



Too Much Focus

With the airshow and competition season approaching, it's a good time to talk about how too much focus impedes good flying.

"I was very pleased with my touchdown point. I was very pleased with the landing distance. I thought, 'gosh this is going so well, I'm going to apply just a bit more brake'."

And that's what happened just before Mark Woodhouse nosed over his Piper Cub at a Healthy Bastards event a few years ago. He was so focussed on getting the aircraft stopped in the shortest possible distance, he forgot what might happen if he applied brake, instead of easing off the pressure.

"I just didn't appreciate that the centre of gravity behind the wheels, and turning moment about the wheels, would overcome aerodynamics. Even with full aft elevator, there wasn't enough aerodynamic force on the tail to stop the nose from tipping.

"I kind of stepped outside my experience with that one.

"The irony is, had I executed that manoeuvre perfectly, I still would not have been anywhere near the competition leaders, so it was a pretty fruitless, and expensive, exercise.

"The other irony of me trying so hard to excel, was that I just let myself down."

John Lanham – former CAA general manager of General Aviation, 55 years flying and now with the New Zealand Airshow Association – remembers one or two occasions when 'over-focussing' almost brought him undone.

"I was leading a Strikemaster aerobatic team in the late 70s and we were carrying out a low-level barrel roll during practice. The team had had some difficulty with the manoeuvre so I was concentrating very carefully on flying the manoeuvre smoothly and precisely.

"About halfway round the manoeuvre, I realised I'd let the nose drop slightly and the manoeuvre was now becoming a bit marginal. So I concentrated very carefully on flying a little bit faster to get around, but very smoothly so the other pilots could keep up with me. We completed the manoeuvre but well below our safety altitude.

"There was silence in the formation for quite a few seconds and then from down the back came, 'that's your one mistake for the season boss'.

"The lesson I learned that day was that distraction of any kind in the air or on the ground can be a killer. I had lost overall situational awareness because I was distracted by my concentration on smooth flying."

John also knows the pressure of wanting to put on a good show, execute the perfect sequence and – especially among new display pilots – the desire to do something spectacular. All of them can be a form of insidious distraction.



The trick to good situational awareness is a combination of experience and practice.

"It's nothing we don't all know. You practise at a safe altitude and, as far as aerobatics are concerned, you never come down lower until you are certain you can fly your sequence perfectly at the higher altitude. Then come down a bit, practise again, then come down a bit more.

"Get mentored and tutored by someone experienced in what you are trying to do, whose opinion you value, and then practise, practise, practise."

Someone who wishes they'd had that advice was the competition flier who hit a fence during a precision circuit and landing contest.

When he'd first arrived at the competition aerodrome, carrying the bags of other team members, he'd landed successfully on the same runway he knew would be used during competition.

"On practice day I borrowed one of the locals to give me the approximate weight of a solidly built air judge, which was heavier than the luggage I'd arrived with. Everything went well, I put the plane down on the grid – I was flying exactly to the competition rules.

"I rolled through the competition box then throttled up, but the rate of acceleration was slower than I wanted, so I pulled the throttle, put the brakes on...and the plane just kept on going and I ended up in the fence.

"What I had not registered was that the marked-out landing grid was about two-thirds into the available landing length, which, in my experience of competitions, was unusual.

"I should have also realised that flying with more weight would have changed the flying characteristics from the previous successful landing. There was a lot of mass to slow down."

The pilot says that, ideally, he should have flown a number of circuits without landing, just to get a better lie of the land.

"Then after a few circuits and getting a really good look at the competition landing site, I should have done a few touch and goes with the added weight."

He says even a relatively minor occurrence such as the one he went through can cause an "awful lot of soul searching".

"Neither of us got a scratch, but we were shocked. We just sat there in disbelief for a moment. But there's an emotional aspect to something like this that takes a while to subside, it really rarks you up in a nasty way."

