My 'Truth from Ruth' column was largely stemmed from focusing on ideas to help make your day's flying more fun. I have always been very conscious of safety due to an understanding of the environment that I have been bought up in and exist in on a daily basis. However, since becoming a southern representative on the AOPA executive and my appointment as Safety Officer, my responsibilities have expanded from safe and enjoyable flying to the serious survival of all our members.

I say enough of those "respectful minute's silence" at our AGM's. What is going on in your mind during that minute? Do you think about what you are going to do next Friday? Or what might crop up on your next flying assessment? Or do you think about a recent crash that took the life of yet another friend and wonder how on earth it came to that? In my mind, it is one thing to investigate accidents, which serves the purpose of our learning from the dreadful experience that our friends have suffered, but how about concentrating on the PREVENTION of accidents?

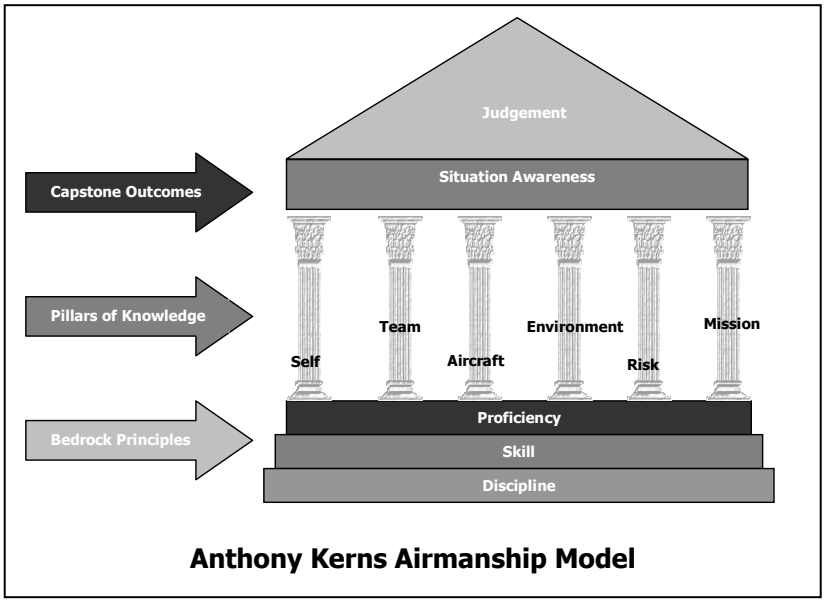
Indeed, we all know about the chain's links, now taught to us through Human Factors. How many of you count the chain links after escaping an accident? It is not our pilot hands that get us into trouble - most of the time, it is our heads.

With this thought in your mind, let me introduce a system of accident prevention taught by the Bombardier Group in Canada. In business aviation it was recognised that in the past 18 to 20 years, judgment errors, rather than inadequate skills, caused 75-80 percent of accidents. In the business aviation sector in America it is about 45 to 50 accidents per year.

Those statistics were the prime reason why Robert Agostino, head of flight operations at Bombardier's Wichita Facility, started the firm's Safety Standdown program 1997 with James Dwyer, the firm's senior test pilot. It proved so successful they opened up the program to the business aviation community at large. Perhaps we, as private pilots can learn something from this model?

Agostino theorised that business aircraft pilots were getting excellent skill based training but not the critical judgment expertise through broad knowledge-based training. He decided to focus on a series of seminars and training sessions to fill the gaps left by the big simulator training outfits.

For the speakers, Agostino went for compelling aviation experts, the first being Anthony Kern, PhD (author of *'Darker Shades of Blue: The Rogue Pilot', 'Redefining Airmanship' and 'Flight Discipline').* Kern said that it is not enough just to be a safe pilot, to avoid accidents, but rather that safety be embraced as an out-growth of professionalism and that the pilot undertake a conscious and continuous program of self-improvement.



Anthony Kerns Airmanship Model

Now I can just see many reader's minds now glazing over with little comments such as, "Yeah, but that's for the Americans, and we are not in business aviation anyway".

What Dr Kern spoke about next I believe must be added to every pilot's philosophy in any situation, from bush pilot to ATPL.

How Kern illustrates his ideas is through his Airmanship Model, which he started developing in the mid-1990s. The model is based on fundamentals learnt from early 20th Century air masters. Including Oswald Boelke, Max Immelmann, Eddie Rickenbacher and Jimmy Doolittle. The approach has two functions: first it is a tool to evaluate where you are. Secondly, it is a framework that provides relevance for what you are trying to do. In Kern's words, "It's much easier to move towards something (such as the model) than move away from something, such as avoiding accidents or reducing costs."

The model is a framework, which provides a skeleton on which to hang everything we do. It has three main parts, Bedrock Principles, Pillars of Knowledge and the Capstone Outcomes.

Discipline is the bottom foundation for the model because Dr Kern says it leads to the elimination of the "normalisation of deviance". For us, that might be better described as "complacency". This is an operating envelope comprising lax procedures, weak internal polices, legal liability exposure (yes, a real thing here in New Zealand) and loose interpretations of the rules and regs. Few flight operators actually tolerate this kind of behaviour, but many organisations settle into a daily operational grind, stagnating at a minimum level of effectiveness, and lacking in any conscious effort to excel. Indeed, this can cause any flight operation to have slim margins between a stagnation level and the path to hazards, violations, incidents, accidents and fatalities.

The opposite of this downward spiral in the Airmanship model is what Kern calls "normalization of excellence". Airmanship skills and flying proficiency are part of the fundamental idea of discipline, but the focus is on the flying organisation culture rather than punishing those who err. The Airmanship model takes advantage of tools such as non-punitive reporting procedures, encouraging the use of anonymous safety reports, and encouraging direct observation of pilot procedures.

In other words, even though we have lost valuable tools like Icarus and the camaraderie, stewardship and mentoring of the original aero club scene, the fundamentals of safety have not changed over the years. Prevention is still the optimum result. The Airmanship model is to remind us of all the sampling, not the full course meal. Over the next two issues I will be talking about the remaining two parts of this model and applying it to our own culture and to private flying. Each element will be illustrated with examples taken from our history, to show that prevention is a world wide goal and the responsibility for it lies on the shoulders of us all.