

The Melbourne Branch of the Royal Aeronautical Society

# Newsletter

September 2010



## From the Editor

Last month was a busy month, with two key events. The annual Aerospace Industry Night was a tremendous success, with several hundred people attending the event.

The following week, RAeS and RMIT University celebrated the Centenary of John Duigan's first flight at Mia Mia in 1910, with an evening at Storey Hall in Melbourne. Speakers included Terry Egan (Project Manager for the Duigan replica team), Gwynne Duigan (Matriarch of the Duigan family), and Joachim Szodruch (Director at the German DLR).

This month, we have Dr. Allan Paull who will be speaking about Australia's Hypersonic research programs—don't miss it!

Also this month, *The Transponder* is back with this year's winner of the RAeS Melbourne Branch Student Prize, and so too is the *Guess-The-Pic* competition. Submit an entry for your chance to win dinner on us!

We look forward to seeing you at an event very soon.

Best Regards,  
Luke Webb

**\$1,032,876AUD**  
*per day*

*Profit (pre-tax) the Qantas Group made per-day in the 2009/10 financial year (about \$337 million, compared to \$100 million in the 2008/09 financial year)*

## September Event—Hypersonics Research

### Presented by:

Dr. Allan Paull, Adjunct Professor,  
University of Queensland

### Date:

Monday 13th September 2010

### Time:

6pm for 6.30pm start

### Where:

Engineers Australia Auditorium,  
21 Bedford St, North Melbourne

### RSVP:

Not required. All welcome to this free event

### Overview

Hypersonics is a diverse field and there are many activities being undertaken to reach the ultimate dream of accessing space with airbreathing hypersonic technologies. This seminar will give a brief overview of these activities being undertaken in Australian Universities and their collaborators.



## Australian International Aerospace Congress

The Australian International Aerospace Congress (AIAC) series is the pre-eminent aerospace forum in the region, held in Melbourne every two years during the week of the Australian International Airshow at Avalon (March, 2011)



Following on the format of the previous two events, AIAC14 will incorporate the 14th Australian Aeronautics Conference, 7th DSTO International Conference on Health & Usage Monitoring (HUMS2011) and 3rd Asia-Pacific International Symposium on Aerospace Technology (APISAT 2011). Associated events will include the Chief of Air Force Conference and AVALON 2011 – Australian International Airshow and Aerospace & Defence Exposition.

Members of the international aerospace community are invited to submit abstracts for proposed papers and technical briefings that are consistent with the overall Congress theme and topic areas for the three conferences. **Abstract Submission (for non-refereed papers) closes on 24 September 2010.**

For more details and to submit abstracts, please visit [www.aiac14.com](http://www.aiac14.com)

The Melbourne Branch of the Royal Aeronautical Society presents

# Australia's Hypersonic Research Programs

Presented by

**Dr. Allan Paull**

Adjunct Professor

University of Queensland



## Overview

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## About the Centre for Hypersonics

Hypersonic aerodynamics has been a major research activity at The University of Queensland over the last 20 years. The researchers in this group have been active internationally and, during that period, have been involved in collaborative research programs with about 20 universities and research organisations around the world. In November 1997 the University of Queensland Centre for Hypersonics was formally established jointly between the Departments of Mechanical Engineering and Physics.

The Centre is responsible for the HyShot scramjet program.

**Monday 13th September 2010**

**6.00pm for 6.30pm Start**

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21 Bedford St, North Melbourne**

**All welcome to this free event**



## The Transponder—with the RAeS Student Prize Winner for 2010



**Thomas Baum**  
PhD Research Student  
RMIT University

### ***How would you describe yourself?***

Just a normal person who loves what he does

### ***Education & Background***

B.Eng Aerospace Engineering from RMIT

### ***When did you first know you wanted to work in aeronautics?***

From a very young age I always interested in aircraft and spacecraft. I built my first R/C glider when I was about 12 and thought I would like to design and build aircraft one day. I really didn't know what I had to do to become an "aircraft builder" being so young. The first focused direction towards aerospace engineering came in year 10 when I was looking for courses at Universities.

### ***Describe one of the most rewarding projects you have worked on.***

Spending 6 months working for Rolls-Royce Deutschland in Berlin there were a number of projects that I worked on that were very rewarding.

