



ROYAL AERONAUTICAL SOCIETY

www.raes.org.au

AeroNEWS

Newsletter of the Canberra Branch of RAeS, Australian Division Inc. - December 2010 -

Introduction

On 14 December the Branch will hold a brief Annual General Meeting and we are still keen to have a few more nominations for the 2011 Committee. Please contact me or any Committee member for information. Following the AGM there will be a short talk on post-graduate aeronautical research at ADFA. See below.

Also, if you are a tertiary student interested in free tickets for next year's Avalon Airshow (or know any who may be), note the offer detailed below and at <http://www.raes.org.au/avalon-airshow-2/>.

Reminders

- Branch meetings are open to all who are interested in aviation. So please distribute this Newsletter widely, publicize lectures and urge colleagues to attend.
- You need not join the Society to attend Branch lectures but please consider doing so. There are Grades to suit all levels of involvement with aviation and the many benefits are summarized at <http://raes.org.au/membership>, along with application forms. Or phone me and discuss.
- If you do not get your own copy of this Newsletter and want it, just ask. It is sent by e-mail to anyone who is interested. Hard copy Newsletter is available by mail but only to members of the Society or paid up Friends of the Branch; even to them we prefer to send it electronically; saving trees, time and money! If you still get the Newsletter by mail and can change to email please do so.
- Conversely, if you receive this Newsletter but are no longer interested in Branch activities please ask and we will remove you from distribution.

As usual there will be no Branch meeting in January. On 8 February regular monthly meetings begin with a presentation by Mr Michael Monck on prospects for a new, general aviation airfield near Canberra.

This being the last Newsletter until February, on behalf of the Committee we wish everyone a Happy Christmas and a peaceful, prosperous New Year

Martin Aubury,

Newsletter Editor

ozaubury@home.com.au, tel. 6255 2347

December Lecture and AGM

Tuesday 14th December

6.00 pm at Military Lecture Theatre, ADFA.

Agenda for Branch Annual General Meeting is:

- Introduction and Apologies
- Review of the Minutes of the 2009 AGM, (these will be distributed at the AGM or are available beforehand from the Secretary)
- Chairman's Report
- Treasurer's Report. Note that audited Financial Statements for the period ending 30 June 2010 are posted on Branch web site.
- Election of Committee for 2011. More nominations are very welcome
- Any Other Business. As mentioned in formal notification of the AGM a month ago, any motions to be put at the AGM must be advised to the Secretary at least seven days prior to the meeting. None have been advised.

Following the AGM Priyanka Dhopade (PhD candidate at UNSW@ADFA) will discuss recent and topical research on "Fatigue of Gas Turbine Blades".

Before the lecture please join your colleagues for refreshments in the Officers Mess, and afterwards you are welcome to join the Committee and speakers for dinner.

Report on November Meeting

A joint meeting with the Guild of Air Pilots and Air Navigators heard The Master of GAPAN, Dr Michael Fopp FRAeS, talk about **"The Battle of Britain, 70 Years On"**.

He began his lecture by playing Churchill's famous speech in June 1940. *"The battle for France is over. The whole fury and might of the enemy must very soon be turned on us. The battle of Britain is about to begin"*. Dr Fopp speculated that the Battle of Britain must be the only battle that was named before it began, and later had victory declared before it was over.

Fopp credits Air Chief Marshal Hugh Dowding, Commanding Officer of RAF Fighter Command, as the architect of victory. He was responsible for the creation of the "Dowding System" – the early radar system and a network of ground observers linked by telephone to *RAF Bentley Prior*, his HQ. It was not unlike the modern internet. There was also a system for raid plotting, and a ground-air-ground communication system. Luftwaffe communications were nowhere near as sophisticated.

RAF Spitfires and Hurricanes gained a vital power increase between the air war over France and the Battle of Britain, due to higher octane fuel becoming available from the USA. In contrast, the Luftwaffe only had 80 octane fuel. Also RAF was better able to repair its damaged aircraft; dedicated repair teams returned 60% of them to service.

Luftwaffe clearly had superior firepower. Luftwaffe fighters typically flew in a loose formation of four aircraft called a "finger four". This allowed all four pilots to look outside the formation. RAF at the time flew in a closer formation that demanded attention to station keeping and had an exposed "tail-end Charlie". This was surprisingly effective when "Charlie" was an experienced combat pilot able to find the enemy aircraft and alert his formation. Too often, "Charlie" was the squadron newcomer, and vulnerable to a very high loss rate.

Luftwaffe had floatplanes and a network of small boats in the Channel to rescue downed aircrew. In contrast, the RAF had no organised air-sea rescue service. Nor did RAF pilots have specialised flying outfits, often flying in their "No 1 Uniform", including neck tie!

Luftwaffe leadership at squadron level was very good but at highest level was very poor. Thus the Luftwaffe "lost the Battle of Britain".

Free Tickets for Avalon Airshow

The Avalon Airshow is on from March 1 to 6 next year. Details, along with some great video clips from past shows are at: <http://www.airshow.net.au/avalon2011/index.html>.

RAeS, acting on behalf of Aerospace Australia Ltd, has arranged free admission for "Aerospace Student Professionals". The offer is for any one of the 3 Trade Days of Tuesday 1 March, Wednesday 2nd, or Thursday 3rd.

To apply, visit <http://www.raes.org.au/> and select the Avalon Airshow 2011 link. Be quick to nominate your preferred day of attendance, as each day has a limited number of tickets available! Cut-off date for applications is Wednesday 24 February 2011.

An "Aerospace Student Professional" is defined as any University or TAFE student undertaking tertiary courses throughout Australia in aerospace engineering, aviation sciences or technology, or technical trades, who shows a keen interest in pursuing a career in the Aerospace, Aviation and Defence industries. The primary focus of the program is on students in the final two years of their study; however, other applications from eligible students (eg, 1st & 2nd years) will be considered.

Weird Wide Web

Aircraft maintenance has had a lot of media attention lately. By way of comparison have a look at how wheel replacement was done in the 1920s! http://www.youtube.com/watch?v=8oAzdbd0J2A&feature=player_embedded

Suggestions in this snippet mainly come from readers. So if a quirky site amuses you, tell me.

Dates for the Diary

Tuesday 14th December

Branch AGM and Presentations on Aeronautical Research at ADFA

Tuesday 8th February 2011

Branch Lecture

Mr Michael Monck on **"Canberra's second airport"**.

Tuesday 8th March

Branch Lecture

Mr Jim Coyne on **"Civil Applications for UAVs"**.

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

GPO Box 1056, Canberra, ACT 2601

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