Pointing to safer aviation

Spring 2025

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DAWN OF THE TĀWHAKI ERA

An industry under pressure

RACAs – New Zealand's frontline defenders against threats to aviation

Teaching differently – neurodiverse students

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CIVIL AVIATION AUTHORITY OF NEW ZEALAND
Te Mana Rererangi Tūmatanui o Aotearoa

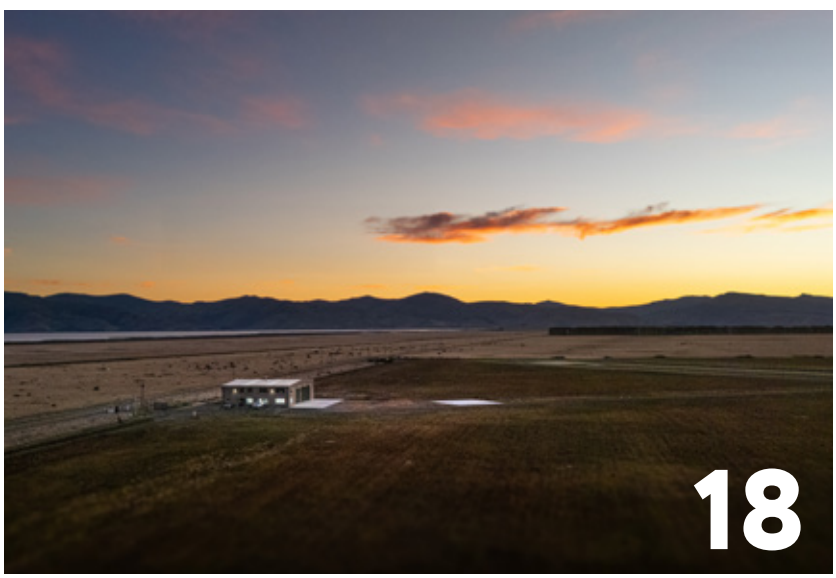
// RACAs – NEW ZEALAND'S FRONTLINE DEFENDERS

// AN INDUSTRY UNDER PRESSURE

// TEACHING DIFFERENTLY – NEURODIVERSE STUDENTS

Cover: The new hangar on Kaitorete Spit – part of the ongoing development of the Tāwhaki National Aerospace Centre. See our cover story, "Dawn of the Tāwhaki era" on page 18.

Photo courtesy of Tāwhaki National Aerospace Centre.



// DAWN OF THE TĀWHAKI ERA

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PUBLISHED BY THE Safety and Security Education team of the Civil Aviation Authority of New Zealand, PO Box 3555, Wellington 6140.

Tel: +64 4 560 9400
Fax: +64 4 569 2024
Email: **education@caa.govt.nz**

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RACAs

NEW ZEALAND'S **FRONTLINE DEFENDERS** AGAINST THREATS TO AVIATION

How do regulated air cargo agents remain vigilant against the constantly evolving menace to New Zealand's aviation industry?

Since their introduction in 2009, RACAs have played a crucial role in ensuring that cargo loaded into international passenger aircraft is secure, properly documented, and doesn't contain any prohibited or dangerous items.

The CAA's lead analyst of security threats, Marcus Linnell, says the constantly changing security landscape means those in the sector can never say 'job done'.

"We can never be complacent about the security measures protecting passenger aircraft.

"New Zealand's threat level has ranged from very low to high at different times in the 16 years since the RACA was born. But even at times when the threat level is low, we don't have the luxury of considering only our own specific context – we're obliged to help protect international civil aviation as well." ⟫

To become a RACA, freight forwarders must demonstrate to the CAA that they have strong security controls and processes at their facilities.

They also need to demonstrate they can keep freight secure at all times, ensuring all cargo handled en route to an international passenger aircraft remains secure.

But, after certification, how do RACAs keep their staff vigilant and proactive day-by-day to make sure that happens?

The arrival of the RACA was a direct response to the increasing sophistication of global threats, including the risk of improvised explosive devices being concealed in cargo shipments.

In the years since, the threat environment has shifted dramatically. New risks – from cyber attacks to geopolitical instability – have made aviation one of the most targeted sectors in the world.

Yet, despite increasing automation, digitalisation, and complex regulatory frameworks, the most important layer of protection continues to be people.

That's why today's air cargo security isn't just about rules and systems. It's also about creating a culture, a mindset shared across every level of an organisation, prioritising vigilance, integrity, and shared accountability.

From compliance to culture

Regulations provide the foundation, but it's 'culture' keeping systems resilient. As the security landscape evolves, RACAs must shift from a procedural mindset to one rooted in continuous awareness and responsibility.

"A robust security culture is one where every individual, from those handling cargo on the floor to senior managers, understand the 'why' behind security measures," says CAA's head of security certification and monitoring David Willing.

The CEO of the Customs Brokers and Freight Forwarders Federation (CBAFF), Sherelle Kennelly, agrees.

"It's not enough to tick boxes," she says. "A strong security culture means every team member recognises what's at stake and actively contributes to keeping cargo, passengers – and everyone on the ground – safe."

That cultural shift is reflected in the operational strategies of freight forwarders like Jenners Worldwide Freight. CEO Katrina Jenner says to keep it simple.

"As a RACA, our security procedures are designed to be accessible for our staff. We follow a simplified process using visual workflows and clear, consistent language.

// Despite increasing automation, digitalisation, and complex regulatory frameworks, the most important layer of protection continues to be people. //

"If freight is received in a way that isn't expected, such as 'tamper-evident'[1] being received as different, our team identifies it immediately."

These day-to-day practices, though seemingly basic, make a measurable difference. They reduce the likelihood of mistakes, empower staff to act with confidence, and ultimately contribute to a more secure international supply chain.

"Compliance should be embedded in day-to-day operations, not treated as a one-off exercise for audit time," says David Willing.

"When the right processes are followed consistently – *every* shipment, *every* customer interaction – it builds a culture where compliance becomes second nature. This approach not only reduces risk but also strengthens operational efficiency and trust.

"Preparing for an audit shouldn't require a scramble, it should simply reflect how your business operates every day."

Tackling insider risk

"While external threats often draw the most attention, the risk of an insider, someone within the organisation who could compromise security, is real and growing," says David.

"It doesn't always mean malicious intent. Sometimes unintentional actions from uninformed or disengaged staff can lead to serious vulnerabilities."

1 Tamper-evident seals are designed to enable the identification of any interference with cargo or its contents.

Sherelle Kennelly says changes in behaviour might mean someone's under pressure, distracted, or being influenced by external parties.

"Leaders and supervisors must know their people well enough to notice when something isn't right.

"Insider threats are not just a theoretical concept. They're a known challenge internationally, and one of the most difficult to detect if an organisation lacks internal cohesion. For that reason, culture is again key.

"Freight forwarders should promote security culture as a core management responsibility. Managers are trained not just in operational compliance but in building trust with their teams. But the principle applies to larger organisations as well."

"Even in a business with more than a hundred staff there must be accountability chains, supervisors, and team leaders who know their people's patterns and wellbeing," says Katrina Jenner.

Sherelle Kennelly agrees. "CBAFF actively promotes this principle as part of good operational 'hygiene'.

"Know your people. Understand their pressures, and support them before issues arise."

Normalising reporting

In aviation security it's not the catastrophic event that defines resilience, it's those everyday moments – when something small is spotted and acted on – that provide the strongest layer of protection.

Security culture thrives in environments where reporting is expected and actively encouraged.

Whether it's a mismatched label, an unfamiliar driver, or something that 'just feels off', frontline staff must feel safe and supported by management to raise issues.

"Security should be treated like health and safety – it's not just management's job," says Katrina Jenner.

"Our staff know they can report something – even if they themselves made the mistake – without fear of being punished."

