



## **ACADEMY PHILOSOPHY & OVERVIEW**

**Are you searching for:**        ...high-quality flight training?  
  ...more skill and confidence in your flying?  
  ...a new challenge?

The **Australian Aerobatic Academy** is a flight training organisation dedicated to providing high-quality basic and aerobatic flight training. Formed with the atmosphere of a club and the professionalism of a defence force in mind, the Academy's goal is to provide you, the customer, the best possible training and customer service in a fun, friendly and supportive environment.

**Why aerobatics?**        I have taken many students on their first airborne adventure. Some have approached it with much enthusiasm, others with caution. All have had some fear of the unknown. This is a perfectly natural feeling; after all, flight is still relatively new to humans, and still remains the domain of people who have been provided with special training and a device called the aeroplane to achieve.

Once in the airborne environment, most people initially act timidly; as if venturing into deep water for the first time. However, once shown that there is nothing the aeroplane can do which will hurt them, people react much differently. The fear of the unknown is gone – replaced purely by the elation of controlled flight.

The best way to show someone what an aircraft is capable of doing in the air is to have them perform two simple aerobatic manoeuvres – a loop and a roll. The Academy has students perform this on their *first flight!* From the outset, our students realise that complete control is in their hands. By adding to this correct techniques and knowledge, a capable, confident pilot is formed.

The world's air forces instruct their pilot trainees this way – why should civilian student pilots not benefit from the same instructional techniques?

**Get it right the first time!**        Any pilot's initial training is the most important training course he or she will ever complete. It is in this period that a pilot's habits, skills and attitudes are formed, and forms the basis of how he or she approaches every situation in the airborne environment from there on.

A pilot armed with a higher degree of skill and knowledge of aircraft operations will always be in a better position than a pilot who has a minimum level of both. A skilled and knowledgeable pilot will be able to recognise and react to abnormal situations more readily than the pilot who has never had such experience. To whom would you rather trust your life?

Because the Academy instils this knowledge and skill as an integral part of its courses, and not just an "add-on" or "optional extra", students of the Australian Aerobatic Academy are more confident and competent in their ability to handle an aircraft in flight, no matter the circumstances.

**The WRONG aircraft for the job?** It is an unfortunate fact of modern flying training that there are few dedicated training aircraft available. Read that last sentence carefully...notice I stated “training” aircraft?

Pre-, and early post-WWII, training aircraft consisted of Tiger Moths, Chipmunks, Stearmans and other such types which were completely capable of performing simple aerobatic manoeuvres. They were designed to teach student pilots the entire flight envelope in safety.

In the early 1960’s companies such as Cessna and Piper realised a market for touring style aeroplanes which embodied all the basic aspects of these flying machines, but were relatively easy to fly. These machines were designed for flying efficiently from “Point A” to “Point B” in relative comfort, for example, the Cessna 172 and the Piper Warrior.

Enter now the greatest marketing ploy in aviation history... Companies like Cessna and Piper soon learned that if a student learned on a machine built by their company, they would most likely buy an aircraft from the same company! So, why not design a series of “tourer-trainers” that were smaller, lighter, less powerful and easy to fly!? Hence aircraft the likes of the Cessna 152 were created – and the rapid decline of dedicated training aircraft began.

These “tourer-trainers” were no longer capable of showing new students the complete flight envelope – they were never designed to perform aerobatic manoeuvres! A whole generation of new pilots learned to “fly” missing out on valuable training, for example: what to do if the aircraft was inadvertently spun? Even what happens if one put the stick all the way over to one side and merely held it there, i.e., a simple aileron roll!

This hapless generation spawned generations of instructor pilots, who knew little of the benefits of an aircraft that could explore the entire flight envelope! Thus the cycle of mediocrity began, and continues in mainstream flying training today. It is sad but undoubtedly true that the learning of real flying skill has degraded to the point where aircraft loss of control remains the second-highest cause of aircraft accidents in Australia for the past ten years. <sup>1</sup>

**The RIGHT aircraft for the job!** The Australian Aerobatic Academy uses a dedicated training aircraft for all its initial courses – the Robin R2160. It is a two-seat, side-by-side aircraft designed purely as an aerobatic capable trainer.

The Robin is a delight to fly. It is more responsive and powerful compared to most primary trainers used by other flying schools. It climbs and cruises faster, which means more time is dedicated to the teaching and practice of skills, rather than transit time to and from the training area. When learning take-offs and landings, the Robin can conduct more practice in a given time than the “standard” trainer owing to its higher performance, meaning more benefit for your training dollar.

The Robin is versatile enough for teaching not only basic flying skills, but also has enough fuel to permit useful navigation training, as well as enough performance to be capable at competition aerobatic flying. This means not having to change aircraft when going from one phase of training to the next. Less time spent on learning the characteristics of a new aircraft is more time spent on learning the required skills, which means more money in your pocket!

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<sup>1</sup> ATSB Aviation Occurrence Statistics 2001 -2010; Table 27

<http://www.atsb.gov.au/media/2485752/ar2011020.pdf>

**“Stick and Rudder” vs. “System Management” skills:** As modern transport aircraft have grown in complexity, so too have the systems designed to keep them in the air. The role of the air transport pilot is being relegated to that of a “systems manager” rather than a “stick and rudder operator.”

However, recent accidents and incidents have shown that when the aircraft systems fail, it remains the basic flying and decision-making skills of the pilot which ultimately save the day, or cause disastrous consequences.

A recent Air France flight flew into severe weather conditions en-route, which led to a loss of airspeed information to the pilots. Data recovered from the aircraft suggests that the aircraft was placed *by the pilots* in an aerodynamic condition which led to the loss of all on board. The pilots had been confused into trying to understand the various system failures to the detriment of hand flying skills.

In another incident, a British Airways encountered a situation immediately after take-off which demanded precision flying due to a system malfunction. The report<sup>2</sup> inferred that the pilot flying, who had aerobatic experience, prevented the situation from becoming a disaster. The report also recommended that *“flight crews (be provided) with more basic hand flying and simulator training... inclusive of effective stall training.”* (Sic).

Whilst complicated systems make air transport aircraft generally safe, efficient and easy to fly, they can and do fail. At that point, it is the pilot’s training and skill that makes the difference between a successful outcome and a disaster.

**The fun stuff!** The Academy is heavily involved in training and supporting competition aerobatic pilots for Australian national and state competitions. We hold a number of critiquing and training sessions throughout the year to increase pilots’ performance. Additionally, the Academy holds aerobatic judging courses for both pilots and non-pilots, and uses an evaluation system on critique days to increase judges’ accuracy and fairness. The Academy has a close relationship with the Australian Aerobatic Club and encourages students and pilots to become members to foster the sport of competition aerobatics.

**What are you waiting for?!** Whether you are looking to start your aviation journey, or continue an existing one; if what you are after is high-quality flight training in a fun, supportive atmosphere, look no further than the...

## ***Australian Aerobatic Academy***

[www.aeroacademy.com.au](http://www.aeroacademy.com.au)

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<sup>2</sup> South African Civil Aviation Authority, Accident Incident Investigation Division. Report#: CA18/3/2/0717. [www.caa.co.za](http://www.caa.co.za)