



**ROYAL  
AERONAUTICAL  
SOCIETY**

## **AERONEWS**

### **Newsletter of the Canberra Branch of RAeS, Australian Division Inc. - August 2011 -**

#### **Introduction**

Welcome back after the Branch's short mid-winter break! The next Branch lecture on 9 August will be given by Mr Jim Coyne of CASA, on civil uses of Unmanned Aircraft Systems.

As usual this lecture is open to all, so please circulate the Newsletter widely and urge colleagues to attend.

Although you need not be a member of the Society to attend lectures, we encourage everyone interested in aviation to join. There are appropriate grades for all levels of involvement and membership includes subscription to the excellent Aerospace International magazine. Information and forms are at <http://www.raes.org.au> or call me on 6255 2347 to discuss.

If you do not get your own copy of this Newsletter and want it, just ask. If you are one of the few who still get it by mail and can change to the electronic version, please tell us. It saves time, trees and money. Or conversely, if you are no longer interested in Branch activities, ask and we will delete you from distribution.

Martin Aubury,

Newsletter Editor

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#### **August Lecture**

##### **Tuesday 9 August**

6.00 pm at Military Lecture Theatre, ADFA

Mr Jim Coyne of CASA on ***"Unmanned Aircraft Systems Developments in Civil Airspace"***

Unmanned Aircraft Systems (UAS) are a relatively new part of civilian aviation, one which CASA, the International Civil Aviation Organisation (ICAO), national aviation authorities and industry are working to understand and develop. These systems are based on cutting edge technologies, offering advancements which may open new and improved civil/commercial applications as well as improvements to the safety and efficiency of all civil aviation.

Mr Coyne's presentation will describe what a UAS is, the work being done by ICAO's UAS Study Group, and issues facing ICAO. The presentation will also provide an update on Australian regulatory developments and the work being done by CASA and the Australian aerospace industry.

Jim Coyne is the manager of the Future Technology and Regulatory Trends Branch in CASA. One of his roles is to ensure CASA looks proactively at what is ahead for Australian aviation. This 'future' function will anticipate the impact on CASA and the Australian aviation industry of new technologies and approaches to safety regulation. UAS are a key new technology coming into this category and are therefore a current focus for Jim. He is also the Chair of ICAO's UAS Study Group.

Jim holds a Bachelor of Engineering (with honours) in Electronics and Communications from the Queensland University of Technology, and a Master of Science in Aerosystems Engineering from Loughborough University of Technology, UK. Jim has spent the past 19 years with CASA, after 21 years in the RAAF.

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

#### **Report on June Meeting**

Air Vice-Marshal Kym Osley AM CSC described progress with acquisition of the F-35 Joint Strike Fighter (JSF) and the ***"New Air Combat Capability for Australia"*** that it will provide.

There are three variants of F-35. Australia is purchasing the conventional take-off and landing variant, of which 1700 will be produced for the USAF. The other two variants are for naval carrier use (approx 500 to be produced) and a short take-off and vertical landing variant (approx 300-400 to be produced).

The F-35 has been described as "an F/A-18 on steroids." It has greater range than the F/A-18, is designed to +9 load factor and will have a retirement life of 8000 hours, which should allow it to operate until circa 2046.

The F-35 is a stealth aircraft, with all weapons carried internally. It will be able to fly to within 50 - 20 nautical miles of the enemy before the enemy can detect its presence. Sensors all around the aircraft will detect threats and show them on the pilot's visor; whereas the actual cockpit display is simple – likened to that of a Cessna 150. For the electrically-minded, the F-35 will have a 270 volt battery!

Six F-35 aircraft are already in test at Edwards AFB, training of pilots starts in 2014 and the first squadron will form in 2018. US Marines need it “now” because their AV8s and F/A-18s are “worn out”.

AVM Osley expects the aircraft to be delivered on time in 2018 and that many Australian companies will be involved in the project and in producing components for the F-35.

## Safeskies 2011

Australia's Safeskies Conference is one of the pre-eminent global conferences on aviation safety and was recently awarded the prestigious Honorary Group Diploma for Aeronautics by Federation Aeronautique Internationale.

The 10<sup>th</sup> biennial Safeskies Conference will be held on Wednesday 26 and Thursday 27 October at the Hyatt Hotel in Canberra. Its theme for 2011 is **Future Growth: Future Challenges.**

The conference will open with a powerful panel of the four members of the Aviation Policy Group: Mike Mrdak, the Secretary of the Department of Infrastructure and Transport, Air Marshal Mark Binskin, Chief of Air Force, John McCormick, Director of CASA and Greg Russell, CEO of Airservices Australia.

Other high-profile invited speakers include:

- Kevin Humphrey, Director Safety Regulation, Irish Aviation Authority
- Martin Dolan, Chief Commissioner ATSB
- Dr Kathy Abbott, NASA Ames/FAA project
- Group Captain Alan Clements, Director Defence Aviation and Air Force Safety
- Lt Col Raymond E King, USAF
- Yanick Malinge, Head of Safety Airbus
- Greg Marshall, BHP Aviation, BARS Program Manager
- Vince Galotti, Deputy Head, Air Navigation Bureau, ICAO

Preceding the Conference, at a Parliament House dinner on Tuesday evening, Australian astronaut Dr Andy Thomas and his wife, fellow astronaut Dr Shannon Walker will jointly present the Sir Reginald Ansett Memorial Lecture.

For more information: [www.safeskiesaustralia.org](http://www.safeskiesaustralia.org)

## Weird Wide Web

With the recent withdrawal from service of NASA's Space Shuttle it is timely to reflect on its history. NASA has a comprehensive, searchable archive at <http://history.nasa.gov/shuttlehistory.html>.

A lengthy, very wide ranging paper at <http://www.history.nasa.gov/sts1/pages/scot.html> not only explains why the shuttle has wings, but also delves way back into the history of many aviation developments, including intriguing discussions on the introduction of retractable landing gear and on the sudden switch from wood to metal construction. Personally I think the paper misses a big reason why timber so quickly fell from (public) favour in the 1930s. A well publicized failure of the ply-wood structure of a Fokker F10 killed a deeply revered footy coach!

## Dates for the Diary

**Tuesday 9 August** *Branch Lecture*  
Mr Jim Coyne on *“Civil Applications of UAVs”*

**Tuesday 13 September** *Branch Lecture*  
*Multi-role Tanker Transport*, to be confirmed.

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

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#### Committee 2011

**Chairman:** Jon Pike

**Vice Chair:** Eugene Holzapfel

**Secretary:** Neville Probert

**Treasurer:** Robin Stanier

**Committee:** Rick Agnew, Martin Aubury, Sue Burdekin, Keirin Joyce, Robert Lee, Dilip Mathew, Ian McIntyre, Andrew Neely

**Global Website:** <http://www.aerosociety.com>

**Aust. Division:** <http://www.raes.org.au>