CBAFF says it, too, promotes this individual responsibility, which is echoed in the Health and Safety at Work Act 2015, to help RACAs embed similar thinking – 'If you see something, say something'.

"We've seen time and again that the biggest breakthroughs come from the smallest observations," Sherelle Kennelly says.

"We want staff to not only speak up, but to know they're contributing to something larger – industry-wide safety."

CAA's Marcus Linnell says it's vital that RACAs also report to the CAA when they encounter things they aren't sure about, or that might present a risk.

"It's key for RACAs to understand that reporting to the CAA about suspicious incidents or indicators of concern helps us to assess risks and vulnerabilities across the sector.

"Since the CAA works closely with a range of domestic and international security partners to understand threats to civil aviation, it's vital RACAs report small issues in the sector that could help us join the dots in relation to a bigger issue."

Sherelle Kennelly agrees. "We encourage a proactive approach where reporting minor issues helps reveal patterns and trends over time, supporting stronger engagement between RACAs, known customers[2], and the CAA." »

Source: CAA/CBAFF

// "If freight is received in a way that isn't expected, such as 'tamper-evident' being received as different, our team identifies it immediately." Katrina Jenner.

2 A 'known customer' is an exporter which has been scrutinised and approved by the RACA. The known customer has security procedures to prevent banned or dangerous items from entering the air cargo supply chain.

AirCertifyNZ – raising the bar

Launched in late 2024, *AirCertifyNZ* is CBAFF's programme designed to bring consistency, clarity, and confidence to RACA operations. It supports members through a range of initiatives by clarifying regulatory requirements and expectations, and providing access to independent verifiers who assess known customer practices.

"Historically, each RACA might assess the same known customer independently," says Sherelle Kennelly. "This can lead to inconsistent outcomes and duplication of effort. *AirCertifyNZ* introduces a single, independent review that's accepted across all participating RACAs."

This shared approach saves time, improves efficiency, and strengthens sector-wide standards. It ensures greater consistency across the sector because one standard is applied to all interactions with a particular known customer, and there aren't, for instance, eight different interpretations of the same rules.

Already around 15 percent of CBAFF's RACA members are participating in the programme, including several of the country's largest freight forwarders. And the early results are promising improved cooperation, fewer delays, and higher confidence in the security chain.

Known customers as critical security partners

Cargo security doesn't start at the warehouse – it starts at the door of the known customer. RACAs rely on the accuracy, integrity, and security of their known customers to prevent delays, additional screening, and potential compliance breaches.

CBAFF says that, through *AirCertifyNZ*, known customers are becoming more aware of what's required to make sure the supply chain remains secure.

And RACAs like Jenners actively maintain close relationships with known customers – including conducting site visits, establishing ongoing monitoring, reviewing documentation, and building an understanding of each known customer's 'norm'.

"We know our customers well enough to notice when something's different, whether it's the packaging, the tape, or the paperwork," says Katrina Jenner.

"That familiarity is critical. If something's out of the ordinary, we act on it immediately. We don't wait for a red flag, we look for the amber."

CBAFF sees this as a key benefit of *AirCertifyNZ* – strengthening known customers' education and accountability, while supporting RACAs to make smarter, faster decisions.

"We're helping everyone in the chain lift their game," Sherelle says. "That means fewer delays, safer processes, and better outcomes across the board."

Lifting the industry, together

One of the programme's most valuable contributions is how it promotes information sharing. Previously, a RACA might record a minor lapse, such as poorly sealed packaging or incorrect documentation, but not share it.

Photo courtesy of Menzies Aviation

Now, through *AirCertifyNZ*, those observations can be logged and shared in anonymised form across the network.

"It's those small indicators that, when aggregated, help us understand patterns," Sherelle explains. "If five RACAs notice the same issue with a certain product line or known customer, we can take proactive steps to prevent future risks."

This sector-wide intelligence approach also supports the CAA's approach, and aligns with New Zealand's international aviation obligations.

From strong to exceptional

New Zealand's air cargo security framework is robust, but the dynamic nature of today's global threat landscape demands more.

Sherelle Kennelly says CBAFF's goal is to lift the sector from 'strong' to 'exceptional' by embedding security awareness into every corner of the industry.

"Air cargo security is a shared responsibility between RACAs, known customers, staff, and regulators," she says.

"By working together through programmes like *AirCertifyNZ*, we're building a more connected, consistent, and confident air cargo network."

Katrina Jenner echoes this optimism. "We've seen huge improvements in recent years. What used to be frequent lapses from known customers are now rare. That's because the culture is shifting – people understand that security isn't someone else's job, it's everyone's job."

There's also a clear commercial incentive. With international airlines increasingly focused on secure freight practices, RACAs demonstrating high standards can avoid additional screening, maintain preferred status, and protect New Zealand's export reputation.

"If we don't meet global expectations, airlines may not lift from here," Katrina warns. "That affects our entire economy."

Sherelle agrees. "Our RACAs' known customers, especially those moving high-value or time-sensitive goods, depend on a seamless air cargo chain.

"We owe it to them and to every passenger flying out of New Zealand to keep improving."

See also...

The CAA's *Enhancing your organisation's security culture* at **aviation.govt.nz/security-culture**

WHAT COULD GO WRONG?

I learned about distraction in IMC from this.

iStock.com/Sandi Smolker

A few years ago, a Cessna I jointly owned was sold, and I bought a Cirrus G2 2004 to replace it.

I had more than 1000 hours flying in various cockpits, including some with 'steam-driven' instruments – and a love of aerobatics.

The Cirrus was much cleverer than me, and it had a daunting array of buttons and knobs, with a glass cockpit and two big screens.

I decided to upskill, so the next step was an instrument rating.

I found a great IR instructor through the Tauranga Aero Club, and after many hours of training, those mysterious buttons were making more sense and I loved the autopilot for the long flights.

Keeping up the instrument rating can be a challenge for a PPL pilot who flies only for personal trips.

But I was a happy boy.

My approach to approaches

For me, approaches have two options.

The first is the GPS, which is my usual go-to and the easiest.

The other is flying the arc, which – for the VFR pilots reading this – involves flying a direction to a radio beacon at the airport called a VOR, and then turning to fly a constant arc on a radius of a required distance to the airport, called the DME.

Brimming with confidence, then it all went wrong

After a year with an instrument rating, I was brimming with confidence.

But everything went wrong one day in early October 2023 as I was flying alone, heading to Palmerston North, and practising flying manually into cloud.

The weather wasn't great. It wasn't CB but there was rain on the ground and a very strong south-westerly wind at 10,000 feet.

I wanted to fly the right-hand VOR/DME arc, which is 14NM from Palmy, approaching from Tauranga heading 183 degrees, slowing down to 120kt and making an 80-degree left turn. I then repeated right 10-degree turns to keep the DME distance at 14NM.

When intercepting the 250-degree approach heading for NZPM Runway 25 I would make a rate one right turn from the arc and begin my descent.

> **// You'll know that old saying – aviate, navigate, communicate – well, I went straight to communicate and lost the rest. //**

I bumped my way past Mt Ruapehu, and, with the high wind, I knew I was in for some turbulence coming off the Ruahine Range.

Fourteen nautical miles east of Palmerston North puts you over Woodville, which is downwind of the range and can be very bumpy.

There was severe turbulence that day, but that was what I wanted to practise in, so what could go wrong?

In doing my flight planning, I had looked into the details of the Ansett New Zealand Flight 703 crash on that mountain range in 1995 in IFR weather. So I should have been aware of the chances of something happening.

I entered and flew the arc under the control of Ohakea Approach, on 125.1 MHz descending to 6000 feet. All was going well and according to plan.

I had preselected Palmerston North ATC on 120.6 MHz and had all my ducks in a row, sounding very professional on the airwaves.

