



### The Airshow.

The 2013 Airshow was once again held at the Avalon Airfield which is only 20klms from Geelong on the 3 lane Geelong to Melbourne Road. As usual, the show went ahead without a hitch due solely to the enormous amount of preparation that goes into this very professional event. Being at the show a week before it started and being able to watch it “grow” was a fascinating experience. What starts out as a large open paddock is quickly transformed into a small “city”. An army of people descends on the place and very quickly hundreds of star pickets are hammered into the ground, fences are strung, truck-loads of gravel are dumped to make all weather roads, transportable buildings are strategically placed then connected to generators which provide 24 hour light and power, most are air conditioned, plumbing is laid to supply fresh water and to discharge waste, toilets are plumbed, tents and huge Exhibition Halls are erected, all of which are also supplied with underground power.



Other people source and sort uniforms, allocate display space for exhibitors, erect road signage, mark out car parking areas, arrange accommodation and meals, handle documentation and allocate aircraft arrival times and parking facilities and while this is being accomplished, others provide food and drink for the “workers”. A truly momentous undertaking and one of which the organisers can be rightly proud.



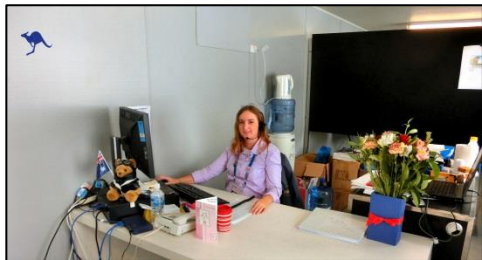
Most of this “work” is done by volunteers, people who gladly give of their time to be part of the event but finding, handling and allocating all these people to relative “jobs” is a huge task in itself, a job that is handled by the very capable and very charming Karen Scott. Karen has been involved with several Airshows and is a “Permanent” – she is already working on the 2015 show.

The pic below, which was taken in 2011, is practically an exact copy of the 2013 show – if you’ve still got the aeroplane buzz running through your veins, and you’ve never been to a show, think about volunteering, mark March 2015 in your calendar, you will enjoy it immensely and Karen would love to see you.





Prior to each show, AirServices Australia, the mob that used to be called DCA, (back in the days when you could understand things – and before a VFR helicopter pilot .....), issued a supplement to the [Aeronautical Information Publication](#) (AIP) which states, among other things, that prior to entry to Avalon, all aircraft operators must obtain prior permission from Airshows Downunder. They do this by filling in an application on line which eventually goes to the lovely Laura Dillon (left). Laura checks the hundreds of applications to ensure they have been filled in correctly, then when satisfied that all is OK, she sends them off to



the effervescent and gregarious Erin Muscat at Air Movements who allocates a landing and departure time for each aircraft. We wondered about that bunch of flowers in Laura's office and the scuttlebutt was she received them from a grateful pilot who she managed to squeeze in. We also see that the Phantom Blue Roo Depositor (PBRD) had paid a visit to Laura's office.



Laura and Erin – at the busy Air Movements desk.

Once the aircraft have been accepted and allocated an arrival and departure time, they must be found a parking space on the airport. As can be seen from the airport pic above, most of the taxiway it used as parking area for aircraft and viewing area for the thousands of spectators so it is important that aircraft must be carefully and selectively parked from the middle out, as once you're in there is usually no way out until the aircraft beside you is moved.

# RAAF Radschool Association Magazine. Avalon Air Show 2013 Special Edition.



This job is handled by Rudi De Graaff who must place every aircraft on the airfield. Rudi has two criteria, aircraft of different type and/or size are parked together, it would not be suitable to park a C130 amongst a bunch of ultra-lights for example and aircraft that intend to stay longer must be parked "in the middle" so others don't have to be moved to get them out.

Rudi has been doing this job for some years and he's pretty good at it. Of the 285 aircraft on display, he can tell you exactly where each one is. Some say this is because he spends all day out there and not in his office – but that's a bit unkind!!



