



**ROYAL
AERONAUTICAL
SOCIETY**
AUSTRALIAN DIVISION
SYDNEY BRANCH

MARCH 2019

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NEWSLETTER



Title: **‘Swedish Aeronautics:
Industry, Research, Technologies &
Innovation, Saab and its aircraft’**

Speaker: **Dr Billy Fredriksson FRAeS FAIAA
Former Senior Vice President and
Chief Technology Officer, Saab
Aerospace Linköping, Sweden**

Date: **Tuesday 5th March, 2019**

Time: **18:00 for 18:30 hours (sharp)**

Venue: **Engineers Australia, 8 Thomas St, Chatswood**

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 1.5 CPD hour

Profile: Dr Billy Fredriksson earned his Master of Science in Mechanical Engineering in 1969 from Chalmers University of Technology in Sweden. He earned his PhD in Mechanical Engineering focusing on Solid Mechanics in 1976 at Linköping University, Institute of Technology. Through the years 1973-1978, he served as Assistant Professor and Associate Professor in Solid Mechanics at Linköping University and 1986-1988 he was Professor and Head of Solid Mechanics and Strength of Materials. Dr Fredriksson was Visiting Professor (part-time) at the Department of Aeronautics and Astronautics at MIT, Cambridge, USA, 1999-2001.

In 1978 Dr Fredriksson joined Saab Aerospace and became Head of the Stress Department in 1981. Dr Fredriksson was Senior Vice President Engineering and Development and CTO at Saab Aerospace for ten years, and was part of the engineering and development of the Gripen Fighter aircraft, the Saab 340 and the Saab 2000 Commuter Aircraft. Dr Fredriksson became Senior Vice President Corporate Research and Technology in the Saab Group in 1997. He retired from Saab in 2005 and is now a consultant and senior advisor. Through his 30 years in the aircraft industry, Dr Fredriksson has had extensive assignments in scientific research at universities through cooperation on research projects in Sweden, Europe and the United States. He has acted as chairman of boards for



Saab 39 Gripen & 29 Tunnan

several national and international research programs in engineering development and manufacturing. Dr Fredriksson was Vice Chairman of the Swedish Royal Academy of Engineering Sciences 2004-2006. He is a fellow of the Royal Aeronautical Society and a Fellow of the American Institute of Aeronautics and Astronautics. Dr Fredriksson was President of ICAS – the International Council of Aeronautical Sciences, 2002-2004. In February 2007 he was appointed by the Swedish Government as Chairman of the Swedish Research Council for Natural and Engineering Sciences for the years 2007-2009. Dr

Fredriksson was a member of the Scientific and Technology Advisory Board to the EU Clean Sky Research Program in Aeronautics from 2010 to 2014. He continues as an expert performing Annual Reviews and dedicated specialist reviewer for the Clean Sky Program.

In 2004 Dr Fredriksson received the Swedish Thulin Gold Medal for outstanding contributions to aeronautics research and development. In 2010 he received the Gold Medal from KTH – the Royal Institute of Technology, for his achievements in Systems Engineering and academy-industry cooperation in research and education.



Gripen_C Aircraft FM Bild

Synopsis: Saab is a world leader in innovation and entrepreneurship in aircraft engineering. Here is your chance to get a behind the scenes look at the development of the Gripen fighter aircraft, and hear a brief history of Swedish aeronautics, as told by former Saab Senior Vice President and Chief Technology Officer Dr Billy Fredriksson. The presentation will provide a glimpse into innovation in Swedish aeronautics, covering three main topics the:

- History of Swedish aeronautics, and how cooperation between government, industry, research and education made it possible for a small country like Sweden to develop fighter aircraft;
- Challenges and solutions to developing the multirole Gripen fighter aircraft, and the technologies, innovations and engineering management that made this possible; and
- Positive impact of an advanced high technology industry on the development and welfare of a country, and the ways that these types of projects generate new knowledge and technologies that can spread to other industries.