Like being shot at

I followed my plan to fly manually IFR in the cloud to complete the arc and turn on to 250 degrees.

I was settled down using a solid selective radial scan with the instruments.

The turbulence was terrible as I entered my rate one turn right, and I was very busy being a single pilot.

Then Ohakea told me to change to Palmerston North Tower on 120.6 MHz.

I obediently went to change frequency to the preselected 120.6 MHz, but my hand was bouncing around so much that I could not put my finger on the button. »

iStock.com/Nikolay Ponomarenko

I took my gaze off the instrument panel, steadied my right hand on the dash, watching carefully to get my finger on the correct button.

Then a horrible alarm sounded in my headset.

When I looked back at the artificial horizon, it had all gone brown with no blue horizon visible!

You'll know that old saying – aviate, navigate, communicate – well, I went straight to communicate and lost the rest.

I was then in a right-hand spiral dive with no visibility in the cloud, and heading for a scenic close-up view of the Ruahine Range.

I have no idea how I pulled out of that one, but maybe my aerobatics experience and training helped.

My instructors had often put me into a turning climb or descent with eyes closed, then made me recover on instruments alone, but the AH had always had a horizon to see.

Not like this with a brown screen of death.

When I pulled out of the dive, I had lost about 3000 feet and was heading north!

Palmerston North Tower casually mentioned that I was at a low altitude – her calm voice was reassuring. I'm convinced my earlier professional-sounding radio voice had been replaced by the opposite.

I told her I had lost the approach – a gross understatement – and I followed instructions to switch back to Ohakea Approach for help.

The voice on Ohakea 125.1 MHz had all the calming influence I needed, and they vectored me back onto the Runway 25 approach and stayed with me until I was clear of cloud and had PM in sight.

Palmerston North ATC then allowed me to turn right off the approach to fly visually to Feilding and land.

I have had some scary events in my life, including being shot at by nasty people with automatic weapons, but this adrenalin rush was right up there with the best of them!

I was a bit shaken up and I have since had some chats with pilots experienced with Palmerston North's winds.

Apparently, the best thing to do in a south-wester, is approach for Runway 07, and then, when visual to NZPM, join a circling right-hand downwind to land on RW25 and thus avoid the bumpy mountains to the east.

But the big lesson for me is that simple things matter – don't be overconfident. Practise when conditions are good.

And always aviate the aeroplane first.

And only when you have full control of the aeroplane, navigate – and communicate only when the navigation is taken care of.

MET CHANGES

In a few months, major aerodromes around the country will align their METAR and TAF reporting procedures with international standards.

Changes in the MetService-produced Meteorological Aerodrome Reports (METARs) and Terminal Aerodrome Forecasts (TAFs) are coming to several aerodromes.

"International operations are continuing to return to regional aerodromes in New Zealand. The TAFs and METARs for Hamilton, Ohakea, Queenstown, and Dunedin aerodromes will change to align with the ICAO format on 2 October 2025," says CAA's Chief Meteorological Officer Paula Acethorp.

"TAFs and METARs will have the same format as those provided for Auckland, Christchurch, and Wellington aerodromes.

"The alignment will affect the reporting and forecasting of two elements of the METAR and TAF system – cloud and visibility.

"This will meet international operational requirements," says Paula, "and introduce a number of changes."

These changes include an increase in the length and number of updates of the TAF for Dunedin and Queenstown. Also, the TAF validity times for Dunedin will no longer adjust back an hour during New Zealand Daylight Time (when daylight saving time is in force).

Cloud will now be included in the METAR only when it's of operational significance. This means that the base must either be below 5000 feet or below the highest minimum sector altitude – whichever is greater.

Visibility of 10KM or more will be indicated by '9999'.

Lastly, the term CAVOK (pronounced 'cav-oh-kay' for cloud and visibility OK), will be used when the following occur simultaneously.

- Visibility is 10KM or more.
- There is no cloud of operational significance.
- There is no weather of significance to aviation (for example, precipitation, fog, mist, thunderstorms).

"Pilots can refer to ATIS reports at these locations if they would like more detailed cloud or visibility observation information," says Paula.

"Additionally, all aerodrome TAFs, both international and domestic, will adopt the international standard of differentiating between 'midnight at the start of the day' by using 0000Z, while 'midnight at the end of the day' will use 2400Z.

"This is in line with the World Meteorological Organization requirements," she says.

"The changes outlined will better align the services for our international aerodromes with the required international standards.

'They'll also allow flight planning and pilot briefing tools to more easily access and display the data for use in operational activities."

// AND NOW...

Download, or request a printed copy of, the *VFR MET* Good Aviation Practice booklet at **aviation.govt.nz/education**.

iStock.com/Natalya Bosyak

NEAR COLLISION ON TAKE-OFF

An itinerant pilot learned the hard way that checking the AIP at an unfamiliar aerodrome could be a lifesaver.

At Wānaka aerodrome in early January 2025, an aeroplane nearly collided with a helicopter shortly after take-off.

The aeroplane pilot was an itinerant, while the Wānaka-based helicopter was being used for a dual flight training session.

“I heard the helicopter pilot say they were ahead of me, on heli grass 11, and about to take off,” says the aeroplane pilot.

“I made a radio call on the NZWF frequency, announcing my intentions to vacate downwind.

“I knew the helicopter was around, but I failed to make visual contact with him.”

Nine seconds after the helicopter took off, the aeroplane pilot began their take-off from sealed runway 11.

The aeroplane quickly caught up with the helicopter.

“I climbed to 500 feet and made a left-hand turn,” says the aeroplane pilot.

As they did, they turned into the path of the helicopter.

The helicopter instructor got a shock when he saw the aeroplane through the opposite window.

“My first thought was, ‘Do they know we are here?’

“That was followed immediately by, ‘I need to do something if he doesn’t!’”

The instructor then took control of the helicopter from the student.

“I applied full power and aft cyclic and got out of there as fast as I could.”

The instructor made radio contact with the aeroplane pilot, to ask if they were aware of their proximity.

“Their radio call was a bit of a surprise for me,” says the aeroplane pilot. “I just hadn’t seen them.”

// "Wānaka is a busy aerodrome, especially in summer or on long weekends...you need to make sure you're on top of everything when you fly in here." Jason Lush, Wanaka Helicopters.

Photo courtesy of Wanaka Helicopters

> // Aeroplanes and helicopters are using the same circuit at Wānaka, so you need to make sure you're on top of everything when you fly in here. //

Don't assume

Crucially, the aerodrome layout, circuit, and activity at the itinerant pilot's base aerodrome are different to those at Wānaka.

Safety Manager for Wanaka Helicopters and B-cat flight instructor, Jason Lush, says it's essential pilots check *AIPNZ* Vol 4 before they head to Wānaka.

"Wānaka is a busy aerodrome, especially in summer or on long weekends," he says.

"There's a very busy helicopter flight training school, fixed-wing training, intensive commercial helicopter and fixed-wing operations, and skydiving operations to the north-east of the airport.

"Also, the aeroplanes and helicopters are using the same circuit at Wānaka, so you need to make sure you're on top of everything when you fly in here," Jason says.

CAA Investigator, Roger Shepherd, says pilots also need to understand the performance differences of aircraft.

"In this incident, the nine second head start of the helicopter vanished pretty quickly.

"It's very easy to think that a helicopter always does a much steeper climb out than an aeroplane which is not always the case, particularly in the circuit.

"It's an incorrect mental model to assume another aircraft must have turned, just because you cannot see it."

There are ways to unmask the blind spots in a high-wing aircraft, says Roger.

"Raise the wings slightly, about 15 degrees.

"If you're in doubt about anything, don't assume all is well."

Just because you cannot see it, does not mean it is not there – and it could be very close, says Roger.