The photo below, overlooking the RAAF display area, shows where some of the aircraft were parked.



And the show was not just all for the grownups, there were lots of interesting things for the little (and not so little) ones to enjoy.

During Trade days, car parking was not a huge problem but during the 2½ public days, if you weren't there early you could have a substantial walk before you got to the gates.

This was obviously considered by management who provided a sensible alternative.



The smart way to get to the show was to catch the train to Lara Station and then hop on one of the fleet of shuttle buses. The buses, which ran continuously during the day, delivered commuters right to the gate then took them back to Lara at the end of the day. No parking problems, no long walk – very smart indeed!



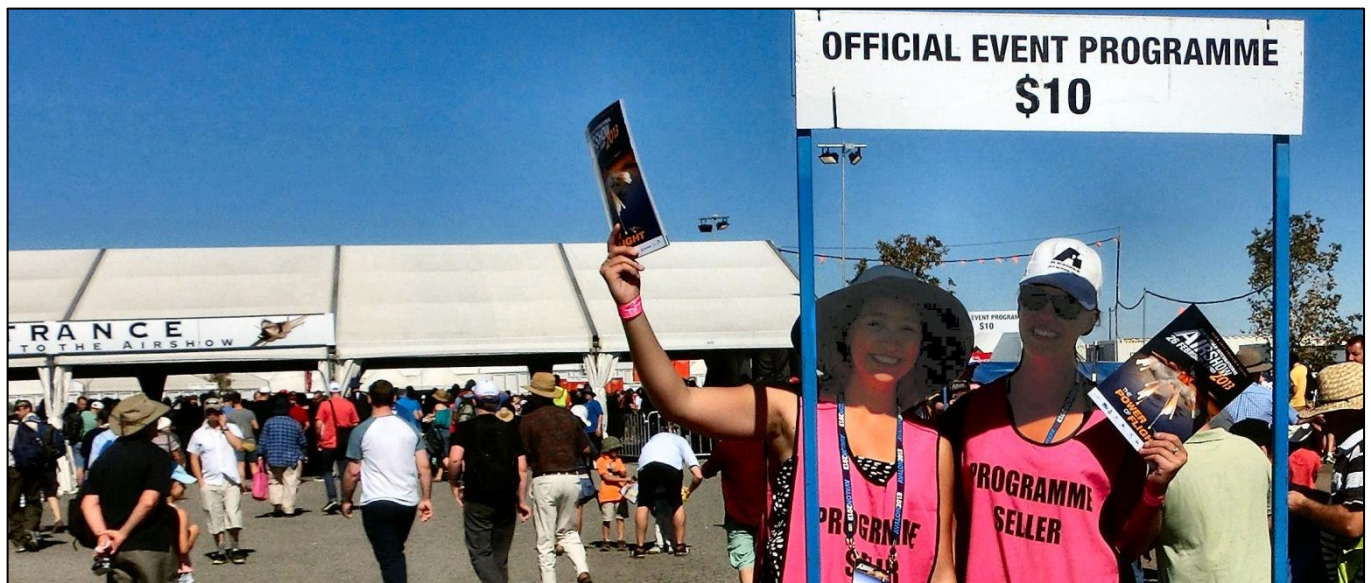
How it looked prior to opening.



This is how it looked on the Sunday



And who in the crowd could resist buying a program from these two lovely girls???



L-R: Sabina Stellmaker and Julie-Ann Johnson

Three large interconnecting Exhibition Halls had been erected and were filled by 601 different exciting hi-tech exhibitors, a near record number.



Inside the Exhibition Halls.



One such exhibitor was [Russian Helicopters](#). This company is a leading player in the global helicopter industry and is now the sole Russian rotorcraft designer and manufacturer. Russian Helicopters manufactures a wide range of civil and military helicopters ranging from light personal transporters to heavy lifters to fast attack military aircraft.



Headquartered in Moscow, the Company states it occupies a leading position in the fast-growing markets of India and China and is rapidly expanding its sales footprint in South and Central America, the Middle East and Africa.





