



Mr Mike Goulette (Retired) from the role of Director of Engineering Systems and Services, Roll-Royce discussing

'Gas Turbines Materials – Hot and Highly Stressed'

Date: **Tuesday, 10th March 2015**

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

Venue: **Engineers Australia Sydney Division
Ground Floor Auditorium**

8 Thomas Street, Chatswood, NSW



**ENGINEERS
AUSTRALIA**

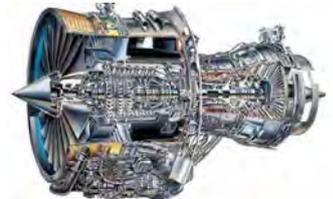
Hosted by: **The Joint Board for Aerospace Engineering, Engineers Australia and the Royal Aeronautical Society, Australian Division**

Refreshments will be available **prior** to the commencement of the meeting

Attendance will attract 1 CPD hour

Profile: Mike Goulette retired from the role of Director of Engineering Systems and Services at Rolls-Royce in 2010 after a 45 year career with the Company. Other roles he held at Rolls-Royce included, Head of Materials, R&T Director, Project Director RB211 and Trent 700, and also VP Seattle Operations. Since retiring, Mike consults for RR, the UK Energy Technology Institute and Aston University. He also chairs the RAeS Branches Committee and sits on its Council, and the Membership Services Board. Mike is a Chartered Engineer, and a Fellow of the Royal Academy of Engineering, the Royal Aeronautical Society, and the Institute of Materials, Minerals and Mining. He is also a Liveryman of the Armourers and Brasiers Company and the Worshipful Company of Engineers and is a Freeman of the City of London.

Synopsis: Since its earliest conception by Frank Whittle the aero gas turbine engine has been limited by the availability of light weight, high strength materials capable of operating at high temperatures. This talk will examine the demands placed on such materials and show how they have developed over many years to be the most advanced structural material systems in use today. Future developments in materials and manufacturing processes which will enable even higher performance, reliability and reduced cost will also be discussed.



Rolls-Royce RB211-535E4



Over half the RB211-535E4s in Icelandair's fleet have exceeded 15,000 hours before removal

RSVP: Whilst attendance is free - registration for the evening **is required**. Please register for yourself plus any accompanying persons by clicking on this link: <https://raesmar15.eventbrite.com.au> If a Friend of the Branch please entry 'Friend' as the membership number. Print the Eventbrite ticket or have it stored on your mobile phone. RAeS members who do not register or do not present their ticket or do not have it stored on their mobile phone may be subject to an Engineers Australia entry fee of up to \$65.00. Any member who does not have access to the internet can send a letter to Mr Jeff Lock, 4 Hillcrest Place, North Manly NSW 2100 with your name (plus names of accompanying persons), membership number or state 'Friend' if you are a Friend of the Branch, and ph #. Please note that RAeS members should not register via Engineers Australia website – otherwise a fee will be imposed by EA.

Dinner: After the presentation, Mike 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 Town Chinese Restaurant, Level 4, Westfield Shopping Centre, Victoria Ave, Chatswood. (Approxly \$45 pp including soft drink and wine.)

Travel: Engineers Australia Sydney Division is situated in Chatswood, easily accessible via Pacific Highway. Parking available at Victor St Car Park, Mandarin Centre Car Park, Chatswood Westfield Car Park and The Concourse Car Park. [Click here for map of Car parks](#). All North Shore and



Macquarie Park rail services and many bus services (136, 137, 143, 144, 255, 256, 257, 258, 273, 275, M40) utilize the Chatswood Transport Interchange from which is a short walk to Engineers Australia. Please allow time to travel to the venue, including waiting time, and time to walk to the venue from the car parks/transport interchange. Please refer for further bus details: <http://www.sydneybuses.info/routes/timetables-route-maps>



Atilla Olgun – outgoing Committee Member: Atilla Olgun is an outgoing committee member of the RAeS – Sydney Branch, filling in the role as Student Representative for the University of New South Wales (UNSW) Aviation Society (AvSoc) and (for a short while) as Assistant Secretary, whilst undertaking the Bachelor of Aviation (Management) at UNSW. He has been fortuitously offered the position of Cargo Business Analysis Officer by Qatar Airways – Cargo and will be flying out to Doha, Qatar in 2015 to work for the Middle Eastern airline. During his time on the committee, he has sought to forge a closer relationship between the RAeS and AvSoc and to promote the Society to university students. He has also offered his assistance to the recently appointed RAeS General Manager Doug Nancarrow in finding innovative and new ways of promoting the Society to potential younger people with interests in aviation/aeronautics/astronautics. His contribution to the Society can be found in the Young RAeS Tab on the RAeS – Aus Div website, with more materials to be added soon. Atilla has a keen interest in start-ups, coding and Hapkido martial arts.

Avalon Airshow 2015 - Aerospace Student Profession (ASP) program: A special invitation is extended to "Aerospace Student Professionals" to attend, as Accredited Trade Visitors, for one-day only and at nil cost, on either of the Trade Days: Tuesday 24 February, Wednesday 25 February or Thursday 26 February 2015. Full details of this application and accreditation process are available from the Royal Aeronautical Society - Australian Division website: <http://www.raes.org.au/index.php/events/2014-07-29-09-21-11/asp-program-2015>

Friendly Reminders: The 2015 Annual Subscriptions: for Australian Division members are now due and must be paid by 31st March, 2015. Where a member's payments is not received by 31st March, 2015, the membership shall lapse and all services shall be suspended including any right to designatory letters and to be registered with the Engineering Council.