This evening is proudly Sponsored by



Australian Society for Defence Engineering (ASDE) is a technical society established by Engineers Australia in order to provide a forum to engage with various engineering fields and contribute to the practice of Defence engineering.



Aerospace Maritime and Defence Foundation of Australia Limited is a not-for-profit corporation limited by guarantee and established to promote the development of aviation and Australian industrial, manufacturing and information/communications technology resources in the fields of aviation, aerospace, maritime and defence.

Agenda:

18:00 Hours:	Registration Welcome tea & coffee
18:30 hours sharp:	Presentation by Dr Billy Fredriksson
19:45 Hours:	Q & A
20:00 Hours:	EA and the RAeS Committees will take Dr Billy Fredriksson to dinner at the Towon Chinese Restaurant, Level 6, Westfield Shopping Centre, Victoria Ave, Chatswood. (All are invited to attend – Cost approxly \$50 pp including soft drink and wine.)

RSVP: Registration for the evening **is free and is required** . Please register by clicking on/copying and pasting into your URL this link: <https://www.engineersaustralia.org.au/Focus> Your registration will be confirmed by email. **Please print the email and present it at the door. Please note:** Non members should enter the code **NM** if requested to enter a RAeS membership number. 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 phone number.

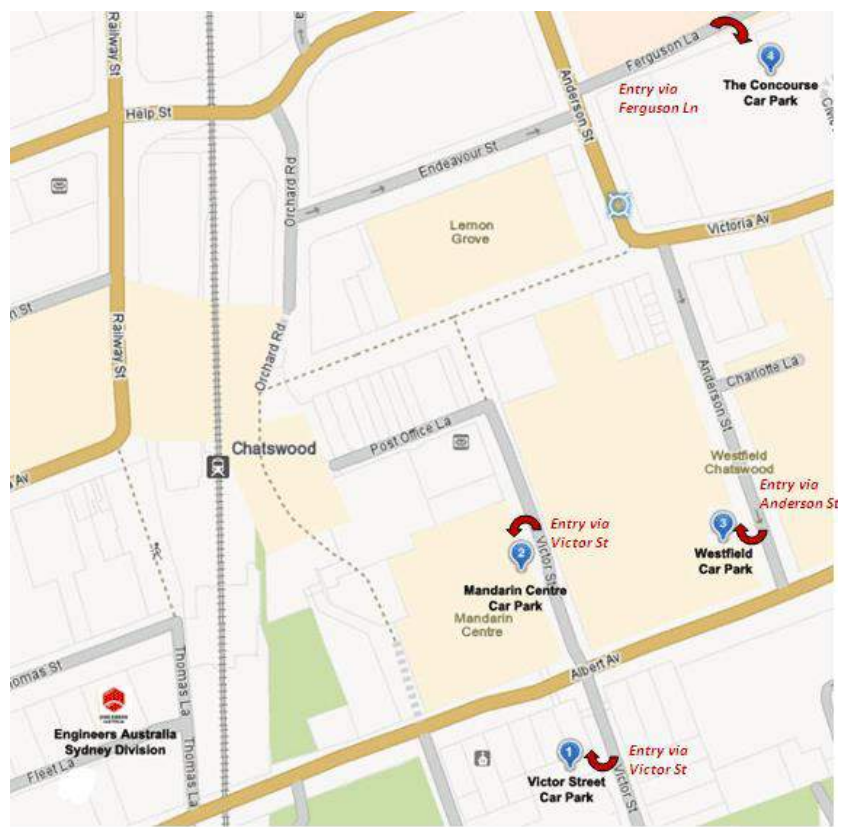
Lecture registration includes:

- Attendance at the Lecture and Q & A session
- Networking opportunities at the welcome tea and coffee
- Access to the senior Defence and industry delegates during the event

Public Transport: All North Shore rail services and many bus services (136, 137, 143, 144, 255, 256, 257, 258, 273, 275, M40) utilize the Chatswood Transport Interchange from which it 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>

Parking: 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.