"If you cannot spot another aircraft with your own eyes, then use the radio and speak up.

"Also, consider asking passengers to let you know if they see another aircraft near you."

Lessons learned

The aeroplane pilot says incidents can happen to even the most experienced, when they lose focus.

"Even though I've been flying into Wānaka for a number of years, and have attended CAA safety seminars, I still made this very elementary mistake."

The pilot says they've learned how important it is to maintain situational awareness, even while on the runway.

"If you know other aircraft are around while taxiing, observe them and make a mental note of where they are. What are their intentions, are they taking off, or landing?

"Also, check your AIP and take extra care at aerodromes that are not your usual ports of call.

"Their layout, activity, environmental factors, and threats might be different from your home aerodrome.

"It was a close call – I'm appreciative to still be flying!"

Vector is grateful to the fixed-wing pilot for sharing their story for everyone to learn from.

// AND NOW...

Read our *Work Together, Stay Apart* guidance at **aviation.govt.nz/wtsa**.

AN INDUSTRY UNDER PRESSURE

Keeping instructors is a major challenge for training organisations. But with good planning and the right attitude, they have a better chance.

Photo: CAA

// "Instructors should be recognised as the professional pilots they are." Gavin Weir, CFI, Auckland Aero Club.

The New Zealand flight training industry has been under extreme pressure, says CAA Aviation Safety Advisor and flight examiner Carlton Campbell.

"There's a high demand for pilots by the airline industry which, unfortunately, can deplete the training sector of its experienced instructors.

"This leaves young, inexperienced instructors short of the supervision and support necessary to help them in their development.

"It also takes all the people who can mentor and supervise – both experienced and not-so-experienced pilots – out of the GA system."

Consequently, there are currently reduced levels of supervision and monitoring available.

"This is placing premature responsibility for supervision on the shoulders of newly qualified B-cats who have had limited induction into the role themselves.

"The new B-cats need guidance and supervision in their new responsibilities, but cannot receive any, due to the clean-out of pilots able to provide that."

However, the pressure from the airlines drawing GA instructors away has eased a little.

"Nevertheless, general aviation really struggles to retain most instructors, when the airlines are those instructors' ultimate objective," Carlton says.

The prospect of reaching the level of airline captain, with its commensurate pay and conditions, has instructors moving on as soon as they're able.

There needs to be an incentive to encourage pilots to stay in GA beyond being a C-cat, says Carlton.

"Unless GA pays a liveable wage, retaining instructors is a major challenge."

Having a plan in place

Gavin Weir, CFI of Auckland Aero Club, agrees that instructors should be paid fairly.

"Instructors should be recognised as the professional pilots they are. No one should be expected to work for free.

"For the career instructor who's gaining qualifications and deep industry experience, a wage or salary should be reasonably appropriate to their experience.

"It enables them to sustain a lifestyle that keeps them motivated, and driven to better the organisation and themselves."

Gavin says retaining a core of experienced instructors is a challenge.

// The key to retention is to ensure the instructors feel valued. //

"Most instructors aspire to join the airlines, with instructing being a stepping stone to build hours in that direction. It *is* an excellent pathway.

"So, the key to retention is to ensure the instructors feel valued."

Gavin works hard to make sure instructors are supported and aren't simply viewed as money makers.

"We don't leave them to their own devices without supervision and direction from the senior instructor team, or without the backing of governance.

"Retaining instructors also involves professional development opportunities.

"We provide a path for personal training – for example, achieving a B-cat instructor rating, and night, aerobatic, and terrain awareness instructor qualifications.

"For those intending to move through, this professional development keeps them focussed on providing a high standard of training to their students, right up to their last day with us.

"For those who are career instructors, it validates their commitment to the organisation."

Gavin says having a succession plan when instructors move on is also important.

"This helps mitigate the loss of knowledge if someone moves on unexpectedly.

"It also takes the pressure off the core instructing team. They know there's always enough instructors so they can take leave if they want to."

James Churchward, CFI at Tauranga Aero Club, says they've accepted they're a stepping stone between GA and the airlines.

"We have a structure allowing progression, and we're lucky to have a large enough team to allow that progression," he says.

Tauranga Aero Club trains between five and ten C-cats a year, some of whom will go on to instruct for the club. »

Photo: CAA

"This is important because we'll always have qualified C-cats who're waiting to get a job with us," says James.

When a job is available, Tauranga always has keen and eager C-cats waiting for the phone call to say, 'Hey, come and have a chat'.

"We target those we think will make a suitable B-cat, when they're approximately 50 hours out from the B-cat requirements," says James.

"We're always training C-cats and B-cats."

Like Auckland, Tauranga Aero Club upskills its instructors to get the most out of them while they have them.

They offer night, aerobatic, and terrain awareness upgrades.

"We also provide great facilities and resources so we're able to offer a high level of instruction to student pilots," says James.

A cultural approach

Making the aero club an enjoyable place to work for instructors is important, says James.

Tauranga has a club captain – an employed instructor – who runs competitions and the social side of the club.

"This all adds to the culture, and ensures members are looked after and enjoy being Tauranga Aero Club members.

"It also adds to the enjoyment the instructors have, coming to work each day."

Instilling safety

Back at Auckland Aero Club, Gavin says maintaining good organisational culture encourages safety.

"It's so important to have a strong focus on always 'doing the right thing'.

"Having your senior instructors model ideal behaviours will encourage the new instructors to keep well inside their limits."

That applies to both flying standards and conduct on the ground.

"We work hard to instil in our students airmanship, decision-making, and flying techniques as well as positive interpersonal relationships," says Gavin.

"Good supervision practices and regular catchups with the CFI, an open door, and a just culture policy are just as important."

This gives pilots the freedom to ask questions, which has positive outcomes for safety.

"Instructors also need to be vigilant that their teaching is current and consistent with all the legal requirements, and that it follows the syllabus laid down by their organisation," says Gavin.

"We provide an annual dual revision flight with me – at club cost – for standardisation and checking.

"We also provide an opportunity for the instructor to practise something they haven't done in a while."

Gavin says the governance of the organisation must be guided by industry standards to prevent unrealistic demands on instructors.

"Otherwise, instructors might be tempted to push weather margins to 'get the job done' or to meet hour requirements," he says.

"Safety always comes first. The student's requirements to achieve their learning outcome, comes second. Instructors must be conscious of this."

Instructors at Tauranga Aero Club meet every second Friday as part of preventing training accidents. All the instructors are present, says James Churchward.

"They can voice any concerns or make any suggestions they deem necessary.

"Where possible, we also have a B-cat assigned one day a week to supervise the C-cats."

They sit in on briefings or in the back seat of flights, if it's possible.

"We also encourage a culture of reporting and use the instructor meetings to talk over any incidents or accidents.

"The junior instructors are required to fill in supervision forms and have them signed by a senior instructor before each lesson, so they can discuss their performance."

Gavin Weir also uses supervision forms as a record of, and authorisation for, the flight to be undertaken.

"These forms give the supervising instructor a written record of who the 'direct supervision C-cat' is flying with, and what lesson is being taught.

"This allows one more opportunity to check that the C-cat has the lesson plan prepared correctly, has considered the threats and mitigations, and has asked all their questions about the lesson, immediately before launch."

Gavin says they'll hold regular refresher training for their instructors.

"All our instructors recently completed dual strip flying to allow them to attend a strip fly-in.

"This is another cost to the club, but it's important because it allows the instructors to increase their skill set.

"When the instructors come out of supervision, they're sent up for a check flight with me to ensure they're teaching to the standards we require.

"Setting a high bar is worth it because the standard you walk past is the standard you accept."

NEVER LAND IN A VINEYARD

A participant has shared with *Vector* the lifesaving importance of a great instructor's great instruction.