Another group that needs no introduction to anyone associated with the ADF is the Thales Group. This France based Company is involved in the different fields of defence, security, space, aerospace and ground transportation and has 67,000 employees in 56 different countries.



Thales is one of Australia's largest defence partners, is a major provider of air traffic management systems in the Asia-Pacific region and is a growing force in the commercial sector.

Better known, perhaps, for their manufacture of the Army's Bushmaster vehicle, they are also involved in a wide spectrum of high technology products and services which include command and control systems, communications and mission management systems, electronic warfare, sonar and underwater systems, training simulators, avionics, air traffic management, soldier systems, munitions and protected mobility vehicles.



Thales has made a strategic investment in Australia over the past 20 years and is now a nationwide company with 3,500 employees at over 35 sites.

In Australia, perhaps better known for their cars than for anything else, the Swedish SAAB company (Svenska Aeroplan AB, which translates to "Swedish Aeroplane Limited") has long been involved in Military Defence and Civil security. Saab has divided its operations into six business areas: Aeronautics, Dynamics, Electronic Defence Systems, Security and Defence



Solutions, Support and Services and the independent subsidiary Combitech. With annual sales of 24 billion Swedish Krona (about US\$ 3.7 Billion) it is definitely a large player in the field.



SAAB has been in the aircraft manufacturing business since the 1930s. Its latest fighter aircraft is the [Gripen](#) which it has manufactured since 1997 and which is still in service with the Swedish Air Force. To date, 329 have been built. It also built the [Saab 340](#) and [Saab 2000](#) mid-range turboprop-powered passenger aircraft.

Anyone involved in aviation in Australia knows CASA – the Civil Aviation Safety Authority. CASA is the all powerful, all regulatory, all everything body that looks after all things aeronautical. If you have any sort of aircraft from a hot air balloon to an Airbus A380 and you want to do something with it – you have to see CASA. If you have just started to learn to fly or if you are an airline captain, CASA is the body that tells you what you should and must do.





CASA, which in June 2009 had 675 employees and whose mission statement says “*To enhance and promote aviation safety through effective regulation and by encouraging the wider aviation community to embrace and deliver higher standards of safety,*” is the regulatory body that ensures compliance with the [Civil Aviation Act 1988](#).

Airbus Industries were there keen to show off their A400 multi-national four-engine turboprop military transport aircraft. Designed by Airbus Military as a tactical airlifter with strategic capabilities, it first took to the air in December 2009 and is still undergoing flight testing. To date Airbus has received provisional orders for 174 aircraft from eight nations and was expected to start delivery later this year (2013) however, the project run into some problems. Initially there were weight problems then financial problems but those problems seem have been sorted and delivery is still hoped for this year although some orders have been cancelled or reduced.

Designed to slot somewhere between the Herc and the C17, the A400 can lift up to 37 tonnes in a cargo compartment that is 17.7 metres long (excluding ramp), 4.0 metres wide, and 3.85 metres high compared to the C130J which can lift 19 tonnes in a cargo compartment that is 12.5 metres long, 2.75 metres high and 3.05 metres wide.

On the A400, the pair of propellers on each wing turn in opposite directions, with the tips of the propellers advancing from above towards the midpoint between the two engines. The counter-rotation is achieved by the use of a gearbox fitted to two of the engines, and only the propeller turns in the opposite direction.



All four engines are identical and turn in the same direction which eliminates the need to have two different "handed" engines on stock for the same aircraft. This simplifies maintenance and supply costs though it does mean you need two sets of propellers. This configuration, dubbed DBE (Down Between Engines), allows the aircraft to produce more lift and lessens the torque and prop wash on each wing. It also reduces yaw in the event of an outboard engine failure.

Another company that preferred to show a model of its aircraft rather than the real thing was Alenia Aermacchi which has recently signed an agreement with the RAAF to provide ten C27 Spartan aircraft as replacements for the old Caribou.