Closed Member Only Group on Facebook: Sydney branch is live video streaming our monthly branch lectures. Watch lectures live or at a later time, at the "RAeS - Sydney Branch - Members Only" group within Facebook. Please note that this service is only available to financial members of the Royal Aeronautical Society.



AUSTRALIAN INTERNATIONAL AEROSPACE & DEFENCE EXPOSITION
AVALON 2019
 26 FEBRUARY - 3 MARCH, AVALON AIRPORT, GEELONG, VICTORIA



For further information please refer: www.airshow.com.au



50 years ago 'today' – Concorde takes first flight

March 2, 1969: The Anglo-French supersonic airliner Concorde 001 (Registration F-WTSS) made its maiden flight on this day in 1969, after two previous attempts were aborted due to bad weather.

Spontaneous applause and cheers broke out from observers as the French-built prototype of the supersonic transport (SST) took off from Toulouse Airport at around 3.30pm, and circled for just 27 minutes before landing due to further weather concerns.

During the test flight, Concorde's speed never rose above 300mph and its altitude reached a lowly maximum of 10,000 feet. During commercial journeys it would reach speeds of up to 1,350mph – more than twice as fast as conventional aircraft - and fly as high as 60,000 feet.

Test pilot Andre Turcat said that the flight was "as perfect as we had expected", but warned that Concorde was far from being the finished article. "The first flight is more than an achievement," he added. "It is the start of more months and years of hard work before the plane can be flying passengers over the Atlantic."

To watch this historic flight click on: <https://www.youtube.com/watch?v=lsqPsX8k5FE>

2018 Annual General Meeting

Royal Aeronautical Society Australian Division Sydney Branch Inc

Date: **Wednesday 10th April 2019**

Time: **Commencing 18:00 hours - sharp**

Venue: **Mechanical Engineering Theatre, Mechanical Engineering Building, Uni of Sydney**

Venue map (copy and paste address into your browser): <http://sydney.edu.au/maps/campuses/?area=CAMDAR>

Scroll down the 'Building Bar' on the left hand side to: **Mechanical Engineering Building J07** and click.

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

2018 AGM Agenda:

BUSINESS ARISING:

CHAIRMAN'S REPORT:

TREASURER'S REPORT:

ANNUAL ELECTIONS:

APPOINTMENT OF HONORARY AUDITOR:

GENERAL BUSINESS:

CLOSE OF AGM:

2019 Committee Nomination Form: Should you wish to nominate for the 2019 Committee, please complete the Nomination Form below and follow the instructions.

PRESENT: Members to sign attendance book.

Discussion and motion to accept.

Annual Report, discussion and motion to accept.

Presentation of 2018 Financial Statement. (Audited report will be sent with the June, 2019 Newsletter). Discussion and motion to accept.

The Hon Secretary to report on Nominations received for the classes of Committee by the due date 18th March 2019 and, should there have been more Nominations received than positions available for any of the classes, the result of elections.

Mr Stephen Howard, Harrison and Howard.

Any business raised and accepted by the Chairman.

APOLOGIES:

2019 Committee Nomination Form

Send to: The Honorary Secretary, RAeS Aust Division Sydney Branch Inc, 88 Trafalgar Street, Annandale, NSW 2038 or Email: sydneybranch@raes.org.au (please ensure that Nomination Forms have been correctly signed)

The 2018th Sydney Branch Annual General Meeting is to be held on Wednesday 10th April 2019, at 18:00 hours, in the **Mechanical Engineering Theatre, Mechanical Engineering Building, University of Sydney**. In accordance with the Branch Rules of the Sydney Branch of the Royal Aeronautical Society Inc passed at the AGM held 7th March, 2018, nominations for the Committee are called and shall be made in writing and signed by one member of the Branch and countersigned by the Nominee. The Committee consists of one Chairman, and 3 Student Representatives, who hold their positions for 12 months, and 10 Ordinary Committee Members (in total 14 people). The 10 Ordinary Committee Members will have a term of 2 years. However, as this is the first election since the change of the Sydney Branch Rules at the AGM held 7th March, 2018, half of the 10 successful candidates will be elected for one year whilst the remaining five will hold office for 2 years. The 2019 Committee will determine the five Ordinary Committee Members who will have a 1 year term, with the remaining 5 having a 2 year term. All future terms for the 10 Ordinary Committee Members will be for 2 years.

