

IT'S ALL ON THE LINE



Vector spoke to a member of our CAA team about his personal wire strike story. We hope this personal account contributes to wire strike awareness.



// This is the BO-105 helicopter that Adrian Parker was piloting, after it hit wires during a police chase of an armed carjacker. It's difficult to believe anyone could have survived such a catastrophic wire strike, but both Adrian and his crewman did. In Adrian's case, just.

Former helicopter pilot Adrian Parker keeps a photo album in his desk to remind him of the day his ‘first life’ ended – the day he lost his medical, broke his back, and wound up in a coma.

In his ‘second life’, Adrian – who’s with the CAA’s monitoring and inspection team – has taken up the cause of wire strike awareness.

Having experienced it himself, he’s passionate about preventing others (and their families) suffering the trauma and consequences of a serious accident.

In 1997 Adrian was living in his homeland of South Africa, flying a police BO-105. The day’s operation was a challenging low-level operation at short notice – the pursuit of an armed carjacker.

Such ops were stressful and challenging. Offenders’ vehicles would sometimes reach 250 km/hr, and Adrian was regularly shot at.

Adrian knew there were high-tension wires in the area of the pursuit, so kept an eye out for them.

But it was a smaller, closer set of wires his helicopter collided with, nearly ripping the rugged German helicopter apart.

“Don’t assume that because you’ve seen lines, there isn’t another set before or even after,” he says.

Adrian doesn’t remember the accident, but the memories of his long, painful recovery and the toll the accident took on his family and friends is all too real. So too was the reality that the accident had ended his flying career.

Advice from the front line

Adrian now encourages operators to equip wire cutter kits on helicopters routinely flying at low levels. Although wire cutters would not have prevented his accident, Adrian says they would have sliced through the wires and the machine would have been in a state to land safely.

He has also advocated for good personal protective equipment for helicopter crews, long before the term PPE became a COVID-19 buzzword. On the day of his accident, Adrian was wearing his own personal helmet, and knows he wouldn’t be alive if he hadn’t been.

When asked for his advice to other helicopter pilots working low-level ops, Adrian returns to an old saying he picked up in his early flying days – “There’s nothing more useless than the sky above you, so step it up a bit”.

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He encourages pilots to conduct a high-low recce whenever they can, and to get solid up-to-date information about wire (and other) hazards before working the job.

“If you’re unhappy with that information, do your own assessment with the ground crew. Never be pressured into a job and throw caution to the wind,” he says.

“Take the necessary action to prevent risk, and have the necessary PPE and equipment.

“It costs money, but in the end it could very well save your life – and money – if something does go pear-shaped.”

Why pilots fail to see wires they know are there

The Australian Transport Safety Bureau says in 70 percent of wire strike occurrences, the pilot knew the wire was there. These strikes are believed to be likely due to a combination of factors, including poor visual perception as well as factors like ‘inattentive blindness’ (see below).

The issue of experienced, competent pilots colliding with wires over land they know well has also played on the mind of Matt Harris, the CAA’s chief advisor on human factors.

In his former role as a safety investigator, Matt led the investigation into a fatal wire strike in 2016. Through that investigation and his human factors work, Matt’s considered what elements might contribute to pilots colliding with wires they know about.

One of the explanations for failing to see wires – even ones we know exist – the phenomenon of inattentive blindness. This is our inability to perceive something in plain sight, because we’re paying attention to something else. »

// If you're coming in and you're not sure of where the wires are, gain altitude, get out of there and confirm where the wires are. //

» “We cannot focus on everything all the time,” says Matt. “Our attentional resources are limited. When we’re completing high-focus flying such as low-level operations (where wires and obstacles are), including take-off and landing, our ability to pay attention to everything we need to is reduced.

“The more complex the operation and the more attentional resource is dedicated to the task at hand, the more we’re inclined not to see something that may appear in our scan.”

Maintaining situational awareness when the plan changes

Given how hard it is to see wires at the best of times, it’s important pilots continue to build and update their mental picture of the hazards as they work the job.

CAA investigator Jason Frost-Evans says pilots could actively decide how to avoid wires – or other hazards – that they’ve already identified.

“You won’t then have to rely on remembering where they are.

“This could include, for example, approaching from a certain direction to be able to see and avoid wires, flying over the top of structures that you can see, if you can’t see the wires, or picking other landmarks you can use as boundaries to avoid wires.”

Matt says plans do change from time to time, so when they do it’s important to give yourself the time to update your knowledge of the conditions and other factors, and understanding of the hazards as they apply to your new plan.

“If you’re coming in and you’re not sure of where the wires are, gain altitude, get out of there and confirm where the wires are. Then you can reassess your approach.” ➤

// Adrian Parker holding the helmet that saved his life and a piece of the wire that almost took it. The abrasion on the helmet was where the wire made contact.



Photo CAA/Blake Crayton-Brown

Comments or queries? Want to share your wire strike story? Email vector@caa.govt.nz