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The RAAF is expected to take delivery of its first aircraft in 2015 and have them fully operational by 2016. They will be based at Richmond, where the RAAF's Caribous started out and they will fly under the 35 Squadron banner.

We were also told there was a family owned exhibitor which makes possibly the world's best microphones, ear-phones and head sets. This company is called Sennheiser and is a family owned international organisation based in Wennebostel (Wedemark), near the German town of Hannover. It employs approx. 2100 employees in 90 countries and has an annual turnover of just under 470 million Euros. Sennheiser has been in operation for more than 60 years.

We set out to have a look at their products but got distracted along the way. We've said it before and we'll say it again, this is a tough job but someone has to do it.





**The beautiful Sennheiser girls L-R: Nikki Pratt, Courtney Summers, Katie Nicol and Jill Sloan**

Not all exhibitors were inside the big Exhibition Halls, some were outside in smaller tents or in structures they brought with them.



This one looked good, though for some reason it didn't seem to attract a lot of interested onlookers.

Every Airshow has a number of spectacular events for the patrons to watch, one of which is usually quite outstanding. We feel Airshow 2013 had two such events, one was the unbelievable F22 aircraft, the other was the Breitling Aerobatic Formation Wing-Walker Team.

This amazing display consists of two 1940s open-cockpit [Boeing Stearman](#) aircraft, two pilots



and three very lovely, very fit and very brave girls (one girl gets a bye each flight). These petite yet fearless young ladies spend most of their working lives perched on the top wing of the Stearman, up to 500ft above ground, while the pilot tosses the aircraft through all sorts of aerobatic manoeuvres at over 150 mph with the girls experiencing 'G' forces of up to 4G!. Just being in the aircraft itself would be scary enough, but to be

bolted to the top wing, doing all sorts of gymnastical movements would be downright terrifying.



Based in the UK, the team, which is the only aerobatic wingwalking “show” in the world, has been wowing audiences for over 27 years. The girls perform a breathtaking sequence of acrobatic manoeuvres and handstands while the pilots fly the aircraft through a well rehearsed energetic routine of dazzling aerobatics and close formation flypasts including loops, rolls, stall turns and even inverted flight!

I went down to have a close look at the aircraft and the pilots and was captured by the girls who insisted on having their photo taken with me – well, you can’t refuse a lady, let alone three of them.



**The Wing Walker girls, L-R: Daniele Hughes, has been competing for 7 years, Sarah Tanner, 8 years and Freya Paterson, 1 year.**

Someone told us there were blokes in the team too, pilots they said, blokes who flew the aircraft, as hard as I looked I couldn’t find one.

Eventually we did get around to checking out the aircraft and had a look at the safety mechanism the girls use to get from the front seat to the top of the wing, all the time being buffeted by the airflow and the wash from the propeller.

There is a stout metal strut protruding from the top of the wing which has a rotating harness fitted to it. A securing cable has one end





attached at the top of the strut and the other end to the rear of the front seat. The girls wear a harness belt and before leaving the seat, use a sliding clip to hook a cable attached to their harness belt to the security cable. They then grab the handles built into the trailing edge of the upper wing and climb out. When up on the wing, they attach themselves to the rotating harness and then it's on with the show.



I couldn't or wouldn't do it even with the aircraft still on the ground!!!

During one of the early days of the show, one of the aircraft suffered an engine fault and had to perform an emergency landing on the grass on the western side of the airfield. One of the girls, Freya Paterson, was out on the wing at the time and as this manoeuvre has been practiced many many times, she was able to get back to her seat in the front of the aircraft in no time flat before the aircraft was safely landed.

Unfortunately, this reduced the show to one aircraft, but to our eyes it was still outstanding.

If you weren't there, have a look at [this video](#) to see what you missed.

**Words with two meanings - VULNERABLE (vul-ne-ra-bel) adj.**

Female: Fully opening up one's self emotionally to another.  
Male: Playing cricket without a box.