



THE UNIVERSITY
OF ADELAIDE
AUSTRALIA



The University of Adelaide
Student Branch

Of

The American Institute of
Aeronautics and Astronautics



ANNUAL REPORT 2005

School of Mechanical Engineering
The University of Adelaide
Adelaide, 5005
South Australia
AUSTRALIA



MEMBERS 2005

Faculty Advisor

Dr Gerald Schneider
Dr Matthew Tetlow
Ms Sarah Crook

Returning Officer

Ms Sarah Crook

AIAA Adelaide Section Advisor

Mr Mark Bateup
Mr Michael Evans

Executive Committee Members

President	Justin Hardi
Vice President	Elise Middleton
Secretary	William Pham
Treasurer	Julie Barnes
UAV Team Leader	Stewart Jones
Webmaster	Andrew Sysouphat

General Committee Members

Rogan Shimmin
Artur Medon

AIAA Student Branch Members (57)

Ali	Daniel	Harch	Rachel	Mills	Rebecca
Andreacchio	Anton	Holmes	Joshua	Nouju	David
Babu	Vishrantha	Huong	Tsun Tan	Neale	Brett
Baillie	Callum	Humphrey	Andreanna	Nicholson	Zac
Bennell	Julie	Hynd	Grace	Ocallaghan	Michael
Boyd	Andrea	Iliescu	Daniela	Paice	Andrew
Centa	Arien	Ismail	Tajol	Pietsch	Martin
Chan	Kevin	Jeffs	Andrew	Pilkington	Bryan
Clark	Miguel	Jones	Richard	Playford	Brian
Cowling	Michael	Kaesler	Nathan	Read	Matthew
Craig	Stephen	Kohlhagen	Emma	Robinson	Max
Cranston	Jarrad	Lee	Anne	Rogers	Christian
Dunbar	Ricky	Lin	Mark	Shiell	Wade
Dung	Ta Quoc	Lomas	Ian	Stradwick	Sarah
Eckermann	Dayne	Luu	William	Ta	Nguyen
Faulkner	Ryan	Mamaril	Don	Tang	Edith
Forrester	Crystal	Marshall	Thomas	Tsuchiyame	Masahiro
Hall	Leonard	McMahon	Simon	Young	George
Hamra	Michael	McNamara	Heidi		

Membership Summary

Year	2000	2001	2002	2003	2004	2005
Total Members	31	90	44	39	50	66



PRESIDENT'S REPORT 2005

The renewed interest in aerospace at Adelaide University, generated by the commencement of an Aerospace Engineering degree last year, was sustained this year and has strengthened the club's place at the University. Our most popular event, the Aerospace Careers Night, was again a success and saw further increase on membership numbers over last year. The Unmanned Aerial Vehicle (UAV) program was put on hold this year, however some new events were introduced and their welcome reception suggests they may be around to stay. Running a stall during O-week and upgrading the club's website helped to raise awareness of the club and its goals amongst new students, and our tie with affiliated club SPACED was also strengthened.

YURI'S NIGHT

One of the new events run by the club this year was a social night, intended to be a welcome event for our members. Brainchild of Returning Officer Sarah Crook, the event was held at the Queens Arms and coincided with Yuri's Night - World Space Party, an annual, international event celebrating the anniversary of Yuri Gagarin's historical orbital space flight. Although member attendance didn't quite meet expectations, the pub night shows promise for becoming a regular event and a fun way to kick off the club's activities for the year.



Cheers to Yuri! - vodka shots at midnight



Sarah, Rogan and Will having a photo taken for the Yuri's night website



Elise and Sarah doing what they do best - pose for the camera with frosty sideways beer glasses



CAREERS NIGHT

The annual Aerospace Careers Night was held in May and attracted a large number of new members to the club, with a further increase in numbers from 50 in 2004 to 66. Four guest speakers, instead of the usual three, spoke for about 20 minutes each on their involvement in South Australia's aerospace industry and how their career paths lead them to where they are now. Many thanks must go to FLT LT Tony Goad from the RAAF Aircraft Research and Development Unit (ARDU), John Davies from Tenix, Dr. Matt Tetlow (a Mechanical Engineering research fellow at Adelaide University) and Sarah Crook (a postgraduate at Adelaide University and our Returning Officer) for their thought provoking presentations. Following these presentations many students took the opportunity to chat with the speakers over pizza and soft drinks. The event was, as always, a great success and a pleasure to run, even though the pizza ran out in no time flat. (Note to next year's committee: students are getting hungrier - buy more pizza).



The Careers Night speakers; (from left to right) FLT LT Tony Goad from ARDU, John Davies from Tenix, our very own Sarah Crook, and Matt Tetlow isn't pictured (he's probably off eating all the pizza), so here's a picture of Matt by himself...