### ***Favourite aeronautical feat or moment?***

Can't beat the pioneering years of flight.

### ***What do you enjoy doing in your spare time?***

With the little I have I generally spend it working on a number of designing and building a number of small projects with friends.

### ***Volunteer Involvement?***

None involved with aerospace

### ***Favourite Aircraft?***

Love the design and look of NASA's X-36 experimental, but can't go past the vintage of the Spitfire.

### ***What are your hopes for the future of aeronautics in Australia?***

I have two hopes: one for aeronautics and one for astronautics. For aeronautics, I hope that Australia may one day have a strong global position in aircraft manufacturing and collaboration on international projects to allow graduates to work on state of the art engineering processes and technologies. Also , I have a strong belief that Australia should become more involved in space and sub-orbital system design and testing as this is the future for flight and travel.

## Aeronautical News Brief

### **Jetstar fills the Virgin void on NZ routes**

JETSTAR has moved quickly to fill the void left by Virgin Blue's decision to quit its loss-making domestic New Zealand routes. And it plans to challenge the number of seats its rival is allocated on the Fiji route after the decision to axe V Australia services there. The Qantas offshoot had already announced it was adding a seventh Airbus A320 to its New Zealand fleet in December, but said yesterday that it would add an eighth by early next year.

### **QantasLink grounds Q400s**

Qantas Airways' regional carrier QantasLink has grounded five of the 21 strong Q400 fleet following an inspection by the airline of the main landing gear component. The inspection was undertaken after QantasLink received news that UK carrier Flybe had experienced problems with the landing gears on some of its Q400s. As a consequence, QantasLink has had to cancel a number of flights, particularly on the Canberra-Sydney route.

### **Chile, Brazil Airlines Plan Massive Merger**

Chile's LAN Airlines and Brazil's TAM announced plans on August 13 to bring their operations together under a joint holding company. At present share prices, the merged company would have the third-highest market capitalization in the world, at around \$11.8 billion. The two companies' combined revenues of \$8.5 billion in 2009 would have positioned the merged operation among the world's top 15 airlines.

### **Last exercise for Australia's F-111s**

F-111s of the Royal Australian Air Force have taken part in their final exercise before retiring from service at the end of 2010. Four F-111s from No. 6 Squadron RAAF Amberley, Queensland, took part in Exercise Pitch Black, which commenced July 16. After 37 years, the iconic F-111s are the longest serving aircraft currently in the RAAF fleet.

[Sources: The Australian newspaper, Forbes.com, Defence Media, and Aviation Week ]

## Branch Committee

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Andrew Harrington

**Hon. Treasurer:** Anthony Patti

**Events Manager:** Crystal Forrester

**Asst. Events Manager:** Cynthia Chen

**Webmaster:** Stratos Patsikatheodorou

**Newsletter Editor:** Luke Webb

**Membership Secretary:**

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**Committee Members:**

A/Prof. Cees Bil

Air Cdre Noel Schmidt

Karen Trezise

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Opinions expressed in this newsletter do not necessarily represent those of RAeS, the Melbourne Branch or the Editor. Promotion of external events does not imply endorsement by RAeS. Contributions and feedback are welcomed (however we cannot guarantee publication). Contributions highlighting Australian developments, innovations and ideas in aeronautics are most encouraged.

## Guess The Pic—and win!

This month, we present the second photo for expert identification. Remember to send in your own photos for a more challenging competition - from an Airshow, from your latest overseas trip, or from plane-spotting next to Runway 16! Send photos to [raesnewsmelb@gmail.com](mailto:raesnewsmelb@gmail.com)



### The Competition

Every few months we'll have a photo for members to identify to test out their aircraft knowledge.

### The Prize

The Branch will pay for your dinner at the next post-lecture dinner (named lectures not included) to the value of \$30. Alcohol not included.

### To Enter

Send an email to [raesnewsmelb@gmail.com](mailto:raesnewsmelb@gmail.com), or send us a letter by the 25th of September. Remember to include your membership number, contact details, and your answer. Correct answers will be placed into the draw. The winner will be announced at the October lecture.

If undeliverable return to:

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