In early 2022, a Sigma 4 crashed shortly after taking off from Omaka, at the start of what should have been a magnificent flying day.

The pilot taxied to Runway 30, performed their runups, checked both ignition modules, and made their radio calls.

After checking the sky for NORDO planes, they took off, but 200 feet off the ground, at the end of the runway, the engine went to idle.

Ahead of the pilot was nothing but vineyards and as the Sigma descended, the pilot recalled their instructor telling them, "Never land in a vineyard – it will decapitate you".

The pilot threw the stick to the left and made their emergency landing, adjacent to the high tensile wires of the vineyard.

Both the pilot and their passenger were injured but survived. The pilot later said they owed their life to their instructor.

"The whole thing taught me training cannot be taken for granted. You get it for a reason.

"The fact that I am around to write this proves how important that training was."

//MORE INFORMATION

Our current *How to be a CFI* Good Aviation Practice booklet is being updated. Subscribe to '*Educational publications and workshops*' via **aviation.govt.nz/subscribe** – to be notified when it's ready.

DAWN OF THE TĀWHAKI ERA

Unmanned aircraft crews now have a dedicated bit of New Zealand airspace in which to test their cutting-edge aircraft. For the rest of us, this is yet another story about the need to check NOTAMs.

New Zealand's latest initiative to consolidate its place in the global aerospace industry is the introduction of special use airspace over Kaitorete Spit, 35KM from downtown Christchurch.

Kaitorete – a 25KM long finger of land extending west from Banks Peninsula – has been used for about four years by advanced aviation operators to launch and test their aircraft.

But with each test, those aerospace operators would first have to submit applications to the CAA for temporary 'special use airspace' – SUA – over the Spit.

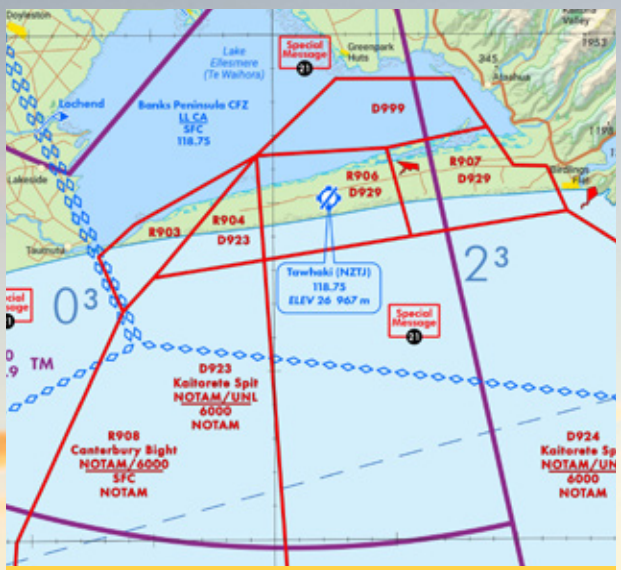
It was a long process as they answered questions about how much airspace was needed, how they were going to manage separation from other traffic, the surface they'd be operating over, and the airspace they'd need to be flying in.

The airspace has now been designed as six permanently designated restricted areas, extending 12NM out from the Spit – and six permanent danger areas extending out seaward to 110NM. In total, the 12 SUA areas cover 26,000 square kilometres.

The restricted areas allow the administering authority, the Tāwhaki National Aerospace Centre (TNAC), to manage entry into and exit from the area, and manage the operations of aircraft while inside the area.

The danger areas let airspace users know there's a potential risk to flying there.

But the areas are not permanently active. One, or some, or all of these areas – depending on the operational area required – will be activated by NOTAM, to the altitude required for the particular activity, for the days and times they are needed.



// Not for operational use. VNC C20 effective 27 November 2025.

John Holt, Tāwhaki Executive Director, says the advanced aviation operators now have access to airspace that's safe, flexible, and robustly managed.

"Each time they want to run a test flight campaign, they will obviously save time and resources," he says.

And while the SUA is undoubtedly a boon to New Zealand's growing $3b aerospace industry, Steve Smyth, Head of the CAA's Emerging Technologies Programme, says safety at the site and adjacent test airspace, remains absolutely critical.

"Creating this dedicated airspace is as much about safety as it is about gaining important test data. In particular, local pilot awareness that dynamic testing is being conducted on a regular basis at the TNAC site, and potentially well out over the sea, will contribute significantly to keeping these activities safe."

John Holt, who is himself a recreational pilot, says what's needed from traditional pilots flying in the area, is a "maintenance of standard operating procedures".

"Before you fly, check the flight information from your local club or aerodrome, but, critically, check NOTAMs. These will be published 24 hours in advance of any danger or restricted area being activated."

There are some operators who've negotiated with TNAC to be able to fly in the airspace, even with activated restricted and danger areas.

"It's a question of communication," says Steve Smyth. "We know that TNAC has developed procedures to enable communication between all parties should short-notice penetration of the airspace be necessary. For example, in an emergency situation, or when a rescue helicopter requires immediate access." »

Photo courtesy of Tāwhaki National Aerospace Centre

// The TNAC site, which includes a 1KM sealed runway and hangar, was established to support emerging technology research and development activities, enabling trials and testing for leading-edge advanced aviation and aerospace endeavours.

Photo courtesy of Tāwhaki National Aerospace Centre

John Holt is not expecting any drama from traditional pilots unintentionally wandering into the activated airspace.

"In our six to seven months preparation for the launch of the permanent SUA, we're yet to have anybody seriously encroach on these areas."

John says an AWIB-type system (although without the weather information) has been established with a repeated message to let pilots know when the airspace will be active.

When it has been activated, 'Tāwhaki Operations' will use the same frequency (130.025 MHz) to communicate with pilots and let them know what's going on.

One of the leaders in the country's aerospace development sector, Kea Aerospace, says the more streamlined process means the company, and the CAA, "...don't have a bunch of work, re-doing these permissions every few months.

"It's pre-approved, pre-defined, permanently designated, and activated every now and again," says Phillip Stott, Kea Chief Operations Officer.

"We've been conducting flight testing of UAVs at Kaitorete since 2021, with visual line of sight tests then beyond visual line of sight tests.

"We've made extensive use of temporary danger areas over the last couple of years and found that activation via NOTAM was pretty effective in alerting other airspace users to those UAV activities.

"Very occasionally, we've had GA traffic enter the activated SUA, not so much because the pilot had made a risk-based decision, which is permitted for a danger area, but because they weren't aware of the NOTAM.

"With the aid of our visual observers, ADS-B, and radio, we've been able to have a friendly interaction to mitigate any potential conflict."

Phillip says there are significant and additional safety benefits of the new SUA.