RAAF EDINBURGH TOUR

FLT LT Tony Goad, who spoke at the careers night, proved to be a valuable contact for the club to have inside the RAAF. Tony gave up a significant amount of his valuable time to organise a tour of the RAAF base at Edinburgh for a group of our members. The tour ran for a whole day and Tony showed us around several engineering support facilities on base, including non-destructive testing, engine build up and maintenance hangers. Upon arrival at the base we were treated to an impromptu flyby by a formation of F/A-18 Hornets and we were also very lucky to find another Hornet, a Black-Hawk helicopter, a P-C9 turboprop and a brand new ARH Tiger helicopter in the ARDU hanger for a close up look. We were also led on a thorough inspection, inside and out, of a P-3C Orion being serviced. The club is extremely grateful to Tony for making the tour such a genuinely informative and enjoyable experience, and we hope it may become a regular event. With any luck, Tony may be our host again as it was easy to see he enjoyed himself as much as we did! Thanks also to club Vice President Elise Middleton for coordinating the tour with Tony.



The group outside the RAAF base after the tour. Unfortunately we weren't allowed to take cameras on base, but some of us did buy stubby holders with a picture of the ARH Tiger on them from the maintenance engineers!

GUEST SPEAKERS

A series of fascinating talks was also provided by various bodies such as the AIAA local branch, the IEEE, and the IEAust, with many members taking advantage of free entrance. Topics included the space shuttle Challenger disaster, advanced aerospace propulsion research, and space tourism.



The Student Branch also organised a talk of its own this year. Kirby Ikin, President of the National Space Society of Australia, its parent organisation the National Space Society, and CEO of Asia Pacific Aerospace Consultants, travelled from Sydney to talk to the club about the future of Australia's space industry. Kirby has a commerce and law background, and it was refreshing to get a different perspective on Australia's direction in the space industry. The talk had strong attendance and many people took the opportunity to talk to Kirby after his presentation. In fact, we had to tear him away from some enthusiastic audience members so he could keep his dinner reservation!

The Adelaide Section of the AIAA was visited this year by two representatives from AIAA headquarters in the US. Several members from the Student Branch committee also attended the reception where we learned in more detail about the structure of the AIAA as well as what opportunities are available to Australian chapters. The reception also gave us the opportunity to give feedback directly to our parent organisation on how we could benefit further from AIAA affiliation.

By far the highlight this year's events was a talk by Burt Rutan entitled 'Space, for the rest of us.' The student branch had an active role in organising and running the event, which was extremely successful. A near-capacity crowd made up of students, professionals and the general public filled Union Hall to hear Burt give a truly inspirational talk about his experiences in the aerospace industry and current development of affordable space tourism. Some of the committee members were honoured to join Burt and his wife Tonya for dinner following the talk. All those from the Adelaide Chapter of the AIAA and the Student Branch who had the chance to spend time with Burt and Tonya during their visit to Adelaide thoroughly enjoyed their company.

These talks run by the Adelaide Chapter of the AIAA or the Student Branch are not only fascinating, but they give our members a broader view of aeronautics and astronautics, as well as the opportunity to interact directly with international leaders in the field.



UNMANNED AERIAL VEHICLE PROJECT

After making excellent progress in recent years, the club's UAV program was unfortunately put on hold this year as our UAV Program Coordinator, Stuart Jones, was away on exchange. Talks with affiliate club SPACED nearly resulted in the launch of a cooperative sounding rocket development program to provide an alternative design and build activity for club members. Although showing promise as an excellent longer term project for the club to be involved with, the program did not eventuate. The club may choose to review this possibility in the future, however the UAV program will certainly continue next year, with Stuart having already made strong plans for its direction.

OTHER CLUB ACTIVITIES

The student branch ran a stall in O-week for the first time this year and it was a great way to chat with new students about their interests and about what the club might be able to offer them, as well as sign up new members. The committee has definitely seen the benefit in running this stall every year from now on.

The position of Webmaster was added to the committee this year, with Andrew Sysouphat filling the role. Andrew did an excellent job upgrading the website and making it easier to keep up-to-date in the future.

The Adelaide University Engineering Society (AUES) revived their yearbook publication 'Hysteresis' this year, printing the first issue in 35 years. I would like to thank immediate past president of the AIAA Student Branch Rogan Shimmin for writing an article for the magazine summarising the activities of the club over the past few years. Hopefully the article will help to raise awareness of the club amongst engineering students, and I'm sure we will continue to submit articles for Hysteresis in the future.

The club strengthened its relationship with affiliate club SPACED this year, with reciprocal rights offered to members of each club on each other's activities. AIAA members took the opportunity to join SPACED on their observatory trips, and similarly SPACED members attended AIAA run presentations and the careers night. The AIAA Student Branch committee also entered a table in the inaugural SPACED quiz night and earned a respectable fourth place, despite drinking the most beer!



I encourage all our members to get involved in student branch activities next year. Although it may seem the club is not doing much for most of the year, the executive committee is busily trying to organise events. The more people and the more ideas we have, the more the club will have to offer its members!

Finally, I would like to extend my thanks to all the committee members for their hard work this year, especially those who managed to do final year engineering subjects and put time into the club as well. Many thanks also to Dr. Matt Tetlow and Gerald Schneider for their support, and to Sarah Crook who did an excellent job in her first year as Returning Officer. Sarah's enthusiasm for the club and for aerospace in general is inspiring. Last, but by no means least, many thanks go to the Adelaide Chapter of the AIAA for their continued support.

Justin Hardi

President, AIAA Student Branch