Australian Division Voting: Voting papers for the 5 vacant positions on the Australian Division Council have recently been delivered to voting members. Voting closes 6th march, 2015 and all voting members are urged to vote. Completed ballot papers should be mailed as requested.

eAssociates: Student members who have recently graduated should be aware of the availability of the new grade eAssociates. Details are available on the Australian Division website: www.raes.org.au/index.php/membership/2014-11-02-00-22-30/become-a-member and page down to the 'asterisk'.

Chairman's Report to the 2014 AGM: Altogether an active year with 12 events being held. Perhaps the best way to report the events is to use the framework of the branch strategy which is built around four elements:

- 1. Deliver services in accordance with the Branch Purpose that members value:** We have continued to develop different formats for our evening events including panels, debates, as well as the traditional lectures. We have also improved our focus on CPD with a goal of reaching out more effectively to midcareer members.
- 2. Build the Branch brand to be a respected part of the Sydney aerospace community:** Over the last couple of years we have made real efforts to make ourselves an effective part of the Sydney aerospace community becoming active in SADIG, the Sydney West Airport Alliance and have built up an industry advisory network. We continue to also work closely with our partner societies and especially the student groups.
- 3. Recruit members to ensure the ongoing health and sustainability of the Branch:** We have a number of strategies in place to boost this and I am very encouraged by some of the developments at the Divisional level which I'm sure will assist in building membership.
- 4. Build and sustain an active committee to support the Branch:** I'm pleased to report that we have a number of active new faces on the committee - Brian Greeves chairs the Lectures Subcommittee - and we have been successful in achieving representation from the various student groups. These roles in the committee are so critical to our future and it's great to have students who are willing to step up.

During the year we saw the sad loss of two of the stalwarts of the Sydney Branch with the passing of Bob Stevens and Peter Lyons. Bob was of very long-standing member of the Society, active at the Branch level and a key member of the Divisional Council including holding the role of Treasurer. Peter was a long-standing member of the Branch committee and through his naval background gave us a unique insight into that sector of the profession. Both will be missed and our thoughts continue to be with their families.

Monthly Newsletters by EMAIL: The Sydney Branch Committee at its Strategy Day held early 2015 agreed to develop a program to encourage our members to receive the monthly newsletter in colour by email. The Committee would like to see the program implemented by December 2015. Today the usage of technology has enabled almost everyone to receive emails and access the World Wide Web which has enabled many organisations and businesses to take advantage of the technology to deliver better services and provide more information without being constrained by rising costs associated with providing paper based delivery. Whilst it is accepted that some may wish to continue receiving paper delivery the committee would like that decision to be an 'opt in' by members for continuation of paper delivery rather than an 'opt out'. Should you wish to continue receiving paper please email the editor (jeff.lock@bigpond.com) or send a letter to Mr Jeff Lock, 4 Hillcrest Place, North Manly NSW 2100 requesting to stay with paper. For members who currently receive the newsletter by email – no action is required on your part other than to advise the editor of any email address changes.

The Institute of Transport and Logistics Studies: PhD Scholarships at the Institute of Transport and Logistics Studies, The University of Sydney, close Friday 27 February 2015 at 17:00 hours. Please refer to the attached email for further details

if receiving the newsletter by email. If receiving the newsletter by Australia Post please contact: Associate Professor Behnam Fahimnia behnam.fahimnia@sydney.edu.au for details.

2014 Diary: 24-27 Feb: The Australian International Aerospace Congress (AIAC) series is the pre-eminent aerospace forum in the region and is held in conjunction with the Australian International Airshow in Avalon. The 16th in the series, AIAC16 has been organised to provide significant technical and business opportunities for aerospace professionals worldwide, but particularly for those in the Australasian region. The theme for this congress is “Multi-National Aerospace Programs – Benefits and Challenges”. Refer for details: <http://www.aiac16.com/>

24 Feb-1 March: Australian International Airshow and Aerospace & Defence Exposition, Avalon Vic. Refer for further details: <http://www.airshow.com.au/airshow2015/index.asp>

17 March: The Australian Insurance Law Association and The Aviation Law Association of Aust & NZ presents ‘Attack of the Drones’, 17:15 hours, Angel Place Conference Centre, Mezzanine Lvl, 123 Pitt St, Sydney. (RAeS Members can attend at the Member rate of \$35). Refer for further details: adam.vines@assetinsure.com.au

4-7 May: AUVSI's Unmanned Systems 2015 Conference being held Georgia World Congress Center, Atlanta USA. Refer: www.auvsishow.org/auvsi2015/public/Content.aspx?ID=1581&sortMenu=104001

8-10 June: 2015 Global Connected Aircraft Summit, Westfield Marriott Washington Dulles. Refer for further details: www.gcasummit.com

25-27 Nov: 7th Asia-Pacific International Symposium on Aerospace Technology (APISAT) which will be held at the Hilton Cairns Hotel, Queensland, Australia, on 25 – 27 November 2015. Since the inception of APISAT in 2008 by the national aerospace societies of Korea (KSASS), China (CSAA), Japan (JSASS) and Australia (RAeS Australian Division), APISAT has become the prime forum for aerospace research and development in the Asia-Pacific region. **Abstract submission opens 11 February 2015; Abstract submission deadline 27 April 2015.** Refer for further details: www.apisat2015.com/

Sept 2017: International Astronautical Congress to be held in Adelaide. Thousands of scientists, including some 200 astronauts, will participate in the international space congress. Further details will be advised when available.