

Competition Aerobatics

OKAY, this is a big leap from last month's column, the first dedicated Aerobatic column in KiwiFlyer, where I pondered 'Why Aerobatics'. This month I am going to fast-forward to what some may consider the other end of the spectrum – competition aerobatics. I say 'some' as to many pilots 'competition' may seem like the antithesis of why you would want to do aerobatics, i.e. to have fun. Surely, under the glaring spotlight of competition, all the fun goes away and things are now going to get really serious? Well, no and yes, in degrees.

Many years ago, I was that fun guy who loved aerobatics and loved having fun doing aerobatics. I was lucky enough to have an active Pitts Special syndicate nearby which was affordable to enter (having 20 members in the syndicate does that), and provided a plane which had 'real' aerobatic performance. I had done my tail-dragger apprenticeship on Cubs (or so I thought), done my aerobatic apprenticeship (or so I thought) during my PPL in the C150A, and the prospect of 260hp in a 1600lb plane sounded appealing. With the help of Richard Hood and Steve Taylor - two very experienced, competition-hardened, instructors - I completed my type rating and launched off to have 'fun'.

And for about a year I did have fun, gaining proficiency and competence in the plane and the more advanced manoeuvres it was capable of. My epiphany came courtesy of The Boss (Hood) and, sometime later, the Boss's glamorous young wife-to-be, Marinka - a trained Aerobatic Judge/God. The trigger event was my testosterone-charged inverted climb-out from Pauanui one fine summer's day, which I did much for the same reason a dog can lick his... well, you know what I mean. Being an aeroplane of high profile, with sponsorship emblazoned down the sides, top and bottom, The Boss understandably didn't take to kindly to a report of the plane carrying out such cowboy activity and young Benns got the reprimand he deserved. When Mrs Boss found out and subsequently cornered me, she enquired, in a way that was



Feels great, looks like an egg.

much more eloquent than Mr Boss', as to when I was going to get serious and disciplined with my aerobatics. A less refined person would have said 'when are you going to grow up?', but I understood what Mrs Boss was saying and thus I started my journey in competition aerobatics.

Whilst competition aerobatics has taken place in many forms and in various organisations over the decades, the formation of the New Zealand Aerobatic Club in 1985 signalled the start of a club dedicated to the sport of aerobatics, with the pinnacle being competing against your peers (but really yourself) to see how good you really are. As mentioned earlier, competition may be seen like taking the fun out of what is to many a hobby or interest, but I propose that within us all we like to think we can be better than the next person at something, be it on the rugby field, the golf course or just out fishing. Most people, particularly Kiwi people, seem to have a competitive streak and pilots perhaps even more so. Don't we all 'judge' our own landings – against perfection – and take great pride if we can pull off a 'greaser'? Even better if

it is right 'on the numbers', or even better again if we can choose at what end of the numbers?

And so it is with competition aerobatics. I used to think my loops were pretty good until Mrs Boss described them as 'big eggs in the sky' - "What? That felt great!" And herein lays the challenge and perhaps the point of difference between recreational/fun aerobatics and competition aerobatics (display flying too). Recreational/fun aerobatics is all about how it *feels* – competition and display aerobatics is all about how it *looks*.

I guess we could come up with some subjective criteria for 'how does it feel?' aerobatics, judged from within the cockpit, but your version of *feel* might differ from mine. Chances are you might make me *feel* crook, and vice-versa!

Competition aerobatics is often compared to horse dressage competitions or floor gymnastics. Olympic floor gymnasts' are



260hp + 1600 lbs = OMG!



Not an aerobatic pilot.



Two competing aircraft at the 2014 Nationals – could they be any more different?

not judged on how they 'feel' during their routine – they are objectively judged (or should be) on their lines, symmetry and motion. In many ways, competition aerobatics is judged in much the same way, except we don't have to look pre-pubescent nor be as limber, thankfully.

Many non-aerobatic pilots take up the challenge of aviation competition through other avenues. Spot landing, bombing, and navigational competitions are widely held throughout the country, organised by various Aero Clubs through FlyingNZ, with the top pilots going on to represent New Zealand internationally. On the world stage, the FAI - the International Aeronautical Federation (in French, hence backwards) - administers the rules of the various air-sports, and co-ordinates competition events. This is very big in Europe and we have had our taste of it in New Zealand with the hosting of the World Air Games in Wanaka back in 2007.

So, the natural competitive nature in all of us has now been exposed - are you in denial?