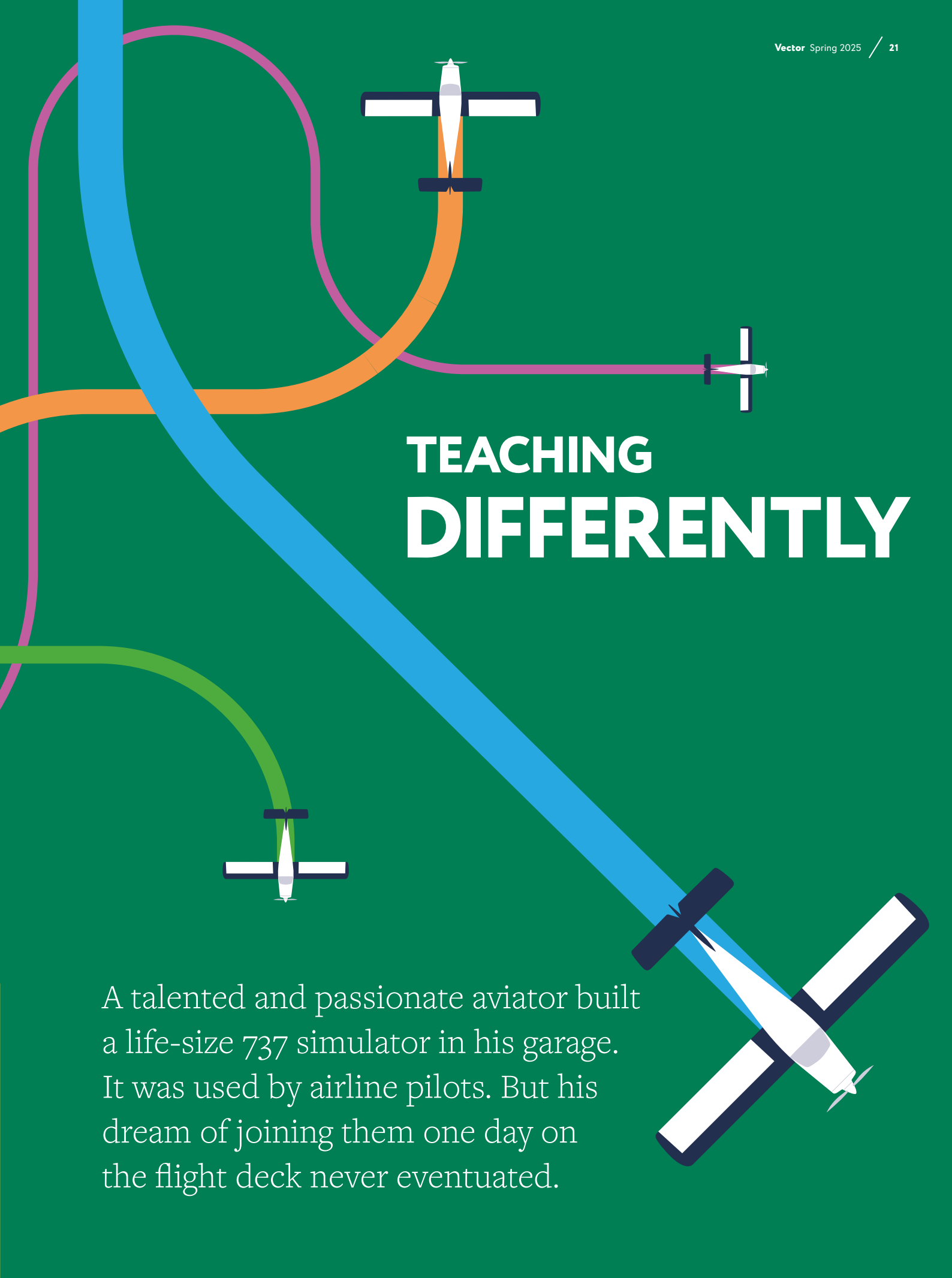
- The restricted area portion of the SUA should mean that separation of UAV activity from other airspace users is more robust.
- Greater use of the SUA by multiple organisations will normalise the activity and thus will be expected by other airspace users.
- Being permanent SUA – that's active when advised by NOTAM – it will now be published on the applicable visual navigation chart, providing another source of information for airspace users during flight planning.

Phillip says the development of the SUA is creating a bright future for clients like Kea Aerospace, but he cautions there's a responsibility on everyone to be vigilant, including always checking NOTAMs.

// MORE INFORMATION

- Six restricted areas (RA) – five RAs to be active from surface to 6000ft AMSL, one RA to be active surface to 3500ft AMSL.
- Six danger areas (DA) – three DAs to be active from surface to UNL (unlimited), and three DAs to be active from 6000ft to UNL. The three DAs active from 6000ft to UNL are laterally coincident with five of the proposed RAs.
- The three DAs active from surface to UNL include one small DA to the north and two DAs to the south-east extending seaward from the 12NM territorial sea limit.
- All RAs and DAs are active by NOTAM only.

Between now and November, check the AIP Supplement. In November the SUA will be permanently charted on the VNC and enroute charts.



TEACHING DIFFERENTLY

A talented and passionate aviator built a life-size 737 simulator in his garage. It was used by airline pilots. But his dream of joining them one day on the flight deck never eventuated.

// For each topic, I aim to have a one-liner explanation, a theoretical explanation, an analogy, a practical example, a real-life story, and a good question. //

The pilot would have given anything to get his commercial licence and fly with the airlines, says friend, fellow pilot, and specialist educator, Sarah Sharpe.

"But when he came to sit his commercial exam, he really, really struggled. He just couldn't get past it," she says.

"Yet his simulator was so realistic that some local ATPL pilots, before moving from turbo-props to the jet fleet, came to fly hours on it."

This combination of innate ability in some areas and struggling in others is extremely common among those who are 'neurodiverse', says Sarah.

Neurodiversity – the prevalence of conditions like ADHD, autism, and dyslexia – is about 15 percent among the general population.

Sarah believes it's even higher among aviators and aviation engineers.

A good instructor, she says, needs to understand the various ways people learn best.

Advice for instructors

Dee Bond is a flight instructor, commercial and competition pilot, and in her 'spare' time, she co-owns an aviation business.

She also has dyslexia.

"It's not a barrier to becoming a pilot," Dee says. "But it did require me to build a toolset to manage the issues dyslexia presents.

"Instructors can help with this. A great start is realising that what is 'normal' for you, might not be for someone else."

Dee suggests that instructors customise their lessons to suit the learning styles of their students.

"And if what you're trying isn't working, switch up the activity or engagement, or change the learning environment," she says.

The CFI at Wanganui Aero Club, Jonathan Mauchline, agrees.

"I tend to deal practically with each student, rather than having a set plan for everyone," he says.

"This means teaching on a personal level, in line with what makes that student 'tick', and tailoring the lesson to them as much as I can. As a result, all my lessons are a bit different."

Jonathan says every student will lean more to either the practical or theoretical side of aviation, but with neurodiverse students, the effect is amplified.

"Students with dyslexia often struggle with theory but tend to exhibit strong practical abilities.

"The opposite is true for those with dyspraxia.

"An instructor just needs to focus on the ability, not the disability."

Jonathan changes the emphasis of the lesson to suit the needs of his students.

"In some cases, it might make more sense to lead with a story or real-world scenario that introduces the exercise, then skip or brush over the theoretical part. And then really focus in on the practical training, and only after the flight, circle back to the theory.

"Once they've seen it in the real world – the 'what' and the 'how' – they're far more likely to understand the 'why'," he says.

For other students, Jonathan fosters the principles of flight before anything else.

"The understanding of theory comes more naturally to them. For example, they might add power because they know they should, even if they can't quite feel it yet."

Flight examiner Nathan Clarke also customises his lesson plans for every pupil.

"I start by asking each student which learning methods they prefer, or I try a few different ones and see what works for them," he says.

"Every student, whether they are neurodivergent or neurotypical, will have a preferred way of learning.

"They might respond better to something written down, or listening, or they might have a 'kinaesthetic' style which means they learn through hands-on instruction."

As it's important to get right, Nathan advises instructors spend as much time as they need to work out which mode their student learns best through.

Once Jonathan Mauchline has worked this part out, he has an arsenal of tools to help teach his students.

"For each topic, I aim to have a one-liner explanation, a theoretical explanation, an analogy, a practical example, a real-life story, and a good question," he says.

This individual touch means Jonathan dislikes the term 'instructor'. "It's too impersonal," he says.

Nathan agrees. "'Instructor' implies I say something, and you have to do it."

"It's not the right mentality."

Empathetic teaching

Nathan says his neurodiverse students are often anxious at exam time.

"As the pressures of flight and theory examinations build up, they can get more nervous than other students might."

Sarah says this is understandable as the traditional way of learning, or conducting exams and tests, is not compatible with the strengths of neurodivergent people.

"The education system has very often failed them," she says.

