

No Old Turkeys

When CAA analyst Joe Dewar stands in front of an aviation audience, he often recounts a story of the turkey living on an American farm, in the lead up to Thanksgiving Day. The story illustrates how blind we can all be to risk.

Joe bases his account on the book *Antifragile* by essayist Nassim Nicholas Taleb.

In it, Taleb describes the turkey fed each day for a thousand days by a butcher. The evidence before the turkey is that the butcher is benign, life is good and without threat.

The turkey falls into the “soothing predictability of life” and grows fat with regular meals and complacency.

Then comes the day before Thanksgiving.

What Can Possibly Go Wrong?

Obviously, the turkey’s mistake was assessing the degree of risk in his life by basing it on past ‘evidence’ – the past was secure and therefore the future will be too.

What the turkey should have been curious about, according to Joe Dewar, is why there were no old turkeys on the farm.

Joe tells the story to demonstrate how easy it is to slip into the belief that because nothing has gone wrong yet, nothing will go wrong ever.

As Taleb writes, “...mistaking the absence of evidence (of harm) for evidence of absence of risk is a mistake”.

Absence of Evidence

The human brain is tuned to respond to uniqueness, and a repeated action ceases to provide stimulation. What was once novel becomes second nature.

That does have a positive payoff, as CAA’s Principal Aviation Examiner, Bill MacGregor, explains.

“When a pilot is learning to hover a helicopter, trying to maintain a steady point in three dimensional space initially seems impossible. But soon the physical motor skills develop and become refined, freeing up mental capacity for thoughts such as, ‘Where am I? What’s that strange noise? What happens if...?’”

So repetition initially helps the pilot’s brain learn, then allows it to attend to other important stimuli.

But it’s a fine line between that, and unthinking complacency that links past evidence that it’s always been okay, with the conclusion that it will therefore be okay again, today.

CAA Aviation Safety Adviser, Carlton Campbell, describes the pilots most at risk of that.

“Complacency can affect pilots who fly routine days, particularly if they’re doing repetitive short-leg flights. Or operating in a comfort zone of flying the same aircraft, on the same route, on the same day each week.”

Aviation participants who are uncritically satisfied with the smoothness of their day can begin to make small mistakes: not checking the apron at a quiet aerodrome and pulling out in front of another aircraft, or taxiing in with landing lights on, flaps still down and transponder still on. Or leaving a nut loose. Or not pricing the job properly.

“Complacency can affect pilots who fly routine days, particularly if they’re doing repetitive short-leg flights.”

Becoming an Old Turkey

Everyone has turkey moments, when assurance tips over into smug belief that all will be well. And then there’s an incident.

Small mistakes should be seen by those making them as an opportunity to review their procedures, because they’ve stopped asking themselves important questions.

A pilot recently spoke to *Vector* of his turkey moment.

“Some years ago, I was coming into land in a Cessna 172 at an aerodrome I still use regularly. On the runway was a Fokker Friendship F27, a turboprop airliner. I heard the tower give the Fokker F27 permission to take off, but he just kind of sat there.

“I kept thinking, ‘he’ll go soon... he’ll go soon...’ and all the while I’m getting nearer and nearer. But I was doing only 70 kts so I thought I’d never catch up with him.”

When the Cessna was down to approximately 200 ft, the Fokker finally began to roll down the runway, and as the Cessna flared for landing it was hit by the propeller slipstream. The plane and pilot were badly buffeted and were lucky not to be flipped over.

“I sat there stunned, waiting for the tower to give me a talking to. But I think they were as stunned as I was.

“What was I thinking? I’d landed at that runway hundreds of times; I knew the aircraft inside and out.

“But that was the problem. It was all so familiar, I didn’t consider prop wash. I just didn’t switch on my brain.

“But it taught me that I was complacent. And that I had to fight against that.

“Before that incident, I was so complacent, I wasn’t even aware that complacency might be a problem.”

From Turkeys to Swans (Black)

If complacency is dangerous, unpredictability is more so.

Nassim Nicholas Taleb calls unexpected events 'black swans'. Such events are virtually impossible to see coming, but they will make the most of any systemic – or human – weakness, with catastrophic results.

In an occurrence already described in *Vector* (September/October 2015), a Piper Arrow heading east out of Christchurch encountered a black swan. Flying over sea and ascending, the aircraft's engine suddenly lost power.

The experience and cockpit teamwork of the trio on board got them safely back on the ground, but the occurrence was exactly what is meant by a black swan.

So how to anticipate such an event, which is so tough to foresee?

The specialists' advice is, firstly, to always accept the possibility of such a random event.

Then strengthen systems, and prepare and plan appropriately.

Carlton Campbell says the pre-flight routine is crucial for such planning.

"If a pilot is flying, particularly in a foreseeable and familiar pattern, it's easy to become overly confident with the preflight. But that mind-set of 'it was fine a few hours ago, it will be fine now' can be really dangerous."

Beyond a thorough preflight, Bill MacGregor says nothing beats having a plan. And a plan B.

"Check the weather, NOTAMs, and AIP Supps, mark up the map with appropriate prompts, and submit a flight plan.

"Then look outside the norm and plan for the unlikely. Think about possible emergency landing areas and diversion fields, about life jackets, a life raft, and other emergency equipment.

"Try to prepare for all contingencies. If the worst should happen, at least you have what you need, to respond the best way you can." ■