Of course, there are still degrees of competitiveness, which may explain why some people end up doing better than others in their chosen sport. Plus, there are the variables of natural talent, ability, attitude, resources (\$\$), access to training/coaching etc. We can identify those who are the 'perfect storm' of all of the aforementioned in the sporting world; Tiger Woods (the original one) being a stand-out example. However, there will always be winners and losers in any competition, at any level, and it is the disappointment of not winning – most often within ourselves ('I could have done that *much better*') - that drives us on to do better at the next event.

With regard to competition aerobatics in New Zealand, I have heard anecdotally that some pilots view competition aerobatics as 'too' – too hard (on the body/plane), too elite (hardcore?), too complex, and/or too insular/closed shop.

Aerobatics Calender

February 28-March 5
Flying NZ Nationals, Whitianga

March 17-21
NZ Aerobatic Club Nationals, Masterton

May/June (TBA)
Brian Langley Trophy, North Shore Aero Club

To dispel some myths:

1. Competition Aerobatics is too hard on the body and/or aeroplane.

Most aerobatic planes are built to certification limits of at least +6G and -3G. Some are built to much higher limits. This, however, does not mean you have to pull or push the plane to those limits. Indeed, high G means high drag and unless you have either lots of potential energy (HP or height) or kinetic energy (speed), the use of high G during a sequence of manoeuvres will invariably mean you will run out of height AND speed. In the lower categories where most people start, high-scoring sequences don't have to go over 4G and -1g. As far as the body goes, building a tolerance to aerobatic G at this level takes but a few flights. Psychologically, building the confidence to compete is up to you, but you and your aerobatic plane *can* do it!

2. Competition Aerobatics is too elite or hardcore.

We have nobody currently competing in the top category, Unlimited. The most popular category is Sports, a category that can be flown in a Robin/Alpha or C152A, with skill. An under-powered CT4 Airtrainer flown by a very highly skilled pilot has beaten high-powered, dedicated aerobatic planes in the Sports and Intermediate categories on several occasions in recent years.

We have a new category called Recreational that has been deliberately and directly targeted at newbies and/or



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3. Competition Aerobatics is too complex.

We have rules and judging criteria because this is a sport that must be fairly and objectively judged to determine bona-fide winners. Understanding what the judges are looking for by way of the judging criteria is fundamental to placing well, but an encyclopaedic knowledge is not fundamental to having fun. The basics

are fairly basic, and are something I will be covering in a future column.

4. Competition Aerobatics is a closed shop.

Guilty – we haven't been good in the past at being accessible. Technology is changing that, and our website (www.aerobatics.co.nz) is the portal to our club - newsletters, rules, events and other information can be found within. Like any club, our strength is in our members, and in the enthusiasm they share for the sport. Aerobatic people are truly passionate about flying and in particular aerobatics. Some are quite passionate about competition

flying too (!), but the social side of our events show that most are just happy to be hanging out with fellow enthusiasts who invariably become great buddies, discussing aerodynamic theory, engines, fabric vs. composite, bi-planes vs. monoplane, or sometimes just the rugby! And you don't have to be a pilot to be involved – competitions require help on the ground and there are several roles that will get you engaged in the thick of the action.

If you love the smell of avgas, the bellow of engines, and talking aeroplanes, touch base with us and make yourself known. www.aerobatics.co.nz

World expert on airshows and display flying to speak in NZ

CAA has arranged for Major General (retired) Des Barker to visit New Zealand during the latter half of January in 2015. Des is the author of the book 'ZERO ERROR MARGIN' used widely around the world as the bible for airshows. Bringing together the theory and dynamics of display flying, with real-world experience of airshow accidents, the book captures the experience and wisdom of some of the best display and demonstration pilots in the world and presents an overview of how they plan, practice and fly their airshow routines.

NEW ZEALAND is seen by the wider International Aviation sector to punch well above its weight regarding display pilots, warbird collections and airshows. New Zealand does not feature on the graph of accidents worldwide that Des produces in his annual airshow review newsletter, and it is of course in our interests to stay off that graph.

We are all very aware that well-run airshows with everybody going home safely at the end of the day is great for aviation. But just one accident could seriously change that, hence the visit and presentations by Des. The aim is to help enhance our procedures and knowledge, providing better confidence and discipline, and to assist our airshow organisers who do a great job providing the opportunity for the public to view New Zealand's historic aircraft and those that fly them.