Chief flying instructor of South Canterbury Aero Club, Aaron Pearce, played host to the Flying NZ national champs in March 2018.

"Competitors become really fixated on getting the plane near where they want it to be or what they want it to do and their situational awareness goes. They stop looking out the window. Looking out for other traffic is the first load they shed – it's not really good enough that we accept that.

"We tell the judges, 'even if the competitor says 'clear left, right, ahead', but they don't actually move their head to look out the window, don't give them the airmanship points'.

"If they don't point out to the air judge any threats, the same applies, in my view."

John Lanham says competitions and airshows are no time to be spontaneous.

"You do what you've practised, you do nothing you've not done a hundred times before, and you don't get clever."

Sometimes, competitors or display pilots can get overwhelmed by the 'moment' – the crowd watching admiringly, the manoeuvre going perfectly, and they think, 'I'll just try this; it will blow them away'.

Dave Brown, chief flying instructor for the NZ Warbirds Association, which issues display approvals for New Zealand, agrees with John Lanham that lack of practice or lack of familiarity with the aircraft's limitations can lead to disaster.

"People might think, 'oh well, I'm only doing a few turns and I do turns all the time; I don't really need to go out and practise it'.

"But when you are actually doing it in a competition or an airshow, then you have a lot of extra pressure to stay 'inside the box'. You're trying to display correctly, so there's a lot of constraints and pressure that you don't have in your day-to-day flying."

Dave says people should practise manoeuvres – whether for displays or competitions – at altitude until they are 99 percent reliable.

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He also says many people might be surprised by how often an occurrence happens during a relatively straightforward manoeuvre.

“So during training we take pilots to the extremes of their aircraft performance, at altitude, so they know what to look for on the day.

“It’s not the aerobatics where many of the incidents happen. It might be in the positioning manoeuvre where they stall at low level, or during a turn.

“That was what happened in January last year when a Grumman Mallard crashed into the Swan River in Perth. It was a classic stall in the turn at low level with no altitude to recover.”

CAA Aviation Safety Advisor Carlton Campbell says that in competitions, focussing on ‘the spot’, to the detriment of flying the plane, is the sort of tunnel vision that can ruin the whole manoeuvre.

“This can apply to all pressure situations any pilot may be exposed to – busy traffic scenarios, joining at an unfamiliar aerodrome, deteriorating weather – and they become so focussed on one objective, they lose situational awareness of the bigger picture.”

Dave Brown says, in the fighter world it’s called ‘target fixation’.

“Aircraft hit the ground just past the target because the pilot is so focussed on trying to drop a bomb, or shoot the gun at the target, they lose awareness of what’s going on around them.”

So what does he say to people who are about to compete, and who he knows will be concentrating like mad on doing a perfect series of moves?

“The bottom line is, there’ll always be another day to have another go. The aim is to be around tomorrow to do that.” ■

John Lanham remembers

“Years ago, I was reading that the World War One ‘Red Baron’ – Manfred von Richthofen – would come back from one of those big 50-aircraft dogfights, and debrief not only his fight, but the fights of all of the other squadron pilots.

“He would talk to each pilot and say, ‘you did this, you did that, that was right, but this was wrong’.

“He had the ability to not only deal with his own immediate business but he was seeing everybody else’s as well.

“In World War Two, there was another famous fighter pilot, the RAF’s Johnnie Johnson. He would lead three squadrons of, say, 12 Spitfires – in other words, 36 aircraft – and the dogfight would begin and very rapidly could get out of control because of everything whirling around in the sky and every man for himself.

“Johnson was famous in the RAF for being able to control three squadrons of fighters longer in the dogfight than anyone else: keeping tactical control, directing the fight, telling the other pilots – even the other formation leaders – what to do. He saw exactly what was going on in the sky around him and wasn’t distracted by some guy shooting at him.

“I remember thinking when I read about them both, ‘good grief, that’s real situational awareness!’”

Flying NZ national competitions at Ashburton in 2016.



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