, where he invented the mechanics of textile composites. Mainly by this

accomplishment, he was awarded the Medal of Excellence in Composite Materials by Center of Composite Materials of University of Delaware in 2008. When he went back to Japan and NAL, he expanded his research area into a wide variety of fields in composite mechanics. In 2001, he was appointed as the director of Advanced Composite Technology Center of NAL, and later in 2005, was appointed as Aviation Program Director of newly formed JAXA, which was the position of aeronautics technology leader in Japan, covering not only composites, but the whole field of aeronautics. Then he was finally appointed as the executive director of JAXA Aeronautics as above in 2008.

Synopsis

JAXA Aeronautics is now considering which direction the research community should go to bring future prosperity to Japan's aviation industries. The current plan is as follows: the first priority group of research topics is "environmental awareness", the second priority group of topics is "aviation safety", and the third is "a challenge for future". Although the content is rather focused on aviation, some new space technical topics will be also included. In the presentation, each research topic will be explained in detail. For example, the topic group of "environmental awareness" includes drag reduction by various methods, weight reduction by using composites with revolutionary design concepts, introduction of innovative ideas to reduce a fuel-burn in new generation jet engines, and improvement of navigation route setting technologies in aircraft operations.



PARKING: is available at the Thomas St Car Park. Free after 6 pm (2 minutes walk to EA Sydney Div). Alternatively 3 hours free parking is available at Chatswood Westfield (5

mins walk to EA Sydney Div). Please observe parking restrictions and allow time to drive, park and walk to the venue. (Refer map).

DINNER: After the presentation, Prof. Takashi has indicated that he will join us for dinner as the guest of the committee. All members and visitors are invited to attend the dinner to be held at Towon Chinese Restaurant, Level 6, Westfield Shopping Centre, Anderson St, Chatswood. (Approxly \$42 pp including soft drink and wine.)

RSVP: Attendance registration for the Presentation & Dinner afterwards is essential. Please register by clicking on this link: <http://www.raes.org.au/events/> or email by lunchtime Tues 5th March to: sydneybranch@raes.org.au

Australia Division Council Elections for 2013

Members are reminded that the ballot paper for the 2013 election needs to be returned by Friday 22nd Feb, 2013.

Sydney Branch Governance

At the first meeting since the AGM the committee endorsed the previous held non member elected executive positions within the committee – David Adkins, Immediate Past Chairman, John Vincent Honorary Secretary, Bradley Hayward, Honorary Assistant Secretary, Jeff Lock, Honorary Treasurer and Public Officer. As previously advised David Cox was duly elected as Chairman. John Burleigh continues

as Chairman of the branch's Lectures Sub-Committee. Peter Lyons was seconded to the Committee to fill the vacancy from the recent AGM. A copy of the audited 2012 accounts is enclosed with the paper copy of the newsletter (for members only). If you are a member and receive the newsletter by email and wish to receive a soft copy of the audited accounts please send an email to jeff.lock@bigpond.com.au requesting this.

RAeS Ties, Coffee Mugs, and Lapel Pins

Variety of RAeS Ties \$20 each, Sydney Branch coffee mugs (with new logo) & lapel pins available at Branch meetings for \$10 each.

Diary 2012-2013

21 Feb: ACSER Distinguished Guest Lecture - Curiosity on Mars, presented by: René Fradet, Deputy Director of Engineering & Science Directorate, Jet Propulsion Laboratory, NASA – commencing 18:00 hours in the Central Lecture Block 7, UNSW, Kensington. Registration is free but essential at: <http://acser.unsw.edu.au/curiosity>. This talk will survey the tremendous successes of Curiosity so far, from landing on Mars to photographing, sampling and inspecting her surface. Some of the challenges facing Curiosity in the future include robotically drilling on the surface of Mars. This will be the first time since the Apollo program that humanity has drilled rocks on a non-Earth body, and the first time ever for a robot explorer.

René Fradet is the Deputy Director, Engineering and Science Directorate at NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California. From 2009 through 2010, René was the Flight System Manager for the Mars Sample Laboratory (MSL) where he was responsible for the overall development of the MSL Flight System. Before assuming his present leadership post at JPL, René was the founder, president and CEO of Alliance Spacesystems, also of Pasadena. René's company built a wide range of space mechatronic systems, most notably the Robot Arm for Curiosity, as well as the robot arms for the Phoenix lander and the earlier Spirit and Opportunity rovers. Opportunity and its arm are still operational on Mars after almost ten years.

24-26 Feb: AUVS-Australia 2nd Annual Unmanned Vehicle Systems Conference entitled "Unmanned Applications-UAS & Beyond" will be held in the Melbourne Convention & Exhibition with the final day (26th) at the Avalon Air Show. For further details refer: www.auvsi.org/australia/events/conferences/

26 Feb- 3 March: Australian International Airshow and Aerospace & Defence Exposition. For further details refer: - www.airshow.com.au/airshow2013/index.html

24-28 June: 10th Annual Meeting Asia Oceania Geosciences Society, Brisbane. For further details refer: www.asiaoceania.org/aogs2013/public.asp?page=sessionProposal.htm

Aerospace Websites

www.aerosocietychannel.com/aerospace-insight/2011/07/space-shuttle-the-end-of-the-beginning/
www.57rescuecanada.com: Follow Capt. Karl Kjarsgaard's adventures to recover Halifax bomber LW170 which is resting beneath 5000ft of water off the Irish coast;
www.adastron.com/707/updates/updates.htm: Diary of Boeing 707-138B XBA formerly Qantas EBA.
www.airshow.com.au; www.atsb.gov.au;
www.aviationmuseum.com.au - Temora Aviation Museum;
www.boxkite2014.org: The Boxkite project.
www.innovationnewsdaily.com/920-flying-robots-play-007-theme.html www.powerhousemuseum.com/whatson;
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en.wikipedia.org/wiki/Rolls-Royce_Trent