

# SAFETY IN HELI OPS



The current accident rate in some commercial helicopter operations remains a concern for the CAA.



**T**he latest statistics indicate the safety of passenger-carrying operations in helicopters has improved greatly in the last four years.

Those same stats, however, indicate a rise in accidents in ‘other commercial operations – helicopter’\* particularly in external load work, and during training.

Grant White – former Flight Operations Inspector with the CAA’s helicopter and agricultural unit – says turning the stats around has to focus on human factors.

“New Zealand has an accident rate significantly higher than that of other parts of the world.

“There are many possibilities as to why the rate is so high but the common denominator to most of these accidents is the human.”

Despite this, Grant says it was surprising the number of candidates applying for senior person positions, who didn’t mention ‘the pilot’, when Grant would ask, ‘why do you think the rate is so high?’

“Most of them talked about weather, terrain, environment, and types of operation. Very few mentioned human decision-making and attitude.”

Flight Operations Inspector Vicki Coats agrees, saying poor decision-making is a common factor in accidents in the helicopter sector.

“It’s not the aircraft making decisions about mountains, the weather, the load to be carried, or the manoeuvre about to be performed.

“The aircraft doesn’t get beyond its limits, or distracted by client pressure and the next job to get to.

“It’s not the aircraft that thinks, in a moment of bravado, ‘I’ll show you what I can do’.

“Pilots can get themselves into strife by not considering the limits of their own performance. They see the weather coming in, but they think, ‘I can do it’.

“They don’t reflect on what could go wrong.”

### **Expect, and plan for, the unexpected**

Former HNZ pilot Jason Kirkland says because of the versatility and wide range of operations a helicopter can carry out, pilots can find themselves operating in some very confined spaces, and dynamic and rapidly changing environments.

**// At the time, it’s sometimes difficult to justify heading home not having completed the job – but there’s always tomorrow. //**

“Often we’re out there on our own in some pretty extreme and changeable environments, having to make decisions while carrying out often quite demanding tasks.

“I think helicopter pilots in particular have to be prepared and learn to expect the unexpected.”

Flight Operations Inspector Pete Gordon says that, particularly in emergency events, pilots can get caught up in the critical nature of the mission.

“They forget to monitor their hydration, nourishment, or tiredness. There’s been more than one occasion in New Zealand, when someone has failed to recognise their own limits in an emergency situation, and has had an accident.

“Apart from the distress of the accident itself, resources have had to be diverted to find the missing pilot and that has had a flow-on effect, ironically, to the management of the original crisis.”

Jason Kirkland says in VFR flying, the safety tolerances are harder to define than in IFR operations.

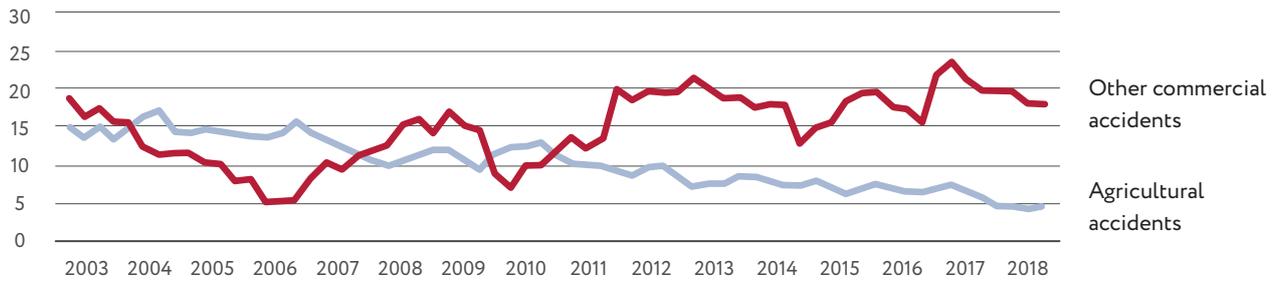
He would always plan his day in advance as best he could, with a clear set of personal rules and procedures, and an escape plan.

“Once flying, the environment is often dynamic, so I was constantly assessing the conditions to stay ahead of the game. »

\* The CAA uses the term ‘other commercial operations’ for operations other than passenger-carrying transport, private, and agricultural. So operations like training, surveying and external loads.



### Accident rates in New Zealand, agricultural and 'other commercial' sectors 2003–2018



Three yearly rolling average per 100,000



“I also tried to not get totally absorbed by the task, because the danger was that I’d miss the signs that it was time to turn around, or land as soon as possible.

“At the time, it’s sometimes difficult to justify heading home not having completed the job – but there’s always tomorrow.”

While many in aviation think New Zealand is unique in its mountainous terrain and weather, it’s not. There are many countries with similar topography and climate, but their accident rate is not as high as ours.

“Many pilots and operators blame the weather for causing accidents,” says Vicki. “But actually, our weather forecasting is pretty accurate, and frontal systems come and go relatively quickly.

“There aren’t many places in New Zealand that you’re beyond 10 minutes flying from a road you can put down on. There’s no real reason a helicopter pilot can’t decide to land and sit out 30 minutes of the front that’s passing through,” she says.

### The downside of tech

Grant White says technology is a boon to flying but can be distracting.

“I’ve flown for companies overseas which have had four-person crews, and every one of those four has been head-down staring at the bells and whistles.

“A lot of the information provided by technology you don’t need, no matter how engagingly it’s presented.

“What you do need, is to know exactly what’s going on outside. Cross-check everything you are reading on your devices with what you can see for yourself.

“Technology might be able to do that for the pilot of the average aircraft one day, but it can’t yet.”

### The role of fatigue is under-appreciated

Pete Gordon says fatigue is the great under-considered factor in accidents.

“It’s so hard to identify as the definitive cause of an occurrence.

“Obviously any operator will have a contingency plan if anyone turns up to work obviously fatigued or distressed or ill.

“But co-workers are important too. Keep a lookout for everyone else who may be going through something. Sometimes all it takes is the question, ‘hey – are you okay?’

“That might open the door to them talking about their problem, which may open the door to a solution.”

Health and safety law charges each worker to take responsibility for their own welfare as well.

“If you’re in a stressed state, it’s hard to concentrate on the task at hand,” says Grant White.

“You shouldn’t fly at all. But if it’s unavoidable, it’s crucial you put the problem in a box, and focus on the job.

“After all, what’s more important? You ruminating on the personal problem and trying to carry out a high-performance task like flying at the same time?

“Or coming home safely?” ➔

### // FIND OUT MORE

Many of the themes in this *Vector* article are also themes in the Part 135 Sector Risk Profile. To read more, visit [www.caa.govt.nz/srp](http://www.caa.govt.nz/srp).