"In fact, quite a number have left school early, because they knew they wouldn't pass their exams.

"Instructors can make a really big difference by being patient, being open to others' reality, and not being dismissive."

Sarah says she does understand how instructors might get frustrated sometimes.

"For instance, if they've explained something several times and the student still isn't getting it, or something is written in the book and the student is just not picking it up.

"That's the point where, as an instructor, you can step back and ask yourself, 'Why are they finding this so hard?'

"Have that conversation with them and see if you can do it differently."

Nathan says the best thing instructors can do is create a welcoming space.

"It should be a comfortable, calm, and safe environment for students to learn in," he says.

"Providing positive feedback and constructive criticism makes all the difference for quickly building a student's confidence and flying ability.

"You work with the student to understand their emotional state, and find ways to build self-awareness and coping mechanisms. This way you improve performance and resilience."

There are plenty of resources online for instructors who are interested in learning about neurodiversity, says Nathan.

"You can also find a mentor to help you better understand how to use the best teaching methods."

An asset to aviation

Nathan says neurodiverse students are often very naturally gifted.

"They tend to have innate flying skills in the physical aspects of flight, and practical hands-on areas of aviation."

Sarah agrees.

"A neurodiverse student told me recently, 'I can pull an engine apart, and put it back together without instructions. Somehow I can just visualise – I know how it's meant to go.'"

She hears stories like this all the time.

"Neurodiverse people are a real asset to any company," she says.

"They're such out-of-the-box thinkers. They're often the ones who are going to problem-solve, innovate, and really add value."

But Sarah worries that barriers are too high for some of them, like her friend who built the simulator. And the industry also misses out.

"Aviation will be richer if we acknowledge and cater for neurodiversity in our community."

// MORE INFORMATION

Read the instructional theory section in the Flight Instructor Guide at **aviation.govt.nz/fig** or scan this QR code.

Letters to *Vector*

iStock.com/Gary Webber

Praise for 'Out of the blue'

I wanted to let you know how much I really enjoyed the article 'Out of the blue' in the latest edition of *Vector* (Winter 2025). I couldn't put it down. It was an incredible story and I learned so much. Having such a detailed plan for the worst-case scenario is a real survivor's mindset.

One of the most valuable lessons for me was the need to have everything on you and not in a flight bag. I, too, carry a personal beacon and, of course, a cellphone. However, they're usually sitting in my flight bag. From now on, I'll have both in my pockets and attached to me.

I wanted to also thank the pilot for sharing such a brutally honest story with us, so we could all learn from this experience.

If *Vector* readers haven't caught up with it yet, I highly recommend they track down a copy of the Winter 2025 edition. I've been flying for many years and I got a huge amount out of the story.

It's never too late to learn.

Paul Kearney
Deputy Aviation Manager
Aspeq

'Out of the blue' is an outstanding article I'd like to circulate to our staff. I think it would help show them the reality of a ditching.

In a personal capacity we'll replace our aircraft's life jackets with ones with hoods!

John O'Hara
tracPlus

As someone who's been involved with selling and servicing all brands of inflatable lifejackets, it was interesting to read the article 'Out of the blue', and the reference to spray hoods.

From my experience, I'd guess that less than one percent of inflatable lifejackets are fitted with spray hoods. I'd also suggest that 80 percent of GA inflatable lifejackets are not maintained by an accredited maintainer. When was your jacket last checked by an expert?

Most brands can be retrofitted with a spray hood. So too can a 406MHz PLB. The important issue with a PLB is that the antenna *must* be clear of the water.

As for being located in the water, sea marker dye is probably the best – or a foil thermal protective aid, which, apart from visual is also a radar reflector.

Lloyd Klee
Tauranga

As always, I enjoyed reading the latest issue of *Vector*.

I was particularly interested in the article 'Out of the Blue' on the ditching, and subsequent rescue of Laurence. There were great insights and lessons learned in what was, I'm sure, a harrowing situation.

I would, however, add to the 'lessons learned' and 'what Laurence would do differently' sections, minimising the time out of gliding range of land in a single engine aeroplane. Avoiding the potential of a sea ditching in the first place by going a more coastal route would be high on my list of learnings.

Andy Price
Epsom

Read the Winter 2025 cover story '*Out of the blue*' at **aviation.govt.nz/vector-online** or scan this QR code.

Vector notices

AVIATION SAFETY ADVISORS

Contact our aviation safety advisors for information and advice. They regularly travel around the country to keep in touch with the aviation community.

Carlton Campbell – Operations, South Island
027 242 9673 / carlton.campbell@caa.govt.nz

Richard Lane – Airworthiness, South Island
027 269 5796 / richard.lane@caa.govt.nz

Pete Gordon – Operations, North Island
027 839 0708 / peter.gordon@caa.govt.nz

John Keyzer – Airworthiness, North Island
027 213 0507 / john.keyzer@caa.govt.nz

AIRWORTHINESS AND MAINTENANCE WORKSHOP – REGISTER NOW!

There are only two sessions of the Airworthiness and Maintenance Workshop left in 2025.

Many owners and operators want to increase their understanding of the requirements for maintaining their aircraft. The Airworthiness and Maintenance Workshop is designed for a wide range of aviation participants, from airline maintenance planners to private aircraft owners. The two-day workshop takes a practical approach, with a limit of 18 participants on each workshop to allow for interaction.

Topics covered include:

- reasons for maintaining aircraft in an airworthy condition
- relationship between operator, maintainer, and regulator
- certification lifecycle
- rules – Parts 91 and 43
- maintenance documentation
- flight manuals
- defect reporting
- review of airworthiness.

Find out more, and register, at **aviation.govt.nz/education > courses and workshops** or scan this QR code.

OCCURRENCES DASHBOARD

These are the number and type of occurrences reported to the CAA, 1 April 2025 to 30 June 2025 (Q2) compared with 1 April 2024 to 30 June 2024.

Occurrence type

Aerodrome incident
Q2 2024 **49** Q2 2025 **56** ↑

Aircraft accident
Q2 2024 **12** Q2 2025 **13** ↑

Airspace incident
Q2 2024 **549** Q2 2025 **616** ↑

Aviation-related concern
Q2 2024 **458** Q2 2025 **409** ↓

Bird strike
Q2 2024 **597** Q2 2025 **480** ↓

Dangerous goods
Q2 2024 **17** Q2 2025 **17** –

Defect
Q2 2024 **225** Q2 2025 **116** ↓

Hang glider accident
Q2 2024 **11** Q2 2025 **2** ↓
(2 paraglider accidents Q2 2025)

Navigation installation occurrence
(for example, a transmitter failure)
Q2 2024 **15** Q2 2025 **9** ↓

Operational incident
(for example, encountering severe icing)
Q2 2024 **526** Q2 2025 **384** ↓

Parachute accident
Q2 2024 **3** Q2 2025 **1** ↓

Promulgated information occurrence
(for example, inaccurate weather information)
Q2 2024 **7** Q2 2025 **5** ↓

Total occurrences
Q2 2024 **2469** Q2 2025 **2108** ↓

The number of occurrences in each category sometimes increase after we publish each dashboard. That's because some occurrences from that quarter are reported after the quarter ends.

Want to dive into these stats even further? Head to **aviation.govt.nz/dashboard** to check out our occurrence and activity dashboard for details on occurrence rates, trends, aircraft activity, and more.

ACCIDENT BRIEFS

More accident briefs can be read on **aviation.govt.nz/safety** or scan this QR code.

Sonex Aircraft LLC Waiex

Date and time:	07-Feb-2023 at 11:40 hours (approximately)
Location:	Stratford aerodrome
POB:	1
Fatalities:	1
Nature of flight:	Private other
Pilot licence:	Microlight Pilot Certificate
Flying hours (total):	343.9
Flying hours (on type):	20.7

The pilot was on a solo flight from Stratford aerodrome in a Sonex Aircraft LLC Waiex, which was a fixed-wing Class 2 microlight monoplane.

