



ROYAL AERONAUTICAL SOCIETY

www.raes.org.au

AeroNEWS

Newsletter of the Canberra Branch of RAeS, Australian Division Inc.

- March 2010 -

Introduction

The Branch will hold two meetings in March. There will be the usual meeting at ADFA on 9 March, at which Col. Andrew Britschgi, the US Defense Attache will speak about UAVs. Note that his lecture has been brought forward from date given in last Newsletter. Then on 31 March, in conjunction with Engineers Australia, the Branch is hosting an Eminent Speakers lecture by Mr Fred Abbink, General Director of the Netherlands National Aerospace Laboratory. Details are below.

Branch lectures are open to all with an interest in aviation so please circulate the Newsletter to colleagues, urge them to attend and encourage them to join the Society. There are appropriate grades for everyone and membership includes subscription to the excellent Aerospace International magazine. For information and forms refer to <http://raes.org.au>, or call me on 6255 2347

If you attend regularly but prefer not to join the parent Society we invite you to become a "Friend" of the Branch, and pay a small annual subscription that helps defray our costs; details below.

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Newsletter Editor

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March Lectures

Tuesday 9th March

6.00 pm at Military Lecture Theatre, ADFA

Col. Andrew J Britschgi, the US Defense Attache will speak on "**Remotely Piloted Vehicle Operations in Afghanistan**".

He will discuss RPV operations in Afghanistan from their beginnings in 2001, his personal operational experience with them and today's cloud of RPVs over the country. The presentation will also provide a US perspective on the future for RPVs and discuss aspects of USAF force structure changes.

Andrew Britschgi entered USAF in 1981 after graduating from the AF Academy. Following flight training, he served as an instructor on T-38s before

becoming F-4 flight commander in the Pacific and later flew and instructed on F-15E Strike Eagle.

Colonel Britschgi has flown more than 200 combat hours in the F-4 and F-15E over Bosnia, Iraq and Afghanistan, as a flight commander, operations officer and squadron commander. He served on the Secretary of the Air Force Staff for the Deputy Under Secretary for International Affairs. In addition, he directed air operations for the Korea Air Operations Center and prior to his current assignment, served as a vice wing commander in Air Education and Training Command.

The Colonel assumed duties of United States Defense and Air Attaché to Australia in 2007.

Meet colleagues for refreshments in the Officers Mess before the lecture and afterwards you are welcome to join Committee and speaker for dinner.

Wednesday 31st March

5.30pm for 6.00pm start, at Engineers Australia Canberra Division Auditorium, 11 National Cct., Barton

Mr Fred Abbink, General Director of the Netherlands National Aerospace Laboratory will speak on "**Survival of the Fittest: 90 Years of Dutch Aeronautics - RDT&E in a Globalising Environment**".

In 1919 Royal Dutch Airlines – KLM, Fokker Aircraft and The National Aerospace Laboratory – NLR, were founded. In the following 90 years many political and technological developments shaped KLM, Fokker and NLR. These included the consolidation of national aircraft industries and national airlines, and development of European and international cooperation in aeronautical research.

Mr Abbink will discuss NLR RDT&E support of:

○ Dutch Military Forces, in the field of threat analysis, self protection, training and maintenance, as well as helicopter-ship qualification

○ Fokker, in the field of aerodynamic design, structural testing and flight testing of the F27, F28, F50 and F100, and support in composites design and qualification in the period after the Fokker bankruptcy in 1996

Q Schiphol Airport and ATC, in order to increase airport capacity.

He will also tell how NLR increases its RDT&E effectiveness and efficiency by participation in EU programmes such as AGARD/RTO, GARTEUR, ACARE and the Association of European Research Establishments.

Fred Abbink is the General Director of the National Aerospace Laboratory of The Netherlands (NLR). He graduated in Electrical Control Engineering from the Technical University Delft, served in the Royal Netherlands Navy and in 1981 became head of NLR's flight testing & helicopters department. He became the Technical Director in 1988 and General Director in 2005. Mr Abbink has served as part-time & visiting professor at many prestigious Universities and was the President of the International Council for the Aeronautical Sciences (ICAS) between 2006 & 2008. He is an Officer in the Order of Oranje Nassau, Fellow of the American Institute of Aeronautics and Astronautics (AIAA), Member of the French Académie Nationale de l'Air et de l'Espace (ANAE), Member of the Netherlands Academy of Technology and Innovation, and Honorary Member of the TU-Delft Aerospace Students Association.

NB RSVP to EA required: Please register online at <https://events.engineersaustralia.org.au/ei/getdemo.ei?id=169&s=TD80UZ99M> or tel. 02 6270 6548

Report on February Meeting

Morgan Sandercock, a participant in and financial supporter of Perlan Project - www.perlanproject.com – explained its ambitious plan to build, and soar to the stratosphere in a pressurized sailplane. He began with an overview of gliding versus soaring, underlying meteorology, ridge soaring and how the “polar vortex” generates reliable waves that rise over 23 km high in the lee of the Andes. NASA test pilot Einar Enevoldson recognised the potential of the phenomenon and he and Steve Fossett used it to set the world-record altitude for gliders of 50,671 feet (15,447 m) in 2006. That was Perlan Phase 1, but it was constrained by the need for pilots to wear pressure suits which severely restricted their movement and capabilities.

Phase 2 involves building a pressurised, 2-seat sailplane with 25 m span and all composite construction. It has been designed by Greg Cole, the only US glider manufacturer and designer of the Sparrowhawk ultralight glider, the Lancair and Red Bull racers.

Morgan described progress to date. An aerofoil has been optimized for low Reynold's Number, cockpit has been configured to give adequate visibility through an array of robust windows designed and tested to sustain 8.5 psi cabin pressure, and a light weight life-support system has been developed based on oxygen recirculation/rebreather technology as is used for deep diving.

The project still needs sponsorship and an infusion of funds to replace those formerly arranged by Fossett.

AWM “Big Things in Store”

The War Memorial is holding another “*Big Things in Store*” open day at Callan Street, Mitchell on Sunday 14th March, from 10.00 to 3.00 pm. It's a great opportunity to see aviation and other artefacts that are not currently on display. Details are at <http://www.awm.gov.au/events/bigthings.asp>.

Friends Subscription

Those who do not want to join the main Society but regularly attend lectures are invited to become a “Friend” of the Branch. 2010 subscription remains at \$25 and is now due. Please send a cheque payable to “Canberra Branch of Royal Aeronautical Society” and your contact details to the Treasurer Robin Stanier at 20 Gouger St., Torrens ACT 2607. No form is necessary.

Dates for the Diary

Tuesday 9th March *Branch Lecture*

Col. Britschgi USAF, on “*Remotely Piloted Vehicle Operations in Afghanistan*”.

Wednesday 31st March *Eminent Speaker*

Mr Fred Abbink NRL, on “*Survival of the Fittest: 90 Years of Dutch Aeronautics - RDT&E in a Globalising Environment*”.

Tuesday 13th April *Branch Lecture*

Tentatively on Qantas Airbus A380 operations.

Canberra Branch of the Royal Aeronautical Society, Australian Division Inc.

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Committee 2010

Chairman: Jon Pike

Vice Chair: Eugene Holzapfel

Secretary: Neville Probert

Treasurer: Robin Stanier

Committee: Rick Agnew, Martin Aubury, Stefan Brieschenk, Sue Burdekin, Keirin Joyce, Rob Lee, Ian McIntyre, Andrew Neely