Please forward completed Nomination Forms to the Branch Honorary Secretary at the address above by Monday 18th March, 2019 which is at least twenty one (21) days prior to the 2018 Annual General Meeting.

I(Nominator's Full Name)

of(Nominator's Address)

nominate(Nominee's Full name)

of(Nominee's Address)

as an: Ordinary Committee Member / Student Representative / Chairman (*delete 2 of these classes as appropriate*) for the Sydney Branch of the Royal Aeronautical Society Australian Division for the Year 2019.

Signed:.....Date:.....Member Number:.....(Nominator)

Signed:Date:Member Number:.....(Nominee)

Tel contact:(Nominee) email:(Nominee)

NOTE: PLEASE USE ONE FORM FOR EACH NOMINATION

Office Use Only: Nomination received by the Sydney Branch Hon Sec:.....(Initials).....(Date)

Past Newsletters are now stored on our website: Members are advised that all Sydney Branch Newsletters since February 2012 are now stored on our website. To access this information enter our web address (www.raes.org.au) into your browser, click 'About' then 'Sydney Branch' and scroll this page to the heading 'Sydney Branch Newsletters'. Newsletters are arranged by month within each year heading.

Society Merchandise for Sale: Sydney branch has a selection of Society Merchandise for sale at its regular monthly meetings. Items include Society Ties, Tee Shirts, Pins, Lapel Badges, Silver Kestrel Brooches, and Mugs.



Our Sales Director, David Adkins, accepts cash, cheques, and credit cards through PayPal.

Aerospace Websites: 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 formally Qantas EBA.
www.airshow.com.au www.atsb.gov.au www.aviationmuseum.com.au - Temora Aviation Museum;
<http://boxkite2014.org/book/book.htm> - The Boxkite project.
https://en.wikipedia.org/wiki/Rolls-Royce_Trent; hars.org.au Historical Aircraft Restoration Society
<https://herox.com/SpacePoop> The Space Poop Challenge www.powerhousemuseum.com/whatson
<http://www.qfom.com.au/> Qantas Founders Museum, Longreach, Qld <http://www.singaporeairshow.com/>
<https://www.youtube.com/watch?v=JGjmRRTThdk> How TIME created their new cover image with 958 drones
http://www.rbogash.com/B-52/B-52_Disassembly.html How to move a B-52 without flying it – The Final Disassembly and Transport Update for the move scheduled 3/6/2018 - with the wings split and the fuselage in final stages of prep before hitting the freeway.
<https://airandspace.si.edu/collection-objects/assembly-bio-harness-armstrong-apollo-11>

Diary: **April 10: Sydney Branch AGM commencing 18:00 hours** – followed by presentation from Mr Greg Ferguson, Chief Executive Officer, Rumour Control.

May 4-5: Wings over Illawarra. For details refer: www.wingsoverillawarra.com.au

June 26: Australian Division Safety Forum – further details to be advised.

Saturday July 20: The fiftieth anniversary of the first men walking on the moon. Sydney Branch is arranging a 'Special Event' on the night. Further details to be advised.

July 23-26: Abstracts containing no more than 300 words are now invited for the 2019 Aircraft Airworthiness and Sustainment (Australia) Conference, a non-profit event for the benefit of all those involved in sustaining our fleets, both Civil and Military, safely and economically through their lifecycle. The Conference will be held at the Brisbane Convention and Exhibition Centre. **Closing date for abstracts is 12 April, 2019.** For further details refer: <http://www.ageingaircraft.com.au>

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