Des' career in the SAAF with approximately 40 years in the cockpit (most as a test pilot on fast jets) makes him very experienced in what he has to say. Des has also found the time to write 50 odd papers on flight testing and safety, as well as his annual in depth airshow accident review mentioned above. Following what

Des refers to as "Black 2010", the worst year in airshow history, airshow councils around the world undertook an aggressive campaign towards continuous safety at airshow communities.

Des will speak throughout New Zealand on areas such as;

- How highly trained professional individuals with carefully planned sequences can still make mistakes;
- Crowd control in an emergency;
- How airshow organisers manage the many anomalies while still providing a good safe airshow;
- Recognising the weakest link in the risks of low level aerobatic and formation flying;
- Taking good care of rare old aircraft;
- The ability to assess genuine risk;
- Managing with minimal weather or cancellation.

These are important topics not to be missed by any interested aviator. CAA think this initiative of bringing Major General (retired) Des Barker to New Zealand can only give all who are interested in hearing him a positive check on openly thinking about what we do and how can we improve.

Venues and times

- Masterton - Saturday 17th January, SVAS, 1730 hours.
- Ohakea Air Base - Wednesday 21st January, afternoon presentation.
- Ardmore - Warbirds Clubrooms, Friday 23rd January, 1800 hours.
- Wellington - CAA, 27th January, 0930 hours.
- Wanaka - Edgewater Resort, 30th January, 1800 hours.

Anyone interested is invited to attend but please register first by email with Jeanette.lusty@caa.govt.nz



KiwiFlyer Event Guide

January 1st
Wings Over Woodville Fly-in
 At Athbey Farm, Woodville. \$10 lunch. Contact Colin MacMillan. on 027 451 5817 or macmillan@inspire.net.nz www.manawatumcroliteclub.org.nz

January 3rd
Whitianga Fly-in
 A Fly-in to host the NZ Warbirds Assoc. and check out the upgraded 'Departure Lounge' cafe. Kittyhawk, Spitfire, Harvard rides available subject to prior booking (see www.warbird.co.nz). No landing fees on the day. Drop in to the Pauanui Fly-in on your way. www.mbac.co.nz

January 3rd
Pauanui Fly-in
 Resurrecting the friendly informal event of summer's past. BBQ Saturday (or rain day Sunday). Pilots invited to stay over (request a spare bed from pilots bordering the runway, or pitch a tent). Fly 10 minutes and visit the Whitianga event too. Ph: Trevor 07 825 2896 or 029 847 8478, E: trevor@allseasonsair.co.nz

January 9th - 23rd
Walsh Memorial Scout Flying School
 Annual two-week flying school (the 49th) for Scouts and other young people at Matamata Airfield. Contact David Jupp 021 476 676 or walsh@scouts.org.nz More info: www.scouts.org.nz/walsh

January 16th - 18th
Wings Over Wairarapa 2015
 Wellington Anniversary weekend at Hood Aerodrome, Masterton. See advert on page 14 or www.wings.org.nz

KiwiFlyer Event Guide

January 17th - 30th **Air Show Safety Seminars**
 A not to be missed opportunity. See above.

January 24th - 25th **Autogyro Association Fly-in and AGM**
 At Dannevirke. Come and find out more about this fast growing sport. Plenty of two seat gyros attending. www.autogyro.org.nz

January 31st **Healthy Bastards Bush Pilot Champs**
 At Omaka. Contact Craig Anderson 029 890 4910 or craig@soundsaero.co.nz

February 26th - March 1st **Flying NZ National Championships**
 At Whitianga, hosted by Auckland Aero Club. More info from www.flyingnz.co.nz

April 3rd - 5th **Omaka Classic Fighters Airshow**
 An 'ANZAC PIONEERS' theme at Omaka Aerodrome, Blenheim. Ph: 03 579 1305 E: info@omaka.org.nz www.classicfighters.co.nz

2015 TBA **Heli Safari 2015 to Queenstown**
 North Shore Helicopter Training's Heli Safari is back, this time for an epic trip to Queenstown. E: roy@helitraining.co.nz

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AirVenture Tour to Oshkosh & Chino departs 18th July 2015. The tour extension option is to Seattle visiting the Boeing factory and Museum of Flight, then to Portland to see the Spruce Goose and much more. The tour ends with an optional cruise to Alaska. We welcome your enquiry.

Tour departs 18th July. Contact Gaye Parady today on 07 574 1950 or 0274 939 073 Email: travel@gayepardy.co.nz or visit www.gayepardy.co.nz for more information

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