Shortly after the aircraft became airborne, witnesses heard the engine running roughly. The aircraft was observed to turn left back towards the aerodrome. The aircraft was seen to enter a steep nose-down attitude. This was followed by a plume of smoke coming from the vicinity. The first person on the scene found the aircraft on fire.

The engine originally installed in the aircraft had been recently changed to an engine type with a higher power rating. A new propeller had also been installed. The engine and propeller change had been carried out by both the pilot (who was the owner of the aircraft) and the local CFI.

The cause of the engine power loss could not be conclusively determined.

As a result of this accident the CAA has identified the following safety message:

> *Pilots should always be aware of the emergency landing options available for every take-off, in case a partial engine power loss should occur.*

The full report is available on the CAA website – go to **aviation.govt.nz** and search "Sonex Aircraft LLC Waiex".

CAA occurrence number 22/554

JMB Aircraft VL-3TE-915 UL

Date and time:	30-Dec-2023 at 11:43
Location:	Whananaki
POB:	1
Nature of flight:	Private other

During landing at a remote strip, the aircraft landed heavily, causing the nose wheel to collapse. The combined effect of a crosswind, rough and slippery surface, and carrying too much speed into the landing all contributed to the heavy landing.

CAA occurrence number 23/9659

Diamond DA20-C1

Date and time:	01-Mar-2024 at 15:05
Location:	Whanganui
POB:	2
Damage:	Minor
Nature of flight:	Training dual
Pilot licence:	Private Pilot Licence (Aeroplane)
Age:	22 yrs
Flying hours (total):	657
Flying hours (on type):	3
Last 90 days:	94

As the aircraft became airborne on a dual training flight from NZWU, UNICOM staff observed the nosewheel separate from the aircraft. The aircraft remained airborne to burn off fuel before making a landing. The aircraft landed safely with damage to the nose undercarriage leg only.

The maintenance investigation determined that the aircraft had been previously fitted with a nyloc-type nut which secured the swivelling nosewheel assembly to the nose undercarriage leg. A castellated nut locked with a split pin should have been used.

It's suspected that over a series of flights following a previous maintenance check the nyloc nut had come loose, allowing the nosewheel swivel assembly to separate from the aircraft when it became airborne. The nose undercarriage leg was replaced and nosewheel swivel assembly secured using the correct hardware and locking method.

CAA occurrence number 24/1700

ACCIDENT NOTIFICATION
24-hour 7-day toll-free telephone
0508 ACCIDENT (0508 222 433)
aviation.govt.nz/report

REPORT SAFETY AND SECURITY CONCERNS
Available office hours (voicemail after hours)
0508 4 SAFETY (0508 472 338)
isi@caa.govt.nz
For all aviation-related safety and security concerns.

GA DEFECTS

GA defect reports relate only to aircraft of maximum certificated take-off weight of 9000lb (4082kg) or less. More GA defect reports can be read on **aviation.govt.nz/aircraft** or scan this QR code.

KEY TO ABBREVIATIONS:

AD = airworthiness directive
NDT = non-destructive testing
P/N = part number
SB = service bulletin
TIS = time in service
TSI = time since installation
TSO = time since overhaul
TTIS = total time in service

McDonnell Douglas 500N

Drain line

Part manufacturer:	MD Helicopters
Part number:	500N5217-5
ATA chapter:	6300

During preflight inspection the pilot observed a pool of oil under the rear of helicopter and oil leakage from rear fuselage drains. Further examination revealed that the NOTAR fan gearbox drain line had cracked close to the 'B nut' and allowed all the gearbox oil to drain out. It was suspected that fatigue cracking due to age and vibration was a factor.

CAA occurrence number 22/1480

Tecnam P2008

Bellcrank attach bracket

Part manufacturer:	Tecnam
Part number:	28-2-1365-001LT REV
TTIS hours:	709

The rudder centring bellcrank pivot was attached to a 0.063" channel bracket with four counter sunk rivets. The bellcrank was attached to the pivot shaft, with push pull rods and springs also attached to the bracket. When normal pressure was applied to the rudder pedals, there was some flexing of the bracket in the pivot attach area. This caused the bracket to crack from fatigue. This bracket was attached to the fuselage with pop rivets. The two front rivets were shorn. A fluorescent penetrant inspection revealed numerous cracks from the four rivet holes. The front and rear cracks progressed to the front edge and a lightening hole respectively.

The OEM had released an SB to inspect the bracket for cracks on the type certified version of the P2008 in 2013, but the non-certificated version did not have an SB issued for the same inspection.

Tecnam has produced a draft SB for the non-certificated P2008 to install a reinforcement bar to support the rudder bellcrank and reduce the forces that lead to the bracket cracking.

CAA occurrence number 23/2000

Guimbal Cabri G2

Electrical connector

ATA chapter:	7410

During cruise the engine began backfiring and suffered power loss. The pilot made a precautionary landing.

The engineering inspection revealed that a wire had come loose on one of the ignition coils. The wire had a loose electrical spade connector and the engineers adjusted the connector and refitted it to the coil. The aircraft was tested and returned to service.

CAA occurrence number 23/461

Kawasaki BK117 B-2

Tail rotor pitch link

Part model:	BK117 B2
Part manufacturer:	Kawasaki
Part number:	117-31822
ATA chapter:	3300
TTIS hours:	6181

During routine maintenance, a tail rotor pitch link, P/N 117-31822, was found installed with incorrect bearing swaging. Both pitch links were removed from the aircraft. The pitch links were in service for 47.43 hours. The bearing had been incorrectly swaged during the previous tail rotor pitch link repair IAW KHI BK117 MM standard practices.

CAA occurrence number 23/6901

Airbus Helicopters AS 350 B2

Spray boom centre tube

Part model:	STC 10/21E/15
Part manufacturer:	Oceania Aviation
Part number:	STC.OAL.004-10-1-5
TTIS hours:	111.5

While applying modification OAL451, due to alert Service Bulletin OAL-ASB-012, a crack was visually detected in the LHS internal weld of the installed spray boom centre tube. The boom centre tube was replaced with an improved version.

CAA occurrence number 23/519

aviation.govt.nz/gap-online

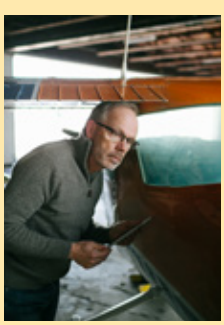
GAP online

We have a new website section, *GAP Online*. GAP online pages are for GAP booklets that are only available online. They're not available as printed booklets because they may need to be updated more frequently than our standard GAP range.

Photo courtesy of Lily Cook

How to manage an aerodrome

This is brand-new guidance for new and aspiring airport managers. The role of an aerodrome manager is both complex and rewarding. How rewarding it is, largely depends on how well you can manage the different elements of the job, and how well you balance the different demands of the role. Go to **aviation.govt.nz/gap-online**.



iStock.com/SeanZeroThree

How to be a senior person

Our senior person guidance has been updated, but the main messages remain the same – this highly rewarding role gives you the opportunity to provide safety leadership and add value to the business. But you cannot underestimate the commitment you need to the continual improvement of safety, and the time it involves for you to do that properly. Go to **aviation.govt.nz/gap-online**.

And coming up later in 2025...

- An updated *How to be a CFI*, incorporating the latest advice from some long-time chief flying instructors, who successfully carry out the role every day.
- Another brand new piece of guidance, *How to be a prime person* – for our Part 102 operators.

CAA
CIVIL AVIATION AUTHORITY OF NEW ZEALAND
Te Mana Rererangi Tūmatanui o Aotearoa